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March 23, 2009

BY HAND DELIVERY
Ms. Ann Cole, Commission Clerk
Office of Commission Clerk
Room 110, Easley Building
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, Florida 32399-0850

Re: Docket No. 080366-GU

Dear Ms. Cole:

Enclosed for filing on behalf of Florida Public Utilities Company are an original and five copies of Florida Public Utilities Company's Responses to Staff's First Data Request in the above referenced docket. Please note that the responses to requests 20, 21, 37 and 38 will be provided on or before March 31, 2009.

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Thank you for your assistance with this filing.

Sincerely yours,

Norman H. Horton, Jr.

~~NH~~H/amb
Enclosures
cc: Ms. Cheryl Martin
Patricia Christensen, Esq., Office of Public Counsel (with enclosure)

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FLORIDA PUBLIC UTILITIES COMPANY

RESPONSES to

COMMISSION STAFF'S FIRST DATA REQUEST

NOS. 1-44

DOCKET NUMBER 080366-GU

DOCUMENT NUMBER-DATE
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1. **Please refer to page 231, lines 21-25 and continuing on page 232, lines 1-2 of witnesses Cox and Camfield's direct testimony. Is it the witnesses' testimony that unless the Commission approves an authorized return on equity (ROE) of 11.75% in this proceeding, the Commission no longer offers a supportive regulatory environment?**

   Response: To ensure consistency in the meaning of descriptive terms and for the purpose of my response, "Commission" refers to the Florida Public Service Commission; and "supportive regulatory environment" refers to the condition wherein the governing regulatory authority adheres to well accepted fair rate of return principles and standards. These principles are articulated and elaborated upon at length in a series of well-reasoned decisions by the U.S. and Canadian Courts, the U.S. Supreme Court in particular. The language of these decisions is cited often and, though they reach back many years, such decisions are relevant today. As I interpret them, the Fair Rate of Return principles to which I refer can be briefly described as follows:

   1. Returns Equivalent to those Realized On Investments of Comparative Risk: Capital commitment by investors for the convenience and necessity of the public is entitled to returns equivalent to those realized on investments of comparable risks.
   2. Maintenance of Financial Integrity: The process of regulatory governance, as a practical matter, must result in a flow of revenue sufficient to cover all prudently incurred costs associated with providing utility services and an adequate return on the capital committed by investors. In turn, adequate return on capital preserves and maintains the financial integrity of entity providing utility services.
   3. Ability to Raise Capital on Fair Terms When Needed: The utility and its investors are entitled to adequate returns on capital so that the utility can raise capital as necessary to provide utility services, on fair terms and conditions—*i.e.*, acceptable interest rate levels and terms.

   Generally speaking, so long as the Commission adheres to these principles, I would describe the regulatory environment within (of) the State of Florida as *supportive*, from the perspective of investors. While I do not have historical details at hand, I harbor the view that over the long term the decisions of the Florida Public Service Commission have consistently adhered to these principles. Nonetheless, the opportunity cost of capital, which is implicit within the phrase "returns equivalent to those realized on investments of comparable risks" is not readily observable—thus, the longstanding controversy attending the return on equity issue. Accordingly, estimates of the cost of capital and recommendations regarding rate of return are advanced for the consideration of the Commission in the immediate proceeding. In turn, the Commission has the discretion to establish the appropriate level of the authorized return on equity and other elements of the weighted average cost of capital, used to determine retail prices.

   (Camfield)

2. **Please refer to page 172, lines 4-11 of witnesses Cox and Camfield's direct testimony. Please provide specific examples of the "restructuring" that has occurred in FPUC's service territory.**

Response: We know of no restructuring provisions specific to Florida. The discussion is with respect to energy markets generally, with provisions for natural gas and electric utilities including changing provisions of regulatory governance. Because U.S. utilities are strongly linked to primary energy markets, events within these larger market arenas influence general expectations and perceptions of risks harbored by investors regarding utilities. Also, general trends in regulation at the national level influence expectations of events in Florida. Florida and individual state regulatory processes elsewhere are not immune from the national experience.

In the case of electricity, Federal and other events strongly influence Florida. Most recently, for example, Southern Company has received authority to introduce a wholesale energy auction. This event, which is clearly within the realm of market restructuring, which will undoubtedly effect the availability of and short-term prices for power within the Southeast with, hopefully, improved market efficiency.

(Camfield)

3. **With respect to witnesses Cox and Camfield's direct testimony on page 184, lines 20 - 24 and continuing on page 185, lines 1-2, would FPUC agree that one of the purposes of this proceeding is to set an authorized return on equity for the provision of regulated electric service in Florida? If no, why not?**

Response: No, we do not hold the view that one of the purposes of this proceeding is to set an authorized return on equity for the provision of regulated *electric* service in Florida. However, we do hold the view that the cost of capital focus of the proceeding is for regulated *natural gas* services, where authorized returns fully reflect the risks associated with regulated services as best such risks can be measured. However, it is appropriate for the Commission to recognize the differences in the cost of capital between FPU and regulated natural gas service providers, where such differences are based on the relevant dimensions of risk attributes such as small-size risk premia.

(Camfield)

4. **With respect to witnesses Cox and Camfield's direct testimony on page 190, lines 11 - 14, has FPUC or its witnesses made any analysis of the authorized returns on equity over the past three years for other transmission and distribution only utilities?**

Response: Please reference **Exhibit 4.1**

(Cox)

5. **Please provide the calculation of the pre-tax interest coverage ratio of 1.81 for 2007 listed on Exhibit DC-RC-22.**

Response: Please see **Exhibit 5.1**

(Cox)

6. **Holding all other components of FPUC's projected 2009 13-month average capital structure constant, what is the pre-tax interest coverage ratio for FPUC assuming the following authorized returns on equity:**

   a. 11.5%
   b. 11.0%
   c. 10.5%
   d. 10.0%
   e. 9.5%

Please show all calculations. For purposes of this response, the cost rate for ITCs can vary with the respective return on equity (ROE).

Response: The pre and post tax interest coverage ratios for the Consolidated Natural Gas segment of FPU, using the projected 2009 13-month average capital structure and holding all other components constant are as follows:

	Return on Equity	After Tax Interest Coverage Ratio	Pre-Tax Interest Coverage Ratio
	11.75%	**2.32**	**3.72**
a	11.50%	2.29	3.67
b	11.00%	2.23	3.58
c	10.50%	2.18	3.49
d	10.00%	2.12	3.40
e	9.50%	2.07	3.32

We wish to mention that, by assumption, the level of interest coverage determined in the above table is obtained under the condition that the allowed rate of return on equity is realized by the Company. This assumption, however, is in stark contrast to the financial results of the Company's natural gas division, which have been systematically less than the allowed equity rate of return, as allowed by the Florida Commission. Taking account of that history, where realized earnings are significantly less than authorized, major shortfalls in the effective interest coverage level which can challenge the financial integrity of the Company's natural gas division.

Please reference **Exhibits 6.1 – 6.5** attached.

(Cox)

7. **With respect to witnesses Cox and Camfield's direct testimony on page 186, lines 6-9, what is the range of pre-tax interest coverage ratios FPUC believes is necessary to "maintain a favorable**

credit standing with markets"?

Response: Interest coverage adequacy varies from industry to industry and even between companies within sectors, depending mainly on the stability and consistency of earnings performance, the interest rate level of outstanding debt, and the expected level of capital expenditures. Larger companies can diversify business risks better than smaller entities and thus greater coverage is likely to be required by lenders for smaller companies – essentially, size premia is manifest in both the cost of debt as well as the cost of equity. Florida Public Utilities Company generally wishes to carry a minimum of pre-tax interest cover of 3.0 times, at a minimum. In summary, context determines the appropriate level of interest coverage. Recent history and two aspects of contemporary events are particularly noteworthy. First, history reveals chronic shortfall between realized return levels and that which is authorized by the Florida Public Service Commission. Second, capital markets are stricken with exceptionally high levels of uncertainty covering future levels of economic activity which clouds the viability of broad sectors of corporate entities large and small, and the outstanding debt within sectors. Third, default risks are running at exceptionally high levels in view of the broad wave of capital losses, which in turn, has precipitated the U.S. government to provide large scale capital infusions and to serve as guarantor in enormous portfolios of assets including collateralized debt obligations and commercial paper. In brief, interest coverage is more vitally important currently than at any time in memory. The Company encourages the Commission and its Staff to utilize, and to take full account of, after-tax coverage insofar as income taxes are true cash flow expenses.

(Camfield, Cox)

8. **With respect to witnesses Cox and Camfield's direct testimony on page 232, lines 13 - 16, is $240,000 the annual revenue requirement difference between using a projected year-end capital structure versus a projected 13-month average capital structure? If not, what is the difference in annual revenue requirement between these two capital structures?**

Response: Yes, there is an estimated $240,000 shortfall in annual revenue requirement resulting from the two point differential in the rate of return between using a year-end capital structure and a 13 month average. FPU considers the year end structure to be more appropriate as it is more reflective of the costs and rate base that will be in effect during the period that the rates are in effect. In Exhibits DC-RC-1 and DC-RC-2 which used 13 month average and year-end cost components respectively, the 13 month average rate base was used. If a year-end cost of capital structure is approved the year-end rate base would be more applicable and result in an even greater differential than $240,000. It should however be noted that FPU used the 13 month average capital components and rate base within our standard MFR filing to the FPSC.

(Camfield / Cox)

9. **With respect to witnesses Cox and Camfield's direct testimony on page 207, lines 22 - 24, what is the basis for the witnesses' use of 12.6% expected market return in their CAPM analysis?**

Response: The 12.6% overall market return level, as used within my CAPM analysis, is the realized total return of the S&P 500, for the period 1970 – 2007, this realized return level over these years is down somewhat from the cumulative value through 2006. My testimony discusses productivity growth, particularly when coupled to comparatively low levels of inflation and disciplined monetary policy, as a contributing factor to realized market returns. The average rate of observed productivity for the period 1970 forward resides well within the range stated in my testimony, covering periods of very slow growth—late-1970s – early-1980s—and the high productivity of 1995 through 2003. Productivity growth appears in have receded somewhat in recent years from the exceptional levels obtained during the '95-'03 timeframe. Given the relationship between market returns and productivity and other conducive factors, and because overall productivity growth over this timeframe is a reasonably close match to the expected range of productivity in the future (see Martin Baily, Dale Jorgenson) investors have reason to expect annual level of overall market returns to approach 12.6%, prospectively. Moreover, realized market returns for the 1970 – 2007 comport well with realized market returns over various timeframes, as shown below.

Total Market Returns through 2007		
Number of Years	Initial Year	Realized Historical Annual Return (%)
81	1926	12.30
70	1937	12.30
60	1947	13.20
50	1957	11.90
40	1967	12.30
30	1977	13.60
20	1987	13.00
10	1997	12.00
Average, '67-'07		12.7
Average, '77-'07		12.9

(Camfield)

10. **With respect to witnesses Cox and Camfield's discussion on pages 214-217 of their direct testimony related to a "small size premia," please provide a list of all state regulatory commission decisions that have specifically acknowledged and incorporated this adjustment in their determination of the authorized return on equity. For purposes of this response, please provide the name of the utility and cite the order number.**

Response: Analysis of regulatory decisions for other utilities where size premia is explicitly recognized in the returns on equity authorized by the governing regulatory agencies, has not been performed. However, size premia are recognized in cost of capital analysis advanced by parties to regulatory proceedings, and is referenced by regulators including the Florida Commission.

However, the possibility of non-explicit discussion of size premia by regulatory agencies within decisions, for small- and mid-sized utilities does not mean that size premia has not been taken into account in setting the return on equity level. Indeed, explicit evidence suggests that it is. Depending on the methods used to estimate the cost of equity, size premia can be implicitly captured within the cost of capital analysis wherein the sample of utility companies used to estimate the cost of capital are of approximately equivalent size to the utility applicant. Hence, a regulatory agency may in fact capture size premia within its decision. The size difference between FPU and the samples of gas and electric utilities utilized in the Company's cost of capital analysis is striking. Specifically, the market capitalization of FPU is a small fraction of the average size of the comparable risk samples of gas and electric utilities—a mere 4.6% and 3.7%, respectively—used to estimate the cost of capital. In the case of FPU, the analytical challenge is one of finding the appropriate balance between liquidity and market experience, and approximate size. At the end of the day, the selection process should obtain a comparable risk sample of utility companies that provide a sufficient level of market liquidity. Because risk is of course inversely related to size, other factors constant; size essentially constitutes a relevant risk attribute, such that the comparable risk sample should also have a level of capitalization approximating that of FPU. For the immediate study, the selection process began with the smallest 30 electric industry companies listed on the major U.S. exchanges though, as mentioned above, such utilities are nonetheless much larger than FPU. Thus, to the degree that market capitalization is negatively correlated with the cost of equity, the exceptionally small size of FPU suggests that comparable risk criteria have not been fully satisfied in view the comparatively large size of my sample utilities, even though the sample contains modest-sized entities when compared to the U.S. natural gas and electricity services industry as a whole.

(Camfield)

11. With respect to Exhibit DC-RC-14, was the small size premia for FPUC determined based on the use of earned returns?

Response: The analysis explicitly incorporates small size premia within the risk premium analysis methodology. There are several ways that risk premium analysis can be conducted; my approach is carried out within the CAPM framework, as follows:

$$k_{e,j} = r^{st}_f + rp_{int-st} + rp_{m-int} + rp^{CAPM}{}_{y-m} + rp^{s}{}_{j}$$

with,

$k_{e,j}$ = cost of equity capital for risky asset j, stated in percentage terms

r^{st}_f = risk-free rate of return, for a short-term asset s

rp_{int-st} = risk premium, for intermediate-term asset *int* with respect to a short-term asset s

rp_{m-int} = risk premium, for equity market *m* with respect to a intermediate-term asset *int*

$rp^{CAPM}{}_{y-m}$ = risk premium, for industry *y* with respect to equity market *m*, where industry is the relevant industry sample

rp^{s}_{j} = size-based risk premium for risky asset *j*

The risk premium approach is additive, which means that risk premia drawn from historically observed differences in realized market returns for the relevant classes of risk-free and risky assets. The approach obtains (builds up) an estimate of the overall expected market return—for the S&P500—and then adjusts for industry-specific risks, as determined by CAPM Beta, which of course is generally a downward adjustment for utilities. Finally, size-related risk premia, shown above as rp^{s}_{j}, takes account of the size difference between the financial asset of interest, FPU in the immediate case, and the industry (gas and electric utility samples). As I mention above, the capitalization size of FPU is a small fraction of that for the utility sample that I obtained from the comparable risk selection process.

Size-related premia are estimated for U.S. equity markets, where common stock listings are first sorted into deciles according to market capitalization. The approach is to estimate the cost of capital for the common stocks of each decile, with CAPM. The realized historical market returns of the deciles are compared to the estimates of the cost of capital, as obtained with CAPM. For the various decile groupings, CAPM appears to systematically understate market returns and cost of capital, where the degree of understated returns, measured in basis points, is progressively greater with smaller-sized deciles. The level of understated returns for moderate-sized listings (Deciles 6 – 9) ranges from 1.60 to 2.60 percentage points—i.e., 160 to 260 basis points. However, the understatement rises significantly for the very small capitalization companies of Decile 10, where FPU resides. Specifically, Decile 10 Companies consist of 1775 companies with market capitalization ranging from $364 million down to $1.9 million. For Decile 10 companies, studies suggest that CAPM understates the cost of capital by 5.8%. Furthermore Decile 10 can be broken in parts A and B, where part A includes 386 companies and where the largest is $364 million, as mentioned. Part B companies consist of 1,405 entities with a maximum capitalization of $212 million. With a capitalization of $74 million for 2007 ($76 million for 2006, as shown on Exhibit 14), FPU clearly resides within Part B, where the systematic understatement of market returns (and thus cost of capital) is yet greater. To be sure, the understatement of returns is specific to industry. For SIC 49 (electric and gas utilities), CAPM Betas are typically less than unity. Also, the differences between realized market returns and cost of capital for sector 49 are less than for the market as a whole, except for the smaller companies contained in Deciles 9 and 10. For this reason, the analyses account for the lower CAPM risks (Beta risks) of the industry. The result is to estimate the small size risk premia for Decile 10 electric and gas utilities to be 1.20% – 1.60%, and substantially less than Decile 10 entities as a whole. This level may be conservatively stated and, as suggested on exhibit 14, may be about 2.00%.

In any case, more research on this issue is underway and necessary, as far as the inverse, causal linkage between size and cost of equity is concerned. The analysis is conducted by Ibbotson Associated, and is based on the historical market return information for equity and debt markets maintained by the Center for Research in Security Prices, at the School of Business of the University of Chicago.

The size premia issue, at least within the context of CAPM, appears to have been first documented by Banz (1981) "The Relationship between Returns and the Market Size of Common Stocks", *Journal of Financial Economics*.[1] Since then, various studies have challenged the presence of size-related risk premia on various grounds including bid/ask spread, delisting and survivorship bias, and thin trading effects. The analyses are extensive and in-depth. It is necessary to review the relevant studies and criticisms of size premia, which are presented in the formal literature as well as cost of capital studies, and to address any potential limitations and upward bias associated with the analyses that determine size premia. The perspective that I hold is that bid/ask spreads and delisting effects appear to have merit. Bias attributable to delisting appears to be present but is trivial (<10 basis points) for very small listings, and non-existent for the mid-sized entities. However, bias associated with bid/ask spreads, for small equities, is likely to be present and potentially significant (20-50 basis points). For these reasons among others, my risk premium analysis to estimate the cost of capital for FPU incorporates the modest size premia of 1.20% to 1.60%. The Ibbotson Associates studies of size premia are essentially the definitive studies, and are widely applied within the field of capital valuation. Size premia appears to remain unchanged with respect to the selection of market index, but sensitive to other factors such as sector and business cycle.

(Camfield)

12. With respect to Exhibit DC-RC-3, what efforts has FPUC made to refinance the long term debt issued in 1988 and 1992?

Response: The bond indentures issued in 1988 ($10M and $5.5M) and 1992 ($8M) all contain penalties or 'make-whole' provisions that make refinancing impractical. In summary, these call for the payment of all interest that would have been due if it were not called, discounted by the current interest rate. SunTrust, our Bankers at the time, was requested to review these bonds in the 1990's and they concurred that it did not make economic sense to call the bonds under the provisions, at least not until 2013. They suggested a review be made in 2013 under the redemption premium that applies at that time. In addition in 2002 we asked Bank of America (BOA) to review the economic possibility of paying off the higher interest bonds. BOA also concluded it was not economical to do so because of the make-whole provisions.

In addition we have performed our own internal analyses, which also support the position of our external lenders. Please reference **Exhibits 12.1 to 12.11.**

(Cox)

13. **What prevents FPUC from refinancing the long-term debt issued in 1988 and 1992 with debt at lower, current market rates?**

Response: Please refer to Staff's Interrogatory #12.

(Cox)

14. **With respect to witnesses Cox and Camfield's direct testimony on page 163, lines 16 - 22, what is the current projection of the Federal Funds rate?**

Response: In view of what appears to be a rather sharp decline in the current level of economic activity for the U.S., I would guess that, at this point, capital markets anticipate that the Federal Reserve Board will leave the Federal Funds target rate unchanged. And since the Federal Funds rate closely matches the target rate—though short-run periods of large differences can be found in the history including major daily excursions over recent months—it seems that a Federal Funds rate of 0.00% - 0.25% may be in order, at least in the near term—i.e., through 2009.

The relevant question of course is timeframe. Fed Funds futures are indicative of short-term fed funds over longer timeframes – say, through the remainder of 2009 and 2010. Timeframes further into the future are relevant, as the immediate proceeding is likely to set retail prices for several years forward. For this, fed fund futures are not available. Hence, one appropriate approach is to utilize current intermediate-term Treasury debt yields and determine the underlying term structure of interest rates, as forward rates can serve as the basis to estimate future spot rates. Alternative views and theory (*unbiased expectations, liquidity, habitat*) of the yield curve are likely to obtain different results, however. In any case, the starting point in this approach is Treasury Securities of different maturities. Once determined, the implied short-term spot interest rates can be used as a basis to infer the forward federal funds rate, given the historical relationship between short-term Treasury rates and the federal fund rates.

The main issue facing FPU—and the Commission—as far as short-term interest rates are concerned, is monetary policy in view of the current recession, which is clearly very deep and extended. With the objective of mitigating the recession and associated collapse in lending at the retail and wholesale level, the Federal Reserve is utilizing classic tools and is also implementing a number of new corrective measures to management wholesale credit risks. The success of these measures is strongly dependent on the sustained credit worthiness of the U.S. Government and Treasury Securities. So far, Treasury Securities appears to be highly viable as low risk debt vehicles, such that the U.S. can raise large sums to fund fiscal and, to a lesser extent, monetary policy. A major concern is that investors worldwide—including U.S. households and foreign governments alike—change their perception of the relative risks attending U.S. Treasuries, prospectively. Worldwide, U.S. Treasuries

have been ordered number 5 in default risks, behind selected northern European countries, and Canada. The potential of investors harboring substantially higher perceived default risks attending U.S. Treasury in the future is quite possible, with the result of imposing much higher interest costs to service U.S. debt, at time when substantial new debt will be issued by the U.S. Treasury. In turn, such event would likely precipitate the Federal Reserve to purchase Treasuries on a large scale in order to reduce aggregate supply, as this would become necessary in order to maintain the value of the U.S. dollar vis-à-vis other currencies. The resulting increase in money supply, in turn, would precipitate much higher rates of inflation leading to higher rates for LIBOR. The Federal Reserve assets have just recently contracted by about $600 billion (from 2.3T down to 1.7T). In order to maintain liquidity and expand credit, the Federal Reserve, in all likelihood, will purchase significant shares of the vastly expanding supply of Treasury securities. This expansion of money supply will provide credit through and support the U.S. currency. The result will be increased inflation and, with it, nominal interest rates.

Along this line, please refer to the comments of Premier Wen Jiabao of the Republic of Chinese just recently with regards to the expected amount of new debt capital to be raised by the U.S. Treasury through 2010 and continuing into 2011. Essentially Mr. Jiabao expressed concern that in view of the fiscal expansion, that the U.S. government would find itself overburdened with debt obligations. Also, reference comments by Chairman Bernanke in his interview, shown during the weekend of March 14, 2009. In brief, the Federal Reserve is "effectively printing money" through current monetary policy. This has only modest impact on inflation currently in view of the deep contraction in aggregate economic demand. However, as demand accelerates, the concern is that expanded money supply, by definition, translates into higher overall price levels. In turn, through higher expected inflation, monetary expansion translates into higher nominal interest rates. In summary, there is substantial risk in higher short- and long-term interest rates as a result of perceived higher default risks and inflation through expanded money supply.

(Camfield)

15. **With respect to witnesses Cox and Camfield's direct testimony on page 200, lines 6 - 10, has FPUC done an analysis of the authorized returns of other utilities of similar market size to FPUC?**

Response: Please reference response to Staff's Data Request #4.

(Cox, Camfield)

16. **With respect to witnesses Cox and Camfield's direct testimony on page 217, lines 13 - 18, please show the derivation of the 25 basis point and 33 basis point adjustments for Samples 1 and 2, respectively, associated with the 6% adjustment for issuance costs.**

Response: Issuance costs, whatever the level, are manifested as reduced proceeds for the issuing entity in its sale of securities in primary markets. For purposes of estimating the effective cost of equity capital in the immediate proceeding, the quantitative effect of issuance costs is obtained by increasing the dividend yield within the single-stage discounted cash flow ("DCF") framework. That is, the dividend yield, Y, is expressed as D_1/P_0, where D_1 refers to the forward yield annual dividend rate, and P_0 refers to the observed market price. The yield adjusted for issuance costs, referred to as Y', is expressed as $D_1/(P_0(1 - I_C))$, where I_C refers to issuance costs expressed as a percentage of market price. Thus, since FPU's issuance costs are estimated to be 6% of the gross proceeds of the sale of common equity shares—P_0 within the expression—the resulting adjusted yield is slightly greater than $Y*(1+I_C)$. However, the effect of issuance costs, in percentage terms, should not be applied to the unadjusted cost of capital, in total. That is, the issuance cost adjustment is not applied to the unadjusted cost estimate for equity, as in $COE*(1+I_C)$ or $COE/(1-I_C)$. Within the single-stage DCF framework, which includes both the adjusted yield and expected growth—i.e., $D_1/(P_0(1 - I_C)) + E(g)$—the net effect works out to be 33 basis points, which is the basis point difference between the forward yield and the forward yield adjusted for issuance costs. This result, for the electric sample, is demonstrated below:

5.09%/(1-.06) + 6.18% = 5.41% + 6.18% = 11.59% (with rounding,11.60%)

This basis point impact for issuance costs (33 basis points) is then added uniformly to the various estimates of the cost of equity including the results obtained from the application of risk premium, CAPM, and historical market returns methods. In brief, the issuance cost adjustment amount (33 basis points) recognizes the share of the estimate, for the cost of equity, attributable to income (yield) and the share attributable to growth. For the natural gas sample, the contribution of growth to the overall DCF cost of capital result is comparatively larger than for the electric sample of comparable risk companies, and the yield is comparatively smaller. Accordingly the 6.0% issuance cost for the natural gas sample translates into a smaller adjustment of 25 basis points.

Please note, however, that the CAPM and Risk Premium methods do not explicitly recognize the shares of total market returns (and cost of equity) attributable to income and to growth. In retrospect, the effects of issuance costs should have been incorporated within Appendix I—a change that, in the future, I intend to include.

(Camfield)

17. With respect to Exhibit DC-RC-13, what is the source of the 11.31 % and 12.84% expected market returns?

Response: The 11.31% - 12.84% range for overall equity market returns results from risk premia build up. The various risk premia are drawn from Ibbotson Associates reported data. The key component of these risk premia is the risk premium spread for the U.S. equity market. The value (7.35%) used in the cost of capital study, as shown, is the average annual risk premia between equity market returns

and the income return component of intermediate term U.S. Treasury debt, for the period 1950 – 2007. The determination of equity market risk premia—calculation is shown in the attached analysis files.

(Camfield)

18. **With respect to Exhibit DC-RC-17, what is the authorized return on equity for each company on this schedule? For purposes of this response, please list the return on equity (ROE) and the date set.**

Response: Unfortunately, such research to obtain this information has not been undertaken, and is thus not available at this time.

(Camfield)

19. **With respect to Exhibit DC-RC-18, what is the authorized return on equity for each company on this schedule? For purposes of this response, please list the return on equity (ROE) and the date set.**

Response: Unfortunately, such research to obtain this information has not been undertaken, and is thus not available at this time. Commission Staff's inquiries contain several items focused on authorized rates of return. We wish to mention that the regulatory agencies, generally speaking, should concentrate on independent estimates of the cost of capital rather than authorized returns set by individual regulatory authorities or regulatory authorities in general. This is because of the obvious problem of circular argument. Specifically, if regulatory authority A sets the ROE at X for utility 1, and authority B either gauges the appropriate return level for or is informed by ROE X, set by authority A, information transfer provides gives considerable life to ROE X. Second, if authority C draws upon ROE level set by B, information transfer intervenes within the decision process of C. Then, regulatory authority A relies on the authorized returns set by authorities B and C in determining the return level for utility 2 – thus the circularity problem and the accompanying loss of independence in the cost of equity estimates, as the basis to determine ROE levels. There are present, of course, latent issues of independence within the process of estimating the cost of equity though such issues are do not bias cost estimates in any substantive way. In any case, we generally hold to the principle of utilizing multiple cost of capital methods that are applied to observed market information and experience, for specific samples of comparable risk samples of entities for specific timeframe times, as a well founded basis to determine the authorized rate of return.

(Camfield)

20. **For the following series of questions please refer to Exhibit DC-RC-17 attached to the direct testimony of witnesses Cox and Camfield.**

a. For each company listed on Exhibit DC-RC-17, please provide the relative percentage of each

proxy companies' revenues that are generated from regulated utility operations. If a proxy company has more than one regulated utility, please provide the information for each utility and on a total company basis. Please provide the information for 2007.

b. **Please identify the regulated natural gas distribution companies associated with each of the proxy companies listed on Exhibit DC- RC-17.**

c. **For each regulated natural gas distribution company identified in Interrogatory No. 20B, please provide the equity ratio as of the end of 2007. For purposes of this response, equity ratio is defined as common equity divided by the sum of common equity, preferred stock, long-term debt, and short-term debt.**

d. **Please identify the current authorized return on equity (ROE) for each regulated natural gas distribution company identified in response to Interrogatory No. 20B. For purposes of this response, please provide the authorized ROE, the Commission order number, and the date the order was issued.**

Response: The response will be provided on or before March 31, 2009.

(Camfield)

21. **For the following series of questions please refer to Exhibit DC-RC-18 attached to the direct testimony of witnesses Cox and Camfield.**

a. **For each company listed on Exhibit DC-RC-18, please provide the relative percentage of each proxy companies' revenues that are generated from regulated utility operations. If a proxy company has more than one regulated utility, please provide the information for each utility and on a total company basis. Please provide the information for 2007.**

b. **Please identify the regulated electric utilities associated with each of the proxy companies listed on Exhibit DC-RC-18.**

c. **For each regulated electric utility identified in Interrogatory No. 2lB, please provide the equity ratio as of 2007. For purposes of this response, equity ratio is defined as common equity divided by the sum of common equity, preferred stock, long-term debt, and short-term debt.**

d. **Please identify the current authorized return on equity (ROE) for each regulated electric utility identified in response to Interrogatory No. 2lB. For purposes of this response, please provide the authorized ROE, the Commission order number, and the date the order was issued.**

Response: The response will be provided on or before March 31, 2009.

(Camfield)

22. **Please refer to page 199, line 16, and continuing to page 205, line 10 of witnesses Camfield and Cox's direct testimony and the Selection Screens contained in Exhibits DC-RC 17 through DC-RC-20. Please identify all companies reviewed for each of the samples that were either included or excluded from each exhibit due to all the exceptions. In each case, please explain why each**

exception was exercised.

Response: (Natural Gas Utilities) The natural gas sample is drawn from the U.S. natural gas sector, where the first screen identifies natural gas utilities. Accordingly, this screen removes a number of entities that either have no gas distribution or where gas distribution is not a major part of the enterprise. These entities operate, to a large extent, in areas of the natural gas sector which is not subject to utility price regulation. Entities excluded, during this selection screen, include AmeriGas Partners, Cascade Natural Gas, Continental Fuels Inc., Corning Natural Gas Corp., Energy West Inc., Ferrellgas Partners LP, Markwest Hydrocarbon, Penn Octane Corp., SEMCO Energy, SMF Energy Corporation, Star Gas Partners LP, and Suburban Propane Partners.

This leaves 15 entities that have substantial natural gas utility operations. The utilities are listed in the tab entitles "Select NG_1" of the file "SmNG_08_031108, which is included with the package of cost of capital data and analysis files, as provided in response to Inquiry #27, below. Of the 15 candidate entities, 4 are excluded including UGI, RGC Resources, Pacific Northwest Gas, and Chesapeake Utilities. UGI has highly diversified gas operations, and its distribution utility operations are not the major share of the enterprise in total. RGC Resources has substantial gas transportation operations, and is thus viewed as not having sufficiently concentrated natural gas distribution operations. Pacific Northwest Gas has a history on highly variable (high risk) earnings, which implies comparatively high capital costs. , and is thus not included within the sample. Finally, Chesapeake Utilities is excluded because, much like UGI and RGC Resources, it has substantial non-utility distribution operations.

The above step (selection screen) gives rise to the 11 gas distribution utilities shown on Screens 1 and 2 of the package of exhibits attached to Cox/Camfield testimony, Exhibit 17 and 19. From this selection of 11 entities, 8 natural gas utilities are viewed as having comparable risks to FPU and its natural gas division. Of the 11 entities, the 3 entities excluded include AGL Resources, Nicor Inc., and South Jersey Industries. AGL Resources is dropped from the sample because of exceptionally high levels of variation in earnings per share, one of the several selection criteria. This analysis result is shown on Selection Screen 2, Exhibit DC-RC 19. Also, note the high level of variation in annual market returns. Similarly, NICOR is excluded from the final sample of utilities because of its exceptionally high CAPM Beta, which can also be seen on Exhibit 19. South Jersey Industries from the final eight companies because of its exceptionally high levels of variation in market returns and coefficient of variation in earnings per share.

(Electric Utilities) As with the natural gas sample, the process of sampling the electric utilities begins with an initial draw of entities within the electric utility sector, which resulted in 52 entities, as shown in tab entitled "Select EL_1" of file "SmEl_08_031108", included in the package provided in our response to Staff Inquiry #27 (see below). Of these 52 entities, 27 are excluded for further analysis for a variety of reasons, as follows:

Inconsistent Data (Dropped Dividend Within Recent Years)

- Maine and Maritimes
- Sierra Pacific
- CMS Energy
- Aquila (subsequently acquired by KCPL; selected assets purchased by Black Hills; substantial wholesale power trading operation at one time)

Inconsistent Data (Deep Dividend Cut Within Recent Years)

- Teco Energy
- Green Mountain (subsequently acquired by larger system)
- Duquesne Lighting
- Westar
- Alliant Energy
- Avista
- IdaCorp
- Puget Energy

Incomplete Data Over Ten Historical Years Within Electric Utility Sector

- Northwest Corporation
- Portland General
- Allete (Possessed sizable non-utility operations at one time; could be incorporated into the sample)
- Rochester G&E (acquired into Energy East Corporation)
- Bay Holdings

Dominated by Non-Electric Utility Operations

- MDU Resources (sizable gas and oil exploration
- NiSource (sizable gas transmission
- Integrys Energy (most gas (electric operations include WPS, UP Power)
- Evergreen Energy (involved in modernizing coal-fired units and wholesale power contracting to electric utilities)
- ITC Holdings (independent transmission company)

- US energy Systems (wholesale power supplier including cogeneration)
- Wilmington Capital (operations are predominantly non-utility in nature; double listed with TSX and Nasdaq; incomplete historical data)

Other Exclusions

- Unisource (for unusual dividend experience
- El Paso (pays no dividend)
- Fortis Incorporated (listed on Toronto Stock Exchange, though could possibly be included)

The resulting sample consists of 20 electric utilities, as shown in Exhibits DC-RC 18 and 20. Several entities are excluded from this sample set because they do not satisfy the identified selection criteria. To be specific, reasons for exclusion are identified below:

Black Hills – CAPM beta and variation in market returns resides outside sample range.

PNM Resources – CAPM Beta, variation in market returns, and variation in earnings per share reside outside sample range.

Cleco Corporation – Unusually high CAPM Beta.

MGE Energy – High equity participation.

Central Vermont – High equity participation, high level of variation in market returns, and very level of variation in earnings per share.

NSTAR – low levels of equity participation.

UNITIL Corporation – Low levels of equity participation, low CAPM Beta, and low levels of variation in market returns.

DPL Incorporated – Low levels of equity participation, and high level of variation in earnings per share.

Pinnacle West Capital – High CAPM Beta.

Arguably, CH Energy Group and UIL Holdings could also be excluded from the sample, the result of which suggests somewhat higher cost of capital.

(Camfield)

23. **Please provide a reconciliation of FPUC's capital structure from a total company basis (how the Company reports total assets and total capital to the SEC) to a jurisdictional basis (regulated operations only) for 2006, 2007, and 2008. For purposes of this response, capital structure refers to investor sources of capital, i.e., common equity, preferred stock, long-term debt, and short-term debt. By reconciliation, staff wants the Company to show how the assets and capital associated with non-regulated investments such as Flo-Gas are removed from the balance sheet.**

Response: Please refer to **Exhibits 23.1 to 23.3** attached.

(Cox)

24. **What are FPUC's budgeted capital expenditures for 2008 and 2009? For purposes of this response, please itemize which portion of the total capital expenditure budget for each year is for regulated operations (separately stating electronic and natural gas) and the portion devoted to non-regulated operations.**

Response: Attached **Exhibit 24.1** is a summary of the 2008 and 2009 Consolidated FPUC Capital Expenditure Budgets.

Attached **Exhibits 24.2 and 24.3** are the detailed 2008 and 2009 Consolidated FPUC Capital Expenditure Budgets, respectively. Amounts included in the MFR vary somewhat from these budgets. The MFRs were prepared after the attached budgets were prepared and reflect a more up to date estimation of capital expenditures for our natural gas and common segments.

(Mesite)

25. **Please provide schedule G-3 (D-l) for the 2009 projected test year showing FPUC's investment in Flo-Gas removed specifically from common equity.**

Response: Please refer to **Exhibit 25.1** attached.

(Cox/ Camfield)

26. **Please refer to the capital structure for the projected test year, Schedule G- 3 (D-l), and to the 4.71 % cost rate for short-term debt. Please provide the calculation of this rate and complete copies of all supporting documentation. 'This should include the benchmark rate, like LIBOR, upon which the cost rate for short-term debt is based, any basis points added to that rate, any fees associated with the loan and how the fees are assessed, and the maximum amount of the loan.**

Response:

Exhibit 26.1 entitled "ST Debt Effective Cost" presents the calculation of the effective cost rate of short-term debt, as applied to the balances of short-term debt within the capital structure.

Exhibit 26.2 provides documentation for the renewal and modification of Line of Credit Agreement with Bank of America dated March 21, 2008 as follows:

- Second Amendment to Amended and Restated Loan Agreement
- Revolving Promissory Note
- Third Amendment to Amended and Restated Loan Agreement

Exhibit 26.3 Amended and Restated Loan Agreement dated October 29, 2004

Exhibit 26.4 Cash Projection 2009

Exhibits 26.5 (electronic file on attached CD) (File "LIBOR (previously Daily LIBOR)_1" contains historical data of observed short-term interest rates from which the interest rate spread between the Fed Funds and LIBOR rates are determined. The tabs of the file are as follows:

Summary: Shown by month are the 1-month LIBOR and Fed Funds rates including Fed Funds Target and observed Fed Fund transaction prices (interest rates). Calculates the Fed Funds historical interest rates and interest rates and interest spreads between LIBOR and Fed Funds. The 2.976% (2.98%) value is shown in cell H267, and represents the historical fed funds rate for 2001-forward through September '08. This rate represents plausible costs for fed funds over the relevant timeframe. In particular, the rates shown are drawn from the recession 2001 and subsequent recovery period through '08.

LIBOR 2008: As described.

InferredSpot: Forward-looking Treasury Yields, drawn at June 2008.

US LIBOR Update 1: LIBOR data, culled from the identified web site. Analysis performed in order to check and verify data.

US LIBOR_1-Mo: Daily 1-month LIBOR interest rates.

DFEDTAR and DFEDTAR1: Daily Fed Funds Target Interest Rate Levels.

Historical Interest Rates, ST-Debt: Interest Rates for Treasury, Fed Funds and LIBOR, as compiled previously from monthly data.

Monthly FF (Daily): Compiles monthly fed funds transaction-based interest rates, from daily data for recent months.

DFF: Daily fed funds transaction-based interest rates.

(Camfield / Cox)

27. **Please provide copies of all materials, including analyses, spreadsheets, studies, reports, and workpapers, relied upon by FPUC and their respective witnesses in the determination of the cost of capital, including the cost of debt, the cost of equity, and the capital structure, used in FPUC's filings in this proceeding and/or in the preparation of witnesses Cox and Camfield's testimony in this proceeding. This response should include all materials relied upon to determine and support the projected capital structure ratios and the cost rates for the individual capital components for 2008 and 2009.**

Response: As requested, please reference attached **Exhibits 27.1 through 27.5**. Also enclosed is a CD containing discussion material regarding the sample utilities utilized in the Company's cost of equity studies:

COST OF CAPITAL ANALYSIS: Attached please find five spreadsheets entitled "SmNG_031108", "SmNG_06b", "SmEL_031108", "RiskPremia06b", "NG HR_031108", and "EL HR_031108". These analysis files contain several tabs, which are identified for each file, as follows:

File: Risk Premia08_031108 - Exhibit 27.1 (Background, Calculations for Risk Premia)

Exhibit 27.1.1: SmEl_RiskPremia (Determination of Risk Premium COC, Electricity Utility Sample)

Exhibit 27.1.2: CAPM_EL_08 (CAPM Analysis, Electric Utility Sample, Used As Inputs to Risk Premia Analyses For Electric Utilities)

Exhibit 27.1.3: NGDist_RiskPremia (Determination of Risk Premium COC, Natural Gas Utility Sample)

Exhibit 27.1.4: CAPM_NG_08 (CAPM Analysis, Natural Gas Utility Sample, Used As Inputs to Risk Premia Analyses For Natural Gas Utilities)

Exhibit 27.1.5: NUtil_RiskPremia (Determination of Risk Premium COC, Non-Utility Sample; NOT USED IN CURRENT ANALYSES OR TESTIMONY)

Exhibit 27.1.6: CAPM_NU_08 (CAPM Analysis, Non-Utility Sample, Used As Inputs to Risk Premia Analyses, for Non-Utilities; NOT USED IN CURRENT ANALYSES OR TESTIMONY)

Exhibit 27.1.6: CAPM_EL_08 (CAPM Analysis, Electric Utility Sample, Used As Inputs to Risk Premia Analyses)

Exhibit 27.1.7: HistoryReturns (Contains Risk Premia of Equity and Debt Over Historical Timeframes)

Exhibit 27.1.8: Economic Data, To '06 (Various Economic and Financial Market Interest Rates and Realized Returns)

File "SmNG_08_031108– Exhibit 27.2 (Sample of Comparable Risk NG Companies)

Exhibit 27.2.1: CAPM_NG_08 (Capital Asset Pricing Model Analysis)

Exhibit 27.2.2: DCF_NG_08 (Discounted Cash Flow Analysis

Exhibit 27.2.3: Selection Screen NG1_08 (Selection Screen 1)

Exhibit 27.2.4: Section Screen NG2_08 (Selection Screen 2)

Exhibit 27.2.5: Select NG_1 (Screen of Natural Gas Companies and Associated Data)

Exhibit 27.2.6: Historical_FPUC NG 1 (Data Set, from ValueLine Investment Survey)

Exhibit 272.7: Mo Prices1 (Monthly Historical Prices)

Exhibit 27.2.8: LN (Determination of Log Percent Change (growth))

Exhibit 27.2.9: Weights (Capitalization Weights)

Exhibit 27.2.10: Companies For Analysis (Identifier File)

Exhibit 27.2.11: Test1 (Test of Algorithm for Multi-Stage DCF)

Exhibit 27.2.12: Mo Prices1 (2) (2nd Tab with Monthly Prices for the Sample of NG Utilities)

Exhibit 27.2.13: Economic Data (Economic and Interest Rate Data Series, Used to Determine Risk Premia and Interest Rates for Debt of Various Terms)

Exhibit 27.2.14/15: GS10 and GS1 (Debt Yields for 10- and 1-year Treasuries)

File "SmEL_08_031108– Exhibit 27.3 (Sample of Comparable Risk Electric Companies)

Exhibit 27.3.1: CAPM_EL_08 (Capital Asset Pricing Model Analysis)

Exhibit 27.3.2: DCF_EL_08 (Discounted Cash Flow Analysis

Exhibit 27.3.3: Selection Screen EL1_08 (Selection Screen 1)

Exhibit 27.3.4: Section Screen EL2_08 (Selection Screen 2)

Exhibit 27.3.5: Select EL_1 (Screen of Natural Gas Companies and Associated Data)

Exhibit 27.3.6: Historical_FPUC NG 1 (Data Set, from ValueLine Investment Survey)

Exhibit 27.3.7: Mo Prices2 (Monthly Historical Prices)

Exhibit 27.3.8: LN (Determination of Log Percent Change (growth))

Exhibit 27.3.9: Weights (Capitalization Weights)

Exhibit 27.3.10: Companies For Analysis (Identifier File)

Exhibit 27.3.11: Test1 (Test of Algorithm for Multi-Stage DCF)

Exhibit 27.3.12: Economic Data (Economic and Interest Rate Data Series, Used to Determine Risk Premia and Interest Rates for Debt of Various Terms)

Exhibit 27.3.13/14: GS10 and GS1 (Debt Yields for 10- and 1-year Treasuries)

File: NG HR_031108-Exhibit 27.4 (Historical Market Returns for Gas Utilities)

Exhibit 27.4.1: Default DCF (Contains Weights for the Gas Utility Sample, Which Are Used To Determine Overall Historical Returns, Which Are Computed On An Non-Weighted and Weighted

Basis)

Exhibit 27.4.2: NG Historical Returns (Contains Historical Returns Calculations)

Exhibit 27.4.3: 07 Dividends (Contains Dividends for Most Recent Complete Year, for Analysis Completed During 1st half, '08)

Exhibit 27.4.4: Historical_FPUC NG1 (Contains the Historical Data)

Exhibit 27.4.5: Mo Prices1 (Contains Monthly Prices, Used to Determine Annual Returns)

Exhibit 27.4.6: Weights (Contains Weights, for Determination of Weighted Realized Market Returns)

Exhibit 27.4.7: Companies For Analysis (List of Natural Gas Utilities)

File: EL HR_031108-Exhibit 27.5 (Historical Market Returns for Electric Utilities)

Exhibit 27.5.1: Default DCF (Contains Weights for the Electric Utility Sample, Which Are Used To Determine Overall Historical Returns, Which Are Computed On An Non-Weighted and Weighted Basis)

Exhibit 27.5: EL Historical Returns (Contains Historical Returns Calculations)

Exhibit 27.5.3: 07 Dividends (Contains Dividends for Most Recent Complete Year, for Analysis Completed During 1st half, '08)

Exhibit 27.54: Historical_FPUC NG1 (Contains the Historical Data)

Exhibit 27.5.5: Mo Prices1 (Contains Monthly Prices, Used to Determine Annual Returns)

Exhibit 27.5.6: Weights (Contains Weights, for Determination of Weighted Realized Market Returns)

Exhibit 27.5.7: Companies For Analysis (List of Electric Utilities)

FORMAL LITERATURE: **Exhibits 27.6 – 27.18.**

27.6 Chen, Nai-Fu, Roll, Richard, Ross, Stephen; *Economic Forces and the Stock Market* ;Journal of Business; 1986.

27.7 Fama, Eugene, French, Kenneth; *The Cross-Section of Expected Stock Returns*, Journal of Finance; 1992.

27.8 Mehra, Rajnish, Prescott, Edward; *The Equity Premium, A Puzzle*, J. Monetary Economics;, 1985.

27.9 Blume, Marshall; *Betas and Their Regression Tendencies*, Journal of Finance; 1975.

27.10 Banz, Rolf; *The Relationship Between Return and Market Value of Common Stocks*, Journal of Financial Economics; 1981.

27.11 Ball, Ray; *Anomalies in Relationships Between Securities' Yields and Yield-Surrogates*, Journal of Financial Economics; 1978.

27.12 Cohen, Ruben; *An Analytical Process for Generating the WACC Curve and Locating the Optimal Capital Structure*, about 2003.

27.13 Douglas, George; *Risk in the Equity Markets: An Empirical Appraisal of Market Efficiency*, Yale Economic Essays; 1969.

27.14 Vander Weide, James, Carleton, Willard; *Measuring Investors Growth Expectations: The Analysts Versus Historical Growth Extrapolation*; 1985.

27.15 Boyle, Glenn, Young, Leslie; *Stock Returns, Inflation, and Interest Rates: Ex Post and ex Ante Relationships*, International Review of Financial Analysis; 1992.

27.16 Bordo, Michael, Wheelock, David; *Monetary Policy and Asset Prices: A Look Back at Past U.S. Stock Market Booms*, Federal Reserve Bank of St. Louis; 2004.

27.17 Bhandari, Laxmi; Debt/Equity Ratio and Expected Common Stock Returns: Empirical Evidence, Journal of Finance; 1988.

27.18 Luenberger, Robert; Excerpts from *Investment Science*, 2002.

Other Support – **Exhibits 27.19 – 27.21**

27.19 Value Line Reports – Natural Gas Sample companies.

27.20 Value Line Reports – Electric Sample companies.

27.21 Cost of Capital Working Papers.

(Camfield / Cox)

28. **From January 1, 2008 forward, please provide copies of all analyses, workpapers, memos, minutes of Board of Directors meetings, and e-mail messages where the topic was cost of capital, capital structure, common equity, short-term debt, long-term debt, and the cost rate for any of these capital components.**

Response: Please reference responses #26, #27 and #30 and **Exhibit 28.1** for documents relating to the topic cost of capital. Due to the volume of emails, we have provided those on the enclosed CD, **Exhibit 28.2**.

(Cox)

29. **From January 1, 2008 forward, please provide copies of all reports, analyses, and presentations by or for investment banking firms, commercial banks, stock analysts, and rating agencies regarding FPUC.**

Response: Please refer to **Exhibits 29.1**

(Cox, Camfield)

30. **Please provide copies of all spreadsheets, analyses, and workpapers that FPUC relied upon in determining that its proposed 2009 overall cost of capital is the least cost option available to fund its regulated operations.**

Response: Attached please find selected documents that provide conceptual background regarding the appropriate capital structure, as follows:

Exhibit 30.1	A theory of optimal capital structure – James H. Scott
Exhibit 30.2	The Dynamics of Capital Structure – Banerjee, Heshmati & Wihlborg
Exhibit 30.3	Optimal Capital Structure in Agency Relationships – Lewis & Sappington
Exhibit 30.4	Corporate Income Taxes, Valuation, and the problem of Optimal Capital Structure – Brennan & Schwartz
Exhibit 30.5	An Implication of the Modigliani-Miller Capital Structuring Theorems on the Relation between Equity and Debt – Cohen

(CAMFIELD)

31. **Please provide a copy of all reports, analyses, or other compilations of returns on equity (ROEs) for natural gas utilities.**

Response: Please reference response #19 and **Exhibit 31.1.**

(Camfield)

32. **If FPUC did complete an analysis in its response to staff's Interrogatory No. 15, please provide the analysis of the authorized returns of other utilities of similar market size to FPUC.**

Response: Analysis of authorized returns to other utilities similar in size to FPUC has not been performed at this time. Please reference response #19.

(Camfield)

33. **With respect to witnesses Cox and Camfield's direct testimony on page 187, lines 3-6, please provide copies of all reports, analyses, and correspondence relating to any discussions with**

investment banks, commercial banks, and stock analysts regarding the financial condition and soundness of the Company.

Response: Please see **Exhibit 33.1.**

(Cox, Camfield)

34. **With respect to witnesses Cox and Camfield's direct testimony on page 187, lines 3-6, please provide copies of all reports, analyses, and correspondence relating to any discussions with investment banks, commercial banks, and stock analysts regarding the importance of FPUC maintaining a particular pre-tax interest coverage ratio.**

Response: Please reference response to Staff's Data Request #33 and **Exhibit 34.1.**

(Cox, Camfield)

35. **With respect to witnesses Cox and Camfield's direct testimony on page 186, lines 6-9, please provide all documents that support the Company's position regarding the range of pre-tax interest coverage ratios necessary to "maintain its favorable credit standing with markets."**

Response: Please reference response to Staff's Data Request #33.

(Cox, Camfield)

36. **Please provide a list of all testimonies that witness Camfield in particular and Christensen Associates Energy Consulting, LLC in general have included a "small size premia" in its recommended return on equity.**

Response: Please reference the attached testimony and reports presented before regulatory agencies on the enclosed CD – **Exhibit 36**.

(Camfield)

37. **With respect to Exhibit DC-RC-14, please provide the results of the multi-stage DCF analysis.**

Response: The results of the multi-stage DCF analysis will be provided on or before March 31, 2009.

(Camfield)

38. **Please provide copies of all reports, analyses, or studies that witnesses Cox and Camfield relied upon to support a forward-looking equity risk premium of 7.89%.**

Response: As shown in the tabs entitled "CAPM NG" and "CAPM EL" contained in the 2 data files provided in response to Inquiry #27 (files "SmNG_08_031108" and "SmEL_08_031108"), the 7.89% is derived from the difference between the forward-looking expected cost rate of intermediate term

debt 4.71%, which is the experience of the current decade, and realized equity returns, which is for the historical period 1970-forward. Historical realized returns and equity premia have been extensively studied, and selection period matters. I select the period 1970-forward because it contains times of high and low productivity, but where overall productivity approximates that of currently expectations for the U.S. This period also contains high and low inflation.

Debt costs cannot be sampled from this larger period, as much of this broad timeframe reaching across decades, significantly overstates expectations of current inflation which, over the next 3-5 years, is likely to remain at comparatively low levels—2.50% - 2.75%. for the GDP implicit price deflator, chain-weighted and somewhat higher for the CPI. Much of this study material resides in my Madison files, and I will compile these studies for your consideration as soon as I reach the office and the materials can be gathered. Support will be provided on or before March 31, 2009.

(Camfield)

39. Please provide a copy of the most recent Moody's Investor Services report for FPUC.

Response: The issue raised in question 39 is not applicable as FPUC is not a rated company.

(Cox, Camfield)

40. Please provide a copy of the work papers (not already included in MFRs) in support of the 2008 & 2009 Commission and Company adjustments to Net Operating Income and Rate Base.

Response: Please see Exhibit 40.1 for a summary of the Net Operating Income adjustments. Details for various Net Operating Income Adjustments are contained in **Exhibit 40.1 through Exhibit 40.39.**

Please see **Exhibit 40.40** for a summary of the Rate Base adjustments. Details for various Rate Base Adjustments are contained in **Exhibits 40.41 through 40.50**

(Lundgren, Mesite)

41. Please provide a copy of the work papers (not already included in MFRs) in support of the 2010 revenue requirement for the recovery of an extraordinary capital expenditure.

Response: Please see attached **Exhibit 41.1**

(Mesite)

42. Please provide a copy of the work papers (not already included in MFRs) in support of the allocations used in the 2009 test year at all corporate levels to the consolidated natural gas division.

Response: Please see attached **Exhibit 42.1 through 42.4**

(Lundgren)

43. **Please provide the year-end 2008 customer count by the following rate codes: RS, GS, GSTS, LV, L VTS, IS, ITS, and GLS.**

Response: See attached **Exhibit 43.1**

(Cox)

44. **Please provide the year-end 2008 number of employees, with part-time and temporary shown separately.**

Response: The year-end 2008 number of employees company-wide was 342, of which 8 were temporary and 5 were part-time.

(Lundgren)

EXHIBITS

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 4.1

Return on Common Equity

Company	Order No.	Issued	ROE
St. Joe's Natural Gas	PSC-08-0436-PAA-GU	July 8, 2008	11.00%
FPUC Electric	PSC-08-0327-FOF-EI	May 19, 2008	11.00%
Sebring Gas	PSC-04-1260-PAA-GU	December 20, 2004	11.50%
FPUC Gas	PSC-04-1110-PAA-GU	November 8, 2004	11.25%
Indiantown Gas	PSC-04-0565-PAA-GU	June 2, 2004	11.50%
FPUC Electric	PSC-04-0369-AS-EI	April 6, 2004	11.50%
Florida City Gas	PSC-04-0128-PAA-GU	February 9, 2004	11.25%
Peoples Gas	PSC-03-0038-FOF-GU	January 6, 2003	11.25%
Indiantown Gas	PSC-02-1666-PAA-GU	November 26, 2002	11.50%
St. Joe's Natural Gas	PSC-01-1274-PAA-GU	June 8, 2001	11.50%
Florida City Gas	PSC-01-0316-PAA-GU	February 5, 2001	11.50%
Chesapeake Gas	PSC-00-2263-FOF-GU	November 28, 2000	11.50%

Source: FPSC web-site

COPY

EXHIBIT DC-RC 23

FLORIDA PUBLIC UTILITIES COMPANY

HISTORICAL INTEREST COVERAGE

Item	2003* ($000's)	2004 ($000's)	2005 ($000's)	2006 ($000's)	2007 ($000's)	
Operating Income After Tax	6,638	7,448	8,459	8,191	7,413	
Income Taxes	1,055	1,538	2,178	1,986	1,408	
Operating Income Before Taxes	7,693	8,986	10,637	10,177	8,821	
Interest Charges	4,488	4,462	4,568	4,608	4,870	
Before-Tax Interest Coverage	1.71	2.01	2.33	2.21	1.81	Average 2.02
After-tax Interest Coverage	1.48	1.67	1.85	1.78	1.52	1.66

* Excludes the Inpact of the Sale of the Water Division

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FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 5.1
Witness: COX

Consolidated Natural Gas
Analysis of Pre-Tax Interest Coverage
Projected 2009

Return on Equity 11.50%

		13 Mth Avg Jurisdictional Capital Structure	Adjustment for ROE Change	Adjusted	Ratio	Cost Rate	Weighted Cost Rate	Interest Charge			
1	Long Term Debt	25,861,386		25,861,386	0.3507	7.90%	2.77%	2,043,050	39.99%	7.90%	0.0316
2	Short Term Debt	7,363,771	0	7,363,771	0.0999	4.71%	0.47%	346,541	11.39%	4.71%	0.0054
3	Preferred Stock	320,500		320,500	0.0043	4.75%	0.02%		0.50%	4.75%	0.0002
4	Common Equity	31,130,696	0	31,130,696	0.4221	11.50%	4.85%		48.13%	11.50%	0.0554
5	Customer Deposits	6,181,495		6,181,495	0.0838	6.13%	0.51%	378,753			0.0926
6	Deferred Income Taxes	2,773,818		2,773,818	0.0376	0.00%	0.00%				
7	Tax Credits-Zero Cost	0		0	0.0000	0.00%	0.00%				
8	Tax Credits-Weighted Cost	115,553		115,553	0.0016	9.26%	0.01%	10,699			
9											
10	TOTAL	73,747,220	0	73,747,220	1.0000		8.63%	2,779,043			
11											
12											
13											
14											

		As Filed 11.75% Return on Equity			11.50% Return on Equity			Change	
15									
16									
17	Income Tax Rate								
18	0.3762	After Tax	Pre Tax		After Tax	Pre Tax		After Tax	Pre Tax
19									
20	Jurisdictional Adjusted Rate Base	73,747,220			73,747,220				
21	Rate of Return on Rate Base Requested	8.74%			8.63%				
22	Revenue Requirement	6,445,507	10,332,650		6,364,385	10,202,605		(81,122)	(130,045)
23	Interest Expense included in Rev Requirement	(2,779,182)	(2,779,182)		(2,779,043)	(2,779,043)			
24	Operating Income	3,666,325	7,553,468		3,585,342	7,423,562			
25	Add Interest Expense	2,779,182	2,779,182		2,779,043	2,779,043			
26	Earnings before Interest	EBI 6,445,507	10,332,650	EBIT	EBI 6,364,385	10,202,605	EBIT		
27									
28									
29									
30	**Interest Coverage:**	$_1$ **2.32**	**3.72** $_2$		$_1$ **2.29**	**3.67** $_2$		(0.03)	(0.05)
31									
32									
33									

Note: $_1$ Interest - Coverage Ratio (After-Tax): EBI = Earnings before Interest / Interest Expense

$_2$ Interest - Coverage Ratio (Pre-Tax): EBIT = Earnings before Interest and Taxes / Interest Expense

FPUC – Natural Gas
Docket No. 080366-GU
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Exhibit 6.1

Consolidated Natural Gas
Analysis of Pre-Tax Interest Coverage
Projected 2009

Return on Equity 11.00%

		13 Mth Avg Jurisdictional Capital Structure	Adjustment for ROE Change	Adjusted	Ratio	Cost Rate	Weighted Cost Rate	Interest Charge			
1	Long Term Debt	25,861,386		25,861,386	0.3507	7.90%	2.77%	2,043,050	39.99%	7.90%	0.0316
2	Short Term Debt	7,363,771	0	7,363,771	0.0999	4.71%	0.47%	346,541	11.39%	4.71%	0.0054
3	Preferred Stock	320,500		320,500	0.0043	4.75%	0.02%		0.50%	4.75%	0.0002
4	Common Equity	31,130,696	0	31,130,696	0.4221	11.00%	4.64%		48.13%	11.00%	0.0529
5	Customer Deposits	6,181,495		6,181,495	0.0838	6.13%	0.51%	378,753			0.0902
6	Deferred Income Taxes	2,773,818		2,773,818	0.0376	0.00%	0.00%				
7	Tax Credits-Zero Cost	0		0	0.0000	0.00%	0.00%				
8	Tax Credits-Weighted Cost	115,553		115,553	0.0016	9.02%	0.01%	10,421			
9											
10	TOTAL	73,747,220	0	73,747,220	1.0000		8.42%	2,778,765			
11											
12											
13											
14											
15											
16			As Filed 11.75% Return on Equity			11.00% Return on Equity			Change		
17	Income Tax Rate										
18	0.3762		After Tax	Pre Tax			After Tax	Pre Tax		After Tax	Pre Tax
19											
20	Jurisdictional Adjusted Rate Base		73,747,220				73,747,220				
21	Rate of Return on Rate Base Requested		8.74%				8.42%				
22	Revenue Requirement		6,445,507	10,332,650			6,209,516	9,954,338		(235,991)	(378,312)
23	Interest Expense included in Rev Requirement		(2,779,182)	(2,779,182)			(2,778,765)	(2,778,765)			
24	Operating Income		3,666,325	7,553,468			3,430,751	7,175,573			
25	Add Interest Expense		2,779,182	2,779,182			2,778,765	2,778,765			
26	Earnings before Interest	EBI	6,445,507	10,332,650	EBIT	EBI	6,209,516	9,954,338	EBIT		
27											
28											
29											
30	**Interest Coverage:**	[1]	**2.32**	**3.72**	[2]	[1]	**2.23**	**3.58**	[2]	(0.08)	(0.14)
31											
32											
33											
34	Note:	[1] Interest - Coverage Ratio (After-Tax):	EBI	Earnings before Interest / Interest Expense							
35											
36											
37		[2] Interest - Coverage Ratio (Pre-Tax):	EBIT	Earnings before Interest and Taxes / Interest Expense							
38											

FPUC – Natural Gas
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Exhibit 6.2

Consolidated Natural Gas
Analysis of Pre-Tax Interest Coverage
Projected 2009

Return on Equity 10.50%

		13 Mth Avg Jurisdictional Capital Structure	Adjustment for ROE Change	Adjusted	Ratio	Cost Rate	Weighted Cost Rate	Interest Charge			
1	Long Term Debt	25,861,386		25,861,386	0.3507	7.90%	2.77%	2,043,050	39.99%	7.90%	0.0316
2	Short Term Debt	7,363,771	0	7,363,771	0.0999	4.71%	0.47%	346,541	11.39%	4.71%	0.0054
3	Preferred Stock	320,500		320,500	0.0043	4.75%	0.02%		0.50%	4.75%	0.0002
4	Common Equity	31,130,696	0	31,130,696	0.4221	10.50%	4.43%		48.13%	10.50%	0.0505
5	Customer Deposits	6,181,495		6,181,495	0.0838	6.13%	0.51%	378,753			0.0878
6	Deferred Income Taxes	2,773,818		2,773,818	0.0376	0.00%	0.00%				
7	Tax Credits-Zero Cost	0		0	0.0000	0.00%	0.00%				
8	Tax Credits-Weighted Cost	115,553		115,553	0.0016	8.78%	0.01%	10,143			
9											
10	TOTAL	73,747,220	0	73,747,220	1.0000		8.21%	2,778,487			
11											
12											
13											
14											

		As Filed 11.75% Return on Equity			10.50% Return on Equity			Change	
15									
16									
17	Income Tax Rate								
18	0.3762	After Tax	Pre Tax		After Tax	Pre Tax		After Tax	Pre Tax
19									
20	Jurisdictional Adjusted Rate Base	73,747,220			73,747,220				
21	Rate of Return on Rate Base Requested	8.74%			8.21%				
22	Revenue Requirement	6,445,507	10,332,650		6,054,647	9,706,070		(390,860)	(626,579)
23	Interest Expense included in Rev Requirement	(2,779,182)	(2,779,182)		(2,778,487)	(2,778,487)			
24	Operating Income	3,666,325	7,553,468		3,276,160	6,927,584			
25	Add Interest Expense	2,779,182	2,779,182		2,778,487	2,778,487			
26	Earnings before Interest	EBI 6,445,507	10,332,650	EBIT	EBI 6,054,647	9,706,070	EBIT		
27									
28									
29									
30	**Interest Coverage:**	$_1$ **2.32**	**3.72** $_2$		$_1$ **2.18**	**3.49** $_2$		(0.14)	(0.22)
31									
32									
33									
34	Note:	$_1$ Interest - Coverage Ratio (After-Tax):	EBI	Earnings before Interest / Interest Expense					
35									
36									
37		$_2$ Interest - Coverage Ratio (Pre-Tax):	EBIT	Earnings before Interest and Taxes / Interest Expense					
38									

FPUC – Natural Gas
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FPSC – Data Request No.1
Exhibit 6.3

Consolidated Natural Gas
Analysis of Pre-Tax Interest Coverage
Projected 2009

Return on Equity 10.00%

		13 Mth Avg Jurisdictional Capital Structure	Adjustment for ROE Change	Adjusted	Ratio	Cost Rate	Weighted Cost Rate	Interest Charge			
1	Long Term Debt	25,861,386		25,861,386	0.3507	7.90%	2.77%	2,043,050	39.99%	7.90%	0.0316
2	Short Term Debt	7,363,771	0	7,363,771	0.0999	4.71%	0.47%	346,541	11.39%	4.71%	0.0054
3	Preferred Stock	320,500		320,500	0.0043	4.75%	0.02%		0.50%	4.75%	0.0002
4	Common Equity	31,130,696	0	31,130,696	0.4221	10.00%	4.22%		48.13%	10.00%	0.0481
5	Customer Deposits	6,181,495		6,181,495	0.0838	6.13%	0.51%	378,753			0.0854
6	Deferred Income Taxes	2,773,818		2,773,818	0.0376	0.00%	0.00%				
7	Tax Credits-Zero Cost	0		0	0.0000	0.00%	0.00%				
8	Tax Credits-Weighted Cost	115,553		115,553	0.0016	8.54%	0.01%	9,865			
9											
10	TOTAL	73,747,220	0	73,747,220	1.0000		8.00%	2,778,209			
11											
12											
13											
14											
15			As Filed								
16			11.75% Return on Equity			10.00%	Return on Equity		Change		
17	Income Tax Rate										
18	0.3762		After Tax	Pre Tax		After Tax	Pre Tax		After Tax	Pre Tax	
19											
20	Jurisdictional Adjusted Rate Base		73,747,220			73,747,220					
21	Rate of Return on Rate Base Requested		8.74%			8.00%					
22	Revenue Requirement		6,445,507	10,332,650		5,899,778	9,457,803		(545,729)	(874,847)	
23	Interest Expense included in Rev Requirement		(2,779,182)	(2,779,182)		(2,778,209)	(2,778,209)				
24	Operating Income		3,666,325	7,553,468		3,121,569	6,679,594				
25	Add Interest Expense		2,779,182	2,779,182		2,778,209	2,778,209				
26	Earnings before Interest	EBI	6,445,507	10,332,650 EBIT		EBI 5,899,778	9,457,803 EBIT				
27											
28											
29											
30	**Interest Coverage:**	1	**2.32**	**3.72** 2		1 **2.12**	**3.40** 2		(0.20)	(0.31)	
31											
32											
33											
34	Note:	1 Interest - Coverage Ratio (After-Tax):	EBI	Earnings before Interest							
35				Interest Expense							
36											
37		2 Interest - Coverage Ratio (Pre-Tax):	EBIT	Earnings before Interest and Taxes							
38				Interest Expense							
39											

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 6.4

Consolidated Natural Gas
Analysis of Pre-Tax Interest Coverage
Projected 2009

Return on Equity 9.50%

		13 Mth Avg Jurisdictional Capital Structure	Adjustment for ROE Change	Adjusted	Ratio	Cost Rate	Weighted Cost Rate	Interest Charge			
1	Long Term Debt	25,861,386		25,861,386	0.3507	7.90%	2.77%	2,043,050	39.99%	7.90%	0.0316
2	Short Term Debt	7,363,771	0	7,363,771	0.0999	4.71%	0.47%	346,541	11.39%	4.71%	0.0054
3	Preferred Stock	320,500		320,500	0.0043	4.75%	0.02%		0.50%	4.75%	0.0002
4	Common Equity	31,130,696	0	31,130,696	0.4221	9.50%	4.01%		48.13%	9.50%	0.0457
5	Customer Deposits	6,181,495		6,181,495	0.0838	6.13%	0.51%	378,753			0.0830
6	Deferred Income Taxes	2,773,818		2,773,818	0.0376	0.00%	0.00%				
7	Tax Credits-Zero Cost	0		0	0.0000	0.00%	0.00%				
8	Tax Credits-Weighted Cost	115,553		115,553	0.0016	8.30%	0.01%	9,586			
9											
10	TOTAL	73,747,220	0	73,747,220	1.0000		7.79%	2,777,931			
11											
12											
13											
14											

		As Filed 11.75% Return on Equity			9.50% Return on Equity			Change	
15									
16									
17	Income Tax Rate								
18	0.3762	After Tax	Pre Tax		After Tax	Pre Tax		After Tax	Pre Tax
19									
20	Jurisdictional Adjusted Rate Base	73,747,220			73,747,220				
21	Rate of Return on Rate Base Requested	8.74%			7.79%				
22	Revenue Requirement	6,445,507	10,332,650		5,744,908	9,209,536		(700,599)	(1,123,114)
23	Interest Expense included in Rev Requirement	(2,779,182)	(2,779,182)		(2,777,931)	(2,777,931)			
24	Operating Income	3,666,325	7,553,468		2,966,978	6,431,605			
25	Add Interest Expense	2,779,182	2,779,182		2,777,931	2,777,931			
26	Earnings before Interest	EBI 6,445,507	10,332,650	EBIT	EBI 5,744,908	9,209,536	EBIT		
27									
28									
29									
30	**Interest Coverage:**	$_1$ **2.32**	**3.72** $_2$		$_1$ **2.07**	**3.32** $_2$		(0.25)	(0.40)
31									
32									
33									
34	Note:	$_1$ Interest - Coverage Ratio (After-Tax):	EBI	Earnings before Interest / Interest Expense					
35									
36									
37		$_2$ Interest - Coverage Ratio (Pre-Tax):	EBIT	Earnings before Interest and Taxes / Interest Expense					
38									

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 6.5

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 12.1

ESTIMATED LT DEBT REDEMPTION ANALYSIS

First Mortgage Bonds	$ 10,000,000	9.57%	Due 5/1/2018

Redemption Terms prior to 5/1/2013:

Payment of 100% of Principal of Bonds to be Redeemed				10,000,000
Plus Premium equal to :	Present Value of:			
	Sinking Fund		8,222,826	
	Interest		5,046,763	
Minus	100% O/S Prin of Bond		(10,000,000)	
			3,269,589	
Multiply By	Prin Amt to be Redeemed	10,000,000	1	
	100% Prin of O/S	10,000,000		3,269,589
Total Estimated Amount Payable on Redemption 2007				13,269,589

Florida Public Utilities Make-Whole Premium Analysis

Par Amount	Due	Current Coupon	Discount Rate
$10,000,000	2018	9.57%	3.57000%
		$478,500	

Period	Date	Principal O/S	Principal	Interest	PV - PRIN	PV-INT	PV Multiplier
2	11/1/2007	$10,000,000	$0	$478,500	$0	$475,666	0.994076447
8	5/1/2008	$10,000,000	$909,000	$478,500	$887,653	$467,263	0.976515488
14	11/1/2008	$9,091,000	$0	$435,004	$0	$417,284	0.959264755
20	5/1/2009	$9,091,000	$909,000	$435,004	$856,568	$409,913	0.942318766
26	11/1/2009	$8,182,000	$0	$391,509	$0	$362,409	0.925672138
32	5/1/2010	$8,182,000	$909,000	$391,509	$826,572	$356,007	0.909319583
38	11/1/2010	$7,273,000	$0	$348,013	$0	$310,865	0.893255905
44	5/1/2011	$7,273,000	$909,000	$348,013	$797,626	$305,373	0.877476003
50	11/1/2011	$6,364,000	$0	$304,517	$0	$262,486	0.861974861
56	5/1/2012	$6,364,000	$909,000	$304,517	$769,694	$257,849	0.846747557
62	11/1/2012	$5,455,000	$0	$261,022	$0	$217,115	0.831789252
68	5/1/2013	$5,455,000	$909,000	$261,022	$742,740	$213,280	0.817095194
74	11/1/2013	$4,546,000	$0	$217,526	$0	$174,600	0.802660716
80	5/1/2014	$4,546,000	$909,000	$217,526	$716,729	$171,515	0.788481232
86	11/1/2014	$3,637,000	$0	$174,030	$0	$134,796	0.774552236
92	5/1/2015	$3,637,000	$909,000	$174,030	$691,630	$132,414	0.760869305
98	11/1/2015	$2,728,000	$0	$130,535	$0	$97,565	0.747428091
104	5/1/2016	$2,728,000	$909,000	$130,535	$667,410	$95,842	0.734224324
110	11/1/2016	$1,819,000	$0	$87,039	$0	$62,777	0.72125381
116	5/1/2017	$1,819,000	$909,000	$87,039	$644,038	$61,668	0.708512427
122	11/1/2017	$910,000	$0	$43,544	$0	$30,306	0.695996129
128	5/1/2018	$910,000	$910,000	$43,544	$622,168	$29,771	0.683700939
			$10,000,000		$8,222,826	$5,046,763	

Reinvestment Yield (Discount Rate as defined in $10 & $5 2018 Series)

Reinvestment Yield:
Aritmetic mean of the rates published in the Statistical Release under the caption "US Government Securities-Treasury Constant Maturities" for the maturity corresponding to the remaining Weighted Average Life to Maturity of the Bonds of the 2018 Series, plus if the date of such optional redemption is prior to May 1, 2003 the Reinvestment Yield shall be increased by one-half of one per centum (1/2 %)

Weighted Average Life to Maturity:
The number of years obtained by dividing the then Remaining Dollar-years of the Bonds of the 2018 Series by the then outstanding principal amount of the Bonds of the 2018 Series.

Remaining Dollar-years:
The amount obtained by (1) multiplying the amount of each then remaining sinking fund payment and the payment at final maturity, by the number of years (calculated at the nearest one twelfth) which will elapse between the date of determination of the Weighted Average Life to Maturity, of the Bonds of the 2018 Series and the date of payment and (2) totaling all the products obtained in (1).

$10M Bond

Treasury Constant Rate	5 Year	3.57%
Add .5% if prior to May 2003		0.00%
		3.57%

2018 2008 10

Remaining Dollar-years	50,005,000	=	5.0
O/S Principal of the Bonds	10,000,000		

Remaining Sinking Fund Payments	$909,000	0.0	-
	$909,000	1.0	909,000
	$909,000	2.0	1,818,000
	$909,000	3.0	2,727,000
	$909,000	4.0	3,636,000
	$909,000	5.0	4,545,000
	$909,000	6.0	5,454,000
	$909,000	7.0	6,363,000
	$909,000	8.0	7,272,000
	$909,000	9.0	8,181,000
Payment at Full Maturity	$910,000	10.0	9,100,000
			50,005,000

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 12.3

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 12.4

ESTIMATED LT DEBT REDEMPTION ANALYSIS

First Mortgage Bonds	$	5,500,000	10.03%	Due 5/1/2018

Redemption Terms prior to 5/1/2013:

Payment of 100% of Principal of Bonds to be Redeemed				5,500,000
Plus Premium equal to :	Present Value of:			
	Sinking Fund		4,522,630	
	Interest		2,908,928	
Minus	100% O/S Prin of Bond		(5,500,000)	
			1,931,558	
Multiply By	Prin Amt to be Redeemed	5,500,000	1	
	100% Prin of O/S	5,500,000		1,931,558
Total Estimated Amount Payable on Redemption 2007				7,431,558

Florida Public Utilities Make-Whole Premium Analysis

Par Amount	Due	Current Coupon	Discount Rate
$5,500,000	2018	10.03%	3.57000%
		$275,825	

Period	Date		Principal	Interest	PV - PRIN	PV-INT	PV Multiplier
2	11/1/2007	$5,500,000	$0	$275,825	$0	$274,191	0.994076447
8	5/1/2008	$5,500,000	$500,000	$275,825	$488,258	$269,347	0.976515488
14	11/1/2008	$5,000,000	$0	$250,750	$0	$240,536	0.959264755
20	5/1/2009	$5,000,000	$500,000	$250,750	$471,159	$236,286	0.942318766
26	11/1/2009	$4,500,000	$0	$225,675	$0	$208,901	0.925672138
32	5/1/2010	$4,500,000	$500,000	$225,675	$454,660	$205,211	0.909319583
38	11/1/2010	$4,000,000	$0	$200,600	$0	$179,187	0.893255905
44	5/1/2011	$4,000,000	$500,000	$200,600	$438,738	$176,022	0.877476003
50	11/1/2011	$3,500,000	$0	$175,525	$0	$151,298	0.861974861
56	5/1/2012	$3,500,000	$500,000	$175,525	$423,374	$148,625	0.846747557
62	11/1/2012	$3,000,000	$0	$150,450	$0	$125,143	0.831789252
68	5/1/2013	$3,000,000	$500,000	$150,450	$408,548	$122,932	0.817095194
74	11/1/2013	$2,500,000	$0	$125,375	$0	$100,634	0.802660716
80	5/1/2014	$2,500,000	$500,000	$125,375	$394,241	$98,856	0.788481232
86	11/1/2014	$2,000,000	$0	$100,300	$0	$77,688	0.774552236
92	5/1/2015	$2,000,000	$500,000	$100,300	$380,435	$76,315	0.760869305
98	11/1/2015	$1,500,000	$0	$75,225	$0	$56,225	0.747428091
104	5/1/2016	$1,500,000	$500,000	$75,225	$367,112	$55,232	0.734224324
110	11/1/2016	$1,000,000	$0	$50,150	$0	$36,171	0.72125381
116	5/1/2017	$1,000,000	$500,000	$50,150	$354,256	$35,532	0.708512427
122	11/1/2017	$500,000	$0	$25,075	$0	$17,452	0.695996129
128	5/1/2018	$500,000	$500,000	$25,075	$341,850	$17,144	0.683700939
			$5,500,000		$4,522,630	$2,908,928	

Reinvestment Yield (Discount Rate as defined in $10 & $5 2018 Series)

Reinvestment Yield:
Aritmetic mean of the rates published in the Statistical Release under the caption "US Government Securities-Treasury Constant Maturities" for the maturity corresponding to the remaining Weighted Average Life to Maturity of the Bonds of the 2018 Series, plus if the date of such optional redemption is prior to May 1, 2003 the Reinvestment Yield shall be increased by one-half of one per centum (1/2 %)

$5.5M Bond

Treasury Constant Rate	5 Year	3.57%
Add .5% if prior to May 2003		0.00%
		3.57%

Weighted Average Life to Maturity:
The number of years obtained by dividing the then Remaining Dollar-years of the Bonds of the 2018 Series by the then outstanding principal amount of the Bonds of the 2018 Series.

2018 2008 10

Remaining Dollar-years	27,500,000	=	5.0
O/S Principal of the Bonds	5,500,000		

Remaining Dollar-years:
The amount obtained by (1) multiplying the amount of each then remaining sinking fund payment and the payment at final maturity, by the number of years (calculated at the nearest one twelfth) which will elapse between the date of determination of the Weighted Average Life to Maturity, of the Bonds of the 2018 Series and the date of payment and (2) totaling all the products obtained in (1).

Remaining Sinking Fund Payments	$500,000	0.0	-
	$500,000	1.0	500,000
	$500,000	2.0	1,000,000
	$500,000	3.0	1,500,000
	$500,000	4.0	2,000,000
	$500,000	5.0	2,500,000
	$500,000	6.0	3,000,000
	$500,000	7.0	3,500,000
	$500,000	8.0	4,000,000
	$500,000	9.0	4,500,000
Payment at Full Maturity	$500,000	10.0	5,000,000
			27,500,000

FPUC – Natural Gas
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ESTIMATED LT DEBT REDEMPTION ANALYSIS

First Mortgage Bonds	$ 8,000,000	9.08%	Due 6/1/2022	

Redemption Terms on or after 6/1/1998 as per Section 1.03:

1) Payment of 100% of Principal			$ 8,000,000
2) Interest accrued to the date of redemption			
3) Make-Whole Premium:			
Excess if any, of			
(i) PV of Principal & Interest (excl interest to date of redemption)			
	Prin	$3,781,443	
and	Int	$7,643,044	
		$11,424,487	
over (ii) 100% Principal Outstanding being redeemed:		$ 8,000,000	$3,424,487
Total Payable at Redemption			$ 11,424,487

Note: If the Reinvestment Rate is equal to or higher than 9.08% the Make-Whole Premium shall be zero.

Florida Public Utilities Make-Whole Premium Analysis

Par Amount	Current Coupon	Discount Rate	
$8,000,000	9.08%	5.12000%	Reinvestment Rate (see calc details)
	$363,200		

Period	Date	Principal	Interest	PV	PV Multiplier
2	12/1/2007	$0	$363,200	$360,120.42	0.991520971
8	6/1/2008	$0	$363,200	$351,037.45	0.966512814
14	12/1/2008	$0	$363,200	$342,183.58	0.942135414
20	6/1/2009	$0	$363,200	$333,553.02	0.91837286
26	12/1/2009	$0	$363,200	$325,140.14	0.895209646
32	6/1/2010	$0	$363,200	$316,939.45	0.872630655
38	12/1/2010	$0	$363,200	$308,945.60	0.850621152
44	6/1/2011	$0	$363,200	$301,153.37	0.829166772
50	12/1/2011	$0	$363,200	$293,557.68	0.808253516
56	6/1/2012	$0	$363,200	$286,153.56	0.787867733
62	12/1/2012	$0	$363,200	$278,936.19	0.767996122
68	6/1/2013	$0	$363,200	$271,900.86	0.748625712
74	12/1/2013	$0	$363,200	$265,042.97	0.729743863
80	6/1/2014	$0	$363,200	$258,358.05	0.711338253
86	12/1/2014	$0	$363,200	$251,841.74	0.693396869
92	6/1/2015	$0	$363,200	$245,489.79	0.675908002
98	12/1/2015	$0	$363,200	$239,298.04	0.658860241
104	6/1/2016	$0	$363,200	$233,262.46	0.642242458
110	12/1/2016	$0	$363,200	$227,379.11	0.626043809
116	6/1/2017	$0	$363,200	$221,644.15	0.610253723
122	12/1/2017	$0	$363,200	$216,053.84	0.594861894
128	6/1/2018	$0	$363,200	$210,604.53	0.579858279
134	12/1/2018	$0	$363,200	$205,292.66	0.565233085
140	6/1/2019	$0	$363,200	$200,114.76	0.550976767
146	12/1/2019	$0	$363,200	$195,067.46	0.537080023
152	6/1/2020	$0	$363,200	$190,147.47	0.523533783
158	12/1/2020	$0	$363,200	$185,351.57	0.510329206
164	6/1/2021	$0	$363,200	$180,676.63	0.497457675
170	12/1/2021	$0	$363,200	$176,119.60	0.48491079
176	6/1/2022	$8,000,000	$363,200	$171,677.51	0.472680363
		$8,000,000	$10,896,000	$7,643,043.67	
			PV of Principal	$3,781,442.90	

Reinvestment Rate - $8M

Reinvestment Rate (as defined in $8M 2022 Series)

$8M Bond

Reinvestment Rate Calculation:

The sum of

i 0.50% plus

ii the arithmetic mean of the yields under the respective headings "This Week" and "Last Week" published in the Statistical Release under the caption "Treasury Constant Maturities" for the maturity corresponding to the remaining term of the Bonds of the 2022 Series (rounded to the nearest month). Use most current Statistical Release *See Agreement for more details*

If the Reinvestment Rate is equal to or higher than 9.08% the Make-Whole Premium shall be zero.

Reinvestment Rate Calculation:

	0.50%
Average of Treasury Constant Maturities	4.62%
Reinvestment Rate Calculation:	5.12%

Treasury Constant Maturities

"This Week"	12/21/2007	4.66%
"Last Week"	12/28/2007	4.58%
Average of Treasury Constant Maturities		4.62%

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FLORIDA PUBLIC UTILITIES
Long-Term Debt Redemption Analysis:
As of December 31, 2007
First Mortgage Bond Series:

	Issue Date	Due	Principal	Call Dates On or before	Call Dates After	Estimated Call Premium	Total Payable	Estimated Unamortized Issuance Cost
			$			$	$	$
9.57%	1988	5/1/2018	**10,000,000**	5/1/2013		3,269,589	13,269,589	38,459
10.03%	1988	5/1/2018	**5,500,000**	5/1/2013		1,931,558	7,431,558	20,702
9.08%	1992	6/1/2022	**8,000,000**		6/1/1998	3,424,487	11,424,487	58,968

Note: This analysis does not take into account the additional cost of re-financing the debt.

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Exhibit 12.10

FLORIDA PUBLIC UTILITIES
Long-Term Mortgage Bonds - Issuance Costs Unamortized Debt

First Mortgage Bond Series:

	Issue Date	Due	Principal	Issuance Cost	Balance 2006	Annual Amortization Estimated 2007	Annual Amortization Estimated 2008	Estimated Unamortized Issuance Balance Estimated 2007	Estimated Unamortized Issuance Balance Estimated 2008
9.57%	1988	2018	$ 10,000,000	$ 180,273	$ 45,671	$ 7,212	$ 7,211	$ 38,459	$ 31,248
10.03%	1988	2018	$ 5,500,000	$ 97,070	$ 24,590	$ 3,888	$ 3,883	$ 20,702	$ 16,819
9.08%	1992	2022	$ 8,000,000	$ 121,967	$ 63,036	$ 4,068	$ 4,067	$ 58,968	$ 54,901
6.85%	2001	2031	$ 15,000,000	$ 1,208,670	$ 997,152	$ 40,284	$ 40,289	$ 956,868	$ 916,579
4.90%	2001	2031	$ 14,000,000	$ 817,533	$ 667,269	$ 26,832	$ 26,822	$ 640,437	$ 613,615
			$ 52,500,000	$ 2,425,513	$ 1,797,718	$ 82,284	$ 82,271	$ 1,715,434	$ 1,633,163

FPUC – Natural Gas
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FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 23.1

FLORIDA PUBLIC UTILITIES
CONSOLIDATED BALANCE SHEET
PERIOD ENDED 12/31/2006
REPORT NAME: 10QCONSBS
DATE: 2/27/2007
USER: ALUNDGREN
10Q CONSOLIDATED BALANCE SHEET

DESCRIPTION	ACCT	FPU	Propane	RE/EL	NOTE	CONSOLIDATEI
ASSETS						
UTILITY PLANT:						
ELECTRIC		72,772,608	-	3,690	A	72,776,298
NATURAL & BOTTLED GAS		94,128,857	17,153,448	1,263,777	A	112,546,082
WATER		-	-	-	B	-
PLANT ACQUISITION ADJS.	1140	1,267,467	-	(1,267,467)	A	-
COMMON PLANT		3,646,424	-	-		3,646,424
TOTAL		171,815,356	17,153,448	-		188,968,804
LESS ACCUM. DEPR. & AMORT		(63,596,056)	(4,960,846)	8,799,830	B	(59,757,072)
NET UTILITY PLANT		108,219,300	12,192,602	8,799,830		129,211,732
NET OTHER PLANT	1210,1220	8,436	-	-		8,436
INVEST IN ASSOC. CO.	1230	10,000	-	(10,000)	C	-
CURRENT ASSETS:						
CASH	1310	46,668	-	36,970	D	83,638
WORKING FUNDS	1350	33,700	3,270	(36,970)	D	-
SPEC DEP-OTHER	1320-1340	3,364,143	-	-		3,364,143
ACCOUNTS REC	1420-1430,1720	9,608,544	1,725,882	864,902	D	12,199,328
NOTES REC	1410	-	-	297,940		297,940
ALLOW FOR UNCOLL ACCTS	1440	(364,980)	(64,399)	-		(429,379)
RECEIVABLES ASSOC. COS.	1460	13,389,885	-	(13,389,885)	E	-
OTHER INVESTMENTS	1240,1280	6,013,238	24,208	(297,940)		5,739,506
MAT & SUPPLY	151,154-156,163	1,954,014	2,166,364	-		4,120,378
PREPAYMENTS-INS & PEN	1650	961,438	-	-		961,438
PREPAYMENTS - OTHER - I/T		-	692	97,461	G	98,153
UNBILLED REVENUES	1730	1,617,666	339,173	-		1,956,839
TOTAL		36,624,316	4,195,190	(12,427,522)		28,391,984
DEFERRED DEBITS						
GOODWILL	1140.2	552,803	1,852,435	-		2,405,238
SPECIAL LT DEPOSITS	1340.1	317,836	-	-		317,836
INTANG ASSETS-NET	1010.3031	3,418,304	986,865	-		4,405,169
UNAMORTIZED DEBT EXP	1810	1,797,719	-	(1,797,719)		-
PREPAY PENSIONS-RETIRE	1650.3	-	-	-		-
CLEARING ACCOUNTS	184*	-	-	-		-
TEMPORARY FACILITIES	1850	12,836	-	-		12,836
OTHER WORK IN PROGRESS	1860.1	475,117	-	-	I	475,117
MISC. DEFERRED DEBITS	1860	5,472,737	-	-		5,472,737
OTHER REG ASSETS-STORM	1820.32	270,039	-	-		270,039
OTHER REG ASSET-ENVIRON	1820.3	8,283,991	-	-		8,283,991
OTHER REG ASSET-RETIRE	1820.2	586,679	-	-		586,679
UNDERREC FUEL	1860.21	1,707,678	-	(845,464)	F	862,214
UNDERREC CON & UNBUND	1860.6&7	-	-	-		-
UNAMORT LOSS/REACQD DEBT	1890	208,741	-	-		208,741
REGULATORY ASSETS	1901	-	-	-		-
ACCUM DEFERRED INC TAX	1900	4,252,811	183,576	(4,436,387)	H	-
TOTAL		27,357,291	3,022,876	(7,079,570)		23,300,597
TOTAL ASSETS		172,219,343	19,410,668	(10,717,262)		180,912,749

LIABILITIES

CAPITALIZATION:					
COMMON STOCK	2010	9,250,472	10,000	(10,000)	C	9,250,472
PREMIUM ON COMMON	2070	5,542,986	-	-		5,542,986
MISC PAID IN CAPITAL	2110	938,906	-	-		938,906
RETAINED EARNINGS	2160	32,783,799	2,429,056	-		35,212,855
CAP STOCK EXP & DIS	2130-2150	(428,441)	-	-		(428,441)
TREASURY STOCK	2170	(2,841,531)	-	-	C	(2,841,531)
COMPREHENSIVE INCOME	2190	(102,777)	-	-	C	(102,777)
COMMON SHARE EQUITY		45,143,414	2,439,056	(10,000)		47,572,470
PREFERRED STOCK - A	2040	600,000	-	-		600,000
LONG TERM DEBT	2210,2240	52,500,000	-	(1,797,719)		50,702,281
TOTAL CAPITALIZATION		98,243,414	2,439,056	(1,807,719)		98,874,751
CURRENT LIABILITIES:						
L-T DEBT - CURRENT		-	-	-		-
NOTES PAYABLE	2310	3,466,000	-	-		3,466,000
ACCOUNTS PAYABLE	2320	10,278,572	-	-	D	10,278,572
PAYABLES TO ASSOC CO		-	13,389,885	(13,389,885)	E	-
CUSTOMER DEPOSITS	2350	8,024,474	718,150	864,902		9,607,526
TAXES ACCRUED	2360	1,962,101	(1,483,455)	97,461	G	576,107
INTEREST ACCRUED	2370	787,294	1,769	-		789,063
DIVIDENDS DECLARED	2380	652,802	-	-	D	652,802
TAX COLLECTIONS PAYABLE	2410	640,490	60,547	-		701,037
VACATION PAY ACCRUED	2420	1,198,162	-	-		1,198,162
INSURANCE ACCRUED	2280	181,443	-	-		181,443
RATE REFUND	2420,2290	721,500	-	-		721,500
MISC. CURRENT LIABS.	2420	142,604	-	150,589		293,193
INACT DIVIDEND CHECKS	2420.2	-	-	-		-
TOTAL		28,055,442	12,686,896	(12,276,933)		28,465,405
DEFERRED CREDITS:						
OVERREC. FUEL	2530.21	4,501,485	-	(845,464)	F	3,656,021
OVERREC CON & UNBUND	2530.6&7	355,325	-	-		355,325
MIS DEF -ENV INS PRO	2530.3	13,753,006	-	-	I	13,753,006
STORM DAMAGE RESERVE	2280.11	1,636,118	-	-		1,636,118
COST OF REMOVAL		-	-	8,799,830		8,799,830
MED & PENSION RESERVE	2280.3	4,881,025	-	(150,589)		4,730,436
CUST ADVANCES-CONSTR	2520.1	2,314,703	392,376	-		2,707,079
UNAMORTIZED I.T.C.	2550.1	335,146	-	-		335,146
OTHER DEF CR	2530.1,4	40,653	-	-		40,653
DEF. TAXES CURRENT		-	-	579,000		579,000
REGULATORY LIABILITIES	2821	876,346	-	-		876,346
CONTRIB IN AID	2710,2720	-	-	-	B	-
TOTAL		28,693,807	392,376	8,382,777		37,468,960
ROUNDING		1	-	-		1
ACCUM DEF I/T	2820,2830	17,226,680	3,892,340	(5,015,387)		16,103,633
TOTAL LIABILITIES		172,219,343	19,410,668	(10,717,262)		180,912,749

FPUC – Natural Gas
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Exhibit 23.2

FLORIDA PUBLIC UTILITIES
CONSOLIDATED BALANCE SHEET
PERIOD ENDED 12/31/2007
REPORT NAME: 10QCONSBS
DATE: 2/04/2008
USER: ALUNDGREN
10Q CONSOLIDATED BALANCE SHEET

DESCRIPTION	ACCT	FPU	Propane	RE/EL	NOTE	CONSOLIDATED
ASSETS						
UTILITY PLANT:						
ELECTRIC		76,516,511	-	3,690	A	76,520,201
NATURAL & BOTTLED GAS		103,506,493	17,141,403	1,263,777	A + K	121,911,673
WATER		-	-	-	K	-
PLANT ACQUISITION ADJS.	1140	1,267,467	-	(1,267,467)	A	-
COMMON PLANT		3,952,230	-	-		3,952,230
TOTAL		185,242,701	17,141,403	-		202,384,104
LESS ACCUM. DEPR. & AMORT		(68,129,897)	(5,240,985)	9,358,947	M	(64,011,935)
NET UTILITY PLANT		117,112,804	11,900,418	9,358,947		138,372,169
NET OTHER PLANT	1210,1220	8,436	-	-		8,436
INVEST IN ASSOC. CO.	1230	10,000	-	(10,000)	C	-
CURRENT ASSETS:						
CASH	1310	3,442,010	-	35,688	D	3,477,698
WORKING FUNDS	1350	33,738	1,950	(35,688)	D	-
SPEC DEP-OTHER	1320-1340	3,444,258	-			3,444,258
Special Deposits - Dividend funds		-				-
ACCOUNTS REC	1420-1430,1720	9,174,543	1,982,670	1,112,309	P	12,269,522
NOTES REC	1410	-	-	298,411	L	298,411
ALLOW FOR UNCOLL ACCTS	1440	(264,805)	(61,361)	-		(326,166)
RECEIVABLES ASSOC. COS.	1460	15,251,882	-	(15,251,882)	E	-
OTHER INVESTMENTS	1240,1280	5,920,083	-	(298,411)	L	5,621,672
MAT & SUPPLY	151,154-156,163	1,903,928	2,346,847	-		4,250,775
PREPAYMENTS-INS & PEN	1650	860,951	-	-		860,951
PREPAYMENTS - OTHER - I/T		-	-	0	G	-
UNBILLED REVENUES	1730	1,505,850	373,052	-		1,878,902
Deferred tax asset - current				949,000		949,000
TOTAL		41,272,438	4,643,158	(13,190,573)		32,725,023
DEFERRED DEBITS						
GOODWILL	1140.2	552,803	1,852,435	-		2,405,238
SPECIAL LT DEPOSITS	1340.1	317,836	-			317,836
INTANG ASSETS-NET	1010.3031	3,464,350	965,521	-	K	4,429,871
UNAMORTIZED DEBT EXP	1810	1,718,480	-	(1,718,480)	O	-
PREPAY PENSIONS-RETIRE	1650.3	-	-			-
CLEARING ACCOUNTS	184*	-	-	-		-
TEMPORARY FACILITIES	1850	14,060	-	-		14,060
OTHER WORK IN PROGRESS	1860.1	583,235	-			583,235
MISC. DEFERRED DEBITS	1860	5,644,078	688		I	5,644,766
OTHER REG ASSETS-STORM	1820.32	-	-			-
OTHER REG ASSET-ENVIRON	1820.3	7,652,656	-			7,652,656
OTHER REG ASSET-RETIRE	1820.2	(563,747)	-	563,747		-
UNDERREC FUEL	1860.21	1,079,935	-	(1,079,935)	F	-
UNDERREC CON & UNBUND	1860.6&7	-	-	-	J	-
UNAMORT LOSS/REACQD DEBT	1890	190,458	-			190,458
REGULATORY ASSETS	1901	-	-	-		-
ACCUM DEFERRED INC TAX	1900	4,493,908	62,142	(4,556,050)	H	-
TOTAL		25,148,052	2,880,786	(6,790,718)		21,238,120
TOTAL ASSETS		183,709,993	19,448,666	(10,632,344)		192,343,748

LIABILITIES					
CAPITALIZATION:					
COMMON STOCK 2010	9,274,975	10,000	(10,000)	C	9,274,975
PREMIUM ON COMMON 2070	5,722,679	-	-		5,722,679
MISC PAID IN CAPITAL 2110	781,403	-	-		781,403
RETAINED EARNINGS 2160	34,947,834	849,603	-		35,797,437
CAP STOCK EXP & DIS 2130-2150	(428,441)	-	-		(428,441)
TREASURY STOCK 2170	(2,289,976)	-	-	C	(2,289,976)
COMPREHENSIVE INCOME 2190	87,528	-			87,528
COMMON SHARE EQUITY	48,096,002	859,603	(10,000)		48,945,605
PREFERRED STOCK - A 2040	600,000	-	-		600,000
LONG TERM DEBT 2210,2240	52,490,000	-	(1,718,480)	O	50,771,520
TOTAL CAPITALIZATION	101,186,002	859,603	(1,728,480)		100,317,125
CURRENT LIABILITIES:					
L-T DEBT - CURRENT	-	-	-		-
NOTES PAYABLE 2310	11,122,000	-	-		11,122,000
ACCOUNTS PAYABLE 2320	9,844,914	-	55,581	D	9,900,495
PAYABLES TO ASSOC CO	-	15,251,882	(15,251,882)	E	-
CUSTOMER DEPOSITS 2350	8,685,537	804,803	1,056,728	P	10,547,068
TAXES ACCRUED 2360	2,910,324	(1,570,271)	0	G	1,340,053
INTEREST ACCRUED 2370	1,162,077	1,510	-		1,163,587
DIVIDENDS DECLARED 2380	688,174	-	-		688,174
TAX COLLECTIONS PAYABLE 2410	750,142	77,845	-		827,987
VACATION PAY ACCRUED 2420	1,289,281	-	-		1,289,281
INSURANCE ACCRUED 2280	217,991	-	-		217,991
RATE REFUND 2420,2290	26,325	-	-		26,325
MISC. CURRENT LIABS. 2420	171,787	-	1,958,717	R	2,130,504
INACT DIVIDEND CHECKS 2420.2	-	-	-		-
TOTAL	36,868,552	14,565,769	(12,180,857)		39,253,464
DEFERRED CREDITS:					
OVERREC. FUEL 2530.21	3,840,782	-	(1,079,935)	F	2,760,847
OVERREC CON & UNBUND 2530.6&7	446,380	-	-	J	446,380
MIS DEF -ENV INS PRO 2530.3	13,629,402	-	(1,379,400)	I, R	12,250,002
STORM DAMAGE RESERVE 2280.11	2,387,270	-			2,387,270
COST OF REMOVAL	-	-	9,358,947	M	9,358,947
MED & PENSION RESERVE 2280.3	4,905,229	-	(88,176)	R	4,817,053
CUST ADVANCES-CONSTR 2520.1	2,898,337	90,163	(491,141)	R	2,497,359
UNAMORTIZED I.T.C. 2550.1	266,236	-	-		266,236
OTHER DEF CR 2530.1,4	-	-	-		-
DEF. TAXES CURRENT	-	-	-		-
Other Regulatory Liabilities - retirement plan			563,747		563,747
REGULATORY LIABILITIES 2821	795,551	-	-		795,551
CONTRIB IN AID 2710,2720	-	-	-		-
TOTAL	29,169,187	90,163	6,884,042		36,143,392
ROUNDING	4	1	-		5
ACCUM DEF I/T 2820,2830	16,327,989	3,908,827	(3,607,050)	H	16,629,766
TOTAL LIABILITIES	183,709,993	19,448,666	(10,632,344)		192,343,748

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 23.3

FLORIDA PUBLIC UTILITIES
CONSOLIDATED BALANCE SHEET
PERIOD ENDED 12/31/2008
REPORT NAME: 10QCONSBS
DATE: 1/24/2009
USER: ALUNDGREN
10Q CONSOLIDATED BALANCE SHEET

DESCRIPTION ACCT	FPU	Propane	RE/EL	NOT	CONSOLIDATED
ASSETS					
UTILITY PLANT:					
ELECTRIC	79,663,463	-	3,690	A	79,667,153
NATURAL & BOTTLED GAS	108,234,496	17,267,475	1,263,777	A	126,765,748
WATER	-	-	-	K	-
PLANT ACQUISITION ADJS. 1140	1,267,467	-	(1,267,467)	A	-
COMMON PLANT	4,186,971	-	-		4,186,971
TOTAL	193,352,397	17,267,475	-		210,619,872
LESS ACCUM. DEPR. & AMORT	(73,050,956)	(5,557,215)	10,303,991	M	(68,304,180)
NET UTILITY PLANT	120,301,441	11,710,260	10,303,991		142,315,692
NET OTHER PLANT 1210,1220	8,436	-	-		8,436
INVEST IN ASSOC. CO. 1230	10,000	-	(10,000)	C	-
CURRENT ASSETS:					
CASH 1310	2,961,407	-	35,650	D	2,997,057
WORKING FUNDS 1350	35,650	-	(35,650)	D	-
SPEC DEP-OTHER 1320-1340	3,506,509	-		Q	3,506,509
ACCOUNTS REC 1420-1430,1720	11,708,653	1,646,962	1,047,920	P	14,403,535
NOTES REC 1410	-	-	252,000	L	252,000
ALLOW FOR UNCOLL ACCTS 1440	(362,993)	(92,268)	-		(455,261)
RECEIVABLES ASSOC. COS. 1460	14,712,473	-	(14,712,473)	E	-
OTHER INVESTMENTS 1240,1280	5,871,015	-	(252,000)	L	5,619,015
MAT & SUPPLY 151,154-156,163	1,925,522	2,035,957	-		3,961,479
PREPAYMENTS-INS & PEN 1650	1,036,785	-	-		1,036,785
PREPAYMENTS - OTHER - I/T 2360.8 & 9	-	-	1,780,117	G	1,780,117
UNBILLED REVENUES 1730	1,714,063	327,158	-		2,041,221
Regulatory Assets - environmental, current			456,348		456,348
Deferred Charges - Current			284,534		284,534
Deferred Income Tax - current			513,000	H	513,000
TOTAL	43,109,084	3,917,809	(10,630,554)		36,396,339
DEFERRED DEBITS					
GOODWILL 1140.2	552,803	1,852,435	-		2,405,238
SPECIAL LT DEPOSITS 1340.1	130,306	-	(130,306)	Q	-
INTANG ASSETS-NET 1010.3031	3,113,321	944,556	-	K	4,057,877
UNAMORTIZED DEBT EXP 1810	1,636,839	-	(1,636,839)	O	-
PREPAY PENSIONS-RETIRE 1650.3	-	-			-
CLEARING ACCOUNTS 184*	-	-	-		-
TEMPORARY FACILITIES 1850	(3,698)	-	3,698		-
OTHER WORK IN PROGRESS 1860.1	959,728	-	(139,642)		820,086
MISC. DEFERRED DEBITS 1860	5,434,394	1,768		I	5,436,162
OTHER REG ASSETS-STORM 1820.32	-	-			-
OTHER REG ASSET-ENVIRON 1820.3	7,092,508	-	(456,348)		6,636,160
OTHER REG ASSET-RETIRE 1820.2	9,944,514	-	-	N	9,944,514
UNDERREC FUEL 1860.21	2,240,442	-	(1,484,368)	F	756,074
UNDERREC CON & UNBUND 1860.6&7	26,890	-	(26,890)	J	-
UNAMORT LOSS/REACQD DEBT 1890	172,174	-	(18,284)		153,890
REGULATORY ASSETS 1901	-	-	-		-
ACCUM DEFERRED INC TAX 1900	5,648,204	100,968	(5,749,172)	H	-
TOTAL	36,948,425	2,899,727	(9,638,151)		30,210,001
TOTAL ASSETS	200,377,386	18,527,796	(9,974,714)		208,930,468

LIABILITIES					
CAPITALIZATION:					
COMMON STOCK	2010	9,299,105	10,000	(10,000) C	9,299,105
PREMIUM ON COMMON	2070	5,890,209	-	-	5,890,209
MISC PAID IN CAPITAL	2110	602,822	-	-	602,822
RETAINED EARNINGS	2160	34,979,795	1,444,205	-	36,424,000
CAP STOCK EXP & DIS	2130-2150	(428,441)	-	-	(428,441)
TREASURY STOCK	2170	(1,725,042)	-	- C	(1,725,042)
COMPREHENSIVE INCOME	2190	(1,550,599)	-		(1,550,599)
COMMON SHARE EQUITY		47,067,849	1,454,205	(10,000)	48,512,054
PREFERRED STOCK - A	2040	600,000	-	-	600,000
LONG TERM DEBT	2210,2240	50,966,000	-	(3,045,839) O	47,920,161
TOTAL CAPITALIZATION		98,633,849	1,454,205	(3,055,839)	97,032,215
CURRENT LIABILITIES:					
L-T DEBT - CURRENT		-	-	1,409,000 O	1,409,000
NOTES PAYABLE	2310	12,747,000	-	-	12,747,000
ACCOUNTS PAYABLE	2320	11,479,972	-	803 D	11,480,775
PAYABLES TO ASSOC CO	2340	-	14,712,473	(14,712,473) E	-
CUSTOMER DEPOSITS	2350	9,203,611	847,778	1,047,117 P	11,098,506
TAXES ACCRUED	2360	551,512	(1,716,341)	1,780,117 G	615,288
INTEREST ACCRUED	2370	1,079,676	1,339	-	1,081,015
DIVIDENDS DECLARED	2380	724,077	-	- D	724,077
TAX COLLECTIONS PAYABLE	2410	1,228,989	57,266	-	1,286,255
VACATION PAY ACCRUED	2420	1,439,639	-	-	1,439,639
INSURANCE ACCRUED	2280	264,922	-	-	264,922
RATE REFUND	2420,2290	-	-	-	-
MISC. CURRENT LIABS.	2420	253,298	-	1,598,970 I	1,852,268
INACT DIVIDEND CHECKS	2420.2	-	-	-	-
TOTAL		38,972,696	13,902,515	(8,876,466)	43,998,745
DEFERRED CREDITS:					
OVERREC. FUEL	2530.21	3,092,639	-	(1,484,368) F	1,608,271
OVERREC CON & UNBUND	2530.6&7	384,243	-	(26,890) J	357,353
MIS DEF -ENV INS PRO	2530.3	13,428,603	-	(774,000) I	12,654,603
STORM DAMAGE RESERVE	2280.11	2,417,615	-		2,417,615
COST OF REMOVAL		-	-	10,303,991 M	10,303,991
MED & PENSION RESERVE	2280.3	19,449,937	-	(98,355) I	19,351,582
CUST ADVANCES-CONSTR	2520.1	3,132,585	70,325	(726,615) I	2,476,295
UNAMORTIZED I.T.C.	2550.1	202,797	-	-	202,797
OTHER DEF CR	2530.1,4	-	-	-	-
DEF. TAXES CURRENT		-	-	- H	-
Other Reg Liabilities - retirement	2530.8			- N	-
REGULATORY LIABILITIES	2821	707,149	-	-	707,149
CONTRIB IN AID	2710,2720	-	-	-	-
TOTAL		42,815,568	70,325	7,193,763	50,079,656
ROUNDING		(24)	27	-	3
ACCUM DEF I/T	2820,2830	19,955,273	3,100,751	(5,236,172) H	17,819,852
TOTAL LIABILITIES		200,377,386	18,527,796	(9,974,714)	208,930,468

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 24.1

Florida Public Utilities
Budgeted Capital Expenditures
2008 & 2009

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 24.1

	2008 CONSOLIDATED TOTAL	2008 REGULATED NATURAL GAS	2008 REGULATED ELECTRIC	2008 NON-REGULATED
Common	652,300			
Allocate to Natural Gas - EDP @ 52%, Remaining @ 53%		340,986		
Allocate to Electric - EDP @ 27%, Remaining @ 33%			186,861	
Allocate to Non0Regulated - EDP @ 21%, Remaining @ 14%				124,453
Consolidated Natural Gas:				
South Florida Natural Gas Division (Does not include 2008 $2M for Operations Center)	3,596,700	3,596,700		
Central Florida Natural Gas Division	1,357,900	1,357,900		
Consolidated Natural Gas:	4,954,600	4,954,600		
Consolidated Electric:				
Northwest Florida Electric Division	1,602,000		1,602,000	
Northeast Florida Electric Division	3,894,300		3,894,300	
Consolidated Electric:	5,496,300		5,496,300	
Consolidated Propane:				
South Florida Propane Division	643,500			643,500
Central Florida Propane Division	317,500			317,500
Northeast Florida Propane Division	315,600			315,600
Consolidated Propane:	1,276,600			1,276,600
Total 2008 Budget	**12,379,800**	**5,295,586**	**5,683,161**	**1,401,053**

	2009 CONSOLIDATED TOTAL	2009 REGULATED NATURAL GAS	2009 REGULATED ELECTRIC	2009 NON-REGULATED
Common	1,145,800			
Allocate to Natural Gas - EDP @ 52%, Remaining @ 53%		600,486		
Allocate to Electric - EDP @ 27%, Remaining @ 33%			337,386	
Allocate to Non0Regulated - EDP @ 21%, Remaining @ 14%				207,928
Consolidated Natural Gas:				
South Florida Natural Gas Division (Does not include 2008 $2M for Operations Center)	5,097,300	5,097,300		
Central Florida Natural Gas Division	2,032,900	2,032,900		
Consolidated Natural Gas:	7,130,200	7,130,200		
Consolidated Electric:				
Northwest Florida Electric Division	1,635,700		1,635,700	
Northeast Florida Electric Division	2,236,200		2,236,200	
Consolidated Electric:	3,871,900		3,871,900	
Consolidated Propane:				
South Florida Propane Division	714,700			714,700
Central Florida Propane Division	326,400			326,400
Northeast Florida Propane Division	213,100			213,100
Consolidated Propane:	1,254,200			1,254,200
Total 2008 Budget	**13,402,100**	**7,730,686**	**4,209,286**	**1,462,128**

Florida Public Utilities Company
2008 CAPITAL EXPENDITURE BUDGET
SUMMARY BY DIVISION
Dollars in Thousands (x000)

DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Regulated Divisions													
COMMON													
Non-Specific	-	4.5	5.8	4.0	3.0	-	2.1	6.0	-	-	1.0	-	26.4
Specific	-	79.0	53.5	43.4	72.0	75.0	108.0	50.0	57.5	77.5	-	10.0	625.9
Division 2008 Capital Budget	**-**	**83.5**	**59.3**	**47.4**	**75.0**	**75.0**	**110.1**	**56.0**	**57.5**	**77.5**	**1.0**	**10.0**	**652.3**
Carryovers from 2007	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Division Expenditures	-	83.5	59.3	47.4	75.0	75.0	110.1	56.0	57.5	77.5	1.0	10.0	652.3
NORTHWEST FLORIDA ELECTRIC DIVISON													
Non-Specific	80.4	79.4	80.4	79.4	82.4	82.4	82.4	82.4	82.4	80.4	79.4	78.1	969.5
Specific: Revenue Producing	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	120.0
Non-Revenue Producing	-	-	47.0	110.5	58.0	-	82.0	25.0	-	10.0	180.0	-	512.5
Division 2008 Capital Budget	**90.4**	**89.4**	**137.4**	**199.9**	**150.4**	**92.4**	**174.4**	**117.4**	**92.4**	**100.4**	**269.4**	**88.1**	**1,602.0**
Carryovers from 2007	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Division Expenditures	90.4	89.4	137.4	199.9	150.4	92.4	174.4	117.4	92.4	100.4	269.4	88.1	1,602.0
NORTHEAST FLORIDA ELECTRIC DIVISON													
Non-Specific	62.8	122.8	131.8	137.8	123.5	133.8	117.8	59.4	65.9	58.9	60.9	58.9	1,134.3
Specific: Revenue Producing	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	318.0
Non-Revenue Producing	190.0	207.0	130.0	130.0	140.0	80.0	50.0	50.0	65.0	110.0	250.0	250.0	1,652.0
Division 2008 Capital Budget	**279.3**	**356.3**	**288.3**	**294.3**	**290.0**	**240.3**	**194.3**	**135.9**	**157.4**	**195.4**	**337.4**	**335.4**	**3,104.3**
Carryovers from 2007	-	790.0	-	-	-	-	-	-	-	-	-	-	790.0
Total Division Expenditures	279.3	1,146.3	288.3	294.3	290.0	240.3	194.3	135.9	157.4	195.4	337.4	335.4	3,894.3
SOUTH FLORIDA NATURAL GAS DIVISION													
Non-Specific	178.1	161.1	158.8	170.1	160.6	160.1	162.1	159.1	159.6	163.7	159.7	158.2	1,951.2
Specific: Revenue Producing	67.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	760.0
Non-Revenue Producing	226.0	421.0	207.0	197.5	85.0	85.0	55.0	54.0	55.0	500.0	500.0	500.0	2,885.5
Division 2008 Capital Budget	**471.1**	**645.1**	**428.8**	**430.6**	**308.6**	**308.1**	**280.1**	**276.1**	**277.6**	**726.7**	**722.7**	**721.2**	**5,596.7**
Carryovers from 2007													-
Total Division Expenditures	471.1	645.1	428.8	430.6	308.6	308.1	280.1	276.1	277.6	726.7	722.7	721.2	5,596.7
CENTRAL FLORIDA NATURAL GAS DIVISION													
Non-Specific	42.2	43.7	44.0	43.7	42.2	43.7	42.2	43.7	42.2	43.7	42.2	42.2	515.7
Specific: Revenue Producing	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	336.0
Non-Revenue Producing	(13.4)	(3.4)	81.3	37.6	1.6	50.4	26.6	6.6	129.2	70.6	59.4	59.7	506.2
Division 2008 Capital Budget	**56.8**	**68.3**	**153.3**	**109.3**	**71.8**	**122.1**	**96.8**	**78.3**	**199.4**	**142.3**	**129.6**	**129.9**	**1,357.9**
Carryovers from 2007													-
Total Division Expenditures	56.8	68.3	153.3	109.3	71.8	122.1	96.8	78.3	199.4	142.3	129.6	129.9	1,357.9
REGULATED DIVISION TOTALS													
Non-Specific	363.5	411.5	420.8	435.0	411.7	420.0	406.6	350.6	350.1	346.7	343.2	337.4	4,597.1
Specific: Revenue Producing	131.5	127.5	127.5	127.5	127.5	127.5	127.5	127.5	127.5	127.5	127.5	127.5	1,534.0
Non-Revenue Producing	402.6	703.6	518.8	519.0	356.6	290.4	321.6	185.6	306.7	768.1	989.4	819.7	6,182.1
REGULATED DIVISIONS 2008 CAPITAL BUDGETS	**897.6**	**1,242.6**	**1,067.1**	**1,081.5**	**895.8**	**837.9**	**855.7**	**663.7**	**784.3**	**1,242.3**	**1,460.1**	**1,284.6**	**12,313.2**
Carryovers from 2007	-	790.0	-	-	-	-	-	-	-	-	-	-	790.0
Regulated 2008 Expenditures	897.6	2,032.6	1,067.1	1,081.5	895.8	837.9	855.7	663.7	784.3	1,242.3	1,460.1	1,284.6	13,103.2

Florida Public Utilities Company
2008 CAPITAL EXPENDITURE BUDGET
SUMMARY BY DIVISION
Dollars in Thousands (x000)

DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Propane Divisions													
SOUTH FLORIDA PROPANE DIVISION													
Non-Specific	42.0	40.0	41.5	41.0	41.5	41.0	41.0	41.0	41.5	41.0	41.0	41.0	493.5
Specific: Revenue Producing	-	50.0	-	-	-	-	50.0	-	-	-	-	-	100.0
Non-Revenue Producing	-	-	50.0	-	-	-	-	-	-	-	-	-	50.0
Division 2008 Capital Budget	**42.0**	**90.0**	**91.5**	**41.0**	**41.5**	**41.0**	**91.0**	**41.0**	**41.5**	**41.0**	**41.0**	**41.0**	**643.5**
Carryovers from 2007	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Division Expenditures	**42.0**	**90.0**	**91.5**	**41.0**	**41.5**	**41.0**	**91.0**	**41.0**	**41.5**	**41.0**	**41.0**	**41.0**	**643.5**
CENTRAL FLORIDA PROPANE DIVISION													
Non-Specific	13.5	24.0	18.0	24.0	13.5	24.0	13.5	24.0	13.5	24.0	13.5	24.0	229.5
Specific: Revenue Producing	-	-	-	-	-	-	-	-	-	-	25.0	25.0	50.0
Non-Revenue Producing	-	-	10.0	10.0	18.0	-	-	-	-	-	-	-	38.0
Division 2008 Capital Budget	**13.5**	**24.0**	**28.0**	**34.0**	**31.5**	**24.0**	**13.5**	**24.0**	**13.5**	**24.0**	**38.5**	**49.0**	**317.5**
Carryovers from 2007	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Division Expenditures	**13.5**	**24.0**	**28.0**	**34.0**	**31.5**	**24.0**	**13.5**	**24.0**	**13.5**	**24.0**	**38.5**	**49.0**	**317.5**
NORTHEAST FLORIDA PROPANE DIVISION													
Non-Specific	14.7	18.2	14.7	20.7	14.7	14.7	14.7	14.7	16.9	14.7	14.7	14.7	188.1
Specific: Revenue Producing	-	7.5	-	-	7.5	-	-	7.5	-	-	7.5	-	30.0
Non-Revenue Producing	-	-	30.0	-	44.5	15.0	-	8.0	-	-	-	-	97.5
Division 2008 Capital Budget	**14.7**	**25.7**	**44.7**	**20.7**	**66.7**	**29.7**	**14.7**	**30.2**	**16.9**	**14.7**	**22.2**	**14.7**	**315.6**
Carryovers from 2007	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Division Expenditures	**14.7**	**25.7**	**44.7**	**20.7**	**66.7**	**29.7**	**14.7**	**30.2**	**16.9**	**14.7**	**22.2**	**14.7**	**315.6**
PROPANE DIVISION TOTALS													
Non-Specific	70.2	82.2	74.2	85.7	69.7	79.7	69.2	79.7	71.9	79.7	69.2	79.7	911.1
Specific: Revenue Producing	-	57.5	-	-	7.5	-	50.0	7.5	-	-	32.5	25.0	180.0
Non-Revenue Producing	-	-	90.0	10.0	62.5	15.0	-	8.0	-	-	-	-	185.5
L BUDGET	**70.2**	**139.7**	**164.2**	**95.7**	**139.7**	**94.7**	**119.2**	**95.2**	**71.9**	**79.7**	**101.7**	**104.7**	**1,276.6**
Carryovers from 2007	-	-	-	-	-	-	-	-	-	-	-	-	-
Propane 2008 Expenditures	**70.2**	**139.7**	**164.2**	**95.7**	**139.7**	**94.7**	**119.2**	**95.2**	**71.9**	**79.7**	**101.7**	**104.7**	**1,276.6**
CONSOLIDATED TOTALS													
Non-Specific	433.7	493.7	495.0	520.7	481.4	499.7	475.8	430.3	422.0	426.4	412.4	417.1	5,508.3
Specific: Revenue Producing	131.5	185.0	127.5	127.5	135.0	127.5	177.5	135.0	127.5	127.5	160.0	152.5	1,714.0
Non-Revenue Producing	402.6	703.6	608.8	529.0	419.1	305.4	321.6	193.6	306.7	768.1	989.4	819.7	6,367.6
L BUDGET	**967.8**	**1,382.3**	**1,231.3**	**1,177.2**	**1,035.5**	**932.6**	**974.9**	**758.9**	**856.2**	**1,322.0**	**1,561.8**	**1,389.3**	**13,589.9**
Carryovers from 2007	-	790.0	-	-	-	-	-	-	-	-	-	-	790.0
Consolidated 2008 Expenditures	**967.8**	**2,172.3**	**1,231.3**	**1,177.2**	**1,035.5**	**932.6**	**974.9**	**758.9**	**856.2**	**1,322.0**	**1,561.8**	**1,389.3**	**14,379.9**

Florida Public Utilities Company
DETAILED CORPORATE BUDGET
Summary- Five Year Plan Prepared for Rate Case Filing
2008-2012

	2007 Published Budget	Est. Through Dec. 2007	2008	2009	2010	2011	2012
TOTAL CORPORATE BUDGET SUMMARY							
Accounting	48,600	11,927	18,981	2,600	23,000	27,000	4,000
Information Technology	30,000	16,346	30,000	30,000	30,000	30,000	30,000
Customer Relations	13,000	4,500	10,400	4,500	6,000	7,000	6,000
Corporate Office - Officers	35,050	-	41,000	-	40,750	35,750	-
Corporate Office - General	177,448	257,021	137,850	159,650	-	-	-
Marketing	-	-	-	-	32,950	-	-
Human Resources	3,000	2,480	-	-	-	-	-
Corporate Services / Safety	-	2,355	-	-	22,550	56,200	-
E-Strategy	456,607	445,248	414,000	413,000	425,000	438,000	451,000
TOTAL	**763,705**	**739,877**	**652,231**	**609,750**	**580,250**	**593,950**	**491,000**
E-Strategy	456,607	445,248	414,000	413,000	425,000	438,000	451,000
Corporate Budget Net of E-Strategy	**307,098**	**294,629**	**238,231**	**196,750**	**155,250**	**155,950**	**40,000**
Corporate Target (Base) Base=2004 @ $238K	261,000	261,000	269,000	277,000	285,000	294,000	303,000
Less: Corporate Share to E-Strategy	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)
Carryover - Corporate Items (Actual 2006 > 2007) plus Closed 2006 IRs	96,098	102,860	19,231	-	30,250	110,000	198,050
Net Corporate Target	**307,098**	**313,860**	**238,231**	**227,000**	**265,250**	**354,000**	**451,050**
Corporate Under/(Over) Budget	-	**19,231**	-	**30,250**	**110,000**	**198,050**	**411,050**

E-STRATEGY	2007	2007	2008	2009	2010	2011	2012
E-STRATEGY TARGET (Base) Base=2005 @ $367K	389,000	389,000	401,000	413,000	425,000	438,000	451,000
Carryover from Prev. Yr.- (Actual 2006>2007)	67,607	69,248	13,000	-	-	-	-
Net E-Strategy Target	**456,607**	**458,248**	**414,000**	**413,000**	**425,000**	**438,000**	**451,000**
E-Strategy Under/(Over) Budget	-	**13,000**	-	-	-	-	-

E-STRATEGY - DIVISIONAL SHARING	2007	2008	2009	2010	2011	2012
E-STRATEGY TARGET Base=2005 @ $367K	389,000	401,000	413,000	425,000	438,000	451,000
Common Share	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)
AMOUNT DIVISIONS NEED TO REDUCE THEIR CAPITAL BUDGET	**339,000**	**351,000**	**363,000**	**375,000**	**388,000**	**401,000**

(EDP Allocation) > > Division	2007 Share	$ Share	$ Share	$ Share	$ Share	$ Share	$ Share
114	13%	44,070	45,630	47,190	48,750	50,440	52,130
115	16%	54,240	56,160	58,080	60,000	62,080	64,160
121	35%	118,650	122,850	127,050	131,250	135,800	140,350
123	20%	67,800	70,200	72,600	75,000	77,600	80,200
141	2%	6,780	7,020	7,260	7,500	7,760	8,020
991	7%	23,730	24,570	25,410	26,250	27,160	28,070
993	3%	10,170	10,530	10,890	11,250	11,640	12,030
995	2%	6,780	7,020	7,260	7,500	7,760	8,020
996	2%	6,780	7,020	7,260	7,500	7,760	8,020
TOTAL	**100%**	**339,000**	**351,000**	**363,000**	**375,000**	**388,000**	**401,000**

CORPORATE TARGET (BASE):	Increase @ 3% Per Yr.
Base Year 2004	239,000
2005	246,000
2006	253,000
2007	261,000
2008	269,000
2009	277,000
2010	285,000
2011	294,000
2012	303,000
2013	312,000

E-Strategy TARGET (BASE):	Increase @ 5% Per Yr.
Base Year 2005	367,000
2006	378,000
2007	389,000
2008	401,000
2009	413,000
2010	425,000
2011	438,000
2012	451,000
2013	465,000

Florida Public Utilities Company
Detailed Corporate Budget
CORPORATE E-STRATEGY - Five Year Plan
2008-2012

	ITEM	2007 Published Budget	Est. Through Dec. 2007	MO.	2008	MO.	2009	2010	2011	2012
1	PC Replacement Program	105,000	101,312	FEB, AUG	109,000	FEB, AUG	112,000	115,000	119,000	123,000
2	Project Management System	90,000	90,000	MAR, SEP	50,000	SEP				
3	AS400 Disk capacity upgrade	40,000	40,000	MAY, OCT	40,000	MAY, OCT				
4	Exchange Upgrade-Increase E-mail Capacity	15,000	15,000	NOV						
5	CIS - INCLUDE S/L & 1430.1 & 2	30,000			75,000	JUN				
6	System for Commissions	90,000	90,000	APR, JUL, OCT						
7	Common Propane - Delivery System Phase II	12,000	12,000	MAR, JUN, SEP, DEC						
8	Common Propane - Delivery System Phase III	12,000	12,000	MAR, JUN, SEP, DEC						
9	P/L - Credit Card	-	24,116	JUN						
	Change Control		40,000	NOV						
11	Reporting & Analysis Software (PhI)				40,000	MAY				
12	Reporting & Analysis Software (Ph II)				50,000	OCT				
13	CIS - JE11				10,000	DEC				
	Lockbox Additions				40,000	MAY				
14	Replacement Imaging Scanner								5,000	
10	E strategy Projects-to be determined (Net of $13,000 Forward to 2008)	62,607	14,671	VAR			301,000	310,000	314,000	328,000
	2006 IRs Closed during 2007 (Overage)		6,149							
	TOTAL E-STRATEGY	**456,607**	**445,248**		**414,000**		**413,000**	**425,000**	**438,000**	**451,000**

Florida Public Utilities Company
Detailed Corporate Budget
Accounting - Five Year Plan
2008-2012

	ITEM	2007 Published Budget	Est. Through Dec. 2007	MO.	2008	MO.	2009	2010	2011	2012
1	**CORPORATE ACCOUNTING:**									
2	Reporting & Analysis Software (Phl)	40,000	-							
	Laptop, New Position				2,500	APR				
	GENERAL ACCOUNTING:									
4	File Cabinets	600	-	JUN			600			
5	Laser Printer Replacement - GA				2,000	MAY				2,000
6	MICR Printer Replacement - GA				7,981	FEB				
	Scanner - P/L Spare							1,500		
	PURCHASING / OFFICE SERVICES:									
7	Replace Courier Vehicle - OS							18,000		
8	Replace 2nd Floor Copier		8,000						25,000	
10	HP LaserJet Printer				1,500	APR				
	Scanner - P/L Spare							1,500		
9	All-In-One (P/C/S/F) Office Machine	2,000		JUL						
	Blankets		1,449							
	SHARED:									
11	Furniture, partitions, Misc. Items	1,000		AUG	2,000	FEB				
12	Misc Equip.	2,000		VAR	3,000	VAR	2,000	2,000	2,000	2,000
13	Color Laser Printer (Purchased in 2006)	3,000								
	Blankets		2,478							
	TOTAL	**48,600**	**11,927**		**18,981**		**2,600**	**23,000**	**27,000**	**4,000**

Florida Public Utilities Company
Detailed Corporate Budget
Information Technology - Five Year Plan
2008-2012

	ITEM	2007 Published Budget	Est. Through Dec. 2007	MO.	2008	MO.	2009	2010	2011	2012
1	Various Hardware & Software - TBD	30,000		VAR	30,000	VAR	30,000	30,000	30,000	30,000
	HVAC Improvements - Computer Room		778	JUN						
	Blankets		15,568							
	TOTAL	**30,000**	**16,346**		**30,000**		**30,000**	**30,000**	**30,000**	**30,000**

Florida Public Utilities Company
Detailed Corporate Budget
Customer Relations - Five Year Plan
2008-2012

	ITEM	2007 Published Budget	Est. Through Dec. 2007	MO.	2008	MO.	2009	2010	2011	2012
1	Training Program	5,000			2,500	AUG	2,500	5,000	5,000	5,000
3	Equipment and Furniture	1,000					2,000	1,000	2,000	1,000
5	New Position - Furniture	4,000			4,000	MAR				
6	New Position - Chair	600			600	MAR				
7	New Position - Computer	1,200			1,200	MAR				
8	New Position - Printer	600								
9	New Position - File Cabinet	600								
	Scanner				2,100	JUL				
	Replacement Printer		4,500							
	TOTAL	**13,000**	**4,500**		**10,400**		**4,500**	**6,000**	**7,000**	**6,000**

Florida Public Utilities Company
Detailed Corporate Budget
Corporate Other - Five Year Plan
2008-2012

	ITEM	2007 Published Budget	Est. Through Dec. 2007	MO.	2008	MO.	2009	2010	2011	2012
	Corporate Office - Officers									
4	Vehicle - English	35,050	-		36,000	JUL				
1	Misc Furniture & Machines				5,000	FEB, AUG		5,000		
5	Vehicle - CS							35,750		
2	Vehicle - GB								35,750	
	DEPARTMENT TOTAL	**35,050**	**-**		**41,000**		**-**	**40,750**	**35,750**	**-**
	Corporate Office - General									
6	Capital Improv - Empl. Lounge, Auditorium	39,448	39,500	JUL - SEP						
13	Alarm System	10,000	-	NOV						
14	Fern Street Glass Door w/Air Curtain	20,000	10,100	JUN						
15	Accordion Shutters - First Floor	35,000	27,000	JUN						
16	Window Replacements	35,000	58,000	JUN						
	Elevator Rehab.	-	33,700	SEP						
17	TBD	38,000	-	VAR						
	HVAC Filtration & UV		2,584	JUN						
	Main Office Re-roofing - Ph 1 (*)				35,850	APR				
	Main Office Re-roofing - Ph 2(*)						41,650			
	Alarm System Upgrades				12,000	MAY				
	Video Security System				12,000	FEB				
	Access Control for Parking Lot				6,000	MAR				
	Gas Desiccant System - Ph. 1 (*)				72,000	JUL				
	Gas Desiccant System - Ph. 2						68,000			
	Main Office Remodeling						50,000			
	Emergency-5 Chillers		40,000	SEP						
	Portable A/C Units		9,800	SEP						
	Blankets		10,996							
	*Anticipated reduction on bids for desiccant sytems may allow roof to be done as one phase in 2008.									
	Additional Projects TBD (Net of $19,231 Forward to 2008)		51,555							
	2006 IRs Closed in 2007		(26,214)							
	DEPARTMENT TOTAL	**177,448**	**257,021**		**137,850**		**159,650**	**-**	**-**	**-**
	Marketing									
19	Vehicle - MSS							31,450		
	Scanner - P/L							1,500		
	DEPARTMENT TOTAL	**-**	**-**		**-**		**-**	**32,950**	**-**	**-**
	Human Resources									
20	Shredder	3,000		FEB						
	Blankets		2,480							
	DEPARTMENT TOTAL	**3,000**	**2,480**		**-**		**-**	**-**	**-**	**-**
	Corporate Services / Safety									
24	Replace Safety Manager Vehicle							22,550		
25	Vehicle - MLS								29,700	
	Vehicle: Safety Mgr (2004/2011)								26,500	
	Blankets		2,355							
	DEPARTMENT TOTAL	**-**	**2,355**		**-**		**-**	**22,550**	**56,200**	**-**
	TOTAL	**215,498**	**261,856**		**178,850**		**159,650**	**96,250**	**91,950**	**-**

FLORIDA PUBLIC UTILITIES COMPANY

COMMON

2008 Capital Expenditure Budget

Dollars in Thousands (x000)

ACCT	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
TOTAL CAPITAL														
390	Structures & Improvements	-	-	6.0	35.9	12.0	-	72.0	-	-	-	-	-	125.9
3911	Office Furniture & Equipment	-	3.2	4.6	-	-	-	-	1.3	-	-	-	-	9.1
3912	Office Machines	-	1.3	-	-	1.0	-	-	2.2	-	-	1.0	-	5.5
3913	Computerized Equipment	-	79.0	8.7	4.0	62.0	-	2.1	50.0	7.5	20.0	-	-	233.3
391305	Computer Software	-	-	40.0	7.5	-	75.0	-	-	50.0	57.5	-	10.0	240.0
3921	Transportation Equipment - Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Pickup Trucks & Vans	-	-	-	-	-	-	36.0	-	-	-	-	-	36.0
3970	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3980	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous - Tangible	-	-	-	-	-	-	-	2.5	-	-	-	-	2.5
	TOTAL CAPITAL	**-**	**83.5**	**59.3**	**47.4**	**75.0**	**75.0**	**110.1**	**56.0**	**57.5**	**77.5**	**1.0**	**10.0**	**652.3**
CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL CAPITAL WITH CARRYOVERS		**-**	**83.5**	**59.3**	**47.4**	**75.0**	**75.0**	**110.1**	**56.0**	**57.5**	**77.5**	**1.0**	**10.0**	**652.3**
NON-SPECIFIC CAPITAL														
390	Structures & Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
3911	Office Furniture & Equipment	-	3.2	4.6	-	-	-	-	1.3	-	-	-	-	9.1
3912	Office Machines	-	1.3	-	-	1.0	-	-	2.2	-	-	1.0	-	5.5
3913	Computerized Equipment	-	-	1.2	4.0	2.0	-	2.1	-	-	-	-	-	9.3
391305	Computer Software	-	-	-	-	-	-	-	-	-	-	-	-	-
3921	Transportation Equipment - Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Pickup Trucks & Vans	-	-	-	-	-	-	-	-	-	-	-	-	-
3970	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3980	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous - Tangible	-	-	-	-	-	-	-	2.5	-	-	-	-	2.5
	TOTAL NON-SPECIFIC CAPITAL	**-**	**4.5**	**5.8**	**4.0**	**3.0**	**-**	**2.1**	**6.0**	**-**	**-**	**1.0**	**-**	**26.4**
SPECIFIC CAPITAL														
390	Structures & Improvements	-	-	6.0	35.9	12.0	-	72.0	-	-	-	-	-	125.9
3911	Office Furniture & Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Machines	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computerized Equipment	-	79.0	7.5	-	60.0	-	-	50.0	7.5	20.0	-	-	224.0
391305	Computer Software	-	-	40.0	7.5	-	75.0	-	-	50.0	57.5	-	10.0	240.0
3921	Transportation Equipment - Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Pickup Trucks & Vans	-	-	-	-	-	-	36.0	-	-	-	-	-	36.0
3970	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3980	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous - Tangible	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CAPITAL	**-**	**79.0**	**53.5**	**43.4**	**72.0**	**75.0**	**108.0**	**50.0**	**57.5**	**77.5**	**-**	**10.0**	**625.9**
CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL SPECIFIC CAPITAL WITH CARRYOVERS		**-**	**79.0**	**53.5**	**43.4**	**72.0**	**75.0**	**108.0**	**50.0**	**57.5**	**77.5**	**-**	**10.0**	**625.9**

FLORIDA PUBLIC UTILITIES COMPANY

COMMON

2008 Capital Expenditure Budget

Dollars in Thousands (x000)

NON-SPECIFIC CAPITAL - DETAIL

	DESCRIPTION	ACCT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	E-STATEGY														
1	None														-
	ACCOUNTING														
2	File Cabinets [Gen. Acct.]	3911													-
3	Computer-New Position [Corp. Acct.]	3913				2.5									2.5
3	Laser Printer [Gen. Acct.]	3913					2.0								2.0
3	Laser Printer [Off. Ser.]	3913				1.5									1.5
4	Misc. Furniture [Shared}	3911		2.0											2.0
5	Misc. Equipment [Shared]	3912					1.0			1.0			1.0		3.0
	TOTAL ACCOUNTING		**-**	**2.0**	**-**	**4.0**	**3.0**	**-**	**-**	**1.0**	**-**	**-**	**1.0**	**-**	**11.0**
	INFORMATION TECHNOLOGY														
6	None														-
	CUSTOMER RELATIONS														
7	Training Program	399								2.5					2.5
8	Furniture [New Position]	3911													-
9	Chair [New Position]	3911			4.6										4.6
10	Computer [New Position]	3913			1.2										1.2
11	Scanner	3913							2.1						2.1
	TOTAL CUSTOMER RELATIONS		**-**	**-**	**5.8**	**-**	**-**	**-**	**2.1**	**2.5**	**-**	**-**	**-**	**-**	**10.4**
	CORPORATE - OFFICERS														
16	Furniture	3911		1.2						1.3					2.5
17	Equipment	3912		1.3						1.2					2.5
	TOTAL CORPORATE - OFFICERS		**-**	**2.5**	**-**	**-**	**-**	**-**	**-**	**2.5**	**-**	**-**	**-**	**-**	**5.0**
	CORPORATE - OTHER														
18	None														-
	MARKETING														
19	None														-
	HUMAN RESOURCES														
20	Shredder														-
	CORPORATE SERVICES / SAFETY														
21	None														-
	TOTAL NON-SPECIFIC CAPITAL		**-**	**4.5**	**5.8**	**4.0**	**3.0**	**-**	**2.1**	**6.0**	**-**	**-**	**1.0**	**-**	**26.4**

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FLORIDA PUBLIC UTILITIES COMPANY
COMMON
2008 Capital Expenditure Budget
Dollars in Thousands (x000)

	DESCRIPTION	ACCT	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2002 TOTAL	AFTER 2002
SPECIFIC CAPITAL - DETAIL																	
	E-STRATEGY																
1	**PC Replacement Program**	3913	109.0		59.0						50.0					109.0	-
a	Reasons: Company 5-Year Plan															-	-
b	Benefits: Technology Upgrade															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**109.0**	-	**59.0**	-	-	-	-	-	**50.0**	-	-	-	-	**109.0**	-
2	**Project Management System**	391305	50.0									50.0				50.0	-
a	Reasons: Efficiencies															-	-
b	Benefits: Improved Reporting & Control															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**50.0**	-	-	-	-	-	-	-	-	**50.0**	-	-	-	**50.0**	-
3	**AS/400 Disk Capacity Upgrade**	3913	40.0					20.0					20.0			40.0	-
a	Reasons: Corporate Growth															-	-
b	Benefits: Utilization of Existing Applications															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**40.0**	-	-	-	-	**20.0**	-	-	-	-	**20.0**	-	-	**40.0**	-
4	**Sub-Ledger and 1430 Reporting**	391305	75.0						75.0							75.0	-
a	Reasons: Corporate Growth															-	-
b	Benefits: Utilization of Existing Applications															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**75.0**	-	-	-	-	-	**75.0**	-	-	-	-	-	-	**75.0**	-
5	**CIS - JE11**	391305	10.0												10.0	10.0	-
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**10.0**	-	-	-	-	-	-	-	-	-	-	-	**10.0**	**10.0**	-
6	**Reporting & Analysis Ph 1**	391305	40.0			40.0										40.0	-
a	Reasons: Efficiencies															-	-
b	Benefits: Improved Reporting & Control															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**40.0**	-	-	**40.0**	-	-	-	-	-	-	-	-	-	**40.0**	-
7	**Reporting & Analysis Ph 2**	391305	50.0										50.0			50.0	-
a	Reasons: Company 5-Year Plan															-	-
b	Benefits: Technology Upgrade															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**50.0**	-	-	-	-	-	-	-	-	-	**50.0**	-	-	**50.0**	-
8	**Lockbox Additions**	3913	40.0					40.0								40.0	-
a	Reasons: Expand Capacity															-	-
b	Benefits: Technology Upgrade															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**40.0**	-	-	-	-	**40.0**	-	-	-	-	-	-	-	**40.0**	-
	TOTAL E-STRATEGY		**414.0**	-	**59.0**	**40.0**	-	**60.0**	**75.0**	-	**50.0**	**50.0**	**70.0**	-	**10.0**	**414.0**	-

FLORIDA PUBLIC UTILITIES COMPANY
COMMON
2008 Capital Expenditure Budget
Dollars in Thousands (x000)

	DESCRIPTION	ACCT	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2002 TOTAL	AFTER 2002
SPECIFIC CAPITAL - DETAIL (continued)																	
	ACCOUNTING																
9	**MICR Printer**	3913	8.0		8.0											8.0	-
a	Reasons: Efficiencies															-	-
b	Benefits: Improved Reporting & Control															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**8.0**	-	**8.0**	-	-	-	-	-	-	-	-	-	-	**8.0**	-
	TOTAL ACCOUNTING		**8.0**	-	**8.0**	-	-	-	-	-	-	-	-	-	-	**8.0**	-
	INFORMATION TECHNOLOGY																
10	**Various Hardware & Software**	3913	15.0			7.5						7.5				15.0	-
a	Reasons: Corporate Growth	391305	15.0				7.5						7.5			15.0	-
b	Benefits: Utilization of Existing Applications															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**30.0**	-	-	**7.5**	**7.5**	-	-	-	-	**7.5**	**7.5**	-	-	**30.0**	-
	TOTAL INFORMATION TECHNOLOGY		**30.0**	-	-	**7.5**	**7.5**	-	-	-	-	**7.5**	**7.5**	-	-	**30.0**	-
	CUSTOMER RELATIONS																
11	**Project - None**															-	-
	CORPORATE - OFFICERS																
12	**J. English Vehicle**	3922	36.0							36.0						36.0	-
a	Reasons: Vehicle Replacement Program															-	-
b	Benefits: Reduced Down-time for Repairs															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**36.0**	-	-	-	-	-	-	**36.0**	-	-	-	-	-	**36.0**	-
	TOTAL CORPORATE - OFFICERS		**36.0**	-	-	-	-	-	-	**36.0**	-	-	-	-	-	**36.0**	-

FLORIDA PUBLIC UTILITIES COMPANY
COMMON
2008 Capital Expenditure Budget
Dollars in Thousands (x000)

	DESCRIPTION	ACCT	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2002 TOTAL	AFTER 2002
SPECIFIC CAPITAL - DETAIL (continued)																	
	CORPORATE - GENERAL																
13	**Corp. Office Re-Roof, Ph 1.**	390	35.9				35.9									35.9	-
a	Reasons: Create Additional Work Space															-	-
b	Benefits: Efficient Use of Corporate Office Bldg.															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		35.9	-	-	-	35.9	-	-	-	-	-	-	-	-	35.9	-
14	**Alarm System Upgrades**	390	12.0					12.0								12.0	-
a	Reasons: Current Outdated Technology															-	-
b	Benefits: Overall Improved Safety															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		12.0	-	-	-	-	12.0	-	-	-	-	-	-	-	12.0	-
15	**Office Gas Desiccant Phase 1**	390	72.0							72.0						72.0	-
a	Reasons: Current Doors Require Excessive Maintenance															-	-
b	Benefits: Reduced Maint. Costs, Improved Utility, Reduced A/C Costs															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		72.0	-	-	-	-	-	-	72.0	-	-	-	-	-	72.0	-
16	**Video Security**	3913	12.0		12.0											12.0	-
a	Reasons: "Hardening" of Facilities															-	-
b	Benefits: Reduced Storm Prep. Costs. Improved Security															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		12.0	-	12.0	-	-	-	-	-	-	-	-	-	-	12.0	-
17	**Parking Lot Access Control**	390	6.0			6.0										6.0	-
a	Reasons: "Hardening" of Facilities															-	-
b	Benefits: Reduced Storm Prep. Costs. Improved Security															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		6.0	-	-	6.0	-	-	-	-	-	-	-	-	-	6.0	-
	TOTAL CORPORATE - GENERAL		137.9	-	12.0	6.0	35.9	12.0	-	72.0	-	-	-	-	-	137.9	-
	MARKETING																
18	**Project - None**															-	-
	HUMAN RESOURCES																
19	**Project - None**															-	-
	CORPORATE SERVICES / SAFETY																
20	**Project - None**															-	-
	TOTAL SPECIFIC CAPITAL		625.9	-	79.0	53.5	43.4	72.0	75.0	108.0	50.0	57.5	77.5	-	10.0	625.9	-
	CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CAPITAL WITH CARRYOVERS		625.9	-	79.0	53.5	43.4	72.0	75.0	108.0	50.0	57.5	77.5	-	10.0	625.9	-

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

TOTAL CONSTRUCTION

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	TRANSMISSION PLANT													
352	Structures and Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
353	Substation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
354	Towers & Fixtures	-	-	-	-	-	-	-	-	-	-	-	-	-
355	Poles & Fixtures	-	-	-	-	-	-	-	-	-	-	-	-	-
356	O/H Conduct. & Dev.	-	-	-	-	-	-	-	-	-	-	-	-	-
359	Roads & Trails	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL TRANSMISSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-
	DISTRIBUTION PLANT													
361	Structure and Improvements - Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-
362	Substation Equipment - Distribution	-	-	-	40.0	10.0	-	-	-	-	-	-	-	50.0
3646	Poles/Towers/Fixtures - Line Ext. - Rev. Prod.	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	132.0
3647	Poles/Towers/Fixtures - Line Ext. - Upgrades	4.6	4.6	51.6	51.6	52.6	4.6	4.6	4.6	4.6	14.6	4.6	4.6	207.2
3648	Poles/Towers/Fixtures - Decayed Pole Replace.	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	84.0
3656	O/H Conduct. & Dev. - Line Ext. - Rev. Prod.	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	96.0
3657	O/H Conduct. & Dev. - Line Ext. - Upgrades	4.1	4.1	4.1	4.1	4.1	4.1	4.1	29.1	4.1	4.1	14.1	4.1	84.2
3658	O/H Conduct. & Dev. - Decayed Pole Replace.	-	-	-	-	-	-	-	-	-	-	-	-	-
3662	Underground Conduit - Buried	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	4.8
3672	Underground Conductors & Devices - Buried	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	73.2
3681	Line Transformers - Overhead	13.7	12.7	13.7	12.7	15.7	15.7	15.7	15.7	15.7	13.7	12.7	11.4	169.1
3683	Line Transformers - Buried	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	68.4
3691	Overhead Services	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	86.4
3693	Underground Services - Buried	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	90.0
370	Meters	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	86.4
3711	Installations on Cust. Prem. - Aboveground	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	75.6
3713	Installations on Cust. Prem. - Underground	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
3731	Street Lighting and Signal Syst. - Aboveground	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	15.6
3733	Street Lighting and Signal Syst. - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**90.4**	**89.4**	**137.4**	**176.4**	**150.4**	**92.4**	**92.4**	**117.4**	**92.4**	**100.4**	**99.4**	**88.1**	**1,326.5**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	GENERAL PLANT													
390	Structure and Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
3911	Office Furniture and Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Machines	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	EDP Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3921	Transportation Equipment - Autos	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light	-	-	-	23.5	-	-	82.0	-	-	-	-	-	105.5
3923	Transportation Equipment - Heavy	-	-	-	-	-	-	-	-	-	-	170.0	-	170.0
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
3931	Stores Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3932	Stores Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
3941	Tools/Shop/Garage Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3942	Tools/Shop/Garage Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
3951	Laboratory Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3952	Laboratory Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous Tangible Property	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**-**	**-**	**23.5**	**-**	**-**	**82.0**	**-**	**-**	**-**	**170.0**	**-**	**275.5**
	TOTAL CONSTRUCTION	**90.4**	**89.4**	**137.4**	**199.9**	**150.4**	**92.4**	**174.4**	**117.4**	**92.4**	**100.4**	**269.4**	**88.1**	**1,602.0**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL CONSTRUCTION WITH CARRYOVERS	**90.4**	**89.4**	**137.4**	**199.9**	**150.4**	**92.4**	**174.4**	**117.4**	**92.4**	**100.4**	**269.4**	**88.1**	**1,602.0**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

NON-SPECIFIC CONSTRUCTION

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	TRANSMISSION PLANT													
352	Structures and Improvements													-
353	Substation Equipment													-
354	Towers & Fixtures													-
355	Poles & Fixtures													-
356	O/H Conduct. & Dev.													-
359	Roads & Trails													-
	TOTAL TRANSMISSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-
	DISTRIBUTION PLANT													
361	Structure and Improvements - Distribution													-
362	Substation Equipment - Distribution													-
3646	Poles/Towers/Fixtures - Line Ext. - Rev. Prod.	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	87.6
3647	Poles/Towers/Fixtures - Line Ext. - Upgrades	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	55.2
3648	Poles/Towers/Fixtures - Decayed Pole Replace.	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	84.0
3656	O/H Conduct. & Dev. - Line Ext. - Rev. Prod.	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	63.6
3657	O/H Conduct. & Dev. - Line Ext. - Upgrades	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	49.2
3658	O/H Conduct. & Dev. - Decayed Pole Replace.													-
3662	Underground Conduit - Buried	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	4.8
3672	Underground Conductors & Devices - Buried	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0
3681	Line Transformers - Overhead	13.7	12.7	13.7	12.7	15.7	15.7	15.7	15.7	15.7	13.7	12.7	11.4	169.1
3683	Line Transformers - Buried	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	68.4
3691	Overhead Services	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	86.4
3693	Underground Services - Buried	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	90.0
370	Meters	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	86.4
3711	Installations on Cust. Prem. - Aboveground	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	75.6
3713	Installations on Cust. Prem. - Underground	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
3731	Street Lighting and Signal Syst. - Aboveground	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	15.6
3733	Street Lighting and Signal Syst. - Underground													-
	TOTAL DISTRIBUTION PLANT	**80.4**	**79.4**	**80.4**	**79.4**	**82.4**	**82.4**	**82.4**	**82.4**	**82.4**	**80.4**	**79.4**	**78.1**	**969.5**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	GENERAL PLANT													
390	Structure and Improvements													-
3911	Office Furniture and Equipment													-
3912	Office Machines													-
3913	EDP Equipment													-
3921	Transportation Equipment - Autos													-
3922	Transportation Equipment - Light													-
3923	Transportation Equipment - Heavy													-
3924	Transportation Equipment - Trailers													-
3931	Stores Equipment - Fixed Installation													-
3932	Stores Equipment - Portable													-
3941	Tools/Shop/Garage Equipment - Fixed Installation													-
3942	Tools/Shop/Garage Equipment - Portable													-
3951	Laboratory Equipment - Fixed Installation													-
3952	Laboratory Equipment - Portable													-
396	Power Operated Equipment													-
397	Communication Equipment													-
398	Miscellaneous Equipment													-
399	Miscellaneous Tangible Property													-
	TOTAL GENERAL PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL NON-SPECIFIC CONSTRUCTION		**80.4**	**79.4**	**80.4**	**79.4**	**82.4**	**82.4**	**82.4**	**82.4**	**82.4**	**80.4**	**79.4**	**78.1**	**969.5**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

SPECIFIC CONSTRUCTION SUMMARY

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	TRANSMISSION PLANT													
352	Structures and Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
353	Substation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
354	Towers & Fixtures	-	-	-	-	-	-	-	-	-	-	-	-	-
355	Poles & Fixtures	-	-	-	-	-	-	-	-	-	-	-	-	-
356	O/H Conduct. & Dev.	-	-	-	-	-	-	-	-	-	-	-	-	-
359	Roads & Trails	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL TRANSMISSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-
	DISTRIBUTION PLANT													
361	Structure and Improvements - Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-
362	Substation Equipment - Distribution	-	-	-	40.0	10.0	-	-	-	-	-	-	-	50.0
3646	Poles/Towers/Fixtures - Line Ext. - Rev. Prod.	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	44.4
3647	Poles/Towers/Fixtures - Line Ext. - Upgrades	-	-	47.0	47.0	48.0	-	-	-	-	10.0	-	-	152.0
3648	Poles/Towers/Fixtures - Decayed Pole Replace.	-	-	-	-	-	-	-	-	-	-	-	-	-
3656	O/H Conduct. & Dev. - Line Ext. - Rev. Prod.	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	32.4
3657	O/H Conduct. & Dev. - Line Ext. - Upgrades	-	-	-	-	-	-	-	25.0	-	-	10.0	-	35.0
3658	O/H Conduct. & Dev. - Decayed Pole Replace.	-	-	-	-	-	-	-	-	-	-	-	-	-
3662	Underground Conduit - Buried	-	-	-	-	-	-	-	-	-	-	-	-	-
3672	Underground Conductors & Devices - Buried	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	43.2
3681	Line Transformers - Overhead	-	-		-	-	-	-	-	-	-		-	-
3683	Line Transformers - Buried	-	-	-	-	-	-	-	-	-	-	-	-	-
3691	Overhead Services	-	-	-	-	-	-	-	-	-	-	-	-	-
3693	Underground Services - Buried	-	-	-	-	-	-	-	-	-	-	-	-	-
370	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
3711	Installations on Cust. Prem. - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
3713	Installations on Cust. Prem. - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
3731	Street Lighting and Signal Syst. - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
3733	Street Lighting and Signal Syst. - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**10.0**	**10.0**	**57.0**	**97.0**	**68.0**	**10.0**	**10.0**	**35.0**	**10.0**	**20.0**	**20.0**	**10.0**	**357.0**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	GENERAL PLANT													
390	Structure and Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
3911	Office Furniture and Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Machines	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	EDP Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3921	Transportation Equipment - Autos	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light	-	-	-	23.5	-	-	82.0	-	-	-	-	-	105.5
3923	Transportation Equipment - Heavy	-	-	-	-	-	-	-	-	-	-	170.0	-	170.0
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
3931	Stores Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3932	Stores Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
3941	Tools/Shop/Garage Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3942	Tools/Shop/Garage Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
3951	Laboratory Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3952	Laboratory Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous Tangible Property	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**-**	**-**	**23.5**	**-**	**-**	**82.0**	**-**	**-**	**-**	**170.0**	**-**	**275.5**
	TOTAL SPECIFIC CONSTRUCTION	**10.0**	**10.0**	**57.0**	**120.5**	**68.0**	**10.0**	**92.0**	**35.0**	**10.0**	**20.0**	**190.0**	**10.0**	**632.5**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS	**10.0**	**10.0**	**57.0**	**120.5**	**68.0**	**10.0**	**92.0**	**35.0**	**10.0**	**20.0**	**190.0**	**10.0**	**632.5**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
	SPECIFIC CONSTRUCTION - DETAIL																
	REVENUE PRODUCING																
1	TBD	3646	44.4	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	44.4	-
2	TBD	3656	32.4	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	32.4	-
3	TBD	3672	43.2	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	43.2	-
	TOTAL REVENUE PRODUCING		**120.0**	**10.0**	**10.0**	**10.0**	**10.0**	**10.0**	**10.0**	**10.0**	**10.0**	**10.0**	**10.0**	**10.0**	**10.0**	**120.0**	**-**
	NON-REVENUE PRODUCING																
8	**Rebuild Hwy 90 E #9992 Feeder**	3647	142.0			47.0	47.0	48.0								142.0	-
a	Reasons: FPU Storm Hardening Plan to meet storm hardening critera.															-	-
b	Benefirts Increased reliability to Sewer Treatment Plant															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**142.0**	**-**	**-**	**47.0**	**47.0**	**48.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**142.0**	**-**
4	**Replace Service Truck Veh#41943**	3923	170.0											170.0		170.0	-
a	Reasons: Due to age and increased maintenance cost															-	-
b	Benefits: Reduced maintenacne cost															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**170.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**170.0**	**-**	**170.0**	**-**
5	**Replace Line Supv. Truck #41959**	3922	28.0							28.0						28.0	-
a	Reasons: Due to age and increased maintenance cost															-	-
b	Benefits: Reduced maintenance cost															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**28.0**	**-**	**-**	**-**	**-**	**-**	**-**	**28.0**	**-**	**-**	**-**	**-**	**-**	**28.0**	**-**
6	**Replace Serv. Supv. Truck #41960**	3922	28.0							28.0						28.0	-
a	Reasons: Due to age and increased maintenance cost															-	-
b	Benefits: Reduced maintenace cost															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**28.0**	**-**	**-**	**-**	**-**	**-**	**-**	**28.0**	**-**	**-**	**-**	**-**	**-**	**28.0**	**-**
7	**Repalce Gen. Man. Car #41973**	3922	26.0							26.0						26.0	-
a	Reasons: Due to age and increased maintenance cost															-	-
b	Benefits: Reduced mainenance cost															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**26.0**	**-**	**-**	**-**	**-**	**-**	**-**	**26.0**	**-**	**-**	**-**	**-**	**-**	**26.0**	**-**

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FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
12	**VEHICLE FOR SAFETY**	3922	23.5				23.5									23.5	-
	Reasons: Per Corporate Services															-	-
	Benefits: Increased Safety															-	-
	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**23.5**	-	-	-	**23.5**	-	-	-	-	-	-	-	-	**23.5**	-
10	**Purchase 3 - 333kva regulator for College Fdr and relocate existing 250 kva regulators to Meadowview Rd.**	362	50.0				40.0	10.0								50.0	-
a	Reasons: Necessary to provide proper voltage regualation															-	-
b	Benefits: Improved system operation															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**50.0**	-	-	-	**40.0**	**10.0**	-	-	-	-	-	-	-	**50.0**	-
11	**Purchase one three phase OCR for Noland St.**	3657	25.0								25.0					25.0	-
a	Reasons: Necessary to improve system protection															-	-
b	Benefits: Improved sytem operation															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**25.0**	-	-	-	-	-	-	-	**25.0**	-	-	-	-	**25.0**	-
9	**Relocate line from woods to Magnolia Rd. from Hwy 71 to Bear Paw**	3647	10.0										10.0			10.0	-
a	Reasons: Inacessibility and high maintenance cost	3657	10.0											10.0		10.0	-
b	Benefits: Acessibility and reduced maintenance cost															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**20.0**	-	-	-	-	-	-	-	-	-	**10.0**	**10.0**	-	**20.0**	-
	NON-REVENUE PRODUCING		**512.5**	-	-	**47.0**	**110.5**	**58.0**	-	**82.0**	**25.0**	-	**10.0**	**180.0**	-	**512.5**	-
	TOTAL SPECIFIC CONSTRUCTION		**632.5**	**10.0**	**10.0**	**57.0**	**120.5**	**68.0**	**10.0**	**92.0**	**35.0**	**10.0**	**20.0**	**190.0**	**10.0**	**632.5**	-
	CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		**632.5**	**10.0**	**10.0**	**57.0**	**120.5**	**68.0**	**10.0**	**92.0**	**35.0**	**10.0**	**20.0**	**190.0**	**10.0**	**632.5**	-

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

TOTAL CONSTRUCTION

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	TRANSMISSION PLANT													
352	Structures and Improvements	-	-	-	-	3.0	-	3.0	-	-	-	-	-	6.0
353	Substation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
354	Towers & Fixtures	-	-	-	-	-	-	-	-	-	-	-	-	-
355	Poles & Fixtures	-	-	-	-	-	-	-	-	-	-	-	-	-
356	O/H Conduct. & Dev.	30.0	30.0	30.0	30.0	-	-	50.0	50.0	-	-	-	-	220.0
359	Roads & Trails	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL TRANSMISSION PLANT	**30.0**	**30.0**	**30.0**	**30.0**	**3.0**	**-**	**53.0**	**50.0**	**-**	**-**	**-**	**-**	**226.0**
	DISTRIBUTION PLANT													
361	Structure and Improvements - Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-
362	Substation Equipment - Distribution	50.0	-	-	-	40.0	-	-	-	25.0	45.0	-	-	160.0
3646	Poles/Towers/Fixtures - Line Ext. - Rev. Prod.	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	43.2
3647	Poles/Towers/Fixtures - Line Ext. - Upgrades	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	46.8
3648	Poles/Towers/Fixtures - Decayed Pole Replace.	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	70.8
3656	O/H Conduct. & Dev. - Line Ext. - Rev. Prod.	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	39.6
3657	O/H Conduct. & Dev. - Line Ext. - Upgrades	5.2	5.2	5.2	5.2	5.2	35.2	5.2	5.2	5.2	5.2	5.2	5.2	92.4
3658	O/H Conduct. & Dev. - Decayed Pole Replace.	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	40.8
3662	Underground Conduit - Buried	1.0	51.0	51.0	51.0	51.0	1.0	1.0	1.0	1.0	1.0	251.0	1.0	462.0
3672	Underground Conductors & Devices - Buried	24.2	24.2	74.2	74.2	74.2	74.2	24.2	24.2	24.2	24.2	24.2	274.2	740.4
3681	Line Transformers - Overhead	-	10.0	10.0	20.0	-	10.0	-	-	-	-	-	-	50.0
3683	Line Transformers - Buried	-	50.0	50.0	50.0	50.0	50.0	50.0	-	-	-	-	-	300.0
3691	Overhead Services	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	85.2
3693	Underground Services - Buried	15.0	15.0	15.0	20.0	20.0	20.0	20.0	11.1	11.1	11.1	11.1	11.1	180.5
370	Meters	15.0	10.0	10.0	10.0	10.0	10.0	5.0	9.0	10.0	40.0	10.0	10.0	149.0
3711	Installations on Cust. Prem. - Aboveground	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	34.8
3713	Installations on Cust. Prem. - Underground	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	19.2
3731	Street Lighting and Signal Syst. - Aboveground	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	15.6
3733	Street Lighting and Signal Syst. - Underground	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	10.8
	TOTAL DISTRIBUTION PLANT	**144.3**	**199.3**	**249.3**	**264.3**	**284.3**	**234.3**	**139.3**	**84.4**	**110.4**	**160.4**	**335.4**	**335.4**	**2,541.1**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	GENERAL PLANT													
390	Structure and Improvements	-	-	2.0	-	-	-	2.0	-	-	-	2.0	-	6.0
3911	Office Furniture and Equipment	-	-	1.0	-	-	-	-	-	1.0	-	-	-	2.0
3912	Office Machines	-	-	-	-	1.2	-	-	-	-	-	-	-	1.2
3913	EDP Equipment	-	-	-	-	1.5	-	-	1.5	-	-	-	-	3.0
3921	Transportation Equipment - Autos	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light	50.0	127.0	-	-	-	-	-	-	-	-	-	-	177.0
3923	Transportation Equipment - Heavy	55.0	-	-	-	-	-	-	-	-	-	-	-	55.0
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
3931	Stores Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3932	Stores Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
3941	Tools/Shop/Garage Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3942	Tools/Shop/Garage Equipment - Portable	-	-	6.0	-	-	6.0	-	-	6.0	35.0	-	-	53.0
3951	Laboratory Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3952	Laboratory Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	40.0	-	-	-	40.0
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous Tangible Property	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**105.0**	**127.0**	**9.0**	**-**	**2.7**	**6.0**	**2.0**	**1.5**	**47.0**	**35.0**	**2.0**	**-**	**337.2**
	TOTAL CONSTRUCTION	**279.3**	**356.3**	**288.3**	**294.3**	**290.0**	**240.3**	**194.3**	**135.9**	**157.4**	**195.4**	**337.4**	**335.4**	**3,104.3**
	CARRYOVERS	-	790.0	-	-	-	-	-	-	-	-	-	-	790.0
	TOTAL CONSTRUCTION WITH CARRYOVERS	**279.3**	**1,146.3**	**288.3**	**294.3**	**290.0**	**240.3**	**194.3**	**135.9**	**157.4**	**195.4**	**337.4**	**335.4**	**3,894.3**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NON-SPECIFIC CONSTRUCTION														
	TRANSMISSION PLANT													
352	Structures and Improvements					3.0		3.0						6.0
353	Substation Equipment													-
354	Towers & Fixtures													-
355	Poles & Fixtures													-
356	O/H Conduct. & Dev.													-
359	Roads & Trails													-
	TOTAL TRANSMISSION PLANT	**-**	**-**	**-**	**-**	**3.0**	**-**	**3.0**	**-**	**-**	**-**	**-**	**-**	**6.0**
	DISTRIBUTION PLANT													
361	Structure and Improvements - Distribution													-
362	Substation Equipment - Distribution													-
3646	Poles/Towers/Fixtures - Line Ext. - Rev. Prod.	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	13.2
3647	Poles/Towers/Fixtures - Line Ext. - Upgrades	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	46.8
3648	Poles/Towers/Fixtures - Decayed Pole Replace.	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	70.8
3656	O/H Conduct. & Dev. - Line Ext. - Rev. Prod.	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	9.6
3657	O/H Conduct. & Dev. - Line Ext. - Upgrades	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	62.4
3658	O/H Conduct. & Dev. - Decayed Pole Replace.	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	40.8
3662	Underground Conduit - Buried	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
3672	Underground Conductors & Devices - Buried	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	32.4
3681	Line Transformers - Overhead	-	10.0	10.0	20.0		10.0		-					50.0
3683	Line Transformers - Buried	-	50.0	50.0	50.0	50.0	50.0	50.0						300.0
3691	Overhead Services	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	85.2
3693	Underground Services - Buried	15.0	15.0	15.0	20.0	20.0	20.0	20.0	11.1	11.1	11.1	11.1	11.1	180.5
370	Meters	10.0	10.0	10.0	10.0	10.0	10.0	5.0	9.0	10.0	10.0	10.0	10.0	114.0
3711	Installations on Cust. Prem. - Aboveground	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	34.8
3713	Installations on Cust. Prem. - Underground	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	19.2
3731	Street Lighting and Signal Syst. - Aboveground	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	15.6
3733	Street Lighting and Signal Syst. - Underground	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	10.8
	TOTAL DISTRIBUTION PLANT	**62.8**	**122.8**	**122.8**	**137.8**	**117.8**	**127.8**	**112.8**	**57.9**	**58.9**	**58.9**	**58.9**	**58.9**	**1,098.1**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	GENERAL PLANT													
390	Structure and Improvements			2.0				2.0				2.0		6.0
3911	Office Furniture and Equipment			1.0						1.0				2.0
3912	Office Machines					1.2								1.2
3913	EDP Equipment					1.5			1.5					3.0
3921	Transportation Equipment - Autos													-
3922	Transportation Equipment - Light													-
3923	Transportation Equipment - Heavy													-
3924	Transportation Equipment - Trailers													-
3931	Stores Equipment - Fixed Installation													-
3932	Stores Equipment - Portable													-
3941	Tools/Shop/Garage Equipment - Fixed Installation													-
3942	Tools/Shop/Garage Equipment - Portable			6.0			6.0			6.0				18.0
3951	Laboratory Equipment - Fixed Installation													-
3952	Laboratory Equipment - Portable													-
396	Power Operated Equipment													-
397	Communication Equipment													-
398	Miscellaneous Equipment													-
399	Miscellaneous Tangible Property													-
	TOTAL GENERAL PLANT	**-**	**-**	**9.0**	**-**	**2.7**	**6.0**	**2.0**	**1.5**	**7.0**	**-**	**2.0**	**-**	**30.2**
TOTAL NON-SPECIFIC CONSTRUCTION		**62.8**	**122.8**	**131.8**	**137.8**	**123.5**	**133.8**	**117.8**	**59.4**	**65.9**	**58.9**	**60.9**	**58.9**	**1,134.3**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

SPECIFIC CONSTRUCTION SUMMARY

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	TRANSMISSION PLANT													
352	Structures and Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
353	Substation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
354	Towers & Fixtures	-	-	-	-	-	-	-	-	-	-	-	-	-
355	Poles & Fixtures	-	-	-	-	-	-	-	-	-	-	-	-	-
356	O/H Conduct. & Dev.	30.0	30.0	30.0	30.0	-	-	50.0	50.0	-	-	-	-	220.0
359	Roads & Trails	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL TRANSMISSION PLANT	**30.0**	**30.0**	**30.0**	**30.0**	**-**	**-**	**50.0**	**50.0**	**-**	**-**	**-**	**-**	**220.0**
	DISTRIBUTION PLANT													
361	Structure and Improvements - Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-
362	Substation Equipment - Distribution	50.0	-	-	-	40.0	-	-	-	25.0	45.0	-	-	160.0
3646	Poles/Towers/Fixtures - Line Ext. - Rev. Prod.	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0
3647	Poles/Towers/Fixtures - Line Ext. - Upgrades	-	-	-	-	-	-	-	-	-	-	-	-	-
3648	Poles/Towers/Fixtures - Decayed Pole Replace.	-	-	-	-	-	-	-	-	-	-	-	-	-
3656	O/H Conduct. & Dev. - Line Ext. - Rev. Prod.	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0
3657	O/H Conduct. & Dev. - Line Ext. - Upgrades	-	-	-	-	-	30.0	-	-	-	-	-	-	30.0
3658	O/H Conduct. & Dev. - Decayed Pole Replace.	-	-	-	-	-	-	-	-	-	-	-	-	-
3662	Underground Conduit - Buried	-	50.0	50.0	50.0	50.0	-	-	-	-	-	250.0	-	450.0
3672	Underground Conductors & Devices - Buried	21.5	21.5	71.5	71.5	71.5	71.5	21.5	21.5	21.5	21.5	21.5	271.5	708.0
3681	Line Transformers - Overhead	-	-	-	-	-	-	-	-	-	-	-	-	-
3683	Line Transformers - Buried	-	-	-	-	-	-	-	-	-	-	-	-	-
3691	Overhead Services	-	-	-	-	-	-	-	-	-	-	-	-	-
3693	Underground Services - Buried	-	-	-	-	-	-	-	-	-	-	-	-	-
370	Meters	5.0	-	-	-	-	-	-	-	-	30.0	-	-	35.0
3711	Installations on Cust. Prem. - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
3713	Installations on Cust. Prem. - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
3731	Street Lighting and Signal Syst. - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
3733	Street Lighting and Signal Syst. - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**81.5**	**76.5**	**126.5**	**126.5**	**166.5**	**106.5**	**26.5**	**26.5**	**51.5**	**101.5**	**276.5**	**276.5**	**1,443.0**

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 24.2

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	GENERAL PLANT													
390	Structure and Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
3911	Office Furniture and Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Machines	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	EDP Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3921	Transportation Equipment - Autos	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light	50.0	127.0	-	-	-	-	-	-	-	-	-	-	177.0
3923	Transportation Equipment - Heavy	55.0	-	-	-	-	-	-	-	-	-	-	-	55.0
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
3931	Stores Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3932	Stores Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
3941	Tools/Shop/Garage Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3942	Tools/Shop/Garage Equipment - Portable	-	-	-	-	-	-	-	-	-	35.0	-	-	35.0
3951	Laboratory Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3952	Laboratory Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	40.0	-	-	-	40.0
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous Tangible Property	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**105.0**	**127.0**	**-**	**-**	**-**	**-**	**-**	**-**	**40.0**	**35.0**	**-**	**-**	**307.0**
	TOTAL SPECIFIC CONSTRUCTION	**216.5**	**233.5**	**156.5**	**156.5**	**166.5**	**106.5**	**76.5**	**76.5**	**91.5**	**136.5**	**276.5**	**276.5**	**1,970.0**
	CARRYOVERS	-	790.0	-	-	-	-	-	-	-	-	-	-	790.0
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS	**216.5**	**1,023.5**	**156.5**	**156.5**	**166.5**	**106.5**	**76.5**	**76.5**	**91.5**	**136.5**	**276.5**	**276.5**	**2,760.0**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
	SPECIFIC CONSTRUCTION - DETAIL																
	REVENUE PRODUCING																
1	TBD	3646	30.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0	-
2	TBD	3656	30.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0	-
3	TBD	3672	258.0	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	258.0	-
	TOTAL REVENUE PRODUCING		**318.0**	**26.5**	**26.5**	**26.5**	**26.5**	**26.5**	**26.5**	**26.5**	**26.5**	**26.5**	**26.5**	**26.5**	**26.5**	**318.0**	**-**
	NON-REVENUE PRODUCING																
4	**Amortization of Transmission Facilities Hardening Project - 2008**	355	(354.6)	(29.5)	(29.5)	(29.5)	(29.5)	(29.5)	(29.5)	(29.5)	(29.5)	(29.5)	(29.5)	(29.5)	(30.1)	(354.6)	-
a	Reasons: Comm. Approved Hardening Spec. Proj.															-	-
b	Benefits: Increase reliability of service															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**(354.6)**	**(29.5)**	**(29.5)**	**(29.5)**	**(29.5)**	**(29.5)**	**(29.5)**	**(29.5)**	**(29.5)**	**(29.5)**	**(29.5)**	**(29.5)**	**(30.1)**	**(354.6)**	**-**
5	**Replace Transmission Poles**	355	354.6	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	30.1	354.6	-
a	Reasons: Comm. Mandated Hardening															-	-
b	Benefits: Increase reliability of service															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**354.6**	**29.5**	**29.5**	**29.5**	**29.5**	**29.5**	**29.5**	**29.5**	**29.5**	**29.5**	**29.5**	**29.5**	**30.1**	**354.6**	**-**
12	**Replace Cable at AIP**	3662	200.0		50.0	50.0	50.0	50.0								200.0	-
a	Reasons: Past its useful life	3672	200.0			50.0	50.0	50.0	50.0							200.0	-
b	Benefits: Increase reliability of service															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**400.0**	**-**	**50.0**	**100.0**	**100.0**	**100.0**	**50.0**	**-**	**-**	**-**	**-**	**-**	**-**	**400.0**	**-**
19	**Regulators and Capacitors @ South End of Island**	3657	30.0						30.0							30.0	-
a	Reasons: Improve voltage															-	-
b	Benefits: Improve Voltage															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**30.0**	**-**	**-**	**-**	**-**	**-**	**30.0**	**-**	**-**	**-**	**-**	**-**	**-**	**30.0**	**-**
16	**Replace TWO (2) AIP Air Magnetic CB with Vacuum CB**	362	40.0					40.0								40.0	-
a	Reasons: Past its usefull life															-	-
b	Benefits: Increase reliability of service at AIP Sub.															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**40.0**	**-**	**-**	**-**	**-**	**40.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**40.0**	**-**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
24	**Purchase New Phone System**	397	40.0									40.0				40.0	-
a	Reasons: Unreliable without many required functions															-	-
b	Benefits: Improve Customer Service															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**40.0**	-	-	-	-	-	-	-	-	**40.0**	-	-	-	**40.0**	-
15	**Reinsualte portion of 69kV line to AIP Sub.**	356	120.0	30.0	30.0	30.0	30.0									120.0	-
a	Reasons: Past its usefull life															-	-
b	Benefits: Increase reliability of service to AIP substation															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**120.0**	**30.0**	**30.0**	**30.0**	**30.0**	-	-	-	-	-	-	-	-	**120.0**	-
22	**Purchase Meter Tester Set**	370	30.0										30.0			30.0	-
a	Reasons: Meter requirements															-	-
b	Benefits: Same															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**30.0**	-	-	-	-	-	-	-	-	-	**30.0**	-	-	**30.0**	-
6	**Replace 1999 Model Operations Manager Pickup Truck #1751**	3922	25.0	25.0												25.0	-
a	Reasons: Past its useful life															-	-
b	Benefits: Increase reliability of service															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**25.0**	**25.0**	-	-	-	-	-	-	-	-	-	-	-	**25.0**	-
11	**Replace 1997 Model Truck with Autocrane #1770**	3923	55.0	55.0												55.0	-
a	Reasons: Past its useful life															-	-
b	Benefits: Increase reliability of service															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**55.0**	**55.0**	-	-	-	-	-	-	-	-	-	-	-	**55.0**	-
13	**Reinsulate 69 KV line to Rayonier and Smurfit Substations**	356	100.0							50.0	50.0					100.0	-
a	Reasons: Past its useful life															-	-
b	Benefits: Increase reliability of service															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**100.0**	-	-	-	-	-	-	**50.0**	**50.0**	-	-	-	-	**100.0**	-
21	**Purchase CT Tester**	370	5.0	5.0												5.0	-
a	Reasons: Meter requirements															-	-
b	Benefits: Same															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**5.0**	**5.0**	-	-	-	-	-	-	-	-	-	-	-	**5.0**	-

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
17	**Stepdown Substation-Rear Entrance on Cashen Rd.**	362	50.0	50.0												50.0	-
a	Reasons: Exit out of Step-down Substation															-	-
b	Benefits: Same															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**50.0**	**50.0**	-	-	-	-	-	-	-	-	-	-	-	**50.0**	-
8	**Replace 2000 Model F350 Truck #1748**	3922	52.0		52.0											52.0	-
a	Reasons: Past its useful life															-	-
b	Benefits: Increase reliability of service															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**52.0**	-	**52.0**	-	-	-	-	-	-	-	-	-	-	**52.0**	-
7	**Replace 2000 Model Senior Engineer Pickup Truck #1756**	3922	25.0	25.0												25.0	-
a	Reasons: Past its useful life															-	-
b	Benefits: Increase reliability of service															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**25.0**	**25.0**	-	-	-	-	-	-	-	-	-	-	-	**25.0**	-
9	**Replace 2000 Model F350 Truck #1757**	3922	45.0		45.0											45.0	-
a	Reasons: Past its useful life															-	-
b	Benefits: Increase reliability of service															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**45.0**	-	**45.0**	-	-	-	-	-	-	-	-	-	-	**45.0**	-
10	**Replace 2000 Model 3500 Meter Truck #1762**	3922	30.0		30.0											30.0	-
a	Reasons: Past its useful life															-	-
b	Benefits: Increase reliability of service															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**30.0**	-	**30.0**	-	-	-	-	-	-	-	-	-	-	**30.0**	-
14	**Construct Feeder #312 - Phase 1**	3662	250.0											250.0		250.0	-
a	Reasons: Provide for load growth	3672	250.0												250.0	250.0	-
b	Benefits: Reliable Service															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**500.0**	-	-	-	-	-	-	-	-	-	-	**250.0**	**250.0**	**500.0**	-
18	**Grounding and Rocking at Chip Mill Substation**	362	50.0									25.0	25.0			50.0	-
a	Reasons: Safety															-	-
b	Benefits: Safety															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**50.0**	-	-	-	-	-	-	-	-	**25.0**	**25.0**	-	-	**50.0**	-

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
20	**Install Perimeter Ground @ AIP Substation**	362	20.0										20.0			20.0	-
a	Reasons: Safety															-	-
b	Benefits: Safety															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**20.0**	-	-	-	-	-	-	-	-	-	**20.0**	-	-	**20.0**	-
23	**Purchase Purchase Cable Puller**	3942	35.0										35.0			35.0	-
a	Reasons: Meter requirements															-	-
b	Benefits: Same															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**35.0**	-	-	-	-	-	-	-	-	-	**35.0**	-	-	**35.0**	-
	NON-REVENUE PRODUCING		**1,652.0**	**190.0**	**207.0**	**130.0**	**130.0**	**140.0**	**80.0**	**50.0**	**50.0**	**65.0**	**110.0**	**250.0**	**250.0**	**1,652.0**	-
	TOTAL SPECIFIC CONSTRUCTION		**1,970.0**	**216.5**	**233.5**	**156.5**	**156.5**	**166.5**	**106.5**	**76.5**	**76.5**	**91.5**	**136.5**	**276.5**	**276.5**	**1,970.0**	-
	CARRYOVERS		790.0	-	790.0	-	-	-	-	-	-	-	-	-	-	790.0	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		**2,760.0**	**216.5**	**1,023.5**	**156.5**	**156.5**	**166.5**	**106.5**	**76.5**	**76.5**	**91.5**	**136.5**	**276.5**	**276.5**	**2,760.0**	-

	Carryover Projects(Do Not Include in Above Projects)	TOTAL CARRYOVER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
1	AIP Transformer	790.0		790.0											790.0	-

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA NATURAL GAS DIVISION
2008 Capital Expenditure Budget
Dollars in Thousands (000.0)

ACCT	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
TOTAL CONSTRUCTION														
	DISTRIBUTION PLANT													
3761	Mains - Plastic	203.0	199.0	199.0	189.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	1,582.0
3762	Mains - Other	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	210.0
379	Measure/Regulator Equipment-City Gate	3.5	-	-	3.5	-	-	3.5	-	-	3.5	-	-	14.0
3801	Services - Plastic	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.7	43.7	43.7	523.5
3802	Services - Other	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
381	Meters	24.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	200.0
382	Meter Installations	33.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	308.0
383	House Regulators	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	120.0
384	House Regulator Installations	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	54.0
387	Other Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**340.1**	**316.6**	**316.6**	**310.1**	**216.6**	**216.6**	**220.1**	**216.6**	**216.6**	**220.2**	**216.7**	**216.7**	**3,023.5**
	GENERAL PLANT													
389	Land	-	-	-	-	-	-	-	-	-	-	-	-	-
390	Structures & Improvements	28.0	27.0	27.0	86.0	85.0	85.0	56.0	54.0	55.0	500.0	501.0	500.0	2,004.0
3911	Office Furniture	-	1.0	-	7.5	1.0	-	-	1.0	-	-	1.0	-	11.5
3912	Office Machines	-	0.5	1.2	0.5	-	0.5	-	0.5	-	0.5	-	0.5	4.2
3913	EDP Equipment	-	-	-	-	2.0	-	-	-	2.0	-	-	-	4.0
391305	EDP Software	-	-	4.5	-	-	-	-	-	-	-	-	-	4.5
3921	Transportation Equipment - Cars	-	-	-	22.5	-	-	-	-	-	-	-	-	22.5
3922	Transportation Equipment - Light Trucks & Vans	-	223.0	75.5	-	-	-	-	-	-	-	-	-	298.5
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
393	Stores Equipment	24.0	-	-	-	-	-	-	-	-	-	-	-	24.0
394	Tools, Shop and Garage Equipment	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	36.0
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	61.0	-	-	-	-	-	-	-	-	-	-	61.0
397	Communication Equipment	75.0	2.0	-	-	-	2.0	-	-	-	2.0	-	-	81.0
398	Miscellaneous Equipment	1.0	11.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	22.0
399	Miscellaneous Tangible	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**131.0**	**328.5**	**112.2**	**120.5**	**92.0**	**91.5**	**60.0**	**59.5**	**61.0**	**506.5**	**506.0**	**504.5**	**2,573.2**
TOTAL CONSTRUCTION		**471.1**	**645.1**	**428.8**	**430.6**	**308.6**	**308.1**	**280.1**	**276.1**	**277.6**	**726.7**	**722.7**	**721.2**	**5,596.7**
CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL CONSTRUCTION WITH CARRYOVERS		471.1	645.1	428.8	430.6	308.6	308.1	280.1	276.1	277.6	726.7	722.7	721.2	5,596.7

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA NATURAL GAS DIVISION
2008 Capital Expenditure Budget
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NON-SPECIFIC CONSTRUCTION														
	DISTRIBUTION PLANT													
3761	Mains - Plastic	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	612.0
3762	Mains - Other	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0
379	Measure/Regulator Equipment-City Gate	3.5			3.5			3.5			3.5			14.0
3801	Services - Plastic	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	588.0
3801	Services - Plastic - Bare Steel Amortization	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)	(5.3)	(5.3)	(5.3)	(64.5)
3802	Services - Other	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
381	Meters	24.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	200.0
382	Meter Installations	33.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	308.0
383	House Regulators	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	120.0
384	House Regulator Installations	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	54.0
387	Other Equipment													-
	TOTAL DISTRIBUTION PLANT	**173.1**	**153.6**	**153.6**	**157.1**	**153.6**	**153.6**	**157.1**	**153.6**	**153.6**	**157.2**	**153.7**	**153.7**	**1,873.5**
	GENERAL PLANT													
389	Land													-
390	Structures & Improvements	1.0			1.0			1.0				1.0		4.0
3911	Office Furniture		1.0		7.5	1.0			1.0			1.0		11.5
3912	Office Machines		0.5	1.2	0.5		0.5		0.5		0.5		0.5	4.2
3913	EDP Equipment					2.0				2.0				4.0
3921	Transportation Equipment - Cars													-
3922	Transportation Equipment - Light Trucks & Vans													-
3924	Transportation Equipment - Trailers													-
394	Tools, Shop and Garage Equipment	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	36.0
395	Laboratory Equipment													-
396	Power Operated Equipment													-
397	Communication Equipment		2.0				2.0				2.0			6.0
398	Miscellaneous Equipment	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
399	Miscellaneous Tangible													-
	TOTAL GENERAL PLANT	**5.0**	**7.5**	**5.2**	**13.0**	**7.0**	**6.5**	**5.0**	**5.5**	**6.0**	**6.5**	**6.0**	**4.5**	**77.7**
TOTAL NON-SPECIFIC CONSTRUCTION		**178.1**	**161.1**	**158.8**	**170.1**	**160.6**	**160.1**	**162.1**	**159.1**	**159.6**	**163.7**	**159.7**	**158.2**	**1,951.2**

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA NATURAL GAS DIVISION
2008 Capital Expenditure Budget
Dollars in Thousands (000.0)

SPECIFIC CONSTRUCTION SUMMARY

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
3761	Mains - Plastic	152.0	148.0	148.0	138.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	970.0
3762	Mains - Other	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	180.0
379	Measure/Regulator Equipment-City Gate	-	-	-	-	-	-	-	-	-	-	-	-	-
3801	Services - Plastic	-	-	-	-	-	-	-	-	-	-	-	-	-
3802	Services - Other	-	-	-	-	-	-	-	-	-	-	-	-	-
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
387	Other Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**167.0**	**163.0**	**163.0**	**153.0**	**63.0**	**63.0**	**63.0**	**63.0**	**63.0**	**63.0**	**63.0**	**63.0**	**1,150.0**
	GENERAL PLANT													
389	Land	-	-	-	-	-	-	-	-	-	-	-	-	-
390	Structures & Improvements	27.0	27.0	27.0	85.0	85.0	85.0	55.0	54.0	55.0	500.0	500.0	500.0	2,000.0
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Machines	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	EDP Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
391305	EDP Software	-	-	4.5	-	-	-	-	-	-	-	-	-	4.5
3921	Transportation Equipment - Cars	-	-	-	22.5	-	-	-	-	-	-	-	-	22.5
3922	Transportation Equipment - Light Trucks & Vans	-	223.0	75.5	-	-	-	-	-	-	-	-	-	298.5
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
393	Stores Equipment	24.0	-	-	-	-	-	-	-	-	-	-	-	24.0
394	Tools, Shop and Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	61.0	-	-	-	-	-	-	-	-	-	-	61.0
397	Communication Equipment	75.0	-	-	-	-	-	-	-	-	-	-	-	75.0
398	Miscellaneous Equipment	-	10.0	-	-	-	-	-	-	-	-	-	-	10.0
399	Miscellaneous Tangible	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**126.0**	**321.0**	**107.0**	**107.5**	**85.0**	**85.0**	**55.0**	**54.0**	**55.0**	**500.0**	**500.0**	**500.0**	**2,495.5**
	TOTAL SPECIFIC CONSTRUCTION	**293.0**	**484.0**	**270.0**	**260.5**	**148.0**	**148.0**	**118.0**	**117.0**	**118.0**	**563.0**	**563.0**	**563.0**	**3,645.5**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS	**293.0**	**484.0**	**270.0**	**260.5**	**148.0**	**148.0**	**118.0**	**117.0**	**118.0**	**563.0**	**563.0**	**563.0**	**3,645.5**

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA NATURAL GAS DIVISION
2008 Capital Expenditure Budget
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
	SPECIFIC CONSTRUCTION - DETAIL																
	REVENUE PRODUCING - NON-AEP																
1	TBD	3761	340.0	32.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	340.0	-
2	TBD	3762	60.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	60.0	-
	TOTAL REVENUE PRODUCING		**400.0**	**37.0**	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**400.0**	**-**
	REVENUE PRODUCING - AEP																
11	TBD	3761	240.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	240.0	-
12	TBD	3762	120.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	120.0	-
	TOTAL REVENUE PRODUCING - AEP		**360.0**	**30.0**	**30.0**	**30.0**	**30.0**	**30.0**	**30.0**	**30.0**	**30.0**	**30.0**	**30.0**	**30.0**	**30.0**	**360.0**	**-**
	TOTAL REVENUE PRODUCING		**760.0**	**67.0**	**63.0**	**63.0**	**63.0**	**63.0**	**63.0**	**63.0**	**63.0**	**63.0**	**63.0**	**63.0**	**63.0**	**760.0**	**-**

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA NATURAL GAS DIVISION
2008 Capital Expenditure Budget
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
	NON-REVENUE PRODUCING																
21	**Amortize Bare Steel Mains**	3761	(314.9)	(26.3)	(26.3)	(26.3)	(26.3)	(26.3)	(26.2)	(26.2)	(26.2)	(26.2)	(26.2)	(26.2)	(26.2)	(314.9)	-
a	Reasons: PSC Approved Program															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**(314.9)**	**(26.3)**	**(26.3)**	**(26.3)**	**(26.3)**	**(26.3)**	**(26.2)**	**(26.2)**	**(26.2)**	**(26.2)**	**(26.2)**	**(26.2)**	**(26.2)**	**(314.9)**	**-**
22	**Bare Steel Mains Replacement**	3761	314.9	26.3	26.3	26.3	26.3	26.3	26.2	26.2	26.2	26.2	26.2	26.2	26.2	314.9	-
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**314.9**	**26.3**	**26.3**	**26.3**	**26.3**	**26.3**	**26.2**	**26.2**	**26.2**	**26.2**	**26.2**	**26.2**	**26.2**	**314.9**	**-**
23	**Replace Operations Building**	390	4,500.0	27.0	27.0	27.0	85.0	85.0	85.0	55.0	54.0	55.0	500.0	500.0	500.0	2,000.0	2,500.0
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**4,500.0**	**27.0**	**27.0**	**27.0**	**85.0**	**85.0**	**85.0**	**55.0**	**54.0**	**55.0**	**500.0**	**500.0**	**500.0**	**2,000.0**	**2,500.0**
24	**Replace General Manager Vehicle**	3922	25.5		25.5											25.5	-
a	Reasons: Age, condition & Mileage															-	-
b	Benefits: Reduced downtime															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**25.5**	**-**	**25.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**25.5**	**-**
25	**Replace Dump Truck #356**	3922	57.5			57.5										57.5	-
a	Reasons: Age, condition & Mileage															-	-
b	Benefits: Reduced downtime															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**57.5**	**-**	**-**	**57.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**57.5**	**-**
26	**Replace Trk #471**	3922	49.5		49.5											49.5	-
a	Reasons: Age, condition & Mileage															-	-
b	Benefits: Reduced downtime															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**49.5**	**-**	**49.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**49.5**	**-**
27	**Replace 4 Service Trucks**	3922	148.0		148.0											148.0	-
a	Reasons: Age, condition & Mileage															-	-
b	Benefits: Reduced downtime															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**148.0**	**-**	**148.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**148.0**	**-**
28	**Add Safety Coordinator Vehicle**	3921	22.5				22.5									22.5	-
a	Reasons: New Position															-	-
b	Benefits: Perform Responsibilities															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**22.5**	**-**	**-**	**-**	**22.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**22.5**	**-**

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA NATURAL GAS DIVISION
2008 Capital Expenditure Budget
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
29	**Replace Engineering Truck**	3922	18.0			18.0										18.0	-
a	Reasons: Age, condition & Mileage															-	-
b	Benefits: Reduced downtime															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**18.0**	-	-	**18.0**	-	-	-	-	-	-	-	-	-	**18.0**	-
30	**Backhoe for operations**	396	61.0		61.0											61.0	-
a	Reasons: Currently Renting															-	-
b	Benefits: Efficiency & Savings															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**61.0**	-	**61.0**	-	-	-	-	-	-	-	-	-	-	**61.0**	-
31	**Warehouse Forklift**	393	24.0	24.0												24.0	-
a	Reasons: Currently R3enting															-	-
b	Benefits: Efficiency & Savings															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**24.0**	**24.0**	-	-	-	-	-	-	-	-	-	-	-	**24.0**	-
32	**Shoring Equipment**	398	10.0		10.0											10.0	-
a	Reasons: Current equipment inoperable															-	-
b	Benefits: Safety and savings															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**10.0**	-	**10.0**	-	-	-	-	-	-	-	-	-	-	**10.0**	-
33	**Vehicle Locating/Comm. Equipment**	397	75.0	75.0												75.0	-
a	Reasons: vehicle monitoring															-	-
b	Benefits: Efficiency & Savings															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**75.0**	**75.0**	-	-	-	-	-	-	-	-	-	-	-	**75.0**	-
34	**Bentley Microstation Software**	391305	4.5			4.5										4.5	-
a	Reasons: Interface w/Dot															-	-
b	Benefits: Efficiency & Savings															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**4.5**	-	-	**4.5**	-	-	-	-	-	-	-	-	-	**4.5**	-
34	**Improve South & West System**	3761	390.0	100.0	100.0	100.0	90.0									390.0	-
a	Reasons: Antiquated System															-	-
b	Benefits: Reduced Repairs															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**390.0**	**100.0**	**100.0**	**100.0**	**90.0**	-	-	-	-	-	-	-	-	**390.0**	-
	TOTAL NON-REVENUE PRODUCING		**5,385.5**	**226.0**	**421.0**	**207.0**	**197.5**	**85.0**	**85.0**	**55.0**	**54.0**	**55.0**	**500.0**	**500.0**	**500.0**	**2,885.5**	**2,500.0**
	TOTAL SPECIFIC CONSTRUCTION		**6,145.5**	**293.0**	**484.0**	**270.0**	**260.5**	**148.0**	**148.0**	**118.0**	**117.0**	**118.0**	**563.0**	**563.0**	**563.0**	**3,645.5**	**2,500.0**
	CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		6,145.5	293.0	484.0	270.0	260.5	148.0	148.0	118.0	117.0	118.0	563.0	563.0	563.0	3,645.5	2,500.0

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DETAIL SPEC

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA NATURAL GAS DIVISION
2008 Capital Expenditure Budget
Dollars in Thousands (000.0)

TOTAL CONSTRUCTION

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
3761	Mains - Plastic	17.3	27.3	43.8	53.3	32.3	23.1	37.3	37.3	61.9	47.3	44.1	17.4	442.4
3762	Mains - Other	-	1.0	-	1.0	-	21.0	20.0	1.0	-	1.0	35.0	73.0	153.0
379	Measure/Regulator Equipment-City Gate	-	-	-	-	-	-	-	-	-	-	-	-	-
3801	Services - Plastic	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	366.0
3802	Services - Other	-	0.5	-	0.5	-	0.5	-	0.5	-	0.5	-	-	2.5
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	44.4
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	15.6
387	Other Equipment	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	102.0	4.0	4.0	4.0	146.0
	TOTAL DISTRIBUTION PLANT	**56.8**	**68.3**	**83.3**	**94.3**	**71.8**	**84.1**	**96.8**	**78.3**	**199.4**	**88.3**	**118.6**	**129.9**	**1,169.9**
	GENERAL PLANT													
389	Land	-	-	-	-	-	-	-	-	-	-	-	-	-
390	Structures & Improvements	-	-	16.0	15.0	-	-	-	-	-	-	11.0	-	42.0
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Machines	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	EDP Equipment	-	-	1.8	-	-	-	-	-	-	54.0	-	-	55.8
3921	Transportation Equipment - Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light Trucks & Vans	-	-	52.2	-	-	38.0	-	-	-	-	-	-	90.2
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop and Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous Tangible	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**-**	**70.0**	**15.0**	**-**	**38.0**	**-**	**-**	**-**	**54.0**	**11.0**	**-**	**188.0**
	TOTAL CONSTRUCTION	**56.8**	**68.3**	**153.3**	**109.3**	**71.8**	**122.1**	**96.8**	**78.3**	**199.4**	**142.3**	**129.6**	**129.9**	**1,357.9**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL CONSTRUCTION WITH CARRYOVERS	**56.8**	**68.3**	**153.3**	**109.3**	**71.8**	**122.1**	**96.8**	**78.3**	**199.4**	**142.3**	**129.6**	**129.9**	**1,357.9**

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA NATURAL GAS DIVISION
2008 Capital Expenditure Budget
Dollars in Thousands (000.0)

NON-SPECIFIC CONSTRUCTION

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
3761	Mains - Plastic	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	68.4
3762	Mains - Other		1.0		1.0		1.0		1.0		1.0			5.0
379	Measure/Regulator Equipment-City Gate													-
3801	Services - Plastic	29.7	29.7	29.7	29.7	29.7	29.6	29.7	29.7	29.7	29.7	29.7	29.6	356.2
3801	Services - Plastic - Bare Steel Amortization	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.1)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.1)	(26.2)
3802	Services - Other		0.5		0.5		0.5		0.5		0.5			2.5
381	Meters													-
382	Meter Installations	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	44.4
383	House Regulators													-
384	House Regulator Installations	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	15.6
387	Other Equipment	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	48.0
	TOTAL DISTRIBUTION PLANT	**42.2**	**43.7**	**42.2**	**43.7**	**42.2**	**43.7**	**42.2**	**43.7**	**42.2**	**43.7**	**42.2**	**42.2**	**513.9**
	GENERAL PLANT													
389	Land													-
390	Structures & Improvements													-
3911	Office Furniture													-
3912	Office Machines													-
3913	EDP Equipment			1.8										1.8
3921	Transportation Equipment - Cars													-
3922	Transportation Equipment - Light Trucks & Vans													-
3924	Transportation Equipment - Trailers													-
394	Tools, Shop and Garage Equipment													-
395	Laboratory Equipment													-
396	Power Operated Equipment													-
397	Communication Equipment													-
398	Miscellaneous Equipment													-
399	Miscellaneous Tangible													-
	TOTAL GENERAL PLANT	**-**	**-**	**1.8**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.8**
TOTAL NON-SPECIFIC CONSTRUCTION		**42.2**	**43.7**	**44.0**	**43.7**	**42.2**	**43.7**	**42.2**	**43.7**	**42.2**	**43.7**	**42.2**	**42.2**	**515.7**

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA NATURAL GAS DIVISION
2008 Capital Expenditure Budget
Dollars in Thousands (000.0)

SPECIFIC CONSTRUCTION SUMMARY

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
3761	Mains - Plastic	11.6	21.6	38.1	47.6	26.6	17.4	31.6	31.6	56.2	41.6	38.4	11.7	374.0
3762	Mains - Other	-	-	-	-	-	20.0	20.0	-	-	-	35.0	73.0	148.0
379	Measure/Regulator Equipment-City Gate	-	-	-	-	-	-	-	-	-	-	-	-	-
3801	Services - Plastic	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	36.0
3802	Services - Other	-	-	-	-	-	-	-	-	-	-	-	-	-
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
387	Other Equipment	-	-	-	-	-	-	-	-	98.0	-	-	-	98.0
	TOTAL DISTRIBUTION PLANT	**14.6**	**24.6**	**41.1**	**50.6**	**29.6**	**40.4**	**54.6**	**34.6**	**157.2**	**44.6**	**76.4**	**87.7**	**656.0**
	GENERAL PLANT													
389	Land	-	-	-	-	-	-	-	-	-	-	-	-	-
390	Structures & Improvements	-	-	16.0	15.0	-	-	-	-	-	-	11.0	-	42.0
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Machines	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	EDP Equipment	-	-	-	-	-	-	-	-	-	54.0	-	-	54.0
3921	Transportation Equipment - Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light Trucks & Vans	-	-	52.2	-	-	38.0	-	-	-	-	-	-	90.2
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop and Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous Tangible	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**-**	**68.2**	**15.0**	**-**	**38.0**	**-**	**-**	**-**	**54.0**	**11.0**	**-**	**186.2**
	TOTAL SPECIFIC CONSTRUCTION	**14.6**	**24.6**	**109.3**	**65.6**	**29.6**	**78.4**	**54.6**	**34.6**	**157.2**	**98.6**	**87.4**	**87.7**	**842.2**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS	**14.6**	**24.6**	**109.3**	**65.6**	**29.6**	**78.4**	**54.6**	**34.6**	**157.2**	**98.6**	**87.4**	**87.7**	**842.2**

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA NATURAL GAS DIVISION
2008 Capital Expenditure Budget
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
	SPECIFIC CONSTRUCTION - DETAIL																
	REVENUE PRODUCING - NON-AEP																
1	Misc. Main Extensions	3761	180.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	180.0	-
2	Misc. Service Installations	3801	24.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0	-
	TOTAL REVENUE PRODUCING		**204.0**	**17.0**	**17.0**	**17.0**	**17.0**	**17.0**	**17.0**	**17.0**	**17.0**	**17.0**	**17.0**	**17.0**	**17.0**	**204.0**	**-**
	REVENUE PRODUCING - AEP																
11	TBD	3761	120.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	120.0	-
12	TBD	3801	12.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0	-
	TOTAL REVENUE PRODUCING - AEP		**132.0**	**11.0**	**11.0**	**11.0**	**11.0**	**11.0**	**11.0**	**11.0**	**11.0**	**11.0**	**11.0**	**11.0**	**11.0**	**132.0**	**-**
	TOTAL REVENUE PRODUCING		**336.0**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**	**28.0**	**336.0**	**-**

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA NATURAL GAS DIVISION
2008 Capital Expenditure Budget
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
	NON-REVENUE PRODUCING																
21	**Amortize Bare Steel Mains**	3761	(160.7)	(13.4)	(13.4)	(13.4)	(13.4)	(13.4)	(13.4)	(13.4)	(13.4)	(13.4)	(13.4)	(13.4)	(13.3)	(160.7)	-
a	Reasons: PSC Approved Program															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**(160.7)**	**(13.4)**	**(13.4)**	**(13.4)**	**(13.4)**	**(13.4)**	**(13.4)**	**(13.4)**	**(13.4)**	**(13.4)**	**(13.4)**	**(13.4)**	**(13.3)**	**(160.7)**	-
22	**Tappan Cir & Garden Ln., Orange City**	3761	27.5		10.0	10.5	7.0									27.5	-
a	Reasons: Bare Steel Replacement															-	-
b	Benefits: Sysstem Reliability															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**27.5**	**-**	**10.0**	**10.5**	**7.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**27.5**	-
23	**Aspen Ave., Orange City**	3761	11.0			6.0	5.0									11.0	-
a	Reasons: Bare Steel Replacement															-	-
b	Benefits: Sysstem Reliability															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**11.0**	**-**	**-**	**6.0**	**5.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**11.0**	-
24	**17-92 Minnesota to CV42, Orange City**	3761	40.8				20.0	15.0	5.8							40.8	-
a	Reasons: Bare Steel Replacement															-	-
b	Benefits: Sysstem Reliability															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**40.8**	**-**	**-**	**-**	**20.0**	**15.0**	**5.8**	**-**	**-**	**-**	**-**	**-**	**-**	**40.8**	-
25	**17-92 SR 15 to Bersford, DeLand**	3761	64.6							20.0	20.0	24.6				64.6	-
a	Reasons: Bare Steel Replacement															-	-
b	Benefits: Sysstem Reliability															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**64.6**	**-**	**-**	**-**	**-**	**-**	**-**	**20.0**	**20.0**	**24.6**	**-**	**-**	**-**	**64.6**	-
26	**N. Carpenter Ave., Orange City**	3761	16.8										10.0	6.8		16.8	-
a	Reasons: Bare Steel Replacement															-	-
b	Benefits: Sysstem Reliability															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**16.8**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**10.0**	**6.8**	**-**	**16.8**	-
27	**(1) Ops Supervisor pick-up**	3922	23.0			23.0										23.0	-
a	Reasons: Normal replacement															-	-
b	Benefits: Improve productivity & reduce down time															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**23.0**	**-**	**-**	**23.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**23.0**	-

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA NATURAL GAS DIVISION
2008 Capital Expenditure Budget
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
28	**(1) Inspector pick-up**	3922	16.2			16.2										16.2	-
	Reasons: Normal replacement															-	-
	Benefits: Improve productivity & reduce down time															-	-
	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**16.2**	-	-	**16.2**	-	-	-	-	-	-	-	-	-	**16.2**	-
29	**(1) Meter Reader pick-up**	3922	13.0			13.0										13.0	-
a	Reasons: Normal replacement															-	-
b	Benefits: Improve productivity & reduce down time															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**13.0**	-	-	**13.0**	-	-	-	-	-	-	-	-	-	**13.0**	-
30	**(1) Service truck**	3922	38.0						38.0							38.0	-
a	Reasons: Normal replacement															-	-
b	Benefits: Improve productivity & reduce down time															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**38.0**	-	-	-	-	-	**38.0**	-	-	-	-	-	-	**38.0**	-
31	**(2) Robur A/C units**	390	15.0				15.0									15.0	-
a	Reasons: Normal replacement															-	-
b	Benefits: Reduce maintenance															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**15.0**	-	-	-	**15.0**	-	-	-	-	-	-	-	-	**15.0**	-
32	**ShortStop II equipment**	387	98.0									98.0				98.0	-
a	Reasons: Additional equipment															-	-
b	Benefits: Safely stop-off main lines															-	-
c	Replacement No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**98.0**	-	-	-	-	-	-	-	-	**98.0**	-	-	-	**98.0**	-
33	**Electric gates - Inglis**	390	16.0			16.0										16.0	-
a	Reasons: Security															-	-
b	Benefit: Safety															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**16.0**	-	-	**16.0**	-	-	-	-	-	-	-	-	-	**16.0**	-
34	**Replace roof - Inglis**	390	11.0											11.0		11.0	-
a	Reasons: Normal replacement															-	-
b	Benefits: Reduce maintenance															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**11.0**	-	-	-	-	-	-	-	-	-	-	**11.0**	-	**11.0**	-
35	**Lake Emma for road widening**	3762	255.0											35.0	65.0	100.0	155.0
a	Reasons: Road widening															-	-
b	Benefits: Avoid delay claims															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**255.0**	-	-	-	-	-	-	-	-	-	-	**35.0**	**65.0**	**100.0**	**155.0**

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DETAIL SPEC.

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA NATURAL GAS DIVISION
2008 Capital Expenditure Budget
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
36	**10th Street Phase II**	3761	14.0			10.0	4.0									14.0	-
a	Reasons: Road widening															-	-
b	Benefits: Avoid delay claims															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**14.0**	-	-	**10.0**	**4.0**	-	-	-	-	-	-	-	-	**14.0**	-
37	**Lake Emma Road**	3762	20.0						20.0							20.0	-
a	Reasons: Drainage improvements															-	-
b	Benefits: Avoid delay claims															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**20.0**	-	-	-	-	-	**20.0**	-	-	-	-	-	-	**20.0**	-
38	**Orange Blvd.**	3762	20.0							20.0						20.0	-
a	Reasons: Drainage improvements															-	-
b	Benefits: Avoid delay claims															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**20.0**	-	-	-	-	-	-	**20.0**	-	-	-	-	-	**20.0**	-
39	**Steel tubing replacements**	3761	60.0									20.0	20.0	20.0		60.0	-
a	Reasons: Normal replacements															-	-
b	Benefits: System Reliability															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**60.0**	-	-	-	-	-	-	-	-	**20.0**	**20.0**	**20.0**	-	**60.0**	-
40	**(12) computers I&M / Sys Op**	3913	54.0										54.0			54.0	-
a	Reasons: Maintain current mapping/records															-	-
b	Benefits: System Reliability/line locating															-	-
c	Replacement No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**54.0**	-	-	-	-	-	-	-	-	-	**54.0**	-	-	**54.0**	-
	Cedar Dunes rectifier replacement	3762	8.0												8.0	8.0	-
	Reasons: Maintain cathodic protection															-	-
TC	Benefits: System Reliability/integrity															-	-
	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**8.0**	-	-	-	-	-	-	-	-	-	-	-	**8.0**	**8.0**	-
	TOTAL NON-REVENUE PRODUCING		**661.2**	**(13.4)**	**(3.4)**	**81.3**	**37.6**	**1.6**	**50.4**	**26.6**	**6.6**	**129.2**	**70.6**	**59.4**	**59.7**	**506.2**	**155.0**
	TOTAL SPECIFIC CONSTRUCTION		**997.2**	**14.6**	**24.6**	**109.3**	**65.6**	**29.6**	**78.4**	**54.6**	**34.6**	**157.2**	**98.6**	**87.4**	**87.7**	**842.2**	**155.0**
	CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		997.2	14.6	24.6	109.3	65.6	29.6	78.4	54.6	34.6	157.2	98.6	87.4	87.7	842.2	155.0

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA PROPANE DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
TOTAL CONSTRUCTION														
	DISTRIBUTION PLANT													
311	Propane Storage Facility	-	-	-	-	-	-	-	-	-	-	-	-	-
312	Remote Tank Monitors	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6.0
364	Dispensers	-	-	-	-	-	-	-	-	-	-	-	-	-
374	Consumers' Storage Tanks	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	144.0
376	Mains	1.0	51.0	1.0	1.0	1.0	1.0	51.0	1.0	1.0	1.0	1.0	1.0	112.0
380	Services	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
381	Meters	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
382	Meter Installations	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
383	House Regulators	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	60.0
384	House Regulator Installations	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	18.0
385	Consumers' System Installations - Aboveground	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
386	Consumers' System Installations - Underground	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	180.0
387	Other Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**40.0**	**90.0**	**40.0**	**40.0**	**40.0**	**40.0**	**90.0**	**40.0**	**40.0**	**40.0**	**40.0**	**40.0**	**580.0**
	GENERAL PLANT													
390	Structures & Improvements	-	-	50.0	-	-	-	-	-	-	-	-	-	50.0
3911	Office Furniture	-	-	0.5	-	0.5	-	-	-	0.5	-	-	-	1.5
3912	Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
392	Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop & Garage Equipment	1.0	-	1.0	-	1.0	-	1.0	-	1.0	-	1.0	-	6.0
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	1.0	-	-	1.0	-	1.0	-	1.0	-	1.0	-	1.0	6.0
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**2.0**	**-**	**51.5**	**1.0**	**1.5**	**1.0**	**1.0**	**1.0**	**1.5**	**1.0**	**1.0**	**1.0**	**63.5**
TOTAL CONSTRUCTION		**42.0**	**90.0**	**91.5**	**41.0**	**41.5**	**41.0**	**91.0**	**41.0**	**41.5**	**41.0**	**41.0**	**41.0**	**643.5**
CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL CONSTRUCTION WITH CARRYOVERS		**42.0**	**90.0**	**91.5**	**41.0**	**41.5**	**41.0**	**91.0**	**41.0**	**41.5**	**41.0**	**41.0**	**41.0**	**643.5**

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA PROPANE DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NON-SPECIFIC CONSTRUCTION														
	DISTRIBUTION PLANT													
311	Propane Storage Facility													-
312	Remote Tank Monitors	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6.0
364	Dispensers													-
374	Consumers' Storage Tanks	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	144.0
376	Mains	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
380	Services	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
381	Meters	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
382	Meter Installations	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
383	House Regulators	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	60.0
384	House Regulator Installations	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	18.0
385	Consumers' System Installations - Aboveground	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
386	Consumers' System Installations - Underground	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	180.0
387	Other Equipment													-
	TOTAL DISTRIBUTION PLANT	**40.0**	**40.0**	**40.0**	**40.0**	**40.0**	**40.0**	**40.0**	**40.0**	**40.0**	**40.0**	**40.0**	**40.0**	**480.0**
	GENERAL PLANT													
390	Structures & Improvements													-
3911	Office Furniture			0.5		0.5				0.5				1.5
3912	Office Equipment													-
3913	Computer Equipment													-
392	Transportation Equipment													-
394	Tools, Shop & Garage Equipment	1.0		1.0		1.0		1.0		1.0		1.0		6.0
395	Laboratory Equipment													-
396	Power Operated Equipment	1.0			1.0		1.0		1.0		1.0		1.0	6.0
397	Communication Equipment													-
	TOTAL GENERAL PLANT	**2.0**	**-**	**1.5**	**1.0**	**1.5**	**1.0**	**1.0**	**1.0**	**1.5**	**1.0**	**1.0**	**1.0**	**13.5**
TOTAL NON-SPECIFIC CONSTRUCTION		**42.0**	**40.0**	**41.5**	**41.0**	**41.5**	**41.0**	**41.0**	**41.0**	**41.5**	**41.0**	**41.0**	**41.0**	**493.5**

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA PROPANE DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
SPECIFIC CONSTRUCTION SUMMARY														
	DISTRIBUTION PLANT													
311	Propane Storage Facility	-	-	-	-	-	-	-	-	-	-	-	-	-
312	Remote Tank Monitors	-	-	-	-	-	-	-	-	-	-	-	-	-
364	Dispensers	-	-	-	-	-	-	-	-	-	-	-	-	-
374	Consumers' Storage Tanks	-	-	-	-	-	-	-	-	-	-	-	-	-
376	Mains	-	50.0	-	-	-	-	50.0	-	-	-	-	-	100.0
380	Services	-	-	-	-	-	-	-	-	-	-	-	-	-
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
385	Consumers' System Installations - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
386	Consumers' System Installations - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
387	Other Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**-**	**50.0**	**-**	**-**	**-**	**-**	**50.0**	**-**	**-**	**-**	**-**	**-**	**100.0**
	GENERAL PLANT													
390	Structures & Improvements	-	-	50.0	-	-	-	-	-	-	-	-	-	50.0
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
392	Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop & Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**-**	**50.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**50.0**
TOTAL SPECIFIC CONSTRUCTION		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA PROPANE DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
	SPECIFIC CONSTRUCTION - DETAIL																
	REVENUE PRODUCING																
1	TBD	376	100.0		50.0					50.0						100.0	-
	TOTAL REVENUE PRODUCING		**100.0**	**-**	**50.0**	**-**	**-**	**-**	**-**	**50.0**	**-**	**-**	**-**	**-**	**-**	**100.0**	**-**
	NON-REVENUE PRODUCING																
11	**Renovate Building**	390	50.0			50.0										50.0	-
a	New Location															-	-
b	Benefits:improved operations															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**50.0**	**-**	**-**	**50.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**50.0**	**-**
	NON-REVENUE PRODUCING		**50.0**	**-**	**-**	**50.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**50.0**	**-**
	TOTAL SPECIFIC CONSTRUCTION		**150.0**	**-**	**50.0**	**50.0**	**-**	**-**	**-**	**50.0**	**-**	**-**	**-**	**-**	**-**	**150.0**	**-**
	CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		**150.0**	**-**	**50.0**	**50.0**	**-**	**-**	**-**	**50.0**	**-**	**-**	**-**	**-**	**-**	**150.0**	**-**

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA PROPANE DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
TOTAL CONSTRUCTION														
	DISTRIBUTION PLANT													
3311	Propane Storage Facility	-	-	-	-	-	-	-	-	-	-	-	-	-
3312	Remote Tank Monitors	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	20.4
313	RTM Installation	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
364	Dispensers	-	-	-	-	-	-	-	-	-	-	-	-	-
374	Consumers' Storage Tanks	-	10.0	-	10.0	-	10.0	-	10.0	-	10.0	-	10.0	60.0
376	Mains	-	-	-	-	-	-	-	-	-	-	25.0	25.0	50.0
380	Services	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	15.0
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6.0
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6.0
385	Consumers' System Installations - Aboveground	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0
386	Consumers' System Installations - Underground	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	72.0
387	Other Equipment	1.0	1.0	11.0	11.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	32.0
	TOTAL DISTRIBUTION PLANT	**13.5**	**24.0**	**23.5**	**34.0**	**13.5**	**24.0**	**13.5**	**24.0**	**13.5**	**24.0**	**38.5**	**49.0**	**295.0**
	GENERAL PLANT													
390	Structures & Improvements	-	-	-	-	18.0	-	-	-	-	-	-	-	18.0
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computer Equipment	-	-	4.5	-	-	-	-	-	-	-	-	-	4.5
392	Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop & Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**-**	**4.5**	**-**	**18.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**22.5**
TOTAL CONSTRUCTION		**13.5**	**24.0**	**28.0**	**34.0**	**31.5**	**24.0**	**13.5**	**24.0**	**13.5**	**24.0**	**38.5**	**49.0**	**317.5**
CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL CONSTRUCTION WITH CARRYOVERS		**13.5**	**24.0**	**28.0**	**34.0**	**31.5**	**24.0**	**13.5**	**24.0**	**13.5**	**24.0**	**38.5**	**49.0**	**317.5**

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA PROPANE DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NON-SPECIFIC CONSTRUCTION														
	DISTRIBUTION PLANT													
311	Propane Storage Facility													-
312	Remote Tank Monitors	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	20.4
313	RTM Installation	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
364	Dispensers													-
374	Consumers' Storage Tanks		10.0		10.0		10.0		10.0		10.0		10.0	60.0
376	Mains													-
380	Services	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	15.0
381	Meters													-
382	Meter Installations	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6.0
383	House Regulators													-
384	House Regulator Installations	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6.0
385	Consumers' System Installations - Aboveground	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0
386	Consumers' System Installations - Underground	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	72.0
387	Other Equipment	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
	TOTAL DISTRIBUTION PLANT	**13.5**	**24.0**	**13.5**	**24.0**	**13.5**	**24.0**	**13.5**	**24.0**	**13.5**	**24.0**	**13.5**	**24.0**	**225.0**
	GENERAL PLANT													
390	Structures & Improvements													-
3911	Office Furniture													-
3912	Office Equipment													-
3913	Computer Equipment			4.5										4.5
392	Transportation Equipment													-
394	Tools, Shop & Garage Equipment													-
395	Laboratory Equipment													-
396	Power Operated Equipment													-
397	Communication Equipment													-
	TOTAL GENERAL PLANT	**-**	**-**	**4.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.5**
TOTAL NON-SPECIFIC CONSTRUCTION		**13.5**	**24.0**	**18.0**	**24.0**	**13.5**	**24.0**	**13.5**	**24.0**	**13.5**	**24.0**	**13.5**	**24.0**	**229.5**

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NON SPECIFIC

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA PROPANE DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

SPECIFIC CONSTRUCTION SUMMARY

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
311	Propane Storage Facility	-	-	-	-	-	-	-	-	-	-	-	-	-
312	Remote Tank Monitors	-	-	-	-	-	-	-	-	-	-	-	-	-
313	RTM Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
364	Dispensers	-	-	-	-	-	-	-	-	-	-	-	-	-
374	Consumers' Storage Tanks	-	-	-	-	-	-	-	-	-	-	-	-	-
376	Mains	-	-	-	-	-	-	-	-	-	-	25.0	25.0	50.0
380	Services	-	-	-	-	-	-	-	-	-	-	-	-	-
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
385	Consumers' System Installations - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
386	Consumers' System Installations - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
387	Other Equipment	-	-	10.0	10.0	-	-	-	-	-	-	-	-	20.0
	TOTAL DISTRIBUTION PLANT	**-**	**-**	**10.0**	**10.0**	**-**	**-**	**-**	**-**	**-**	**-**	**25.0**	**25.0**	**70.0**
	GENERAL PLANT													
390	Structures & Improvements	-	-	-	-	18.0	-	-	-	-	-	-	-	18.0
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
392	Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop & Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**-**	**-**	**-**	**18.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**18.0**
	TOTAL SPECIFIC CONSTRUCTION	**-**	**-**	**10.0**	**10.0**	**18.0**	**-**	**-**	**-**	**-**	**-**	**25.0**	**25.0**	**88.0**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS	**-**	**-**	**10.0**	**10.0**	**18.0**	**-**	**-**	**-**	**-**	**-**	**25.0**	**25.0**	**88.0**

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA PROPANE DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
	SPECIFIC CONSTRUCTION - DETAIL																
	REVENUE PRODUCING																
1	Plantation Oaks	376	100.0											25.0	25.0	50.0	50.0
	TOTAL REVENUE PRODUCING		**100.0**	-	-	-	-	-	-	-	-	-	-	**25.0**	**25.0**	**50.0**	**50.0**
	NON-REVENUE PRODUCING																
2	**Tank evacuation system - Inglis**	387	20.0			10.0	10.0									20.0	-
a	Reasons: Improve productivity															-	-
b	Benefits: Reduce expenses															-	-
c	Replacement No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**20.0**	-	-	**10.0**	**10.0**	-	-	-	-	-	-	-	-	**20.0**	-
3	**Pave Tank Yard - DeBary**	390	18.0					18.0								18.0	-
a	Reasons: - improve productivity															-	-
b	Benefits: Improve safety															-	-
c	Replacement No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**18.0**	-	-	-	-	**18.0**	-	-	-	-	-	-	-	**18.0**	-
	NON-REVENUE PRODUCING		**38.0**	-	-	**10.0**	**10.0**	**18.0**	-	-	-	-	-	-	-	**38.0**	-
	TOTAL SPECIFIC CONSTRUCTION		**138.0**	-	-	**10.0**	**10.0**	**18.0**	-	-	-	-	-	**25.0**	**25.0**	**88.0**	**50.0**
	CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		**138.0**	-	-	**10.0**	**10.0**	**18.0**	-	-	-	-	-	**25.0**	**25.0**	**88.0**	**50.0**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA PROPANE DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

TOTAL CONSTRUCTION

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
311	Propane Storage Facility	-	-	-	-	-	-	-	-	-	-	-	-	-
312	Remote Tank Monitors	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	4.8
313	RTM Installation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.4
364	Dispensers	-	-	-	-	-	-	-	-	-	-	-	-	-
374	Consumers' Storage Tanks	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	48.0
376	Mains	-	7.5	-	-	7.5	-	-	7.5	-	-	7.5	-	30.0
380	Services	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	39.6
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	9.6
383	House Regulators	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	4.8
384	House Regulator Installations	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
385	Consumers' System Installations - Aboveground	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	15.6
386	Consumers' System Installations - Underground	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	48.0
387	Other Equipment	-	-	-	-	4.5	-	-	8.0	-	-	-	-	12.5
	TOTAL DISTRIBUTION PLANT	**14.7**	**22.2**	**14.7**	**14.7**	**26.7**	**14.7**	**14.7**	**30.2**	**14.7**	**14.7**	**22.2**	**14.7**	**218.9**
	GENERAL PLANT													
390	Structures & Improvements	-	-	30.0	-	-	15.0	-	-	-	-	-	-	45.0
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
392	Transportation Equipment	-	-	-	-	40.0	-	-	-	-	-	-	-	40.0
394	Tools, Shop & Garage Equipment	-	3.5	-	3.0	-	-	-	-	2.2	-	-	-	8.7
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	3.0	-	-	-	-	-	-	-	-	3.0
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**3.5**	**30.0**	**6.0**	**40.0**	**15.0**	**-**	**-**	**2.2**	**-**	**-**	**-**	**96.7**
	TOTAL CONSTRUCTION	**14.7**	**25.7**	**44.7**	**20.7**	**66.7**	**29.7**	**14.7**	**30.2**	**16.9**	**14.7**	**22.2**	**14.7**	**315.6**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL CONSTRUCTION WITH CARRYOVERS	14.7	25.7	44.7	20.7	66.7	29.7	14.7	30.2	16.9	14.7	22.2	14.7	315.6

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA PROPANE DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NON-SPECIFIC CONSTRUCTION														
	DISTRIBUTION PLANT													
311	Propane Storage Facility													-
312	Remote Tank Monitors	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	4.8
313	RTM Installation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.4
364	Dispensers													-
374	Consumers' Storage Tanks	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	48.0
376	Mains													-
380	Services	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	39.6
381	Meters													-
382	Meter Installations	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	9.6
383	House Regulators	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	4.8
384	House Regulator Installations	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
385	Consumers' System Installations - Aboveground	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	15.6
386	Consumers' System Installations - Underground	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	48.0
387	Other Equipment													-
	TOTAL DISTRIBUTION PLANT	**14.7**	**14.7**	**14.7**	**14.7**	**14.7**	**14.7**	**14.7**	**14.7**	**14.7**	**14.7**	**14.7**	**14.7**	**176.4**
	GENERAL PLANT													
390	Structures & Improvements													-
3911	Office Furniture													-
3912	Office Equipment													-
3913	Computer Equipment													-
392	Transportation Equipment													-
394	Tools, Shop & Garage Equipment		3.5		3.0					2.2				8.7
395	Laboratory Equipment													-
396	Power Operated Equipment				3.0									3.0
397	Communication Equipment													-
	TOTAL GENERAL PLANT	**-**	**3.5**	**-**	**6.0**	**-**	**-**	**-**	**-**	**2.2**	**-**	**-**	**-**	**11.7**
TOTAL NON-SPECIFIC CONSTRUCTION		**14.7**	**18.2**	**14.7**	**20.7**	**14.7**	**14.7**	**14.7**	**14.7**	**16.9**	**14.7**	**14.7**	**14.7**	**188.1**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA PROPANE DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

SPECIFIC CONSTRUCTION SUMMARY

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
311	Propane Storage Facility	-	-	-	-	-	-	-	-	-	-	-	-	-
312	Remote Tank Monitors	-	-	-	-	-	-	-	-	-	-	-	-	-
313	RTM Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
364	Dispensers	-	-	-	-	-	-	-	-	-	-	-	-	-
374	Consumers' Storage Tanks	-	-	-	-	-	-	-	-	-	-	-	-	-
376	Mains	-	7.5	-	-	7.5	-	-	7.5	-	-	7.5	-	30.0
380	Services	-	-	-	-	-	-	-	-	-	-	-	-	-
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
385	Consumers' System Installations - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
386	Consumers' System Installations - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
387	Other Equipment	-	-	-	-	4.5	-	-	8.0	-	-	-	-	12.5
	TOTAL DISTRIBUTION PLANT	**-**	**7.5**	**-**	**-**	**12.0**	**-**	**-**	**15.5**	**-**	**-**	**7.5**	**-**	**42.5**
	GENERAL PLANT													
390	Structures & Improvements	-	-	30.0	-	-	15.0	-	-	-	-	-	-	45.0
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
392	Transportation Equipment	-	-	-	-	40.0	-	-	-	-	-	-	-	40.0
394	Tools, Shop & Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**-**	**30.0**	**-**	**40.0**	**15.0**	**-**	**-**	**-**	**-**	**-**	**-**	**85.0**
	TOTAL SPECIFIC CONSTRUCTION	**-**	**7.5**	**30.0**	**-**	**52.0**	**15.0**	**-**	**15.5**	**-**	**-**	**7.5**	**-**	**127.5**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS	**-**	**7.5**	**30.0**	**-**	**52.0**	**15.0**	**-**	**15.5**	**-**	**-**	**7.5**	**-**	**127.5**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA PROPANE DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
	SPECIFIC CONSTRUCTION - DETAIL																
	REVENUE PRODUCING																
1	Install Mains	376	30.0		7.5			7.5			7.5			7.5		30.0	-
	TOTAL REVENUE PRODUCING		**30.0**	-	**7.5**	-	-	**7.5**	-	-	**7.5**	-	-	**7.5**	-	**30.0**	-
	NON-REVENUE PRODUCING																
11	**Install Service Body on Vehicle #799**	392	40.0					40.0								40.0	-
a	Reasons: Existing Cylinder Body and Crane are not adequate															-	-
b	Benefits: Improve overall efficiency															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**40.0**	-	-	-	-	**40.0**	-	-	-	-	-	-	-	**40.0**	-
12	**Install cover on elevated dock**	390	15.0						15.0							15.0	-
a	Reasons: Provide better working area for tank repairs															-	-
b	Benefits: Improve overall efficiency															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**15.0**	-	-	-	-	-	**15.0**	-	-	-	-	-	-	**15.0**	-
13	**Purchase Utility Building**	390	30.0			30.0										30.0	-
a	Reasons: Allow office so drivers can report to this location and install new remote server for system access															-	-
b	Benefits: Improve overall efficiency															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**30.0**	-	-	**30.0**	-	-	-	-	-	-	-	-	-	**30.0**	-
14	**Battery Powered Electro Fusion Tool**	387	4.5					4.5								4.5	-
a	Reasons: Maintenance and Repair of Mains															-	-
b	Benefits: Be outfitted to use company approved fittings															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**4.5**	-	-	-	-	**4.5**	-	-	-	-	-	-	-	**4.5**	-

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA PROPANE DIVISION
2008 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
15	**Power Operated Tank Dolly**	387	8.0								8.0					8.0	-
a	Reasons: Install Tanks in inaccessible locations															-	-
b	Benefits: Improve safety and efficiently of tank installations															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**8.0**	-	-	-	-	-	-	-	**8.0**	-	-	-	-	**8.0**	-
	NON-REVENUE PRODUCING		**97.5**	-	-	**30.0**	-	**44.5**	**15.0**	-	**8.0**	-	-	-	-	**97.5**	-
	TOTAL SPECIFIC CONSTRUCTION		**127.5**	-	**7.5**	**30.0**	-	**52.0**	**15.0**	-	**15.5**	-	-	**7.5**	-	**127.5**	-
	CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		**127.5**	-	**7.5**	**30.0**	-	**52.0**	**15.0**	-	**15.5**	-	-	**7.5**	-	**127.5**	-

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 24.3

Florida Public Utilities Company
2009 CAPITAL EXPENDITURE BUDGET
SUMMARY BY DIVISION
Dollars in Thousands (x000)

DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Regulated Divisions													
COMMON													
Non-Specific	-	3.5	5.3	2.5	4.5	2.6	4.3	8.2	5.0	1.0	1.0	-	37.9
Specific	127.0	233.0	93.9	67.5	58.0	47.0	80.0	192.0	31.5	62.5	70.5	45.0	1,107.9
Division 2009 Capital Budget	**127.0**	**236.5**	**99.2**	**70.0**	**62.5**	**49.6**	**84.3**	**200.2**	**36.5**	**63.5**	**71.5**	**45.0**	**1,145.8**
Carryovers from 2008	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Division Expenditures	**127.0**	**236.5**	**99.2**	**70.0**	**62.5**	**49.6**	**84.3**	**200.2**	**36.5**	**63.5**	**71.5**	**45.0**	**1,145.8**
NORTHWEST FLORIDA ELECTRIC DIVISON													
Non-Specific	82.4	81.4	84.4	81.4	84.4	84.4	84.4	84.4	84.4	82.4	81.4	80.1	995.5
Specific: Revenue Producing	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.4	10.4	10.4	125.7
Non-Revenue Producing	-	-	89.0	40.0	52.5	63.0	-	-	-	40.0	40.0	190.0	514.5
Division 2009 Capital Budget	**92.9**	**91.9**	**183.9**	**131.9**	**147.4**	**157.9**	**94.9**	**94.9**	**94.9**	**132.8**	**131.8**	**280.5**	**1,635.7**
Carryovers from 2008	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Division Expenditures	**92.9**	**91.9**	**183.9**	**131.9**	**147.4**	**157.9**	**94.9**	**94.9**	**94.9**	**132.8**	**131.8**	**280.5**	**1,635.7**
NORTHEAST FLORIDA ELECTRIC DIVISON													
Non-Specific	60.3	110.3	121.8	121.8	132.3	61.8	64.3	121.8	111.8	60.3	63.8	60.3	1,090.6
Specific: Revenue Producing	22.5	22.5	22.5	22.5	22.5	22.5	22.6	22.6	22.6	22.6	22.6	22.6	270.6
Non-Revenue Producing	-	134.1	160.0	195.0	75.0	25.0	32.0	20.0	25.0	20.0	104.9	84.0	875.0
Division 2009 Capital Budget	**82.8**	**266.9**	**304.3**	**339.3**	**229.8**	**109.3**	**118.9**	**164.4**	**159.4**	**102.9**	**191.3**	**166.9**	**2,236.2**
Carryovers from 2008	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Division Expenditures	**82.8**	**266.9**	**304.3**	**339.3**	**229.8**	**109.3**	**118.9**	**164.4**	**159.4**	**102.9**	**191.3**	**166.9**	**2,236.2**
SOUTH FLORIDA NATURAL GAS DIVISION													
Non-Specific	193.9	174.9	172.6	183.9	174.4	173.8	175.9	172.9	173.4	177.4	173.4	171.9	2,118.4
Specific: Revenue Producing	67.0	63.0	107.8	107.8	107.8	107.8	107.8	107.7	107.7	107.7	63.0	63.0	1,118.1
Non-Revenue Producing	142.8	228.8	247.4	193.9	150.9	151.0	151.0	151.0	151.1	151.1	70.9	70.9	1,860.8
Division 2009 Capital Budget	**403.7**	**466.7**	**527.8**	**485.6**	**433.1**	**432.6**	**434.7**	**431.6**	**432.2**	**436.2**	**307.3**	**305.8**	**5,097.3**
Carryovers from 2008													-
Total Division Expenditures	**403.7**	**466.7**	**527.8**	**485.6**	**433.1**	**432.6**	**434.7**	**431.6**	**432.2**	**436.2**	**307.3**	**305.8**	**5,097.3**
CENTRAL FLORIDA NATURAL GAS DIVISION													
Non-Specific	35.4	36.9	35.4	36.9	35.4	36.9	35.5	36.9	35.4	36.9	35.4	35.4	432.4
Specific: Revenue Producing	190.0	189.9	189.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	883.9
Non-Revenue Producing	154.3	151.4	171.3	40.8	20.8	20.8	52.8	20.8	20.9	20.9	20.9	20.9	716.6
Division 2009 Capital Budget	**379.7**	**378.2**	**396.6**	**112.6**	**91.1**	**92.6**	**123.2**	**92.6**	**91.2**	**92.7**	**91.2**	**91.2**	**2,032.9**
Carryovers from 2008													-
Total Division Expenditures	**379.7**	**378.2**	**396.6**	**112.6**	**91.1**	**92.6**	**123.2**	**92.6**	**91.2**	**92.7**	**91.2**	**91.2**	**2,032.9**
REGULATED DIVISION TOTALS													
Non-Specific	372.0	407.0	419.5	426.5	431.0	359.5	364.4	424.2	410.0	358.0	355.0	347.7	4,674.8
Specific: Revenue Producing	290.0	285.9	330.7	175.7	175.7	175.7	175.8	175.7	175.7	175.6	130.9	130.9	2,398.3
Non-Revenue Producing	424.1	747.3	761.6	537.2	357.2	306.8	315.8	383.8	228.5	294.5	307.2	410.8	5,074.8
REGULATED DIVISIONS 2009 CAPITAL BUDGETS	**1,086.1**	**1,440.2**	**1,511.8**	**1,139.4**	**963.9**	**842.0**	**856.0**	**983.7**	**814.2**	**828.1**	**793.1**	**889.4**	**12,147.9**
Carryovers from 2008	-	-	-	-	-	-	-	-	-	-	-	-	-
Regulated 2009 Expenditures	**1,086.1**	**1,440.2**	**1,511.8**	**1,139.4**	**963.9**	**842.0**	**856.0**	**983.7**	**814.2**	**828.1**	**793.1**	**889.4**	**12,147.9**

Florida Public Utilities Company
2009 CAPITAL EXPENDITURE BUDGET
SUMMARY BY DIVISION
Dollars in Thousands (x000)

DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Propane Divisions													
SOUTH FLORIDA PROPANE DIVISION													
Non-Specific	46.5	39.5	45.0	41.5	45.0	41.5	44.5	41.5	45.0	41.5	44.5	41.5	517.5
Specific: Revenue Producing	-	-	34.0	-	-	34.1	-	-	34.1	-	-	-	102.2
Non-Revenue Producing	-	20.0	25.0	-	25.0	-	25.0	-	-	-	-	-	95.0
Division 2009 Capital Budget	**46.5**	**59.5**	**104.0**	**41.5**	**70.0**	**75.6**	**69.5**	**41.5**	**79.1**	**41.5**	**44.5**	**41.5**	**714.7**
Carryovers from 2008	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Division Expenditures	**46.5**	**59.5**	**104.0**	**41.5**	**70.0**	**75.6**	**69.5**	**41.5**	**79.1**	**41.5**	**44.5**	**41.5**	**714.7**
CENTRAL FLORIDA PROPANE DIVISION													
Non-Specific	17.5	23.0	14.0	23.0	14.0	23.0	14.0	23.0	14.0	23.0	14.0	23.0	225.5
Specific: Revenue Producing	-	-	-	-	30.0	22.4	-	-	-	-	-	-	52.4
Non-Revenue Producing	-	-	18.0	15.0	6.0	-	-	-	9.5	-	-	-	48.5
Division 2009 Capital Budget	**17.5**	**23.0**	**32.0**	**38.0**	**50.0**	**45.4**	**14.0**	**23.0**	**23.5**	**23.0**	**14.0**	**23.0**	**326.4**
Carryovers from 2008	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Division Expenditures	**17.5**	**23.0**	**32.0**	**38.0**	**50.0**	**45.4**	**14.0**	**23.0**	**23.5**	**23.0**	**14.0**	**23.0**	**326.4**
NORTHEAST FLORIDA PROPANE DIVISION													
Non-Specific	9.1	9.1	12.1	9.1	9.1	12.1	9.1	9.1	9.1	9.1	12.1	9.0	118.1
Specific: Revenue Producing	-	7.5	-	10.0	17.5	-	-	7.5	-	-	7.5	-	50.0
Non-Revenue Producing	-	-	-	15.0	15.0	7.5	7.5	-	-	-	-	-	45.0
Division 2009 Capital Budget	**9.1**	**16.6**	**12.1**	**34.1**	**41.6**	**19.6**	**16.6**	**16.6**	**9.1**	**9.1**	**19.6**	**9.0**	**213.1**
Carryovers from 2008	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Division Expenditures	**9.1**	**16.6**	**12.1**	**34.1**	**41.6**	**19.6**	**16.6**	**16.6**	**9.1**	**9.1**	**19.6**	**9.0**	**213.1**
PROPANE DIVISION TOTALS													
Non-Specific	73.1	71.6	71.1	73.6	68.1	76.6	67.6	73.6	68.1	73.6	70.6	73.5	861.1
Specific: Revenue Producing	-	7.5	34.0	10.0	47.5	56.5	-	7.5	34.1	-	7.5	-	204.6
Non-Revenue Producing	-	20.0	43.0	30.0	46.0	7.5	32.5	-	9.5	-	-	-	188.5
L BUDGET	**73.1**	**99.1**	**148.1**	**113.6**	**161.6**	**140.6**	**100.1**	**81.1**	**111.7**	**73.6**	**78.1**	**73.5**	**1,254.2**
Carryovers from 2008	-	-	-	-	-	-	-	-	-	-	-	-	-
Propane 2009 Expenditures	**73.1**	**99.1**	**148.1**	**113.6**	**161.6**	**140.6**	**100.1**	**81.1**	**111.7**	**73.6**	**78.1**	**73.5**	**1,254.2**
CONSOLIDATED TOTALS													
Non-Specific	445.1	478.6	490.6	500.1	499.1	436.1	432.0	497.8	478.1	431.6	425.6	421.2	5,535.9
Specific: Revenue Producing	290.0	293.4	364.7	185.7	223.2	232.2	175.8	183.2	209.8	175.6	138.4	130.9	2,602.9
Non-Revenue Producing	424.1	767.3	804.6	567.2	403.2	314.3	348.3	383.8	238.0	294.5	307.2	410.8	5,263.3
L BUDGET	**1,159.2**	**1,539.3**	**1,659.9**	**1,253.0**	**1,125.5**	**982.6**	**956.1**	**1,064.8**	**925.9**	**901.7**	**871.2**	**962.9**	**13,402.1**
Carryovers from 2008	-	-	-	-	-	-	-	-	-	-	-	-	-
Consolidated 2009 Expenditures	**1,159.2**	**1,539.3**	**1,659.9**	**1,253.0**	**1,125.5**	**982.6**	**956.1**	**1,064.8**	**925.9**	**901.7**	**871.2**	**962.9**	**13,402.1**

Florida Public Utilities Company
DETAILED CORPORATE BUDGET
Summary- Five Year Plan Prepared for Rate Case Filing
2009-2013

	2008 Published Budget	Est. Through Dec. 2008	2009	2010	2011	2012	2013
TOTAL CORPORATE BUDGET SUMMARY							
Accounting	18,981	3,250	17,000	33,000	79,000	6,000	5,000
Information Technology	54,000	24,000	30,000	30,000	35,000	35,000	40,000
Customer Relations	10,400	4,600	186,300	26,000	27,000	29,000	32,000
Corporate Office - Officers	41,000	36,000	5,000	40,750	40,750	5,000	5,000
Corporate Office - General	113,850	158,850	144,400	-	-	-	-
Marketing	-	-	12,600	32,950	-	-	-
Human Resources	-	-	-	-	-	-	-
Corporate Services / Safety	-	11,000	-	22,550	56,200	-	-
E-Strategy	414,000	234,000	750,500	313,500	124,000	123,000	127,000
TOTAL	**652,231**	**471,700**	**1,145,800**	**498,750**	**361,950**	**198,000**	**209,000**
E-Strategy	414,000	234,000	750,500	313,500	124,000	123,000	127,000
Corporate Budget Net of E-Strategy	**238,231**	**237,700**	**395,300**	**185,250**	**237,950**	**75,000**	**82,000**
Corporate Target (Base) Base=2004 @ $239K	269,000	269,000	277,000	285,000	294,000	303,000	312,000
2009 Only - Lockbox facility (see Customer Relations), included in Divisions' Targets.			160,000				
Less: Corporate Rate to E-Strategy	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)
Carryover - Corporate Items (Actual 2007 > 2008) plus Closed 2007 IRs	19,231	27,000	8,300	-	49,750	55,800	233,800
Net Corporate Target	**238,231**	**246,000**	**395,300**	**235,000**	**293,750**	**308,800**	**495,800**
Corporate Under/(Over) Budget	-	**8,300**	-	**49,750**	**55,800**	**233,800**	**413,800**

E-STRATEGY	2008	2008	2009	2010	2011	2012	2013
E-STRATEGY TARGET (Base) Base=2005 @ $367K	401,000	401,000	413,000	425,000	438,000	451,000	465,000
Carryover from Prev. Yr.- (Est. 2007>2008)	13,000	170,500	337,500	-	111,500	425,500	753,500
Net E-Strategy Target	**414,000**	**571,500**	**750,500**	**425,000**	**549,500**	**876,500**	**1,218,500**
E-Strategy Under/(Over) Budget	-	**337,500**	-	**111,500**	**425,500**	**753,500**	**1,091,500**

E-STRATEGY - DIVISIONAL SHARING	2008	2009	2010	2011	2012	2013
E-STRATEGY TARGET Base=2005 @ $367K	401,000	413,000	425,000	438,000	451,000	465,000
Common Rate	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)
MOUNT DIVISIONS NEED TO REDUCE THEIR CAPITAL BUDGET	**351,000**	**363,000**	**375,000**	**388,000**	**401,000**	**415,000**

(EDP Allocation [customers]) > >	2009	$ Share	$ Share	$ Share	$ Share	$ Share	$ Share
Division	Rate	@ 2008 Rate	@ 2009 Rate	@ 2009 Rate	@ 2009 Rate	@ 2009 Rate	@ 2009 Rate
114	14%	44,070	50,820	52,500	54,320	56,140	58,100
115	16%	54,240	58,080	60,000	62,080	64,160	66,400
121	36%	118,650	130,680	135,000	139,680	144,360	149,400
123	20%	67,800	72,600	75,000	77,600	80,200	83,000
141	0%	6,780	-	-	-	-	-
143	0%	-	-	-	-	-	-
991	7%	23,730	25,410	26,250	27,160	28,070	29,050
993	5%	16,950	18,150	18,750	19,400	20,050	20,750
995	2%	6,780	7,260	7,500	7,760	8,020	8,300
TOTAL	**100%**	**339,000**	**363,000**	**375,000**	**388,000**	**401,000**	**415,000**

Florida Public Utilities Company
Detailed Corporate Budget
CORPORATE E-STRATEGY - Five Year Plan
2009-2013

	ITEM	2008 Published Budget	Est. Through Dec. 2008	MO.	2009	MO.	2010	2011	2012	2013
1	PC Replacement Program	109,000	109,000	AUG, NOV	112,000	APR / JUL	115,000	119,000	123,000	127,000
2	Project Management System	50,000	50,000	OCT - DEC						
3	AS400 Disk capacity upgrade	40,000	40,000	OCT, NOV						
4	CIS - INCLUDE S/L & 1430.1 & 2	75,000	-							
5	CIS - JE11	10,000	-							
6	CIS - JE11 - INCLUDING S/L & 1430.1 & 2 (VERTEX)		20,000	DEC	65,000	JAN - MAR				
7	Reporting & Analysis Software (PhI)	40,000	-							
8	Reporting & Analysis Software (Ph II)	50,000	-							
9	Reporting & Analysis Sftwr.				145,000	OCT - NOV	48,500			
10	Lockbox Additions	40,000	-		40,000	MAY				
11	Replacement Imaging Scanner							5,000		
12	iSeries Power 6 Upgrade				135,000	FEB				
13	CMS - Customer Mangt. Software				50,000	VAR				
14	Phone System Upgrade				100,000	VAR				
15	AEP Upgrade to ORCOM				50,000	TBD				
16	Inventory System						150,000			
17	Web Site Development		15,000	DEC	15,000	JAN				
18										
19	E strategy Projects-to be determined				38,500	VAR				
	TOTAL E-STRATEGY	414,000	234,000		750,500		313,500	124,000	123,000	127,000

Florida Public Utilities Company
Detailed Corporate Budget
Accounting - Five Year Plan
2009-2013

	ITEM	2008 Published Budget	Est. Through Dec. 2008	MO.	2009	MO.	2010	2011	2012	2013
1	**CORPORATE ACCOUNTING:**									
2	Laptop, New Position	2,500	2,500							
3										
4	**GENERAL ACCOUNTING:**									
5	Laser Printer Replacement - GA	2,000	-		2,500	MAY			2,000	
6	MICR Printer Replacement - GA	7,981	-		8,000	FEB				
7	Scanner - P/L Spare						6,500			
8	Optical Character Recognition (OCR) Software for P/L							50,000		
9										
10	**PURCHASING / OFFICE SERVICES:**									
11	Replace Courier Vehicle - OS						18,000			
12	Replace 2nd Floor Copier							25,000		
13	HP LaserJet Printer	1,500	750		1,500	APR				
14	Scanner - P/L Spare						1,500			
15	Scanner						4,000			
16										
17	**SHARED:**									
18	Furniture, partitions, Misc. Items	2,000	-		2,000	MAY / OCT				
19	Misc Equip.	3,000	-		3,000	VAR/3	3,000	4,000	4,000	5,000
20										
	TOTAL	**18,981**	**3,250**		**17,000**		**33,000**	**79,000**	**6,000**	**5,000**

Florida Public Utilities Company
Detailed Corporate Budget
Information Technology - Five Year Plan
2008-2012

	ITEM	2008 Published Budget	Est. Through Dec. 2008	MO.	2009	MO.	2010	2011	2012	2013
1	Various Hardware & Software - TBD	30,000	-		30,000	VAR	30,000	35,000	35,000	40,000
2	Alarm System Upgrades	12,000	12,000	NOV - DEC						
3	Video Security System	12,000	12,000	NOV - DEC						
4										
	TOTAL	**54,000**	**24,000**		**30,000**		**30,000**	**35,000**	**35,000**	**40,000**

Florida Public Utilities Company
Detailed Corporate Budget
Customer Relations - Five Year Plan
2009-2013

	ITEM	2008 Published Budget	Est. Through Dec. 2008	MO.	2009	MO.	2010	2011	2012	2013
1	Training Program	2,500	2,500		2,500	SEPT	5,000	5,000	5,000	5,000
2	Scanner	2,100	2,100							
3	Vertex (previous ADS) programing				15,000	VAR/3	15,000	15,000	18,000	20,000
5	Equipment and Furniture		-		4,500	VAR/4	6,000	7,000	6,000	7,000
6	New Position - Furniture	4,000	-		2,000	MAR				
7	New Position - Chair	600	-		600	MAR				
8	New Position - Computer	1,200	-		1,200	MAR				
9	New Position - File Cabinet				500	MAR				
	Lockbox Facility @ Northwest				160,000	JUL - AUG				
	TOTAL	10,400	4,600		186,300		26,000	27,000	29,000	32,000

Florida Public Utilities Company
Detailed Corporate Budget
Corporate Other - Five Year Plan
2009-2013

	ITEM	2008 Published Budget	Est. Through Dec. 2008	MO.	2009	MO.	2010	2011	2012	2013
1	**Corporate Office - Officers**									
2	Vehicle - English	36,000	36,000	DEC		JUL				
3	Misc Furniture & Machines	5,000	-		5,000	FEB / AUG	5,000	5,000	5,000	5,000
4	Vehicle - CS						35,750			
5	Vehicle - GB							35,750		
6										
7	**DEPARTMENT TOTAL**	**41,000**	**36,000**		**5,000**		**40,750**	**40,750**	**5,000**	**5,000**
8										
9	**Corporate Office - General**									
10	Window Replacements - West Side		52,500	OCT						
11	HVAC Air Handling - Ph 1	-	26,100	NOV - DEC						
12	HVAC Air Handling - Ph 2				68,400	JAN - MAR				
13	Main Office Re-roofing	35,850	-							
14	Access Control for Parking Lot	6,000	-							
15	Gas Desiccant System	72,000	45,000	OCT - NOV						
16	Construct 1st Floor Office	-	6,500	SEP-OCT						
17	Upgrade Elevator Controls				42,000	JAN				
18	Blankets - All Depts.		28,750	JAN - DEC						
19	TBD - $20K Requested Plus to Balance				34,000	VAR/4				
20										
21	**DEPARTMENT TOTAL**	**113,850**	**158,850**		**144,400**		**-**	**-**	**-**	**-**
22										
23	**Marketing**									
24	Adobe Creative Suite Program				2,600	JUN				
25	Color Laser / Scanner - Communications				7,500	JUL / AUG				
26	Corporate Admin. Reception Desk Set				2,500	SEP				
27	Vehicle - MSS						31,450			
28	Scanner - P/L						1,500			
29										
30	**DEPARTMENT TOTAL**	**-**	**-**		**12,600**		**32,950**	**-**	**-**	**-**
31										
32	**Human Resources**									
33										
34	**DEPARTMENT TOTAL**	**-**	**-**		**-**		**-**	**-**	**-**	**-**
35										
36	**Corporate Services / Safety**									
37	Replace Safety Manager Vehicle						22,550			
38	Vehicle - MLS							29,700		
39	Vehicle: Safety Mgr (2004/2011)							26,500		
40	Fire Extinguisher Training System		11,000	OCT						
41										
	DEPARTMENT TOTAL	**-**	**11,000**		**-**		**22,550**	**56,200**	**-**	**-**
	TOTAL	**154,850**	**205,850**		**162,000**		**96,250**	**96,950**	**5,000**	**5,000**

FLORIDA PUBLIC UTILITIES COMPANY

COMMON

2009 Capital Expenditure Budget

Dollars in Thousands (x000)

ACCT	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
TOTAL CAPITAL														
390	Structures & Improvements	77.0	-	41.4	-	-	7.0	60.0	100.0	9.0	-	10.0	-	304.4
3911	Office Furniture & Equipment	-	2.2	3.1	-	2.0	-	-	2.3	-	1.0	-	-	10.6
3912	Office Machines	-	1.3	1.0	1.0	40.0	-	0.5	2.2	2.5	-	1.0	-	49.5
3913	Computerized Equipment	-	208.0	8.7	1.5	20.5	-	3.8	60.7	7.5	-	10.5	-	321.2
391305	Computer Software	50.0	-	45.0	42.5	-	17.6	20.0	10.0	15.0	62.5	50.0	45.0	357.6
3921	Transportation Equipment - Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Pickup Trucks & Vans	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	25.0	-	25.0	-	25.0	-	25.0	-	-	-	-	100.0
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous - Tangible	-	-	-	-	-	-	-	-	2.5	-	-	-	2.5
	TOTAL CAPITAL	**127.0**	**236.5**	**99.2**	**70.0**	**62.5**	**49.6**	**84.3**	**200.2**	**36.5**	**63.5**	**71.5**	**45.0**	**1,145.8**
CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL CAPITAL WITH CARRYOVERS		**127.0**	**236.5**	**99.2**	**70.0**	**62.5**	**49.6**	**84.3**	**200.2**	**36.5**	**63.5**	**71.5**	**45.0**	**1,145.8**
NON-SPECIFIC CAPITAL														
390	Structures & Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
3911	Office Furniture & Equipment	-	2.2	3.1	-	2.0	-	-	2.3	-	1.0	-	-	10.6
3912	Office Machines	-	1.3	1.0	1.0	-	-	0.5	2.2	2.5	-	1.0	-	9.5
3913	Computerized Equipment	-	-	1.2	1.5	2.5	-	3.8	3.7	-	-	-	-	12.7
391305	Computer Software	-	-	-	-	-	2.6	-	-	-	-	-	-	2.6
3921	Transportation Equipment - Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Pickup Trucks & Vans	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous - Tangible	-	-	-	-	-	-	-	-	2.5	-	-	-	2.5
	TOTAL NON-SPECIFIC CAPITAL	**-**	**3.5**	**5.3**	**2.5**	**4.5**	**2.6**	**4.3**	**8.2**	**5.0**	**1.0**	**1.0**	**-**	**37.9**
SPECIFIC CAPITAL														
390	Structures & Improvements	77.0	-	41.4	-	-	7.0	60.0	100.0	9.0	-	10.0	-	304.4
3911	Office Furniture & Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Machines	-	-	-	-	40.0	-	-	-	-	-	-	-	40.0
3913	Computerized Equipment	-	208.0	7.5	-	18.0	-	-	57.0	7.5	-	10.5	-	308.5
391305	Computer Software	50.0	-	45.0	42.5	-	15.0	20.0	10.0	15.0	62.5	50.0	45.0	355.0
3921	Transportation Equipment - Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Pickup Trucks & Vans	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	25.0	-	25.0	-	25.0	-	25.0	-	-	-	-	100.0
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous - Tangible	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CAPITAL	**127.0**	**233.0**	**93.9**	**67.5**	**58.0**	**47.0**	**80.0**	**192.0**	**31.5**	**62.5**	**70.5**	**45.0**	**1,107.9**

FLORIDA PUBLIC UTILITIES COMPANY

COMMON

2009 Capital Expenditure Budget

Dollars in Thousands (x000)

NON-SPECIFIC CAPITAL - DETAIL

	DESCRIPTION	ACCT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	E-STRATEGY														
1	None														-
	ACCOUNTING														
3	Laser Printer [Gen. Acct.]	3913					2.5								2.5
3	Laser Printer [Off. Ser.]	3913				1.5									1.5
4	Misc. Furniture [Shared}	3911					1.0					1.0			2.0
5	Misc. Equipment [Shared]	3912			1.0					1.0			1.0		3.0
	TOTAL ACCOUNTING		**-**	**-**	**1.0**	**1.5**	**3.5**	**-**	**-**	**1.0**	**-**	**1.0**	**1.0**	**-**	**9.0**
	INFORMATION TECHNOLOGY														
6	None														-
	CUSTOMER RELATIONS														
7	Training Program	399									2.5				2.5
8	Furniture	3911		1.0			1.0			1.0					3.0
9	Equipment	3912				1.0			0.5						1.5
10	Furniture (New Position)	3911			2.0										2.0
10	Chair [New Position]	3911			0.6										0.6
10	File Cabinet [New Position]	3911			0.5										0.5
10	Computer [New Position]	3913			1.2										1.2
	TOTAL CUSTOMER RELATIONS		**-**	**1.0**	**4.3**	**1.0**	**1.0**	**-**	**0.5**	**1.0**	**2.5**	**-**	**-**	**-**	**11.3**

FLORIDA PUBLIC UTILITIES COMPANY

COMMON

2009 Capital Expenditure Budget

Dollars in Thousands (x000)

	DESCRIPTION	ACCT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	NON-SPECIFIC CAPITAL - DETAIL (continued)														
	CORPORATE - OFFICERS														
16	Furniture	3911		1.2						1.3					2.5
17	Equipment	3912		1.3						1.2					2.5
	TOTAL CORPORATE - OFFICERS		-	**2.5**	-	-	-	-	-	**2.5**	-	-	-	-	**5.0**
	CORPORATE - OTHER														
18	None														-
	MARKETING														
16	Adobe Creative Suite Software	391305						2.6							2.6
16	Color Laser / Scanner - Communications	3913							3.8	3.7					7.5
17	Corporate Admin. Reception Desk Set	3912									2.5				2.5
	TOTAL MARKETING		-	-	-	-	-	**2.6**	**3.8**	**3.7**	**2.5**	-	-	-	**12.6**
	HUMAN RESOURCES														
20	None														-
	CORPORATE SERVICES / SAFETY														
21	None														-
	TOTAL NON-SPECIFIC CAPITAL		-	**3.5**	**5.3**	**2.5**	**4.5**	**2.6**	**4.3**	**8.2**	**5.0**	**1.0**	**1.0**	-	**37.9**

FLORIDA PUBLIC UTILITIES COMPANY
COMMON
2009 Capital Expenditure Budget
Dollars in Thousands (x000)

	DESCRIPTION	ACCT	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2002 TOTAL	AFTER 2002
SPECIFIC CAPITAL - DETAIL																	
	E-STRATEGY																
1	**PC Replacement Program**	3913	112.0		65.0						47.0					112.0	-
a	Reasons: Company 5-Year Plan															-	-
b	Benefits: Technology Upgrade															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**112.0**	**-**	**65.0**	**-**	**-**	**-**	**-**	**-**	**47.0**	**-**	**-**	**-**	**-**	**112.0**	**-**
2	**CIS - JE11 - SubLedger & 1430 (VERTEX)**	391305	65.0	35.0		30.0										65.0	-
a	Reasons: Efficiencies															-	-
b	Benefits: Improved Reporting & Control															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**65.0**	**35.0**	**-**	**30.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**65.0**	**-**
3	**Reporting & Analysis Sftwr.**	391305	145.0										50.0	50.0	45.0	145.0	-
a	Reasons: Corporate Growth															-	-
b	Benefits: Utilization of Existing Applications															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**145.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**50.0**	**50.0**	**45.0**	**145.0**	**-**
4	**Lockbox Additions**	3912	40.0					40.0								40.0	-
a	Reasons: Corporate Growth															-	-
b	Benefits: Utilization of Existing Applications															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**40.0**	**-**	**-**	**-**	**-**	**40.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**40.0**	**-**
4	**iSeries Power 6 Upgrade**	3913	135.0		135.0											135.0	-
a	Reasons: Corporate Growth															-	-
b	Benefits: Utilization of Existing Applications															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**135.0**	**-**	**135.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**135.0**	**-**
4	**CMS - Customer Mangt. Software**	391305	50.0			10.0	10.0		10.0	10.0	10.0					50.0	-
a	Reasons: Corporate Growth															-	-
b	Benefits: Utilization of Existing Applications															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**50.0**	**-**	**-**	**10.0**	**10.0**	**-**	**10.0**	**10.0**	**10.0**	**-**	**-**	**-**	**-**	**50.0**	**-**
5	**Phone System Upgrade**	397	100.0		25.0		25.0		25.0		25.0					100.0	-
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**100.0**	**-**	**25.0**	**-**	**25.0**	**-**	**25.0**	**-**	**25.0**	**-**	**-**	**-**	**-**	**100.0**	**-**

FLORIDA PUBLIC UTILITIES COMPANY
COMMON
2009 Capital Expenditure Budget
Dollars in Thousands (x000)

	DESCRIPTION	ACCT	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2002 TOTAL	AFTER 2002
SPECIFIC CAPITAL - DETAIL (continued)																	
	E-STRATEGY - continued																
6	**AEP Upgrade to ORCOM**	391305	50.0				25.0			10.0		15.0				50.0	-
a	Reasons: Efficiencies															-	-
b	Benefits: Improved Reporting & Control															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**50.0**	-	-	-	**25.0**	-	-	**10.0**	-	**15.0**	-	-	-	**50.0**	-
7	**Web Site Development**	391305	15.0	15.0												15.0	-
a	Reasons: Company 5-Year Plan															-	-
b	Benefits: Technology Upgrade															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**15.0**	**15.0**	-	-	-	-	-	-	-	-	-	-	-	**15.0**	-
8	**E-Strategy TBD**	3913	38.5					18.0			10.0			10.5		38.5	-
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**38.5**	-	-	-	-	**18.0**	-	-	**10.0**	-	-	**10.5**	-	**38.5**	-
	TOTAL E-STRATEGY		**750.5**	**50.0**	**225.0**	**40.0**	**60.0**	**58.0**	**35.0**	**20.0**	**92.0**	**15.0**	**50.0**	**60.5**	**45.0**	**750.5**	-
	ACCOUNTING																
9	**MICR Printer**	3913	8.0		8.0											8.0	-
a	Reasons: Efficiencies															-	-
b	Benefits: Improved Reporting & Control															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**8.0**	-	**8.0**	-	-	-	-	-	-	-	-	-	-	**8.0**	-
	TOTAL ACCOUNTING		**8.0**	-	**8.0**	-	-	-	-	-	-	-	-	-	-	**8.0**	-
	INFORMATION TECHNOLOGY																
10	**Various Hardware & Software**	3913	15.0			7.5						7.5				15.0	-
a	Reasons: Corporate Growth	391305	15.0				7.5						7.5			15.0	-
b	Benefits: Utilization of Existing Applications															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**30.0**	-	-	**7.5**	**7.5**	-	-	-	-	**7.5**	**7.5**	-	-	**30.0**	-
	TOTAL INFORMATION TECHNOLOGY		**30.0**	-	-	**7.5**	**7.5**	-	-	-	-	**7.5**	**7.5**	-	-	**30.0**	-

FLORIDA PUBLIC UTILITIES COMPANY
COMMON
2009 Capital Expenditure Budget
Dollars in Thousands (x000)

	DESCRIPTION	ACCT	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2002 TOTAL	AFTER 2002
SPECIFIC CAPITAL - DETAIL (continued)																	
	CUSTOMER RELATIONS																
12	**Vertex (previous ADS) programing**	391305	15.0			5.0			5.0				5.0			15.0	-
a	Reasons: Vehicle Replacement Program															-	-
b	Benefits: Reduced Down-time for Repairs															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**15.0**	**-**	**-**	**5.0**	**-**	**-**	**5.0**	**-**	**-**	**-**	**5.0**	**-**	**-**	**15.0**	**-**
12	**Lockbox Facility - NW Florida**	390	160.0							60.0	100.0					160.0	-
a	Reasons: Increase Security and Efficiency															-	-
b	Benefits: ncrease Security and Efficiency															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**160.0**	**-**	**-**	**-**	**-**	**-**	**-**	**60.0**	**100.0**	**-**	**-**	**-**	**-**	**160.0**	**-**
	TOTAL CUSTOMER RELATIONS		**175.0**	**-**	**-**	**5.0**	**-**	**-**	**5.0**	**60.0**	**100.0**	**-**	**5.0**	**-**	**-**	**175.0**	**-**
	CORPORATE - OFFICERS																
19	**Project - None**															-	-
	CORPORATE - GENERAL																
13	**HVAC Air Handling - Ph 2**	390	68.4	35.0		33.4										68.4	-
a	Reasons: Create Additional Work Space															-	-
b	Benefits: Efficient Use of Corporate Office Bldg.															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**68.4**	**35.0**	**-**	**33.4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**68.4**	**-**
14	**Upgrade Elevator Controls**	390	42.0	42.0												42.0	-
a	Reasons: Current Outdated Technology															-	-
b	Benefits: Overall Improved Safety															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**42.0**	**42.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**42.0**	**-**
15	**TBD**	390	34.0			8.0			7.0			9.0		10.0		34.0	-
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**34.0**	**-**	**-**	**8.0**	**-**	**-**	**7.0**	**-**	**-**	**9.0**	**-**	**10.0**	**-**	**34.0**	**-**
	TOTAL CORPORATE - GENERAL		**144.4**	**77.0**	**-**	**41.4**	**-**	**-**	**7.0**	**-**	**-**	**9.0**	**-**	**10.0**	**-**	**144.4**	**-**
	MARKETING																
18	**Project - None**															-	-
	HUMAN RESOURCES																
19	**Project - None**															-	-
	CORPORATE SERVICES / SAFETY																
20	**Project - None**															-	-
	TOTAL SPECIFIC CAPITAL		**1,107.9**	**127.0**	**233.0**	**93.9**	**67.5**	**58.0**	**47.0**	**80.0**	**192.0**	**31.5**	**62.5**	**70.5**	**45.0**	**1,107.9**	**-**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

TOTAL CONSTRUCTION

ACCT	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
361	Structure and Improvements - Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-
362	Substation Equipment - Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-
3646	Poles/Towers/Fixtures - Line Ext. - Rev. Prod.	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	136.8
3647	Poles/Towers/Fixtures - Line Ext. - Upgrades	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	44.8	44.8	24.8	157.6
3648	Poles/Towers/Fixtures - Decayed Pole Replace.	7.2	7.2	32.2	32.2	32.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	161.4
3656	O/H Conduct. & Dev. - Line Ext. - Rev. Prod.	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	100.8
3657	O/H Conduct. & Dev. - Line Ext. - Upgrades	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	51.6
3658	O/H Conduct. & Dev. - Decayed Pole Replace.	-	-	-	-	-	-	-	-	-	-	-	-	-
3662	Underground Conduit - Buried	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	7.2
3672	Underground Conductors & Devices - Buried	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.3	6.3	6.3	76.5
3681	Line Transformers - Overhead	13.8	12.8	63.8	12.8	15.8	15.8	15.8	15.8	15.8	13.8	12.8	11.5	220.3
3683	Line Transformers - Buried	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	70.8
3691	Overhead Services	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	87.6
3693	Underground Services - Buried	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	93.6
370	Meters	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	82.8
3711	Installations on Cust. Prem. - Aboveground	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	76.8
3713	Installations on Cust. Prem. - Underground	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
3731	Street Lighting and Signal Syst. - Aboveground	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	16.8
3733	Street Lighting and Signal Syst. - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**92.9**	**91.9**	**167.9**	**116.9**	**119.9**	**94.9**	**94.9**	**94.9**	**94.9**	**132.8**	**131.8**	**110.5**	**1,344.2**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	GENERAL PLANT													
390	Structure and Improvements	-	-	14.0	-	-	-	-	-	-	-	-	-	14.0
3911	Office Furniture and Equipment	-	-	2.0	-	-	-	-	-	-	-	-	-	2.0
3912	Office Machines	-	-	-	15.0	-	-	-	-	-	-	-	-	15.0
3913	EDP Equipment	-	-	-	-	27.5	-	-	-	-	-	-	-	27.5
391305	Software	-	-	-	-	-	-	-	-	-	-	-	-	-
3921	Transportation Equipment - Autos	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light	-	-	-	-	-	63.0	-	-	-	-	-	-	63.0
3923	Transportation Equipment - Heavy	-	-	-	-	-	-	-	-	-	-	-	170.0	170.0
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
3931	Stores Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3932	Stores Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
3941	Tools/Shop/Garage Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3942	Tools/Shop/Garage Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
3951	Laboratory Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3952	Laboratory Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous Tangible Property	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**-**	**16.0**	**15.0**	**27.5**	**63.0**	**-**	**-**	**-**	**-**	**-**	**170.0**	**291.5**
TOTAL CONSTRUCTION		**92.9**	**91.9**	**183.9**	**131.9**	**147.4**	**157.9**	**94.9**	**94.9**	**94.9**	**132.8**	**131.8**	**280.5**	**1,635.7**
CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL CONSTRUCTION WITH CARRYOVERS		**92.9**	**91.9**	**183.9**	**131.9**	**147.4**	**157.9**	**94.9**	**94.9**	**94.9**	**132.8**	**131.8**	**280.5**	**1,635.7**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

NON-SPECIFIC CONSTRUCTION

DISTRIBUTION PLANT

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
361	Structure and Improvements - Distribution													-
362	Substation Equipment - Distribution													-
3646	Poles/Towers/Fixtures - Line Ext. - Rev. Prod.	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	90.0
3647	Poles/Towers/Fixtures - Line Ext. - Upgrades	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	57.6
3648	Poles/Towers/Fixtures - Decayed Pole Replace.	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	86.4
3656	O/H Conduct. & Dev. - Line Ext. - Rev. Prod.	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	66.0
3657	O/H Conduct. & Dev. - Line Ext. - Upgrades	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	51.6
3658	O/H Conduct. & Dev. - Decayed Pole Replace.													-
3662	Underground Conduit - Buried	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	7.2
3672	Underground Conductors & Devices - Buried	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	32.4
3681	Line Transformers - Overhead	13.8	12.8	13.8	12.8	15.8	15.8	15.8	15.8	15.8	13.8	12.8	11.5	170.3
3683	Line Transformers - Buried	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	70.8
3691	Overhead Services	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	87.6
3693	Underground Services - Buried	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	93.6
370	Meters	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	82.8
3711	Installations on Cust. Prem. - Aboveground	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	76.8
3713	Installations on Cust. Prem. - Underground	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
3731	Street Lighting and Signal Syst. - Aboveground	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	16.8
3733	Street Lighting and Signal Syst. - Underground													-
	TOTAL DISTRIBUTION PLANT	**82.4**	**81.4**	**82.4**	**81.4**	**84.4**	**84.4**	**84.4**	**84.4**	**84.4**	**82.4**	**81.4**	**80.1**	**993.5**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	GENERAL PLANT													
390	Structure and Improvements													-
3911	Office Furniture and Equipment			2.0										2.0
3912	Office Machines													-
3913	EDP Equipment													-
391305	Software													-
3921	Transportation Equipment - Autos													-
3922	Transportation Equipment - Light													-
3923	Transportation Equipment - Heavy													-
3924	Transportation Equipment - Trailers													-
3931	Stores Equipment - Fixed Installation													-
3932	Stores Equipment - Portable													-
3941	Tools/Shop/Garage Equipment - Fixed Installation													-
3942	Tools/Shop/Garage Equipment - Portable													-
3951	Laboratory Equipment - Fixed Installation													-
3952	Laboratory Equipment - Portable													-
396	Power Operated Equipment													-
397	Communication Equipment													-
398	Miscellaneous Equipment													-
399	Miscellaneous Tangible Property													-
	TOTAL GENERAL PLANT	**-**	**-**	**2.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2.0**
	TOTAL NON-SPECIFIC CONSTRUCTION	**82.4**	**81.4**	**84.4**	**81.4**	**84.4**	**84.4**	**84.4**	**84.4**	**84.4**	**82.4**	**81.4**	**80.1**	**995.5**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
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SPECIFIC CONSTRUCTION SUMMARY

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
361	Structure and Improvements - Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-
362	Substation Equipment - Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-
3646	Poles/Towers/Fixtures - Line Ext. - Rev. Prod.	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	46.8
3647	Poles/Towers/Fixtures - Line Ext. - Upgrades	-	-	-	-	-	-	-	-	-	40.0	40.0	20.0	100.0
3648	Poles/Towers/Fixtures - Decayed Pole Replace.	-	-	25.0	25.0	25.0	-	-	-	-	-	-	-	75.0
3656	O/H Conduct. & Dev. - Line Ext. - Rev. Prod.	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	34.8
3657	O/H Conduct. & Dev. - Line Ext. - Upgrades	-	-	-	-	-	-	-	-	-	-	-	-	-
3658	O/H Conduct. & Dev. - Decayed Pole Replace.	-	-	-	-	-	-	-	-	-	-	-	-	-
3662	Underground Conduit - Buried	-	-	-	-	-	-	-	-	-	-	-	-	-
3672	Underground Conductors & Devices - Buried	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.6	3.6	3.6	44.1
3681	Line Transformers - Overhead	-	-	50.0	-	-	-	-	-	-	-	-	-	50.0
3683	Line Transformers - Buried	-	-	-	-	-	-	-	-	-	-	-	-	-
3691	Overhead Services	-	-	-	-	-	-	-	-	-	-	-	-	-
3693	Underground Services - Buried	-	-	-	-	-	-	-	-	-	-	-	-	-
370	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
3711	Installations on Cust. Prem. - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
3713	Installations on Cust. Prem. - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
3731	Street Lighting and Signal Syst. - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
3733	Street Lighting and Signal Syst. - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**10.5**	**10.5**	**85.5**	**35.5**	**35.5**	**10.5**	**10.5**	**10.5**	**10.5**	**50.4**	**50.4**	**30.4**	**350.7**

FLORIDA PUBLIC UTILITIES COMPANY
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ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	GENERAL PLANT													
390	Structure and Improvements	-	-	14.0	-	-	-	-	-	-	-	-	-	14.0
3911	Office Furniture and Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Machines	-	-	-	15.0	-	-	-	-	-	-	-	-	15.0
3913	EDP Equipment	-	-	-	-	27.5	-	-	-	-	-	-	-	27.5
391305	Software	-	-	-	-	-	-	-	-	-	-	-	-	-
3921	Transportation Equipment - Autos	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light	-	-	-	-	-	63.0	-	-	-	-	-	-	63.0
3923	Transportation Equipment - Heavy	-	-	-	-	-	-	-	-	-	-	-	170.0	170.0
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
3931	Stores Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3932	Stores Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
3941	Tools/Shop/Garage Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3942	Tools/Shop/Garage Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
3951	Laboratory Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3952	Laboratory Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous Tangible Property	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**-**	**14.0**	**15.0**	**27.5**	**63.0**	**-**	**-**	**-**	**-**	**-**	**170.0**	**289.5**
	TOTAL SPECIFIC CONSTRUCTION	**10.5**	**10.5**	**99.5**	**50.5**	**63.0**	**73.5**	**10.5**	**10.5**	**10.5**	**50.4**	**50.4**	**200.4**	**640.2**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS	**10.5**	**10.5**	**99.5**	**50.5**	**63.0**	**73.5**	**10.5**	**10.5**	**10.5**	**50.4**	**50.4**	**200.4**	**640.2**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
SPECIFIC CONSTRUCTION - DETAIL																	
	REVENUE PRODUCING																
1	TBD	3646	46.8	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	46.8	-
2	TBD	3656	34.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	34.8	-
3	TBD	3672	44.1	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.6	3.6	3.6	44.1	-
5																-	-
	TOTAL REVENUE PRODUCING		**125.7**	**10.5**	**10.5**	**10.5**	**10.5**	**10.5**	**10.5**	**10.5**	**10.5**	**10.5**	**10.4**	**10.4**	**10.4**	**125.7**	**-**
	NON-REVENUE PRODUCING																
6	**Replace Line Bucket #41954**	3923	170.0												170.0	170.0	-
a	Reasons: Replacement neccesary due to age and increased maintenance cost.															-	-
b	Benefits: Reduction in maintenance cost.															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**170.0**	-	-	-	-	-	-	-	-	-	-	-	**170.0**	**170.0**	**-**
7	**Replace Line Supv. Truck #41959**	3922	19.0						19.0							19.0	-
a	Reasons: Replacement necessary due to age and increased maintenance cost.															-	-
b	Benefits: Reduction in maintenance cost.															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**19.0**	-	-	-	-	-	**19.0**	-	-	-	-	-	-	**19.0**	**-**
8	**Replace Serv. Supv. Truck #41960**	3922	19.0						19.0							19.0	-
a	Reasons: Replacement necessary due to age and increased maintenance cost.															-	-
b	Benefits: Reduction in miantenance cost.															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**19.0**	-	-	-	-	-	**19.0**	-	-	-	-	-	-	**19.0**	**-**
9	**Replace Gen. Manager Car #41973**	3922	25.0						25.0							25.0	-
a	Reasons: Replacement due to age and increased maintenance cost.															-	-
b	Benefits: Reduction in maintenance cost.															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**25.0**	-	-	-	-	-	**25.0**	-	-	-	-	-	-	**25.0**	**-**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
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	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
10	**Rebuild Prison Fdr. 39732 to meet storm harding critera.**	3647	100.0										40.0	40.0	20.0	100.0	-
a	Reasons: FPU Strom Hardening Plan															-	-
b	Benefits: Increased reliabiltiy to Prison and HS shelter.															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**100.0**	-	-	-	-	-	-	-	-	-	**40.0**	**40.0**	**20.0**	**100.0**	-
11	**Replace Decayed Poles**	3648	75.0			25.0	25.0	25.0								75.0	-
a	Reasons: Due to 2008 inspection..															-	-
b	Benefits: Increased reliability.															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**75.0**	-	-	**25.0**	**25.0**	**25.0**	-	-	-	-	-	-	-	**75.0**	-
12	**Purchase and Install capacitor banks at various locations on system.**	3681	50.0			50.0										50.0	-
a	Reasons: Improve system power factor															-	-
b	Benefits: Improve system operation															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**50.0**	-	-	**50.0**	-	-	-	-	-	-	-	-	-	**50.0**	-
13	**Replace 2-Heat Pumps at Office**	390	14.0			14.0										14.0	-
a	Reasons: Units are old. One failed in 2008.															-	-
b	Benefits: Less maintenance; Improved efficiency.															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**14.0**	-	-	**14.0**	-	-	-	-	-	-	-	-	-	**14.0**	-

FLORIDA PUBLIC UTILITIES COMPANY
NORTHWEST FLORIDA ELECTRIC DIVISION
2009 CAPITAL EXPENDITURE BUDGET
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	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
15	**Purchase copier for office.**	3912	15.0				15.0									15.0	-
a	Reasons: It is old and maintenace cost are high.															-	-
b	Benefits: Reduce Maintenanvce cost.															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**15.0**	-	-	-	**15.0**	-	-	-	-	-	-	-	-	**15.0**	-
15	**Purchase [25] Tom Tom units**	3913	27.5					27.5								27.5	-
a	Reasons: Improved fleet efficiancy															-	-
b	Benefits: Improved operating cost.															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**27.5**	-	-	-	-	**27.5**	-	-	-	-	-	-	-	**27.5**	-
16	**[Project]**															-	-
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NON-REVENUE PRODUCING		**514.5**	-	-	**89.0**	**40.0**	**52.5**	**63.0**	-	-	-	**40.0**	**40.0**	**190.0**	**514.5**	-
	TOTAL SPECIFIC CONSTRUCTION		**640.2**	**10.5**	**10.5**	**99.5**	**50.5**	**63.0**	**73.5**	**10.5**	**10.5**	**10.5**	**50.4**	**50.4**	**200.4**	**640.2**	-
	CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		**640.2**	**10.5**	**10.5**	**99.5**	**50.5**	**63.0**	**73.5**	**10.5**	**10.5**	**10.5**	**50.4**	**50.4**	**200.4**	**640.2**	-

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TOTAL CONSTRUCTION

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	TRANSMISSION PLANT													
352	Structures and Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
353	Substation Equipment	-	-	-	-	-	-	-	-	20.0	20.0	20.0	-	60.0
354	Towers & Fixtures	-	-	-	-	-	-	-	-	-	-	-	-	-
355	Poles & Fixtures	-	-	35.0	35.0	30.0	-	-	-	-	-	28.9	28.0	156.9
356	O/H Conduct. & Dev.	-	-	25.0	25.0	20.0	-	-	-	-	-	23.0	23.0	116.0
359	Roads & Trails	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL TRANSMISSION PLANT	**-**	**-**	**60.0**	**60.0**	**50.0**	**-**	**-**	**-**	**20.0**	**20.0**	**71.9**	**51.0**	**332.9**
	DISTRIBUTION PLANT													
361	Structure and Improvements - Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-
362	Substation Equipment - Distribution	-	-	-	-	25.0	25.0	32.0	20.0	-	-	-	-	102.0
3646	Poles/Towers/Fixtures - Line Ext. - Rev. Prod.	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	48.0
3647	Poles/Towers/Fixtures - Line Ext. - Upgrades	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	20.0	20.0	60.0
3648	Poles/Towers/Fixtures - Decayed Pole Replace.	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	74.4
3656	O/H Conduct. & Dev. - Line Ext. - Rev. Prod.	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	51.6
3657	O/H Conduct. & Dev. - Line Ext. - Upgrades	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	17.4	17.4	58.8
3658	O/H Conduct. & Dev. - Decayed Pole Replace.	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	42.0
3662	Underground Conduit - Buried	2.0	52.0	52.0	52.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	174.0
3672	Underground Conductors & Devices - Buried	23.9	73.9	73.9	73.9	23.9	23.9	24.0	24.0	24.0	24.0	24.0	24.0	437.4
3681	Line Transformers - Overhead	-	-	10.0	10.0	20.0	-	-	10.0	-	-	-	-	50.0
3683	Line Transformers - Buried	-	50.0	50.0	50.0	50.0	-	-	50.0	50.0	-	-	-	300.0
3691	Overhead Services	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	42.0
3693	Underground Services - Buried	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	199.2
370	Meters	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	120.0
3711	Installations on Cust. Prem. - Aboveground	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	20.4
3713	Installations on Cust. Prem. - Underground	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	9.6
3731	Street Lighting and Signal Syst. - Aboveground	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
3733	Street Lighting and Signal Syst. - Underground	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	10.8
	TOTAL DISTRIBUTION PLANT	**82.8**	**232.8**	**242.8**	**242.8**	**177.8**	**107.8**	**114.9**	**162.9**	**132.9**	**82.9**	**115.9**	**115.9**	**1,812.2**

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ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	GENERAL PLANT													
390	Structure and Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
3911	Office Furniture and Equipment	-	-	1.5	-	-	-	-	1.5	-	-	-	-	3.0
3912	Office Machines	-	-	-	-	2.0	-	-	-	-	-	2.0	-	4.0
3913	EDP Equipment	-	-	-	-	-	-	2.0	-	-	-	-	-	2.0
391305	Software	-	-	-	-	-	-	2.0	-	5.0	-	-	-	7.0
3921	Transportation Equipment - Autos	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light	-	-	-	-	-	-	-	-	-	-	-	-	-
3923	Transportation Equipment - Heavy	-	-	-	-	-	-	-	-	-	-	-	-	-
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
3931	Stores Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3932	Stores Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
3941	Tools/Shop/Garage Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3942	Tools/Shop/Garage Equipment - Portable	-	-	-	36.5	-	1.5	-	-	1.5	-	1.5	-	41.0
3951	Laboratory Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3952	Laboratory Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	34.1	-	-	-	-	-	-	-	-	-	-	34.1
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous Tangible Property	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**34.1**	**1.5**	**36.5**	**2.0**	**1.5**	**4.0**	**1.5**	**6.5**	**-**	**3.5**	**-**	**91.1**
TOTAL CONSTRUCTION		**82.8**	**266.9**	**304.3**	**339.3**	**229.8**	**109.3**	**118.9**	**164.4**	**159.4**	**102.9**	**191.3**	**166.9**	**2,236.2**
CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL CONSTRUCTION WITH CARRYOVERS		82.8	266.9	304.3	339.3	229.8	109.3	118.9	164.4	159.4	102.9	191.3	166.9	2,236.2

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

NON-SPECIFIC CONSTRUCTION

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	TRANSMISSION PLANT													
352	Structures and Improvements													-
353	Substation Equipment													-
354	Towers & Fixtures													-
355	Poles & Fixtures													-
356	O/H Conduct. & Dev.													-
359	Roads & Trails													-
	TOTAL TRANSMISSION PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-
	DISTRIBUTION PLANT													
361	Structure and Improvements - Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-
362	Substation Equipment - Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-
3646	Poles/Towers/Fixtures - Line Ext. - Rev. Prod.	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	18.0
3647	Poles/Towers/Fixtures - Line Ext. - Upgrades	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
3648	Poles/Towers/Fixtures - Decayed Pole Replace.	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	74.4
3656	O/H Conduct. & Dev. - Line Ext. - Rev. Prod.	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	21.6
3657	O/H Conduct. & Dev. - Line Ext. - Upgrades	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	28.8
3658	O/H Conduct. & Dev. - Decayed Pole Replace.	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	42.0
3662	Underground Conduit - Buried	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
3672	Underground Conductors & Devices - Buried	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	76.8
3681	Line Transformers - Overhead	-	-	10.0	10.0	20.0	-	-	10.0	-	-	-	-	50.0
3683	Line Transformers - Buried	-	50.0	50.0	50.0	50.0	-	-	50.0	50.0	-	-	-	300.0
3691	Overhead Services	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	42.0
3693	Underground Services - Buried	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	199.2
370	Meters	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	120.0
3711	Installations on Cust. Prem. - Aboveground	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	20.4
3713	Installations on Cust. Prem. - Underground	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	9.6
3731	Street Lighting and Signal Syst. - Aboveground	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
3733	Street Lighting and Signal Syst. - Underground	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	10.8
	TOTAL DISTRIBUTION PLANT	**60.3**	**110.3**	**120.3**	**120.3**	**130.3**	**60.3**	**60.3**	**120.3**	**110.3**	**60.3**	**60.3**	**60.3**	**1,073.6**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	GENERAL PLANT													
390	Structure and Improvements													-
3911	Office Furniture and Equipment			1.5					1.5					3.0
3912	Office Machines					2.0						2.0		4.0
3913	EDP Equipment							2.0						2.0
391305	Software							2.0						2.0
3921	Transportation Equipment - Autos													-
3922	Transportation Equipment - Light													-
3923	Transportation Equipment - Heavy													-
3924	Transportation Equipment - Trailers													-
3931	Stores Equipment - Fixed Installation													-
3932	Stores Equipment - Portable													-
3941	Tools/Shop/Garage Equipment - Fixed Installation													-
3942	Tools/Shop/Garage Equipment - Portable				1.5		1.5			1.5		1.5		6.0
3951	Laboratory Equipment - Fixed Installation													-
3952	Laboratory Equipment - Portable													-
396	Power Operated Equipment													-
397	Communication Equipment													-
398	Miscellaneous Equipment													-
399	Miscellaneous Tangible Property													-
	TOTAL GENERAL PLANT	**-**	**-**	**1.5**	**1.5**	**2.0**	**1.5**	**4.0**	**1.5**	**1.5**	**-**	**3.5**	**-**	**17.0**
TOTAL NON-SPECIFIC CONSTRUCTION		**60.3**	**110.3**	**121.8**	**121.8**	**132.3**	**61.8**	**64.3**	**121.8**	**111.8**	**60.3**	**63.8**	**60.3**	**1,090.6**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

SPECIFIC CONSTRUCTION SUMMARY

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	TRANSMISSION PLANT													
352	Structures and Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
353	Substation Equipment	-	-	-	-	-	-	-	-	20.0	20.0	20.0	-	60.0
354	Towers & Fixtures	-	-	-	-	-	-	-	-	-	-	-	-	-
355	Poles & Fixtures	-	-	35.0	35.0	30.0	-	-	-	-	-	28.9	28.0	156.9
356	O/H Conduct. & Dev.	-	-	25.0	25.0	20.0	-	-	-	-	-	23.0	23.0	116.0
359	Roads & Trails	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL TRANSMISSION PLANT	**-**	**-**	**60.0**	**60.0**	**50.0**	**-**	**-**	**-**	**20.0**	**20.0**	**71.9**	**51.0**	**332.9**
	DISTRIBUTION PLANT													
361	Structure and Improvements - Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-
362	Substation Equipment - Distribution	-	-	-	-	25.0	25.0	32.0	20.0	-	-	-	-	102.0
3646	Poles/Towers/Fixtures - Line Ext. - Rev. Prod.	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0
3647	Poles/Towers/Fixtures - Line Ext. - Upgrades	-	-	-	-	-	-	-	-	-	-	18.0	18.0	36.0
3648	Poles/Towers/Fixtures - Decayed Pole Replace.	-	-	-	-	-	-	-	-	-	-	-	-	-
3656	O/H Conduct. & Dev. - Line Ext. - Rev. Prod.	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0
3657	O/H Conduct. & Dev. - Line Ext. - Upgrades	-	-	-	-	-	-	-	-	-	-	15.0	15.0	30.0
3658	O/H Conduct. & Dev. - Decayed Pole Replace.	-	-	-	-	-	-	-	-	-	-	-	-	-
3662	Underground Conduit - Buried	-	50.0	50.0	50.0	-	-	-	-	-	-	-	-	150.0
3672	Underground Conductors & Devices - Buried	17.5	67.5	67.5	67.5	17.5	17.5	17.6	17.6	17.6	17.6	17.6	17.6	360.6
3681	Line Transformers - Overhead	-	-	-	-	-	-	-	-	-	-	-	-	-
3683	Line Transformers - Buried	-	-	-	-	-	-	-	-	-	-	-	-	-
3691	Overhead Services	-	-	-	-	-	-	-	-	-	-	-	-	-
3693	Underground Services - Buried	-	-	-	-	-	-	-	-	-	-	-	-	-
370	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
3711	Installations on Cust. Prem. - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
3713	Installations on Cust. Prem. - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
3731	Street Lighting and Signal Syst. - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
3733	Street Lighting and Signal Syst. - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**22.5**	**122.5**	**122.5**	**122.5**	**47.5**	**47.5**	**54.6**	**42.6**	**22.6**	**22.6**	**55.6**	**55.6**	**738.6**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	GENERAL PLANT													
390	Structure and Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
3911	Office Furniture and Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Machines	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	EDP Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
391305	Software	-	-	-	-	-	-	-	-	5.0	-	-	-	5.0
3921	Transportation Equipment - Autos	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light	-	-	-	-	-	-	-	-	-	-	-	-	-
3923	Transportation Equipment - Heavy	-	-	-	-	-	-	-	-	-	-	-	-	-
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
3931	Stores Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3932	Stores Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
3941	Tools/Shop/Garage Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3942	Tools/Shop/Garage Equipment - Portable	-	-	-	35.0	-	-	-	-	-	-	-	-	35.0
3951	Laboratory Equipment - Fixed Installation	-	-	-	-	-	-	-	-	-	-	-	-	-
3952	Laboratory Equipment - Portable	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	34.1	-	-	-	-	-	-	-	-	-	-	34.1
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous Tangible Property	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**34.1**	**-**	**35.0**	**-**	**-**	**-**	**-**	**5.0**	**-**	**-**	**-**	**74.1**
TOTAL SPECIFIC CONSTRUCTION		**22.5**	**156.6**	**182.5**	**217.5**	**97.5**	**47.5**	**54.6**	**42.6**	**47.6**	**42.6**	**127.5**	**106.6**	**1,145.6**
CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		**22.5**	**156.6**	**182.5**	**217.5**	**97.5**	**47.5**	**54.6**	**42.6**	**47.6**	**42.6**	**127.5**	**106.6**	**1,145.6**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

SPECIFIC CONSTRUCTION - DETAIL

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
	REVENUE PRODUCING																
1	TBD	3646	30.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0	-
2	TBD	3656	30.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0	-
3	TBD	3672	210.6	17.5	17.5	17.5	17.5	17.5	17.5	17.6	17.6	17.6	17.6	17.6	17.6	210.6	-
4																-	-
5																-	-
	TOTAL REVENUE PRODUCING		**270.6**	**22.5**	**22.5**	**22.5**	**22.5**	**22.5**	**22.5**	**22.6**	**22.6**	**22.6**	**22.6**	**22.6**	**22.6**	**270.6**	-
	NON-REVENUE PRODUCING																
6	**Replace Cable at AIP**	3662	150.0		50.0	50.0	50.0									150.0	-
a	Reasons: Cable at the end of its useful life and multiple outages	3672	150.0		50.0	50.0	50.0									150.0	-
b	Benefits: Improved system reliability															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**300.0**	**-**	**100.0**	**100.0**	**100.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**300.0**	-
7	**Replace ten (10) transmission poles on SR 200 in curve near Step Down Substation**	355	100.0			35.0	35.0	30.0								100.0	-
a	Reasons: Poles are reaching the end of useful life	356	70.0			25.0	25.0	20.0								70.0	-
b	Benefits: Ensure future system reliability															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**170.0**	**-**	**-**	**60.0**	**60.0**	**50.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**170.0**	-
8	**Relocate facilities on AIA due to Roundabout from Nassau Sound Bridge to Atlantic Ave.**	355	56.9											28.9	28.0	56.9	-
a	Reasons: FDOT Project	356	46.0											23.0	23.0	46.0	-
b	Benefits: Meet requirements from FDOT	3647	36.0											18.0	18.0	36.0	-
c	Replacement? Yes	3657	30.0											15.0	15.0	30.0	-
	TOTAL FOR THIS SPECIFIC I.R.		**168.9**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**84.9**	**84.0**	**168.9**	-
9	**Grounding and Rocking at Chip Mill**	362	50.0					25.0	25.0							50.0	-
a	Reasons: Improve substation at Chip Mill															-	-
b	Benefits: Improved reliability and safety															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**50.0**	**-**	**-**	**-**	**-**	**25.0**	**25.0**	**-**	**-**	**-**	**-**	**-**	**-**	**50.0**	-
10	**Replace two (2) 1200 A feeder breakers at AIP substation**	362	32.0							32.0						32.0	-
a	Reasons: Existing breakers are becoming a maintenance problem and nearing end of useful life															-	-
b	Benefits: Improve system reliability															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**32.0**	**-**	**-**	**-**	**-**	**-**	**-**	**32.0**	**-**	**-**	**-**	**-**	**-**	**32.0**	-

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA ELECTRIC DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
11	**Install Perimeter ground at AIP substation**	362	20.0								20.0					20.0	-
a	Reasons: Improve substation at AIP															-	-
b	Benefits: Improved reliability and safety															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**20.0**	-	-	-	-	-	-	-	**20.0**	-	-	-	-	**20.0**	-
12	**Purchase thirty one (31) Tom-Tom Units**	397	34.1		34.1											34.1	-
a	Reasons: Improved Efficiency															-	-
b	Benefits: Increase Productivity and Lower Costs															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**34.1**	-	**34.1**	-	-	-	-	-	-	-	-	-	-	**34.1**	-
13	**Replace 69 KV relays and control at Step Down Substation**	353	60.0									20.0	20.0	20.0		60.0	-
a	Reasons: Improve capabilities on relaying and future SCADA system															-	-
b	Benefits: Improved reliability and control of 69 KV system															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**60.0**	-	-	-	-	-	-	-	-	**20.0**	**20.0**	**20.0**	-	**60.0**	-
14	**Purchase Load Flow Analysis Software for use with Mapping System**	391305	5.0									5.0				5.0	-
a	Reasons: Allow in house study of feeders to be completed															-	-
b	Benefits: Improved understanding of feeder operating characteristics															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**5.0**	-	-	-	-	-	-	-	-	**5.0**	-	-	-	**5.0**	-
15	**Purchase Meter and Current Transformer Testers**	3942	35.0				35.0									35.0	-
a	Reasons: Current Testing Equipment need updating															-	-
b	Benefits: Improve efficiency and testing results															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**35.0**	-	-	-	**35.0**	-	-	-	-	-	-	-	-	**35.0**	-
	NON-REVENUE PRODUCING		**875.0**	-	**134.1**	**160.0**	**195.0**	**75.0**	**25.0**	**32.0**	**20.0**	**25.0**	**20.0**	**104.9**	**84.0**	**875.0**	-
	TOTAL SPECIFIC CONSTRUCTION		**1,145.6**	**22.5**	**156.6**	**182.5**	**217.5**	**97.5**	**47.5**	**54.6**	**42.6**	**47.6**	**42.6**	**127.5**	**106.6**	**1,145.6**	-
	CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		**1,145.6**	**22.5**	**156.6**	**182.5**	**217.5**	**97.5**	**47.5**	**54.6**	**42.6**	**47.6**	**42.6**	**127.5**	**106.6**	**1,145.6**	-

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA NATURAL GAS DIVISION
2009 Capital Expenditure Budget
Dollars in Thousands (000.0)

TOTAL CONSTRUCTION

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
3761	Mains - Plastic	173.8	169.8	169.8	169.8	169.8	169.8	169.8	169.8	169.9	169.9	169.9	169.9	2,042.0
3762	Mains - Other	17.5	17.5	142.4	142.4	142.4	142.5	142.5	142.4	142.4	142.4	17.5	17.5	1,209.4
379	Measure/Regulator Equipment-City Gate	3.5	-	-	3.5	-	-	3.5	-	-	3.5	-	-	14.0
3801	Services - Plastic	53.4	53.4	53.4	53.4	53.4	53.3	53.4	53.4	53.4	53.4	53.4	53.4	640.7
3802	Services - Other	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
381	Meters	30.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	250.0
382	Meter Installations	33.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	308.0
383	House Regulators	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	120.0
384	House Regulator Installations	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	54.0
387	Other Equipment	-	26.0	-	10.0	-	-	-	-	-	-	-	-	36.0
	TOTAL DISTRIBUTION PLANT	**326.7**	**327.2**	**426.1**	**439.6**	**426.1**	**426.1**	**429.7**	**426.1**	**426.2**	**429.7**	**301.3**	**301.3**	**4,686.1**
	GENERAL PLANT													
389	Land	-	-	-	-	-	-	-	-	-	-	-	-	-
390	Structures & Improvements	34.0	33.0	33.0	34.0	-	-	1.0	-	-	-	1.0	-	136.0
3911	Office Furniture	-	1.0	-	7.5	1.0	-	-	1.0	-	-	1.0	-	11.5
3912	Office Machines	15.0	0.5	1.2	0.5	-	0.5	-	0.5	-	0.5	-	0.5	19.2
3913	EDP Equipment	-	-	-	-	2.0	-	-	-	2.0	-	-	-	4.0
3921	Transportation Equipment - Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light Trucks & Vans	-	38.0	57.5	-	-	-	-	-	-	-	-	-	95.5
3923	Transportation Equipment - Heavy Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
393	Stores Equipment	24.0	-	-	-	-	-	-	-	-	-	-	-	24.0
394	Tools, Shop and Garage Equipment	3.0	3.0	9.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	42.0
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	61.0	-	-	-	-	-	-	-	-	-	-	61.0
397	Communication Equipment	-	2.0	-	-	-	2.0	-	-	-	2.0	-	-	6.0
398	Miscellaneous Equipment	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
399	Miscellaneous Tangible	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**77.0**	**139.5**	**101.7**	**46.0**	**7.0**	**6.5**	**5.0**	**5.5**	**6.0**	**6.5**	**6.0**	**4.5**	**411.2**
	TOTAL CONSTRUCTION	**403.7**	**466.7**	**527.8**	**485.6**	**433.1**	**432.6**	**434.7**	**431.6**	**432.2**	**436.2**	**307.3**	**305.8**	**5,097.3**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL CONSTRUCTION WITH CARRYOVERS	403.7	466.7	527.8	485.6	433.1	432.6	434.7	431.6	432.2	436.2	307.3	305.8	5,097.3

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA NATURAL GAS DIVISION
2009 Capital Expenditure Budget
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NON-SPECIFIC CONSTRUCTION														
	DISTRIBUTION PLANT													
3761	Mains - Plastic	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	612.0
3762	Mains - Other	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0
379	Measure/Regulator Equipment-City Gate	3.5	-	-	3.5	-	-	3.5	-	-	3.5	-	-	14.0
3801	Services - Plastic	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	720.0
3801	Services - Plastic - Bare Steel Amortization	(6.6)	(6.6)	(6.6)	(6.6)	(6.6)	(6.7)	(6.6)	(6.6)	(6.6)	(6.6)	(6.6)	(6.6)	(79.3)
3802	Services - Other	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
381	Meters	30.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	250.0
382	Meter Installations	33.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	308.0
383	House Regulators	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	120.0
384	House Regulator Installations	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	54.0
387	Other Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**188.9**	**167.4**	**167.4**	**170.9**	**167.4**	**167.3**	**170.9**	**167.4**	**167.4**	**170.9**	**167.4**	**167.4**	**2,040.7**
	GENERAL PLANT													
389	Land	-	-	-	-	-	-	-	-	-	-	-	-	-
390	Structures & Improvements	1.0	-	-	1.0	-	-	1.0	-	-	-	1.0	-	4.0
3911	Office Furniture	-	1.0	-	7.5	1.0	-	-	1.0	-	-	1.0	-	11.5
3912	Office Machines	-	0.5	1.2	0.5	-	0.5	-	0.5	-	0.5	-	0.5	4.2
3913	EDP Equipment	-	-	-	-	2.0	-	-	-	2.0	-	-	-	4.0
3921	Transportation Equipment - Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light Trucks & Vans	-	-	-	-	-	-	-	-	-	-	-	-	-
3923	Transportation Equipment - Heavy Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
393	Stores Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop and Garage Equipment	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	36.0
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	2.0	-	-	-	2.0	-	-	-	2.0	-	-	6.0
398	Miscellaneous Equipment	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
399	Miscellaneous Tangible	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**5.0**	**7.5**	**5.2**	**13.0**	**7.0**	**6.5**	**5.0**	**5.5**	**6.0**	**6.5**	**6.0**	**4.5**	**77.7**
	TOTAL NON-SPECIFIC CONSTRUCTION	**193.9**	**174.9**	**172.6**	**183.9**	**174.4**	**173.8**	**175.9**	**172.9**	**173.4**	**177.4**	**173.4**	**171.9**	**2,118.4**

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA NATURAL GAS DIVISION
2009 Capital Expenditure Budget
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
SPECIFIC CONSTRUCTION SUMMARY														
	DISTRIBUTION PLANT													
3761	Mains - Plastic	122.8	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.9	118.9	118.9	118.9	1,430.0
3762	Mains - Other	15.0	15.0	139.9	139.9	139.9	140.0	140.0	139.9	139.9	139.9	15.0	15.0	1,179.4
379	Measure/Regulator Equipment-City Gate	-	-	-	-	-	-	-	-	-	-	-	-	-
3801	Services - Plastic	-	-	-	-	-	-	-	-	-	-	-	-	-
3802	Services - Other	-	-	-	-	-	-	-	-	-	-	-	-	-
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
387	Other Equipment	-	26.0	-	10.0	-	-	-	-	-	-	-	-	36.0
	TOTAL DISTRIBUTION PLANT	**137.8**	**159.8**	**258.7**	**268.7**	**258.7**	**258.8**	**258.8**	**258.7**	**258.8**	**258.8**	**133.9**	**133.9**	**2,645.4**
	GENERAL PLANT													
389	Land	-	-	-	-	-	-	-	-	-	-	-	-	-
390	Structures & Improvements	33.0	33.0	33.0	33.0	-	-	-	-	-	-	-	-	132.0
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Machines	15.0	-	-	-	-	-	-	-	-	-	-	-	15.0
3913	EDP Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3921	Transportation Equipment - Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light Trucks & Vans	-	38.0	57.5	-	-	-	-	-	-	-	-	-	95.5
3923	Transportation Equipment - Heavy Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
393	Stores Equipment	24.0	-	-	-	-	-	-	-	-	-	-	-	24.0
394	Tools, Shop and Garage Equipment	-	-	6.0	-	-	-	-	-	-	-	-	-	6.0
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	61.0	-	-	-	-	-	-	-	-	-	-	61.0
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous Tangible	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**72.0**	**132.0**	**96.5**	**33.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**333.5**
	TOTAL SPECIFIC CONSTRUCTION	**209.8**	**291.8**	**355.2**	**301.7**	**258.7**	**258.8**	**258.8**	**258.7**	**258.8**	**258.8**	**133.9**	**133.9**	**2,978.9**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS	209.8	291.8	355.2	301.7	258.7	258.8	258.8	258.7	258.8	258.8	133.9	133.9	2,978.9

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA NATURAL GAS DIVISION
2009 Capital Expenditure Budget
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
	SPECIFIC CONSTRUCTION - DETAIL																
	REVENUE PRODUCING - NON-AEP																
1																-	-
2	Misc. Main Extensions - TBD	3761	340.0	32.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	340.0	-
3	Misc Service Installations TBD	3762	60.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	60.0	-
4																-	-
5																-	-
	TOTAL REVENUE PRODUCING		**400.0**	**37.0**	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**400.0**	**-**
	REVENUE PRODUCING - AEP																
6	Misc. Main Extensions - TBD	3761	240.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	240.0	-
7	Misc Service Installations TBD	3762	120.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	120.0	-
8	Westward Expansion	3762	358.1			44.8	44.8	44.8	44.8	44.8	44.7	44.7	44.7			358.1	-
9																-	-
	TOTAL REVENUE PRODUCING - AEP		**718.1**	**30.0**	**30.0**	**74.8**	**74.8**	**74.8**	**74.8**	**74.8**	**74.7**	**74.7**	**74.7**	**30.0**	**30.0**	**718.1**	**-**
	TOTAL REVENUE PRODUCING		**1,118.1**	**67.0**	**63.0**	**107.8**	**107.8**	**107.8**	**107.8**	**107.8**	**107.7**	**107.7**	**107.7**	**63.0**	**63.0**	**1,118.1**	**-**
	NON-REVENUE PRODUCING																
10	**Amort. Bare Steel & Tubing Replacements**	3761	(392.0)	(32.7)	(32.7)	(32.7)	(32.7)	(32.7)	(32.7)	(32.7)	(32.7)	(32.6)	(32.6)	(32.6)	(32.6)	(392.0)	-
a	Reasons: PSC Approved Program															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**(392.0)**	**(32.7)**	**(32.7)**	**(32.7)**	**(32.7)**	**(32.7)**	**(32.7)**	**(32.7)**	**(32.7)**	**(32.6)**	**(32.6)**	**(32.6)**	**(32.6)**	**(392.0)**	**-**
11	**Bare Steel & Tubing Replacements**	3761	392.0	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.6	32.6	32.6	32.6	392.0	-
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**392.0**	**32.7**	**32.7**	**32.7**	**32.7**	**32.7**	**32.7**	**32.7**	**32.7**	**32.6**	**32.6**	**32.6**	**32.6**	**392.0**	**-**
12	**Road Projects and System Improvements**	3761	850.0	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.9	70.9	70.9	70.9	850.0	-
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**850.0**	**70.8**	**70.8**	**70.8**	**70.8**	**70.8**	**70.8**	**70.8**	**70.8**	**70.9**	**70.9**	**70.9**	**70.9**	**850.0**	**-**
13	**Operations Building Prelim Costs (2009)**	390	132.0	33.0	33.0	33.0	33.0									132.0	-
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**132.0**	**33.0**	**33.0**	**33.0**	**33.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**132.0**	**-**

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA NATURAL GAS DIVISION
2009 Capital Expenditure Budget
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
14	**Vehicle for new Gas Safety Coordinator**	3922	19.0		19.0											19.0	-
a	Reasons: Age, condition & Mileage															-	-
b	Benefits: Reduced downtime															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**19.0**	-	**19.0**	-	-	-	-	-	-	-	-	-	-	**19.0**	-
15	**Replace Dump Truck #421**	3922	57.5			57.5										57.5	-
a	Reasons: Age, condition & Mileage															-	-
b	Benefits: Reduced downtime															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**57.5**	-	-	**57.5**	-	-	-	-	-	-	-	-	-	**57.5**	-
16	**Replace 1 - Engineer Truck**	3922	19.0		19.0											19.0	-
a	Reasons: Age, condition & Mileage															-	-
b	Benefits: Reduced downtime															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**19.0**	-	**19.0**	-	-	-	-	-	-	-	-	-	-	**19.0**	-
17	**TDW Stopper Housings**	387	6.0		6.0											6.0	-
a	Reasons: Age, condition															-	-
b	Benefits: Safety & Productivity															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**6.0**	-	**6.0**	-	-	-	-	-	-	-	-	-	-	**6.0**	-
18	**Butt Fusion Equipment**	387	10.0				10.0									10.0	-
a	Reasons: increased Productivity															-	-
b	Reasons: increased Productivity															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**10.0**	-	-	-	**10.0**	-	-	-	-	-	-	-	-	**10.0**	-
19	**Welding Machine**	394	6.0			6.0										6.0	-
a	Reasons: Age, condition															-	-
b	Benefits: Reduced downtime															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**6.0**	-	-	**6.0**	-	-	-	-	-	-	-	-	-	**6.0**	-
20	**Backhoe for operations**	396	61.0		61.0											61.0	-
a	Reasons: Currently Renting															-	-
b	Benefits: Efficiency & Savings															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**61.0**	-	**61.0**	-	-	-	-	-	-	-	-	-	-	**61.0**	-

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA NATURAL GAS DIVISION
2009 Capital Expenditure Budget
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
21	**Warehouse Forklift**	393	24.0	24.0												24.0	-
a	Reasons: Currently R3enting															-	-
b	Benefits: Efficiency & Savings															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**24.0**	**24.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**24.0**	**-**
22	**3-2" Hydraulic Squeeze offs**	387	10.0		10.0											10.0	-
a	Reasons: Current equipment inoperable															-	-
b	Benefits: Safety and savings															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**10.0**	**-**	**10.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**10.0**	**-**
23	**2-Metrotech Locators**	387	10.0		10.0											10.0	-
a	Reasons: Current equipment inoperable															-	-
b	Benefits: Safety and savings															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**10.0**	**-**	**10.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**10.0**	**-**
24	**2-Color Lasers Printers for Marketing**	3912	15.0	15.0												15.0	-
a	Reasons:increased need															-	-
b	Benefits: Improved prduction															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**15.0**	**15.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**15.0**	**-**
25	**Wesward Expansion - System Improvement**	3762	641.3			80.1	80.1	80.1	80.2	80.2	80.2	80.2	80.2			641.3	-
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**641.3**	**-**	**-**	**80.1**	**80.1**	**80.1**	**80.2**	**80.2**	**80.2**	**80.2**	**80.2**	**-**	**-**	**641.3**	**-**
	TOTAL NON-REVENUE PRODUCING		**1,860.8**	**142.8**	**228.8**	**247.4**	**193.9**	**150.9**	**151.0**	**151.0**	**151.0**	**151.1**	**151.1**	**70.9**	**70.9**	**1,860.8**	**-**
	TOTAL SPECIFIC CONSTRUCTION		**2,978.9**	**209.8**	**291.8**	**355.2**	**301.7**	**258.7**	**258.8**	**258.8**	**258.7**	**258.8**	**258.8**	**133.9**	**133.9**	**2,978.9**	**-**
	CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		2,978.9	209.8	291.8	355.2	301.7	258.7	258.8	258.8	258.7	258.8	258.8	133.9	133.9	2,978.9	-

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

TOTAL CONSTRUCTION

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
311	Propane Storage Facility	-	-	-	-	-	-	-	-	9.5	-	-	-	9.5
312	Remote Tank Monitors	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	20.4
313	Remote Tank Monitor - Installations	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
364	Dispensers	-	-	-	-	-	-	-	-	-	-	-	-	-
374	Consumers' Storage Tanks	-	10.0	-	10.0	-	10.0	-	10.0	-	10.0	-	10.0	60.0
376	Mains	-	-	-	-	30.0	22.4	-	-	-	-	-	-	52.4
380	Services	1.0	-	1.0	-	1.0	-	1.0	-	1.0	-	1.0	-	6.0
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6.0
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
385	Consumers' System Installations - Aboveground	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0
386	Consumers' System Installations - Underground	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	54.0
387	Other Equipment	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	18.0
	TOTAL DISTRIBUTION PLANT	**14.0**	**23.0**	**14.0**	**23.0**	**44.0**	**45.4**	**14.0**	**23.0**	**23.5**	**23.0**	**14.0**	**23.0**	**283.9**
	GENERAL PLANT													
390	Structures & Improvements	3.5	-	18.0	15.0	6.0	-	-	-	-	-	-	-	42.5
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
392	Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop & Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**3.5**	**-**	**18.0**	**15.0**	**6.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**42.5**
	TOTAL CONSTRUCTION	**17.5**	**23.0**	**32.0**	**38.0**	**50.0**	**45.4**	**14.0**	**23.0**	**23.5**	**23.0**	**14.0**	**23.0**	**326.4**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL CONSTRUCTION WITH CARRYOVERS	**17.5**	**23.0**	**32.0**	**38.0**	**50.0**	**45.4**	**14.0**	**23.0**	**23.5**	**23.0**	**14.0**	**23.0**	**326.4**

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NON-SPECIFIC CONSTRUCTION														
	DISTRIBUTION PLANT													
311	Propane Storage Facility													-
312	Remote Tank Monitors	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	20.4
313	Remote Tank Monitor - Installations	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
364	Dispensers													-
374	Consumers' Storage Tanks		10.0		10.0		10.0		10.0		10.0		10.0	60.0
376	Mains													-
380	Services	1.0		1.0		1.0		1.0		1.0		1.0		6.0
381	Meters													-
382	Meter Installations	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6.0
383	House Regulators													-
384	House Regulator Installations	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
385	Consumers' System Installations - Aboveground	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0
386	Consumers' System Installations - Underground	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	54.0
387	Other Equipment	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	18.0
	TOTAL DISTRIBUTION PLANT	**14.0**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**222.0**
	GENERAL PLANT													
390	Structures & Improvements	3.5												3.5
3911	Office Furniture													-
3912	Office Equipment													-
3913	Computer Equipment													-
392	Transportation Equipment													-
394	Tools, Shop & Garage Equipment													-
395	Laboratory Equipment													-
396	Power Operated Equipment													-
397	Communication Equipment													-
	TOTAL GENERAL PLANT	**3.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3.5**
TOTAL NON-SPECIFIC CONSTRUCTION		**17.5**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**225.5**

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

SPECIFIC CONSTRUCTION SUMMARY

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
311	Propane Storage Facility	-	-	-	-	-	-	-	-	9.5	-	-	-	9.5
312	Remote Tank Monitors	-	-	-	-	-	-	-	-	-	-	-	-	-
313	Remote Tank Monitor - Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
364	Dispensers	-	-	-	-	-	-	-	-	-	-	-	-	-
374	Consumers' Storage Tanks	-	-	-	-	-	-	-	-	-	-	-	-	-
376	Mains	-	-	-	-	30.0	22.4	-	-	-	-	-	-	52.4
380	Services	-	-	-	-	-	-	-	-	-	-	-	-	-
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
385	Consumers' System Installations - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
386	Consumers' System Installations - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
387	Other Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**-**	**-**	**-**	**-**	**30.0**	**22.4**	**-**	**-**	**9.5**	**-**	**-**	**-**	**61.9**
	GENERAL PLANT													
390	Structures & Improvements	-	-	18.0	15.0	6.0	-	-	-	-	-	-	-	39.0
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
392	Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop & Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**-**	**18.0**	**15.0**	**6.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**39.0**
	TOTAL SPECIFIC CONSTRUCTION	**-**	**-**	**18.0**	**15.0**	**36.0**	**22.4**	**-**	**-**	**9.5**	**-**	**-**	**-**	**100.9**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS	**-**	**-**	**18.0**	**15.0**	**36.0**	**22.4**	**-**	**-**	**9.5**	**-**	**-**	**-**	**100.9**

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
SPECIFIC CONSTRUCTION - DETAIL																	
	REVENUE PRODUCING																
1	Fisherman's Cove - Edgewater	376	52.4					30.0	22.4							52.4	-
2																	
3																-	-
	TOTAL REVENUE PRODUCING		**52.4**	-	-	-	-	**30.0**	**22.4**	-	-	-	-	-	-	**52.4**	-
	NON-REVENUE PRODUCING																
4	**Purchase Hurricane Shutters - Inglis**	390	6.0					6.0								6.0	-
a	Reasons: Safety															-	-
b	Benefits: Safety															-	-
c	Replacement No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**6.0**	-	-	-	-	**6.0**	-	-	-	-	-	-	-	**6.0**	-
5	**Purchase Alarm System - Inglis**	390	15.0				15.0									15.0	-
a	Reasons: Safety															-	-
b	Benefits: Safety															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**15.0**	-	-	-	**15.0**	-	-	-	-	-	-	-	-	**15.0**	-
6	**Pave Parking Lot - Inglis**	390	18.0			18.0										18.0	-
a	Reasons: Improve Productivity & Safety															-	-
b	Benefits: Improve Safety & Productivity															-	-
c	Replacement No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**18.0**	-	-	**18.0**	-	-	-	-	-	-	-	-	-	**18.0**	-
7	**Upgrade Bulk Storage Plant - Inglis**	311	9.5									9.5				9.5	-
a	Reasons: Regulatory Requirement															-	-
b	Benefits: Rule Requirement															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**9.5**	-	-	-	-	-	-	-	-	**9.5**	-	-	-	**9.5**	-
8	**[Project]**															-	-
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement:															-	-
	TOTAL FOR THIS SPECIFIC I.R.		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NON-REVENUE PRODUCING		**48.5**	-	-	**18.0**	**15.0**	**6.0**	-	-	-	**9.5**	-	-	-	**48.5**	-
	TOTAL SPECIFIC CONSTRUCTION		**100.9**	-	-	**18.0**	**15.0**	**36.0**	**22.4**	-	-	**9.5**	-	-	-	**100.9**	-
	CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		**100.9**	-	-	**18.0**	**15.0**	**36.0**	**22.4**	-	-	**9.5**	-	-	-	**100.9**	-

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA NATURAL GAS DIVISION
2009 Capital Expenditure Budget
Dollars in Thousands (000.0)

TOTAL CONSTRUCTION

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
3761	Mains - Plastic	159.3	159.2	159.2	56.7	56.7	56.7	56.7	56.7	56.8	56.8	56.8	56.8	988.4
3762	Mains - Other	-	1.0	-	1.0	-	1.0	-	1.0	-	1.0	-	-	5.0
379	Measure/Regulator Equipment-City Gate	52.5	52.5	82.5	-	-	-	-	-	-	-	-	-	187.5
3801	Services - Plastic	25.1	25.1	25.1	25.1	25.1	25.1	25.2	25.1	25.1	25.1	25.1	25.1	301.3
3802	Services - Other	-	0.5	-	0.5	-	0.5	-	0.5	-	0.5	-	-	2.5
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	45.6
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	15.6
387	Other Equipment	15.2	29.8	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	87.0
	TOTAL DISTRIBUTION PLANT	**257.2**	**273.2**	**276.1**	**92.6**	**91.1**	**92.6**	**91.2**	**92.6**	**91.2**	**92.7**	**91.2**	**91.2**	**1,632.9**
	GENERAL PLANT													
389	Land	-	-	-	-	-	-	-	-	-	-	-	-	-
390	Structures & Improvements	122.5	105.0	120.5	-	-	-	32.0	-	-	-	-	-	380.0
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Machines	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	EDP Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3921	Transportation Equipment - Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light Trucks & Vans	-	-	-	20.0	-	-	-	-	-	-	-	-	20.0
3923	Transportation Equipment - Heavy Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
393	Stores Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop and Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous Tangible	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**122.5**	**105.0**	**120.5**	**20.0**	**-**	**-**	**32.0**	**-**	**-**	**-**	**-**	**-**	**400.0**
	TOTAL CONSTRUCTION	**379.7**	**378.2**	**396.6**	**112.6**	**91.1**	**92.6**	**123.2**	**92.6**	**91.2**	**92.7**	**91.2**	**91.2**	**2,032.9**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL CONSTRUCTION WITH CARRYOVERS	379.7	378.2	396.6	112.6	91.1	92.6	123.2	92.6	91.2	92.7	91.2	91.2	2,032.9

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA NATURAL GAS DIVISION
2009 Capital Expenditure Budget
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NON-SPECIFIC CONSTRUCTION														
	DISTRIBUTION PLANT													
3761	Mains - Plastic	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	60.0
3762	Mains - Other		1.0		1.0		1.0		1.0		1.0			5.0
379	Measure/Regulator Equipment-City Gate													-
3801	Services - Plastic	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	276.0
3801	Services - Plastic - Bare Steel Amortization	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.8)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(22.7)
3802	Services - Other		0.5		0.5		0.5		0.5		0.5			2.5
381	Meters													-
382	Meter Installations	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	45.6
383	House Regulators													-
384	House Regulator Installations	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	15.6
387	Other Equipment	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	50.4
	TOTAL DISTRIBUTION PLANT	**35.4**	**36.9**	**35.4**	**36.9**	**35.4**	**36.9**	**35.5**	**36.9**	**35.4**	**36.9**	**35.4**	**35.4**	**432.4**
	GENERAL PLANT													
389	Land													-
390	Structures & Improvements													-
3911	Office Furniture													-
3912	Office Machines													-
3913	EDP Equipment													-
3921	Transportation Equipment - Cars													-
3922	Transportation Equipment - Light Trucks & Vans													-
3923	Transportation Equipment - Heavy Trucks													-
3924	Transportation Equipment - Trailers													-
393	Stores Equipment													-
394	Tools, Shop and Garage Equipment													-
395	Laboratory Equipment													-
396	Power Operated Equipment													-
397	Communication Equipment													-
398	Miscellaneous Equipment													-
399	Miscellaneous Tangible													-
	TOTAL GENERAL PLANT	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL NON-SPECIFIC CONSTRUCTION		**35.4**	**36.9**	**35.4**	**36.9**	**35.4**	**36.9**	**35.5**	**36.9**	**35.4**	**36.9**	**35.4**	**35.4**	**432.4**

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA NATURAL GAS DIVISION
2009 Capital Expenditure Budget
Dollars in Thousands (000.0)

SPECIFIC CONSTRUCTION SUMMARY

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
3761	Mains - Plastic	154.3	154.2	154.2	51.7	51.7	51.7	51.7	51.7	51.8	51.8	51.8	51.8	928.4
3762	Mains - Other	-	-	-	-	-	-	-	-	-	-	-	-	-
379	Measure/Regulator Equipment-City Gate	52.5	52.5	82.5	-	-	-	-	-	-	-	-	-	187.5
3801	Services - Plastic	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	48.0
3802	Services - Other	-	-	-	-	-	-	-	-	-	-	-	-	-
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
387	Other Equipment	11.0	25.6	-	-	-	-	-	-	-	-	-	-	36.6
	TOTAL DISTRIBUTION PLANT	**221.8**	**236.3**	**240.7**	**55.7**	**55.7**	**55.7**	**55.7**	**55.7**	**55.8**	**55.8**	**55.8**	**55.8**	**1,200.5**
	GENERAL PLANT													
389	Land	-	-	-	-	-	-	-	-	-	-	-	-	-
390	Structures & Improvements	122.5	105.0	120.5	-	-	-	32.0	-	-	-	-	-	380.0
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Machines	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	EDP Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3921	Transportation Equipment - Cars	-	-	-	-	-	-	-	-	-	-	-	-	-
3922	Transportation Equipment - Light Trucks & Vans	-	-	-	20.0	-	-	-	-	-	-	-	-	20.0
3923	Transportation Equipment - Heavy Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-
3924	Transportation Equipment - Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-
393	Stores Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop and Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
398	Miscellaneous Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
399	Miscellaneous Tangible	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**122.5**	**105.0**	**120.5**	**20.0**	**-**	**-**	**32.0**	**-**	**-**	**-**	**-**	**-**	**400.0**
	TOTAL SPECIFIC CONSTRUCTION	**344.3**	**341.3**	**361.2**	**75.7**	**55.7**	**55.7**	**87.7**	**55.7**	**55.8**	**55.8**	**55.8**	**55.8**	**1,600.5**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS	344.3	341.3	361.2	75.7	55.7	55.7	87.7	55.7	55.8	55.8	55.8	55.8	1,600.5

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA NATURAL GAS DIVISION
2009 Capital Expenditure Budget
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
	SPECIFIC CONSTRUCTION - DETAIL																
	REVENUE PRODUCING - NON-AEP																
1	Misc. Main Extensions - TBD	3761	220.8	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	220.8	-
2	Misc Service Installations TBD	3801	30.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0	-
3		379	157.5	52.5	52.5	52.5										157.5	-
4		3761	307.6	102.6	102.5	102.5										307.6	-
	TOTAL REVENUE PRODUCING		**715.9**	**176.0**	**175.9**	**175.9**	**20.9**	**20.9**	**20.9**	**20.9**	**20.9**	**20.9**	**20.9**	**20.9**	**20.9**	**715.9**	**-**
	REVENUE PRODUCING - AEP																
5	Misc. Main Extensions - TBD	3761	150.0	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	150.0	-
6	Misc Service Installations TBD	3801	18.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	18.0	-
7																-	-
8																-	-
	TOTAL REVENUE PRODUCING - AEP		**168.0**	**14.0**	**14.0**	**14.0**	**14.0**	**14.0**	**14.0**	**14.0**	**14.0**	**14.0**	**14.0**	**14.0**	**14.0**	**168.0**	**-**
	TOTAL REVENUE PRODUCING		**883.9**	**190.0**	**189.9**	**189.9**	**34.9**	**34.9**	**34.9**	**34.9**	**34.9**	**34.9**	**34.9**	**34.9**	**34.9**	**883.9**	**-**
	NON-REVENUE PRODUCING																
9	**Amort. Bare Steel & Tubing Replacements**	3761	(322.3)	(26.9)	(26.9)	(26.9)	(26.9)	(26.9)	(26.9)	(26.9)	(26.8)	(26.8)	(26.8)	(26.8)	(26.8)	(322.3)	-
a	Reasons: PSC Approved Program															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**(322.3)**	**(26.9)**	**(26.9)**	**(26.9)**	**(26.9)**	**(26.9)**	**(26.9)**	**(26.9)**	**(26.8)**	**(26.8)**	**(26.8)**	**(26.8)**	**(26.8)**	**(322.3)**	**-**
10	**Bare Steel & Tubing Replacements**	3761	322.3	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.8	26.8	26.8	26.8	26.8	322.3	-
a	Reasons: PSC approved program															-	-
b	Benefits: System Reliability															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**322.3**	**26.9**	**26.9**	**26.9**	**26.9**	**26.9**	**26.9**	**26.9**	**26.8**	**26.8**	**26.8**	**26.8**	**26.8**	**322.3**	**-**
11	**Road Projects and System Improvements Program**	3761	250.0	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.9	20.9	20.9	20.9	250.0	-
a	Reasons: PSC Approved Program															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**250.0**	**20.8**	**20.8**	**20.8**	**20.8**	**20.8**	**20.8**	**20.8**	**20.8**	**20.9**	**20.9**	**20.9**	**20.9**	**250.0**	**-**

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA NATURAL GAS DIVISION
2009 Capital Expenditure Budget
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
12	**Parking Lot Development**	390	315.0	105.0	105.0	105.0										315.0	-
a	Reasons: Needed additional parking															-	-
b	Benefits: Improved customer service															-	-
c	Replacement No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**315.0**	**105.0**	**105.0**	**105.0**	-	-	-	-	-	-	-	-	-	**315.0**	-
13	**(2) Robur A/C Units**	390	15.5			15.5										15.5	-
a	Reasons: Normal Replacement															-	-
b	Benefits: Reduce Maintenance															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**15.5**	-	-	**15.5**	-	-	-	-	-	-	-	-	-	**15.5**	-
14	**(1) Supervisor Vehicle**	3922	20.0				20.0									20.0	-
a	Reasons: Normal Replacement															-	-
b	Benefits: Reduce Maintenance															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**20.0**	-	-	-	**20.0**	-	-	-	-	-	-	-	-	**20.0**	-
15	**(4) Scott Respirators**	387	11.0	11.0												11.0	-
a	Reasons: Emergency Response															-	-
b	Benefits: Employee Safety															-	-
c	Replacement No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**11.0**	**11.0**	-	-	-	-	-	-	-	-	-	-	-	**11.0**	-
16	**(1) Infra Red Leak Detector**	387	20.0		20.0											20.0	-
a	Reasons: Needed additional Equipment															-	-
b	Benefits: Improved Productivity															-	-
c	Replacement No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**20.0**	-	**20.0**	-	-	-	-	-	-	-	-	-	-	**20.0**	-
17	**(1) Security Camera System**	390	17.5	17.5												17.5	-
a	Reasons: Safety															-	-
b	Benefits: Employee Safety															-	-
c	Replacement No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**17.5**	**17.5**	-	-	-	-	-	-	-	-	-	-	-	**17.5**	-
18	**Roof Sealing - DeBary Office**	390	32.0							32.0						32.0	-
a	Reasons: Normal Replacement															-	-
b	Benefits: Reduce Maintenance															-	-
c	Replacement No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**32.0**	-	-	-	-	-	-	**32.0**	-	-	-	-	-	**32.0**	-

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA NATURAL GAS DIVISION
2009 Capital Expenditure Budget
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
19	**Odorizer & Relief for NSB Gate Station**	379	30.0			30.0										30.0	-
a	Reasons: Replace Obsolete Equipment															-	-
b	Benefits: Consistent Odorization															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**30.0**	-	-	**30.0**	-	-	-	-	-	-	-	-	-	**30.0**	-
20	**(1) Battery Electro Fusion w/Accessories**	387	5.6		5.6											5.6	-
a	Reasons: Needed Additional Equipment															-	-
b	Benefits: Improved Productivity															-	-
c	Replacement No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**5.6**	-	**5.6**	-	-	-	-	-	-	-	-	-	-	**5.6**	-
21																-	-
a																-	-
b																-	-
c																-	-
	TOTAL FOR THIS SPECIFIC I.R.		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL NON-REVENUE PRODUCING		**716.6**	**154.3**	**151.4**	**171.3**	**40.8**	**20.8**	**20.8**	**52.8**	**20.8**	**20.9**	**20.9**	**20.9**	**20.9**	**716.6**	-
	TOTAL SPECIFIC CONSTRUCTION		**1,600.5**	**344.3**	**341.3**	**361.2**	**75.7**	**55.7**	**55.7**	**87.7**	**55.7**	**55.8**	**55.8**	**55.8**	**55.8**	**1,600.5**	-
	CARRYOVERS						-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		1,600.5	344.3	341.3	361.2	75.7	55.7	55.7	87.7	55.7	55.8	55.8	55.8	55.8	1,600.5	-

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

TOTAL CONSTRUCTION

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
311	Propane Storage Facility	-	-	-	-	-	-	-	-	-	-	-	-	-
312	Remote Tank Monitors	-	-	-	-	-	-	-	-	-	-	-	-	-
313	Remote Tank Monitor Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
364	Dispensers	-	-	-	-	-	-	-	-	-	-	-	-	-
374	Consumers' Storage Tanks	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	144.0
376	Mains	1.0	1.0	35.0	1.0	1.0	35.1	1.0	1.0	35.1	1.0	1.0	1.0	114.2
380	Services	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
381	Meters	1.0	-	1.0	-	1.0	-	1.0	-	1.0	-	1.0	-	6.0
382	Meter Installations	1.0	-	1.0	-	1.0	-	1.0	-	1.0	-	1.0	-	6.0
383	House Regulators	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	84.0
384	House Regulator Installations	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	18.0
385	Consumers' System Installations - Aboveground	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
386	Consumers' System Installations - Underground	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	180.0
387	Other Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**41.5**	**39.5**	**75.5**	**39.5**	**41.5**	**73.6**	**41.5**	**39.5**	**75.6**	**39.5**	**41.5**	**39.5**	**588.2**
	GENERAL PLANT													
390	Structures & Improvements	-	20.0	25.0	-	25.0	-	25.0	-	-	-	-	-	95.0
3911	Office Furniture	-	-	0.5	-	0.5	-	-	-	0.5	-	-	-	1.5
3912	Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
392	Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop & Garage Equipment	3.0	-	3.0	-	3.0	-	3.0	-	3.0	-	3.0	-	18.0
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	2.0	-	-	2.0	-	2.0	-	2.0	-	2.0	-	2.0	12.0
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**5.0**	**20.0**	**28.5**	**2.0**	**28.5**	**2.0**	**28.0**	**2.0**	**3.5**	**2.0**	**3.0**	**2.0**	**126.5**
	TOTAL CONSTRUCTION	**46.5**	**59.5**	**104.0**	**41.5**	**70.0**	**75.6**	**69.5**	**41.5**	**79.1**	**41.5**	**44.5**	**41.5**	**714.7**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL CONSTRUCTION WITH CARRYOVERS	46.5	59.5	104.0	41.5	70.0	75.6	69.5	41.5	79.1	41.5	44.5	41.5	714.7

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NON-SPECIFIC CONSTRUCTION														
	DISTRIBUTION PLANT													
311	Propane Storage Facility													-
312	Remote Tank Monitors													-
313	Remote Tank Monitor Installations													-
364	Dispensers													-
374	Consumers' Storage Tanks	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	144.0
376	Mains	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
380	Services	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12.0
381	Meters	1.0		1.0		1.0		1.0		1.0		1.0		6.0
382	Meter Installations	1.0		1.0		1.0		1.0		1.0		1.0		6.0
383	House Regulators	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	84.0
384	House Regulator Installations	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	18.0
385	Consumers' System Installations - Aboveground	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
386	Consumers' System Installations - Underground	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	180.0
387	Other Equipment													-
	TOTAL DISTRIBUTION PLANT	**41.5**	**39.5**	**41.5**	**39.5**	**41.5**	**39.5**	**41.5**	**39.5**	**41.5**	**39.5**	**41.5**	**39.5**	**486.0**
	GENERAL PLANT													
390	Structures & Improvements													-
3911	Office Furniture			0.5		0.5				0.5				1.5
3912	Office Equipment													-
3913	Computer Equipment													-
392	Transportation Equipment													-
394	Tools, Shop & Garage Equipment	3.0		3.0		3.0		3.0		3.0		3.0		18.0
395	Laboratory Equipment													-
396	Power Operated Equipment	2.0			2.0		2.0		2.0		2.0		2.0	12.0
397	Communication Equipment													-
	TOTAL GENERAL PLANT	**5.0**	**-**	**3.5**	**2.0**	**3.5**	**2.0**	**3.0**	**2.0**	**3.5**	**2.0**	**3.0**	**2.0**	**31.5**
TOTAL NON-SPECIFIC CONSTRUCTION		**46.5**	**39.5**	**45.0**	**41.5**	**45.0**	**41.5**	**44.5**	**41.5**	**45.0**	**41.5**	**44.5**	**41.5**	**517.5**

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
SPECIFIC CONSTRUCTION SUMMARY														
	DISTRIBUTION PLANT													
311	Propane Storage Facility	-	-	-	-	-	-	-	-	-	-	-	-	-
312	Remote Tank Monitors	-	-	-	-	-	-	-	-	-	-	-	-	-
313	Remote Tank Monitor Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
364	Dispensers	-	-	-	-	-	-	-	-	-	-	-	-	-
374	Consumers' Storage Tanks	-	-	-	-	-	-	-	-	-	-	-	-	-
376	Mains	-	-	34.0	-	-	34.1	-	-	34.1	-	-	-	102.2
380	Services	-	-	-	-	-	-	-	-	-	-	-	-	-
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
385	Consumers' System Installations - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
386	Consumers' System Installations - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
387	Other Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**-**	**-**	**34.0**	**-**	**-**	**34.1**	**-**	**-**	**34.1**	**-**	**-**	**-**	**102.2**
	GENERAL PLANT													
390	Structures & Improvements	-	20.0	25.0	-	25.0	-	25.0	-	-	-	-	-	95.0
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
392	Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop & Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**20.0**	**25.0**	**-**	**25.0**	**-**	**25.0**	**-**	**-**	**-**	**-**	**-**	**95.0**
TOTAL SPECIFIC CONSTRUCTION		**-**	**20.0**	**59.0**	**-**	**25.0**	**34.1**	**25.0**	**-**	**34.1**	**-**	**-**	**-**	**197.2**
CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		**-**	**20.0**	**59.0**	**-**	**25.0**	**34.1**	**25.0**	**-**	**34.1**	**-**	**-**	**-**	**197.2**

FLORIDA PUBLIC UTILITIES COMPANY
SOUTH FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
SPECIFIC CONSTRUCTION - DETAIL																	
	REVENUE PRODUCING																
1	TBD	376	102.2			34.0			34.1			34.1				102.2	-
2																-	-
3																-	-
	TOTAL REVENUE PRODUCING		**102.2**	-	-	**34.0**	-	-	**34.1**	-	-	**34.1**	-	-	-	**102.2**	-
	NON-REVENUE PRODUCING																
4	**Generators for Lauderhill & Lantana**	390	20.0		20.0											20.0	-
a	Reasons: Protect Property and Data															-	-
b	Benefits: Increased Usefulness															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**20.0**	-	**20.0**	-	-	-	-	-	-	-	-	-	-	**20.0**	-
4	**Rehab. Lauderhill Building**	390	75.0			25.0		25.0		25.0						75.0	-
a	Reasons: Repair Hurricane Damage															-	-
b	Benefits: Increased Usefulness															-	-
c	Replacement? Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**75.0**	-	-	**25.0**	-	**25.0**	-	**25.0**	-	-	-	-	-	**75.0**	-
5	**[Project]**															-	-
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NON-REVENUE PRODUCING		**95.0**	-	**20.0**	**25.0**	-	**25.0**	-	**25.0**	-	-	-	-	-	**95.0**	-
	TOTAL SPECIFIC CONSTRUCTION		**197.2**	-	**20.0**	**59.0**	-	**25.0**	**34.1**	**25.0**	-	**34.1**	-	-	-	**197.2**	-
	CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		**197.2**	-	**20.0**	**59.0**	-	**25.0**	**34.1**	**25.0**	-	**34.1**	-	-	-	**197.2**	-

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

TOTAL CONSTRUCTION

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
311	Propane Storage Facility	-	-	-	-	-	-	-	-	9.5	-	-	-	9.5
312	Remote Tank Monitors	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	20.4
313	Remote Tank Monitor - Installations	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
364	Dispensers	-	-	-	-	-	-	-	-	-	-	-	-	-
374	Consumers' Storage Tanks	-	10.0	-	10.0	-	10.0	-	10.0	-	10.0	-	10.0	60.0
376	Mains	-	-	-	-	30.0	22.4	-	-	-	-	-	-	52.4
380	Services	1.0	-	1.0	-	1.0	-	1.0	-	1.0	-	1.0	-	6.0
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6.0
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
385	Consumers' System Installations - Aboveground	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0
386	Consumers' System Installations - Underground	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	54.0
387	Other Equipment	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	18.0
	TOTAL DISTRIBUTION PLANT	**14.0**	**23.0**	**14.0**	**23.0**	**44.0**	**45.4**	**14.0**	**23.0**	**23.5**	**23.0**	**14.0**	**23.0**	**283.9**
	GENERAL PLANT													
390	Structures & Improvements	3.5	-	18.0	15.0	6.0	-	-	-	-	-	-	-	42.5
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
392	Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop & Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**3.5**	**-**	**18.0**	**15.0**	**6.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**42.5**
	TOTAL CONSTRUCTION	**17.5**	**23.0**	**32.0**	**38.0**	**50.0**	**45.4**	**14.0**	**23.0**	**23.5**	**23.0**	**14.0**	**23.0**	**326.4**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL CONSTRUCTION WITH CARRYOVERS	17.5	23.0	32.0	38.0	50.0	45.4	14.0	23.0	23.5	23.0	14.0	23.0	326.4

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NON-SPECIFIC CONSTRUCTION														
	DISTRIBUTION PLANT													
311	Propane Storage Facility													-
312	Remote Tank Monitors	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	20.4
313	Remote Tank Monitor - Installations	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
364	Dispensers													-
374	Consumers' Storage Tanks		10.0		10.0		10.0		10.0		10.0		10.0	60.0
376	Mains													-
380	Services	1.0		1.0		1.0		1.0		1.0		1.0		6.0
381	Meters													-
382	Meter Installations	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6.0
383	House Regulators													-
384	House Regulator Installations	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
385	Consumers' System Installations - Aboveground	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	30.0
386	Consumers' System Installations - Underground	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	54.0
387	Other Equipment	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	18.0
	TOTAL DISTRIBUTION PLANT	**14.0**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**222.0**
	GENERAL PLANT													
390	Structures & Improvements	3.5												3.5
3911	Office Furniture													-
3912	Office Equipment													-
3913	Computer Equipment													-
392	Transportation Equipment													-
394	Tools, Shop & Garage Equipment													-
395	Laboratory Equipment													-
396	Power Operated Equipment													-
397	Communication Equipment													-
	TOTAL GENERAL PLANT	**3.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3.5**
TOTAL NON-SPECIFIC CONSTRUCTION		**17.5**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**14.0**	**23.0**	**225.5**

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

SPECIFIC CONSTRUCTION SUMMARY

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
311	Propane Storage Facility	-	-	-	-	-	-	-	-	9.5	-	-	-	9.5
312	Remote Tank Monitors	-	-	-	-	-	-	-	-	-	-	-	-	-
313	Remote Tank Monitor - Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
364	Dispensers	-	-	-	-	-	-	-	-	-	-	-	-	-
374	Consumers' Storage Tanks	-	-	-	-	-	-	-	-	-	-	-	-	-
376	Mains	-	-	-	-	30.0	22.4	-	-	-	-	-	-	52.4
380	Services	-	-	-	-	-	-	-	-	-	-	-	-	-
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
385	Consumers' System Installations - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
386	Consumers' System Installations - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
387	Other Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**-**	**-**	**-**	**-**	**30.0**	**22.4**	**-**	**-**	**9.5**	**-**	**-**	**-**	**61.9**
	GENERAL PLANT													
390	Structures & Improvements	-	-	18.0	15.0	6.0	-	-	-	-	-	-	-	39.0
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
392	Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop & Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**-**	**18.0**	**15.0**	**6.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**39.0**
	TOTAL SPECIFIC CONSTRUCTION	**-**	**-**	**18.0**	**15.0**	**36.0**	**22.4**	**-**	**-**	**9.5**	**-**	**-**	**-**	**100.9**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS	-	-	18.0	15.0	36.0	22.4	-	-	9.5	-	-	-	100.9

FLORIDA PUBLIC UTILITIES COMPANY
CENTRAL FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
	SPECIFIC CONSTRUCTION - DETAIL																
	REVENUE PRODUCING																
1	Fisherman's Cove - Edgewater	376	52.4					30.0	22.4							52.4	-
2																	
3																-	-
	TOTAL REVENUE PRODUCING		**52.4**	-	-	-	-	**30.0**	**22.4**	-	-	-	-	-	-	**52.4**	-
	NON-REVENUE PRODUCING																
4	**Purchase Hurricane Shutters - Inglis**	390	6.0					6.0								6.0	-
a	Reasons: Safety															-	-
b	Benefits: Safety															-	-
c	Replacement No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**6.0**	-	-	-	-	**6.0**	-	-	-	-	-	-	-	**6.0**	-
5	**Purchase Alarm System - Inglis**	390	15.0				15.0									15.0	-
a	Reasons: Safety															-	-
b	Benefits: Safety															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**15.0**	-	-	-	**15.0**	-	-	-	-	-	-	-	-	**15.0**	-
6	**Pave Parking Lot - Inglis**	390	18.0			18.0										18.0	-
a	Reasons: Improve Productivity & Safety															-	-
b	Benefits: Improve Safety & Productivity															-	-
c	Replacement No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**18.0**	-	-	**18.0**	-	-	-	-	-	-	-	-	-	**18.0**	-
7	**Upgrade Bulk Storage Plant - Inglis**	311	9.5									9.5				9.5	-
a	Reasons: Regulatory Requirement															-	-
b	Benefits: Rule Requirement															-	-
c	Replacement Yes															-	-
	TOTAL FOR THIS SPECIFIC I.R.		**9.5**	-	-	-	-	-	-	-	-	**9.5**	-	-	-	**9.5**	-
8	**[Project]**															-	-
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement:															-	-
	TOTAL FOR THIS SPECIFIC I.R.		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NON-REVENUE PRODUCING		**48.5**	-	-	**18.0**	**15.0**	**6.0**	-	-	-	**9.5**	-	-	-	**48.5**	-
	TOTAL SPECIFIC CONSTRUCTION		**100.9**	-	-	**18.0**	**15.0**	**36.0**	**22.4**	-	-	**9.5**	-	-	-	**100.9**	-
	CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		100.9	-	-	18.0	15.0	36.0	22.4	-	-	9.5	-	-	-	100.9	-

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

TOTAL CONSTRUCTION

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
311	Propane Storage Facility	-	-	-	15.0	15.0	7.5	7.5	-	-	-	-	-	45.0
312	Remote Tank Monitors	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	4.8
313	Remote Tank Monitor Installations	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.4
364	Dispensers	-	-	-	10.0	10.0	-	-	-	-	-	-	-	20.0
374	Consumers' Storage Tanks	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	22.7
376	Mains	-	7.5	-	-	7.5	-	-	7.5	-	-	7.5	-	30.0
380	Services	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6.0
383	House Regulators	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
384	House Regulator Installations	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.4
385	Consumers' System Installations - Aboveground	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	9.6
386	Consumers' System Installations - Underground	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	33.6
387	Other Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**9.1**	**16.6**	**9.1**	**34.1**	**41.6**	**16.6**	**16.6**	**16.6**	**9.1**	**9.1**	**16.6**	**9.0**	**204.1**
	GENERAL PLANT													
390	Structures & Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
392	Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop & Garage Equipment	-	-	3.0	-	-	-	-	-	-	-	3.0	-	6.0
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	3.0	-	-	-	-	-	-	3.0
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**-**	**3.0**	**-**	**-**	**3.0**	**-**	**-**	**-**	**-**	**3.0**	**-**	**9.0**
	TOTAL CONSTRUCTION	**9.1**	**16.6**	**12.1**	**34.1**	**41.6**	**19.6**	**16.6**	**16.6**	**9.1**	**9.1**	**19.6**	**9.0**	**213.1**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL CONSTRUCTION WITH CARRYOVERS	9.1	16.6	12.1	34.1	41.6	19.6	16.6	16.6	9.1	9.1	19.6	9.0	213.1

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NON-SPECIFIC CONSTRUCTION														
	DISTRIBUTION PLANT													
311	Propane Storage Facility													-
312	Remote Tank Monitors	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	4.8
313	Remote Tank Monitor Installations	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.4
364	Dispensers													-
374	Consumers' Storage Tanks	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	22.7
376	Mains													-
380	Services	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
381	Meters													-
382	Meter Installations	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	6.0
383	House Regulators	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3.6
384	House Regulator Installations	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.4
385	Consumers' System Installations - Aboveground	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	9.6
386	Consumers' System Installations - Underground	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	33.6
387	Other Equipment													-
	TOTAL DISTRIBUTION PLANT	**9.1**	**9.1**	**9.1**	**9.1**	**9.1**	**9.1**	**9.1**	**9.1**	**9.1**	**9.1**	**9.1**	**9.0**	**109.1**
	GENERAL PLANT													
390	Structures & Improvements													-
3911	Office Furniture													-
3912	Office Equipment													-
3913	Computer Equipment													-
392	Transportation Equipment													-
394	Tools, Shop & Garage Equipment			3.0								3.0		6.0
395	Laboratory Equipment													-
396	Power Operated Equipment						3.0							3.0
397	Communication Equipment													-
	TOTAL GENERAL PLANT	**-**	**-**	**3.0**	**-**	**-**	**3.0**	**-**	**-**	**-**	**-**	**3.0**	**-**	**9.0**
TOTAL NON-SPECIFIC CONSTRUCTION		**9.1**	**9.1**	**12.1**	**9.1**	**9.1**	**12.1**	**9.1**	**9.1**	**9.1**	**9.1**	**12.1**	**9.0**	**118.1**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

SPECIFIC CONSTRUCTION SUMMARY

ACC'T	DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
	DISTRIBUTION PLANT													
311	Propane Storage Facility	-	-	-	15.0	15.0	7.5	7.5	-	-	-	-	-	45.0
312	Remote Tank Monitors	-	-	-	-	-	-	-	-	-	-	-	-	-
313	Remote Tank Monitor Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
364	Dispensers	-	-	-	10.0	10.0	-	-	-	-	-	-	-	20.0
374	Consumers' Storage Tanks	-	-	-	-	-	-	-	-	-	-	-	-	-
376	Mains	-	7.5	-	-	7.5	-	-	7.5	-	-	7.5	-	30.0
380	Services	-	-	-	-	-	-	-	-	-	-	-	-	-
381	Meters	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Meter Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
383	House Regulators	-	-	-	-	-	-	-	-	-	-	-	-	-
384	House Regulator Installations	-	-	-	-	-	-	-	-	-	-	-	-	-
385	Consumers' System Installations - Aboveground	-	-	-	-	-	-	-	-	-	-	-	-	-
386	Consumers' System Installations - Underground	-	-	-	-	-	-	-	-	-	-	-	-	-
387	Other Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL DISTRIBUTION PLANT	**-**	**7.5**	**-**	**25.0**	**32.5**	**7.5**	**7.5**	**7.5**	**-**	**-**	**7.5**	**-**	**95.0**
	GENERAL PLANT													
390	Structures & Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
3911	Office Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-
3912	Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
3913	Computer Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
392	Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
394	Tools, Shop & Garage Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
395	Laboratory Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
396	Power Operated Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
397	Communication Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL GENERAL PLANT	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	TOTAL SPECIFIC CONSTRUCTION	**-**	**7.5**	**-**	**25.0**	**32.5**	**7.5**	**7.5**	**7.5**	**-**	**-**	**7.5**	**-**	**95.0**
	CARRYOVERS	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS	**-**	**7.5**	**-**	**25.0**	**32.5**	**7.5**	**7.5**	**7.5**	**-**	**-**	**7.5**	**-**	**95.0**

FLORIDA PUBLIC UTILITIES COMPANY
NORTHEAST FLORIDA PROPANE DIVISION
2009 CAPITAL EXPENDITURE BUDGET
Dollars in Thousands (000.0)

	DESCRIPTION	ACC'T	TOTAL REQ	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	THIS YEAR	TO NEXT YEAR
SPECIFIC CONSTRUCTION - DETAIL																	
	REVENUE PRODUCING																
1	Install Mains	376	30.0		7.5			7.5			7.5			7.5		30.0	-
2	Install Dispenser Station	364	20.0				10.0	10.0								20.0	-
3																-	-
4																-	-
	TOTAL REVENUE PRODUCING		50.0	-	7.5	-	10.0	17.5	-	-	7.5	-	-	7.5	-	50.0	-
	NON-REVENUE PRODUCING																
5	**Upgrade and rebuild Callahan Bulk Plant**	311	30.0				15.0	15.0								30.0	-
a	Reasons: Upgrade for code compliance															-	-
b	Benefits: Meet code requirements and extend life of the plant.															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		30.0	-	-	-	15.0	15.0	-	-	-	-	-	-	-	30.0	-
6	**Upgrade and rebuild Airport Bulk Plant**	311	15.0						7.5	7.5						15.0	-
a	Reasons: Improve the tank and piping															-	-
b	Benefits: Significantly extend the life of the plant.															-	-
c	Replacement? No															-	-
	TOTAL FOR THIS SPECIFIC I.R.		15.0	-	-	-	-	-	7.5	7.5	-	-	-	-	-	15.0	-
7	**[Project]**															-	-
a	Reasons:															-	-
b	Benefits:															-	-
c	Replacement?															-	-
	TOTAL FOR THIS SPECIFIC I.R.		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NON-REVENUE PRODUCING		45.0	-	-	-	15.0	15.0	7.5	7.5	-	-	-	-	-	45.0	-
	TOTAL SPECIFIC CONSTRUCTION		95.0	-	7.5	-	25.0	32.5	7.5	7.5	7.5	-	-	7.5	-	95.0	-
	CARRYOVERS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL SPECIFIC CONSTRUCTION WITH CARRYOVERS		95.0	-	7.5	-	25.0	32.5	7.5	7.5	7.5	-	-	7.5	-	95.0	-

EXHIBIT 25.1
G-3 D-1 showing removal of Flo-Gas

COST OF CAPITAL - 13-MONTH AVERAGE

FLORIDA PUBLIC SERVICE COMMISSION

COMPANY: Florida Public Utilities
Consolidated Gas
DOCKET NO.: 080366-GU

EXPLANATION: 13-month average cost of capital for 2009 showing the removal of Flo-Gas

Type of Data Shown:
Projected Test Year 12/31/09
Witness: Doreen Cox, Robert Camfield

Line No.	Class of Capital	(A) Company Total Per Books	(B) Specific Adjustments	(C) Pro Rata Adjustments	(D) System Adjusted	(E) Jurisdictional Factor	(F) Jurisdictional Capital Structure	(G) Ratio	(H) Cost Rate	(I) Weighted Cost Rate	(J) Interest Expense
					Regulatory Capital Structure, 2009						
1.	Long Term Debt	48,414,476			48,414,476	53.4%	25,861,386	0.3507	7.90%	2.77%	2,043,050
2.	Short Term Debt	13,785,538			13,785,538	53.4%	7,363,771	0.0999	4.71%	0.47%	346,541
3.	Preferred Stock	600,000			600,000	53.4%	320,500	0.0043	4.75%	0.02%	
4.	Common Equity	58,963,529	(684,504)		58,279,025	53.4%	31,130,696	0.4221	11.75%	4.96%	
5.	Customer Deposits	6,181,495			6,181,495		6,181,495	0.0838	6.13%	0.51%	378,753
6.	Deferred Income Taxes	2,773,818			2,773,818		2,773,818	0.0376	0.00%	0.00%	
7.	Tax Credits-Zero Cost	0			0		0	0.0000	0.00%	0.00%	
8.	Tax Credits-Weighted Cost	115,553			115,553		115,553	0.0016	9.38%	0.01%	10,838
9.	TOTAL	130,834,410	(684,504)	0	130,149,906		73,747,220	1.0000		8.74%	2,779,182

	Class of Capital	Company Total Per Books	Ratio	Cost Rate	Weighted Cost Rate
		Conventional Capital Structure, 2009			
10.	Long Term Debt	48,414,476	0.3999	7.90%	3.16%
11.	Short Term Debt	13,785,538	0.1139	4.71%	0.54%
12.	Preferred Stock	600,000	0.0050	4.75%	0.02%
13.	Common Equity	58,279,025	0.4813	11.75%	5.66%
14.	TOTAL	121,079,039	1.0000		9.38%

Rate Base	$73,747,220
Direct Components	$9,070,866
	$64,676,354
Jurisdictional Factor	53.4%

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 25.1

Florida Public Utilities
ST Debt Effective Cost
Projected Test Year 2009
Witnesses: Camfield, Cox

Effective Cost of Short Term Debt

	Nominal Rate	Effective Cost
Projected Fed Funds	2.98%	2.98%
LIBOR Margin	0.17%	0.17%
BOA Spread	0.80%	0.80%
BOA Projected Int Rate	3.95%	3.95%
BOA Fee on Unused Portion of LOC	0.25%	0.47%
BOA Fee on Total Available LOC	0.10%	0.29%
Cost of ST Debt	4.30%	4.71%

Total Int Exp & Fees	$ 425,682	= 4.71%
Average LOC Balance	$ 9,045,471	

		2008 DEC	2009 JAN	2009 FEB	2009 MAR	2009 APR	2009 MAY	2009 JUN	2009 JUL	2009 AUG	2009 SEP	2009 OCT	2009 NOV	2009 DEC		Effective Cost of ST Debt
Projected Credit Limit	[1]	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**		
LOC Ending Balance	[2]	19,324,000	18,724,000	17,224,000	16,224,000	17,424,000	19,424,000	19,424,000	5,924,000	6,924,000	7,024,000	8,724,000	11,324,000	11,524,000	Average Balance based month end 13,785,538	
Average Monthly LOC Balance	[3]		12,711,453	11,693,124	11,014,239	11,828,901	13,186,673	13,186,673	4,021,718	4,700,603	4,768,492	5,922,597	7,687,700	7,823,477	Average Balance based on monthly avg 9,045,471	
		Nominal Rate													Total Expense	
BOA Projected Int Rate	[4]	3.95%	$ 41,842	$ 38,490	$ 36,255	$ 38,937	$ 43,406	$ 43,406	$ 13,238	$ 15,473	$ 15,696	$ 19,495	$ 25,305	$ 25,752	$ 357,296	3.95%
BOA Fee on Unused Portion of LOC	[5]	0.25%	$ 2,768	$ 2,981	$ 3,122	$ 2,952	$ 2,669	$ 2,669	$ 4,579	$ 4,437	$ 4,423	$ 4,183	$ 3,815	$ 3,787	$ 42,386	0.47%
BOA Fee on Total Available LOC	[6]	0.10%						$ 26,000							$ 26,000	0.29%
			44,610	41,470	39,377	41,889	46,076	72,076	17,817	19,910	20,120	23,678	29,120	29,539	425,682	4.71%

Notes:

[1] Available LOC $26M
[2] Projected Month-end LOC balance as per Cash Forecast.
[3] Average Monthly Balance.
[4] BOA Agreement calulates interest on the daily balance outstanding, which fluctuates significantly.
[5] BOA Agreement - 0.25% per annum of the average daily unused amount of the availability.
[6] BOA Agreement - 0.10% of the availability on June 30th.

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 26.1

SECOND AMENDMENT TO AMENDED AND RESTATED LOAN AGREEMENT

This **SECOND AMENDMENT TO AMENDED AND RESTATED LOAN AGREEMENT** (this "**Amendment**") is dated as of March 21, 2008, is between **FLORIDA PUBLIC UTILITIES COMPANY**, a Florida corporation (the "**Company**") and **BANK OF AMERICA, N.A.**, a national banking association (the "**Lender**"), and amends that certain Amended and Restated Loan Agreement (as previously amended, the "**Original Agreement**"), dated October 29, 2004, between the Company and the Lender.

Section 1. Section 2.01(a) of the Original Agreement is amended to provide:

(a) Establishment of Line of Credit. On the Closing Date, and upon fulfillment of the applicable conditions set forth herein, the Lender shall establish in favor of the Company a revolving line of credit (the "**Revolving Line of Credit**") in the amount of the Availability. Subject to reduction as herein provided, the Availability is $26,000,000.00. The Company shall be entitled to borrow, repay and reborrow funds from the Lender in accordance with the terms hereof so long as the sum of (i) the total principal amount owed to the Lender under the Revolving Line of Credit plus (ii) the Outstanding Letter of Credit Amount (as defined in **Section 2.01(e)**) does not exceed the Availability. This indebtedness shall be evidenced by a Revolving Promissory Note (as amended, extended or renewed from time to time, the "**Promissory Note**") of even date herewith executed by the Company in favor of the Lender in the principal amount of up to $26,000,000. The Promissory Note shall bear interest at the rate set forth therein and shall be payable as set forth therein.

The Revolving Line of Credit shall terminate on July 1, 2010 (as such date may be extended, the "**Expiration Date**"). The Expiration Date will be considered renewed if and only if the Lender has sent to the Company a written notice of renewal (the "Renewal Notice"). If the Revolving Line of Credit is renewed, it will continue to be subject to all the terms and conditions set forth in this Loan Agreement except as modified by the Renewal Notice. If the Revolving Line of Credit is renewed, the term "Expiration Date" shall mean the date set forth in the Renewal Notice as the Expiration Date and the same process for renewal will apply to any subsequent renewal of the Revolving Line of Credit. A renewal fee may be charged at the Lender's option. The amount of any renewal fee will be specified in the Renewal Notice.

The Lender shall not in any event be required to make an Advance during the continuance of an Event of Default or if any change in the financial condition of the Company occurs which, in the Lender's discretion, is material and adverse.

At any time the Company may permanently reduce the Availability in increments of $1,000,000.00 by providing not less than 30 days' prior written notice to the Lender, requesting the decrease and specifying the effective date thereof (the date of the first such decrease being referred to herein as the "**Reduction Date**").

Section 2. The Company shall pay the Bank a facility fee in the amount of $35,874.00.

Section 3. The Company agrees to pay the fee of counsel to the Lender, Holland & Knight LLP, in the amount of $750.00, within 15 days after billing, and failing such payment authorize the Lender to debit such fee from any account of the Company maintained at the Lender.

Section 4. The Company acknowledges that the Original Agreement remains in full force and effect except as modified by or as described herein. The Company affirms all representations and warranties made by it in the Original Agreement as of the date hereof. The Company affirms the grant of the security interest made by it in the Security Agreement dated October 29, 2004. The Company affirms that the Tax Indemnity Agreement dated October 29, 2004 between the Company and the Lender remains in effect and encompasses the Loan and the Promissory Note as modified hereby.

Section 5. This Amendment may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Second Amendment to Amended and Restated Loan Agreement to be duly executed and delivered by their respective officers thereunto duly authorized as of the date first above written.

FLORIDA PUBLIC UTILITIES COMPANY

By: _____
Name: George M. Bachman
Title: CFO and Treasurer

witness

BANK OF AMERICA, N.A.

By: _____
Name: Steven J. Whittingslow
Title: Senior Vice President

witness

Renewal Revolving Promissory Note

Effective Date: March 21, 2008
Amount: $26,000,000.00 Maturity Date: July 1, 2010

Lender:	Borrower:
Bank of America, N.A. 9000 Southside Boulevard Building 100 FL9-100-03-15 Jacksonville, FL 32256-0793	Florida Public Utilities Company 401 South Dixie Highway West Palm Beach, FL 33401

FOR VALUE RECEIVED, Florida Public Utilities Company (the "Borrower") unconditionally promises to pay to the order of Bank of America, N.A. and its successors and assigns (the "Lender"), without setoff, in immediately available funds, at its offices indicated at the beginning of this Note, or at such other place as may be designated by Lender (the "Payment Office of Lender"), the principal amount of Twenty-Six Million Dollars ($26,000,000.00), or so much thereof as may be advanced from time to time, together with interest computed daily on the outstanding principal balance hereunder, at an annual interest rate, and in accordance with the payment schedule, indicated below.

1. **Rate. Variable Interest Rate.** The interest rate on this Note is a fluctuating rate of interest based upon "The Wall Street Journal LIBOR One Month Floating Rate." The Wall Street Journal LIBOR One Month Floating Rate is a fluctuating rate of interest equal to the one month London Interbank Offered Rate as published in the "Money Rates" section of The Wall Street Journal (or, if such source is not available, such alternate source as determined by the Lender) as adjusted from time to time in the Lender's sole discretion for reserve requirements, deposit insurance assessment rates and other regulatory costs (the "Index"). Any change in the Index, and thus, the interest rate on this Note, will take effect on the effective date as indicated in The Wall Street Journal (or any alternate source described herein). Interest will accrue on any day which is not a Business Day at the rate in effect on the immediately preceding Business Day. A Business Day is any day other than a Saturday or Sunday or day on which the Payment Office of Lender is lawfully closed.

The interest rate to be applied to the unpaid principal balance of this Note will be at a rate equal to the Index plus an additional percentage per annum (the "Spread"). The Spread will be 0.80% per annum.

Notwithstanding any provision of this Note, Lender does not intend to charge and Borrower shall not be required to pay any amount of interest or other charges in excess of the maximum permitted by the applicable law. Any payment in excess of such maximum shall be credited against the principal balance of this Note and any remaining excess shall be refunded to the Borrower.

2. **Accrual Method.** The interest rate on this Note shall be computed on a 360/actual basis; that is, by applying the ratio of the annual interest rate over a year of 360 days, multiplied by the

outstanding principal balance, multiplied by the actual number of days the principal balance is outstanding.

3. **Payment Schedule.** All payments received hereunder shall be applied first to the payment of any expense or charges payable hereunder or under any other Loan Documents executed in connection with this Note, then to interest due and payable, with the balance applied to principal, or in such other order as Lender shall determine at its option. Principal shall be paid in full in a single payment on July 1, 2010 (the "Maturity Date"). Interest on the principal amount outstanding hereunder shall be paid monthly, commencing on April 1, 2008, and continuing on the same day of each consecutive month thereafter, with a final payment of all unpaid interest at the stated maturity of this Note.

This Note may be renewed effective July 1, 2010 and thereafter if and only if the Lender has sent to the Borrower a written notice of renewal (the "Renewal Notice") effective as of the Maturity Date and the Borrower has accepted the same. If this Note is renewed, it will continue to be subject to all the terms and conditions set forth herein except as modified by the Renewal Notice. If this Note is renewed, the term "Maturity Date" shall mean the date set forth in the Renewal Notice as the Maturity Date, and all outstanding principal plus all accrued interest shall be paid on the Maturity Date. The same process for renewal will apply to any subsequent renewal of this Note. A renewal fee may be charged at Lender's option. The amount of the renewal fee will be specified in the Renewal Notice.

4. **Revolving Feature; Availability.** The Borrower may borrow, repay and reborrow under this Note from time to time up to Availability (as defined in the hereinafter described Loan Agreement), by requesting advances as provided in the Loan Agreement.

5. **Automatic Payment.** Borrower has elected to authorize Lender to effect payment of interest due under this Note by means of debiting Borrower's account number . This authorization shall not affect the obligation of Borrower to pay such sums when due, without notice, if there are insufficient funds in such account to make such payment in full on the due date thereof, or if Lender fails to debit the account.

6. **Waivers, Consents and Covenants.** Borrower, any indorser or guarantor hereof, or any other party hereto (individually an "Obligor" and collectively "Obligors") and each of them, jointly and severally: (a) waive presentment, demand, protest, notice of demand, notice of intent to accelerate, notice of acceleration of maturity, notice of protest, notice of nonpayment, notice of dishonor, and any other notice otherwise required to be given under the law to any Obligor in connection with the delivery, acceptance, performance, default or enforcement of this Note, any indorsement or guaranty of this Note, or any other documents executed in connection with this Note including, but not limited to, the Amended and Restated Loan Agreement, dated October 29, 2004, between Lender and Borrower, as amended (as so amended, the "Loan Agreement") and the Related Documents described therein (the "Loan Documents"); (b) consent to all delays, extensions, renewals or other modifications of this Note or the Loan Documents, or waivers of any term hereof or of the Loan Documents, or release or discharge by Lender of any Obligor, or release, substitution or exchange of any security for the payment hereof, or the failure to act on the part of Lender, or any indulgence shown by Lender (without notice to or further assent from any Obligor), and agree that no such action, failure to act or failure to exercise any right or remedy by Lender shall in any way affect or

impair the obligations of any Obligor or be construed as a waiver by Lender of, or otherwise affect, any of Lender's rights under this Note, under any indorsement or guaranty of this Note or under any of the Loan Documents; and (c) agree to pay, on demand, all costs and expenses of collection or defense of this Note or of any indorsement or guaranty hereof and/or the enforcement or defense of Lender's rights with respect to, or the administration, supervision, preservation, or protection of, or realization upon, any property securing payment hereof, including, without limitation, reasonable attorney's and paralegal's fees, including fees related to any suit, mediation or arbitration proceeding, out of court payment agreement, trial, appeal, bankruptcy proceedings or other proceeding, in such amount as may be determined reasonable by any arbitrator or court, whichever is applicable.

7. **Indemnification**. Obligor agrees to promptly pay, indemnify and hold Lender harmless from all State and Federal taxes of any kind (except State and Federal taxes based on income received by Lender, which shall not be an obligation of Obligor) and other liabilities with respect to or resulting from the execution and/or delivery of this Note or any advances made pursuant to this Note. Obligor expressly consents to the deduction of any applicable taxes from each advance extended by Lender hereunder.

8. **Prepayments**. Prepayments may be made in whole or in part at any time.

9. **Delinquency Charge**. Borrower shall pay on demand of Lender, a delinquency charge in an amount not to exceed two percent (2%) of any payment that is more than fifteen days late.

10. **Events of Default**. It shall be an event of default hereunder if there shall be an Event of Default under the Loan Agreement.

11. **Remedies upon Default**. Whenever there is a default under this Note (a) the entire balance outstanding hereunder and all other obligations of any Obligor to Lender (however acquired or evidenced) shall, at the option of Lender, become immediately due and payable and any obligation of Lender to permit further borrowing under this Note shall immediately cease and terminate, and/or (b) to the extent permitted by law, the rate of interest on the unpaid principal shall be increased at Lender's discretion up to the maximum rate allowed by law (the "Default Rate"). The provisions herein for a Default Rate shall not be deemed to extend the time for any payment hereunder or to constitute a "grace period" giving any Obligor a right to cure any default. At Lender's option, any accrued and unpaid interest, fees or charges may, for purposes of computing and accruing interest on a daily basis after the due date of the Note or any installment thereof, be deemed to be a part of the principal balance, and interest shall accrue on a daily compounded basis after such date at the Default Rate until the entire outstanding balance of principal and interest is paid in full. Upon a default under this Note, Lender is hereby authorized at any time, at its option and without notice or demand, to set off and charge against any deposit accounts of any Obligor (as well as any money, instruments, securities, documents, chattel paper, credits, claims, demands, income and any other property, rights and interests of any Obligor), which at any time shall come into the possession or custody or under the control of Lender or any of its agents, affiliates or correspondents, any and all obligations due hereunder. Additionally, Lender shall have all rights and remedies available under each of the Loan Documents, as well as all rights and remedies available at law or in equity.

12. **Non-waiver**. The failure at any time of Lender to exercise any of its options or any other rights hereunder shall not constitute a waiver thereof, nor shall it be a bar to the exercise of any of its options or rights at a later date. All rights and remedies of Lender shall be cumulative and may be pursued singly, successively or together, at the option of Lender. The acceptance by Lender of any partial payment shall not constitute a waiver of any default or of any of Lender's rights under this Note. No waiver of any of its rights hereunder, and no modification or amendment of this Note, shall be deemed to be made by Lender unless the same shall be in writing, duly signed on behalf of Lender; each such waiver shall apply only with respect to the specific instance involved, and shall in no way impair the rights of Lender or the obligations of Obligors to Lender in any other respect at any other time.

13. **Applicable Law, Venue and Jurisdiction**. This Note and the rights and obligations of Borrower and Lender shall be governed by and interpreted in accordance with the law of the State of Florida. In any litigation in connection with or to enforce this Note or any indorsement or guaranty of this Note or any Loan Documents, Obligors, and each of them, irrevocably consent to and confer personal jurisdiction on the courts of the State of Florida or the United States located within the State of Florida and expressly waive any objections as to venue in any such courts. Nothing contained herein shall, however, prevent Lender from bringing any action or exercising any rights within any other state or jurisdiction or from obtaining personal jurisdiction by any other means available under applicable law.

14. **Partial Invalidity**. The unenforceability or invalidity of any provision of this Note shall not affect the enforceability or validity of any other provision herein and the invalidity or unenforceability of any provision of this Note or of the Loan Documents to any person or circumstance shall not affect the enforceability or validity of such provision as it may apply to other persons or circumstances.

15. **Binding Effect**. This Note shall be binding upon and inure to the benefit of Borrower, Obligors and Lender and their respective successors, assigns, heirs and personal representatives, provided, however, that no obligations of Borrower or Obligors hereunder can be assigned without prior written consent of Lender.

16. **Controlling Document**. To the extent that this Note conflicts with or is in any way incompatible with any other document related specifically to the loan evidenced by this Note, this Note shall control over any other such document, and if this Note does not address an issue, then each other such document shall control to the extent that it deals most specifically with an issue.

Borrower acknowledges having read and understood, and agrees to be bound by, all terms and conditions of this Note, including the variable interest rate provisions, and hereby executes this Note as of the date here above written. Borrower acknowledges receipt of a completed copy of this Note.

NOTICE OF FINAL AGREEMENT. THIS WRITTEN PROMISSORY NOTE REPRESENTS THE FINAL AGREEMENT BETWEEN THE PARTIES AND MAY NOT BE CONTRADICTED BY EVIDENCE OF PRIOR, CONTEMPORANEOUS, OR

SUBSEQUENT ORAL AGREEMENTS OF THE PARTIES. THERE ARE NO UNWRITTEN ORAL AGREEMENTS BETWEEN THE PARTIES.

EXECUTION DATE: March 21, 2008

FLORIDA PUBLIC UTILITIES COMPANY

By: _____
Name: George M. Bachman
Title: CFO and Treasurer

THIRD AMENDMENT TO AMENDED AND RESTATED LOAN AGREEMENT

This **THIRD AMENDMENT TO AMENDED AND RESTATED LOAN AGREEMENT** (this "**Amendment**") is dated as of March 21, 2008, is between **FLORIDA PUBLIC UTILITIES COMPANY**, a Florida corporation (the "**Company**") and **BANK OF AMERICA, N.A.**, a national banking association (the "**Lender**"), and amends that certain Amended and Restated Loan Agreement (as previously amended, the "**Original Agreement**"), dated October 29, 2004, between the Company and the Lender.

Section 1. Section 2.01(a) of the Original Agreement is amended by he addition of a new final paragraph providing:

The Availability as March 21, 2008 shall be $15,000,000.00. Provided no Event of Default exists, and provided there has been no change in the financial condition of the Company since the March 21, 2008 which in the Lender's discretion is material and adverse, at any time prior to the Expiration Date or Reduction Date (hereinafter defined) the Company may increase the Availability to up to $26,000,000.00 by providing not less than 30 days' prior written notice to the Lender, requesting the increase and specifying the effective date thereof. At any time the Company may reduce the Availability in increments of $1,000,000.00 by providing not less than 30 days' prior written notice to the Lender, requesting the decrease and specifying the effective date thereof (the date of the first such decrease being referred to herein as the "Reduction Date").

COPY

Section 2. The Company acknowledges that the Original Agreement remains in full force and effect except as modified by or as described herein.

Section 3. This Amendment may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Third Amendment to Amended and Restated Loan Agreement to be duly executed and delivered by their respective officers thereunto duly authorized as of the date first above written.

FLORIDA PUBLIC UTILITIES COMPANY

By: _____
Name: George M. Bachman
Title: CFO and Treasurer

BANK OF AMERICA, N.A.

By: _____
Name: Steven J. Whittingslow
Title: Senior Vice President

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 26.3

COPY

AMENDED AND RESTATED LOAN AGREEMENT

Dated as of October 29, 2004

between

FLORIDA PUBLIC UTILITIES COMPANY

and

BANK OF AMERICA, N.A.

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AMENDED AND RESTATED LOAN AGREEMENT

This **AMENDED AND RESTATED LOAN AGREEMENT** (this "**Loan Agreement**") is dated as of October 29, 2004, is between **FLORIDA PUBLIC UTILITIES COMPANY**, a Florida corporation (the "**Company**") and **BANK OF AMERICA, N.A.**, a national banking association (the "**Lender**"), and amends and restates in its entirety that certain Loan Agreement, dated April 21, 2003, between the Company and the Lender, as heretofore amended and supplemented.

RECITALS:

The Company has requested, and the Lender has agreed, that the Lender will establish a revolving line of credit for the Company in the principal amount of up to $20,000,000 (the "**Loan**"), which will be evidenced by a promissory note made by the Company to the order of the Lender (the "**Promissory Note**").

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration, including the covenants, terms and conditions hereinafter appearing, and in order to induce the Lender to make the Loan, the parties hereto agree as follows:

ARTICLE I

DEFINITIONS

Section 1.01. Certain Defined Terms. As used in this Loan Agreement, the following terms shall have the following meanings (such meanings to be equally applicable to both the singular and plural forms of the terms defined):

"**Advance**" means a disbursement of Loan funds made, or to be made, to the Company under the terms and conditions of **Section 2.02** of this Loan Agreement.

"**Availability**" is defined in **Section 2.01(a)** of this Loan Agreement.

"**Business Day**" means a day other than (a) a Saturday or Sunday or (b) a day on which the Lender is lawfully closed.

"**Capital Leases**" means all leases which have been or should be capitalized in accordance with Generally Accepted Accounting Principles as in effect from time to time, including Statement No. 13 of the Financial Accounting Standards Board and any successor thereof.

"**Closing Date**" means October 29, 2004.

"**Default Rate**" means the maximum rate permitted by law.

"**Environmental Laws**" means and includes each and every federal, state or local statute, law, ordinance, code, rule, regulation, order or decree regulating, relating to, or imposing liability or standards of conduct concerning any Hazardous Materials, as now or at any time hereafter in effect.

"**ERISA**" means the Employee Retirement Income Security Act of 1974, as amended from time to time, including any rules and regulations promulgated thereunder.

"**Event of Default**" has the meaning assigned to that term in **Section 6.01** of this Loan Agreement.

"**Generally Accepted Accounting Principles**" or "**GAAP**" means those principles of accounting set forth in statements of the Financial Accounting Standards Board or which have other substantial authoritative support and are applicable in the circumstances as of the date of a report, as such principles are from time to time supplemented and amended.

"**Governmental Authority**" any domestic or foreign, federal, state, county, municipal or other governmental department, entity, authority, commission, board, bureau, court, agency or any instrumentality of any of them.

"**Hazardous Materials**" means and includes any hazardous, toxic or dangerous waste, substance or material defined as such in (or for purposes of) or subject to regulation under any applicable laws.

"**Indebtedness**" means all items which would, in conformity with Generally Accepted Accounting Principles, be classified as liabilities on a balance sheet (excluding trade payables incurred in the ordinary course of business) as of the date such determination of indebtedness is made and in any event including (without duplication):

(a) all indebtedness for money borrowed;

(b) all liabilities guaranteed or assumed, directly or indirectly, in any manner, or endorsed (otherwise than for collection or deposit in the ordinary course of business) or discounted thereby with recourse;

(c) the face amount of all letters of credit issued for the account of an entity and, without duplication, all drafts drawn thereunder;

(d) all indebtedness in effect guaranteed, directly or indirectly, whether through an agreement, contingent or otherwise, to purchase or repurchase such indebtedness or to purchase, sell or lease (as lessee or lessor) any property or services primarily for the purpose of enabling the debtor to make payment of such indebtedness or to assure the owner of the indebtedness against loss, or to advance or supply funds to or to invest in any other manner in the debtor, whether through purchasing stock, making a loan, advance or capital contribution or by means of agreeing to maintain or cause such debtor to maintain a minimum working capital or net worth, or otherwise (but excluding endorsements for collection or deposit in the ordinary course of business);

(e) all liabilities secured by any lien on any property, to the extent attributable to such Person's interest in such property, even though such person has not assumed or become liable for the payment thereof; and

(f) obligations under Capital Leases.

"**Interest Rate Protection Agreement**" means any and all interest rate swap agreements, interest cap agreements, interest rate collar agreements, exchange agreements, forward currency exchange agreements, forward rate currency or interest rate options, foreign currency hedge, or any similar agreements or arrangements entered into by the Company and the Lender in connection with the Promissory Note to hedge the risk of variable interest rate volatility or fluctuations of interest rates, as such agreements or

arrangements may be modified, supplemented, and in effect from time to time, and any and all cancellations, buy backs, reversals, terminations, or assignments of any of the foregoing.

"**Loan**" has the meaning assigned to such term in the recitals hereto.

"**Loan Agreement**" means this Loan Agreement and any amendments or supplements hereto.

"**Multiemployer Plan**" means a "multiemployer plan" as defined in Section 4001(a)(3) of ERISA.

"**Obligations**" means any and all of the indebtedness, liabilities, covenants, promises, agreements, terms, conditions, and other obligations of every nature whatsoever, whether joint or several, direct or indirect, absolute or contingent, liquidated or unliquidated, of the Company to the Lender, evidenced by, secured by, under and as set forth in this Loan Agreement, the Promissory Note or the other Related Documents, together with all expenses, attorneys' fees, paralegals' fees and legal assistants' fees incurred by Lender in the preparation, execution, perfection or enforcement of any document relating to any of the foregoing, and including, without limitation, all of the indebtedness, liabilities, covenants, promises, agreements, terms, conditions and other obligations of any nature whatsoever, whether joint or several, direct or indirect, absolute or contingent, liquidated or unliquidated, of the Company to the Lender under any Interest Rate Protection Agreement, including, but not limited to, any and all unpaid accrued payments due the Lender, under any Interest Rate Protection Agreement, the present value of future benefits lost by the Lender's nonreceipt of future payments in excess of corresponding future liabilities under any Interest Rate Protection Agreement, and the costs of collection of all such amounts.

"**PBGC**" means the Pension Benefit Guaranty Corporation or any successor thereto.

"**Person**" means any individual, joint venture, corporation, company, voluntary association, partnership, limited liability company, trust, joint stock company, unincorporated organization, association, government, or any agency, instrumentality, or political subdivision thereof, or any other form of entity.

"**Permitted Encumbrances**" means and includes

(i) liens for taxes, assessments and other governmental charges due but not yet payable;

(ii) landlord's, warehouseman's, carrier's, worker's, vendor's, mechanic's and materialmen's liens and similar liens incurred in the ordinary course of business remaining undischarged for not longer than 60 days from the filing thereof;

(iii) attachments remaining undischarged for not longer than 60 days from the making thereof;

(iv) liens in respect of pledges or deposits under worker's compensation laws, unemployment insurance or similar legislation and in respect of pledges or deposits to secure bids, tenders, contracts (other than contracts for the payment of money), leases or statutory obligations, or in connection with surety, appeal and similar bonds incidental to the conduct of litigation;

(v) Capital Leases permitted by **Section 5.02(c)(iii)** and with respect to property (A) not previously owned by the Company and (B) not otherwise acquired in whole or in part with the proceeds of the Promissory Note;

(vi) purchase money security interests in property of the Company which property was not acquired in whole or in part with the proceeds of the Promissory Note and securing Indebtedness permitted by **Section 5.02(c)(iii)**;

(vii) liens in respect to that certain Indenture of Mortgage and Deed of Trust dated as of September 1, 1942; and

(viii) any matter consented to in writing by the Lender.

"**Plan**" means an employee benefit plan (other than a Multiemployer Plan) maintained for employees of the Company and covered by Title IV of ERISA.

"**Plan Termination Event**" means (a) a Reportable Event described in Section 4043 of ERISA and the regulations issued thereunder (other than a Reportable Event not subject to the provision for 30-day notice to the PBGC under such regulations), or (b) the withdrawal of the Company from a Plan during a plan year in which it was a "substantial employer" as defined in Section 4001(a)(2) of ERISA, or (c) the filing of a notice of intent to terminate a Plan or the treatment of a Plan amendment as a termination under Section 4041 of ERISA, or (d) the institution of proceedings to terminate a Plan by the PBGC, or (e) any other event or condition which would constitute grounds under Section 4042 of ERISA for the termination of, or the appointment of a trustee to administer, any Plan.

"**Promissory Note**" means the Revolving Promissory Note, dated of even date herewith, made by the Company payable to the order of the Lender in the maximum principal amount of $20,000,000, and all renewals, extensions and modifications of the same.

"**Related Documents**" is defined in **Section 2.04** hereof.

Section 1.02. Computation of Time Periods. In this Loan Agreement, in the computation of a period of time from a specified date to a later specified date, the word "from" means "from and including" and the words "to" and "until" each mean "to but excluding".

Section 1.03. Accounting Terms. All accounting terms not specifically defined herein shall be construed in accordance with Generally Accepted Accounting Principles consistently applied, except as otherwise stated herein.

Section 1.04. Other Terms. All capitalized terms used herein to the extent not otherwise defined shall have the meanings given to them in the Related Documents.

ARTICLE II

TERMS OF THE LOAN

Section 2.01. Terms of the Loan.

(a) Establishment of Line of Credit. On the Closing Date, and upon fulfillment of the applicable conditions set forth herein, the Lender shall establish in favor of the Company a revolving line of credit (the "**Revolving Line of Credit**") in the amount of the Availability. The Company shall be entitled to borrow, repay and reborrow funds from the Lender in accordance with the terms hereof so long as the total principal amount owed to the Lender under the Revolving Line of Credit does not exceed the Availability. This

indebtedness shall be evidenced by a Revolving Promissory Note (as amended, extended or renewed from time to time, the "**Promissory Note**") of even date herewith executed by the Company in favor of the Lender in the principal amount of up to $20,000,000. The Promissory Note shall bear interest at the rate set forth therein and shall be payable as set forth therein. Any obligation of Lender to make Advances under the Revolving Line of Credit shall terminate on June 30, 2007, or such earlier or later date as set forth therein (the "**Expiration Date**"). The Lender shall not in any event be required to make an Advance during the continuance of an Event of Default or if any change in the financial condition of the Company occurs which, in the Lender's discretion, is material and adverse.

The Availability as of the Closing Date shall be $12,000,000.00. Provided no Event of Default exists, and provided there has been no change in the financial condition of the Company since the Closing Date which in the Lender's discretion is material and adverse, at any time prior to the Expiration Date or Reduction Date (hereinafter defined) the Company may increase the Availability to $15,000,000.00 by providing not less than 30 days' prior written notice to the Lender, requesting the increase and specifying the effective date thereof. Provided no Event of Default exists, and provided there has been no change in the financial condition of the Company since the Closing Date which in the Lender's discretion is material and adverse, at any time prior to the Expiration Date or Reduction Date the Company may increase the Availability to $20,000,000.00 by providing not less than 30 days' prior written notice to the Lender, requesting the increase and specifying the effective date thereof. At any time the Company may reduce the Availability in increments of $1,000,000.00 by providing not less than 30 days' prior written notice to the Lender, requesting the decrease and specifying the effective date thereof (the date of the first such decrease being referred to herein as the "**Reduction Date**").

(b) Procedures for Advances. The Company may request Advances by drawing checks on a deposit account which is linked to the Promissory Note in accordance with a cash management system which is mutually satisfactory to the parties. The Lender will make each requested Advance available to the Company not later than the close of business on the Business Day following the day of the request by crediting the Company's account maintained with the Lender in the amount of the Advance if as of such time all conditions and prerequisites to the Advance set forth herein or in any other related documents have been satisfied. Lender, at its option, may set a cut-off time, after which all requests for Advances will be treated as having been requested on the next Business Day. No more than 20 Advances will be made in any month and no Advance will be made for less than $10,000.00.

(c) Persons Authorized to Request Advances. The following persons are authorized to request Advances until Lender receives from Company, at Lender's address specified in or pursuant to **Section 7.02**, written notice of revocation of their authority: George Bachman, CFO, John English, CEO, Charles Stein, EVP and Cheryl Martin, Controller jointly and severally, provided, that the Company may authorize other individuals to request Advances by timely written notification to the Lender.

(d) Fees for Revolving Line of Credit. The Company shall pay the Lender a fee in the amount of 0.25% per annum of the average daily unused amount of the Availability (that is, the Availability less the principal amount of all Advances outstanding) of the Revolving Line of Credit, payable quarterly in arrears, as of and within 15 days after the 21st day of each January, April, July and October, commencing October 21, 2004, and on the termination or expiration of the Revolving Line of Credit.

In addition, the Company shall pay the Lender a nonrefundable fee of in the amount of 0.10% of the Availability on June 30, 2005 and on each June 30 thereafter, to but not including the maturity date of the Promissory Note. At the time of any increase in the Availability pursuant to **Section 2.01(a)**, the Company shall pay the Lender a nonrefundable fee in the amount of 0.10% of the amount of the increase, divided by

365 days and multiplied by the number of days from and including the effective date of the increase to but not including the next June 30.

(e) Letter of Credit Facility. The Lender hereby establishes in addition to the Revolving Line of Credit a letter of credit facility for the issuance of letters of credit for the Company's account. The Company may obtain letters of credit from time to time for such purposes as the Company may require in the ordinary course of business. The aggregate Outstanding Letter of Credit Amount shall not at any time exceed $500,000 without the prior written consent of the Lender. For purposes of this Loan Agreement, the "**Outstanding Letter of Credit Amount**" shall include (a) amounts available for draws under outstanding letters of credit (whether or not such draws are subject to satisfaction of prior conditions); and (b) the amount of any draws under letters of credit for which the Lender has not received reimbursement. The Company shall request letters of credit by giving the Lender written notice of each request at least five business days prior to the issuance of the letter of credit. The Company shall, with such request, complete an application in form acceptable to the Lender and execute or otherwise agree to such terms, conditions and reimbursement agreements (each, an "**LC Reimbursement Agreement**") concerning the Letter of Credit as the Lender may require. No letter of credit shall be issued which could be drawn on (i) more than one year after the issuance thereof or (ii) on or after June 30, 2007. In the event of a draw on the letter of credit, the Lender may at its option obtain an Advance under the Revolving Line of Credit (without further notice to or consent of the Company) to reimburse the Lender for such draw. If the Lender elects not to obtain an Advance under the Revolving Line of Credit or if credit in the amount of the draw is not available under the Revolving Line of Credit, the Company shall immediately upon demand reimburse the Lender for the amount of the draw together with interest thereon and such other amounts as may be due under any applicable LC Reimbursement Agreement. The Lender shall not in any event be required to issue a letter of credit during the continuance of an Event of Default. The Company shall pay the Lender such issuance, amendment, draw and other fees with respect to letters of credit as the Lender may from time to time establish Any and all amounts due from the Company to the Lender under any LC Reimbursement Agreement shall constitute part of the Obligations hereunder.

Section 2.02. Payments and Computations. The Company shall make each payment due to the Lender hereunder and under the Promissory Note not later than 2:00 p.m. (New York City time), on the day when due in lawful money of the United States of America to the Lender at its address referred to in **Section 7.02** hereof or such other place as may be designated by the Lender to the Company in same day funds. The Company hereby authorizes the Lender, if and to the extent payment is not made when due hereunder, to charge from time to time against any of the Company's accounts with the Lender any amount so due. Computations of any interest, fees or commissions hereunder shall be made by the Lender on the basis of a year of 360 days, for the actual number of days (including the first day but excluding the last day) elapsed. Whenever any payment to be made hereunder shall be stated to be due on a day which is not a Business Day, such payment may be made on the next succeeding Business Day and such extension of time shall in such case be included in the computation of payment of interest, fee or commission, as the case may be.

Section 2.03. Evidence of Debt. The Lender shall maintain in accordance with its usual practice an account or accounts evidencing the indebtedness of the Company resulting from each Advance under the Loan made from time to time and the amounts of principal, interest and fees payable and paid from time to time. In any legal action or proceeding in respect of this Loan Agreement, the entries made in such account or accounts shall be conclusive evidence of the existence and amounts of the obligations of the Company therein recorded, absent manifest error.

Section 2.04. Obligations Absolute. The payment obligations of the Company under this Loan Agreement shall be unconditional and irrevocable, and shall be paid strictly in accordance with the terms of this Loan Agreement under all circumstances, including, without limitation, the following circumstances:

(i) any lack of validity or enforceability of any Interest Rate Protection Agreement, the Promissory Note or any other agreement or instrument relating thereto (collectively, the "**Related Documents**"); or

(ii) any amendment or waiver of or any consent to departure from all or any of the Related Documents (unless consented to in writing by the Lender).

ARTICLE III

CONDITIONS OF MAKING LOAN

Section 3.01. Conditions Precedent to the Making of the Loan. The obligation of the Lender to make the Loan is subject to the condition precedent that the Lender shall have received on or before the Closing Date the following, each dated such date, in form and substance satisfactory to the Lender:

(a) Company Organization Documents. (i) A copy of the articles of incorporation of the Company, certified as of a date no earlier than **30** days prior to the Closing Date by the Secretary of State of the State of Florida; (ii) a certificate of the Secretary of State of Florida dated no earlier than **10** days prior to the Closing Date as to the good standing of the Company in the State of Florida; and (iii) a copy of the Bylaws of the Company and of the resolution(s) of the Company evidencing authorization and approval of this Loan Agreement and any Related Document to which the Company is a party and the transactions contemplated thereby, certified by an authorized officer of the Company (which certificate shall state that such resolution(s) and Bylaws are in full force and effect on the Closing Date).

(b) Company Certificate. A certificate of the Company certifying the names and true signatures of the officers of the Company authorized to sign this Loan Agreement, the Related Documents to be executed by the Company and the other documents contemplated hereby and thereby.

(c) Documents. An executed original counterpart of this Loan Agreement and the Promissory Note.

(d) Fees Payable: Evidence of payment by the Company to i) to the Lender, of such fees, costs and expenses as may then be payable under the terms hereof, and (ii) counsel to the Lender of their fees in the amount of $3,500 incurred in connection with this transaction, plus such counsel's out-of-pocket expenses.

(f) Insurance: Evidence of the insurance required by Section 5.01(g) hereof.

(g) Company Counsel Opinion. An opinion of Akerman Senterfitt & Eidson, as counsel to the Company.

(h) Other Documents: Such other documents, instruments, approvals (and, if requested by the Lender, certified duplicates of executed copies thereof) or opinions as the Lender may reasonably request.

ARTICLE IV

REPRESENTATIONS AND WARRANTIES

Section 4.01. Representations and Warranties of the Company. The Company represents and warrants to the Lender as follows:

(a) The Company is a corporation duly formed, validly existing and in good standing under the laws of the State of Florida. The Company has all requisite power and authority to conduct its business, to own its properties, and to execute and deliver and perform all of its obligations under this Loan Agreement and each of the Related Documents to which it is a party. The Company is duly qualified to do business in every other jurisdiction in which the nature of its business makes such qualification necessary and is in good standing in such jurisdictions, except where the failure to qualify would not have a material adverse effect on its business.

(b) The execution, delivery and performance by the Company of this Loan Agreement and the Related Documents to which it is a party are within the Company's powers, have been duly authorized by all necessary action, and do not contravene (i) any provision of the Articles of Incorporation or Bylaws of the Company, (ii) any law, rule or regulation applicable to the Company or its properties or (iii) any agreement or contractual restriction binding on or affecting the Company or any of its properties, and do not result in or require or cause the creation of any lien, security interest or other charge or encumbrance (except as provided in or contemplated by this Loan Agreement) upon or with respect to any of its properties.

(c) No authorization or approval or other action by, and no notice to or filing with, any governmental authority or regulatory body is required for the due execution, delivery and performance by the Company of this Loan Agreement or any Related Document, except as have been duly obtained or made and are in full force and effect.

(d) This Loan Agreement is, and each of the other Related Documents to which the Company is a party when delivered hereunder will be, legal, valid and binding obligations of the Company enforceable against the Company in accordance with their respective terms.

(e) There is no pending or, to the best knowledge of the Company, threatened action, investigation or proceeding before any court, governmental agency or arbitrator against or affecting the Company which may materially adversely affect the financial condition or operations of the Company or the ability of the Company to perform its obligations hereunder or under any of the Related Documents or which purports to affect the legality, validity or enforceability of this Loan Agreement or any Related Document.

(f) The Company's financial statements which have been furnished to the Lender present fairly the financial condition of the Company as of the date thereof and for the period covered therein. The Company has no material liabilities, contingent or otherwise, including material liabilities for taxes, not disclosed by or reserved against in the financial statements referred to above or in the notes thereto, and at the present time there are no material unrealized or anticipated losses from any commitments of the Company except as have been disclosed to the Lender in writing. Said financial statements were prepared in accordance with Generally Accepted Accounting Principles. Since the date of such financial statements there has been no material adverse change in the financial condition, properties or operations of the Company.

(g) The Company has filed all tax returns which are required to be filed by it and has paid all taxes lawfully required to be paid by the Company. The charges, accruals and reserves on the books of the Company in respect of taxes or other governmental charges are adequate. No controversy in respect of

additional taxes, state, Federal or foreign, of the Company is pending, or, to the knowledge of the Company, threatened.

(h) The Company has no Indebtedness, except as shown in the financial statements referred to in **Section 4.01(f)** hereof.

(i) The Company has good and marketable title to its properties and assets, including the properties and assets reflected in the financial statements and notes thereto described in **Section 4.01(f)** hereof, except for such assets as have been disposed of since the date of said financial statements in the ordinary course of business or as are no longer useful in the conduct of business, and all such properties and assets are free and clear of all liens, mortgages, pledges, encumbrances or charges of any kind except for Permitted Encumbrances and as described in such financial statements.

(j) The Company has not guaranteed any obligations of others and is not, to the best of the Company's knowledge, contingently liable in any manner, direct or indirect, except as disclosed in the financial statements and notes thereto described in **Section 4.01(f)** hereof.

(k) The Company is not a party to nor is it bound by any contract, agreement or other restrictions which materially and adversely affects the business, properties or condition, financial or otherwise, of the Company.

(l) The Company owns, possesses, or has the right to use all patents, licenses, franchises, trademarks, trademark rights, trade names, trade name rights, copyrights, trade secrets, know how and confidential commercial and proprietary information necessary to conduct its business as now conducted, without known conflict with any patent, license, franchise, trademark, trade name, copyright or other proprietary right of any other Person.

(m) Except as has been disclosed to Lender in writing, the Company is not in default in the performance, observance or fulfillment of any of the obligations, covenants or conditions contained in any agreement or instrument to which it is a party or by which it may be bound, the effect of which default would allow any Person to cause such obligation under the agreement or instrument to become due prior to its stated maturity.

(n) The Company is in compliance with all applicable laws, rules, regulations and orders of any governmental or regulatory authority, the non-compliance with which would materially and adversely affect its business or credit or ability to satisfy its obligations hereunder or under the related documents.

(o) Neither this Loan Agreement or any Related Documents to which the Company is a party, nor any reports, schedules, certificates, agreements or instruments heretofore or simultaneously with the execution of this Loan Agreement delivered to the Lender by or on behalf of the Company, contains any misrepresentation or untrue statement of fact or omits to state any material fact necessary to make this Loan Agreement or any such other document, agreement, report, schedule, certificate or instrument not misleading.

(p) Except in compliance with all Environmental Laws or as provided on Schedule A attached hereto, (i) the Company is not engaged in the business of transporting any Hazardous Materials; (ii) the Company does not own, lease, use or occupy any facility which, to the best knowledge of the Company, has ever been used to treat, store or dispose of any Hazardous Materials; and (iii) the Company is not now, nor has it ever been, engaged in any activities that constitute spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, dumping or disposing of any Hazardous Materials, in any case that would have a material adverse effect on the financial condition of the Company.

(q) Except as otherwise identified on Exhibit A, (i) the Company is in material compliance with all Environmental Laws, and there is not now pending, or, to the best knowledge of the Company, threatened, any action, suit, investigation or proceeding against the Company or its property seeking to enforce any right or remedy under any of the Environmental Laws; and (ii) neither the Company nor any of its property has ever been subject to or regulated by any judicial or administrative order, judgment, decree or injunction as the result of violations or asserted violations of any of the Environmental Laws.

(r) The Company is now, and after each of the funding of the Loan will be, solvent.

(s) The Company has all required approvals of all Governmental Authorities for the Company to operate its properties in the manner currently being operated.

(t) The Company has not incurred any material accumulated funding deficiency within the meaning of ERISA, or incurred any material liability to the PBGC established under ERISA (or any successor thereto under ERISA) in connection with any employee benefit plan established or maintained by the Company and no Reportable Event (as defined in ERISA) has occurred or is occurring.

ARTICLE V

COVENANTS OF THE COMPANY

Section 5.01. Affirmative Covenants. So long as the Promissory Note shall be outstanding, or the Company shall have any obligation to pay any amount to the Lender hereunder or thereunder, the Company will, unless the Lender shall otherwise consent in writing:

(a) Preservation of Existence, Etc. (i) Preserve and maintain its existence as a Florida corporation and all rights, privileges and franchises necessary and desirable in the normal conduct of its business and in the performance of its obligations under this Loan Agreement and the Related Documents and not dissolve or otherwise discontinue its existence or operations and (ii) take no action or suffer any actions to be taken by others which will alter, change or destroy its status as a Florida corporation.

(b) Compliance with Laws. Comply with the requirements of all applicable laws, rules, regulations and orders of any governmental or regulatory authority, non-compliance with which would materially adversely affect its business or credit or ability to satisfy its obligations hereunder or under the Related Documents.

(c) Payment of Taxes, Etc. Pay and discharge, before the same shall become delinquent, (i) all taxes, assessments and governmental charges or levies lawfully imposed upon it or upon its property, and (ii) all lawful claims which, if unpaid, might by law become a lien upon its property; provided, however, that the Company shall not be required to pay or discharge any such tax, assessment, charge or claim that is being contested in good faith and by proper proceedings, and, if requested by Lender, reserves with respect thereto acceptable to the Lender shall be maintained; provided further that any such tax, assessment, charge, levy or claim shall be paid forthwith upon the commencement of proceedings to foreclose any lien securing the same.

(d) Inspection Rights. At any reasonable time and from time to time during usual business hours and upon prior notice, permit the Lender or any agents or representatives thereof, to

examine and make copies of and abstracts from the records and books of account of, and visit the properties of, the Company and discuss the affairs, finances and accounts of the Company with any of its officers.

(e) Keeping of Books. Keep proper books of record and account, in which full and correct entries shall be made of all financial transactions and the assets and business of the Company in accordance with Generally Accepted Accounting Principles.

(f) Maintenance of Properties. Maintain and preserve all of its properties which are used or useful in the conduct of its business in good working order and condition, ordinary wear and tear excepted.

(g) Maintenance of Insurance. Maintain insurance with responsible and reputable insurance companies or associations in such form and amounts and covering such risks, including casualty and business interruption, as is acceptable to the Lender.

(h) Performance and Compliance with Other Covenants. Perform and comply in all material respects with each of the covenants, as in effect on the Closing Date or as such covenants may thereafter be amended or supplemented, set forth in the Related Documents.

(i) Reporting Requirements. Furnish to the Lender the following:

(1) as soon as possible and in any event within 15 days after the occurrence of each Event of Default or each event which, with the giving of notice or lapse of time, or both, would constitute an Event of Default and which is continuing on the date of such statement, a statement of an executive officer of the Company setting forth details of such Event of Default or event and the action which the Company proposes to take with respect thereto;

(2) within 60 days of the period's end, a copy of the Company's Quarterly Report on Form 10Q filed with the United States Securities and Exchange Commission ("SEC") and, if not included therein, the Company's quarterly financial statements including an income statement presented on a rolling four-quarter basis, in each case dated and certified as having been prepared in accordance with GAAP and as accurately reflecting the financial condition of the Company for the period reported upon by an authorized financial officer of the Company. These financial statements may be Company prepared;

(3) within 120 days of the Company's fiscal year end, the Company's Annual Report on Form 10K filed with the SEC, and, if not included therein, annual financial statements, dated and certified as having been prepared in accordance with GAAP and as accurately reflecting the financial condition of the Company for the period reported upon by an authorized financial officer of the Company. These financial statements must be audited (with an unqualified opinion) by a certified public accountant acceptable to the Lender;

(4) together with each delivery of financial statements required by clauses (2) and (3)above, a certificate of the chief financial officer of the Company containing computations demonstrating compliance and certifying that to the best of his or her knowledge the Company has complied in all material respects with all of the terms,

covenants and conditions contained in **Section 5.01(k) and (l)** of this Loan Agreement or, if the Company has not so complied, specifying the nature and extent of such failure;

(5) promptly upon sending or receipt, copies of any management letters and correspondence relating to management letters, sent to or received by Company to or from Company's auditor, or, if no management letter is prepared, a letter from such auditor stating that no deficiencies were noted that would otherwise be addressed in a management letter;

(6) promptly upon any change of the Company's independent public accountants, notification thereof and such further information as the Lender may reasonably request concerning the resignation, refusal to stand for reappointment or dismissal of such accountants;

(7) promptly upon becoming aware thereof, written notice of any material adverse change in the financial condition, business or operations of the Company;

(8) promptly upon becoming aware thereof, written notice of any actual or contingent liabilities (other than trade payables incurred in the ordinary course of business) of the Company which might, in the reasonable judgment of the Company, result in a material adverse effect on the business, operations or financial condition of the Company or the ability of the Company to perform its obligations under this Loan Agreement or any of the Related Documents;

(9) promptly upon becoming aware thereof, written notice of the commencement or existence of any investigation or proceeding into or against the Company by or before any court or governmental agency which might, in the reasonable judgment of the Company, result in a material adverse effect on the business, operations or financial condition of the Company or the ability of the Company to perform its obligations under this Loan Agreement or any of the Related Documents and, if requested by the Lender, the Company shall establish and maintain reserves with respect thereto reasonably acceptable to the Lender;

(10) promptly upon becoming aware thereof, written notice of any Plan Termination Event or any event or action which would result in the Company's complete withdrawal, partial withdrawal or secondary liability for withdrawal liability payments with respect to a Multiemployer Plan, together with a statement of the chief financial officer of the Company describing the event or the action taken and the reasons therefor; and

(11) such other information respecting the business, properties, condition or operations, financial or otherwise, of the Company as the Lender may from time to time reasonably request.

(j) Payment of Obligations. Pay when due all of its obligations and liabilities, except where the same (other than Indebtedness and judgments) are being contested in good faith by appropriate proceedings diligently prosecuted and for which appropriate reserves for the accrual of same satisfactory to the Lender are maintained.

(k) Total Liabilities to Tangible Net Worth Ratio. Maintain as at the end of each fiscal year a ratio of Total Liabilities (excluding the non-current portion of Subordinated Liabilities) to

Tangible Net Worth of (i) at December 31, 2003, of not exceeding 4.50:1.00, (ii) at December 31, 2004, of not exceeding 4.25:1.00, and (iii) after December 31, 2004, of not exceeding 4.00:1.00.

"Total Liabilities" means the sum of current liabilities plus long term liabilities.

"Tangible Net Worth" means the value of the Company's total assets (including leaseholds and leasehold improvements and reserves against assets, but excluding good will, patents, trademarks, tradenames, organization expense, unamortized debt discount and expense, capitalized or deferred research and development costs, deferred marketing expense and other like intangibles, and moneys due from affiliates, officers, directors, employees, shareholders, members or managers of the Company) less Total Liabilities, including but not limited to deferred income taxes, but excluding the non-current portion of Subordinated Liabilities.

"Subordinated Liabilities" means liabilities subordinated to the Company's obligations to the Lender in a manner acceptable to the Lender in its sole discretion.

(l) Fixed Charge Coverage Ratio. Maintain a Fixed Charge Coverage Ratio of at least 1.25:1.00.This ratio will be calculated at the end of each quarterly accounting period in the Company's fiscal year using the results of the 12 month period ending with that reporting period.

"Fixed Charge Coverage Ratio" means, for any period, the ratio of (i) net income after income taxes, plus depreciation and amortization, plus interest expense, plus rent/lease expense, plus/minus the change in the value of any Interest Rate Protection Agreement to (ii) current maturities of long term debt and Capital Lease obligations, plus interest expense, plus rent/lease expense. Current maturities of long-term debt and Capital Lease obligations shall be determined as of the last day prior to the commencement of the twelve month period for which the Fixed Charge Coverage Ratio is being measured.

(m) Further Assurances. Upon the request of the Lender, duly execute and deliver or cause to be duly executed and delivered to the Lender such further instruments and do and cause to be done such further acts that may be reasonably necessary or proper in the opinion of the Lender to carry out more effectively the provisions and purposes of this Loan Agreement and the Related Documents.

(n) Operating Accounts; Treasury Management Services. Maintain its operating bank accounts and its treasury management services relationship with the Lender.

(o) Environmental Indemnity. (i) Indemnify the Lender and hold the Lender harmless from and against any and all losses, liabilities, judgments, damages, penalties, fines, liens, suits, injuries, costs (including cleanup costs), expenses (including attorney's, consultants' or experts' fees and expenses) and claims of any and every kind whatsoever paid, incurred or suffered by or asserted against the Lender for, with respect to, or as a direct or indirect result of, (A) the presence on or under or the escape, seepage, leakage, spillage, discharge, emission, disposal or release from, the property of the Company any Hazardous Materials, (B) claims asserted or arising under any Environmental Laws, or (C) any representation or warranty by the Company contained in **Section 4.01(p)** or **(q)** herein being false or untrue in any material respect; and the indemnity obligations of the Company under this **Section 5.01(o)** shall survive the termination of this Loan Agreement; and

(ii) If the Company receives any notice of (A) the happening of any event involving the release or uncontained presence of any Hazardous Materials (a "**Hazardous**

Discharge") affecting the Company or any portion of the property of the Company of which would require remediation or payment of response costs or (B) any complaint, order, citation or notice with regard to air emissions or any other environmental, health or safety matter affecting the Company or any portion of the property of the Company (an "**Environmental Complaint**") from any Person, including, without limitation, the United States Environmental Protection Agency ("**EPA**") or any agency, department or authority of the any state, give, within 7 Business Days, oral and written notice of same to the Lender.

(p) ERISA. Comply with all requirements of ERISA applicable to it and furnish to the Lender as soon as possible and in any event within 30 days after the Company or duly appointed administrator of a Plan (as defined in ERISA) knows or has reason to know that any Reportable Event (as defined in ERISA) with respect to any Plan has occurred, a statement of the chief financial officer of the Company describing in reasonable detail such Reportable Event and any action which the Company proposes to take with respect thereto, together with a copy of the notice of such Reportable Event given to the PBGC or a statement that said notice will be filed with the annual report to the United States Department of Labor with respect to such Plan if such filing has been authorized.

Section 5.02. Negative Covenants. So long as the Promissory Note shall be outstanding or the Company shall have any obligation to pay any amount to the Lender hereunder, the Company will not, without the prior written consent of the Lender:

(a) Change in Business. Enter into any business which is materially different from and/or not connected with the business in which it is engaged on the Closing Date.

(b) Consolidation, Merger, Sale of Assets. Transfer, sell, assign or otherwise dispose of all or substantially all of its assets or consolidate with or merge into another entity or permit one or more other entities to consolidate with or merge into it unless it is the survivor and no Event of Default hereunder will exist or occur after giving effect to such transaction. The Company shall not acquire all or substantially all of the assets, or all of or a controlling interest in the stock, partnership interests, membership interests or other ownership interest of another entity for a price of more than $1,500,000.00 without providing the Lender with at least 10 days' prior written notice, and without the written consent of the Lender which consent shall not be unreasonably withheld.

(c) Indebtedness. Without Lender's prior written consent, incur, create, guarantee, assume or permit to exist (i) any interest rate swap, cap collar or similar arrangement, except with respect to, and with a notional amount not in excess of, Indebtedness permitted under clause (ii), or (ii) any Indebtedness outstanding at any time in a principal amount of more than $1,000,000.00.

(d) Loans. Lend or advance money, credit or property to any Person except for trade credit extended in the ordinary course of the Company's business.

(e) Limitations on Liens. Incur, create, assume or permit to exist any mortgage, pledge, security interest, encumbrance, lien or charge of any kind upon any of its property except liens in favor of the Lender and Permitted Encumbrances. This provision shall not apply to restrictions placed upon funds received by the Company from a Governmental Authority which funds are required to be used by the Company for environmental clean-up.

(f) Dividends, Redemptions and Other Payments. If an Event of Default described in Section 6.01, other than Section 6.01(b) or (d), shall have occurred and be continuing or if such

action would cause the Company to fail to be in compliance with the provisions of this Loan Agreement, (i) declare or pay any dividends or other equity distributions (other than dividends payable solely in common stock of the Company) on any shares of stock or membership interest of any class of the Company now or hereafter outstanding, (ii) purchase, redeem or otherwise retire any such shares or interests, or apply or set apart any of its assets therefor or make any other distribution (by reduction of capital or otherwise) in respect of any such shares or interests or (iii) agree to do any of the foregoing.

(g) Insider Transactions. Directly or indirectly purchase, acquire or lease any property or asset from, or purchase, sell, dispose of, exchange or lease any property or assets to, or render service to, or otherwise deal with, in the ordinary course of business or otherwise, any affiliate, except pursuant to reasonable requirements and upon fair and reasonable terms and conditions not less favorable to the Company than if it were a comparable arm's length transaction and no such relationship existed.

(h) Guarantee. Guarantee, assume, endorse or otherwise become or remain liable in connection with the obligations of any other Person (including obligations of such Persons arising from working capital maintenance agreements), other than:

(i) the endorsement of negotiable instruments in the ordinary course of business for deposit or collection; and

(ii) such guaranties and other contingent liabilities currently existing as disclosed in the financial statements delivered pursuant to **Section 4.01(f)** of this Loan Agreement.

(i) Sales of Assets. Except as otherwise permitted or required hereby, sell, lease, transfer or otherwise dispose of any of its assets, except for the sale of inventory and other assets in the ordinary course of business and disposition of obsolete equipment and except for transfers which do not, individually or in the aggregate materially and adversely affect the ability of the Company to comply with the provisions hereof or of the Related Documents.

(j) Change in Name for Form of Entity. Changed or permit any change in, the name of the Company or the form in or name under which it is currently doing business.

Section 5.03. Automatic Payment Procedure. The Company has elected to authorize the Lender to effect payment of interest due hereunder or under the Promissory Note by means of debiting the Company's account with Lender number 5488080210. This authorization shall not affect the obligations of the Company to pay such sums when due without notice, if there are insufficient funds in such account to make such payment in full on the due date thereof or if the Lender fails to debit the account.

ARTICLE VI

EVENTS OF DEFAULT

Section 6.01. Events of Default. The occurrence of any of the following events shall be an **"Event of Default"** hereunder:

(a) The Company shall fail to pay any amount payable hereunder or under any of the Related Documents on the date when due (after giving effect to applicable grace periods); or

(b) Any representation, warranty, certification or statement made by the Company herein or by the Company in connection with this Loan Agreement, any of the Related Documents or in any writing furnished by or on behalf of the Company shall prove to have been false, misleading or incomplete in any material respect on the date as of which made; or

(c) The Company shall fail to perform or observe the provisions of **Section 5.01(i), (k) or (l)** or **Section 5.02** of this Loan Agreement; or

(d) The Company shall fail to perform or observe any other term, covenant or agreement contained in this Loan Agreement, other than as specifically addressed elsewhere in this **Section 6.01**, on its part to be performed or observed and any such failure shall remain unremedied for a period of **30** days after the date upon which written notice of such failure, requiring the same to be remedied, shall have been given to the Company by the Lender; or

(e) The Company shall fail to pay any Indebtedness or any interest or premium thereon when due (whether by scheduled maturity, required prepayment, acceleration, demand or otherwise) and such failure shall continue after the applicable grace period, if any, specified in the agreement or instrument relating to such Indebtedness; or any other default or event under any agreement or instrument relating to any such Indebtedness shall occur and shall continue after the applicable grace period, if any, specified in such agreement or instrument, if the effect of such default or event is to accelerate, or to permit the acceleration, of the maturity of such Indebtedness; or any such Indebtedness shall be declared to be due and payable, or required to be prepaid, prior to the stated maturity thereof; or

(f) Liquidation or dissolution of the Company or suspension of the business of the Company or filing by the Company of a voluntary petition in bankruptcy or a voluntary petition or an answer seeking reorganization, arrangement, readjustment of its debts or for any other relief under the Bankruptcy Law, as amended, or under any other insolvency act or law, state or Federal, now or hereafter existing, or any other action of the Company indicating its consent to, approval of, or acquiescence in any such petition or proceeding; the application by the Company for, or the appointment by or with the consent or acquiescence of the Company of, a receiver, a trustee or a custodian for the Company; the application by the Company for, or the consent to or acquiescence of the Company in, an assignment for the benefit of creditors; or the inability of the Company or the admission by the Company in writing of its inability to pay its debts as they mature; or

(g) Filing of an involuntary petition against the Company in bankruptcy or seeking reorganization, arrangement, readjustment of its debts or for any other relief under the Bankruptcy Code, as amended, or under any other insolvency act or law, state or federal, now or hereafter existing; or the involuntary appointment of a receiver, a trustee or a custodian of the Company or for all or a substantial part of its property; the issuance of a warrant of attachment, execution or similar process against any substantial part of the property of the Company and the continuance of any of such events for **60** days undismissed, undischarged or unstayed; or

(h) Any provision of this Loan Agreement or any Related Documents, including any security interest created thereby, shall at any time for any reason cease to be valid and binding on the Company, or shall be declared to be null and void, or the validity or enforceability thereof shall be contested by the Company, or a proceeding shall be commenced by any governmental agency or authority having jurisdiction over the Company seeking to establish the invalidity or unenforceability thereof, or the Company shall deny that it has any or further liability or obligation under this Loan Agreement or any Related Documents; or

(i) a final non-appealable or order shall be rendered against the Company for the payment of money not covered by insurance in excess of $500,000.00 and such judgment or order shall continue unsatisfied or unstayed for a period of more than 30 days.

Section 6.02. Rights Upon an Event of Default. Upon the occurrence of an Event of Default, and at any time thereafter unless and until such Event of Default has been waived by the Lender or cured to the satisfaction of the Lender, the Lender shall be entitled to take any of the following actions without prejudice to the rights of the Lender to enforce its claims against the Company, except as otherwise specifically provided for herein:

(a) Acceleration of Obligations. Declare the outstanding amount of the Promissory Note and any and all other indebtedness or obligations of any and every kind owing by the Company to the Lender hereunder to be due, whereupon the same shall be immediately due and payable without presentment, demand, protest or other notice of any kind, all of which are hereby waived by the Company.

(b) Enforcement of Rights. Enforce any and all rights and interests created and existing hereunder or under any of the other Related Documents and all rights of set-off.

(c) Required Financial Information. In addition to all other rights and remedies the Lender has, should the Company fail to timely provide or cause to be provided the information required by Section 5.01(i)(2), (3) or (4), hereof, the Company will, at the Lender's option, pay on demand the Lender a late fee in an amount set by the Lender. The imposition and/or payment of a late fee shall not constitute a waiver of the Lender's rights with respect to the default.

Section 6.03. No Remedy Exclusive. No remedy herein conferred upon or reserved to the Lender is intended to be exclusive of any other available remedy or remedies, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder, under the Loan Agreement or the other Related Documents, or now or hereafter existing at law or in equity or by statute.

ARTICLE VII

MISCELLANEOUS

Section 7.01. Amendments, Etc. No amendment or waiver of any provision of this Loan Agreement, nor consent to any departure by the Company therefrom, shall in any event be effective unless the same shall be in writing and signed by the Lender and then such amendment, waiver or consent shall be effective only in the specific instance and for the specific purpose for which given.

Section 7.02. Notices. All notices and other communications provided for hereunder shall be in writing (including required copies) and sent by telefacsimile, receipted hand delivery (including Federal Express or other receipted courier service), telex or certified or regular mail, at the following addresses, or, as to each party at such other address as shall be designated by such party in a written notice to other party.

To the Company: George Bachman, CFO
Florida Public Utilities Company
401 South Dixie Highway
West Palm Beach, FL 33401
Telefacsimile:

To the Lender: Bank of America, N.A.
Jacksonville, CLSC
Attn: Notice Desk
9000 Southside Boulevard
3rd Floor
Jacksonville, Florida 32256
Telefacsimile:904-987-3408

Section 7.03. No Waiver. No failure on the part of the Lender to exercise, and no delay in exercising, any right hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any right hereunder preclude any other or further exercise thereof or the exercise of any other right.

Section 7.04. Right of Set-off. (a) Upon the occurrence of any Event of Default, the Lender is hereby authorized at any time and from time to time, to the fullest extent permitted by law, to set off and apply any and all deposits (general or special, time or demand, provisional or final) at any time held and other indebtedness at any time owing by the Lender to or for the credit or the account of the Company against any and all of the obligations of the Company now and hereafter existing under this Loan Agreement and the Promissory Note, irrespective of whether or not the Lender shall have made any demand hereunder and although such obligations may be contingent or unmatured.

(b) The Lender agrees promptly to notify the Company after any such set-off and application referred to in subsection (a) above, provided that the failure to give such notice shall not affect the validity of such set-off and application. The rights of the Lender under this **Section 7.04** are in addition to other rights and remedies (including, without limitation, other rights of set-off) which the Lender may have.

Section 7.05. Costs, Expenses and Taxes. The Company agrees to pay immediately when due all reasonable costs and expenses in connection with the preparation, execution, delivery, filing and recording of, and, upon the occurrence of an Event of Default, enforcement of compliance with, this Loan Agreement and the Related Documents and any other documents which may be delivered in connection with this Loan Agreement or the transactions contemplated hereby, including, without limitation, the reasonable fees and out-of-pocket expenses of the Lender and of counsel and any agents or consultants for the Lender, with respect thereto and with respect to advising the Lender as to its rights and responsibilities under this Loan Agreement, and all reasonable costs and expenses (including counsel fees and expenses, including in connection with any appeal) in connection with the preparation and enforcement of this Loan Agreement, the Related Documents and such other documents as may be delivered in connection herewith or therewith. In addition, the Company shall pay any and all stamps and other taxes and fees payable or determined to be payable in connection with the execution, delivery, filing and recording of this Loan Agreement, the Related Documents and such other documents, and agrees to save the Lender harmless from and against any and all liabilities with respect to or resulting from any delay in paying or omission to pay such taxes and fees.

Section 7.06. Binding Effect. This Loan Agreement shall become effective when it shall have been executed by the Company and the Lender and thereafter shall be binding upon and inure to the benefit of the Company and the Lender and their respective successors and assigns, except that the Company shall not have the right to assign its rights hereunder or any interest herein without the prior written consent of the Lender. The Lender may, without cost or expense to the Company, assign or sell a participation in all or any part of, or any interest (undivided or divided) in, the Lender's rights and benefits under this Loan Agreement to any financial institution. To the extent of any assignment by the Lender, the assignee shall have the same rights and benefits against the Company hereunder as it would have had if such assignee were the Lender hereunder.

Section 7.07. Severability. Any provision of this Loan Agreement which is prohibited, unenforceable or not authorized in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition, unenforceability or non-authorization without invalidating the remaining provisions hereof or affecting the validity, enforceability or legality of such provision in any other jurisdiction.

Section 7.08. Headings. Article and section headings in this Loan Agreement are included herein for convenience of reference only and shall not constitute a part of this Loan Agreement for any other purpose.

Section 7.09. Prior Agreements Superseded. This Loan Agreement shall completely and fully supersede all prior undertakings or agreements, both written and oral, between the Company and the Lender relating to the making of the Loan, including those contained in any commitment letter between the Lender and the Company executed in anticipation of the making of the Loan, except for any provisions in such commitment letter which by their express terms survive the making of the Loan.

Section 7.10. Counterparts. This Loan Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

Section 7.11. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida.

Section 7.12. Arbitration and Waiver of Jury Trial. This **Section 7.12** concerns the resolution of any controversies or claims between the Company and the Lender, whether arising in contract, tort or by statute, that arise out of or relate to: (i) this Loan Agreement (including any renewals, extensions or modifications); or (ii) any document related to this Loan Agreement; (collectively a "Claim").

At the request of the Company or the Lender, any Claim shall be resolved by binding arbitration in accordance with the Federal Arbitration Act (Title 9, U. S. Code) (the "Act"). The Act will apply even though this Loan Agreement provides that it is governed by the law of a specified state.

Arbitration proceedings will be determined in accordance with the Act, the rules and procedures for the arbitration of financial services disputes of J.A.M.S./Endispute or any successor thereof ("J.A.M.S."), and the terms of this paragraph. In the event of any inconsistency, the terms of this Section shall control.

The arbitration shall be administered by J.A.M.S. and conducted in West Palm Beach, Florida. All Claims shall be determined by one arbitrator; however, if Claims exceed $5,000,000, upon the request of any party, the Claims shall be decided by three arbitrators. All arbitration hearings shall commence within 90 days of the demand for arbitration and close within 90 days of commencement and the award of the arbitrator(s) shall be issued within 30 days of the close of the hearing. However, the arbitrator(s), upon a showing of good cause, may extend the commencement of the hearing for up to an additional 60 days. The arbitrator(s) shall provide a concise written statement of reasons for the award. The arbitration award may be submitted to any court having jurisdiction to be confirmed and enforced.

The arbitrator(s) will have the authority to decide whether any Claim is barred by the statute of limitations and, if so, to dismiss the arbitration on that basis. For purposes of the application of the statute of limitations, the service on J.A.M.S. under applicable J.A.M.S. rules of a notice of Claim is the equivalent of the filing of a lawsuit. Any dispute concerning this arbitration provision or whether a Claim is arbitrable shall be determined by the arbitrator(s). The arbitrator(s) shall have the power to award legal fees pursuant to the terms of this Loan Agreement.

This paragraph does not limit the right of the Company or the Lender to: (i) exercise self-help remedies, such as but not limited to, setoff; (ii) initiate judicial or nonjudicial foreclosure against any real or personal property collateral; (iii) exercise any judicial or power of sale rights, or (iv) act in a court of law to obtain an interim remedy, such as but not limited to, injunctive relief, writ of possession or appointment of a receiver, or additional or supplementary remedies.

By agreeing to binding arbitration, the parties irrevocably and voluntarily waive any right they may have to a trial by jury in respect of any Claim. Furthermore, without intending in any way to limit this Loan Agreement to arbitrate, to the extent any Claim is not arbitrated, the parties irrevocably and voluntarily waive any right they may have to a trial by jury in respect of such Claim. This provision is a material inducement for the parties entering into this Loan Agreement.

No provision in this Loan Agreement or in the other Related Documents regarding submission to jurisdiction and/or venue in any court is intended or shall be construed to be in derogation of the provisions of this Loan Agreement or in any other Related Document for arbitration of any controversy or claim.

Section 7.13. Termination of Security Agreement. The Security Agreement dated April 21, 2003 between the Company and the Lender is terminated.

IN WITNESS WHEREOF, the parties hereto have caused this Loan Agreement to be duly executed and delivered by their respective officers thereunto duly authorized as of the date first above written.

FLORIDA PUBLIC UTILITIES COMPANY

By: _____
Name: George M. Bachman
Title: CFO and Treasurer

By: _____
Name: John English
Title: CEO and President

BANK OF AMERICA, N.A.

By: _____
Name: Steven J. Whittingslow
Title: Senior Vice President

FLORIDA PUBLIC ... ITIES COMPANY
CASH PROJECTION
BUDGET 2009

TOTAL CONSOLIDATED

		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
Operating Revenues		14,502,325	12,348,449	11,699,051	10,502,512	9,703,120	9,881,162	9,826,558	9,994,127	9,439,287	9,838,531	11,212,524	14,031,378	132,979,023
Fuel Revenue & Pass-thrus		(8,268,709)	(6,997,923)	(6,810,286)	(6,040,963)	(5,415,481)	(5,664,288)	(5,686,443)	(5,801,240)	(5,260,793)	(5,770,379)	(6,810,945)	(8,726,666)	(77,254,116)
Gross Profit		6,233,616	5,350,526	4,888,765	4,461,548	4,287,638	4,216,875	4,140,114	4,192,887	4,178,495	4,068,152	4,401,579	5,304,713	55,724,908
Other Income - Net (excl. taxes & int cap)		54,652	96,608	71,531	91,774	25,338	80,514	43,937	80,809	54,794	26,220	68,943	57,707	752,827
Total		6,288,268	5,447,135	4,960,296	4,553,322	4,312,976	4,297,389	4,184,051	4,273,696	4,233,289	4,094,371	4,470,522	5,362,419	56,477,735
DEDUCTIONS:														
Operation & Mtnce Excl Fuel etc		3,472,809	2,980,831	2,723,579	2,485,572	2,388,685	2,349,262	2,306,498	2,335,898	2,327,880	2,266,407	2,452,163	2,955,307	31,044,892
Non-Cash O&M (Storm Resv)		(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(100,000)
Income Taxes Paid					696,955		696,955			696,955		0	696,955	2,787,820
Taxes Paid - Other		251,162	13,706	155,337	96,966	64,617	83,646	254,658	94,094	51,816	207,836	2,022,300	11,602	3,307,740
Interest On Long - Term Debt						685,754	363,200					617,184	363,200	2,029,338
Interest on Additional LT Debt	6.85%	256,500			256,500			256,500			256,500			1,026,000
Interest on Environmental Expenditure		0	0	0	0	0	0	0	0	0	0	0	0	0
Interest on Private Activity Bond	4.90%					342,400						342,400		684,800
Interest on LOC		87,307	82,970	77,586	77,958	84,743	89,290	60,510	34,413	36,708	40,360	49,327	55,356	776,528
Other Interest Payments		0	0	0	229,500	229,500	0	0	0	0	0	0	0	459,000
Payment Of Environmental Clean Up		181,125			181,125			181,125			181,125			724,500
Dividends Paid - Preferred		7,125	0	0	7,125	0	0	7,125	0	0	7,125	0	0	28,500
Dividends Paid - Common		717,000	0	0	719,000	0	0	732,000	0	0	897,000	0	0	3,065,000
Proceeds Form Sale - Common Stock		(164,807)	0	0	(87,459)	0	0	(171,000)	0	0	(84,111)	0	0	(507,378)
Pension Contributions									1,790,772					1,790,772
TOTAL DEDUCTIONS		4,799,887	3,069,173	2,948,169	4,654,909	3,787,366	3,574,020	3,619,083	4,246,844	3,105,026	3,763,908	5,475,040	4,074,087	47,117,511
BALANCE		1,488,381	2,377,962	2,012,128	(101,587)	525,610	723,368	564,968	26,852	1,128,263	330,463	(1,004,518)	1,288,332	9,360,224
Increase (Decrease) in Cash Due to Fluctuation in Certain Assets & Liab.		-	-	-	-	-	-	-	-	-	-	-	-	-
Construction Requirements (including AEP)		810,019	810,946	1,128,442	959,514	987,222	885,188	743,734	1,073,005	1,106,862	1,795,352	1,452,265	1,475,051	13,227,600
Construction Adj Bare Steel Amort & Cost of Removal		83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	1,000,000
0		0	0	0	0	0	0	0	0	0	0	0	0	0
Net Const. Cash Refunds/(Contributions)		33,426	33,426	33,426	33,426	33,426	33,426	33,426	33,426	33,426	33,426	33,426	33,426	401,110
BALANCE		561,603	1,450,257	766,926	(1,177,861)	(578,371)	(278,578)	(295,525)	(1,162,911)	(95,358)	(1,581,647)	(2,573,542)	(303,478)	(5,268,486)
Add Proceeds From Financing -SunTrust LOC (See Detail Below)														0
Proceeds from Water Sale & LWG				300,000										300,000
Less Tax on Gain of Sale Water & LWG														0
Add Proceeds from Financing - BOA LOC		(600,000)	(500,000)	(1,000,000)	200,000	2,000,000		(3,500,000)	1,000,000	100,000	1,700,000	2,600,000	200,000	(7,800,000)
Less LT Debt Principal Repayments						(1,409,000)								(1,409,000)
Less Loan Expenses (LT Debt)														0
Add Proceeds from Bond Issue														0
Less Loan Expenses (Bonds)														0
Add Proceeds from Equity Issue								15,000,000						15,000,000
Less Equity Issue Expenses								(900,000)						(900,000)
Less ST Investments														0
Cash Balance - Beginning Of Period		352,495	314,097	264,354	331,280	353,420	366,049	87,471	391,946	229,034	233,676	352,029	378,487	352,495
Cash Balance - End of Period		314,097	264,354	331,280	353,420	366,049	87,471	391,946	229,034	233,676	352,029	378,487	275,009	275,009
Actual Cash Balance														
Customer Deposit - Annual Payments	458,945													
Line of Credit - Bank of America	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000
Interest on LOC	0.10%	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	26,400
Notes Payable Balance - BOA	19,324,000	18,724,000	17,224,000	16,224,000	17,424,000	19,424,000	19,424,000	5,924,000	6,924,000	7,024,000	8,724,000	11,324,000	11,524,000	11,524,000
Interest on Borrowings	[redacted]	84,000	79,400	73,900	74,300	81,400	85,800	56,000	28,400	30,800	34,800	44,300	50,500	723,600
Unused Portion of LOC	6,676,000	7,276,000	8,776,000	9,776,000	8,576,000	6,576,000	6,576,000	20,076,000	19,076,000	18,976,000	17,276,000	14,676,000	14,476,000	14,476,000
Interest on Unused Portion of LOC	0.25%	1,500	1,700	1,900	1,900	1,600	1,400	2,800	4,100	4,000	3,800	3,300	3,000	31,000
Additional LT Debt Balance	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	
Interest On additional LT Debt	6.85%	85,500	85,500	85,500	85,500	85,500	85,500	85,500	85,500	85,500	85,500	85,500	85,500	1,026,000
Bond	0	0	0	0	0	0	0	0	0	0	0	0	0	
Interest on Bond	5.50%	0	0	0	0	0	0	0	0	0	0	0	0	0
Private Activity Bond - Used	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	
Interest On Private Activity Bond	4.90%	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	685,200

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 26.4

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 27.6

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Economic Forces and the Stock Market*

This paper tests whether innovations in macroeconomic variables are risks that are rewarded in the stock market. Financial theory suggests that the following macroeconomic variables should systematically affect stock market returns: the spread between long and short interest rates, expected and unexpected inflation, industrial production, and the spread between high- and low-grade bonds. We find that these sources of risk are significantly priced. Furthermore, neither the market portfolio nor aggregate consumption are priced separately. We also find that oil price risk is not separately rewarded in the stock market.

I. Introduction

Asset prices are commonly believed to react sensitively to economic news. Daily experience seems to support the view that individual asset prices are influenced by a wide variety of unanticipated events and that some events have a more pervasive effect on asset prices than do others. Consistent with the ability of investors to diversify, modern financial theory has focused on pervasive, or "systematic," influences as the likely source of investment risk.[1] The general conclusion of theory is that an additional component of long-run return is required and obtained whenever a particular asset is influenced by systematic economic news and that no extra reward can be earned by (needlessly) bearing diversifiable risk.

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1. For example, the APT (Ross 1976) and the models of Merton (1973) and Cox, Ingersoll, and Ross (1985) are consistent with this view.

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The theory has been silent, however, about which events are likely to influence all assets. A rather embarrassing gap exists between the theoretically exclusive importance of systematic "state variables" and our complete ignorance of their identity. The comovements of asset prices suggest the presence of underlying exogenous influences, but we have not yet determined which economic variables, if any, are responsible.

Our paper is an exploration of this identification terrain. In Section II, we employ a simple theoretical guide to help choose likely candidates for pervasive state variables. In Section III we introduce the data and explain the techniques used to measure unanticipated movements in the proposed state variables. Section IV investigates whether exposure to systematic state variables explains expected returns. As specific alternatives to the pricing influence of the state variables identified by our simple theoretical model, Section IV considers the value- and the equally weighted market indices, an index of real consumption, and an index of oil prices. Each of these is found to be unimportant for pricing when compared with the identified economic state variables. Section V briefly summarizes our findings and suggests some directions for future research.

II. Theory

No satisfactory theory would argue that the relation between financial markets and the macroeconomy is entirely in one direction. However, stock prices are usually considered as responding to external forces (even though they may have a feedback on the other variables). It is apparent that all economic variables are endogenous in some ultimate sense. Only natural forces, such as supernovas, earthquakes, and the like, are truly exogenous to the world economy, but to base an asset-pricing model on these systematic physical factors is well beyond our current abilities. Our present goal is merely to model equity returns as functions of macro variables and nonequity asset returns. Hence this paper will take the stock market as endogenous, relative to other markets.

By the diversification argument that is implicit in capital market theory, only general economic state variables will influence the pricing of large stock market aggregates. Any systematic variables that affect the economy's pricing operator or that influence dividends would also influence stock market returns. Additionally, any variables that are necessary to complete the description of the state of nature will also be part of the description of the systematic risk factors. An example of such a variable would be one that has no direct influence on current cash flows but that does describe the changing investment opportunity set.

Stock prices can be written as expected discounted dividends:

$$p = \frac{E(c)}{k}, \tag{1}$$

where c is the dividend stream and k is the discount rate. This implies that actual returns in any period are given by

$$\frac{dp}{p} + \frac{c}{p} = \frac{d[E(c)]}{E(c)} - \frac{dk}{k} + \frac{c}{p}. \tag{2}$$

It follows (trivially) that the systematic forces that influence returns are those that change discount factors, k, and expected cash flows, $E(c)$.[2]

The discount rate is an average of rates over time, and it changes with both the level of rates and the term-structure spreads across different maturities. Unanticipated changes in the riskless interest rate will therefore influence pricing, and, through their influence on the time value of future cash flows, they will influence returns. The discount rate also depends on the risk premium; hence, unanticipated changes in the premium will influence returns. On the demand side, changes in the indirect marginal utility of real wealth, perhaps as measured by real consumption changes, will influence pricing, and such effects should also show up as unanticipated changes in risk premia.

Expected cash flows change because of both real and nominal forces. Changes in the expected rate of inflation would influence nominal expected cash flows as well as the nominal rate of interest. To the extent that pricing is done in real terms, unanticipated price-level changes will have a systematic effect, and to the extent that relative prices change along with general inflation, there can also be a change in asset valuation associated with changes in the average inflation rate. Finally, changes in the expected level of real production would affect the current real value of cash flows. Insofar as the risk-premium measure does not capture industrial production uncertainty, innovations in the rate of productive activity should have an influence on stock returns through their impact on cash flows.

III. Constructing the Economic Factors

Having proposed a set of relevant variables, we must now specify their measurement and obtain time series of unanticipated movements. We could proceed by identifying and estimating a vector autoregressive model in an attempt to use its residuals as the unanticipated innova-

2. Since we are only concerned with intuition, we are ignoring the second-order terms from the stochastic calculus in deriving eq. (2). Also notice that the expectation is taken with respect to the martingale pricing measure (see Cox et al. 1985) and not with respect to the ordinary probability distribution.

tions in the economic factors. It is, however, more interesting and (perhaps) robust out of sample to employ theory to find single equations that can be estimated directly. In particular, since monthly rates of return are nearly serially uncorrelated, they can be employed as innovations without alteration. The general impact of a failure adequately to filter out the expected movement in an independent variable is to introduce an errors-in-variables problem. This has to be traded off against the error introduced by misspecification of the estimated equation for determining the expected movement.

A somewhat subtler version of the same problem arises with procedures such as vector autoregression. Any such statistically based time-series approach will find lagged stock market returns having a significant predictive content for macroeconomic variables. In the analysis of pricing, then, we will indirectly be using lagged stock market variables to explain the expected returns on portfolios of stocks. Whatever econometric advantages such an approach might offer, it is antithetical to the spirit of this investigation, which is to explore the pricing influence of exogenous macroeconomic variables. For this reason, as much as for any other, we have chosen to follow the simpler route in constructing the time series we use.[3]

Throughout this paper we adopt the convention that time subscripts apply to the end of the time period. The standard period is 1 month. Thus, $E(\ \ |t-1)$ denotes the expectation operator at the end of month $t-1$ conditional on the information set available at the end of month $t-1$, and $X(t)$ denotes the value of variable X in month t, or the growth that prevailed from the end of $t-1$ to the end of t.

A. *Industrial Production*

The basic series is the growth rate in U.S. industrial production. It was obtained from the *Survey of Current Business*. If IP(t) denotes the rate of industrial production in month t, then the monthly growth rate is

$$\mathrm{MP}(t) = \log_e \mathrm{IP}(t) - \log_e \mathrm{IP}(t-1), \tag{3}$$

and the yearly growth rate is

$$\mathrm{YP}(t) = \log_e \mathrm{IP}(t) - \log_e \mathrm{IP}(t-12) \tag{4}$$

(see table 1 for a summary of variables).

Because IP(t) actually is the flow of industrial production during month t, MP(t) measures the change in industrial production lagged by at least a partial month. To make this variable contemporaneous with other series, subsequent statistical work will lead it by 1 month. Except for an annual seasonal, it is noisy enough to be treated as an innovation.

3. In addition, the pricing tests reported below used portfolios that have induced autocorrelations in their returns arising from the nontrading effect.

TABLE 1 Glossary and Definitions of Variables

Symbol	Variable	Definition or Source
	Basic Series	
I	Inflation	Log relative of U.S. Consumer Price Index
TB	Treasury-bill rate	End-of-period return on 1-month bills
LGB	Long-term government bonds	Return on long-term government bonds (1958–78: Ibbotson and Sinquefield [1982]; 1979–83: CRSP)
IP	Industrial production	Industrial production during month (*Survey of Current Business*)
Baa	Low-grade bonds	Return on bonds rated Baa and under (1953–77: Ibbotson [1979], constructed for 1978–83)
EWNY	Equally weighted equities	Return on equally weighted portfolio of NYSE-listed stocks (CRSP)
VWNY	Value-weighted equities	Return on a value-weighted portfolio of NYSE-listed stocks (CRSP)
CG	Consumption	Growth rate in real per capita consumption (Hansen and Singleton [1982]; *Survey of Current Business*)
OG	Oil prices	Log relative of Producer Price Index/Crude Petroleum series (Bureau of Labor Statistics)
	Derived Series	
MP(t)	Monthly growth, industrial production	$\log_e[IP(t)/IP(t-1)]$
YP(t)	Annual growth, industrial production	$\log_e[IP(t)/IP(t-12)]$
E[I(t)]	Expected inflation	Fama and Gibbons (1984)
UI(t)	Unexpected inflation	$I(t) - E[I(t)\|t-1]$
RHO(t)	Real interest (ex post)	$TB(t-1) - I(t)$
DEI(t)	Change in expected inflation	$E[I(t+1)\|t] - E[I(t)\|t-1]$
URP(t)	Risk premium	$Baa(t) - LGB(t)$
UTS(t)	Term structure	$LGB(t) - TB(t-1)$

The monthly series of yearly growth rates, YP(t), was examined because the equity market is related to changes in industrial activity in the long run. Since stock market prices involve the valuation of cash flows over long periods in the future, monthly stock returns may not be highly related to contemporaneous monthly changes in rates of industrial production, although such changes might capture the information pertinent for pricing. This month's change in stock prices probably reflects changes in industrial production anticipated many months into

Exhibit 27.6
Pg. 6 of 21

the future. Therefore, subsequent statistical work will lead this variable by 1 year, similar to the variable used in Fama (1981).

Because of the overlap in the series, YP(t) is highly autocorrelated. A procedure was developed for forecasting expected YP(t) and a series of unanticipated changes in YP(t), and changes in the expectation itself were examined for their influence on pricing. The resulting series offered no discernible advantage over the raw production series, and, as a consequence, they have been dropped from the analysis.[4]

B. Inflation

Unanticipated inflation is defined as

$$\mathrm{UI}(t) = \mathrm{I}(t) - \mathrm{E}[\mathrm{I}(t)|t-1], \tag{5}$$

where I(t) is the realized monthly first difference in the logarithm of the Consumer Price Index for period t. The series of expected inflation, E[I(t)|t − 1] for the period 1953–78, is obtained from Fama and Gibbons (1984). If RHO(t) denotes the ex post real rate of interest applicable in period t and TB(t − 1) denotes the Treasury-bill rate known at the end of period t − 1 and applying to period t, then Fisher's equation asserts that

$$\mathrm{TB}(t-1) = \mathrm{E}[\mathrm{RHO}(t)|t-1] + \mathrm{E}[\mathrm{I}(t)|t-1]. \tag{6}$$

Hence, TB(t − 1) − I(t) measures the ex post real return on Treasury bills in the period. From a time-series analysis of this variable, Fama and Gibbons (1984) constructed a time series for E[RHO(t)|t − 1]. Our expected inflation variable is defined by subtracting their time series for the expected real rate from the TB(t − 1) series.

Another inflation variable that is unanticipated and that might have an influence separable from UI is

$$\mathrm{DEI}(t) = \mathrm{E}[\mathrm{I}(t+1)|t] - \mathrm{E}[\mathrm{I}(t)|t-1], \tag{7}$$

the change in expected inflation. We subscript this variable with t since it is (in principle) unknown at the end of month t − 1. While, strictly speaking, DEI(t) need not have mean zero, under the additional assumption that expected inflation follows a martingale this variable may be treated as an innovation, and it may contain information not present in the UI variable. This would occur whenever inflation forecasts are influenced by economic factors other than past forecasting errors. (Notice that the UI series and the DEI series will contain the information in a series of innovations in the nominal interest rate, TB.)[5]

4. Results that include these series are available in an earlier draft of the paper, which is available from the authors on request.

5. As an aside, the resulting unanticipated inflation variable, UI(t), is perfectly negatively correlated with the unanticipated change in the real rate. This follows from the observation that the Fisher equation (6) holds for realized rates as well as for expectations. The UI(t) series also has a simple correlation of .98 with the unanticipated inflation series in Fama (1981).

C. *Risk Premia*

To capture the effect on returns of unanticipated changes in risk premia, we will employ another variable drawn from the money markets. The variable, UPR, is defined as

$$\text{UPR}(t) = \text{"Baa and under" bond portfolio return } (t) - \text{LGB}(t), \quad (8)$$

where LGB(t) is the return on a portfolio of long-term government bonds obtained from Ibbotson and Sinquefield (1982) for the period 1953–78. From 1979 through 1983, LGB(t) was obtained from the Center for Research in Securities Prices (CRSP) data file. Again, UPR is not formally an innovation, but, as the differences in two return series, it is sufficiently uncorrelated that we can treat it as unanticipated, and we will use it as a member of the set of economic factors.

The low-grade bond return series is for nonconvertible corporate bonds, and it was obtained from R. G. Ibbotson and Company for the period prior to 1977. A detailed description of the sample is contained in Ibbotson (1979). The low-grade series was extended through 1983 by choosing 10 bonds whose ratings on January 1966 were below Baa. By 1978 these bonds still were rated below Baa, but their maturity was shorter than that of the long-term government bond series. These 10 bonds were then combined with three that were left over from the Ibbotson series at the end of 1978 to create a low-grade bond portfolio of 13 bonds in all. The returns on this portfolio were then used to extend the UPR series beyond 1977 and through 1983. Two further difficulties with the series are that the ratings have experienced considerable inflation since the mid-1950s and that the low-grade series contains bonds that are unrated.

The UPR variable would have mean zero in a risk-neutral world, and it is natural to think of it as a direct measure of the degree of risk aversion implicit in pricing (at least insofar as the rating agencies maintain constant standards for their classifications). We hoped that UPR would reflect much of the unanticipated movement in the degree of risk aversion and in the level of risk implicit in the market's pricing of stocks.[6]

D. *The Term Structure*

To capture the influence of the shape of the term structure, we employ another interest rate variable,

$$\text{UTS}(t) = \text{LGB}(t) - \text{TB}(t - 1). \quad (9)$$

6. It could be argued that UPR captures a leverage effect, with highly levered firms being associated with lower ratings. Furthermore, UPR is also similar to a measure of equity returns since a substantial portion of the value of low-grade bonds comes from the same sort of call option (behind secured debt) as for ordinary stock.

Again, under the appropriate form of risk neutrality,

$$E[UTS(t)|t - 1] = 0, \tag{10}$$

and this variable can be thought of as measuring the unanticipated return on long bonds. The assumption of risk neutrality is used only to isolate the pure term-structure effects; the variable UPR is used to capture the effect of changes in risk aversion.

E. Market Indices

The major thrust of our effort is to examine the relation between nonequity economic variables and stock returns. However, because of the smoothing and averaging characteristics of most macroeconomic time series, in short holding periods, such as a single month, these series cannot be expected to capture all the information available to the market in the same period. Stock prices, on the other hand, respond very quickly to public information. The effect of this is to guarantee that market returns will be, at best, weakly related and very noisy relative to innovations in macroeconomic factors.

This should bias our results in favor of finding a stronger linkage between the time-series returns on market indices and other portfolios of stock returns than between these portfolio returns and innovations in the macro variables. To examine the relative pricing influence of the traditional market indices we used the following variables:

$$\begin{aligned} EWNY(t) &= \text{return on the equally weighted NYSE index;} \\ VWNY(t) &= \text{return on the value-weighted NYSE index.} \end{aligned} \tag{11}$$

These variables should reflect both the real information in the industrial production series and the nominal influence of the inflation variables.

F. Consumption

In addition to the macro variables discussed above, we also examined a time series of percentage changes in real consumption, CG. The series is in real per capita terms and includes service flows. It was constructed by dividing the CITIBASE series of seasonally adjusted real consumption (excluding durables) by the Bureau of Census's monthly population estimates. The CG series extends from January 1959 to December 1983, and it is an extension of a series obtained from Lars Hansen for the period through 1979. A detailed description of its construction can be found in Hansen and Singleton (1983).

G. Oil Prices

It is often argued that oil prices must be included in any list of the systematic factors that influence stock market returns and pricing. To test this proposition and to examine another alternative to the macro variables discussed above, we formed the OG series of realized

monthly first differences in the logarithm of the Producer Price Index/ Crude Petroleum series (obtained from the Bureau of Labor Statistics, U.S. Department of Labor, DRI series no. 3884). The glossary in table 1 summarizes the variables.

H. Statistical Characteristics of the Macro Variables

Table 2 displays the correlation matrix for the state variables. The correlation matrices of table 2 are computed for several different pe-

TABLE 2 Correlation Matrices for Economic Variables

Symbol	EWNY	VWNY	MP	DEI	UI	UPR	UTS
	A. January 1953–November 1983						
VWNY	.916						
MP	.103	.020					
DEI	−.163	−.119	.063				
UI	−.163	−.112	−.067	.378			
UPR	.105	.042	.216	.266	.018		
UTS	.227	.248	−.159	−.394	−.103	−.752	
YP	.270	.270	.139	−.003	−.005	.113	.099
	B. January 1953–December 1972						
VWNY	.930						
MP	.147	.081					
DEI	−.130	−.122	.020				
UI	−.081	−.021	−.203	.388			
UPR	.265	.214	.213	.068	−.072		
UTS	.110	.108	−.059	−.210	−.041	−.688	
YP	.260	.238	.128	−.013	−.032	.128	.063
	C. January 1973–December 1977						
VWNY	.883						
MP	.022	−.118					
DEI	−.314	−.263	.004				
UI	−.377	−.352	−.004	.505			
UPR	.341	.231	.227	.032	−.289		
UTS	.217	.313	−.350	−.280	.026	−.554	
YP	.335	.361	.107	−.124	−.334	.221	.174
	D. January 1978–November 1983						
VWNY	.937						
MP	.092	−.010					
DEI	−.143	−.073	.169				
UI	−.055	−.024	.168	.375			
UPR	−.275	−.319	.248	.458	.259		
UTS	.424	.431	−.277	−.512	−.239	−.890	
YP	.269	.261	.193	.053	.247	.018	.115

NOTE.—VWNY = return on the value-weighted NYSE index; EWNY = return on the equally weighted NYSE index; MP = monthly growth rate in industrial production; DEI = change in expected inflation; UI = unanticipated inflation; UPR = unanticipated change in the risk premium (Baa and under return − long-term government bond return); UTS = unanticipated change in the term structure (long-term government bond return − Treasury-bill rate); and YP = yearly growth rate in industrial production.

TABLE 3 Autocorrelations of the Economic Variables, January 1953–November 1983

Symbol	ρ_1	ρ_2	ρ_3	ρ_4	ρ_5	ρ_6	ρ_7	ρ_8	ρ_9	ρ_{10}	ρ_{11}	ρ_{12}	Adjusted Box/Pierce (24)
YP	.9615	.8896	.7937	.6838	.5658	.4477	.3290	.2088	.0919	−.0196	−.1233	−.2109	1,639
MP	−.0990	−.1711	−.1204	.0413	.0778	.0241	.0765	.0240	−.1558	−.2122	−.1914	.8030	632.9
DEI	−.0432	−.0864	−.0094	−.0719	.0284	.0130	−.0874	.1662	.1101	−.0290	.0297	.0007	43.33
UI	.1804	.1314	.0567	.0483	.0490	−.0454	−.0398	.0535	.1391	.1536	.1361	.1875	85.50
UPR	−.1053	.0491	−.1340	.0882	−.0196	.0422	−.1297	.0117	−.0494	−.0733	.0834	.0264	52.81
UTS	.0267	−.0052	−.1637	.0383	.0739	.0750	−.0929	−.0278	.0023	−.0105	.1693	−.0029	57.15
CG	−.2458	−.0269	.1190	.0192	−.0460	.0082	.0497	−.0496	.0121	.0470	.1364	−.1324	53.06
OG	.4088	.2194	.1523	.1613	.0954	.1447	.1594	.0674	.0969	.0976	.0609	−.0038	159.0
EWNY	.1447	−.0133	.0141	.0554	.0518	−.0213	−.0959	−.0861	.0072	−.0140	.0043	.0997	40.43
VWNY	.0677	−.0223	.0456	.0936	.0909	−.0755	−.0779	−.0258	.0147	−.0515	−.0320	.0655	37.24

NOTE.—YP = yearly growth rate in industrial production; MP = monthly growth rate in industrial production; DEI = change in expected inflation; UI = unanticipated inflation; UPR = unanticipated change in the risk premium (Baa and under return − long-term government bond return); UTS = unanticipated change in the term structure (long-term government bond return − Treasury-bill rate); CG = growth rate in real per capita consumption; OG = growth rate in oil prices; EWNY = return on the equally weighted NYSE index; and VWNY = return on the value-weighted NYSE index.

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riods; part A covers the entire 371-month sample period from January 1953 through November 1983, and the remaining parts cover three subperiods, with breaks at December 1977 and January 1973. We have broken the sample at this time because it is often argued that the oil price jump in 1973 presaged a structural shift in the macro variables. (The work of Litterman and Weiss [1983] supports this view, but, although we have performed no formal tests, the correlation matrix does not appear to differ markedly across the subperiods.)

With the exception of the market indices, the strongest correlation is between UPR and UTS. This is to be expected since they both use the long-term bond series, LGB(t). The resulting collinearity tends to weaken the individual impact of these variables. Substituting an Aaa corporate bond series for treasuries in the definition of UPR did, in fact, improve the significance of both UPR and UTS, but the improvement was not sufficiently important to make a qualitative difference in our findings.

The production series, YP and MP, are correlated with each other and with each of the other variables except DEI and UI, which are also strongly correlated. These latter two series are correlated because they both contain the EI(t) series, and the negative correlation between DEI and UTS occurs for a similar reason. A number of other correlations are not negligible, but the variables are far from perfectly correlated, and no one variable can be substituted for any other.

Table 3 displays the autocorrelations for the state variables computed over the entire sample period, January 1953–November 1983. There are no surprises here; as expected, YP is highly autocorrelated. The variables generally display mild autocorrelations, and many of them have seasonals at the 12-month lag. The MP series, in particular, has a peak in its lag at 12 months (repeated at 24 months), warning that this variable is highly seasonal. As noted above, the autocorrelation in the state variables implies the existence of an errors-in-variables problem that will bias estimates of the loadings of the stock returns on these variables and will bias downward estimates of statistical significance.

IV. The Economic State Variables and Asset Pricing

A. Basic Results

Using the state variables[7] defined above implies that individual stock returns follow a factor model of the form

7. We did the following experiment to find out if asset prices do, in fact, react to news associated with our proposed economic state variables. We first extracted the most important stock factors (common covariations) during the period 1953–72, using the Chen (1983) algorithm. Five factors were chosen on the basis of previous empirical studies (see Roll and Ross 1980; Brown and Weinstein 1983). The factors can be thought of as portfolios constructed to capture the common movements in stock market returns.

$$R = a + b_{MP}MP + b_{DEI}DEI + b_{UI}UI + b_{UPR}UPR + b_{UTS}UTS + e, \quad (12)$$

where the betas are the loadings on the state variables, a is the constant term, and e is an idiosyncratic error term. To ascertain whether the identified economic state variables are related to the underlying factors that explain pricing in the stock market, a version of the Fama-MacBeth (1973) technique was employed. The procedure was as follows. (*a*) A sample of assets was chosen. (*b*) The assets' exposure to the economic state variables was estimated by regressing their returns on the unanticipated changes in the economic variables over some estimation period (we used the previous 5 years). (*c*) The resulting estimates of exposure (betas) were used as the independent variables in 12 cross-sectional regressions, one regression for each of the next 12 months, with asset returns for the month being the dependent variable. Each coefficient from a cross-sectional regression provides an estimate of the sum of the risk premium, if any, associated with the state variable and the unanticipated movement in the state variable for that month. (*d*) Steps *b* and *c* were then repeated for each year in the sample, yielding for each macro variable a time series of estimates of its associated risk premium. The time-series means of these estimates were then tested by a *t*-test for significant difference from zero.

To control the errors-in-variables problem that arises from the use at step *c* of the beta estimates obtained in step *b* and to reduce the noise in individual asset returns, the securities were grouped into portfolios. An effort was made to construct the portfolios so as to spread their expected returns over a wide range in an effort to improve the discriminatory power of the cross-sectional regression tests. To accomplish this spreading we formed portfolios on the basis of firm size. Firm size is known to be strongly related to average return (see Banz 1981), and we hoped that it would provide the desired dispersion without biasing the tests of the economic variables. (It has been facetiously noted that size may be the best theory we now have of expected returns. Unfortunately, this is less of a theory than an empirical observation.)[8]

The time series of those five factors were then each regressed on the state variables. An economic variable is significantly related to stock movements if and only if it is significantly related to at least one of the five common stock factors. The null hypothesis for each variable is the restriction across the equations that the five regression coefficients for that variable (one to each of the factor regressions) are jointly zero. The null hypothesis was rejected for the production growth, the term structure, and the risk premium variables. The support for the inflation variables, however, was weak. When a market index was included in the list of state variables, the significance of the other variables remained unchanged, except for the production variable, which became insignificantly related to the time series of the factors.

8. A number of alternative experiments were run in which securities were grouped into portfolios according to (*a*) their betas on a market index, (*b*) the standard deviation of their returns in a market-model regression (i.e., their residual variability), and (*c*) the

Table 4 reports the results of these tests on 20 equally weighted portfolios, grouped according to the total market values of their constituent securities at the beginning of each test period. Each part of table 4 is broken into four subperiods beginning with January 1958, the first month preceded by the requisite 60 months of data used to estimate exposures. Part A of table 4 examines the state variables, YP, MP, DEI, UI, UPR, and UTS. Over the entire sample period MP, UI, and UPR are significant, while UTS is marginally so. The inflation-related variables, DEI and UI, were highly significant in the 1968–77 period and insignificant both earlier and later. The yearly production series, YP, was not significant in any subperiod, and, as can be seen from part B, deleting it had no substantive effect on the remaining state variables. Although the coefficients have the same signs as in the overall period, they are generally smaller in absolute magnitude and less significant in the last subperiod, 1978–84.[9]

While we have not developed a theoretical foundation for the signs of the state variables, it is worth noting that their signs are, at least, plausible. The positive sign on MP reflects the value of insuring against real systematic production risks. Similarly, UPR has a positive risk premium since individuals would want to hedge against unanticipated increases in the aggregate risk premium occasioned by an increase in uncertainty. Since changes in inflation have the general effect of shifting wealth among investors, there is no strong a priori presumption that would sign the risk premia for UI or DEI, but the negative signs on the premia for these variables probably mean that stock market assets are generally perceived to be hedges against the adverse influence on other assets that are, presumably, relatively more fixed in nominal terms.

As for UTS, the negative risk premium indicates that stocks whose returns are inversely related to increases in long rates over short rates are, ceteris paribus, more valuable. One interpretation of this result is that UTS measures a change in the long-term real rate of interest (remember that inflation effects are included in the other variables). After long-term real rates decrease, there is subsequently a lower real return on any form of capital. Investors who want protection against this possibility will place a relatively higher value on assets whose price increases when long-term real rates decline, and such assets will carry a negative risk premium. Thus, stocks whose returns are cor-

level of the stock price. These efforts were not successful. The first two of these grouping techniques failed completely to spread portfolio returns out of sample and had to be discarded. Grouping by the level of the stock price did spread returns, although not as well as did size, but the state variables were then individually only marginally significant, and the market indices were of no significance. The sensitivity of the results to different grouping techniques is an important area for research.

9. This subperiod had only about two-thirds as many observations as did the first two subperiods.

TABLE 4 **Economic Variables and Pricing (Percent per Month × 10), Multivariate Approach**

A

Years	YP	MP	DEI	UI	UPR	UTS	Constant
1958–84	4.341	13.984	−.111	−.672	7.941	−5.87	4.112
	(.538)	(3.727)	(−1.499)	(−2.052)	(2.807)	(−1.844)	(1.334)
1958–67	.417	15.760	.014	−.133	5.584	.535	4.868
	(.032)	(2.270)	(.191)	(−.259)	(1.923)	(.240)	(1.156)
1968–77	1.819	15.645	−.264	−1.420	14.352	−14.329	−2.544
	(.145)	(2.504)	(−3.397)	(−3.470)	(3.161)	(−2.672)	(−.464)
1978–84	13.549	8.937	−.070	−.373	2.150	−2.941	12.541
	(.774)	(1.602)	(−.289)	(−.442)	(.279)	(−.327)	(1.911)

B

	MP	DEI	UI	UPR	UTS	Constant
1958–84	13.589	−.125	−.629	7.205	−5.211	4.124
	(3.561)	(−1.640)	(−1.979)	(2.590)	(−1.690)	(1.361)
1958–67	13.155	.006	−.191	5.560	−.008	4.989
	(1.897)	(.092)	(−.382)	(1.935)	(−.004)	(1.271)
1968–77	16.966	−.245	−1.353	12.717	−13.142	−1.889
	(2.638)	(−3.215)	(−3.320)	(2.852)	(−2.554)	(−.334)
1978–84	9.383	−.140	−.221	1.679	−1.312	11.477
	(1.588)	(−.552)	(−.274)	(.221)	(−.149)	(1.747)

C

	EWNY	MP	DEI	UI	UPR	UTS	Constant
1958–84	5.021	14.009	−.128	−.848	8.130	−5.017	6.409
	(1.218)	(3.774)	(−1.666)	(−2.541)	(2.855)	(−1.576)	(1.848)
1958–67	6.575	14.936	−.005	−.279	5.747	−.146	7.349
	(1.199)	(2.336)	(−.060)	(−.558)	(2.070)	(−.067)	(1.591)
1968–77	2.334	17.593	−.248	−1.501	12.512	−9.904	3.542
	(.283)	(2.715)	(−3.039)	(−3.366)	(2.758)	(−2.015)	(.558)
1978–84	6.638	7.563	−.132	−.729	5.273	−4.993	9.164
	(.906)	(1.253)	(−.529)	(−.847)	(.663)	(−.520)	(1.245)

D

	VWNY	MP	DEI	UI	UPR	UTS	Constant
1958–84	−2.403	11.756	−.123	−.795	8.274	−5.905	10.713
	(−.633)	(3.054)	(−1.600)	(−2.376)	(2.972)	(−1.879)	(2.755)
1958–67	1.359	12.394	.005	−.209	5.204	−.086	9.527
	(.277)	(1.789)	(.064)	(−.415)	(1.815)	(−.040)	(1.984)
1968–77	−5.269	13.466	−.255	−1.421	12.897	−11.708	8.582
	(−.717)	(2.038)	(−3.237)	(−3.106)	(2.955)	(−2.299)	(1.167)
1978–84	−3.683	8.402	−.116	−.739	6.056	−5.928	15.452
	(−.491)	(1.432)	(−.458)	(−.869)	(.782)	(−.644)	(1.867)

NOTE.—VWNY = return on the value-weighted NYSE index; EWNY = return on the equally weighted NYSE index; MP = monthly growth rate in industrial production; DEI = change in expected inflation; UI = unanticipated inflation; UPR = unanticipated change in the risk premium (Baa and under return − long-term government bond return); UTS = unanticipated change in the term structure (long-term government bond return − Treasury-bill rate); and YP = yearly growth rate in industrial production. *t*-statistics are in parentheses.

related with long-term bond returns, abstracting from unanticipated changes in inflation or in expected inflation and holding all other characteristics equal, will be more valuable than stocks that are uncorrelated or negatively correlated with long-term bond returns.

To test the pricing influence on the market indices, EWNY and VWNY were added to the set of state variables (actually, they were substituted for YP). It would not be inconsistent with asset-pricing theory to discover, for example, that the betas on the market portfolio were sufficient to capture the pricing impact of the macroeconomic state variables, and it would certainly rationalize past efforts that have focused on examining the efficiency of a market index. In some sense, then, an important test of the independent explanatory influence of the macroeconomic variables on pricing is to see how they fare in direct competition with a market index.

Parts C and D of table 4 report the results of such tests. Using the EWNY as a substitute for YP and including MP, DEI, UI, UPR, and UTS, we find in part C that the market index fails to have a statistically significant effect on pricing in any subperiod. On the other hand, the original macroeconomic variables have about the same significance as they did in part B. Nor are these results affected by the choice of market index; part D of table 4 reports similar results when using the VWNY.

By contrast with the tests reported in table 4, table 5 reports on tests that purposely have been designed to enhance the impact of the market indices. The tests discussed above were "fair" in the sense that the time-series regressions that measured the betas and the subsequent cross-sectional regressions that estimated their pricing influence gave each variable an a priori equal opportunity to be significant; that is, the design treated the variables in a symmetric fashion. The tests reported in table 5 are asymmetric in that they are weighted a priori to favor the market indices.

The tests in table 4 can be interpreted from the perspective of the arbitrage pricing theory. They are tests of whether the set of economic variables can be usefully augmented by the inclusion of a market index. In this sense they are tests of whether the market contains missing priced factors or, alternatively, whether the factors fail to have pricing significance as against the market. The tests in table 5 are best interpreted as tests whose null hypothesis is the CAPM, or, rather more simply, the efficiency of the index. If the index is efficient, then the factors should not improve on its pricing ability. Of course, all these interpretations are subject to the caveat that the factors may only help to improve the estimate of the "true" market portfolio either by accounting for missing assets or through their correlations with measurement errors in the market beta estimates.

TABLE 5 Economic Variables and Pricing

Years	VWNY	MP	DEI	UI	UPR	UTS	Constant
				A			
1958–84	14.527	...	...	...	...	...	−5.831
	(2.356)						(−.961)
1958–67	5.005	...	...	...	...	...	6.853
	(.673)						(.928)
1968–77	17.987	...	...	...	...	...	−15.034
	(1.460)						(−1.254)
1978–84	23.187	...	...	...	...	...	−10.802
	(1.935)						(−.907)
				B			
1958–84	−9.989	12.185	−.145	−.912	9.812	−5.448	10.714
	(−2.014)	(3.153)	(−1.817)	(−2.590)	(3.355)	(−1.609)	(2.755)
1958–67	−5.714	13.024	.004	−.193	6.104	−.593	9.527
	(−1.008)	(1.852)	(.057)	(−.369)	(1.994)	(−.260)	(1.983)
1968–77	−17.396	14.467	−.291	−1.614	14.367	−9.227	8.584
	(−1.824)	(2.214)	(−3.388)	(−3.297)	(3.128)	(−1.775)	(1.167)
1978–84	−5.515	7.725	−.150	−.935	8.602	−6.986	15.454
	(−.513)	(1.303)	(−.574)	(−1.051)	(1.064)	(−.681)	(1.867)
				C			
1958–84	11.507	10.487	−.190	−.738	8.126	−7.073	−3.781
	(1.189)	(2.761)	(−2.459)	(−2.215)	(2.869)	(−2.194)	(−.402)
1958–67	22.311	9.597	.001	−.163	3.186	.697	−11.734
	(1.950)	(1.494)	(.012)	(−.341)	(1.474)	(.337)	(−1.015)
1968–77	11.689	13.381	−.293	−1.422	13.007	−12.981	−9.488
	(.622)	(1.947)	(−3.590)	(−2.814)	(2.697)	(−2.214)	(−.526)
1978–84	−4.188	7.624	−.316	−.584	8.211	−9.735	15.732
	(−.207)	(1.286)	(−1.246)	(−.716)	(1.039)	(−1.123)	(.803)

NOTE.—VWNY = return on the value-weighted NYSE index; EWNY = return on the equally weighted NYSE index; MP = monthly growth rate in industrial production; DEI = change in expected inflation; UI = unanticipated inflation; UPR = unanticipated change in the risk premium (Baa and under return − long-term government bond return); and UTS = unanticipated change in the term structure (long-term government bond return − Treasury-bill rate). *t*-statistics are in parentheses.

Part A of table 5 reports the results of a simple test of the pricing influence of the ordinary CAPM betas computed from the VWNY index in the absence of the state variables. The VWNY-index betas are significant and positively related to average returns over the entire period, although they are significant only in the last subperiod. Part B of table 5 reports a more demanding test of the pricing influence of the index. These results differ from part D of table 4 because the cross sections were run with the simple betas for the VWNY index (instead of betas from a multivariate time-series regression). The betas for the state variables came from multivariate time-series regressions with only those variables included (they are the same as those used in part B of table 4). The VWNY betas are significant over the entire period but

appear with a negative sign, and a comparison with part B of table 4 reveals that neither the coefficients nor the significance of the factor betas is altered substantially by the inclusion of the market index. (The results for the EWNY were essentially the same.)

Part C of table 5 reports on a final test in which, instead of estimating the index betas for the VWNY in the same fashion as for the other variables, the estimates were obtained from a single multiple regression that was run over the testing period from 1958 to 1983. The resulting market-index beta estimates were then used in each of the cross-sectional tests along with the betas for the other variables. The betas for the other variables were estimated as before, from time-series multiple regressions. (The betas for variables other than the market index came from part D of table 4.) It was thought that using the index-beta estimates from the testing period would lessen the ability of the other variables to show up as significant in pricing merely through their correlation with measurement errors in the index betas. Once again, the market index was insignificant overall, and the other variables were unaltered by its inclusion. The results for the EWNY were similar and are not reported.

The insignificance for pricing of the stock market indices contrasts sharply with their significance in time series. In the time-series regressions, EWNY and VWNY were by far the most statistically significant variables. For example, the average t-statistics for EWNY ranged between 11.7 and 29.9 over the 20 portfolios. The largest t-statistic for any other variable was only 3.4 when the indices were not included (for UPR and the smallest portfolio), and this fell to 2.5 when the VWNY was included, and most were considerably smaller. Although stock market indices "explain" much of the intertemporal movements in other stock portfolios, their estimated exposures (their betas) do not explain cross-sectional differences in average returns after the betas of the economic state variables have been included. This suggests that the "explanatory power" of the market indices may have less to do with economics and more to do with the statistical observation that large, positively weighted portfolios of random variables are correlated.

B. Consumption and Asset Pricing

Because of the current interest in consumption-based asset pricing models, we also examined the influence of the real consumption series. In a one-good intertemporal asset-pricing model, assets will be priced according to their covariances with aggregate (marginal utility of) consumption (see Lucas 1978; Breeden 1980; or Cox et al. 1985). There is nothing in this analysis that requires that consumption represents any particular state variable, and, in fact, the model is consistent with multistate descriptions of the economy. As a consequence, consumption-based theories predict that, when factors that represent state vari-

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ables are included along with consumption, they will be rejected as having an influence on pricing.

Put formally, the consumption beta theories argue that

$$E - r = b_c^* k, \tag{13}$$

where $E - r$ is the vector of excess returns, k is a risk-premium measure, and b_c is the vector of consumption betas. The intuition of the theory is that individuals will adjust their intertemporal consumption streams so as to hedge against changes in the opportunity set. In equilibrium, assets that move with consumption, that is, assets for which $b_c > 0$, will be less valuable than will those that can insure against adverse movements in consumption, that is, those for which $b_c < 0$. It follows from risk aversion that the risk-premium measure, k, should be positive.

The alternative hypothesis that we will examine states that

$$E - r = b_c^* k + b_q^*, \tag{14}$$

where b is a vector of betas on the economic state variables used above, and q is the vector of associated risk premia. The null hypothesis of the consumption beta models would be that k is positive and that q is zero. Of course, it can always be argued that the other variables pick up changes in the relative pricing of different consumption goods or correct errors in the measurement of real consumption. Alternatively, although our updating procedure is an attempt to deal with intertemporal changes in the beta coefficients, it could also be argued that the factors could be correlated with such changes (see Cornell [1981] for a discussion of this possibility).

Table 6 reports the results of these tests using the CG series of real per capita consumption growth described in Section III. Because of data collection timing, the CG series, like the monthly production series, MP, may actually measure consumption changes with a lag. To deal with this problem, we led the CG series forward by 1 month. The results with the contemporaneous CG series are uniformly less favorable for its pricing influence and are not reported.

TABLE 6 Pricing with Consumption

Years	CG	MP	DEI	UI	UPR	UTS	Constant
1964–84	.68	14.964	−.166	−.846	8.813	−6.921	2.289
	(.108)	(3.800)	(−1.741)	(−2.250)	(2.584)	(−1.790)	(.628)
1964–77	−.485	18.150	.166	−.946	11.442	−9.191	−1.910
	(−.659)	(3.535)	(−2.419)	(−2.494)	(3.288)	(−2.412)	(−.442)
1978–84	1.173	8.592	−.166	−.645	3.556	−2.382	10.687
	(.998)	(1.476)	(−.659)	(−.770)	(.474)	(−.272)	(1.609)

NOTE.—t-statistics are in parentheses.

TABLE 7 Pricing with Oil Price Changes

Years	OG	MP	DEI	UI	UPR	UTS	Constant
1958–84	2.930	12.728	−.095	−.391	11.844	−8.726	4.300
	(.996)	(1.406)	(−1.193)	(−1.123)	(4.294)	(−2.770)	(1.340)
1958–67	4.955	14.409	.078	.119	8.002	−1.022	2.663
	(1.978)	(.921)	(1.102)	(.204)	(2.604)	(−.421)	(.556)
1968–77	1.038	4.056	−.223	−1.269	16.170	−16.055	−1.344
	(.251)	(.296)	(−2.737)	(−2.975)	(3.839)	(−3.154)	(−.243)
1978–84	2.738	22.718	−.159	.134	11.152	−9.264	14.702
	(.303)	(1.228)	(−.598)	(.156)	(1.465)	(−1.024)	(2.240)

NOTE.—CG = growth rate in real per capita consumption; OG = growth rate in oil prices; VWNY = return on the value-weighted NYSE index; EWNY = return on the equally weighted NYSE index; MP = monthly growth rate in industrial production; DEI = change in expected inflation; UI = unanticipated inflation; UPR = unanticipated change in the risk premium (Baa and under return − long-term government bond return); and UTS = unanticipated change in the term structure (long-term government bond return − Treasury-bill rate). *t*-statistics are in parentheses.

Since the CG series begins in 1959, the tests were conducted only for the period beginning in 1964, 5 years later. In these tests the consumption betas and the factor betas are estimated simultaneously and then the risk premia are measured from the cross-sectional tests. Over the entire period and in no subperiod are the consumption betas significant for pricing. Furthermore, their signs are negative, and a comparison with the results of part B of table 4 shows that the coefficients and the significance of the state variables are unaltered by the presence of the CG betas.

To summarize the results of this subsection, the rate of change in consumption does not seem to be significantly related to asset pricing. The estimated risk premium is insignificant and has the wrong sign.

C. Oil and Asset Pricing

Oil prices are often mentioned as being an important economic factor even though there is no a priori reason to believe that innovations in oil prices should have the same degree of influence as, for example, interest rate variables or industrial production. To examine the independent influence of oil prices on asset pricing, we used the methods described above to test the impact of the OG series of petroleum price changes.

Table 7 reports on these tests. As with the consumption tests, the OG series was led by 1 month to enhance its influence. The oil betas were insignificant for pricing in the overall period and in two of the subperiods. As a comparison with part B of table 4 shows, inclusion of oil growth did reduce the significance of industrial production, but it increased the significance of the risk-premium variable (UPR) and the term-structure variable (UTS). The risk associated with oil price changes was not priced in the stock market during the critical 1968–77 subperiod, when the OPEC cartel became important (or in the later subperiods).

V. Conclusion

This paper has explored a set of economic state variables as systematic influences on stock market returns and has examined their influence on asset pricing. From the perspective of efficient-market theory and rational expectations intertemporal asset-pricing theory (see Cox et al. 1985), asset prices should depend on their exposures to the state variables that describe the economy. (This conclusion is consistent with the asset-pricing theories of Merton [1973], Cox et al. [1985], or the APT [Ross 1976].)

In Part II of this paper we used simple arguments to choose a set of economic state variables that, a priori, were candidates as sources of systematic asset risk. Several of these economic variables were found to be significant in explaining expected stock returns, most notably, industrial production, changes in the risk premium, twists in the yield curve, and, somewhat more weakly, measures of unanticipated inflation and changes in expected inflation during periods when these variables were highly volatile. We do not claim, of course, that we have exhaustively characterized the set of influential macro variables, but the set that was chosen performed well against several other potential pricing variables. Perhaps the most striking result is that even though a stock market index, such as the value-weighted New York Stock Exchange index, explains a significant portion of the time-series variability of stock returns, it has an insignificant influence on pricing (i.e., on expected returns) when compared against the economic state variables. We also examined the influence on pricing of exposure to innovations in real per capita consumption. These results are quite disappointing to consumption-based asset-pricing theories; the consumption variable was never significant. Finally, we examined the impact of an index of oil price changes on asset pricing and found no overall effect.

Our conclusion is that stock returns are exposed to systematic economic news, that they are priced in accordance with their exposures, and that the news can be measured as innovations in state variables whose identification can be accomplished through simple and intuitive financial theory.

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FPUC – Natural Gas
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FPSC – Data Request No.1
Exhibit 27.7

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The Cross-Section of Expected Stock Returns

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ABSTRACT

Two easily measured variables, size and book-to-market equity, combine to capture the cross-sectional variation in average stock returns associated with market β, size, leverage, book-to-market equity, and earnings-price ratios. Moreover, when the tests allow for variation in β that is unrelated to size, the relation between market β and average return is flat, even when β is the only explanatory variable.

THE ASSET-PRICING MODEL OF Sharpe (1964), Lintner (1965), and Black (1972) has long shaped the way academics and practitioners think about average returns and risk. The central prediction of the model is that the market portfolio of invested wealth is mean-variance efficient in the sense of Markowitz (1959). The efficiency of the market portfolio implies that (a) expected returns on securities are a positive linear function of their market βs (the slope in the regression of a security's return on the market's return), and (b) market βs suffice to describe the cross-section of expected returns.

There are several empirical contradictions of the Sharpe-Lintner-Black (SLB) model. The most prominent is the size effect of Banz (1981). He finds that market equity, ME (a stock's price times shares outstanding), adds to the explanation of the cross-section of average returns provided by market βs. Average returns on small (low ME) stocks are too high given their β estimates, and average returns on large stocks are too low.

Another contradiction of the SLB model is the positive relation between leverage and average return documented by Bhandari (1988). It is plausible that leverage is associated with risk and expected return, but in the SLB model, leverage risk should be captured by market β. Bhandari finds, however, that leverage helps explain the cross-section of average stock returns in tests that include size (ME) as well as β.

Stattman (1980) and Rosenberg, Reid, and Lanstein (1985) find that average returns on U.S. stocks are positively related to the ratio of a firm's book value of common equity, BE, to its market value, ME. Chan, Hamao, and Lakonishok (1991) find that book-to-market equity, BE/ME, also has a strong role in explaining the cross-section of average returns on Japanese stocks.

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Finally, Basu (1983) shows that earnings-price ratios (E/P) help explain the cross-section of average returns on U.S. stocks in tests that also include size and market β. Ball (1978) argues that E/P is a catch-all proxy for unnamed factors in expected returns; E/P is likely to be higher (prices are lower relative to earnings) for stocks with higher risks and expected returns, whatever the unnamed sources of risk.

Ball's proxy argument for E/P might also apply to size (ME), leverage, and book-to-market equity. All these variables can be regarded as different ways to scale stock prices, to extract the information in prices about risk and expected returns (Keim (1988)). Moreover, since E/P, ME, leverage, and BE/ME are all scaled versions of price, it is reasonable to expect that some of them are redundant for describing average returns. Our goal is to evaluate the joint roles of market β, size, E/P, leverage, and book-to-market equity in the cross-section of average returns on NYSE, AMEX, and NASDAQ stocks.

Black, Jensen, and Scholes (1972) and Fama and MacBeth (1973) find that, as predicted by the SLB model, there is a positive simple relation between average stock returns and β during the pre-1969 period. Like Reinganum (1981) and Lakonishok and Shapiro (1986), we find that the relation between β and average return disappears during the more recent 1963–1990 period, even when β is used alone to explain average returns. The appendix shows that the simple relation between β and average return is also weak in the 50-year 1941–1990 period. In short, our tests do not support the most basic prediction of the SLB model, that average stock returns are positively related to market βs.

Unlike the simple relation between β and average return, the univariate relations between average return and size, leverage, E/P, and book-to-market equity are strong. In multivariate tests, the negative relation between size and average return is robust to the inclusion of other variables. The positive relation between book-to-market equity and average return also persists in competition with other variables. Moreover, although the size effect has attracted more attention, book-to-market equity has a consistently stronger role in average returns. Our bottom-line results are: (a) β does not seem to help explain the cross-section of average stock returns, and (b) the combination of size and book-to-market equity seems to absorb the roles of leverage and E/P in average stock returns, at least during our 1963–1990 sample period.

If assets are priced rationally, our results suggest that stock risks are multidimensional. One dimension of risk is proxied by size, ME. Another dimension of risk is proxied by BE/ME, the ratio of the book value of common equity to its market value.

It is possible that the risk captured by BE/ME is the relative distress factor of Chan and Chen (1991). They postulate that the earning prospects of firms are associated with a risk factor in returns. Firms that the market judges to have poor prospects, signaled here by low stock prices and high ratios of book-to-market equity, have higher expected stock returns (they are penalized with higher costs of capital) than firms with strong prospects. It is

also possible, however, that BE/ME just captures the unraveling (regression toward the mean) of irrational market whims about the prospects of firms.

Whatever the underlying economic causes, our main result is straightforward. Two easily measured variables, size (ME) and book-to-market equity (BE/ME), provide a simple and powerful characterization of the cross-section of average stock returns for the 1963–1990 period.

In the next section we discuss the data and our approach to estimating β. Section II examines the relations between average return and β and between average return and size. Section III examines the roles of E/P, leverage, and book-to-market equity in average returns. In sections IV and V, we summarize, interpret, and discuss applications of the results.

I. Preliminaries

A. Data

We use all nonfinancial firms in the intersection of (a) the NYSE, AMEX, and NASDAQ return files from the Center for Research in Security Prices (CRSP) and (b) the merged COMPUSTAT annual industrial files of income-statement and balance-sheet data, also maintained by CRSP. We exclude financial firms because the high leverage that is normal for these firms probably does not have the same meaning as for nonfinancial firms, where high leverage more likely indicates distress. The CRSP returns cover NYSE and AMEX stocks until 1973 when NASDAQ returns also come on line. The COMPUSTAT data are for 1962–1989. The 1962 start date reflects the fact that book value of common equity (COMPUSTAT item 60), is not generally available prior to 1962. More important, COMPUSTAT data for earlier years have a serious selection bias; the pre-1962 data are tilted toward big historically successful firms.

To ensure that the accounting variables are known before the returns they are used to explain, we match the accounting data for all fiscal yearends in calendar year $t - 1$ (1962–1989) with the returns for July of year t to June of $t + 1$. The 6-month (minimum) gap between fiscal yearend and the return tests is conservative. Earlier work (e.g., Basu (1983)) often assumes that accounting data are available within three months of fiscal yearends. Firms are indeed required to file their 10-K reports with the SEC within 90 days of their fiscal yearends, but on average 19.8% do not comply. In addition, more than 40% of the December fiscal yearend firms that do comply with the 90-day rule file on March 31, and their reports are not made public until April. (See Alford, Jones, and Zmijewski (1992).)

We use a firm's market equity at the end of December of year $t - 1$ to compute its book-to-market, leverage, and earnings-price ratios for $t - 1$, and we use its market equity for June of year t to measure its size. Thus, to be included in the return tests for July of year t, a firm must have a CRSP stock price for December of year $t - 1$ and June of year t. It must also have monthly returns for at least 24 of the 60 months preceding July of year t (for

"pre-ranking" β estimates, discussed below). And the firm must have COMPUSTAT data on total book assets (A), book equity (BE), and earnings (E), for its fiscal year ending in (any month of) calendar year $t - 1$.

Our use of December market equity in the E/P, BE/ME, and leverage ratios is objectionable for firms that *do not* have December fiscal yearends because the accounting variable in the numerator of a ratio is not aligned with the market value in the denominator. Using ME at fiscal yearends is also problematic; then part of the cross-sectional variation of a ratio for a given year is due to market-wide variation in the ratio during the year. For example, if there is a general fall in stock prices during the year, ratios measured early in the year will tend to be lower than ratios measured later. We can report, however, that the use of fiscal-yearend MEs, rather than December MEs, in the accounting ratios has little impact on our return tests.

Finally, the tests mix firms with different fiscal yearends. Since we match accounting data for all fiscal yearends in calendar year $t - 1$ with returns for July of t to June of $t + 1$, the gap between the accounting data and the matching returns varies across firms. We have done the tests using the smaller sample of firms with December fiscal yearends with similar results.

B. Estimating Market βs

Our asset-pricing tests use the cross-sectional regression approach of Fama and MacBeth (1973). Each month the cross-section of returns on stocks is regressed on variables hypothesized to explain expected returns. The time-series means of the monthly regression slopes then provide standard tests of whether different explanatory variables are on average priced.

Since size, E/P, leverage, and BE/ME are measured precisely for individual stocks, there is no reason to smear the information in these variables by using portfolios in the Fama-MacBeth (FM) regressions. Most previous tests use portfolios because estimates of market βs are more precise for portfolios. Our approach is to estimate βs for portfolios and then assign a portfolio's β to each stock in the portfolio. This allows us to use individual stocks in the FM asset-pricing tests.

B.1. β Estimation: Details

In June of each year, all NYSE stocks on CRSP are sorted by size (ME) to determine the NYSE decile breakpoints for ME. NYSE, AMEX, and NASDAQ stocks that have the required CRSP-COMPUSTAT data are then allocated to 10 size portfolios based on the NYSE breakpoints. (If we used stocks from all three exchanges to determine the ME breakpoints, most portfolios would include only small stocks after 1973, when NASDAQ stocks are added to the sample.)

We form portfolios on size because of the evidence of Chan and Chen (1988) and others that size produces a wide spread of average returns and βs. Chan and Chen use only size portfolios. The problem this creates is that size and the βs of size portfolios are highly correlated (-0.988 in their data), so

asset-pricing tests lack power to separate size from β effects in average returns.

To allow for variation in β that is unrelated to size, we subdivide each size decile into 10 portfolios on the basis of pre-ranking βs for individual stocks. The pre-ranking βs are estimated on 24 to 60 monthly returns (as available) in the 5 years before July of year t. We set the β breakpoints for each size decile using only NYSE stocks that satisfy our COMPUSTAT-CRSP data requirements for year $t-1$. Using NYSE stocks ensures that the β breakpoints are not dominated after 1973 by the many small stocks on NASDAQ. Setting β breakpoints with stocks that satisfy our COMPUSTAT-CRSP data requirements guarantees that there are firms in each of the 100 size-β portfolios.

After assigning firms to the size-β portfolios in June, we calculate the equal-weighted monthly returns on the portfolios for the next 12 months, from July to June. In the end, we have post-ranking monthly returns for July 1963 to December 1990 on 100 portfolios formed on size and pre-ranking βs. We then estimate βs using the full sample (330 months) of post-ranking returns on each of the 100 portfolios, with the CRSP value-weighted portfolio of NYSE, AMEX, and (after 1972) NASDAQ stocks used as the proxy for the market. We have also estimated βs using the value-weighted or the equal-weighted portfolio of NYSE stocks as the proxy for the market. These βs produce inferences on the role of β in average returns like those reported below.

We estimate β as the sum of the slopes in the regression of the return on a portfolio on the current and prior month's market return. (An additional lead and lag of the market have little effect on these sum βs.) The sum βs are meant to adjust for nonsynchronous trading (Dimson (1979)). Fowler and Rorke (1983) show that sum βs are biased when the market return is autocorrelated. The 1st- and 2nd-order autocorrelations of the monthly market returns for July 1963 to December 1990 are 0.06 and -0.05, both about 1 standard error from 0. If the Fowler-Rorke corrections are used, they lead to trivial changes in the βs. We stick with the simpler sum βs. Appendix Table AI shows that using sum βs produces large increases in the βs of the smallest ME portfolios and small declines in the βs of the largest ME portfolios.

Chan and Chen (1988) show that full-period β estimates for portfolios can work well in tests of the SLB model, even if the true βs of the portfolios vary through time, if the variation in the βs is proportional,

$$\beta_{jt} - \beta_j = k_t(\beta_j - \beta), \tag{1}$$

where β_{jt} is the true β for portfolio j at time t, β_j is the mean of β_{jt} across t, and β is the mean of the β_j. The Appendix argues that (1) is a good approximation for the variation through time in the true βs of portfolios (j) formed on size and β. For diehard β fans, sure to be skeptical of our results on the weak role of β in average stock returns, we can also report that the results stand up to robustness checks that use 5-year pre-ranking βs, or 5-year post-ranking βs, instead of the full-period post-ranking βs.

We allocate the full-period post-ranking β of a size-β portfolio to each stock in the portfolio. These are the βs that will be used in the Fama-MacBeth cross-sectional regressions for individual stocks. We judge that the precision of the full-period post-ranking portfolio βs, relative to the imprecise β estimates that would be obtained for individual stocks, more than makes up for the fact that true βs are not the same for all stocks in a portfolio. And note that assigning full-period portfolio βs to stocks does not mean that a stock's β is constant. A stock can move across portfolios with year-to-year changes in the stock's size (ME) and in the estimates of its β for the preceding 5 years.

B.2. β Estimates

Table I shows that forming portfolios on size and pre-ranking βs, rather than on size alone, magnifies the range of full-period post-ranking βs. Sorted on size alone, the post-ranking βs range from 1.44 for the smallest ME portfolio to 0.92 for the largest. This spread of βs across the 10 size deciles is smaller than the spread of post-ranking βs produced by the β sort of *any* size decile. For example, the post-ranking βs for the 10 portfolios in the smallest size decile range from 1.05 to 1.79. Across all 100 size-β portfolios, the post-ranking βs range from 0.53 to 1.79, a spread 2.4 times the spread, 0.52, obtained with size portfolios alone.

Two other facts about the βs are important. First, in each size decile the post-ranking βs closely reproduce the ordering of the pre-ranking βs. We take this to be evidence that the pre-ranking β sort captures the ordering of true post-ranking βs. (The appendix gives more evidence on this important issue.) Second, the β sort is not a refined size sort. In any size decile, the average values of ln(ME) are similar across the β-sorted portfolios. Thus the pre-ranking β sort achieves its goal. It produces strong variation in post-ranking βs that is unrelated to size. This is important in allowing our tests to distinguish between β and size effects in average returns.

II. β and Size

The Sharpe-Lintner-Black (SLB) model plays an important role in the way academics and practitioners think about risk and the relation between risk and expected return. We show next that when common stock portfolios are formed on size alone, there seems to be evidence for the model's central prediction: average return is positively related to β. The βs of size portfolios are, however, almost perfectly correlated with size, so tests on size portfolios are unable to disentangle β and size effects in average returns. Allowing for variation in β that is unrelated to size breaks the logjam, but at the expense of β. Thus, when we subdivide size portfolios on the basis of pre-ranking βs, we find a strong relation between average return and size, but no relation between average return and β.

A. Informal Tests

Table II shows post-ranking average returns for July 1963 to December 1990 for portfolios formed from one-dimensional sorts of stocks on size or β. The portfolios are formed at the end of June each year and their equal-weighted returns are calculated for the next 12 months. We use returns for July to June to match the returns in later tests that use the accounting data. When we sort on just size or 5-year pre-ranking βs, we form 12 portfolios. The middle 8 cover deciles of size or β. The 4 extreme portfolios (1A, 1B, 10A, and 10B) split the bottom and top deciles in half.

Table II shows that when portfolios are formed on size alone, we observe the familiar strong negative relation between size and average return (Banz (1981)), and a strong positive relation between average return and β. Average returns fall from 1.64% per month for the smallest ME portfolio to 0.90% for the largest. Post-ranking βs also decline across the 12 size portfolios, from 1.44 for portfolio 1A to 0.90 for portfolio 10B. Thus, a simple size sort seems to support the SLB prediction of a positive relation between β and average return. But the evidence is muddied by the tight relation between size and the βs of size portfolios.

The portfolios formed on the basis of the ranked market βs of stocks in Table II produce a wider range of βs (from 0.81 for portfolio 1A to 1.73 for 10B) than the portfolios formed on size. Unlike the size portfolios, the β-sorted portfolios do not support the SLB model. There is little spread in average returns across the β portfolios, and there is no obvious relation between β and average returns. For example, although the two extreme portfolios, 1A and 10B, have much different βs, they have nearly identical average returns (1.20% and 1.18% per month). These results for 1963–1990 confirm Reinganum's (1981) evidence that for β-sorted portfolios, there is no relation between average return and β during the 1964–1979 period.

The 100 portfolios formed on size and then pre-ranking β in Table I clarify the contradictory evidence on the relation between β and average return produced by portfolios formed on size or β alone. Specifically, the two-pass sort gives a clearer picture of the separate roles of size and β in average returns. Contrary to the central prediction of the SLB model, the second-pass β sort produces little variation in average returns. Although the post-ranking βs in Table I increase strongly in each size decile, average returns are flat or show a slight tendency to decline. In contrast, within the columns of the average return and β matrices of Table I, average returns and βs decrease with increasing size.

The two-pass sort on size and β in Table I says that variation in β that is tied to size is positively related to average return, but variation in β unrelated to size is not compensated in the average returns of 1963–1990. The proper inference seems to be that there is a relation between size and average return, but controlling for size, there is no relation between β and average return. The regressions that follow confirm this conclusion, and they produce another that is stronger. The regressions show that when one allows

Table I

Average Returns, Post-Ranking βs and Average Size For Portfolios Formed on Size and then β: Stocks Sorted on ME (Down) then Pre-Ranking β (Across): July 1963 to December 1990

Portfolios are formed yearly. The breakpoints for the size (ME, price times shares outstanding) deciles are determined in June of year t (t = 1963-1990) using all NYSE stocks on CRSP. All NYSE, AMEX, and NASDAQ stocks that meet the CRSP-COMPUSTAT data requirements are allocated to the 10 size portfolios using the NYSE breakpoints. Each size decile is subdivided into 10 β portfolios using pre-ranking βs of individual stocks, estimated with 2 to 5 years of monthly returns (as available) ending in June of year t. We use only NYSE stocks that meet the CRSP-COMPUSTAT data requirements to establish the β breakpoints. The equal-weighted monthly returns on the resulting 100 portfolios are then calculated for July of year t to June of year $t + 1$.

The post-ranking βs use the full (July 1963 to December 1990) sample of post-ranking returns for each portfolio. The pre- and post-ranking βs (here and in all other tables) are the sum of the slopes from a regression of monthly returns on the current and prior month's returns on the value-weighted portfolio of NYSE, AMEX, and (after 1972) NASDAQ stocks. The average return is the time-series average of the monthly equal-weighted portfolio returns, in percent. The average size of a portfolio is the time-series average of monthly averages of ln(ME) for stocks in the portfolio at the end of June of each year, with ME denominated in millions of dollars.

The average number of stocks per month for the size-β portfolios in the smallest size decile varies from 70 to 177. The average number of stocks for the size-β portfolios in size deciles 2 and 3 is between 15 and 41, and the average number for the largest 7 size deciles is between 11 and 22.

The All column shows statistics for equal-weighted size-decile (ME) portfolios. The All row shows statistics for equal-weighted portfolios of the stocks in each β group.

	All	Low-β	β-2	β-3	β-4	β-5	β-6	β-7	β-8	β-9	High-β
					Panel A: Average Monthly Returns (in Percent)						
All	1.25	1.34	1.29	1.36	1.31	1.33	1.28	1.24	1.21	1.25	1.14
Small-ME	1.52	1.71	1.57	1.79	1.61	1.50	1.50	1.37	1.63	1.50	1.42
ME-2	1.29	1.25	1.42	1.36	1.39	1.65	1.61	1.37	1.31	1.34	1.11
ME-3	1.24	1.12	1.31	1.17	1.70	1.29	1.10	1.31	1.36	1.26	0.76
ME-4	1.25	1.27	1.13	1.54	1.06	1.34	1.06	1.41	1.17	1.35	0.98
ME-5	1.29	1.34	1.42	1.39	1.48	1.42	1.18	1.13	1.27	1.18	1.08
ME-6	1.17	1.08	1.53	1.27	1.15	1.20	1.21	1.18	1.04	1.07	1.02
ME-7	1.07	0.95	1.21	1.26	1.09	1.18	1.11	1.24	0.62	1.32	0.76
ME-8	1.10	1.09	1.05	1.37	1.20	1.27	0.98	1.18	1.02	1.01	0.94
ME-9	0.95	0.98	0.88	1.02	1.14	1.07	1.23	0.94	0.82	0.88	0.59
Large-ME	0.89	1.01	0.93	1.10	0.94	0.93	0.89	1.03	0.71	0.74	0.56

Table I—*Continued*

	All	Low-β	β-2	β-3	β-4	β-5	β-6	β-7	β-8	β-9	High-β
Panel B: Post-Ranking βs											
All		0.87	0.99	1.09	1.16	1.26	1.29	1.35	1.45	1.52	1.72
Small-ME	1.44	1.05	1.18	1.28	1.32	1.40	1.40	1.49	1.61	1.64	1.79
ME-2	1.39	0.91	1.15	1.17	1.24	1.36	1.41	1.43	1.50	1.66	1.76
ME-3	1.35	0.97	1.13	1.13	1.21	1.26	1.28	1.39	1.50	1.51	1.75
ME-4	1.34	0.78	1.03	1.17	1.16	1.29	1.37	1.46	1.51	1.64	1.71
ME-5	1.25	0.66	0.85	1.12	1.15	1.16	1.26	1.30	1.43	1.59	1.68
ME-6	1.23	0.61	0.78	1.05	1.16	1.22	1.28	1.36	1.46	1.49	1.70
ME-7	1.17	0.57	0.92	1.01	1.11	1.14	1.26	1.24	1.39	1.34	1.60
ME-8	1.09	0.53	0.74	0.94	1.02	1.13	1.12	1.18	1.26	1.35	1.52
ME-9	1.03	0.58	0.74	0.80	0.95	1.06	1.15	1.14	1.21	1.22	1.42
Large-ME	0.92	0.57	0.71	0.78	0.89	0.95	0.92	1.02	1.01	1.11	1.32
Panel C: Average Size (ln(ME))											
All	4.11	3.86	4.26	4.33	4.41	4.27	4.32	4.26	4.19	4.03	3.77
Small-ME	2.24	2.12	2.27	2.30	2.30	2.28	2.29	2.30	2.32	2.25	2.15
ME-2	3.63	3.65	3.68	3.70	3.72	3.69	3.70	3.69	3.69	3.70	3.68
ME-3	4.10	4.14	4.18	4.12	4.15	4.16	4.16	4.18	4.14	4.15	4.15
ME-4	4.50	4.53	4.53	4.57	4.54	4.56	4.55	4.52	4.58	4.52	4.56
ME-5	4.89	4.91	4.91	4.93	4.95	4.93	4.92	4.93	4.92	4.92	4.95
ME-6	5.30	5.30	5.33	5.34	5.34	5.33	5.33	5.33	5.33	5.34	5.36
ME-7	5.73	5.73	5.75	5.77	5.76	5.73	5.77	5.77	5.76	5.72	5.76
ME-8	6.24	6.26	6.27	6.26	6.24	6.24	6.27	6.24	6.24	6.24	6.26
ME-9	6.82	6.82	6.84	6.82	6.82	6.81	6.81	6.81	6.81	6.80	6.83
Large-ME	7.93	7.94	8.04	8.10	8.04	8.02	8.02	7.94	7.80	7.75	7.62

Table II

Properties of Portfolios Formed on Size or Pre-Ranking β: July 1963 to December 1990

At the end of June of each year t, 12 portfolios are formed on the basis of ranked values of size (ME) or pre-ranking β. The pre-ranking βs use 2 to 5 years (as available) of monthly returns ending in June of t. Portfolios 2-9 cover deciles of the ranking variables. The bottom and top 2 portfolios (1A, 1B, 10A, and 10B) split the bottom and top deciles in half. The breakpoints for the ME portfolios are based on ranked values of ME for all NYSE stocks on CRSP. NYSE breakpoints for pre-ranking βs are also used to form the β portfolios. NYSE, AMEX, and NASDAQ stocks are then allocated to the size or β portfolios using the NYSE breakpoints. We calculate each portfolio's monthly equal-weighted return for July of year t to June of year $t + 1$, and then reform the portfolios in June of $t + 1$.

BE is the book value of common equity plus balance-sheet deferred taxes, A is total book assets, and E is earnings (income before extraordinary items, plus income-statement deferred taxes, minus preferred dividends). BE, A, and E are for each firm's latest fiscal year ending in calendar year $t - 1$. The accounting ratios are measured using market equity ME in December of year $t - 1$. Firm size ln(ME) is measured in June of year t, with ME denominated in millions of dollars.

The average return is the time-series average of the monthly equal-weighted portfolio returns, in percent. ln(ME), ln(BE/ME), ln(A/ME), ln(A/BE), E/P, and E/P dummy are the time-series averages of the monthly average values of these variables in each portfolio. Since the E/P dummy is 0 when earnings are positive, and 1 when earnings are negative, E/P dummy gives the average proportion of stocks with negative earnings in each portfolio.

β is the time-series average of the monthly portfolio βs. Stocks are assigned the post-ranking β of the size-β portfolio they are in at the end of June of year t (Table I). These individual-firm βs are averaged to compute the monthly βs for each portfolio for July of year t to June of year $t + 1$.

Firms is the average number of stocks in the portfolio each month.

	1A	1B	2	3	4	5	6	7	8	9	10A	10B
						Panel A: Portfolios Formed on Size						
Return	1.64	1.16	1.29	1.24	1.25	1.29	1.17	1.07	1.10	0.95	0.88	0.90
β	1.44	1.44	1.39	1.34	1.33	1.24	1.22	1.16	1.08	1.02	0.95	0.90
ln(ME)	1.98	3.18	3.63	4.10	4.50	4.89	5.30	5.73	6.24	6.82	7.39	8.44
ln(BE/ME)	−0.01	−0.21	−0.23	−0.26	−0.32	−0.36	−0.36	−0.44	−0.40	−0.42	−0.51	−0.65
ln(A/ME)	0.73	0.50	0.46	0.43	0.37	0.32	0.32	0.24	0.29	0.27	0.17	−0.03
ln(A/BE)	0.75	0.71	0.69	0.69	0.68	0.67	0.68	0.67	0.69	0.70	0.68	0.62
E/P dummy	0.26	0.14	0.11	0.09	0.06	0.04	0.04	0.03	0.03	0.02	0.02	0.01
E(+)/P	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09
Firms	772	189	236	170	144	140	128	125	119	114	60	64

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Table II—*Continued*

	1A	1B	2	3	4	5	6	7	8	9	10A	10B
Panel B: Portfolios Formed on Pre-Ranking β												
Return	1.20	1.20	1.32	1.26	1.31	1.30	1.30	1.23	1.23	1.33	1.34	1.18
β	0.81	0.79	0.92	1.04	1.13	1.19	1.26	1.32	1.41	1.52	1.63	1.73
ln(ME)	4.21	4.86	4.75	4.68	4.59	4.48	4.36	4.25	3.97	3.78	3.52	3.15
ln(BE/ME)	−0.18	−0.13	−0.22	−0.21	−0.23	−0.22	−0.22	−0.25	−0.23	−0.27	−0.31	−0.50
ln(A/ME)	0.60	0.66	0.49	0.45	0.42	0.42	0.45	0.42	0.47	0.46	0.46	0.31
ln(A/BE)	0.78	0.79	0.71	0.66	0.64	0.65	0.67	0.67	0.70	0.73	0.77	0.81
E/P dummy	0.12	0.06	0.09	0.09	0.08	0.09	0.10	0.12	0.12	0.14	0.17	0.23
E(+)/P	0.11	0.12	0.10	0.10	0.10	0.10	0.10	0.09	0.10	0.09	0.09	0.08
Firms	116	80	185	181	179	182	185	205	227	267	165	291

for variation in β that is unrelated to size, the relation between β and average return is flat, even when β is the only explanatory variable.

B. Fama-MacBeth Regressions

Table III shows time-series averages of the slopes from the month-by-month Fama-MacBeth (FM) regressions of the cross-section of stock returns on size, β, and the other variables (leverage, E/P, and book-to-market equity) used to explain average returns. The average slopes provide standard FM tests for determining which explanatory variables on average have non-zero expected premiums during the July 1963 to December 1990 period.

Like the average returns in Tables I and II, the regressions in Table III say that size, ln(ME), helps explain the cross-section of average stock returns. The average slope from the monthly regressions of returns on size alone is -0.15%, with a t-statistic of -2.58. This reliable negative relation persists no matter which other explanatory variables are in the regressions; the average slopes on ln(ME) are always close to or more than 2 standard errors from 0. The size effect (smaller stocks have higher average returns) is thus robust in the 1963-1990 returns on NYSE, AMEX, and NASDAQ stocks.

In contrast to the consistent explanatory power of size, the FM regressions show that market β does not help explain average stock returns for 1963-1990. In a shot straight at the heart of the SLB model, the average slope from the regressions of returns on β alone in Table III is 0.15% per month and only 0.46 standard errors from 0. In the regressions of returns on size and β, size has explanatory power (an average slope -3.41 standard errors from 0), but the average slope for β is negative and only 1.21 standard errors from 0. Lakonishok and Shapiro (1986) get similar results for NYSE stocks for 1962-1981. We can also report that β shows no power to explain average returns (the average slopes are typically less than 1 standard error from 0) in FM regressions that use various combinations of β with size, book-to-market equity, leverage, and E/P.

C. Can β Be Saved?

What explains the poor results for β? One possibility is that other explanatory variables are correlated with true βs, and this obscures the relation between average returns and measured βs. But this line of attack cannot explain why β has no power when used alone to explain average returns. Moreover, leverage, book-to-market equity, and E/P do not seem to be good proxies for β. The averages of the monthly cross-sectional correlations between β and the values of these variables for individual stocks are all within 0.15 of 0.

Another hypothesis is that, as predicted by the SLB model, there is a positive relation between β and average return, but the relation is obscured by noise in the β estimates. However, our full-period post-ranking βs do not seem to be imprecise. Most of the standard errors of the βs (not shown) are

Table III

Average Slopes (*t*-Statistics) from Month-by-Month Regressions of Stock Returns on β, Size, Book-to-Market Equity, Leverage, and E/P: July 1963 to December 1990

Stocks are assigned the post-ranking β of the size-β portfolio they are in at the end of June of year t (Table I). BE is the book value of common equity plus balance-sheet deferred taxes, A is total book assets, and E is earnings (income before extraordinary items, plus income-statement deferred taxes, minus preferred dividends). BE, A, and E are for each firm's latest fiscal year ending in calendar year $t - 1$. The accounting ratios are measured using market equity ME in December of year $t - 1$. Firm size ln(ME) is measured in June of year t. In the regressions, these values of the explanatory variables for individual stocks are matched with CRSP returns for the months from July of year t to June of year $t + 1$. The gap between the accounting data and the returns ensures that the accounting data are available prior to the returns. If earnings are positive, E(+)/P is the ratio of total earnings to market equity and E/P dummy is 0. If earnings are negative, E(+)/P is 0 and E/P dummy is 1.

The average slope is the time-series average of the monthly regression slopes for July 1963 to December 1990, and the *t*-statistic is the average slope divided by its time-series standard error.

On average, there are 2267 stocks in the monthly regressions. To avoid giving extreme observations heavy weight in the regressions, the smallest and largest 0.5% of the observations on E(+)/P, BE/ME, A/ME, and A/BE are set equal to the next largest or smallest values of the ratios (the 0.005 and 0.995 fractiles). This has no effect on inferences.

β	ln(ME)	ln(BE/ME)	ln(A/ME)	ln(A/BE)	E/P Dummy	E(+)/P
0.15						
(0.46)						
	−0.15					
	(−2.58)					
−0.37	−0.17					
(−1.21)	(−3.41)					
		0.50				
		(5.71)				
			0.50	−0.57		
			(5.69)	(−5.34)		
					0.57	4.72
					(2.28)	(4.57)
	−0.11	0.35				
	(−1.99)	(4.44)				
	−0.11		0.35	−0.50		
	(−2.06)		(4.32)	(−4.56)		
	−0.16				0.06	2.99
	(−3.06)				(0.38)	(3.04)
	−0.13	0.33			−0.14	0.87
	(−2.47)	(4.46)			(−0.90)	(1.23)
	−0.13		0.32	−0.46	−0.08	1.15
	(−2.47)		(4.28)	(−4.45)	(−0.56)	(1.57)

0.05 or less, only 1 is greater than 0.1, and the standard errors are small relative to the range of the βs (0.53 to 1.79).

The β-sorted portfolios in Tables I and II also provide strong evidence against the β-measurement-error story. When portfolios are formed on pre-ranking βs alone (Table II), the post-ranking βs for the portfolios almost perfectly reproduce the ordering of the pre-ranking βs. Only the β for portfolio 1B is out of line, and only by 0.02. Similarly, when portfolios are formed on size and then pre-ranking βs (Table I), the post-ranking βs in each size decile closely reproduce the ordering of the pre-ranking βs.

The correspondence between the ordering of the pre-ranking and post-ranking βs for the β-sorted portfolios in Tables I and II is evidence that the post-ranking βs are informative about the ordering of the true βs. The problem for the SLB model is that there is no similar ordering in the average returns on the β-sorted portfolios. Whether one looks at portfolios sorted on β alone (Table II) or on size and then β (Table I), average returns are flat (Table II) or decline slightly (Table I) as the post-ranking βs increase.

Our evidence on the robustness of the size effect and the absence of a relation between β and average return is so contrary to the SLB model that it behooves us to examine whether the results are special to 1963–1990. The appendix shows that NYSE returns for 1941–1990 behave like the NYSE, AMEX, and NASDAQ returns for 1963–1990; there is a reliable size effect over the full 50-year period, but little relation between β and average return. Interestingly, there is a reliable simple relation between β and average return during the 1941–1965 period. These 25 years are a major part of the samples in the early studies of the SLB model of Black, Jensen, and Scholes (1972) and Fama and MacBeth (1973). Even for the 1941–1965 period, however, the relation between β and average return disappears when we control for size.

III. Book-to-Market Equity, E/P, and Leverage

Tables I to III say that there is a strong relation between the average returns on stocks and size, but there is no reliable relation between average returns and β. In this section we show that there is also a strong cross-sectional relation between average returns and book-to-market equity. If anything, this book-to-market effect is more powerful than the size effect. We also find that the combination of size and book-to-market equity absorbs the apparent roles of leverage and E/P in average stock returns.

A. Average Returns

Table IV shows average returns for July 1963 to December 1990 for portfolios formed on ranked values of book-to-market equity (BE/ME) or earnings-price ratio (E/P). The BE/ME and E/P portfolios in Table IV are formed in the same general way (one-dimensional yearly sorts) as the size and β portfolios in Table II. (See the tables for details.)

The relation between average return and E/P has a familiar U-shape (e.g., Jaffe, Keim, and Westerfield (1989) for U.S. data, and Chan, Hamao, and Lakonishok (1991) for Japan). Average returns decline from 1.46% per month for the negative E/P portfolio to 0.93% for the firms in portfolio 1B that have low but positive E/P. Average returns then increase monotonically, reaching 1.72% per month for the highest E/P portfolio.

The more striking evidence in Table IV is the strong positive relation between average return and book-to-market equity. Average returns rise from 0.30% for the lowest BE/ME portfolio to 1.83% for the highest, a difference of 1.53% per month. This spread is twice as large as the difference of 0.74% between the average monthly returns on the smallest and largest size portfolios in Table II. Note also that the strong relation between book-to-market equity and average return is unlikely to be a β effect in disguise; Table IV shows that post-ranking market βs vary little across portfolios formed on ranked values of BE/ME.

On average, only about 50 (out of 2317) firms per year have negative book equity, BE. The negative BE firms are mostly concentrated in the last 14 years of the sample, 1976–1989, and we do not include them in the tests. We can report, however, that average returns for negative BE firms are high, like the average returns of high BE/ME firms. Negative BE (which results from persistently negative earnings) and high BE/ME (which typically means that stock prices have fallen) are both signals of poor earning prospects. The similar average returns of negative and high BE/ME firms are thus consistent with the hypothesis that book-to-market equity captures cross-sectional variation in average returns that is related to relative distress.

B. Fama-MacBeth Regressions

B.1. BE/ME

The FM regressions in Table III confirm the importance of book-to-market equity in explaining the cross-section of average stock returns. The average slope from the monthly regressions of returns on ln(BE/ME) alone is 0.50%, with a *t*-statistic of 5.71. This book-to-market relation is stronger than the size effect, which produces a *t*-statistic of -2.58 in the regressions of returns on ln(ME) alone. But book-to-market equity does not replace size in explaining average returns. When both ln(ME) and ln(BE/ME) are included in the regressions, the average size slope is still -1.99 standard errors from 0; the book-to-market slope is an impressive 4.44 standard errors from 0.

B.2. Leverage

The FM regressions that explain returns with leverage variables provide interesting insight into the relation between book-to-market equity and average return. We use two leverage variables, the ratio of book assets to market equity, A/ME, and the ratio of book assets to book equity, A/BE. We interpret A/ME as a measure of market leverage, while A/BE is a measure

Table IV

Properties of Portfolios Formed on Book-to-Market Equity (BE/ME) and Earnings-Price Ratio (E/P): July 1963 to December 1990

At the end of each year $t-1$, 12 portfolios are formed on the basis of ranked values of BE/ME or E/P. Portfolios 2–9 cover deciles of the ranking variables. The bottom and top 2 portfolios (1A, 1B, 10A, and 10B) split the bottom and top deciles in half. For E/P, there are 13 portfolios; portfolio 0 is stocks with negative E/P. Since BE/ME and E/P are not strongly related to exchange listing, their portfolio breakpoints are determined on the basis of the ranked values of the variables for all stocks that satisfy the CRSP-COMPUSTAT data requirements. BE is the book value of common equity plus balance-sheet deferred taxes, A is total book assets, and E is earnings (income before extraordinary items, plus income-statement deferred taxes, minus preferred dividends). BE, A, and E are for each firm's latest fiscal year ending in calendar year $t-1$. The accounting ratios are measured using market equity ME in December of year $t-1$. Firm size ln(ME) is measured in June of year t, with ME denominated in millions of dollars. We calculate each portfolio's monthly equal-weighted return for July of year t to June of year $t+1$, and then reform the portfolios at the end of year t.

Return is the time-series average of the monthly equal-weighted portfolio returns (in percent). ln(ME), ln(BE/ME), ln(A/ME), ln(A/BE), E(+)/P, and E/P dummy are the time-series averages of the monthly average values of these variables in each portfolio. Since the E/P dummy is 0 when earnings are positive, and 1 when earnings are negative, E/P dummy gives the average proportion of stocks with negative earnings in each portfolio.

β is the time-series average of the monthly portfolio βs. Stocks are assigned the post-ranking β of the size-β portfolio they are in at the end of June of year t (Table I). These individual-firm βs are averaged to compute the monthly βs for each portfolio for July of year t to June of year $t+1$.

Firms is the average number of stocks in the portfolio each month.

Portfolio	0	1A	1B	2	3	4	5	6	7	8	9	10A	10B
Panel A: Stocks Sorted on Book-to-Market Equity (BE/ME)													
Return		0.30	0.67	0.87	0.97	1.04	1.17	1.30	1.44	1.50	1.59	1.92	1.83
β		1.36	1.34	1.32	1.30	1.28	1.27	1.27	1.27	1.27	1.29	1.33	1.35
ln(ME)		4.53	4.67	4.69	4.56	4.47	4.38	4.23	4.06	3.85	3.51	3.06	2.65
ln(BE/ME)		−2.22	−1.51	−1.09	−0.75	−0.51	−0.32	−0.14	0.03	0.21	0.42	0.66	1.02
ln(A/ME)		−1.24	−0.79	−0.40	−0.05	0.20	0.40	0.56	0.71	0.91	1.12	1.35	1.75
ln(A/BE)		0.94	0.71	0.68	0.70	0.71	0.71	0.70	0.68	0.70	0.70	0.70	0.73
E/P dummy		0.29	0.15	0.10	0.08	0.08	0.08	0.09	0.09	0.11	0.15	0.22	0.36
E(+)/P		0.03	0.04	0.06	0.08	0.09	0.10	0.11	0.11	0.12	0.12	0.11	0.10
Firms		89	98	209	222	226	230	235	237	239	239	120	117

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Table IV—*Continued*

Portfolio	0	1A	1B	2	3	4	5	6	7	8	9	10A	10B
Panel B: Stocks Sorted on Earnings-Price Ratio (E/P)													
Return	1.46	1.04	0.93	0.94	1.03	1.18	1.22	1.33	1.42	1.46	1.57	1.74	1.72
β	1.47	1.40	1.35	1.31	1.28	1.26	1.25	1.26	1.24	1.23	1.24	1.28	1.31
ln(ME)	2.48	3.64	4.33	4.61	4.64	4.63	4.58	4.49	4.37	4.28	4.07	3.82	3.52
ln(BE/ME)	−0.10	−0.76	−0.91	−0.79	−0.61	−0.47	−0.33	−0.21	−0.08	0.02	0.15	0.26	0.40
ln(A/ME)	0.90	−0.05	−0.27	−0.16	0.03	0.18	0.31	0.44	0.58	0.70	0.85	1.01	1.25
ln(A/BE)	0.99	0.70	0.63	0.63	0.64	0.65	0.64	0.65	0.66	0.68	0.71	0.75	0.86
E/P dummy	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E(+)/P	0.00	0.01	0.03	0.05	0.06	0.08	0.09	0.11	0.12	0.14	0.16	0.20	0.28
Firms	355	88	90	182	190	193	196	194	197	195	195	95	91

of book leverage. The regressions use the natural logs of the leverage ratios, ln(A/ME) and ln(A/BE), because preliminary tests indicated that logs are a good functional form for capturing leverage effects in average returns. Using logs also leads to a simple interpretation of the relation between the roles of leverage and book-to-market equity in average returns.

The FM regressions of returns on the leverage variables (Table III) pose a bit of a puzzle. The two leverage variables are related to average returns, but with opposite signs. As in Bhandari (1988), higher market leverage is associated with higher average returns; the average slopes for ln(A/ME) are always positive and more than 4 standard errors from 0. But higher book leverage is associated with lower average returns; the average slopes for ln(A/BE) are always negative and more than 4 standard errors from 0.

The puzzle of the opposite slopes on ln(A/ME) and ln(A/BE) has a simple solution. The average slopes for the two leverage variables are opposite in sign but close in absolute value, e.g., 0.50 and −0.57. Thus it is the difference between market and book leverage that helps explain average returns. But the difference between market and book leverage is book-to-market equity, ln(BE/ME) = ln(A/ME) − ln(A/BE). Table III shows that the average book-to-market slopes in the FM regressions are indeed close in absolute value to the slopes for the two leverage variables.

The close links between the leverage and book-to-market results suggest that there are two equivalent ways to interpret the book-to-market effect in average returns. A high ratio of book equity to market equity (a low stock price relative to book value) says that the market judges the prospects of a firm to be poor relative to firms with low BE/ME. Thus BE/ME may capture the relative-distress effect postulated by Chan and Chen (1991). A high book-to-market ratio also says that a firm's market leverage is high relative to its book leverage; the firm has a large amount of market-imposed leverage because the market judges that its prospects are poor and discounts its stock price relative to book value. In short, our tests suggest that the relative-distress effect, captured by BE/ME, can also be interpreted as an involuntary leverage effect, which is captured by the difference between A/ME and A/BE.

B.3. E/P

Ball (1978) posits that the earnings-price ratio is a catch-all for omitted risk factors in expected returns. If current earnings proxy for expected future earnings, high-risk stocks with high expected returns will have low prices relative to their earnings. Thus, E/P should be related to expected returns, whatever the omitted sources of risk. This argument only makes sense, however, for firms with positive earnings. When current earnings are negative, they are not a proxy for the earnings forecasts embedded in the stock price, and E/P is not a proxy for expected returns. Thus, the slope for E/P in the FM regressions is based on positive values; we use a dummy variable for E/P when earnings are negative.

The U-shaped relation between average return and E/P observed in Table IV is also apparent when the E/P variables are used alone in the FM regressions in Table III. The average slope on the E/P dummy variable (0.57% per month, 2.28 standard errors from 0) confirms that firms with negative earnings have higher average returns. The average slope for stocks with positive E/P (4.72% per month, 4.57 standard errors from 0) shows that average returns increase with E/P when it is positive.

Adding size to the regressions kills the explanatory power of the E/P dummy. Thus the high average returns of negative E/P stocks are better captured by their size, which Table IV says is on average small. Adding both size and book-to-market equity to the E/P regressions kills the E/P dummy and lowers the average slope on E/P from 4.72 to 0.87 (t = 1.23). In contrast, the average slopes for ln(ME) and ln(BE/ME) in the regressions that include E/P are similar to those in the regressions that explain average returns with only size and book-to-market equity. The results suggest that most of the relation between (positive) E/P and average return is due to the positive correlation between E/P and ln(BE/ME), illustrated in Table IV; firms with high E/P tend to have high book-to-market equity ratios.

IV. A Parsimonious Model for Average Returns

The results to here are easily summarized:

(1) When we allow for variation in β that is unrelated to size, there is no reliable relation between β and average return.
(2) The opposite roles of market leverage and book leverage in average returns are captured well by book-to-market equity.
(3) The relation between E/P and average return seems to be absorbed by the combination of size and book-to-market equity.

In a nutshell, market β seems to have no role in explaining the average returns on NYSE, AMEX, and NASDAQ stocks for 1963-1990, while size and book-to-market equity capture the cross-sectional variation in average stock returns that is related to leverage and E/P.

A. Average Returns, Size and Book-to-Market Equity

The average return matrix in Table V gives a simple picture of the two-dimensional variation in average returns that results when the 10 size deciles are each subdivided into 10 portfolios based on ranked values of BE/ME for individual stocks. Within a size decile (across a row of the average return matrix), returns typically increase strongly with BE/ME: on average, the returns on the lowest and highest BE/ME portfolios in a size decile differ by 0.99% (1.63% − 0.64%) per month. Similarly, looking down the columns of the average return matrix shows that there is a negative relation between average return and size: on average, the spread of returns across the size portfolios in a BE/ME group is 0.58% per month. The average return matrix gives life to the conclusion from the regressions that,

Table V

Average Monthly Returns on Portfolios Formed on Size and Book-to-Market Equity; Stocks Sorted by ME (Down) and then BE/ME (Across): July 1963 to December 1990

In June of each year t, the NYSE, AMEX, and NASDAQ stocks that meet the CRSP-COMPUSTAT data requirements are allocated to 10 size portfolios using the NYSE size (ME) breakpoints. The NYSE, AMEX, and NASDAQ stocks in each size decile are then sorted into 10 BE/ME portfolios using the book-to-market ratios for year $t-1$. BE/ME is the book value of common equity plus balance-sheet deferred taxes for fiscal year $t-1$, over market equity for December of year $t-1$. The equal-weighted monthly portfolio returns are then calculated for July of year t to June of year $t+1$.

Average monthly return is the time-series average of the monthly equal-weighted portfolio returns (in percent).

The All column shows average returns for equal-weighted size decile portfolios. The All row shows average returns for equal-weighted portfolios of the stocks in each BE/ME group.

	Book-to-Market Portfolios										
	All	Low	2	3	4	5	6	7	8	9	High
All	1.23	0.64	0.98	1.06	1.17	1.24	1.26	1.39	1.40	1.50	1.63
Small-ME	1.47	0.70	1.14	1.20	1.43	1.56	1.51	1.70	1.71	1.82	1.92
ME-2	1.22	0.43	1.05	0.96	1.19	1.33	1.19	1.58	1.28	1.43	1.79
ME-3	1.22	0.56	0.88	1.23	0.95	1.36	1.30	1.30	1.40	1.54	1.60
ME-4	1.19	0.39	0.72	1.06	1.36	1.13	1.21	1.34	1.59	1.51	1.47
ME-5	1.24	0.88	0.65	1.08	1.47	1.13	1.43	1.44	1.26	1.52	1.49
ME-6	1.15	0.70	0.98	1.14	1.23	0.94	1.27	1.19	1.19	1.24	1.50
ME-7	1.07	0.95	1.00	0.99	0.83	0.99	1.13	0.99	1.16	1.10	1.47
ME-8	1.08	0.66	1.13	0.91	0.95	0.99	1.01	1.15	1.05	1.29	1.55
ME-9	0.95	0.44	0.89	0.92	1.00	1.05	0.93	0.82	1.11	1.04	1.22
Large-ME	0.89	0.93	0.88	0.84	0.71	0.79	0.83	0.81	0.96	0.97	1.18

controlling for size, book-to-market equity captures strong variation in average returns, and controlling for book-to-market equity leaves a size effect in average returns.

B. The Interaction between Size and Book-to-Market Equity

The average of the monthly correlations between the cross-sections of ln(ME) and ln(BE/ME) for individual stocks is -0.26. The negative correlation is also apparent in the average values of ln(ME) and ln(BE/ME) for the portfolios sorted on ME or BE/ME in Tables II and IV. Thus, firms with low market equity are more likely to have poor prospects, resulting in low stock prices and high book-to-market equity. Conversely, large stocks are more likely to be firms with stronger prospects, higher stock prices, lower book-to-market equity, and lower average stock returns.

The correlation between size and book-to-market equity affects the regressions in Table III. Including ln(BE/ME) moves the average slope on ln(ME) from -0.15 ($t = -2.58$) in the univariate regressions to -0.11 ($t = -1.99$) in the bivariate regressions. Similarly, including ln(ME) in the regressions

lowers the average slope on ln(BE/ME) from 0.50 to 0.35 (still a healthy 4.44 standard errors from 0). Thus, part of the size effect in the simple regressions is due to the fact that small ME stocks are more likely to have high book-to-market ratios, and part of the simple book-to-market effect is due to the fact that high BE/ME stocks tend to be small (they have low ME).

We should not, however, exaggerate the links between size and book-to-market equity. The correlation (−0.26) between ln(ME) and ln(BE/ME) is not extreme, and the average slopes in the bivariate regressions in Table III show that ln(ME) and ln(BE/ME) are both needed to explain the cross-section of average returns. Finally, the 10 × 10 average return matrix in Table V provides concrete evidence that, (a) controlling for size, book-to-market equity captures substantial variation in the cross-section of average returns, and (b) within BE/ME groups average returns are related to size.

C. Subperiod Averages of the FM Slopes

The message from the average FM slopes for 1963–1990 (Table III) is that size on average has a negative premium in the cross-section of stock returns, book-to-market equity has a positive premium, and the average premium for market β is essentially 0. Table VI shows the average FM slopes for two roughly equal subperiods (July 1963–December 1976 and January 1977–December 1990) from two regressions: (a) the cross-section of stock returns on size, ln(ME), and book-to-market equity, ln(BE/ME), and (b) returns on β, ln(ME), and ln(BE/ME). For perspective, average returns on the value-weighted and equal-weighted (VW and EW) portfolios of NYSE stocks are also shown.

In FM regressions, the intercept is the return on a standard portfolio (the weights on stocks sum to 1) in which the weighted averages of the explanatory variables are 0 (Fama (1976), chapter 9). In our tests, the intercept is weighted toward small stocks (ME is in millions of dollars so ln(ME) = 0 implies ME = \$1 million) and toward stocks with relatively high book-to-market ratios (Table IV says that ln(BE/ME) is negative for the typical firm, so ln(BE/ME) = 0 is toward the high end of the sample ratios). Thus it is not surprising that the average intercepts are always large relative to their standard errors and relative to the returns on the NYSE VW and EW portfolios.

Like the overall period, the subperiods do not offer much hope that the average premium for β is economically important. The average FM slope for β is only slightly positive for 1963–1976 (0.10% per month, $t = 0.25$), and it is negative for 1977–1990 (−0.44% per month, $t = -1.17$). There is a hint that the size effect is weaker in the 1977–1990 period, but inferences about the average size slopes for the subperiods lack power.

Unlike the size effect, the relation between book-to-market equity and average return is so strong that it shows up reliably in both the 1963–1976 and the 1977–1990 subperiods. The average slopes for ln(BE/ME) are all more than 2.95 standard errors from 0, and the average slopes for the

Table VI

Subperiod Average Monthly Returns on the NYSE Equal-Weighted and Value-Weighted Portfolios and Subperiod Means of the Intercepts and Slopes from the Monthly FM Cross-Sectional Regressions of Returns on (a) Size (ln(ME)) and Book-to-Market Equity (ln(BE/ME)), and (b) β, ln(ME), and ln(BE/ME)

Mean is the time-series mean of a monthly return, Std is its time-series standard deviation, and t(Mn) is Mean divided by its time-series standard error.

	7/63-12/90 (330 Mos.)			7/63-12/76 (162 Mos.)			1/77-12/90 (168 Mos.)		
Variable	Mean	Std	t(Mn)	Mean	Std	t(Mn)	Mean	Std	t(Mn)
NYSE Value-Weighted (VW) and Equal-Weighted (EW) Portfolio Returns									
VW	0.81	4.47	3.27	0.56	4.26	1.67	1.04	4.66	2.89
EW	0.97	5.49	3.19	0.77	5.70	1.72	1.15	5.28	2.82
$R_{it} = a + b_{2t}\ln(ME_{it}) + b_{3t}\ln(BE/ME_{it}) + e_{it}$									
a	1.77	8.51	3.77	1.86	10.10	2.33	1.69	6.67	3.27
b_2	-0.11	1.02	-1.99	-0.16	1.25	-1.62	-0.07	0.73	-1.16
b_3	0.35	1.45	4.43	0.36	1.53	2.96	0.35	1.37	3.30
$R_{it} = a + b_{1t}\beta_{it} + b_{2t}\ln(ME_{it}) + b_{3t}\ln(BE/ME_{it}) + e_{it}$									
a	2.07	5.75	6.55	1.73	6.22	3.54	2.40	5.25	5.92
b_1	-0.17	5.12	-0.62	0.10	5.33	0.25	-0.44	4.91	-1.17
b_2	-0.12	0.89	-2.52	-0.15	1.03	-1.91	-0.09	0.74	-1.64
b_3	0.33	1.24	4.80	0.34	1.36	3.17	0.31	1.10	3.67

subperiods (0.36 and 0.35) are close to the average slope (0.35) for the overall period. The subperiod results thus support the conclusion that, among the variables considered here, book-to-market equity is consistently the most powerful for explaining the cross-section of average stock returns.

Finally, Roll (1983) and Keim (1983) show that the size effect is stronger in January. We have examined the monthly slopes from the FM regressions in Table VI for evidence of a January seasonal in the relation between book-to-market equity and average return. The average January slopes for ln(BE/ME) are about twice those for February to December. Unlike the size effect, however, the strong relation between book-to-market equity and average return is not special to January. The average monthly February-to-December slopes for ln(BE/ME) are about 4 standard errors from 0, and they are close to (within 0.05 of) the average slopes for the whole year. Thus, there is a January seasonal in the book-to-market equity effect, but the positive relation between BE/ME and average return is strong throughout the year.

D. β and the Market Factor: Caveats

Some caveats about the negative evidence on the role of β in average returns are in order. The average premiums for β, size, and book-to-market

equity depend on the definitions of the variables used in the regressions. For example, suppose we replace book-to-market equity (ln(BE/ME)) with book equity (ln(BE)). As long as size (ln(ME)) is also in the regression, this change will not affect the intercept, the fitted values or the R^2. But the change, in variables increases the average slope (and the t-statistic) on ln(ME). In other words, it increases the risk premium associated with size. Other redefinitions of the β, size, and book-to-market variables will produce different regression slopes and perhaps different inferences about average premiums, including possible resuscitation of a role for β. And, of course, at the moment, we have no theoretical basis for choosing among different versions of the variables.

Moreover, the tests here are restricted to stocks. It is possible that including other assets will change the inferences about the average premiums for β, size, and book-to-market equity. For example, the large average intercepts for the FM regressions in Table VI suggest that the regressions will not do a good job on Treasury bills, which have low average returns and are likely to have small loadings on the underlying market, size, and book-to-market factors in returns. Extending the tests to bills and other bonds may well change our inferences about average risk premiums, including the revival of a role for market β.

We emphasize, however, that different approaches to the tests are not likely to revive the Sharpe-Lintner-Black model. Resuscitation of the SLB model requires that a better proxy for the market portfolio (a) overturns our evidence that the simple relation between β and average stock returns is flat and (b) leaves β as the only variable relevant for explaining average returns. Such results seem unlikely, given Stambaugh's (1982) evidence that tests of the SLB model do not seem to be sensitive to the choice of a market proxy. Thus, if there is a role for β in average returns, it is likely to be found in a multi-factor model that transforms the flat simple relation between average return and β into a positively sloped conditional relation.

V. Conclusions and Implications

The Sharpe-Lintner-Black model has long shaped the way academics and practitioners think about average return and risk. Black, Jensen, and Scholes (1972) and Fama and MacBeth (1973) find that, as predicted by the model, there is a positive simple relation between average return and market β during the early years (1926–1968) of the CRSP NYSE returns file. Like Reinganum (1981) and Lakonishok and Shapiro (1986), we find that this simple relation between β and average return disappears during the more recent 1963–1990 period. The appendix that follows shows that the relation between β and average return is also weak in the last half century (1941–1990) of returns on NYSE stocks. In short, our tests do not support the central prediction of the SLB model, that average stock returns are positively related to market β.

Banz (1981) documents a strong negative relation between average return and firm size. Bhandari (1988) finds that average return is positively related to leverage, and Basu (1983) finds a positive relation between average return

and E/P. Stattman (1980) and Rosenberg, Reid, and Lanstein (1985) document a positive relation between average return and book-to-market equity for U.S. stocks, and Chan, Hamao, and Lakonishok (1992) find that BE/ME is also a powerful variable for explaining average returns on Japanese stocks.

Variables like size, E/P, leverage, and book-to-market equity are all scaled versions of a firm's stock price. They can be regarded as different ways of extracting information from stock prices about the cross-section of expected stock returns (Ball (1978); Keim (1988)). Since all these variables are scaled versions of price, it is reasonable to expect that some of them are redundant for explaining average returns. Our main result is that for the 1963–1990 period, size and book-to-market equity capture the cross-sectional variation in average stock returns associated with size, E/P, book-to-market equity, and leverage.

A. Rational Asset-Pricing Stories

Are our results consistent with asset-pricing theory? Since the FM intercept is constrained to be the same for all stocks, FM regressions always impose a linear factor structure on returns and expected returns that is consistent with the multifactor asset-pricing models of Merton (1973) and Ross (1976). Thus our tests impose a rational asset-pricing framework on the relation between average return and size and book-to-market equity.

Even if our results are consistent with asset-pricing theory, they are not economically satisfying. What is the economic explanation for the roles of size and book-to-market equity in average returns? We suggest several paths of inquiry.

(a) The intercepts and slopes in the monthly FM regressions of returns on ln(ME) and ln(BE/ME) are returns on portfolios that mimic the underlying common risk factors in returns proxied by size and book-to-market equity (Fama (1976), chapter 9). Examining the relations between the returns on these portfolios and economic variables that measure variation in business conditions might help expose the nature of the economic risks captured by size and book-to-market equity.

(b) Chan, Chen, and Hsieh (1985) argue that the relation between size and average return proxies for a more fundamental relation between expected returns and economic risk factors. Their most powerful factor in explaining the size effect is the difference between the monthly returns on low- and high-grade corporate bonds, which in principle captures a kind of default risk in returns that is priced. It would be interesting to test whether loadings on this or other economic factors, such as those of Chen, Roll, and Ross (1986), can explain the roles of size and book-to-market equity in our tests.

(c) In a similar vein, Chan and Chen (1991) argue that the relation between size and average return is a relative-prospects effect. The earning prospects of distressed firms are more sensitive to economic

conditions. This results in a distress factor in returns that is priced in expected returns. Chan and Chen construct two mimicking portfolios for the distress factor, based on dividend changes and leverage. It would be interesting to check whether loadings on their distress factors absorb the size and book-to-market equity effects in average returns that are documented here.

(d) In fact, if stock prices are rational, BE/ME, the ratio of the book value of a stock to the market's assessment of its value, should be a direct indicator of the relative prospects of firms. For example, we expect that high BE/ME firms have low earnings on assets relative to low BE/ME firms. Our work (in progress) suggests that there is indeed a clean separation between high and low BE/ME firms on various measures of economic fundamentals. Low BE/ME firms are persistently strong performers, while the economic performance of high BE/ME firms is persistently weak.

B. Irrational Asset-Pricing Stories

The discussion above assumes that the asset-pricing effects captured by size and book-to-market equity are rational. For BE/ME, our most powerful expected-return variable, there is an obvious alternative. The cross-section of book-to-market ratios might result from market overreaction to the relative prospects of firms. If overreaction tends to be corrected, BE/ME will predict the cross-section of stock returns.

Simple tests do not confirm that the size and book-to-market effects in average returns are due to market overreaction, at least of the type posited by DeBondt and Thaler (1985). One overreaction measure used by DeBondt and Thaler is a stock's most recent 3-year return. Their overreaction story predicts that 3-year losers have strong post-ranking returns relative to 3-year winners. In FM regressions (not shown) for individual stocks, the 3-year lagged return shows no power even when used alone to explain average returns. The univariate average slope for the lagged return is negative, -6 basis points per month, but less than 0.5 standard errors from 0.

C. Applications

Our main result is that two easily measured variables, size and book-to-market equity, seem to describe the cross-section of average stock returns. Prescriptions for using this evidence depend on (a) whether it will persist, and (b) whether it results from rational or irrational asset-pricing.

It is possible that, by chance, size and book-to-market equity happen to describe the cross-section of average returns in our sample, but they were and are unrelated to expected returns. We put little weight on this possibility, especially for book-to-market equity. First, although BE/ME has long been touted as a measure of the return prospects of stocks, there is no evidence that its explanatory power deteriorates through time. The 1963–1990 relation between BE/ME and average return is strong, and remarkably similar

for the 1963–1976 and 1977–1990 subperiods. Second, our preliminary work on economic fundamentals suggests that high-BE/ME firms tend to be persistently poor earners relative to low-BE/ME firms. Similarly, small firms have a long period of poor earnings during the 1980s not shared with big firms. The systematic patterns in fundamentals give us some hope that size and book-to-market equity proxy for risk factors in returns, related to relative earning prospects, that are rationally priced in expected returns.

If our results are more than chance, they have practical implications for portfolio formation and performance evaluation by investors whose primary concern is long-term average returns. If asset-pricing is rational, size and BE/ME must proxy for risk. Our results then imply that the performance of managed portfolios (e.g., pension funds and mutual funds) can be evaluated by comparing their average returns with the average returns of benchmark portfolios with similar size and BE/ME characteristics. Likewise, the expected returns for different portfolio strategies can be estimated from the historical average returns of portfolios with matching size and BE/ME properties.

If asset-pricing is irrational and size and BE/ME do not proxy for risk, our results might still be used to evaluate portfolio performance and measure the expected returns from alternative investment strategies. If stock prices are irrational, however, the likely persistence of the results is more suspect.

Appendix
Size Versus β: 1941–1990

Our results on the absence of a relation between β and average stock returns for 1963–1990 are so contrary to the tests of the Sharpe-Lintner-Black model by Black, Jensen, and Scholes (1972), Fama and MacBeth (1973), and (more recently) Chan and Chen (1988), that further tests are appropriate. We examine the roles of size and β in the average returns on NYSE stocks for the half-century 1941–1990, the longest available period that avoids the high volatility of returns in the Great Depression. We do not include the accounting variables in the tests because of the strong selection bias (toward successful firms) in the COMPUSTAT data prior to 1962.

We first replicate the results of Chan and Chen (1988). Like them, we find that when portfolios are formed on size alone, there are strong relations between average return and either size or β; average return increases with β and decreases with size. For size portfolios, however, size (ln(ME)) and β are almost perfectly correlated (-0.98), so it is difficult to distinguish between the roles of size and β in average returns.

One way to generate strong variation in β that is unrelated to size is to form portfolios on size and then on β. As in Tables I to III, we find that the resulting independent variation in β just about washes out the positive simple relation between average return and β observed when portfolios are formed on size alone. The results for NYSE stocks for 1941–1990 are thus much like those for NYSE, AMEX, and NASDAQ stocks for 1963–1990.

This appendix also has methodological goals. For example, the FM regressions in Table III use returns on individual stocks as the dependent variable. Since we allocate portfolio βs to individual stocks but use firm-specific values of other variables like size, β may be at a disadvantage in the regressions for individual stocks. This appendix shows, however, that regressions for portfolios, which put β and size on equal footing, produce results comparable to those for individual stocks.

A. Size Portfolios

Table AI shows average monthly returns and market βs for 12 portfolios of NYSE stocks formed on the basis of size (ME) at the end of each year from 1940 to 1989. For these size portfolios, there is a strong positive relation between average return and β. Average returns fall from 1.96% per month for the smallest ME portfolio (1A) to 0.93% for the largest (10B) and β falls from 1.60 to 0.95. (Note also that, as claimed earlier, estimating β as the sum of the slopes in the regression of a portfolio's return on the current and prior month's NYSE value-weighted return produces much larger βs for the smallest ME portfolios and slightly smaller βs for the largest ME portfolios.)

The FM regressions in Table AI confirm the positive simple relation between average return and β for size portfolios. In the regressions of the size-portfolio returns on β alone, the average premium for a unit of β is 1.45% per month. In the regressions of individual stock returns on β (where stocks are assigned the β of their size portfolio), the premium for a unit of β is 1.39%. Both estimates are about 3 standard errors from 0. Moreover, the βs of size portfolios do not leave a residual size effect; the average residuals from the simple regressions of returns on β in Table AI show no relation to size. These positive SLB results for 1941–1990 are like those obtained by Chan and Chen (1988) in tests on size portfolios for 1954–1983.

There is, however, evidence in Table AI that all is not well with the βs of the size portfolios. They do a fine job on the relation between size and average return, but they do a lousy job on their main task, the relation between β and average return. When the residuals from the regressions of returns on β are grouped using the pre-ranking βs of individual stocks, the average residuals are strongly positive for low-β stocks (0.51% per month for group 1A) and negative for high-β stocks (-1.05% for 10B). Thus the market lines estimated with size-portfolio βs exaggerate the tradeoff of average return for β; they underestimate average returns on low-β stocks and overestimate average returns on high-β stocks. This pattern in the β-sorted average residuals for individual stocks suggests that (a) there is variation in β across stocks that is lost in the size portfolios, and (b) this variation in β is not rewarded as well as the variation in β that is related to size.

B. Two-Pass Size-β Portfolios

Like Table I, Table AII shows that subdividing size deciles using the (pre-ranking) βs of individual stocks results in strong variation in β that is

Table AI

Average Returns, Post-Ranking βs and Fama-MacBeth Regression Slopes for Size Portfolios of NYSE Stocks: 1941-1990

At the end of each year $t-1$, stocks are assigned to 12 portfolios using ranked values of ME. Included are all NYSE stocks that have a CRSP price and shares for December of year $t-1$ and returns for at least 24 of the 60 months ending in December of year $t-1$ (for pre-ranking β estimates). The middle 8 portfolios cover size deciles 2 to 9. The 4 extreme portfolios (1A, 1B, 10A, and 10B) split the smallest and largest deciles in half. We compute equal-weighted returns on the portfolios for the 12 months of year t using all surviving stocks. Average Return is the time-series average of the monthly portfolio returns for 1941-1990, in percent. Average firms is the average number of stocks in the portfolios each month. The simple βs are estimated by regressing the 1941-1990 sample of post-ranking monthly returns for a size portfolio on the current month's value-weighted NYSE portfolio return. The sum βs are the sum of the slopes from a regression of the post-ranking monthly returns on the current and prior month's VW NYSE returns.

The independent variables in the Fama-MacBeth regressions are defined for each firm at the end of December of each year $t-1$. Stocks are assigned the post-ranking (sum) β of the size portfolio they are in at the end of year $t-1$. ME is price times shares outstanding at the end of year $t-1$. In the individual-stock regressions, these values of the explanatory variables are matched with CRSP returns for each of the 12 months of year t. The portfolio regressions match the equal-weighted portfolio returns with the equal-weighted averages of β and ln(ME) for the surviving stocks in each month of year t. Slope is the average of the (600) monthly FM regression slopes and SE is the standard error of the average slope. The residuals from the monthly regressions for year t are grouped into 12 portfolios on the basis of size (ME) or pre-ranking β (estimated with 24 to 60 months of data, as available) at the end of year $t-1$. The average residuals are the time-series averages of the monthly equal-weighted portfolio residuals, in percent. The average residuals for regressions (1) and (2) (not shown) are quite similar to those for regressions (4) and (5) (shown).

	Portfolios Formed on Size											
	1A	1B	2	3	4	5	6	7	8	9	10A	10B
Ave. return	1.96	1.59	1.44	1.36	1.28	1.24	1.23	1.17	1.15	1.13	0.97	0.93
Ave. firms	57	56	110	107	107	108	111	113	115	118	59	59
Simple β	1.29	1.24	1.21	1.19	1.16	1.13	1.13	1.12	1.09	1.05	1.00	0.98
Standard error	0.07	0.05	0.04	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01
Sum β	1.60	1.44	1.37	1.32	1.26	1.23	1.19	1.17	1.12	1.06	0.99	0.95
Standard error	0.10	0.06	0.05	0.04	0.03	0.03	0.03	0.02	0.02	0.01	0.01	0.01

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Table AI—*Continued*

	Portfolio Regressions				Individual Stock Regressions			
	(1) β	(2) ln(ME)	(3) β and ln(ME)		(4) β	(5) ln(ME)	(6) β and ln(ME)	
Slope	1.45	−0.137	3.05	0.149	1.39	−0.133	0.71	−0.060
SE	0.47	0.044	1.51	0.115	0.46	0.043	0.81	0.062

	Average Residuals for Stocks Grouped on Size											
	1A	1B	2	3	4	5	6	7	8	9	10A	10B
Regression (4)	0.17	0.00	−0.04	−0.06	−0.05	−0.04	0.00	−0.03	0.03	0.08	0.01	0.04
Standard error	0.11	0.06	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.05	0.06
Regression (5)	0.30	0.02	−0.05	−0.06	−0.08	−0.07	−0.03	−0.04	0.02	0.08	0.01	0.13
Standard error	0.14	0.07	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.04	0.07
Regression (6)	0.20	0.02	−0.05	−0.07	−0.08	−0.06	−0.01	−0.02	0.04	0.09	0.00	0.06
Standard error	0.10	0.06	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.05	0.05

	Average Residuals for Stocks Grouped on Pre-Ranking β											
	1A	1B	2	3	4	5	6	7	8	9	10A	10B
Regression (4)	0.51	0.61	0.38	0.32	0.16	0.12	0.03	−0.10	−0.27	−0.31	−0.66	−1.05
Standard error	0.21	0.19	0.13	0.08	0.04	0.03	0.04	0.05	0.09	0.11	0.18	0.23
Regression (5)	−0.10	0.00	0.02	0.09	0.05	0.07	0.05	0.00	−0.03	−0.01	−0.11	−0.33
Standard error	0.11	0.10	0.07	0.05	0.04	0.03	0.03	0.04	0.05	0.07	0.10	0.13
Regression (6)	0.09	0.25	0.13	0.19	0.11	0.14	0.09	0.01	−0.11	−0.12	−0.38	−0.70
Standard error	0.41	0.37	0.24	0.14	0.07	0.04	0.04	0.09	0.16	0.21	0.34	0.43

Table AII

Properties of Portfolios Formed on Size and Pre-Ranking β: NYSE Stocks Sorted by ME (Down) then Pre-Ranking β (Across): 1941-1990

At the end of year $t-1$, the NYSE stocks on CRSP are assigned to 10 size (ME) portfolios. Each size decile is subdivided into 10 β portfolios using pre-ranking βs of individual stocks, estimated with 24 to 60 monthly returns (as available) ending in December of year $t-1$. The equal-weighted monthly returns on the resulting 100 portfolios are then calculated for year t. The average returns are the time-series averages of the monthly returns, in percent. The post-ranking βs use the full 1941-1990 sample of post-ranking returns for each portfolio. The pre- and post-ranking βs are the sum of the slopes from a regression of monthly returns on the current and prior month's NYSE value-weighted market return. The average size for a portfolio is the time-series average of each month's average value of ln(ME) for stocks in the portfolio. ME is denominated in millions of dollars. There are, on average, about 10 stocks in each size-β portfolio each month. The All column shows parameter values for equal-weighted size-decile (ME) portfolios. The All rows show parameter values for equal-weighted portfolios of the stocks in each β group.

	All	Low-β	β-2	β-3	β-4	β-5	β-6	β-7	β-8	β-9	High-β
Panel A: Average Monthly Return (in Percent)											
All		1.22	1.30	1.32	1.35	1.36	1.34	1.29	1.34	1.14	1.10
Small-ME	1.78	1.74	1.76	2.08	1.91	1.92	1.72	1.77	1.91	1.56	1.46
ME-2	1.44	1.41	1.35	1.33	1.61	1.72	1.59	1.40	1.62	1.24	1.11
ME-3	1.36	1.21	1.40	1.22	1.47	1.34	1.51	1.33	1.57	1.33	1.21
ME-4	1.28	1.26	1.29	1.19	1.27	1.51	1.30	1.19	1.56	1.18	1.00
ME-5	1.24	1.22	1.30	1.28	1.33	1.21	1.37	1.41	1.31	0.92	1.06
ME-6	1.23	1.21	1.32	1.37	1.09	1.34	1.10	1.40	1.21	1.22	1.08
ME-7	1.17	1.08	1.23	1.37	1.27	1.19	1.34	1.10	1.11	0.87	1.17
ME-8	1.15	1.06	1.18	1.26	1.25	1.26	1.17	1.16	1.05	1.08	1.04
ME-9	1.13	0.99	1.13	1.00	1.24	1.28	1.31	1.15	1.11	1.09	1.05
Large-ME	0.95	0.99	1.01	1.12	1.01	0.89	0.95	0.95	1.00	0.90	0.68

Table AII—*Continued*

	All	Low-β	β-2	β-3	β-4	β-5	β-6	β-7	β-8	β-9	High-β
Panel B: Post-Ranking β											
All		0.76	0.95	1.05	1.14	1.22	1.26	1.34	1.38	1.49	1.69
Small-ME	1.52	1.17	1.40	1.31	1.50	1.46	1.50	1.69	1.60	1.75	1.92
ME-2	1.37	0.86	1.09	1.12	1.24	1.39	1.42	1.48	1.60	1.69	1.91
ME-3	1.32	0.88	0.96	1.18	1.19	1.33	1.40	1.43	1.56	1.64	1.74
ME-4	1.26	0.69	0.95	1.06	1.15	1.24	1.29	1.46	1.43	1.64	1.83
ME-5	1.23	0.70	0.95	1.04	1.10	1.22	1.32	1.34	1.41	1.56	1.72
ME-6	1.19	0.68	0.86	1.04	1.13	1.20	1.20	1.35	1.36	1.48	1.70
ME-7	1.17	0.67	0.88	0.95	1.14	1.18	1.26	1.27	1.32	1.44	1.68
ME-8	1.12	0.64	0.83	0.99	1.06	1.14	1.14	1.21	1.26	1.39	1.58
ME-9	1.06	0.68	0.81	0.94	0.96	1.06	1.11	1.18	1.22	1.25	1.46
Large-ME	0.97	0.65	0.73	0.90	0.91	0.97	1.01	1.01	1.07	1.12	1.38
Panel C: Average Size (ln(ME))											
All		4.39	4.39	4.40	4.40	4.39	4.40	4.38	4.37	4.37	4.34
Small-ME	1.93	2.04	1.99	2.00	1.96	1.92	1.92	1.91	1.90	1.87	1.80
ME-2	2.80	2.81	2.79	2.81	2.83	2.80	2.79	2.80	2.80	2.79	2.79
ME-3	3.27	3.28	3.27	3.28	3.27	3.27	3.28	3.29	3.27	3.27	3.26
ME-4	3.67	3.67	3.67	3.67	3.68	3.68	3.67	3.68	3.66	3.67	3.67
ME-5	4.06	4.07	4.06	4.05	4.06	4.07	4.06	4.05	4.05	4.06	4.06
ME-6	4.45	4.45	4.44	4.46	4.45	4.45	4.45	4.45	4.44	4.45	4.45
ME-7	4.87	4.86	4.87	4.86	4.87	4.87	4.88	4.87	4.87	4.85	4.87
ME-8	5.36	5.38	5.38	5.38	5.35	5.36	5.37	5.37	5.36	5.35	5.34
ME-9	5.98	5.96	5.98	5.99	6.00	5.98	5.98	5.97	5.95	5.96	5.96
Large-ME	7.12	7.10	7.12	7.16	7.17	7.20	7.29	7.14	7.09	7.04	6.83

independent of size. The β sort of a size decile always produces portfolios with similar average ln(ME) but much different (post-ranking) βs. Table AII also shows, however, that investors are not compensated for the variation in β that is independent of size. Despite the wide range of βs in each size decile, average returns show no tendency to increase with β. AII

The FM regressions in Table AIII formalize the roles of size and β in NYSE average returns for 1941-1990. The regressions of returns on β alone show that using the βs of the portfolios formed on size and β, rather than size alone, causes the average slope on β to fall from about 1.4% per month (Table AI) to about 0.23% (about 1 standard error from 0). Thus, allowing for variation in β that is unrelated to size flattens the relation between average return and β, to the point where it is indistinguishable from no relation at all.

The flatter market lines in Table AIII succeed, however, in erasing the negative relation between β and average residuals observed in the regressions of returns on β alone in Table AI. Thus, forming portfolios on size and β (Table AIII) produces a better description of the simple relation between average return and β than forming portfolios on size alone (Table AI). This improved description of the relation between average return and β is evidence that the β estimates for the two-pass size-β portfolios capture variation in true βs that is missed when portfolios are formed on size alone.

Unfortunately, the flatter market lines in Table AIII have a cost, the emergence of a residual size effect. Grouped on the basis of ME for individual stocks, the average residuals from the univariate regressions of returns on the βs of the 100 size-β portfolios are strongly positive for small stocks and negative for large stocks (0.60% per month for the smallest ME group, 1A, and -0.27% for the largest, 10B). Thus, when we allow for variation in β that is independent of size, the resulting βs leave a large size effect in average returns. This residual size effect is much like that observed by Banz (1981) with the βs of portfolios formed on size and β.

The correlation between size and β is -0.98 for portfolios formed on size alone. The independent variation in β obtained with the second-pass sort on β lowers the correlation to -0.50. The lower correlation means that bivariate regressions of returns on β and ln(ME) are more likely to distinguish true size effects from true β effects in average returns.

The bivariate regressions (Table AIII) that use the βs of the size-β portfolios are more bad news for β. The average slopes for ln(ME) are close to the values in the univariate size regressions, and almost 4 standard errors from 0, but the average slopes for β are negative and less than 1 standard error from 0. The message from the bivariate regressions is that there is a strong relation between size and average return. But like the regressions in Table AIII that explain average returns with β alone, the bivariate regressions say that there is no reliable relation between β and average returns when the tests use βs that are not close substitutes for size. These uncomfortable SLB results for NYSE stocks for 1941-1990 are much like those for NYSE, AMEX, and NASDAQ stocks for 1963-1990 in Table III.

C. Subperiod Diagnostics

Our results for 1941–1990 seem to contradict the evidence in Black, Jensen, and Scholes (BJS) (1972) and Fama and MacBeth (FM) (1973) that there is a reliable positive relation between average return and β. The βs in BJS and FM are from portfolios formed on β alone, and the market proxy is the NYSE equal-weighted portfolio. We use the βs of portfolios formed on size and β, and our market is the value-weighted NYSE portfolio. We can report, however, that our inference that there isn't much relation between β and average return is unchanged when (a) the market proxy is the NYSE EW portfolio, (b) portfolios are formed on just (pre-ranking) βs, or (c) the order of forming the size-β portfolios is changed from size then β to β then size.

A more important difference between our results and the earlier studies is the sample periods. The tests in BJS and FM end in the 1960s. Table AIV shows that when we split the 50-year 1941–1990 period in half, the univariate FM regressions of returns on β produce an average slope for 1941–1965 (0.50% per month, $t = 1.82$) more like that of the earlier studies. In contrast, the average slope on β for 1966–1990 is close to 0 (-0.02, $t = 0.06$).

But Table AIV also shows that drawing a distinction between the results for 1941–1965 and 1966–1990 is misleading. The stronger tradeoff of average return for β in the simple regressions for 1941–1965 is due to the first 10 years, 1941–1950. This is the only period in Table AIV that produces an average premium for β (1.26% per month) that is both positive and more than 2 standard errors from 0. Conversely, the weak relation between β and average return for 1966–1990 is largely due to 1981–1990. The strong negative average slope in the univariate regressions of returns on β for 1981–1990 (-1.01, $t = -2.10$) offsets a positive slope for 1971–1980 (0.82, $t = 1.27$).

The subperiod variation in the average slopes from the FM regressions of returns on β alone seems moot, however, given the evidence in Table AIV that adding size always kills any positive tradeoff of average return for β in the subperiods. Adding size to the regressions for 1941–1965 causes the average slope for β to drop from 0.50 ($t = 1.82$) to 0.07 ($t = 0.28$). In contrast, the average slope on size in the bivariate regressions (-0.16, $t = -2.97$) is close to its value (-0.17, $t = -2.88$) in the regressions of returns on ln(ME) alone. Similar comments hold for 1941–1950. In short, any evidence of a positive average premium for β in the subperiods seems to be a size effect in disguise.

D. Can the SLB Model Be Saved?

Before concluding that β has no explanatory power, it is appropriate to consider other explanations for our results. One possibility is that the variation in β produced by the β sorts of size deciles in just sampling error. If so, it is not surprising that the variation in β within a size decile is unrelated to average return, or that size dominates β in bivariate tests. The standard errors of the βs suggest, however, that this explanation cannot save the SLB

Table AIII

Average Slopes, Their Standard Errors (SE), and Average Residuals from Monthly FM Regressions for Individual NYSE Stocks and for Portfolios Formed on Size and Pre-Ranking β: 1941-1990

Stocks are assigned the post-ranking β of the size-β portfolio they are in at the end of year $t-1$ (Table AII). ln(ME) is the natural log of price times shares outstanding at the end of year $t-1$. In the individual-stock regressions, these values of the explanatory variables are matched with CRSP returns for each of the 12 months in year t. The portfolio regressions match the equal-weighted portfolio returns for the size-β portfolios (Table AII) with the equal-weighted averages of β and ln(ME) for the surviving stocks in each month of year t. Slope is the time-series average of the monthly regression slopes from 1941-1990 (600 months); SE is the time-series standard error of the average slope.

The residuals from the monthly regressions in year t are grouped into 12 portfolios on the basis of size or pre-ranking β (estimated with 24 to 60 months of returns, as available) as of the end of year $t-1$. The average residuals are the time-series averages of the monthly equal-weighted averages of the residuals in percent. The average residuals (not shown) from the FM regressions (1) to (3) that use the returns on the 100 size-β portfolios as the dependent variable are always within 0.01 of those from the regressions for individual stock returns. This is not surprising given that the correlation between the time-series of 1941-1990 monthly FM slopes on β or ln(ME) for the comparable portfolio and individual stock regressions is always greater than 0.99.

	Portfolio Regressions				Individual Stock Regressions			
	(1) β	(2) ln(ME)	(3) β and ln(ME)		(4) β	(5) ln(ME)	(6) β and ln(ME)	
Slope	0.22	−0.128	−0.13	−0.143	0.24	−0.133	−0.14	−0.147
SE	0.24	0.043	0.21	0.039	0.23	0.043	0.21	0.039

	Average Residuals for Stocks Grouped on Size											
	1A	1B	2	3	4	5	6	7	8	9	10A	10B
Regression (4)	0.60	0.26	0.13	0.06	−0.01	−0.03	−0.03	−0.09	−0.10	−0.11	−0.25	−0.27
Standard error	0.21	0.10	0.06	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.08
Regression (5)	0.30	0.02	−0.05	−0.06	−0.08	−0.07	−0.03	−0.04	0.02	0.08	0.01	0.13
Standard error	0.14	0.07	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.04	0.07
Regression (6)	0.31	0.02	−0.05	−0.06	−0.09	−0.07	−0.03	−0.04	0.02	0.08	0.01	0.13
Standard error	0.14	0.07	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.04	0.07

Table AIII—*Continued*

	Portfolio Regressions			Individual Stock Regressions		
	(1) β	(2) ln(ME)	(3) β and ln(ME)	(4) β	(5) ln(ME)	(6) β and ln(ME)
	Average Residuals for Stocks Grouped on Pre-Ranking β					

	1A	1B	2	3	4	5	6	7	8	9	10A	10B
Regression (4)	−0.08	0.03	−0.01	0.08	0.04	0.08	0.04	0.02	−0.03	0.02	−0.11	−0.32
Standard error	0.07	0.05	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.06	0.07
Regression (5)	−0.10	0.00	0.02	0.09	0.05	0.07	0.05	0.00	−0.03	−0.01	−0.11	−0.33
Standard error	0.11	0.10	0.07	0.05	0.04	0.03	0.03	0.04	0.05	0.07	0.10	0.13
Regression (6)	−0.17	−0.07	−0.02	0.07	0.04	0.06	0.05	0.03	0.00	0.04	−0.04	−0.23
Standard error	0.05	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.06	0.07

Table AIV

Subperiod Average Returns on the NYSE Value-Weighted and Equal-Weighted Portfolios and Average Values of the Intercepts and Slopes for the FM Cross-Sectional Regressions of Individual Stock Returns on β and Size (ln(ME))

Mean is the average VW or EW return or an average slope from the monthly cross-sectional regressions of individual stock returns on β and/or ln(ME). Std is the standard deviation of the time-series of returns or slopes, and t(Mn) is Mean over its time-series standard error. The average slopes (not shown) from the FM regressions that use the returns on the 100 size-β portfolios of Table AII as the dependent variable are quite close to those for individual stock returns. (The correlation between the 1941-1990 month-by-month slopes on β or ln(ME) for the comparable portfolio and individual stock regressions is always greater than 0.99.)

Panel A

	1941-1990 (600 Mos.)			1941-1965 (300 Mos.)			1966-1990 (300 Mos.)		
Variable	Mean	Std	t(Mn)	Mean	Std	t(Mn)	Mean	Std	t(Mn)
NYSE Value-Weighted (VW) and Equal-Weighted (EW) Portfolio Returns									
VW	0.93	4.15	5.49	1.10	3.58	5.30	0.76	4.64	2.85
EW	1.12	5.10	5.37	1.33	4.42	5.18	0.91	5.70	2.77
$R_{it} = a + b_{1t}\beta_{it} + e_{it}$									
a	0.98	3.93	6.11	0.84	3.18	4.56	1.13	4.57	4.26
b_1	0.24	5.52	1.07	0.50	4.75	1.82	−0.02	6.19	−0.06
$R_{it} = a + b_{2t}\ln(ME_{it}) + e_{it}$									
a	1.70	8.24	5.04	1.88	6.43	5.06	1.51	9.72	2.69
b_2	−0.13	1.06	−3.07	−0.17	1.01	−2.88	−0.10	1.11	−1.54
$R_{it} = a + b_{1t}\beta_{it} + b_{2t}\ln(ME_{it}) + e_{it}$									
a	1.97	6.16	7.84	1.80	4.77	6.52	2.14	7.29	5.09
b_1	−0.14	5.05	−0.66	0.07	4.15	0.28	−0.34	5.80	−1.01
b_2	−0.15	0.96	−3.75	−0.16	0.94	−2.97	−0.13	0.99	−2.34

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Table AIV—*Continued*

Panel B:

Return	1941-1950		1951-1960		1961-1970		1971-1980		1981-1990	
	Mean	t(Mn)	Mean	t(Mn)	Mean	t(Mn)	Mean	t(Mn)	Mean	t(Mn)
NYSE Value-Weighted (VW) and Equal-Weighted (EW) Portfolio Returns										
VW	1.05	2.88	1.18	3.95	0.66	1.84	0.72	1.67	1.04	2.40
EW	1.59	3.16	1.13	3.76	0.88	1.96	1.04	1.82	0.95	2.01
$R_{it} = a + b_{1t}\beta_{it} + e_{it}$										
a	0.24	0.66	1.41	6.36	0.64	1.94	0.27	0.62	2.35	5.99
b_1	1.26	2.20	−0.19	−0.63	0.32	0.72	0.82	1.27	−1.01	−2.10
$R_{it} = a + b_{2t}\ln(ME_{it}) + e_{it}$										
a	2.63	3.47	1.08	2.73	1.78	2.50	2.18	2.03	0.82	1.20
b_2	−0.37	−2.90	0.03	0.53	−0.17	−2.19	−0.20	−1.57	0.04	0.57
$R_{it} = a + b_{1t}\beta_{it} + b_{2t}\ln(ME_{it}) + e_{it}$										
a	2.14	3.93	1.38	4.03	2.01	4.16	1.50	2.12	2.84	4.25
b_1	0.34	0.75	−0.17	−0.53	−0.11	−0.27	0.41	0.75	−1.14	−2.16
b_2	−0.34	−2.92	0.01	0.20	−0.18	−2.89	−0.16	−1.50	−0.07	−0.84

model. The standard errors for portfolios formed on size and β are only slightly larger (0.02 to 0.11) than those for portfolios formed on size alone (0.01 to 0.10, Table AI). And the range of the post-ranking βs within a size decile is always large relative to the standard errors of the βs.

Another possibility is that the proportionality condition (1) for the variation through time in true βs, that justifies the use of full-period post-ranking βs in the FM tests, does not work well for portfolios formed on size and β. If this is a problem, post-ranking βs for the size-β portfolios should not be highly correlated across subperiods. The correlation between the half-period (1941-1965 and 1966-1990) βs of the size-β portfolios is 0.91, which we take to be good evidence that the full-period β estimates for these portfolios are informative about true βs. We can also report that using 5-year βs (pre- or post-ranking) in the FM regressions does not change our negative conclusions about the role of β in average returns, as long as portfolios are formed on β as well as size, or on β alone.

Any attempt to salvage the simple positive relation between β and average return predicted by the SLB model runs into three damaging facts, clear in Table AII. (a) Forming portfolios on size and pre-ranking βs produces a wide range of post-ranking βs in every size decile. (b) The post-ranking βs closely reproduce (in deciles 2 to 10 they exactly reproduce) the ordering of the pre-ranking βs used to form the β-sorted portfolios. It seems safe to conclude that the increasing pattern of the post-ranking βs in every size decile captures the ordering of the true βs. (c) Contrary to the SLB model, the β sorts do not produce a similar ordering of average returns. Within the rows (size deciles) of the average return matrix in Table AII, the high-β portfolios have average returns that are close to or less than the low-β portfolios.

But the most damaging evidence against the SLB model comes from the univariate regressions of returns on β in Table AIII. They say that when the tests allow for variation in β that is unrelated to size, the relation between β and average return for 1941-1990 is weak, perhaps nonexistent, even when β is the only explanatory variable. We are forced to conclude that the SLB model does not describe the last 50 years of average stock returns.

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FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
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THE EQUITY PREMIUM
A Puzzle*

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Restrictions that a class of general equilibrium models place upon the average returns of equity and Treasury bills are found to be strongly violated by the U.S. data in the 1889–1978 period. This result is robust to model specification and measurement problems. We conclude that, most likely, an equilibrium model which is not an Arrow–Debreu economy will be the one that simultaneously rationalizes both historically observed large average equity return and the small average risk-free return.

1. Introduction

Historically the average return on equity has far exceeded the average return on short-term virtually default-free debt. Over the ninety-year period 1889–1978 the average real annual yield on the Standard and Poor 500 Index was seven percent, while the average yield on short-term debt was less than one percent. The question addressed in this paper is whether this large differential in average yields can be accounted for by models that abstract from transactions costs, liquidity constraints and other frictions absent in the Arrow–Debreu set-up. Our finding is that it cannot be, at least not for the class of economies considered. Our conclusion is that most likely some equilibrium model with a

*This research was initiated at the University of Chicago where Mehra was a visiting scholar at the Graduate School of Business and Prescott a Ford foundation visiting professor at the Department of Economics. Earlier versions of this paper, entitled 'A Test of the Intertemporal Asset Pricing Model', were presented at the University of Minnesota, University of Lausanne, Harvard University, NBER Conference on Intertemporal Puzzles in Macroeconomics, and the American Finance Meetings. We wish to thank the workshop participants, George Constantinides, Eugene Fama, Merton Miller, and particularly an anonymous referee, Fischer Black, Stephen LeRoy and Charles Plosser for helpful discussions and constructive criticisms. We gratefully acknowledge financial support from the Faculty Research Fund of the Graduate School of Business, Columbia University, the National Science Foundation and the Federal Reserve Bank of Minneapolis.

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friction will be the one that successfully accounts for the large average equity premium.

We study a class of competitive pure exchange economies for which the equilibrium *growth* rate process on consumption and equilibrium asset returns are stationary. Attention is restricted to economies for which the elasticity of substitution for the composite consumption good between the year t and year $t+1$ is consistent with findings in micro, macro and international economics. In addition, the economies are constructed to display equilibrium consumption growth rates with the same mean, variance and serial correlation as those observed for the U.S. economy in the 1889–1978 period. We find that for such economies, the average real annual yield on equity is a maximum of four-tenths of a percent higher than that on short-term debt, in sharp contrast to the six percent premium observed. Our results are robust to non-stationarities in the means and variances of the economies' growth processes.

The simple class of economies studied, we think, is well suited for the question posed. It clearly is poorly suited for other issues, in particular issues such as the volatility of asset prices.[1] We emphasize that our analysis is not an estimation exercise, which is designed to obtain better estimates of key economic parameters. Rather it is a quantitative theoretical exercise designed to address a very particular question.[2]

Intuitively, the reason why the low average real return and high average return on equity cannot simultaneously be rationalized in a perfect market framework is as follows: With real per capita consumption growing at nearly two percent per year on average, the elasticities of substitution between the year t and year $t+1$ consumption good that are sufficiently small to yield the six percent average equity premium also yield real rates of return far in excess of those observed. In the case of a growing economy, agents with high risk aversion effectively discount the future to a greater extent than agents with low risk aversion (relative to a non-growing economy). Due to growth, future consumption will probably exceed present consumption and since the marginal utility of future consumption is less than that of present consumption, real interest rates will be higher on average.

This paper is organized as follows: Section 2 summarizes the U.S. historical experience for the ninety-year period 1889–1978. Section 3 specifies the set of economies studied. Their behavior with respect to average equity and short-term debt yields, as well as a summary of the sensitivity of our results to the specifications of the economy, are reported in section 4. Section 5 concludes the paper.

[1] There are other interesting features of time series and procedures for testing them. The variance bound tests of LeRoy and Porter (1981) and Shiller (1980) are particularly innovative and constructive. They did indicate that consumption risk was important [see Grossman and Shiller (1981) and LeRoy and LaCavita (1981)].

[2] See Lucas (1980) for an articulation of this methodology.

Table 1

Time periods	% growth rate of per capita real consumption		% real return on a relatively riskless security		% risk premium		% real return on S&P 500	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
1889–1978	1.83 (Std error = 0.38)	3.57	0.80 (Std error = 0.60)	5.67	6.18 (Std error = 1.76)	16.67	6.98 (Std error = 1.74)	16.54
1889–1898	2.30	4.90	5.80	3.23	1.78	11.57	7.58	10.02
1899–1908	2.55	5.31	2.62	2.59	5.08	16.86	7.71	17.21
1909–1918	0.44	3.07	−1.63	9.02	1.49	9.18	−0.14	12.81
1919–1928	3.00	3.97	4.30	6.61	14.64	15.94	18.94	16.18
1929–1938	−0.25	5.28	2.39	6.50	0.18	31.63	2.56	27.90
1939–1948	2.19	2.52	−5.82	4.05	8.89	14.23	3.07	14.67
1949–1958	1.48	1.00	−0.81	1.89	18.30	13.20	17.49	13.08
1959–1968	2.37	1.00	1.07	0.64	4.50	10.17	5.58	10.59
1969–1978	2.41	1.40	−0.72	2.06	0.75	11.64	0.03	13.11

2. Data

The data used in this study consists of five basic series for the period 1889–1978.[3] The first four are identical to those used by Grossman and Shiller (1981) in their study. The series are individually described below:

(i) *Series P*: Annual average Standard and Poor's Composite Stock Price Index divided by the Consumption Deflator, a plot of which appears in Grossman and Shiller (1981, p. 225, fig. 1).
(ii) *Series D*: Real annual dividends for the Standard and Poor's series.
(iii) *Series C*: Kuznets–Kendrik–USNIA per capita real consumption on non-durables and services.
(iv) *Series PC*: Consumption deflator series, obtained by dividing real consumption in 1972 dollars on non-durables and services by the nominal consumption on non-durables and services.
(v) *Series RF*: Nominal yield on relatively riskless short-term securities over the 1889–1978 period; the securities used were ninety-day government Treasury Bills in the 1931–1978 period, Treasury Certificates for the

[3] We thank Sanford Grossman and Robert Shiller for providing us with the data they used in their study (1981).

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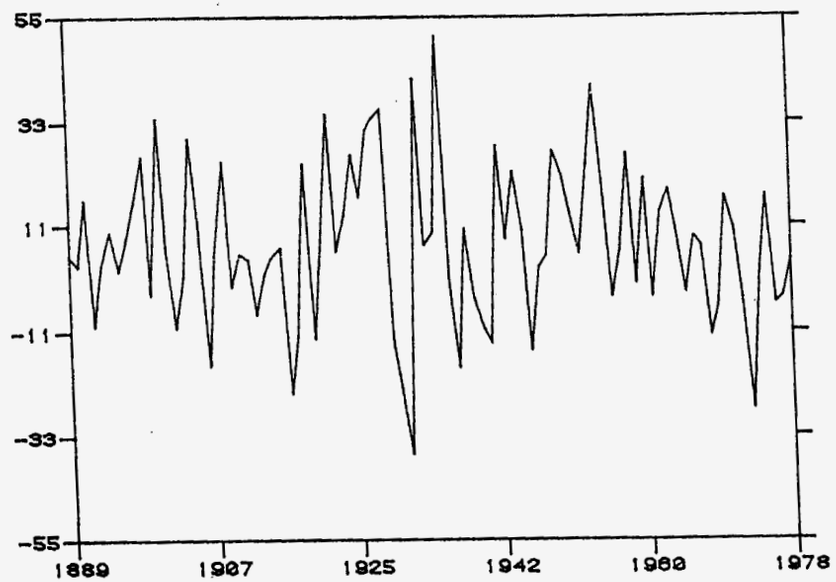

Fig. 1. Real annual return on S&P 500, 1889–1978 (percent).

1920–1930 period and sixty-day to ninety-day Prime Commercial Paper prior to 1920.[4]

These series were used to generate the series actually utilized in this paper. Summary statistics are provided in table 1.

Series P and D above were used to determine the average annual real return on the Standard and Poor's 500 Composite Index over the ninety-year period of study. The annual return for year t was computed as $(P_{t+1} + D_t - P_t)/P_t$. The returns are plotted in fig. 1. Series C was used to determine the process on the growth rate of consumption over the same period. Model parameters were restricted to be consistent with this process. A plot of the percentage growth of real consumption appears in fig. 2. To determine the real return on a relatively riskless security we used the series RF and PC. For year t this is calculated to be $RF_t - (PC_{t+1} - PC_t)/PC_t$.

This series is plotted in fig. 3. Finally, the Risk Premium (RP) is calculated as the difference between the Real Return on Standard and Poor's 500 and the Real Return on a Riskless security as defined above.

[4]The data was obtained from Homer (1963) and Ibbotson and Singuefield (1979).

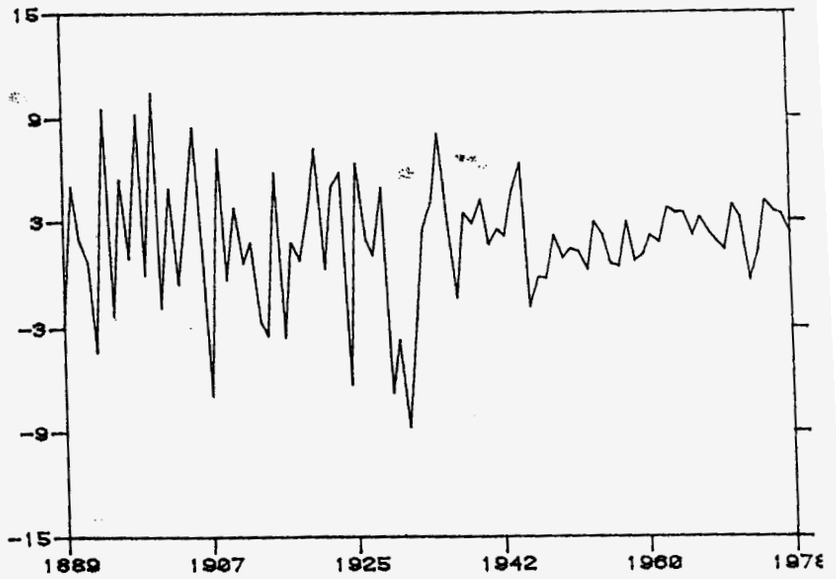

Fig. 2. Growth rate of real per capita consumption, 1889–1978 (percent).

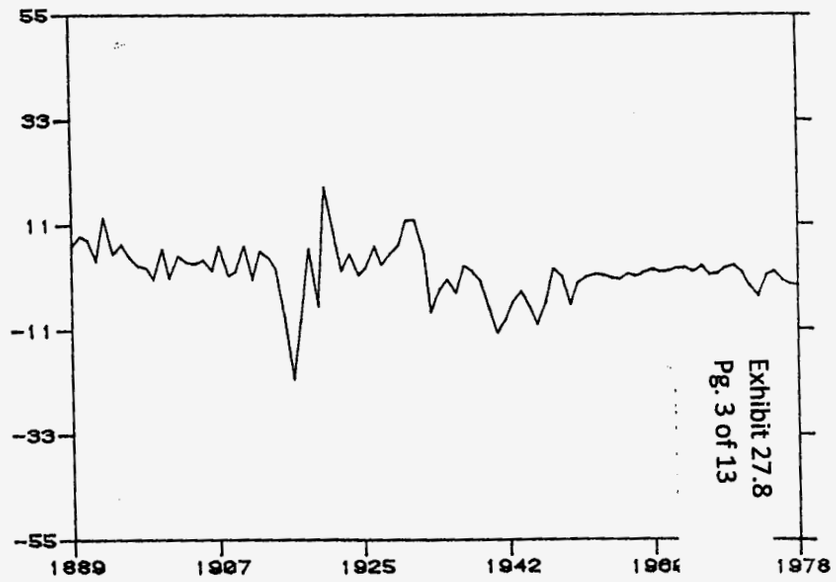

Fig. 3. Real annual return on a relatively riskless security, 1889–19).

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3. The economy, asset prices and returns

In this paper, we employ a variation of Lucas' (1978) pure exchange model. Since per capita consumption has grown over time, we assume that the *growth rate* of the endowment follows a Markov process. This is in contrast to the assumption in Lucas' model that the endowment *level* follows a Markov process. Our assumption, which requires an extension of competitive equilibrium theory, enables us to capture the non-stationarity in the consumption series associated with the large increase in per capita consumption that occurred in the 1889–1978 period.

The economy we consider was judiciously selected so that the joint process governing the growth rates in aggregate per capita consumption and asset prices would be stationary and easily determined. The economy has a single representative 'stand-in' household. This unit orders its preferences over random consumption paths by

$$\mathrm{E}_0\left\{\sum_{t=0}^{\infty}\beta^t U(c_t)\right\}, \qquad 0<\beta<1, \tag{1}$$

where c_t is per capita consumption, β is the subjective time discount factor, $\mathrm{E}_0\{\cdot\}$ is the expectation operator conditional upon information available at time zero (which denotes the present time) and U: $R_+ \to R$ is the increasing concave utility function. To insure that the equilibrium return process is stationary, the utility function is further restricted to be of the constant relative risk aversion class,

$$U(c,\alpha)=\frac{c^{1-\alpha}-1}{1-\alpha}, \qquad 0<\alpha<\infty. \tag{2}$$

The parameter α measures the curvature of the utility function. When α is equal to one, the utility function is defined to be the logarithmic function, which is the limit of the above function as α approaches one.

We assume that there is one productive unit producing the perishable consumption good and there is one equity share that is competitively traded. Since only one productive unit is considered, the return on this share of equity is also the return on the market. The firm's output is constrained to be less than or equal to y_t. It is the firm's dividend payment in the period t as well.

The growth rate in y_t is subject to a Markov chain; that is,

$$y_{t+1}=x_{t+1}y_t, \tag{3}$$

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where $x_{t+1} \in \{\lambda_1, \ldots, \lambda_n\}$ is the growth rate, and

$$\Pr\{x_{t+1}=\lambda_j;\ x_t=\lambda_i\}=\phi_{ij}.$$

It is also assumed that the Markov chain is ergodic. The λ_i are all positive $y_0>0$. The random variable y_t is observed at the beginning of the perio which time dividend payments are made. All securities are traded ex-divid We also assume that the matrix A with elements $a_{ij}\equiv\beta\phi_{ij}\lambda_j^{1-\alpha}$ for i, $1,\ldots,n$ is stable; that is, $\lim A^m$ as $m\to\infty$ is zero. In Mehra and Pre (1984) it is shown that this is necessary and sufficient for expected utilit exist if the stand-in household consumes y_t every period. They also define establish the existence of a Debreu (1954) competitive equilibrium with a p system having a dot product representation under this condition.

Next we formulate expressions for the equilibrium time t price of the eq share and the risk-free bill. We follow the convention of pricing securi ex-dividend or ex-interest payments at time t, in terms of the time t consu tion good. For any security with process $\{d_s\}$ on payments, its price in per t is

$$P_t=\mathrm{E}_t\left\{\sum_{s=t+1}^{\infty}\beta^{s-t}U'(y_s)d_s/U'(y_t)\right\},$$

as equilibrium consumption is the process $\{y_s\}$ and the equilibrium pr system has a dot product representation.

The dividend payment process for the equity share in this economy is $\{y_s$ Consequently, using the fact that $U'(c)=c^{-\alpha}$,

$$P_t^e=P^e(x_t,y_t)$$

$$=\mathrm{E}\left\{\sum_{s=t+1}^{\infty}\beta^{s-t}\frac{y_t^{\alpha}}{y_s^{\alpha}}y_s\,|x_t,y_t\right\}. \tag{(}$$

Variables x_t and y_t are sufficient relative to the entire history of shocks u to, and including, time t for predicting the subsequent evolution of th economy. They thus constitute legitimate state variables for the model. Sinc $y_s=y_t\cdot x_{t+1}\cdot\cdots\cdot x_s$, the price of the equity security is homogeneous of degre one in y_t, which is the current endowment of the consumption good. As th equilibrium values of the economies being studied are time invariant function of the state (x_t, y_t), the subscript t can be dropped. This is accomplished by redefining the state to be the pair (c,i), if $y_t=c$ and $x_t=\lambda_i$. With this

$$p^e(c,i) = \beta \sum_{j=1}^{n} \phi_{ij} (\lambda_j c)^{-\alpha} \left[p^e(\lambda_j c, j) + c\lambda_j \right] c^{\alpha}. \tag{7}$$

Using the result that $p^e(c,i)$ is homogeneous of degree one in c, we present this function as

$$p^e(c,i) = w_i c, \tag{8}$$

here w_i is a constant. Making this substitution in (7) and dividing by c yields

$$w_i = \beta \sum_{j=1}^{n} \phi_{ij} \lambda_j^{(1-\alpha)} (w_j + 1) \quad \text{for} \quad i = 1, \ldots, n. \tag{9}$$

his is a system of n linear equations in n unknowns. The assumption that uaranteed existence of equilibrium guarantees the existence of a unique ositive solution to this system.

The period return if the current state is (c,i) and next period state $(\lambda_j c, j)$ is

$$r_{ij}^e = \frac{p^e(\lambda_j c, j) + \lambda_j c - p^e(c,i)}{p^e(c,i)}$$

$$= \frac{\lambda_j (w_j + 1)}{w_i} - 1, \tag{10}$$

sing (8).

The equity's expected period return if the current state is i is

$$R_i^e = \sum_{j=1}^{n} \phi_{ij} r_{ij}^e. \tag{11}$$

apital letters are used to denote expected return. With the subscript i, it is the xpected return conditional upon the current state being (c,i). Without this ubscript it is the expected return with respect to the stationary distribution. he superscript indicates the type of security.

The other security considered is the one-period real bill or riskless asset, hich pays one unit of the consumption good next period with certainty.

$$p_i^f = p^f(c,i)$$

$$= \beta \sum_{j=1}^{n} \phi_{ij} U'(\lambda_j c)/U'(c) \tag{12}$$

$$= \beta \sum_{j=1}^{n} \phi_{ij} \lambda_j^{-\alpha}.$$

The certain return on this riskless security is

$$R_i^f = 1/p_i^f - 1, \tag{13}$$

when the current state is (c,i).

As mentioned earlier, the statistics that are probably most robust to the modelling specification are the means over time. Let $\pi \in R^n$ be the vector of stationary probabilities on i. This exists because the chain on i has been assumed to be ergodic. The vector π is the solution to the system of equations

$$\pi = \phi^T \pi,$$

with

$$\sum_{i=1}^{n} \pi_i = 1 \quad \text{and} \quad \phi^T = \{\phi_{ji}\}.$$

The expected returns on the equity and the risk-free security are, respectively,

$$R^e = \sum_{i=1}^{n} \pi_i R_i^e \quad \text{and} \quad R^f = \sum_{i=1}^{n} \pi_i R_i^f. \tag{14}$$

Time sample averages will converge in probability to these values given the ergodicity of the Markov chain. The risk premium for equity is $R^e - R^f$, a parameter that is used in the test.

4. The results

The parameters defining preferences are α and β while the parameters defining technology are the elements of $[\phi_{ij}]$ and $[\lambda_i]$. Our approach is to

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assume two states for the Markov chain and to restrict the process as follows:

$$\lambda_1 = 1 + \mu + \delta, \qquad \lambda_2 = 1 + \mu - \delta,$$

$$\phi_{11} = \phi_{22} = \phi, \qquad \phi_{12} = \phi_{21} = (1 - \phi).$$

The parameters μ, ϕ, and δ now define the technology. We require $\delta > 0$ and $0 < \phi < 1$. This particular parameterization was selected because it permitted us to independently vary the average growth rate of output by changing μ, the variability of consumption by altering δ, and the serial correlation of growth rates by adjusting ϕ.

The parameters were selected so that the average growth rate of per capita consumption, the standard deviation of the growth rate of per capita consumption and the first-order serial correlation of this growth rate, all with respect to the model's stationary distribution, matched the sample values for the U.S. economy between 1889–1978. The sample values for the U.S. economy were 0.018, 0.036 and −0.14, respectively. The resulting parameter's values were $\mu = 0.018$, $\delta = 0.036$ and $\phi = 0.43$. Given these values, the nature of the test is to search for parameters α and β for which the model's averaged risk-free rate and equity risk premium match those observed for the U.S. economy over this ninety-year period.

The parameter α, which measures peoples' willingness to substitute consumption between successive yearly time periods is an important one in many fields of economics. Arrow (1971) summarizes a number of studies and concludes that relative risk aversion with respect to wealth is almost constant. He further argues on theoretical grounds that α should be approximately one. Friend and Blume (1975) present evidence based upon the portfolio holdings of individuals that α is larger, with their estimates being in the range of two. Kydland and Prescott (1982), in their study of aggregate fluctuations, found that they needed a value between one and two to mimic the observed relative variabilities of consumption and investment. Altug (1983), using a closely related model and formal econometric techniques, estimates the parameter to be near zero. Kehoe (1984), studying the response of small countries balance of trade to terms of trade shocks, obtained estimates near one, the value posited by Arrow. Hildreth and Knowles (1982) in their study of the behavior of farmers also obtain estimates between one and two. Tobin and Dolde (1971), studying life cycle savings behavior with borrowing constraints, use a value of 1.5 to fit the observed life cycle savings patterns.

Any of the above cited studies can be challenged on a number of grounds, but together they constitute an *a priori* justification for restricting the value of α to be a maximum of ten, as we do in this study. This is an important restriction, for with large α virtually any pair of average equity and risk-free returns can be obtained by making small changes in the process on consump-

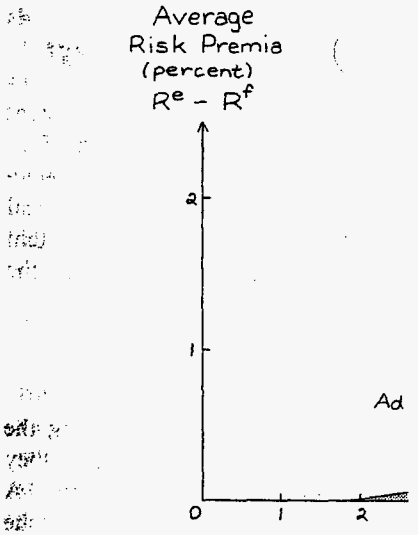

Fig. 4. Set of admissible aver

tion.[5] With α less than ten, we fou very different consumption processe growth rates equaled the historica approach is that we can easily t distributional assumptions.

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[5] In a private communication, Fischer Blac with investment opportunities constructed an thank him for the example.

Exhibit 27.8
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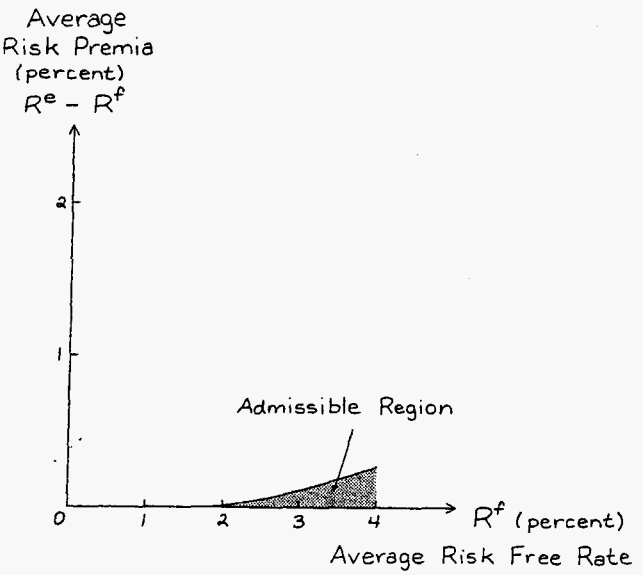

Fig. 4. Set of admissible average equity risk premia and real returns.

tion.[5] With α less than ten, we found the results were essentially the same for very different consumption processes, provided that the mean and variances of growth rates equaled the historically observed values. An advantage of our approach is that we can easily test the sensitivity of our results to such distributional assumptions.

The average real return on relatively riskless, short-term securities over the 1889–1978 period was 0.80 percent. These securities do not correspond perfectly with the real bill, but insofar as unanticipated inflation is negligible and/or uncorrelated with the growth rate x_{t+1} conditional upon information at time t, the expected real return for the nominal bill will equal R_t^f. Litterman (1980), using vector autoregressive analysis, found that the innovation in the inflation rate in the post-war period (quarterly data) has standard deviation of only one-half of one percent and that his innovation is nearly orthogonal to the subsequent path of the real GNP growth rate. Consequently, the average realized real return on a nominally denoted short-term bill should be close to that which would have prevailed for a real bill if such a security were traded. The average real return on the Standard and Poor's 500 Composite Stock

[5] In a private communication, Fischer Black using the Merton (1973) continuous time model with investment opportunities constructed an example with a curvature parameter (α) of 55. We thank him for the example.

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Index over the ninety years considered was 6.98 percent per annum. This leads to an average equity premium of 6.18 percent (standard error 1.76 percent).

Given the estimated process on consumption, fig. 4 depicts the set of values of the average risk-free rate and equity risk premium which are both consistent with the model and result in average real risk-free rates between zero and four percent. These are values that can be obtained by varying preference parameters α between zero and ten and β between zero and one. The observed real return of 0.80 percent and equity premium of 6 percent is clearly inconsistent with the predictions of the model. The largest premium obtainable with the model is 0.35 percent, which is not close to the observed value.

4.1. Robustness of results

One set of possible problems are associated with errors in measuring the inflation rate. Such errors do not affect the computed risk premium as they bias both the real risk-free rate and the equity rate by the same amount. A potentially more serious problem is that these errors bias our estimates of the growth rate of consumption and the risk-free real rate. Therefore, only if the tests are insensitive to biases in measuring the inflation rate should the tests be taken seriously. A second measurement problem arises because of tax considerations. The theory is implicitly considering effective after-tax returns which vary over income classes. In the earlier part of the period, tax rates were low. In the latter period, the low real rate and sizable equity risk premium hold for after-tax returns for all income classes [see Fisher and Lorie (1978)].

We also examined whether aggregation affects the results for the case that the growth rates were independent between periods, which they approximately were, given that the estimated ϕ was near one-half. Varying the underlying time period from one one-hundredths of a year to two years had a negligible effect upon the admissible region. (See the appendix for an exact specification of these experiments.) Consequently, the test appears robust to the use of annual data in estimating the process on consumption.

In an attempt to reconcile the large discrepancy between theory and observation, we tested the sensitivity of our results to model misspecification. We found that the conclusions are not at all sensitive to changes in the parameter μ, which is the average growth rate of consumption, with decreases to 1.4 percent or increases to 2.2 percent not reducing the discrepancy. The sensitivity to δ, the standard deviation of the consumption growth rate, is larger. The average equity premium was roughly proportional to δ squared. As the persistence parameter ϕ increased ($\phi = 0.5$ corresponds to independence over time), the premium decreased. Reducing ϕ (introducing stronger negative serial correlation in the consumption growth rate) had only small effects. We also modified the process on consumption by introducing additional states that permitted us to increase higher moments of the stationary distribution of the

growth rate without varying the
premium increased by 0.0
conclusion that the result of the
process generating consumption.

That the results were not sen
rate, that is to increases in ϕ,
stationarities in the growth rate
by assuming stationarity, we bia

4.2. Effects of firm leverage

The security priced in our mod
traded in the U.S. economy. In
while in an actual economy there
widely varying risk characteristi
stock market entitles its owner t
claims including wages have b
stockholders is much more vari
claims against the firm. Labor
insurance feature, as labor clain
negotiated prior to the realizatior
the uncertainty in output is prob

The firm in our model correspc
economy. Clearly, the riskiness of
of the Standard and Poor's 500 C
match the two securities we price
whose dividend next period is act
Let θ be the fraction of exp d
firm. Eq. (7) then becomes

$$p^e(c,i) = \beta \sum_{j=1}^{n} \phi_{ij}(\lambda_j c)^-$$

As before, it is conjectured and
$p^e c$. Substituting $w_i c$ for $p^e(c,i)$ i

$$w_i = \beta \sum_{j=1}^{n} \phi_{ij}\lambda_j^{-\alpha}\left[\lambda_j w_j + \right.$$

for $i = 1, \ldots, n$. This system was
(11), and (14) used to determine t

Exhibit 27.8
Pg. 9 of 13

growth rate without varying the first or second moments. The maximal equity premium increased by 0.04 to 0.39 only. These exercises lead us to the conclusion that the result of the test is not sensitive to the specification of the process generating consumption.

That the results were not sensitive to increased persistence in the growth rate, that is to increases in ϕ, implies low frequency movements or non-stationarities in the growth rate do *not* increase the equity premium. Indeed, by assuming stationarity, we biased the test *towards* acceptance.

4.2. *Effects of firm leverage*

The security priced in our model does not correspond to the common stocks traded in the U.S. economy. In our model there is only one type of capital, while in an actual economy there is virtually a continuum of capital types with widely varying risk characteristics. The stock of a typical firm traded in the stock market entitles its owner to the residual claim on output after all other claims including wages have been paid. The share of output accruing to stockholders is much more variable than that accruing to holders of other claims against the firm. Labor contracts, for instance, may incorporate an insurance feature, as labor claims on output are in part fixed, having been negotiated prior to the realization of output. Hence, a disproportionate part of the uncertainty in output is probably borne by equity owners.

The firm in our model corresponds to one producing the entire output of the economy. Clearly, the riskiness of the stock of this firm is not the same as that of the Standard and Poor's 500 Composite Stock Price Index. In an attempt to match the two securities we price and calculate the risk premium of a security whose dividend next period is actual output less a fraction of expected output. Let θ be the fraction of expected date $t+1$ output committed at date t by the firm. Eq. (7) then becomes

$$p^e(c,i) = \beta \sum_{j=1}^{n} \phi_{ij} (\lambda_j c)^{-\alpha} \left[p^e(\lambda_j c, j) + c\lambda_j - \theta \sum_{k=1}^{n} \phi_{ik} c\lambda_k \right] c^{\alpha}. \quad (15)$$

As before, it is conjectured and verified that $p^e(c,i)$ has the functional form $w_i c$. Substituting $w_i c$ for $p^e(c,i)$ in (15) yields the set of linear equations

$$w_i = \beta \sum_{j=1}^{n} \phi_{ij} \lambda_j^{-\alpha} \left[\lambda_j w_j + \lambda_j - \theta \sum_{k=1}^{n} \phi_{ik} \lambda_k \right], \quad (16)$$

for $i = 1, \ldots, n$. This system was solved for the equilibrium w_i and eqs. (10), (11), and (14) used to determine the average equity premium.

Exhibit 27.8
Pg. 10 of 13

As the corporate profit share of output is about ten percent, we set $\theta = 0.9$. Thus, ninety percent of expected output is committed and all the risk is borne by equity owners who receive ten percent of output on average. This increased the equity risk premium by less than one-tenth percent. This is the case because financial arrangements have no effect upon resource allocation and, therefore, the underlying Arrow–Debreu prices. Large fixed payment commitments on the part of the firm do not reverse the test's outcome.

4.3. *Introducing production*

With our structure, the process on the endowment is exogenous and there is neither capital accumulation nor production. Modifying the technology to admit these opportunities cannot overturn our conclusion, because expanding the set of technologies in this way does not increase the set of joint equilibrium processes on consumption and asset prices [see Mehra (1984)]. As opposed to standard testing techniques, the failure of the model hinges not on the acceptance/rejection of a statistical hypothesis but on its inability to generate average returns even close to those observed. If we had been successful in finding an economy which passed our not very demanding test, as we expected, we planned to add capital accumulation and production to the model using a variant of Brock's (1979, 1982), Donaldson and Mehra's (1984) or Prescott and Mehra's (1980) general equilibrium stationary structures and to perform additional tests.

5. Conclusion

The equity premium puzzle may not be why was the average equity return so high but rather why was the average risk-free rate so low. This conclusion follows if one accepts the Friend and Blume (1975) finding that the curvature parameter α significantly exceeds one. For $\alpha = 2$, the model's average risk-free rate is at least 3.7 percent per year, which is considerably larger than the sample average 0.80 given the standard deviation of the sample average is only 0.60. On the other hand, if α is near zero and individuals nearly risk-neutral, then one would wonder why the average return of equity was so high. This is not the only example of some asset receiving a lower return than that implied by Arrow–Debreu general equilibrium theory. Currency, for example, is dominated by Treasury bills with positive nominal yields yet sizable amounts of currency are held.

We doubt whether heterogeneity, per se, of the agents will alter the conclusion. Within the Debreu (1954) competitive framework, Constantinides (1982) has shown heterogeneous agent economies also impose the set of restrictions tested here (as well as others). We doubt whether non-time-additivity separable preferences will resolve the puzzle, for that would require consumptions near in time to be poorer substi...s Perhaps introducing som...e trades among agents infeasibl markets, there can be variabili ty in aggregate consumption. non-enforceable is one reasor otherwise arise to share risk. unborn generations is not fe equilibrium models may ratio characterized the behavior of t test such theories it would prol income or age groups.

Appendix

The procedure for determini follows. For a given set of pa algorithm for computing the va belonging to the set

$$x = \{(\alpha, \beta): 0 < \alpha \leq 1$$

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Letting $R^f = h_1(\alpha, \beta)$ and R^e - the region depicted in fig. 4. Tl fine grid in X to determin ...e

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The experiments to determine 0.018 and $\delta = 0.21, 0.26, 0.31, 0$ varied approximately with the sq

[6] See Wallace (1980) for an exposition importance of legal constraints in explair

Exhibit 27.8
Pg.11 of 13

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time to be poorer substitutes than consumptions at widely separated dates. Perhaps introducing some features that make certain types of intertemporal trades among agents infeasible will resolve the puzzle. In the absence of such markets, there can be variability in individual consumptions, yet little variability in aggregate consumption. The fact that certain types of contracts may be non-enforceable is one reason for the non-existence of markets that would otherwise arise to share risk. Similarly, entering into contracts with as yet unborn generations is not feasible.[6] Such non-Arrow–Debreu competitive equilibrium models may rationalize the large equity risk premium that has characterized the behavior of the U.S. economy over the last ninety years. To test such theories it would probably be necessary to have consumption data by income or age groups.

Appendix

The procedure for determining the admissible region depicted in fig. 4 is as follows. For a given set of parameters μ, δ and ϕ, eqs. (10)–(14) define an algorithm for computing the values of R^e, R^f and $R^e - R^f$ for any (α, β) pair belonging to the set

$$x = \{(\alpha, \beta): 0 < \alpha \leq 10,\ 0 < \beta < 1, \text{ and the existence condition of section 3 is satisfied}\}.$$

Letting $R^f = h_1(\alpha, \beta)$ and $R^e - R^f = h_2(\alpha, \beta)$, h: $X \to R^2$, the range of h is the region depicted in fig. 4. The function h was evaluated for all points of a fine grid in X to determine the admissible region.

The experiments to determine the sensitivity of the results to the period length have model time periods $n = 2, 1, 1/2, 1/4, 1/8, 1/16, 1/64$ and $1/128$ years. The values of the other parameters are $\mu = 0.018/n$, $\delta = 0.036/\sqrt{n}$ and $\phi = 0.5$. With these numbers the mean and standard deviation of annual growth rates are 0.018 and 0.036 respectively as in the sample period. This follows because $\phi = 0.5$ implies independence of growth rates over periods. The change in the admissible region were hundredths of percent as n varied.

The experiments to test the sensitivity of the results to μ consider $\mu = 0.014$, 0.016, 0.018, 0.020 and 0.022, $\phi = 0.43$ and $\delta = 0.036$. As for the period length, the growth rate's effects upon the admissible region are hundredths of percent.

The experiments to determine the sensitivity of results to δ set $\phi = 0.43$, $\mu = 0.018$ and $\delta = 0.21$, 0.26, 0.31, 0.36, 0.41, 0.46 and 0.51. The equity premium varied approximately with the square of δ in this range.

[6] See Wallace (1980) for an exposition on the use of the overlapping generations model and the importance of legal constraints in explaining rate of return anomalies.

Exhibit 27.8
Pg. 12 of 13

Similarly, to test the sensitivity of the results to variations in the parameter ϕ, we held δ fixed at 0.036 and μ at 0.018 and varied ϕ between 0.005 and 0.95 in steps of 0.05. As ϕ increased the average equity premium declined.

The test for the sensitivity of results to higher movements uses an economy with a four-state Markov chain with transition probability matrix

$$\begin{bmatrix} \phi/2 & \phi/2 & 1-\phi/2 & 1-\phi/2 \\ \phi/2 & \phi/2 & 1-\phi/2 & 1-\phi/2 \\ 1-\phi/2 & 1-\phi/2 & \phi/2 & \phi/2 \\ 1-\phi/2 & 1-\phi/2 & \phi/2 & \phi/2 \end{bmatrix}.$$

The values of the λ are $\lambda_1 = 1+\mu$, $\lambda_2 = 1+\mu+\delta$, $\lambda_3 = 1+\mu$, and $\lambda_4 = 1+\mu-\delta$. Values of μ, δ and ϕ are 0.018, 0.051 and 0.36, respectively. This results in the mean, standard deviation and first-order serial correlations of consumption growth rates for the artificial economy equaling their historical values. With this Markov chain, the probability of above average changes is smaller and magnitude of changes larger. This has the effect of increasing moments higher than the second without altering the first or second moments. This increases the maximum average equity premium from 0.35 percent to 0.39 percent.

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FPSC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 27.9

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BETAS AND THEIR REGRESSION TENDENCIES

MARSHALL E. BLUME*

I. INTRODUCTION

A PREVIOUS STUDY [3] showed that estimated beta coefficients, at least in the context of a portfolio of a large number of securities, were relatively stationary over time. Nonetheless, there was a consistent tendency for a portfolio with either an extremely low or high estimated beta in one period to have a less extreme beta as estimated in the next period. In other words, estimated betas exhibited in that article a tendency to regress towards the grand mean of all betas, namely one. This study will examine in further detail this regression tendency.[1]

The next section presents evidence showing the existence of this regression tendency and reviews the conventional reasons given in explanation [1], [4], [5]. The following section develops a formal model of this regression tendency and finds that the conventional analysis of this tendency is, if not incorrect, certainly misleading. Accompanying this theoretical analysis are some new empirical results which show that a major reason for the observed regression is real non-stationarities in the underlying values of beta and that the so-called "order bias" is not of dominant importance.

II. THE CONVENTIONAL WISDOM

If an investor were to use estimated betas to group securities into portfolios spanning a wide range of risk, he would more than likely find that the betas estimated for the very same portfolios in a subsequent period would be less extreme or closer to the market beta of one than his prior estimates. To illustrate, assume that the investor on July 1, 1933, had at his disposal an estimate of beta for each common stock which had been listed on the NYSE (New York Stock Exchange) for the prior seven years, July 1926-June 1933. Assume further that each estimate was derived by regressing the eighty-four monthly relatives covering this seven-year period upon the corresponding values for the market portfolio.[2]

If this investor, say, desired equally weighted portfolios of 100 securities, he might group those 100 securities with the smallest estimates of beta together to form a portfolio. Such a portfolio would of all equally

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1. Quite apart from this regression tendency, it is reasonable to suppose that betas do change over time in systematic ways in response to certain changes in the structure of companies.

2. Such regressions were calculated only for securities with complete data. The relative for the market portfolio was measured by Fisher's Combination Link Relative [6].

weighted portfolios have the smallest possible estimated portfolio beta since an estimate of such a portfolio beta can be shown to be an average of the estimates for the individual securities [2, p. 169]. To cover a wide range of portfolio betas, this investor might then form a second portfolio consisting of the 100 securities with the next smallest estimates of beta, and so on.

Using the securities available as of June 1933, this investor could thus obtain four portfolios of 100 securities apiece with no security in common. Estimated over the same seven-year period, July 1926-June 1933, the betas for these portfolios[3] would have ranged from 0.50 to 1.53. Similar portfolios can be constructed for each of the next seven-year periods through 1954 and their portfolio betas calculated. Table 1 contains these estimates under the heading "Grouping Period."

The betas for these same portfolios, but reestimated using the monthly portfolio relatives adjusted for delistings from the seven years following the grouping period, illustrate the magnitude of the regression tendency.[4] Whereas the portfolio betas as estimated, for instance, in the grouping period 1926-33 ranged from 0.50 to 1.53, the betas as estimated for these same portfolios in the subsequent seven-year period 1933-40 ranged only from 0.61 to 1.42. The results for the other periods display a similar regression tendency.

An obvious explanation of this regression tendency is that for some unstated economic or behavioral reasons, the underlying betas do tend to regress towards the mean over time.[5] Yet, even if the true betas were constant over time, it has been argued that the portfolio betas as estimated in the grouping period would as a statistical artifact tend to be more extreme than those estimated in a subsequent period. This bias has sometimes been termed an order or selection bias.

The frequently given intuitive explanation of this order bias [1], [4], [5], parallels the following: Consider the portfolio formed of the 100 securities with the lowest estimates of beta. The estimated portfolio beta might be expected to understate the true beta or equivalently be expected to be measured with negative error. The reason the measurement error might

3. These portfolio betas were derived by averaging the 100 estimates for the individual securities. Alternatively, as [2] shows, the same number would be obtained by regressing the monthly portfolio relatives upon the market index where the portfolio relatives are calculated assuming an equal amount invested in each security at the beginning of each month.

4. These portfolio betas were calculated by regressing portfolio relatives upon the market relatives. The portfolio relatives were taken to be the average of the monthly relatives of the individual securities for which relatives were available. These relatives represent those which would have been realized from an equally-weighted, monthly rebalancing strategy in which a delisted security is sold at the last available price and the proceeds reinvested equally in the remaining securities. This rather complicated procedure takes into account delisted securities and therefore avoids any survivorship bias. In [3], the securities analyzed were required to be listed on the NYSE throughout both the grouping period and the subsequent period, so that there was a potential survivorship bias. Nonetheless, the results reported there are in substantive agreement with the results in Table 1.

5. If the betas are continually changing over time, an estimate of beta as provided by a simple regression must be interpreted with considerable caution. For example, if the true beta followed a linear time trend, it is easily shown that the estimated beta can be interpreted as an unbiased estimate of the beta in the middle of the sample period. A similar interpretation would not in general hold if, for instance, the true beta followed a quadratic time trend.

TABLE I
BETA COEFFICIENTS FOR PORTFOLIOS OF 100 SECURITIES

Portfolio	Grouping Period	First Subsequent Period
	7/26-6/33	7/33-6/40
1	0.50	0.61
2	0.85	0.96
3	1.15	1.24
4	1.53	1.42
	7/33-6/40	7/40-6/47
1	0.38	0.56
2	0.69	0.77
3	0.90	0.91
4	1.13	1.12
5	1.35	1.31
6	1.68	1.69
	7/40-6/47	7/47-6/54
1	0.43	0.60
2	0.61	0.76
3	0.73	0.88
4	0.86	0.99
5	1.00	1.10
6	1.21	1.21
7	1.61	1.36
	7/47-6/54	7/54-6/61
1	0.36	0.57
2	0.61	0.71
3	0.78	0.88
4	0.91	0.96
5	1.01	1.03
6	1.13	1.13
7	1.26	1.24
8	1.47	1.32
	7/54-6/61	7/61-6/68
1	0.37	0.62
2	0.56	0.68
3	0.72	0.85
4	0.86	0.85
5	0.99	0.95
6	1.11	0.98
7	1.23	1.07
8	1.43	1.25

be expected to be negative may best be explored by analyzing how a security might happen to have one of the 100 lowest estimates of beta. First, if the true beta were in the lowest hundred, the estimated beta would fall in the lowest 100 estimates only if the error in measuring the beta were not too large which roughly translates into more negative than positive errors. Second, if the true beta were not in the lowest 100, the

estimated beta might still be in the lowest 100 estimates if it were measured with a sufficiently large negative error.[6]

Thus, the negative errors in the 100 smallest estimates of beta might be expected to outweigh the positive errors. The same argument except in reverse would apply to the 100 largest estimates. Indeed, it would seem that any portfolio of securities stratified by estimates of beta for which the average of these estimates is not the grand mean of all betas, namely 1.0, would be subject to some order bias. It would also seem that the absolute magnitude of this order bias should be greater, the further the average estimate is from the grand mean. The next section formalizes this intuitive argument and suggests that, if it is not incorrect, it is certainly misleading as to the source of the bias.

III. A Formal Model

The intuitive explanation of the order bias just given would seem to suggest that the way in which the portfolios are formed caused the bias. This section will argue that the bias is present in the estimated betas for the individual securities and is not induced by the way in which the portfolios are selected. Following this argument will be an analysis of the extent to which this order bias accounts for the observed regression tendency in portfolio betas over time.

A numerical example will serve to illustrate the logic of the subsequent argument and to introduce some required notation.[7] Assume for the moment that the possible values of beta for an individual security i in period t, β_{it}, are 0.8, 1.0 and 1.2 and that each of these values is equally likely. Assume further that in estimating a beta for an individual security, there is a 0.6 probability that the estimate $\hat{\beta}_{it}$ contains no measurement error, a 0.2 probability that it understates the true β_{it} by 0.2, and a 0.2 probability that it overstates the true value by 0.2. Now in a sample of ten securities whose true betas were all say 0.8, one would expect two estimates of beta to be 0.6, six to be 0.8, and two to be 1.0. These numbers have been transcribed to the first row of Table 2. The second and third rows are similarly constructed by first assuming that the ten securities all had a true value of 1.0 and then of 1.2.

The rows of Table 2 thus correspond to the distribution of the estimated beta, $\hat{\beta}_{it}$, conditional on the true value, β_{it}. It might be noted that the expectation of $\hat{\beta}_{it}$ conditional on β_{it}, $E(\hat{\beta}_{it} \mid \beta_{it})$, is β_{it}. However, in a sampling situation, an investigator would be faced with an estimate of beta and would want to assess the distribution of the true β_{it} conditional on the estimated $\hat{\beta}_{it}$. Such conditional distributions correspond to the columns of Table 2. It is easily verified that the expectation of β_{it} conditional on $\hat{\beta}_{it}$, $E(\beta_{it} \mid \hat{\beta}_{it})$ is generally not $\hat{\beta}_{it}$. For example, if $\hat{\beta}_{it}$ were

6. It is theoretically possible that the estimated beta for a security whose true beta does not fall into the lowest 100 to be in the lowest 100 estimates with a positive measurement error if the betas for some of the improperly classified securities are measured with sufficiently large positive errors.

7. The author is indebted to Harry Markowitz for suggesting this numerical example as a way of clarifying the subsequent formal development.

TABLE 2
NUMBER OF SECURITIES CROSS CLASSIFIED BY β_{it} AND $\hat{\beta}_{it}$

		$\hat{\beta}_{it}$				
		.6	.8	1.0	1.2	1.4
	.8	2	6	2		
β_{it}	1.0		2	6	2	
	1.2			2	6	2

0.8, $E(\beta_{it} \mid \hat{\beta}_{it} = 0.8)$ would be 0.85 since with this estimate the true beta would be 0.8 with probability 0.75 or 1.0 with probability 0.25.[8]

The estimate $\hat{\beta}_{it}$, therefore, would typically be biased, and it is biased whether or not portfolios are formed. The effect of forming large portfolios is to reduce the random component in the estimate, so that the difference between the estimated portfolio beta and the true portfolio beta can be ascribed almost completely to the magnitude of the bias.

In the spirit of this example, the paper will now develop explicit formulae for the order bias and real non-stationarities over time. Let it be assumed that the betas for individual securities in period t, β_{it}, can be thought of as drawings from a normal distribution with a mean of 1.0 and variance $\sigma^2(\beta_{it})$. The corresponding assumption for the numerical example just discussed would be a trinomial distribution with equal probabilities for each possible value of β_{it}.

Let it additionally be assumed that the estimate, $\hat{\beta}_{it}$, measures β_{it} with error η_{it}, a mean-zero independent normal variate, so that $\hat{\beta}_{it}$ is given by the sum of β_{it} and η_{it}. It immediately follows that β_{it} and $\hat{\beta}_{it}$ are distributed by a bivariate normal distribution. It might be noted that, as formulated, $\sigma^2(\eta_{it})$ need not equal $\sigma^2(\eta_{jt})$, $i \neq j$. Since the empirical work will assume equality, the subsequent theoretical work will also make this assumption even though for the most part it is not necessary. The final assumption is that β_{it} and β_{it+1} are distributed as bivariate normal variates. Because η_{it} is independently distributed, $\hat{\beta}_{it}$ and β_{it+1} will be distributed by a bivariate normal distribution.

That $\hat{\beta}_{it}$ and β_{it+1} are bivariate normal random variables, each with a mean of 1.0, implies the following regression

$$E(\beta_{it+1} \mid \hat{\beta}_{it}) - 1 = \frac{\text{Cov}\,(\beta_{it+1}, \hat{\beta}_{it})}{\sigma^2(\hat{\beta}_{it})}\,(\hat{\beta}_{it} - 1). \tag{1}$$

This regression is similar to the procedure proposed in Blume [3] to adjust the estimated betas for the regression tendency. That procedure was to regress estimates of beta for individual securities from a later period on estimates from an earlier period and to use the coefficients from this regression to adjust future estimates.[9] The empirical evidence

8. For further and more detailed discussion of the distinction between $E(\beta_{it} \mid \hat{\beta}_{it})$ and $E(\hat{\beta}_{it} \mid \beta_{it})$, the reader is referred to Vasicek [7].

9. That the regression of estimated betas from a later period on estimates from an earlier period is similar to (1) follows from noting that $E(\hat{\beta}_{it+1} \mid \hat{\beta}_{it})$ equals $E(\beta_{it+1} \mid \hat{\beta}_{it})$ and that $\text{Cov}(\hat{\beta}_{it+1}, \hat{\beta}_{it})$ equals $\text{Cov}(\beta_{it+1}, \hat{\beta}_{it})$. In [3], the grand mean of all betas was estimated in each period and was not assumed equal to 1.0.

presented there indicated that this procedure did improve the accuracy of estimates of future betas, though no claim was made that there might not be better ways to adjust for the regression tendency.

The coefficient of $(\hat{\beta}_{it} - 1)$ in (1) can be broken down into two components: one of which would correspond to the so-called order bias and the other to a true regression tendency. To achieve this result, note that the covariance of β_{it+1} and $\hat{\beta}_{it}$ is given by $\text{Cov}(\beta_{it+1}, \beta_{it} + \eta_{it})$, which because of the assumed independence of the errors, reduces to the covariance of β_{it+1} and β_{it}. Making this substitution and replacing $\text{Cov}(\beta_{it+1}, \beta_{it})$ by $\rho(\beta_{it+1}, \beta_{it})\sigma(\beta_{it+1})\sigma(\beta_{it})$, (1) becomes

$$E(\beta_{it+1} \mid \hat{\beta}_{it}) - 1 = \frac{\rho(\beta_{it+1}, \beta_{it})\sigma(\beta_{it+1})\sigma(\beta_{it})}{\sigma^2(\hat{\beta}_{it})} (\hat{\beta}_{it} - 1). \quad (2)$$

The ratio of $\sigma(\beta_{it})\sigma(\beta_{it+1})$ to $\sigma^2(\hat{\beta}_{it})$ might be identified with the order bias and the correlation of β_{it} and β_{it+1} with a true regression.

If the underlying values of beta are stationary over time, the correlation of successive values will be 1.0 and the standard deviations of β_{it} and β_{it+1} will be the same. Assuming such stationarity and noting then that β_{it+1} equals β_{it}, equation (2) can be rewritten as[10]

$$E(\beta_{it+1} \mid \hat{\beta}_{it}) - 1 = E(\beta_{it} \mid \hat{\beta}_{it}) - 1$$

$$= \frac{\sigma^2(\beta_{it})}{\sigma^2(\hat{\beta}_{it})} (\hat{\beta}_{it} - 1). \quad (3)$$

Since $\sigma^2(\beta_{it})$ would be less than $\sigma^2(\hat{\beta}_{it})$ if beta is measured with any error, the coefficient of $(\hat{\beta}_{it} - 1)$ would be less than 1.0. This means that the true beta for a security would be expected to be closer to one than the estimated value. In other words, an estimate of beta for an individual security except for an estimate of 1.0 is biased.[11]

10. Equation (3) can be derived alternatively from the assumption that β_{it} and $\hat{\beta}_{it}$ are bivariate normal variables and under the assumption of stationarity β_{it} will equal β_{it+1}. Vasicek [7] has developed using Bayes' Theorem, an expression for $E(\beta_{it}|\hat{\beta}_{it})$ which can be shown to be mathematically identical to the right hand side of (3): He observed that the procedure used by Merrill Lynch, Pierce, Fenner and Smith, Inc. in their Security Risk Evaluation Service is similar to his expression if $\sigma^2(\eta_{it})$ is assumed to be the same for all securities. Merrill Lynch's procedure, as he presented it, is to use the coefficient of the cross-sectional regression of $(\hat{\beta}_{it+1} - 1)$ on $(\hat{\beta}_{it} - 1)$ to adjust future estimates. This adjustment mechanism is in fact the same as (1) or (2) which shows that such a cross sectional regression takes into account real changes in the underlying betas. Only if betas were stationary over time would his formula be similar to Merrill Lynch's.

11. The formula for order bias given by (3) is similar to that which measures the bias in the estimated slope coefficient in a regression on one independent variable measured with error. Explicitly, consider the regression, $y = bx + \epsilon$, where ϵ is an independent mean-zero normal disturbance and both y and x are measured in deviate form. Now if x is measured with independent mean-zero error η and y is regressed on $x + \eta$, it is well known that the estimated coefficient, $\hat{b}$, will be biased toward zero and the probability limit of $\hat{b}$ is $\frac{b}{1 + \frac{\sigma^2(\eta)}{\sigma^2(x)}}$. This expression can be rewritten as $\frac{\sigma^2(x)}{\sigma^2(x + \eta)} b$. Interpreting x as the true beta less 1.0, the correspondence to (3) is obvious. In this type of regression, one could either adjust the independent variables themselves for bias and thus obtain an unbiased estimate of the regression coefficient or run the regression on the unadjusted variables and then adjust the regression coefficient. The final coefficient will be the same in either case.

In light of this discussion, the paper now reexamines the empirical results of the previous section. The initial task will be to adjust the portfolio betas in the grouping periods for the order bias. After making this adjustment, it will be apparent that much of the regression tendency observed in Table 1 remains. Thus, if (2) is valid, the value of the correlation coefficient is probably not 1.0. The statistical properties of estimates of the portfolio betas in both the grouping and subsequent periods will be examined. The section ends with an additional test that gives further confirmation that much of the regression tendency stems from true non-stationarities in the underlying betas.

To adjust the estimates of beta in the grouping periods for the order bias using (3) would require estimates of the ratio of $\sigma^2(\beta_{it})$ to $\sigma^2(\hat{\beta}_{it})$. The sample variance calculated from the estimated betas for all securities in a particular cross-section provides an estimate of $\sigma^2(\hat{\beta}_{it})$. An estimate of $\sigma^2(\beta_{it})$ can be derived as the difference between estimates of $\sigma^2(\hat{\beta}_{it})$ and $\sigma^2(\eta_{it})$. If the variance of the error in measuring an individual beta is the same for every security, $\sigma^2(\eta_{it})$ can be estimated as the average over all securities of the squares of the standard error associated with each estimated beta.

In conformity with these procedures, estimates of the ratio of $\sigma^2(\beta_{it})$ to $\sigma^2(\hat{\beta}_{it})$ for the five seven-year periods from 1926 through 1961 were respectively 0.92, 0.92, 0.89, 0.82, and 0.75. In other words, an unbiased estimate of the underlying beta for an individual security should be some eight to twenty-five per cent closer to 1.0 than the original estimate. For instance, if $\sigma^2(\beta_{it})/\sigma^2(\hat{\beta}_{it})$ were 0.9 and if $\hat{\beta}_{it}$ were 1.3, an unbiased estimate would be 1.27.

To determine whether the order bias accounted for all of the regression, the estimated betas for the individual securities were adjusted for the order bias using (3) and the appropriate value of the ratio. For the same portfolios of 100 securities examined in the previous section, portfolio betas for the grouping period were recalculated as the average of these adjusted betas. It might be noted that these adjusted portfolio betas could alternatively be obtained by adjusting the unadjusted portfolio betas directly. These adjusted portfolio betas are given in Table 3. For the reader's convenience, the unadjusted portfolio betas and those estimated in the subsequent seven years are reproduced from Table 1.

Before comparing these estimates, let us for the moment consider the statistical properties of the portfolio betas, first in the grouping period and then in the subsequent period. Though unadjusted estimates of the portfolio betas in the grouping period may be biased, they would be expected to be highly "reliable" as that term is used in psychometrics. Thus, regardless of what these estimates measure, they measure it accurately or more precisely their values approximate those which would be expected conditional on the underlying population and how they are calculated. For equally-weighted portfolios, the larger the number of securities, the more reliable would be the estimate.

Specifically, for an equally-weighted portfolio of 100 securities, the standard deviation of the error in the portfolio beta would be one-tenth

TABLE 3
BETA COEFFICIENTS FOR PORTFOLIOS OF 100 SECURITIES

Portfolio	Grouping Period: Unadjusted for Order Bias	Grouping Period: Adjusted for Order Bias	First Subsequent Period	Second Subsequent Period
	7/26-6/33		7/33-6/40	7/40-6/47
1	0.50	.54	0.61	0.73
2	0.85	.86	0.96	0.92
3	1.15	1.14	1.24	1.21
4	1.53	1.49	1.42	1.47
	7/33-6/40		7/40-6/47	7/47-6/54
1	0.38	.43	0.56	0.53
2	0.69	.72	0.77	0.86
3	0.90	.91	0.91	0.96
4	1.13	1.12	1.12	1.11
5	1.35	1.32	1.31	1.29
6	1.68	1.63	1.69	1.40
	7/40-6/47		7/47-6/54	7/54-6/61
1	0.43	.50	0.60	0.73
2	0.61	.65	0.76	0.88
3	0.73	.76	0.88	0.93
4	0.86	.88	0.99	1.04
5	1.00	1.00	1.10	1.12
6	1.21	1.19	1.21	1.14
7	1.61	1.54	1.36	1.20
	7/47-6/54		7/54-6/61	7/61-6/68
1	0.36	.48	0.57	0.72
2	0.61	.68	0.71	0.79
3	0.78	.82	0.88	0.88
4	0.91	.93	0.96	0.92
5	1.01	1.01	1.03	1.04
6	1.13	1.10	1.13	1.02
7	1.26	1.21	1.24	1.08
8	1.47	1.39	1.32	1.15
	7/54-6/61		7/61-6/68	
1	0.37	.53	0.62	
2	0.56	.67	0.68	
3	0.72	.79	0.85	
4	0.86	.89	0.85	
5	0.99	.99	0.95	
6	1.11	1.08	0.98	
7	1.23	1.17	1.07	
8	1.43	1.32	1.25	

the standard error of the estimated betas for individual securities providing the errors in measuring these individual betas were independent of each other. During the 1926-33 period, the average standard error of betas for individual securities was 0.12 so that the standard error of the portfolio beta would be roughly 0.012. The average standard error for individual securities increased gradually to 0.20 in the period July 1954-June 1961. For the next seven-year period ending June 1968, the average declined to 0.17.

As pointed out, standard errors for portfolio betas calculated from those for individual securities assume independence of the errors in estimates. The standard error for a portfolio beta can however be calculated directly without making this assumption of independence by regressing the portfolio returns on the market index. The standard error for the portfolio of the 100 securities with the lowest estimates of beta in the July 1926-June 1933 period was for instance, 0.018, which compares to 0.012 calculated assuming independence. The average standard error of the estimated betas for the four portfolios in this period was also 0.018. The average standard errors of the betas for the portfolios of 100 securities in the four subsequent seven-year periods ending June 1961 were respectively 0.025, 0.027, 0.024, and 0.027. Although these standard errors, not assuming independence, are about 50 per cent larger than before, they are still extremely small compared to the range of possible values for portfolio betas.

For the moment, let us therefore assume that the portfolio betas as estimated in the grouping period before adjustment for order bias are extremely reliable numbers in that whatever they measure, they measure it accurately. In this case, adjusting these portfolio betas for the order bias will give extremely reliable and unbiased estimates of the underlying portfolio beta and therefore these adjusted betas can be taken as very good approximations to the underlying, but unknown, values. The greater the number of securities in the portfolio, the better the approximation will be.

The numerical example in Table 2 gives an intuitive feel for what is happening. Consider a portfolio of a large number of securities whose estimated betas were all 0.8 in a particular sample. It will be recalled that such an estimate requires that the true beta be either 0.8 or 1.0. As the number of securities with estimates of 0.8 increases, one can be more and more confident that 75 per cent of the securities have true betas of 0.8 and 25 per cent have true betas of 1.0 or equivalently that an equally-weighted portfolio of these securities has a beta of 0.85.

The heuristic argument in the prior section might lead some to believe that, contrary to the estimates in the grouping period, there are no order biases associated with the portfolio betas estimated in the subsequent seven years. This belief, however, is not correct. Formally, the portfolios formed in the grouping period are being treated as if they were securities in the subsequent period. To estimate these portfolio betas, portfolio returns were calculated and regressed upon some measure of the market. In this paper so far, these portfolio returns were calculated under an equally-weighted monthly revision strategy in which delisted securities were sold at the last available price and the proceeds reinvested equally in the remaining. Other strategies are, of course, possible.

Since these portfolios are being treated as securities, formula (3) applies, so that there is still some "order bias" present. However, in determining the rate of regression, the appropriate measure of the variance of the errors in the estimates is the variance for the portfolio betas and not for the betas of individual stocks. This fact has the important effect of making the ratio of $\sigma^2(\beta_{it})$ to $\sigma^2(\hat{\beta}_{it})$ much closer to one than for

individual securities. Estimating $\sigma^2(\hat{\beta}_{it})$ and $\sigma^2(\eta_{it})$ for the portfolios formed on the immediately prior period, the value of this ratio for each of the four seven-year periods from 1933 to 1961 was in excess of 0.99 and for the last seven-year period in excess of 0.98. Thus, for most purposes, little error is introduced by assuming that these estimated portfolio betas contain no "order bias" or equivalently that these estimates measure accurately the true portfolio beta.

A comparison of the portfolio betas in the grouping period, even after adjusting for the order bias, to the corresponding betas in the immediately subsequent period discloses a definite regression tendency. This regression tendency is statistically significant at the five per cent level for each of the last three grouping periods, 1940-47, 1947-54, 1954-61.[12] Thus, this evidence strongly suggests that there is a substantial tendency for the underlying values of beta to regress towards the mean over time. Yet, it could be argued that this test is suspect because the formula used in adjusting for the order bias was developed under the assumption that the distributions of beta were normal. This assumption is certainly not strictly correct and it is not clear how sensitive the adjustment is to violations of this assumption.

A more robust way to demonstrate the existence of a true regression tendency is based upon the observation that the portfolio betas estimated in the period immediately subsequent to the grouping period are measured with negligible error and bias. These estimated portfolio betas can be compared to betas for the same portfolios estimated in the second seven years subsequent to the grouping period. These betas, which have been estimated in the second subsequent period and are given in Table 3, disclose again an obvious regression tendency. This tendency is significant at the five per cent level for the last three of the four possible comparisons.[13]

IV. Summary

Beginning with a review of the conventional wisdom, the paper showed that estimated beta coefficients tend to regress towards the grand mean of all betas over time. The next section presented two kinds of empirical analyses which showed that part of this observed regression tendency represented real nonstationarities in the betas of individual securities and that the so-called order bias was not of overwhelming importance.

In other words, companies of extreme risk—either high or low—tend to have less extreme risk characteristics over time. There are two logical

12. This test of significance was based upon the regression $(\hat{\beta}_{it+1} - 1) = b(\hat{\beta}_{it} - 1) + \epsilon_{it}$ where $\hat{\beta}_{it}$ has been adjusted for order bias. The estimated coefficients with the t-value measured from 1.0 in parentheses were for the five seven-years chronologically 0.86 (−1.14), 0.94 (−0.88), 0.71 (−3.84), 0.86 (−3.23), and 0.81 (−2.57). Note that even if β_{it} were measured with substantial independent error contrary to fact, the estimated b would not be biased towards zero because, as footnote 10 shows, the adjustment for the order bias has already corrected for this bias.

13. Using the same regression as in the previous footnote, the estimated coefficient b with the t-value measured from 1.0 in parentheses were for the four possible comparisons in chronological order 0.92 (−0.69), 0.74 (−2.67), 0.62 (−6.86), and 0.58 (−5.51).

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THE RELATIONSHIP BETWEEN RETURN AND MARKET VALUE OF COMMON STOCKS*

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This study examines the empirical relationship between the return and the total market value of NYSE common stocks. It is found that smaller firms have had higher risk adjusted returns, on average, than larger firms. This 'size effect' has been in existence for at least forty years and is evidence that the capital asset pricing model is misspecified. The size effect is not linear in the market value; the main effect occurs for very small firms while there is little difference in return between average sized and large firms. It is not known whether size *per se* is responsible for the effect or whether size is just a proxy for one or more true unknown factors correlated with size.

1. Introduction

The single-period capital asset pricing model (henceforth CAPM) postulates a simple linear relationship between the expected return and the market risk of a security. While the results of direct tests have been inconclusive, recent evidence suggests the existence of additional factors which are relevant for asset pricing. Litzenberger and Ramaswamy (1979) show a significant positive relationship between dividend yield and return of common stocks for the 1936–1977 period. Basu (1977) finds that price–earnings ratios and risk adjusted returns are related. He chooses to interpret his findings as evidence of market inefficiency but as Ball (1978) points out, market efficiency tests are often joint tests of the efficient market hypothesis and a particular equilibrium relationship. Thus, some of the anomalies that have been attributed to a lack of market efficiency might well be the result of a misspecification of the pricing model.

This study contributes another piece to the emerging puzzle. It examines the relationship between the total market value of the common stock of a firm and its return. The results show that, in the 1936–1975 period, the common stock of small firms had, on average, higher risk-adjusted returns

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FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 27.10

than the common stock of large firms. This result will henceforth be referred to as the 'size effect'. Since the results of the study are not based on a particular theoretical equilibrium model, it is not possible to determine conclusively whether market value *per se* matters or whether it is only a proxy for unknown true additional factors correlated with market value. The last section of this paper will address this question in greater detail.

The various methods currently available for the type of empirical research presented in this study are discussed in section 2. Since there is a considerable amount of confusion about their relative merit, more than one technique is used. Section 3 discusses the data. The empirical results are presented in section 4. A discussion of the relationship between the size effect and other factors, as well as some speculative comments on possible explanations of the results, constitute section 5.

2. Methodologies

The empirical tests are based on a generalized asset pricing model which allows the expected return of a common stock to be a function of risk β and an additional factor ϕ, the market value of the equity.[1] A simple linear relationship of the form

$$E(R_i)=\gamma_0+\gamma_1\beta_i+\gamma_2[(\phi_i-\phi_m)/\phi_m], \tag{1}$$

is assumed, where

$E(R_i)$ = expected return on security i,
γ_0 = expected return on a zero-beta portfolio,
γ_1 = expected market risk premium,
ϕ_i = market value of security i,
ϕ_m = average market value; and
γ_2 = constant measuring the contribution of ϕ_i to the expected return of a security.

If there is no relationship between ϕ_i and the expected return, i.e., $\gamma_2=0$, (1) reduces to the Black (1972) version of the CAPM.

Since expectations are not observable, the parameters in (1) must be estimated from historical data. Several methods are available for this purpose. They all involve the use of pooled cross-sectional and time series regressions to estimate γ_0, γ_1, and γ_2. They differ primarily in (a) the assumption concerning the residual variance of the stock returns (homoscedastic or heteroscedastic in the cross-sectional), and (b) the treatment of the

[1]In the empirical tests, Φ_i and Φ_m are defined as the market proportion of security i and average market proportion, respectively. The two specifications are, of course, equivalent.

errors-in-variables problem introduced by the use of estimated betas in (1). All methods use a constrained optimization procedure, described in Fama (1976, ch. 9), to generate minimum variance (m.v.) portfolios with mean returns γ_i, $i=0,\ldots,2$. This imposes certain constraints on the portfolio weights, since from (1)

$$E(R_p)\equiv\gamma_i=\gamma_0\sum_j w_j+\gamma_1\sum_j w_j\beta_j+\gamma_2\left[\left(\sum_j w_j\phi_j-\phi_m\sum_j w_j\right)\Big/\phi_m\right], \qquad i=0,\ldots,2, \tag{2}$$

where the w_j are the portfolio proportions of each asset j, $j=1,\ldots,N$. An examination of (2) shows that $\hat{\gamma}_0$ is the mean return of a standard m.v. portfolio ($\sum_j w_j=1$) with zero beta and $\phi_p\equiv\sum_j w_j\phi_j=\phi_m$ [to make the second and third terms of the right-hand side of (2) vanish]. Similarly, $\hat{\gamma}_1$ is the mean return on a zero-investment m.v. portfolio with beta of one and $\phi_p=0$, and $\hat{\gamma}_2$ is the mean return on a m.v. zero-investment, zero-beta portfolio with $\phi_p=\phi_m$. As shown by Fama (1976, ch. 9), this constrained optimization can be performed by running a cross-sectional regression of the form

$$R_{it}=\gamma_{0t}+\gamma_{1t}\beta_{it}+\gamma_{2t}[(\phi_{it}-\phi_{mt})/\phi_{mt}]+\varepsilon_{it}, \qquad i=1,\ldots,N, \tag{3}$$

on a period-by-period basis, using estimated betas $\hat{\beta}_{it}$ and allowing for either homoscedastic or heteroscedastic error terms. Invoking the usual stationarity arguments the final estimates of the gammas are calculated as the averages of the T estimates.

One basic approach involves grouping individual securities into portfolios on the basis of market value and security beta, reestimating the relevant parameters (beta, residual variance) of the portfolios in a subsequent period, and finally performing either an ordinary least squares (OLS) regression [Fama and MacBeth (1973)] which assumes homoscedastic errors, or a generalized least squares (GLS) regression [Black and Scholes (1974)] which allows for heteroscedastic errors, on the portfolios in each time period.[2] Grouping reduces the errors-in-variables problem, but is not very efficient because it does not make use of all information. The errors-in-variables problem should not be a factor as long as the portfolios contain a reasonable number of securities.[3]

Litzenberger and Ramaswamy (1979) have suggested an alternative method which avoids grouping. They allow for heteroscedastic errors in the cross-section and use the estimates of the standard errors of the security

[2]Black and Scholes (1974) do not take account of heteroscedasticity, even though their method was designed to do so.

[3]Black, Jensen and Scholes (1972, p. 116).

Exhibit 27.10
Pg. 2 of 9

betas as estimates of the measurement errors. As Theil (1971, p. 610) has pointed out, this method leads to unbiased maximum likelihood estimators for the gammas as long as the error in the standard error of beta is small and the standard assumptions of the simple errors-in-variables model are met. Thus, it is very important that the diagonal model is the correct specification of the return-generating process, since the residual variance assumes a critical position in this procedure. The Litzenberger–Ramaswamy method is superior from a theoretical viewpoint; however, preliminary work has shown that it leads to serious problems when applied to the model of this study and is not pursued any further.[4]

Instead of estimating equation (3) with data for all securities, it is also possible to construct arbitrage portfolios containing stocks of very large and very small firms, by combining long positions in small firms with short positions in large firms. A simple time series regression is run to determine the difference in risk-adjusted returns between small and large firms. This approach, long familiar in the efficient markets and option pricing literature, has the advantage that no assumptions about the exact functional relationships between market value and expected return need to be made, and it will therefore be used in this study.

3. Data

The sample includes all common stocks quoted on the NYSE for at least five years between 1926 and 1975. Monthly price and return data and the number of shares outstanding at the end of each month are available in the monthly returns file of the Center for Research in Security Prices (CRSP) of the University of Chicago. Three different market indices are used; this is in response to Roll's (1977) critique of empirical tests of the CAPM. Two of the three are pure common stock indices — the CRSP equally- and value-weighted indices. The third is more comprehensive: a value-weighted combination of the CRSP value-weighted index and return data on corporate and government bonds from Ibbotson and Sinquefield (1977) (henceforth 'market index').[5] The weights of the components of this index are derived from information on the total market value of corporate and government bonds in various issues of the *Survey of Current Business* (updated annually) and from the market value of common stocks in the CRSP monthly index file. The stock indices, made up of riskier assets, have both higher returns and higher risk than the bond indices and the 'market index'.[6] A time series of commercial paper returns is used as the risk-free rate.[7] While not actually constant through time, its variation is very small when compared to that of the other series, and it is not significantly correlated with any of the three indices used as market proxies.

[4]If the diagonal model (or market model) is an incomplete specification of the return generating process, the estimate of the standard error of beta is likely to have an upward bias, since the residual variance estimate is too large. The error in the residual variance estimate appears to be related to the second factor. Therefore, the resulting gamma estimates are biased.

[5]No pretense is made that this index is complete; thus, the use of quotation marks. It ignores real estate, foreign assets, etc.; it should be considered a first step toward a comprehensive index. See Ibbotson and Fall (1979).

4. Empirical results

4.1. Results for methods based on grouped data

The portfolio selection procedure used in this study is identical to the one described at length in Black and Scholes (1974). The securities are assigned to one of twenty-five portfolios containing similar numbers of securities, first to one of five on the basis of the market value of the stock, then the securities in each of those five are in turn assigned to one of five portfolios on the basis of their beta. Five years of data are used for the estimation of the security beta; the next five years' data are used for the reestimation of the portfolio betas. Stock price and number of shares outstanding at the end of the five year periods are used for the calculation of the market proportions. The portfolios are updated every year. The cross-sectional regression (3) is then performed in each month and the means of the resulting time series of the gammas could be (and have been in the past) interpreted as the final estimators. However, having used estimated parameters, it is not certain that the series have the theoretical properties, in particular, the hypothesized beta. Black and Scholes (1974, p. 17) suggest that the time series of the gammas be regressed once more on the excess return of the market index. This correction involves running the time series regression (for $\hat{\gamma}_2$)

$$\hat{\gamma}_{2t} - R_{Ft} = \hat{\alpha}_2 + \hat{\beta}_2 (R_{mt} - R_{Ft}) + \hat{\varepsilon}_{2t}. \tag{4}$$

It has been shown earlier that the theoretical β_2 is zero. (4) removes the effects of a non-zero $\hat{\beta}_2$ on the return estimate $\hat{\gamma}_2$ and $\hat{\alpha}_2$ is used as the final estimator for $\hat{\gamma}_2 - R_F$. Similar corrections are performed for γ_0 and γ_1. The

[6]Mean monthly returns and standard deviations for the 1926–1975 period are:

	Mean return	Standard deviation
'Market index'	0.0046	0.0178
CRSP value-weighted index	0.0085	0.0588
CRSP equally-weighted index	0.0120	0.0830
Government bond index	0.0027	0.0157
Corporate bond index	0.0032	0.0142

[7]I am grateful to Myron Scholes for making this series available. The mean monthly return for the 1926–1975 period is 0.0026 and the standard deviation is 0.0021.

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derivations of the $\hat{\beta}_i$, $i=0,\ldots,2$, in (4) from their theoretical values also allow us to check whether the grouping procedure is an effective means to eliminate the errors-in-beta problem.

The results are essentially identical for both OLS and GLS and for all three indices. Thus, only one set of results, those for the 'market index' with GLS, is presented in table 1. For each of the gammas, three numbers are reported: the mean of that time series of returns which is relevant for the test of the hypothesis of interest (i.e., whether or not $\hat{\gamma}_0$ and $\hat{\gamma}_1$ are different from the risk-free rate and the risk premium, respectively), the associated t-statistic, and finally, the estimated beta of the time series of the gamma from (4). Note that the means are corrected for the deviation from the theoretical beta as discussed above.

The table shows a significantly negative estimate for γ_2 for the overall time period. Thus, shares of firms with large market values have had smaller returns, on average, than similar small firms. The CAPM appears to be misspecified. The table also shows that γ_0 is different from the risk-free rate. As both Fama (1976, ch. 9) and Roll (1977) have pointed out, if a test does not use the true market portfolio, the Sharpe–Lintner model might be wrongly rejected. The estimates for γ_0 are of the same magnitude as those reported by Fama and MacBeth (1973) and others. The choice of a market index and the econometric method does not affect the results. Thus, at least within the context of this study, the choice of a proxy for the market portfolio does not seem to affect the results and allowing for heteroscedastic disturbances does not lead to significantly more efficient estimators.

Before looking at the results in more detail, some comments on econometric problems are in order. The results in table 1 are based on the 'market index' which is likely to be superior to pure stock indices from a theoretical viewpoint since it includes more assets [Roll (1977)]. This superiority has its price. The actual betas of the time series of the gammas are reported in table 1 in the columns labeled $\hat{\beta}_i$. Recall that the theoretical values of β_0 and β_1 are zero and one, respectively. The standard zero-beta portfolio with return $\hat{\gamma}_0$ contains high beta stocks in short positions and low beta stocks in long positions, while the opposite is the case for the zero-investment portfolio with return $\hat{\gamma}_1$. The actual betas are all significantly different from the theoretical values. This suggests a regression effect, i.e., the past betas of high beta securities are overestimated and the betas of low beta securities are underestimated.[8] Past beta is not completely uncorrelated with the error of the current beta and the instrumental variable approach to the error-in-variables problem is not entirely successful.[9]

[8]There is no such effect for β_2 because that portfolio has both zero beta and zero investment; i.e., net holdings of both high and low beta securities are, on average, zero.

[9]This result is first documented in Brenner (1976) who examines the original Fama–McBeth (19[illegible]ime series of $\hat{\gamma}_{0t}$.

Table 1
Portfolio estimators for γ_0, γ_1 and γ_2 based on the 'market index' with generalized least squares estimation.[a]
$R_{it}=\hat{\gamma}_{0t}+\hat{\gamma}_{1t}\hat{\beta}_{it}+\hat{\gamma}_{2t}[(\phi_{it}-\phi_{mt})/\phi_{mt}]$

Period	$\hat{\gamma}_0-R_F$	$t(\hat{\gamma}_0-R_F)$	$\hat{\beta}_0$	$\hat{\gamma}_1-(R_M-R_F)$	$t(\hat{\gamma}_1-(R_M-R_F))$	$\hat{\beta}_1$	$\hat{\gamma}_2$	$t(\hat{\gamma}_2)$	$\hat{\beta}_2$
1936–1975	0.00450	2.76	0.45	−0.00092	−1.00	0.75	−0.00052	−2.92	0.01
1936–1955	0.00377	1.66	0.43	−0.00060	−0.80	0.80	−0.00043	−2.12	0.01
1956–1975	0.00531	2.22	0.46	−0.00138	−0.82	0.73	−0.00062	−2.09	0.01
1936–1945	0.00121	0.30	0.63	−0.00098	−0.77	0.82	−0.00075	−2.32	−0.01
1946–1955	0.00650	2.89	0.03	−0.00021	−0.26	0.75	−0.00015	−0.65	0.06
1956–1965	0.00494	2.02	0.34	−0.00098	−0.56	0.96	−0.00039	−1.27	−0.01
1966–1975	0.00596	1.43	0.49	−0.00232	−0.80	0.69	−0.00080	−1.55	0.01

[a]$\hat{\gamma}_0-R_F$ = mean difference between return on zero beta portfolio and risk-free rate, $\hat{\gamma}_1-(R_M-R_F)$ = mean difference between actual risk premium ($\hat{\gamma}_1$) and risk premium stipulated by Sharpe–Lintner model (R_M-R_F). $\hat{\gamma}_2$ = size premium. $\hat{\beta}_i$ = actual estimated market risk of $\hat{\gamma}_i$ (theoretical values: $\beta_0=0$, $\beta_1=1$, $\beta_2=0$); all β_0, β_1 are significantly different from the theoretical values. $t(\cdot)$ = t-statistic.

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The deviations from the theoretical betas are largest for the 'market index', smaller for the CRSP value-weighted index, and smallest for the CRSP equally-weighted index. This is due to two factors: first, even if the true covariance structure is stationary, betas with respect to a value-weighted index change whenever the weights change, since the weighted average of the betas is constrained to be equal to one. Second, the betas and their standard errors with respect to the 'market index' are much larger than for the stock indices (a typical stock beta is between two and three), which leads to larger deviations — a kind of 'leverage' effect. Thus, the results in table 1 show that the final correction for the deviation of $\hat{\beta}_0$ and $\hat{\beta}_1$ from their theoretical values is of crucial importance for maket proxies with changing weights.

Estimated portfolio betas and portfolio market proportions are (negatively) correlated. It is therefore possible that the errors in beta induce an error in the coefficient of the market proportion. According to Levi (1973), the probability limit of $\hat{\gamma}_1$ in the standard errors-in-the-variables model is

$$\text{plim } \hat{\gamma}_1 = \gamma_1/(1+(\sigma_u^2 \cdot \sigma_2^2)/D) < \gamma_1,$$

with

$$D = (\sigma_1^2+\sigma_u^2)\cdot\sigma_2^2 - \sigma_{12}^2 > 0,$$

where σ_1^2, σ_2^2 are the variances of the true factors β and ϕ, respectively, σ_u^2 is the variance of the error in beta and σ_{12} is the covariance of β and ϕ. Thus, the bias in $\hat{\gamma}_1$ is unambiguously towards zero for positive γ_1. The probability limit of $\hat{\gamma}_2-\gamma_2$ is [Levi (1973)]

$$\text{plim } (\hat{\gamma}_2-\gamma_2) = (\sigma_u^2 \cdot \sigma_{12} \cdot \gamma_1)/D.$$

We find that the bias in $\hat{\gamma}_2$ depends on the covariance between β and ϕ and the sign of γ_1. If σ_{12} has the same sign as the covariance between $\hat{\beta}$ and ϕ, i.e., $\sigma_{12}<0$, and if $\gamma_1>0$, then $\text{plim}(\hat{\gamma}_2-\gamma_2)<0$, i.e., $\text{plim}\,\hat{\gamma}_2<\gamma_2$. If the grouping procedure is not successful in removing the error in beta, then it is likely that the reported $\hat{\gamma}_2$ overstates the true magnitude of the size effect. If this was a serious problem in this study, the results for the different market indices should reflect the problem. In particular, using the equally-weighted stock index should then lead to the smallest size effect since, as was pointed out earlier, the error in beta problem is apparently less serious for that kind of index. In fact, we find that there is little difference between the estimates.[10]

[10]For the overall time period, $\hat{\gamma}_2$ with the equally-weighted CRSP index is −0.00044, with the value weighted CRSP index −0.00044 as well as opposed to the −0.00052 for the 'market index' reported in table 1. The estimated betas of $\hat{\gamma}_0$ and $\hat{\gamma}_1$ which reflect the degree of the error in beta problems are 0.07 and 0.91, respectively, for the equally-weighted CRSP index and 0.13 and 0.87 for the value-weighted CRSP index.

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Thus, it does not appear that the size effect is just a proxy for the unobservable true beta even though the market proportion and the beta of securities are negatively correlated.

The correlation coefficient between the mean market values of the twenty-five portfolios and their betas is significantly negative, which might have introduced a multicollinearity problem. One of its possible consequences is coefficients that are very sensitive to addition or deletion of data. This effect does not appear to occur in this case: the results do not change significantly when five portfolios are dropped from the sample. Revising the grouping procedure — ranking on the basis of beta first, then ranking on the basis of market proportion — also does not lead to substantially different results.

4.2. A closer look at the results

An additional factor relevant for asset pricing — the market value of the equity of a firm — has been found. The results are based on a linear model. Linearity was assumed only for convenience and there is no theoretical reason (since there is no model) why the relationship should be linear. If it is nonlinear, the particular form of the relationship might give us a starting point for the discussion of possible causes of the size effect in the next section. An analysis of the residuals of the twenty-five portfolios is the easiest way to look at the linearity question. For each month t, the estimated residual return

$$\hat{\varepsilon}_{it} = R_{it} - \hat{\gamma}_{0t} - \hat{\gamma}_{1t}\hat{\beta}_{it} - \hat{\gamma}_{2t}[(\phi_{it}-\phi_{mt})/\phi_{mt}], \qquad i=1,\ldots,25, \tag{5}$$

is calculated for all portfolios. The mean residuals over the forty-five year sample period are plotted as a function of the mean market proportion in fig. 1. Since the distribution of the market proportions is very skewed, a logarithmic scale is used. The solid line connects the mean residual returns of each size group. The numbers identify the individual portfolios within each group according to beta, '1' being the one with the largest beta, '5' being the one with the smallest beta.

The figure shows clearly that the linear model is misspecified.[11] The residuals are not randomly distributed around zero. The residuals of the portfolios containing the smallest firms are all positive; the remaining ones are close to zero. As a consequence, it is impossible to use $\hat{\gamma}_2$ as a simple size premium in the cross-section. The plot also shows, however, that the misspecification is not responsible for the significance of $\hat{\gamma}_2$ since the linear model underestimates the true size effect present for very small firms. To illustrate this point, the five portfolios containing the smaller firms are

[11]The nonlinearity cannot be eliminated by defining ϕ_t as the log of the market proportion.

deleted from the sample and the parameters reestimated. The results, summarized in table 2, show that the $\hat{\gamma}_2$ remain essentially the same. The relationship is still not linear; the new $\hat{\gamma}_2$ still cannot be used as a size premium.

Fig. 1 suggests that the main effect occurs for very small firms. Further support for this conclusion can be obtained from a simple test. We can regress the returns of the twenty-five portfolios in each result on beta alone and examine the residuals. The regression is misspecified and the residuals contain information about the size effect. Fig. 2 shows the plot of those residuals in the same format as fig. 1. The smallest firms have, on average, very large unexplained mean returns. There is no significant difference between the residuals of the remaining portfolios.

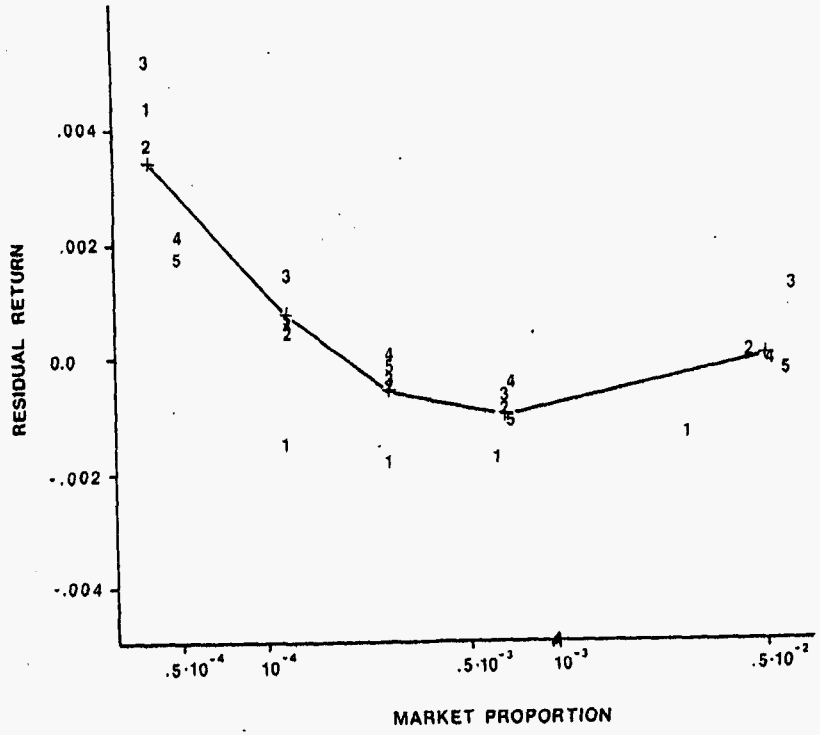

Fig. 1. Mean residual returns of portfolios (1936–1975) with equally-weighted CRSP index as market proxy. The residual is calculated with the three-factor model [eq. (3)]. The numbers 1,...,5 represent the mean residual return for the five portfolios within each size group (1: portfolio with largest beta,..., 5: portfolio with smallest beta). + represents the mean of the mean residuals of the five portfolios with similar market values.

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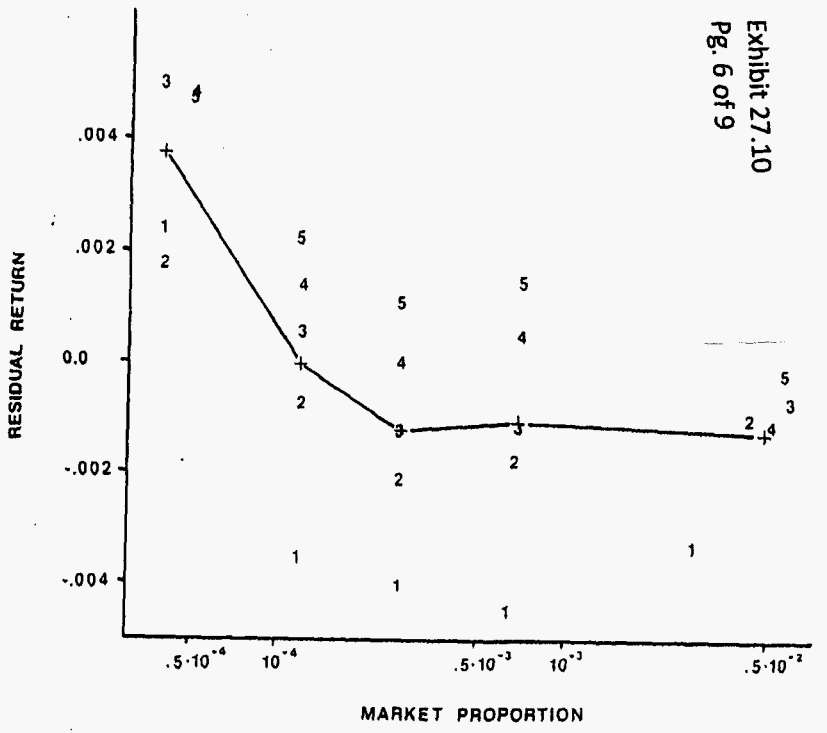

Fig. 2. Mean residual returns of portfolios (1936–1975) with equally-weighted CRSP index as market proxy. The residual is calculated with the two-factor model ($\hat{\varepsilon}_{it} = R_{it} - \hat{\gamma}_{0t} - \hat{\gamma}_{1t}\hat{\beta}_{it}$). The symbols are as defined for fig. 1.

4.3. *'Arbitrage' portfolio returns*

One important empirical question still remains: How important is the size effect from a practical point of view? Fig. 2 suggests that the difference in returns between the smallest firms and the remaining ones is, on average, about 0.4 percent per month. A more dramatic result can be obtained when the securities are chosen solely on the basis of their market value.

As an illustration, consider putting equal dollar amounts into portfolios containing the smallest, largest and median-sized firms at the beginning of a year. These portfolios are to be equally weighted and contain, say, ten, twenty or fifty securities. They are to be held for five years and are rebalanced every month. They are levered or unlevered to have the same beta. We are then interested in the differences in their returns,

$$R_{1t} = R_{st} - R_{lt}, \qquad R_{2t} = R_{st} - R_{at}, \qquad R_{3t} = R_{at} - R_{lt}, \tag{6}$$

Table 2
Portfolio estimators for γ_2 for all 25 portfolios and for 20 portfolios (portfolios containing smallest firms deleted) based on CRSP equally weighted index with generalized least-squares estimation.[a]

Period	Size premium $\hat{\gamma}_2$ with	
	25 portfolios	20 portfolios
1936–1975	−0.00044	−0.00043
	(−2.42)	(−2.54)
1936–1955	−0.00037	−0.00041
	(−1.72)	(−1.88)
1956–1975	−0.00056	−0.00050
	(−1.91)	(−1.91)
1936–1945	−0.00085	−0.00083
	(−2.81)	(−2.48)
1946–1955	0.00003	−0.00003
	(0.12)	(−0.13)
1956–1965	−0.00023)	−0.00017
	(−0.81)	(−0.65)
1966–1975	−0.00091	−0.00085
	(−1.78)	(−1.84)

[a]t-statistic in parentheses.

where R_{st}, R_{at} and R_{lt} are the returns on the portfolios containing the smallest, median-sized and largest firms at portfolio formation time (and $R_{1t} = R_{2t} + R_{3t}$). The procedure involves (a) the calculation of the three differences in raw returns in each month and (b) running time series regressions of the differences on the excess returns of the market proxy. The intercept terms of these regressions are then interpreted as the $\bar{R}_i$, $i = 1, \ldots, 3$. Thus, the differences can be interpreted as 'arbitrage' returns, since, e.g., R_{1t} is the return obtained from holding the smallest firms long and the largest firms short, representing zero net investment in a zero-beta portfolio.[12] Simple equally weighted portfolios are used rather than more sophisticated minimum variance portfolios to demonstrate that the size effect is not due to some quirk in the covariance matrix.

Table 3 shows that the results of the earlier tests are fully confirmed. $\bar{R}_2$, the difference in returns between very small firms and median-size firms, is typically considerably larger than $\bar{R}_3$, the difference in returns between median-sized and very large firms. The average excess return from holding very small firms long and very large firms short is, on average, 1.52 percent

[12]No *ex post* sample bias is introduced, since monthly rebalancing includes stocks delisted during the five years. Thus, the portfolio size is generally accurate only for the first month of each period.

Table 3
Mean monthly returns on 'arbitrage' portfolios.[a]
$R_j - R_k = \bar{\alpha}_i + \bar{\beta}_i(R_m - R_f)$

	$\bar{\alpha}_1$[b]			$\bar{\alpha}_2$[c]			$\bar{\alpha}_3$[d]		
	$n=10$	$n=20$	$n=50$	$n=10$	$n=20$	$n=50$	$n=10$	$n=20$	$n=50$
Overall period									
1931–1975	0.0152	0.0148	0.0101	0.0130	0.0124	0.0089	0.0021	0.0024	0.0012
	(2.99)	(3.53)	(3.07)	(2.90)	(3.56)	(3.64)	(1.06)	(1.41)	(0.85)
Five-year subperiods									
1931–1935	0.0589	0.0597	0.0427	0.0462	0.0462	0.0326	0.0127	0.0134	0.0101
	(2.25)	(2.81)	(2.35)	(1.92)	(2.55)	(2.46)	(1.09)	(1.49)	(1.42)
1936–1940	0.0201	0.0182	0.0089	0.0118	0.0145	0.0064	0.0084	0.0037	0.0025
	(0.82)	(0.97)	(0.67)	(0.55)	(0.90)	(0.65)	(1.20)	(0.62)	(0.49)
1941–1945	0.0430	0.0408	0.0269	0.0381	0.0367	0.0228	0.0049	0.0038	0.0041
	(2.29)	(2.46)	(2.17)	(2.29)	(2.54)	(2.02)	(1.25)	(1.09)	(1.68)
1946–1950	−0.0060	−0.0046	−0.0036	−0.0058	−0.0059	−0.0029	−0.0002	−0.0104	−0.0007
	(−1.17)	(−0.97)	(−0.97)	(−1.03)	(−1.29)	(−0.83)	(−0.07)	(−0.50)	(−0.38)
1951–1955	−0.0067	−0.0011	0.0013	−0.0004	0.0026	0.0010	−0.0062	−0.0037	0.0003
	(−0.89)	(−0.21)	(0.32)	(−0.07)	(0.72)	(0.39)	(−1.29)	(−0.99)	(0.11)
1956–1960	0.0039	0.0008	0.0037	0.0007	−0.0027	0.0011	0.0031	0.0035	0.0026
	(0.67)	(0.15)	(0.89)	(0.14)	(−0.64)	(0.45)	(0.88)	(1.16)	(0.97)
1961–1965	0.0131	0.0060	0.0024	0.0096	0.0046	0.0036	0.0035	0.0014	−0.0012
	(1.38)	(0.67)	(0.31)	(1.11)	(0.72)	(0.77)	(0.59)	(0.24)	(−0.24)
1966–1970	0.0121	0.0117	0.0077	0.0129	0.0110	0.0071	0.0008	0.0007	0.0006
	(1.64)	(2.26)	(1.91)	(1.93)	(2.71)	(2.43)	(0.23)	(0.22)	(0.27)
1971–1975	0.0063	0.0108	0.0098	0.0033	0.0077	0.0083	0.0030	0.0031	0.0015
	(0.60)	(1.23)	(1.45)	(0.39)	(1.18)	(1.79)	(0.64)	(0.72)	(0.43)

[a]Equally-weighted portfolios with n securities, adjusted for differences in market risk with respect to CRSP value-weighted index, t-statistics in parentheses.
[b]Small firms held long, large firms held short.
[c]Small firms held long, median-size firms held short.

per month or 19.8 percent on an annualized basis. This strategy, which suggests very large 'profit opportunities', leaves the investor with a poorly diversified portfolio. A portfolio of small firms has typically much larger residual risk with respect to a value-weighted index than a portfolio of very large firms with the same number of securities [Banz (1978, ch. 3)]. Since the fifty largest firms make up more than 25 percent of the total market value of NYSE stocks, it is not surprising that a larger part of the variation of the return of a portfolio of those large firms can be explained by its relation with the value-weighted market index. Table 3 also shows that the strategy would not have been successful in every five year subperiod. Nevertheless, the magnitude of the size effect during the past forty-five years is such that it is of more than just academic interest.

5. Conclusions

The evidence presented in this study suggests that the CAPM is misspecified. On average, small NYSE firms have had significantly larger risk adjusted returns than large NYSE firms over a forty year period. This size effect is not linear in the market proportion (or the log of the market proportion) but is most pronounced for the smallest firms in the sample. The effect is also not very stable through time. An analysis of the ten year subperiods show substantial differences in the magnitude of the coefficient of the size factor (table 1).

There is no theoretical foundation for such an effect. We do not even know whether the factor is size itself or whether size is just a proxy for one or more true but unknown factors correlated with size. It is possible, however, to offer some conjectures and even discuss some factors for which size is suspected to proxy. Recent work by Reinganum (1980) has eliminated one obvious candidate: the price–earnings (P/E) ratio.[13] He finds that the P/E-effect, as reported by Basu (1977), disappears for both NYSE and AMEX stocks when he controls for size but that there is a significant size effect even when he controls for the P/E-ratio, i.e., the P/E-ratio effect is a proxy for the size effect and not vice versa. Stattman (1980), who found a significant negative relationship between the ratio of book value and market value of equity and its return, also reports that this relationship is just a proxy for the size effect. Naturally, a large number of possible factors remain to be tested.[14] But the Reinganum results point out a potential problem with some of the existing negative evidence of the efficient market hypothesis. Basu believed to have identified a market inefficiency but his P/E-effect is

[13]The average correlation coefficient between P/E-ratio and market value is only 0.16 for individual stocks for thirty-eight quarters ending in 1978. But for the portfolios formed on the basis of P/E-ratio, it rises to 0.82. Recall that Basu (1977) used ten portfolios in his study.

[14]E.g., debt–equity ratios, skewness of the return distribution [Kraus and Litzenberger (1976)

just a proxy for the size effect. Given its longevity, it is not likely that it due to a market inefficiency but it is rather evidence of a pricing moc misspecification. To the extent that tests of market efficiency use data firms of different sizes and are based on the CAPM, their results might be least contaminated by the size effect.

One possible explanation involving the size of the firm directly is based c a model by Klein and Bawa (1977). They find that if insufficient informatic is available about a subset of securities, investors will not hold the securities because of estimation risk, i.e., uncertainty about the true par meters of the return distribution. If investors differ in the amount information available, they will limit their diversification to different subse of all securities in the market.[15] It is likely that the amount of informatic generated is related to the size of the firm. Therefore, many investors wou not desire to hold the common stock of very small firms. I have show elsewhere [Banz (1978, ch. 2)] that securities sought by only a subset of tl investors have higher risk-adjusted returns than those considered by a investors. Thus, lack of information about small firms leads to limite diversification and therefore to higher returns for the 'undesirable' stocks small firms.[16] While this informal model is consistent with the empiric results, it is, nevertheless, just conjecture.

To summarize, the size effect exists but it is not at all clear why it exist Until we find an answer, it should be interpreted with caution. It might b tempting to use the size effect, e.g., as the basis for a theory of mergers - large firms are able to pay a premium for the stock of small firms since the will be able to discount the same cash flows at a smaller discount rat Naturally, this might turn out to be complete nonsense if size were to b shown to be just a proxy.

The preceding discussion suggests that the results of this study leave man questions unanswered. Further research should consider the relationshi between size and other factors such as the dividend yield effect, and the tes should be expanded to include OTC stocks as well.

[15]Klein and Bawa (1977, p. 102).

[16]A similar result can be obtained with the introduction of fixed holding costs which lead limited diversification as well. See Brennan (1975), Banz (1978, ch. 2) and Mayshar (1979).

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MISSPECIFICATION OF CAPITAL ASSET PRICING
Empirical Anomalies Based on Earnings' Yields and Market Values

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This study documents empirical anomalies which suggest that either the simple one- capital asset pricing model (CAPM) is misspecified or that capital markets are inefficie particular, portfolios based on firm size or earnings/price (E/P) ratios experience average r systematically different from those predicted by the CAPM. Furthermore, the 'abnormal' r persist for at least two years. This persistence reduces the likelihood that these results are generated by a market inefficiency. Rather, the evidence seems to indicate that the equili pricing model is misspecified. However, the data also reveals that an E/P effect does not e after returns are controlled for the firm size effect; the firm size effect largely subsumes th effect. Thus, while the E/P anomaly and value anomaly exist when each variable is cons separately, the two anomalies seem to be related to the same set of missing factors, and factors appear to be more closely associated with firm size than E/P ratios.

1. Introduction

The foundations of current financial theory are being challenge empirical research that suggests that corporate earnings and firm size can be used to create portfolios that earn 'abnormal' returns. The rep 'abnormal' returns range from just a few percent per year to almost forty pe Such results, if true, are clearly inconsistent with the simple one p capital asset pricing models of Sharpe (1964), Lintner (1965) and (1972). However, the methodologies used to establish some of anomalous results often contain important flaws [see Ball (1978)].

In sections 2 and 3, stock returns after the announcement of qua earnings are analyzed in a framework that avoids these problems. Two results emerge from the analysis of the quarterly data:

*I wish to thank my Ph.D. Committee — Eugene Fama, Jack Gould, Robert Hamac Ingersoll, Roger Kormendi, and Myron Scholes — as well as David F. DeRosa, M Gibbons, Pat Hess, Bill Schwert, Rob Stambaugh, and Ross Watts for their helpful con and suggestions. Partial financial support for this research was provided by the Univer Chicago's Center for Research in Security Prices and the Graduate School of Bu Naturally, all errors are my responsibility.

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ANOMALIES IN RELATIONSHIPS BETWEEN SECURITIES' YIELDS AND YIELD-SURROGATES

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A literature survey reveals consistent excess returns after public announcements of firms' earnings. If the information in publicly-announced earnings is a public good, then these results seem inconsistent with equilibrium in the securities market: public goods, being without private cost, should earn no private return. Alternative explanations of this anomaly are considered. The most likely explanation is that earnings variables proxy for omitted variables or other misspecification effects in the two-parameter model: that the measured market portfolio is not mean-variance efficient. Similar anomalies and explanations apply to other 'yield-surrogates', including dividend yields and Value Line ratings.

1. Introduction

There is a consistent anomaly in the behavior of security prices after public announcements of firms' earnings. Securities appear to be priced such that, on average, they yield systematic excess returns in post-announcement periods. The sign of the excess return tends to agree with the sign of the deviation of earnings from its expectation; and there is evidence that the rank of the excess return (across securities) is correlated with the rank of the earnings deviation. There is also evidence that excess returns persist over time.

It seems reasonable to treat publicly-announced earnings numbers as public goods. A public good is defined as one for which 'each individual's consumption... leads to no subtraction from any other individual's consumption of that good'.[1] Several aspects of existing institutional arrangements imply that publicly-announced earnings numbers fit that definition, at least to a first approximation.

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[1]Samuelson (1954, p. 387). Musgrave (1959, chs. 1 and 4) provides a lengthier treatment of the theory of public goods.

FPUC – Natural Gas
Docket No. 080366-GU
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Exhibit 27.11

standardized dividend change, with the post-announcement average residuals being largest for the largest dividend changes.

A.4. Combined earnings/dividends studies

Brown, Finn and Hancock (1977, table 1) report cumulative average residuals over the twelve months following earnings and dividend announcements made jointly (i.e., in the same month). The cumulative averages over the following twelve months are: +6.5% (148 cases of earnings and dividends increases); −1.5% (87 cases of earnings and dividends decrease); and −6.8% (74 cases of earnings decrease and dividend omitted). Sample sizes in other categories are quite small.

A.5. The value line results

Black (1973) reports an investigation of the Value Line system of ranking securities. The system involves ranking securities into 5 groups. Black (1973, pp. 13–14) reports that the risk-adjusted excess returns, conditional on the two-parameter model, 'earned by Rank 1 and Rank 5 stocks were respectively 10 percent per year and −10 percent per year'. He also reports (p. 12) an earlier period-by-period analysis in which 'Rank 1 bettered Rank 5 in each of the five years' and 'the Rank 1 geometric average outperformed the Rank 5 geometric average in 70 percent of the weeks... during a period in which the market was down as often as it was up, so the results could not have been due to risk differences among the groups'.[16]

The key to the Value Line phenomenon could lie in the fact that the Value Line rankings are based primarily upon securities' earnings and dividend yields and changes in earnings yields.[17] Given that Value Line rankings are a function of earnings and dividend rankings, the Value Line phenomenon is a function of similar results which are observed for the univariate ranking schemes discussed above. Moreover, the Value Line system is designed to maximize the proxy-effect of its rankings.

[16]See Bernhard (1970).

[17]Value Line's variables ('quality', 'performance', desirability', and 'yield') are measured in terms of earnings yield, dividend yield, earnings change, or assessed riskiness. Note Black's (1973, p. 10) summary: 'The system tends to assign high ranks to stocks with low price-earnings ratios relative to historical norms, and relative to the price-earnings ratio on the market.'

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An Analytical Process for Generating the *WACC* Curve and Locating the Optimal Capital Structure[1,2]

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 27.12

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Abstract

We present here an analytical process for generating the firm's value [FV] and the weighted-average cost of capital [WACC] curves, with intent to locate the optimal capital structure. The method takes into consideration the relationship between debt, equity and taxes, and places emphasis on the effects of default risk, as well as on the assumptions that underlie the curves. In relation to the proposed approach, it is shown that the conventional one, which is used more commonly in practice, is flawed.

1 – Introduction

Capital structuring and, in particular, locating the optimal capital structure, have, for a long time, been a focus of attention in many academic and financial institutions that probe into this area. Academically, the problem is appealing because it is fairly open ended and subject to controversies and criticisms. And, practically, there is great interest, especially in the areas of corporate and project finance, as well as in structured products, as there is a lot of money to be made advising firms on how to improve their capital structure.

The major breakthrough in capital structuring theory came with Modigliani and Miller's [M&M] propositions (Modigliani and Miller, 1958). These, not unexpectedly, have led to a considerable amount of literature, both theoretical and practical, on how to determine and locate the optimal capital structure. Overall, the approaches range from being purely subjective to all analytical, with the former comprising qualitative descriptions of roughly where the optimum should fall and the latter providing comprehensive graphs of the *WACC* and/or *FV*, which depict the location of the optimum.

This work leans more towards the analytical side, focusing on providing a detailed discussion and derivation of the process that leads to the above-mentioned

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[1] June/July 2001. Revised September 2003. http://rdcohen.50megs.com/OCSabstract.htm
[2] I express these views as an individual, not as a representative of companies with which I am connected.
[3] E-mail: ruben.cohen@citi.com - Phone: +44(0)207 986 4645.

curves. Before going any further, it would be helpful to touch on some of the relevant works and their relation to our objectives.

There are at least two issues that surround the *WACC* and/or the *WACC* curve. Firstly, how accurately can the *WACC* be calculated? And, secondly, if it were at all possible to obtain the *WACC* accurately, would it ever serve as a useful metric to appraise a company's performance? These two issues are covered well in the literature, but since we are interested only in the first, we shall ignore the second, as it has no relevance to our objectives here.[4]

As far as we are aware, there is one conventional technique for obtaining the *WACC* curve. The method revolves heavily around the M&M principles, and makes use of the CAPM-based cost of [or return on] equity[5], the cost of debt, the tax rate and values of debt and equity.

Although practical and theoretical courses[6] abound on how to apply the technique, and its variants, to obtain the curves of interest, the literature, in large, appears to lack any thorough description, detailing the actual procedure itself. We intend here to fill in the gap by providing an in-depth, step-by-step explanation of how the *FV* and *WACC* curves could be generated. In due course, we will, as well, stumble on a major flaw that the current methodology contains and propose a way to get around it. The final outcome, therefore, shall comprise a process that is not only consistent with M&M's principles, but also more robust than the conventional.

2 – Preliminary Background, Definitions and Assumptions

An important implication of the M&M capital structuring theorems is that when there are taxes, debt-related tax benefits, in terms of interest tax shields, accrue, which add value to the firm. The notion itself is surprisingly straightforward and could be presented as (Ross *et al*, 1998)

$$\Delta V = DT \qquad (1)$$

where T is the tax rate and ΔV is the incremental value added by taking on a debt of D. The product DT is simply the present value of the interest tax shield.

[4] Those interested in the second issue may refer to, among many others, Mao (1979), Rege and Baxter, (1982), Paulo (1992), Wang (1994) and Mills (2001).
[5] This constitutes a cost to the firm, but a return to the equity investor.
[6] Courses on optimising the capital structure form an integral part of the training in almost all major academic and financial institutions.

In view of the above, it is possible to demonstrate numerically [see, e.g., Cohen (2001) for a simple illustration] that debt and equity are coupled to each other, as well as to the firm's unlevered value, via the following relationship:

$$E + (1-T)D = V_u \qquad (2)$$

where E is the equity and V_u the unlevered value. The latter comprises the fundamental constant that goes into producing the *WACC* curve.[7] Putting Equations 1 and 2 together, therefore, leads to the classical relationship:

$$V_L = V_u + DT \qquad (3)$$

where V_L is the value, i.e. $E + D$, of the levered firm.

A step-by-step example was then worked out on how the *WACC* curve evolves with increasing debt. For convenience, we have extended that example in Table 1 here to cover a wider range of debt, and to produce more continuous curves of the *WACC* and return on equity [*ROE*] as functions of the leverage. These results are depicted in Figures 2a and 2b, the latter expanding on the *WACC* curve. Finally, Figure 3 displays the behaviour of the *FV*, i.e. $E + D$, as the leverage, *D/E*, increases.

In Figure 2b, we observe the classical shape of the *WACC* curve in a world with no default risk. In the presence of such risks, however, the curve may assume a minimum at some point. It is this minimum that captures most, if not all, of the attention of academics and practitioners who delve into this area.

Our objective here is to explain how one could locate the optimal capital structure, if it exists. In the course of the derivation, we will, as well, demonstrate that the conventional way for deriving the *WACC* curve is flawed.

We shall, never the less, continue to work with the simple case shown in Figure 1, even though actual financial statements tend to be much more complicated. The need to simplify stems from the necessity to shed light on the fundamentals that underlie capital structuring and its optimisation. Without properly understanding these, it is virtually useless and meaningless to pursue more complicated cases.

Let us now introduce some of the common variables and terminology, and, also, restate the assumptions that shape the relevant M&M theorems. In due course, we will go through the basic principles that lead to the governing equations. The default

[7] The capital, i.e. $E+D$, has generally, although mistakenly, been used as the constant that relates debt to equity.

risk is ultimately brought into the picture, as its impact is demonstrated on certain variables - such as the *WACC*, *ROE*, firm's value, etc. - that play important roles here.

2.1 - The Case of Taxes, but with No Default Risks – The "Idealised" Case

We begin here with a financial statement that constitutes the income statement and balance sheet, and, again, focus on the simplified version shown in Figure 1. This depicts a firm that has an asset base or "levered" value, V_L, of 132, a debt, D, of 80 and a balancing equity, E, of 52. In addition, the "expected" *EBIT*[8], $\tilde{e}_b^*$, is taken as 20, which, in turn, is subjected to constant interest and tax rates, R_D^* and T, respectively, of *5%* and *40%*. For simplicity, we assume that the book and market values are the same[9].

These numbers, therefore, lead to an observed leverage, ϕ, of 1.54, an "expected" profit, $\tilde{e}_f^*$, of 9.6, a return on equity, R_E^*, of 18.5% and a *WACC* of 9.1%, all which were obtained using the following definitions:

$$\phi \equiv \frac{D}{E} \tag{4a}$$

$$\tilde{e}_f^* = [\tilde{e}_b^* - R_D^* D] \times (1-T) \tag{4b}$$

$$R_E^* \equiv \frac{\tilde{e}_f^*}{E} \tag{4c}$$

and, finally

$$WACC^* \equiv \frac{\tilde{e}_b^* \times (1-T)}{V_L} = \frac{\tilde{e}_b^* \times (1-T)}{E+D} \tag{4d}$$

Note that the asterisk, which appears in some of the superscripts, implies the hypothetical, idealised case of no default risk.

Let us, in addition, introduce the parameter R_u^* and define it as

$$R_u^* \equiv \frac{\tilde{e}_b^* \times (1-T)}{V_u} = \frac{\tilde{e}_b^* \times (1-T)}{E+(1-T)D} \tag{5}$$

---

[8] The "expected" *EBIT*, as described in the preceding paper, is that which reconciles the "expected" return in the income statement with the stock's total rate of return. The latter is also known as the cost of equity.

[9] The distinction between the two is discussed in Brealey and Myers (1996). In practice, however, one must implement the market value of equity when calculating the firm's value.

which, in contrast to 4d, is the "unlevered" $WACC$, since it is based on the unlevered value of the firm. On combining Equations 4a-c with 5, we obtain:

$$R_E^* = R_u^* + [R_u^* - R_D^*]\phi(1-T) \qquad (6)$$

which states that, holding R_u^*, R_D^* and T constant, and with $R_u^* > R_D^*$, the cost of equity must rise linearly with leverage. This is M&M's Proposition 2, whose behaviour is clearly displayed in Figure 2a.

2.2 – The Role of the Beta

We now discuss how the firm's stock price and its rate of return fit into the picture. CAPM tells us that these enter through the beta[10] of the firm, which, in theory, should depend on leverage - i.e. as leverage increases, so should beta. But what is the relationship?

To find out, we begin with the beta of the levered firm. This beta, which shall be denoted by β_L, is connected to the return on equity, R_E^*, via the definition[11]:

$$\beta_L \equiv \frac{R_E^* - R_D^*}{R_P} \qquad (7)$$

where R_p is the market's risk premium. We have, in the absence of default risk[12], taken the risk-free rate, R_f, to be equivalent to the default-risk-free interest rate, R_D^*. If this were not the case, then a slight adjustment to β_L, which accounts for the marginal spread between R_D^* and R_f, would be necessary. However, the proof for this will be left out of here, as is out of the scope of this work.

By setting the leverage, ϕ, equal to zero in Equation 6 and inserting the result in 7, we get the unlevered beta, β_u, as

$$\beta_u \equiv \frac{R_u^* - R_D^*}{R_P} \qquad (8)$$

Finally, substituting Equations 7 and 8 into 6 and simplifying, we obtain the well-known relationship between the unlevered and levered betas as

[10] The very notion of beta is littered with controversies. While some works strongly support it, others advocate its "death" [Grinold (1993) and references therein]. Moreover, some say that it should be industry based, while others argue that it should be the firm's. We shall avoid delving into these issues here and will, instead, utilise the beta as objectively as possible by taking it as a "given."
[11] Note that this emanates from the CAPM.

$$\beta_L = \beta_u[1+\phi(1-T)] \qquad (9)$$

In practice, one would start with the beta of the levered firm, β_L, which we treat here as a given, extract from it β_u using Equation 9, and incrementally increase ϕ to work out the hypothetical levered betas at each stage. For instance, if the firm that is represented by the statement in Figure 1 had a β_L of, let us say, 1.25, and a leverage, ϕ, of 1.54, then its unlevered beta, β_u, would be 0.65. Notwithstanding, in the more realistic world with default risks, it is not that straightforward to obtain the levered beta, as it shall be proven later in more detail. Having now established the notions of the levered and unlevered betas, we shall continue on and bring in the effects of the default risk.

2.3 – The Default Risk

It is a fact that every firm is at risk of defaulting on its debts. The extent of this risk is quantifiable by the probability of default. This probability, in turn, leads to the credit rating through a statistical process that incorporates several of the firm's current and expected ratios and other factors. The process itself is too long and involved to be discussed here, but, in all, the rating that ensues helps to provide a common background against which all firms can be compared.

The analyst who probes into capital structuring may, never the less, be more interested in the spread over the risk-free rate that this classification system represents. Hence, much statistical work has gone into producing these relations, a sample of which is displayed in Table 2 (Damodaran, 2000).

The overall process of translating debt into rating, then spread and, ultimately, the company's cost of debt, is summarised in Figure 4. Typically, one would start with the interest-bearing debt and a presumed cost of debt, and, together with numbers from the financial statement, compute certain relevant factors and ratios. With the aid of a credit-rating model [CRM], these then lead to an implied rating, which provide us with the spread via, for example, Table 2. The spread, when added to the risk-free rate, yields a new cost of debt[13]. The procedure may also embody a loop, whereby if the calculated cost of debt should differ from the previous one, it is

[12] The spread on the firm's cost of debt over the risk-free rate would be identically zero in this case.
[13] It is important to emphasise that any impact that bankruptcy costs might have on the spreads and, hence, the cost of debt, has been excluded from this paper. The reason for this is that such costs tend to be more subjective and difficult to predict than the probability of default. Adding on such costs will only make this work more quantitative and, perhaps, even more difficult to read.

fed back to re-assess the factors and ratios (Damodaran, 2000). The loop continues until the cost of debt converges.

Clearly, a full account of the methodology that goes into the above is out of the scope of this work, as it is too lengthy to include here. However, for our purposes, and for the sake of conciseness, we shall treat the course that converts debt, or leverage, into the cost of debt, as shown in Figure 4, as simply a black box, and assume that the relationship between the two is readily known and available. With this in mind, we move on to the next section and discuss the optimisation of the capital structure.

3 - Optimisation of the Capital Structure – The Different Approaches

Minimising its cost of capital and/or maximising its value remains the objective of every firm that seeks to optimise its capital structure. Altogether, explanations, both qualitative and analytical, abound on how to optimise the capital structure [e.g. see Chew (1998) and references therein]. Our aim here is similar in that we also try to provide an explanation, albeit quantitative, on how and where this optimum occurs.

Let us return to the classical M&M theorems, which describe a world with taxes but with no default risk, and note the absence of an optimal capital structure in the equations in Section 2.1. If there were one, it should occur at a leverage $\phi \to \infty$. Let us demonstrate.

By definition, the *WACC*, as presented by Equation 4d, may be generalised to account for the default risk as well – i.e.

$$WACC \equiv \frac{\tilde{e}_b \times (1-T)}{V_L} = \frac{\tilde{e}_b \times (1-T)}{E+D} \qquad (10)$$

where the removal of the asterisks indicates the presence of default risk. Here, theory states that, holding $\tilde{e}_b$, T and V_u constant over any level of debt, D, a rise in debt should correspond to a fall in the *WACC* [recall that $E + D = V_u + DT$ in the absence of default risk]. Hence, in a world with taxes, but with no default risks, the *WACC* is an ever-decreasing function of debt, reaching its minimum[14] as debt increases to its theoretical maximum limit of $\tilde{e}_b^* / R_D^*$.[15]

So, the next question is how does the optimal capital structure occur at a finite leverage? To answer this, we need to examine more closely Equation 10, which

[14] The point of minimum *WACC* is the optimal capital structure since it signifies the minimum cost of capital needed to operate the company.
[15] This is obtained by equating Equation 4b to zero and solving for D.

relates the expected, unlevered earnings [numerator] and the firm's value [denominator] with the *WACC*.

A brief inspection of this equation suggests that, with the numerator held constant and independent of leverage, as required by M&M, the *WACC* would acquire a minimum at some finite leverage if and only if the firm's value, $E + D$, passes through a maximum. The following sections address the above in more detail, as we derive a new model and compare it with the conventional one.

3.1 – The "Maximium-value" Approach

The process behind generating the *WACC* curve shall be termed the "maximum-value" approach because it focuses on obtaining first the curve for the *FV*, without any reference to the *WACC*. Here, a maximum in the *FV* should occur owing to gains from the tax shield on debt being offset by the costs of financial distress (Ross *et al*, 1998).

Computation of the *WACC* follows then naturally by dividing the "expected" unlevered earnings[16], which should remain constant with leverage, by the *FV*. Thus, with the expected *EBIT* constant, we obtain a minimum in the *WACC* precisely where the *FV* is maximised. This is discussed next in more detail.

Let us refer once again to our original example. The firm has a debt of 80, an equity of 52 and is subjected to a rate of tax of 40% and interest equal to the risk-free rate plus a spread, the latter taking into account the default risk. Let us also, for sake of simplicity, assume that this spread is currently 1.19%, thus yielding an effective, pre-tax cost of debt of 6.19%.

The question now is what would the firm's value be if it operated in a world with no default risk, given its current equity, debt and cost of debt?[17] It is not difficult to argue here that the cost of debt would be exactly the risk-free rate, which subsequently raises the value of debt from the original $D = 80$ to $\frac{80 \times 6.19\%}{5.00\%}$, or approximately $D^* = 99$. Therefore, with equity remaining at 52, the value of the company in this idealised, default-free scenario should be 151 instead of the original 132.[18] Also, the idealised leverage, D^*/E, would be 1.90 *versus* the 1.54 that we had earlier for D/E.

[16] The "expected" unlevered earnings may, in practice, be calculated using CAPM, as discussed later, or taken as either a historical average or an equivalent to the analysts' consensus forecast.
[17] Refer to the "idealised" scenario discussed earlier in Section 2.1.
[18] The difference of *19* is, in fact, related to the present value of the losses incurred by paying the additional interest over the risk-free rate.

Let us now generalise the above and derive the process that leads to the FV curve. The process itself is illustrated in Table 3, as well as described in the notes below it.

(1) Beginning at $D = 0$, increase D incrementally and, following the approach outlined in Figure 4, obtain the corresponding ratings, spreads and costs of debt, R_D, at each level of debt.[19] (2) With the cost of debt known at each stage, express the interest paid as the product $R_D D$. Dividing this by the risk-free rate, R_f, therefore, gives the value of the idealised or "virtual" riskless debt, D^*, at each stage as

$$D^* = \frac{R_D D}{R_f} \tag{12}$$

With R_D greater than R_f, it becomes clear that the value of debt and, hence, the firm falls as the cost of debt rises.

(2) It thus follows that, in this default-free scenario, the value of the unlevered firm, V_u^*, should be

$$V_u^* = E + (1 - T)D^* \tag{13}$$

based on Equation 2. In accordance with M&M's principles, V_u^* should remain constant, independent of D^*. (3) Thus, with V_u^*, as well as T, given, the value of equity, E, and, hence, the firm, $E + D$, could be assessed at each level of D. Figure 5a compares the ideal and the real values and provides proof that, in contrast to its idealised counterpart, $E + D^*$, which lacks a maximum, $E + D$ does indeed possess one. The discrepancy between the two curves is attributable solely to the difference between D^* and D.

We are now also in a position to de-lever the original beta and re-lever it back to compute the corresponding cost of equity and the expected, unlevered earnings at each stage of D. It is important, however, to stress that this de-levering and re-levering of the beta must be conducted using the ratio D^*/E, and <u>not</u> D/E. The rationale for this goes back to the derivation of the levered beta in Equation 9, which was based on the default-free scenario. Therefore, since in this case the current D^*/E is 1.90 and the tax rate 40%, the unlevered beta should be $\frac{1.25}{[1 + 1.90(1 - 0.4)]}$, which

[19] For $D = 0$, the rating and the corresponding spread would very likely be AAA and *0.20%*, respectively [see Table 2].

equals 0.58. It follows from this that the expected, unlevered earnings, i.e. $\tilde{e}_b(1-T)$, could be calculated from

$$\tilde{e}_b(1-T) = [R_f + \beta_L R_p]E + R_D D(1-T) \qquad (14)$$

where R_p is the market risk premium[20], thus yielding a constant of 9.47 throughout[21]. Finally, dividing this by the firm's value, $E+D$, leads to the *WACC* curve shown in Figure 5b. Evidently, because of the constant *EBIT* [see Column 11 in Table 3] the minimum in the *WACC* occurs precisely where the firm's value is maximised.

We end this section with another note, namely, the apparent mismatch between the incremental debt raised and the equity purchased. To illustrate, let us refer again to Table 3, to where the total debt [Column 1] and equity [Column 4] are 120.00 and 16.27, respectively. Our calculations show that raising the debt from 120.00 to 126.67 reduces the equity from the original 16.27 to 5.97. The question, therefore, is how does an added, incremental debt of 6.67 enable an equity purchase of 10.30? The answer is that the balance is funded by the sale of assets, which explains the subsequent decline in the total value of the firm. Another question is what if, instead, one decided to purchase an amount of 6.67 in equity, in an attempt to exactly match the incremental debt raised? This, of course, could be done, but the resulting point will lie on a different *WACC* or *FV* curve.

3.2 – The Conventional Approach

The conventional approach, which is used more commonly in practice, is in many ways similar to the above, except that all calculations are carried out using the realised leverage, *D/E*, instead of the idealised, D^*/E. We will prove here that this approach is flawed.

The process that underlies the conventional approach is described in Table 4 and the notes that follow it. At start, we need the unlevered firm's value. This is obtained from Equation 2. For our specific example, V_u would then be $52+80\times(1-40\%)$, or 100.

Very briefly, the process is as follows: (1) we begin with a debt, *D*, of zero and increase it incrementally. (2) Similar to the discussion related to Table 3, we compute, for each stage, the corresponding rating, spread and the cost of debt. (3) The equity

[20] The market risk premium is taken to be 6% here.
[21] As mentioned in an earlier footnote, it might be also appropriate to use instead a historical average or a consensus forecast of the *EBIT*.

value is subsequently computed at each stage using Equation 2 again, with $V_u = 100$. (4) This then leads to the realised or actual firm's value, $D + E$, which only rises as D increases. (5) The actual leverage, D/E, comes next, which, along with the given tax rate of 40%, yields the levered beta at each stage. The unlevered beta in this case is, however, $\frac{1.25}{[1+1.54(1-0.4)]} = 0.65$, where the 1.54 is the current D/E, i.e. 80/52. (6) With the levered beta known at each stage, the cost of equity, R_E, and, hence, the expected, unlevered earnings could be computed, the former coming from

$$R_E = R_f + \beta_L R_p \qquad (15)$$

and the latter from Equation 14. Lastly, (7) the *WACC* is evaluated using Equation 10.

The conventional approach, although regularly used in practice, appears to be flawed for the following 2 reasons. Firstly, we note from Table 4, as well as in Figure 6, that the expected, unlevered earnings, as calculated in this conventional manner using D/E rather than D^*/E, is not constant, but varies with leverage. This is inconsistent with the original contention of M&M that this number must be constant, independent of leverage. Secondly, we note that the firm's value, which is depicted in Column 4, is ever increasing and, hence, does not pass through a maximum, as it should in theory. Moreover, there appears to be a minimum *WACC*, which coincides with a debt, D, of 120. The mere observation that the firm's value does not pass through a maximum while the *WACC* possesses a minimum is, in itself, contradictory.

The root of the above problems lies in applying Equations 9 and 13 to a cost of debt that is variable. Here, we need to recall that derivation of both equations, which, respectively, relate to the beta and the unlevered value of the firm, were based on the presumption that the cost of debt remained constant, not variable.

4 – An Effect of the Tax Rate on the Optimal Credit Rating

There is an additional issue that crops up when assessing a company's capital structure. It concerns the impact of the tax rate on the optimal credit rating[22].

It is widely believed in practice that a typical company should have its optimal capital structure coincide with a specific credit rating. Some maintain it should be BBB, others A- and so on. Apparently, there seems to be no common answer to this question. We will prove here that the tax rate affects the optimal credit rating in a way that firms

[22] By "optimal credit rating" we mean the credit rating that corresponds to the optimal capital structure.

that operate in different tax-rate environments must aim for different credit ratings consistent with their optimal capital structure. Let us demonstrate.

Consider a firm that does not pay any taxes, but is prone to default risk. The fact that this firm can claim no interest-related tax benefits implies that its value curve should maximise at zero leverage. The zero-leverage point would, in turn, be compatible with a AAA rating. Thus, one could argue here that the optimal credit rating for a firm that pays no taxes, but is subject to default risk, is AAA, or somewhere close to it.

We extended this argument here a bit further and generated Table 5, which depicts how the tax rate might affect the optimal rating. This table was produced by applying different tax rates to the spreadsheet behind Table 3. Assuming that the same credit spread shown in Table 2 applies under all tax rates[23], we note that, in general, higher tax rates lead to lower optimal ratings and vice versa. In this particular case, for instance, an optimal BBB occurs at a tax rate of between 33% and 40%, whereas an optimal AA- occurs at a tax rate of 30%. This distribution, however, is expected to be highly dependent on the rating-to-spread relationship but, qualitatively, this general behaviour should hold by and large.

5 - Conclusions

We have so far discussed the basic principles that underlie the M&M capital structuring theorems, added in the effects of default risk and derived an analytical technique by which the *FV* and the *WACC* curves could be produced. In the process, we have, hopefully, also shed light on problems that are inherent within the conventional approach, and explained why the alternative, which we have termed here as the "maximum-value" approach, should be implemented instead.

Basically, one of the issues surrounding the conventional approach surface because it conflicts with one of M&M's original hypotheses – namely that the expected, unlevered earnings should remain constant, independent of leverage. Another issue pertains to the lack of a maximum in the firm's value. Yet, putting the two together leads to a minimum in the WACC curve, which, obviously, is in contradiction with the absence of a maximum in the firm's value. Never the less, this problem is resolved by incorporating the so-called "maximum-value" approach.

Without having to rely on the *EBIT*, the maximum-value approach seeks the leverage at which the *FV* is maximised. This method begins by converting the

[23] We have not yet tested, or checked in the literature, as to whether or not this is a valid assumption.

realised debt, D, into its idealised counterpart, D^*, via Equation 12. The difference between D^* and D is the present value of the additional interest payments arising from the default risk. Once obtained, computation of the equity value, FV, beta, etc. follows naturally. It is important to note here that the de-levering and re-levering of the firm's beta must be carried out relative to the idealised debt-to-equity ratio, i.e. D^*/E, rather than the actual, D/E. With this, the calculated expected $EBIT$ remains constant and independent of leverage and, hence, becomes consistent with M&M's requirement. The result, therefore, is a unique optimal capital structure, regardless of whether it falls out from the FV or the $WACC$ curve.

Moreover, we also came across an effect that the tax rate might have on the optimal credit rating. We found, in this instance, that in high tax-rate environments, firms may be able to achieve their optimal capital structure at a lower credit rating. In low tax-rate environments, however, they may not be so lucky. The reason for this is that taxes can create benefits in ways other than increasing the FV or reducing the $WACC$. These other benefits could include, for instance, an added flexibility for the firm to aim for a lower rating and, still, be able to optimise its capital structure.

Overall, it should be stressed that the numerical outcomes presented in this paper are sensitive to the spread-ratings relationship used [Table 2] and, hence, any other relationship would certainly generate different results. Qualitatively, however, the general trends are expected to remain the same, regardless of this functional relation.[24]

[24] That is, as long as the spread increases with deteriorating credit rating.

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D	E	V	D/E	ROE	WACC
0	100	100	0.00	12.0%	12.0%
10	94	104	0.11	12.4%	11.5%
20	88	108	0.23	13.0%	11.1%
30	82	112	0.37	13.5%	10.7%
40	76	116	0.53	14.2%	10.3%
50	70	120	0.71	15.0%	10.0%
60	64	124	0.94	15.9%	9.7%
70	58	128	1.21	17.1%	9.4%
80	52	132	1.54	18.5%	9.1%
90	46	136	1.96	20.2%	8.8%
100	40	140	2.50	22.5%	8.6%
110	34	144	3.24	25.6%	8.3%
120	28	148	4.29	30.0%	8.1%
130	22	152	5.91	36.8%	7.9%
140	16	156	8.75	48.8%	7.7%
150	10	160	15.00	75.0%	7.5%

Table 1 – Calculation of the variables E, V_L, D/E, ROE and $WACC$ via applying Equations 2, 3, 4c and 4d to the financial statement in Figure 1.

rating	spread
C	7.50%
CC	6.00%
CCC	5.00%
B	3.25%
BB	2.00%
BBB	1.50%
A	1.00%
AA	0.50%
AAA	0.20%

Table 2 – Typical, statistically-obtained relationship between rating and the spread over the risk-free rate. The rating classification here is S&P's.

D (1)	Rating (2)	spread (2)	Interest rate (2)	D* (3)	E (4)	V (5)	V* (6)	D*/E (7)	D/E (8)	beta (based on D*/E) (9)	COE based on beta (10)	Exp. EBIT based on beta (11)	WACC (12)	
0.00	AAA	0.20%	5.20%	0.00	111.42	111.42	111.42	0.00	0.00	0.58	8.50%	9.47	8.50%	
6.67	AAA	0.20%	5.20%	6.93	107.26	113.93	114.20	0.06	0.06	0.61	8.64%	9.47	8.31%	
13.33	AAA	0.20%	5.20%	13.87	103.10	116.44	116.97	0.13	0.13	0.63	8.78%	9.47	8.13%	
20.00	AAA	0.20%	5.20%	20.80	98.94	118.94	119.74	0.21	0.20	0.66	8.94%	9.47	7.96%	
26.67	AAA	0.20%	5.20%	27.73	94.78	121.45	122.52	0.29	0.28	0.69	9.11%	9.47	7.80%	
33.33	AAA	0.20%	5.20%	34.67	90.62	123.96	125.29	0.38	0.37	0.72	9.30%	9.47	7.64%	
40.00	AA-	0.26%	5.26%	42.07	86.18	126.18	128.25	0.49	0.46	0.75	9.53%	9.47	7.51%	
46.67	AA+	0.44%	5.44%	50.82	80.93	127.60	131.75	0.63	0.58	0.80	9.82%	9.47	7.42%	
53.33	AA-	0.64%	5.64%	60.20	75.30	128.64	135.50	0.80	0.71	0.86	10.18%	9.47	7.36%	
60.00	A+	0.82%	5.82%	69.83	69.52	129.52	139.35	1.00	0.86	0.93	10.61%	9.47	7.31%	
66.67	A	0.97%	5.97%	79.55	63.69	130.36	143.24	1.25	1.05	1.02	11.12%	9.47	7.27%	
73.33	A	1.09%	6.09%	89.30	57.84	131.18	147.14	1.54	1.27	1.12	11.74%	9.47	7.22%	
80.00	**A+**	**1.19%**	**6.19%**	**99.04**	**52.00**	**132.00**	**151.04**	**1.90**	**1.54**	**1.25**	**12.50%**	**9.47**	**7.18%**	**Current**
86.67	A-	1.27%	6.27%	108.77	46.16	132.83	154.93	2.36	1.88	1.41	13.45%	9.47	7.13%	
93.33	A-	1.35%	6.35%	118.48	40.33	133.67	158.81	2.94	2.31	1.61	14.67%	9.47	7.09%	
100.00	A-	1.41%	6.41%	128.18	34.51	134.51	162.70	3.71	2.90	1.88	16.30%	9.47	7.04%	
106.67	BBB+	1.46%	6.46%	137.87	28.70	135.36	166.57	4.80	3.72	2.27	18.59%	9.47	7.00%	
113.33	BBB	1.50%	6.50%	147.45	22.95	136.29	170.40	6.42	4.94	2.83	21.99%	9.47	6.95%	Optimal
120.00	BBB-	1.61%	6.61%	158.59	16.27	136.27	174.86	9.75	7.38	4.00	28.98%	9.47	6.95%	
126.67	BB	1.94%	6.94%	175.76	5.97	132.63	181.73	29.46	21.23	10.90	70.38%	9.47	7.14%	

(1) Debt increased incrementally and calculations carried out at every stage of debt.

(2) Rating and the corresponding spread and interest rate or pre-tax cost of debt obtained from the process described in Section 2.3 or Figure 4.

(3) The "virtual" value of debt, calculated using Equation 12.

(4) Value of equity calculated from the relationship involving the unlevered firm's value, i.e. using D in Equation 2.*

(5) Firm's realised value, D + E.

(6) V calculated as E + D* or Equation 3, based on D*. The two should yield the same result.*

(7) The "virtual" leverage, based on D.*

(8) Realised leverage, D/E.

(9) The beta calculated using Equation 9, based on D/E.*

(10) The cost of equity, based on the risk-free rate, risk premium and the just-calculated beta.

(11) The after-tax expected EBIT, calculated using Equation 14.

(12) The WACC, computed via either Equation 4d or 10, using V from Column 5 for the firm's value and EBIT from Column 11.

Table 3 - A demonstration of the process that leads to the firm's value and, hence, the *WACC* curve. The curves themselves are displayed in Figures 6a-b. The current standing of the firm is highlighted, and the optimal capital structure, which occurs at the maximum value and minimum *WACC*, is observed here at a debt of 113 and a rating of BBB. The process itself, which takes us from *D* to *WACC* is explained in the notes below the table.

D (1)	Interest rate (2)	E (3)	V (4)	D/E (5)	beta (based on D/E) (6)	COE based on beta (7)	Exp. EBIT based on beta (8)	WACC based on beta1 (9)	
0.00	5.20%	100.00	100.00	0.00	0.65	8.90%	8.90	8.90%	
6.67	5.20%	96.00	102.67	0.07	0.68	9.06%	8.91	8.68%	
13.33	5.20%	92.00	105.33	0.14	0.71	9.24%	8.92	8.46%	
20.00	5.20%	88.00	108.00	0.23	0.74	9.43%	8.92	8.26%	
26.67	5.20%	84.00	110.67	0.32	0.77	9.64%	8.93	8.07%	
33.33	5.20%	80.00	113.33	0.42	0.81	9.88%	8.94	7.89%	
40.00	5.26%	76.00	116.00	0.53	0.86	10.13%	8.96	7.73%	
46.67	5.44%	72.00	118.67	0.65	0.90	10.42%	9.02	7.60%	
53.33	5.64%	68.00	121.33	0.78	0.96	10.74%	9.11	7.50%	
60.00	5.82%	64.00	124.00	0.94	1.02	11.09%	9.19	7.42%	
66.67	5.97%	60.00	126.67	1.11	1.08	11.50%	9.29	7.33%	
73.33	6.09%	56.00	129.33	1.31	1.16	11.96%	9.38	7.25%	
80.00	**6.19%**	**52.00**	**132.00**	**1.54**	**1.25**	**12.50%**	**9.47**	**7.18%**	Current -
86.67	6.27%	48.00	134.67	1.81	1.35	13.13%	9.56	7.10%	
93.33	6.35%	44.00	137.33	2.12	1.48	13.86%	9.65	7.03%	
100.00	6.41%	40.00	140.00	2.50	1.63	14.75%	9.75	6.96%	
106.67	6.46%	36.00	142.67	2.96	1.81	15.83%	9.84	6.89%	
113.33	6.50%	32.00	145.33	3.54	2.03	17.19%	9.92	6.83%	
120.00	6.61%	28.00	148.00	4.29	2.32	18.93%	10.06	6.80%	Min. WACC
126.67	6.94%	24.00	150.67	5.28	2.71	21.25%	10.37	6.88%	

(1) Debt increased incrementally and calculations carried out at every stage of debt.
(2) Interest rate or pre-tax cost of debt calculated based on the process described in Section 2.3 or Figure 4.
(3) Value of equity calculated from the relationship involving the unlevered firm's value, i.e. Equation 2.
(4) The firm's value, V, calculated as E + D, using Columns 1 & 3, or Equation 3, based on D.
(5) The leverage, based on D & E.
(6) The beta calculated using Equation 9, based on D/E.
(7) The cost of equity, based on the risk-free rate, risk premium and the just-calculated beta.
(8) The after-tax expected EBIT, calculated using Equation 14.
(9) The WACC computed via 10, using D for the debt.

Table 4 – A demonstration of how the conventional approach may lead to a variable *EBIT*, as well as to a minimum WACC in the absence of a maximum in the firm's value..

Tax rate = 0%		Tax rate = 10%		Tax rate = 20%		Tax rate = 30%		Tax rate = 31%		Tax rate = 33%		Tax rate = 40%	
Value, E + D	Rating	Value, E + D	Rating	Value, E + D	Rating	Value, E + D	Rating	Value, E + D	Rating	Value, E + D	Rating	Value	Rating
151.04	AAA	141.13	AAA	131.23	AAA	121.33	AAA	120.34	AAA	118.35	AAA	111.42	AAA
150.77	AAA	141.56	AAA	132.35	AAA	123.14	AAA	122.22	AAA	120.38	AAA	113.93	AAA
150.50	AAA	141.99	AAA	133.47	AAA	124.95	AAA	124.10	AAA	122.4	AAA	116.44	AAA
150.24	AAA	142.41	AAA	134.59	AAA	126.77	AAA	125.98	AAA	124.42	AAA	118.94	AAA
149.97	AAA	142.84	AAA	135.71	AAA	128.58	AAA	127.87	AAA	126.44	AAA	121.45	AAA
149.70	AAA	143.27	AAA	136.83	AAA	130.39	AAA	129.75	AAA	128.46	AAA	123.96	AAA
148.96	AAA-	143.27	AAA-	137.57	AAA	131.87	AAA-	131.30	AAA-	130.16	AAA-	126.18	AAA-
146.89	AA+	142.06	AA+	137.24	AA+	132.42	AA+	131.94	AA+	130.97	AA+	127.60	AA+
144.17	AA-	140.29	AA-	136.40	AA-	132.52	AA-	132.13	AA-	131.36	AA-	128.64	AA-
141.20	A+	138.28	A+	135.36	A+	132.44	A+	132.15	A+	131.57	A+	129.52	A+
138.15	A	136.20	A	134.25	A	132.30	A	132.11	A	131.72	A	130.36	A
135.07	A	134.10	A	133.13	A	132.15	A	132.05	A	131.86	A	131.18	A
132.00	A-	132.00	A-	132.00	A-	132.00	A-	132.00	A-	132	A-	132.00	A-
128.94	A-	129.91	A-	130.88	A-	131.86	A-	131.95	A-	132.15	A-	132.83	A-
125.89	A-	127.83	A-	129.78	A-	131.72	A-	131.92	A-	132.31	A-	133.67	A-
122.85	A-	125.77	A-	128.68	A-	131.60	A-	131.89	A-	132.47	A-	134.51	A-
119.83	BBB+	123.71	BBB+	127.60	BBB+	131.48	BBB+	131.87	BBB+	132.65	BBB+	135.36	BBB+
116.92	BBB	121.76	BBB	126.61	BBB	131.45	BBB	131.93	BBB	132.9	BBB	136.29	BBB
				124.35	BBB-	130.31	BBB-	130.91	BBB-	132.1	BBB-	136.27	BBB-
										127.26	BB	132.63	BB

Current Optimal

Table 5 – Effect of tax rate on the rating at the optimal capital structure. Observe that at a zero tax rate, the optimal capital structure occurs at $D = 0$, which, of course, coincides with a rating of *AAA*. Also, note that as the tax rate increases, the optimal rating drops. The relationship between the two, which is not necessarily linear, depends strongly on the underlying credit spread and credit-rating model.

Income Statement	
Expected EBIT	***20***
Interest (at 5%)	4
EBT	***16***
Tax (at 40%)	6.4
Expected profit	***9.6***
Balance Sheet	
Assets	***132***
Debt	80
Equity	52
Total Debt & Equity	***132***
Relevant Ratios	
D/E	***1.54***
ROE	***18.5%***
WACC	***9.1%***

Figure 1 – Simplified financial statement, including an income statement and balance sheet.

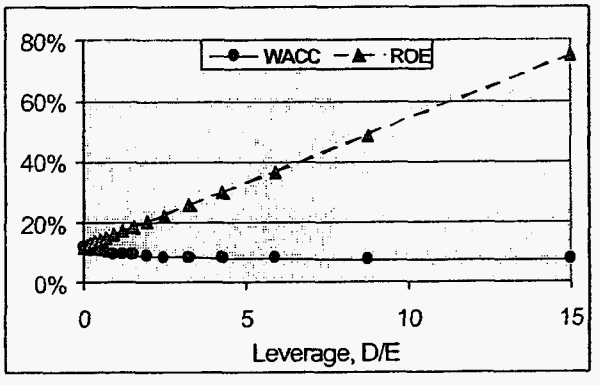

Figure 2a – *WACC* and *ROE* plotted against *D/E*.

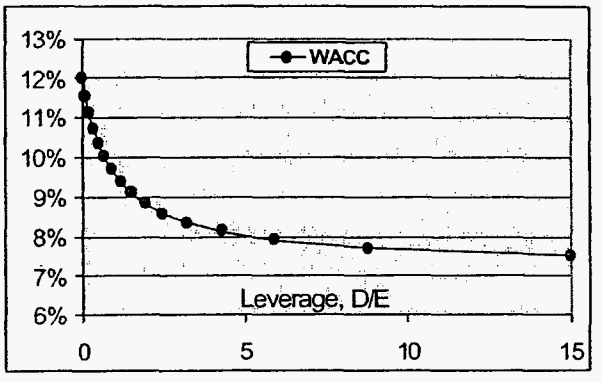

Figure 2b – Expanded view of *WACC versus D/E*.

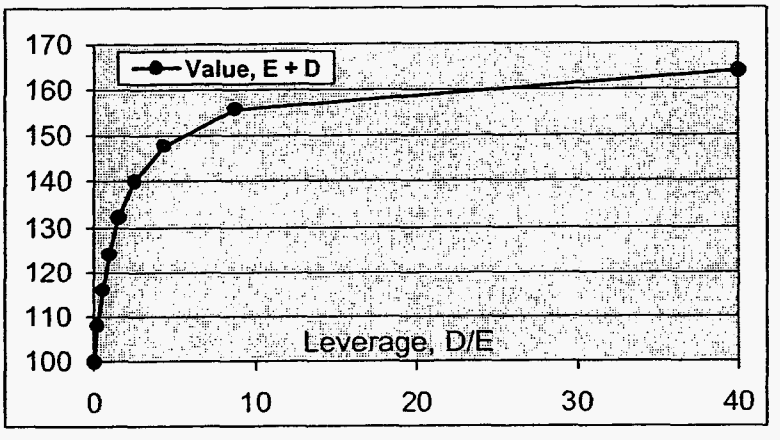

Figure 3 – The value of the firm versus its leverage

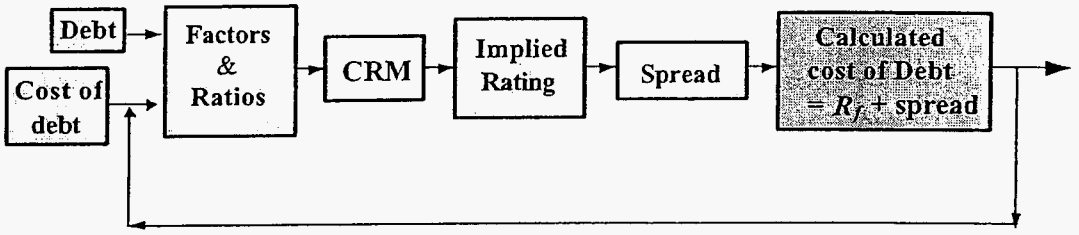

Figure 4 – Schematic diagram of the iterative process that converts debt into the cost of debt.

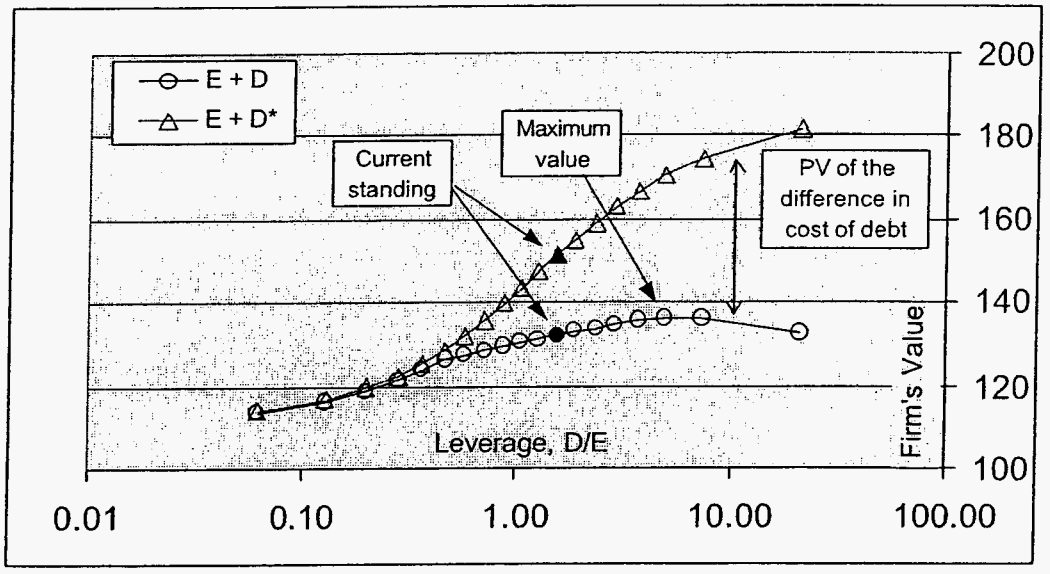

Figure 5a – The firm's value as a function of leverage. The numbers are taken from Table 4, which provides an example of the process behind the "maximum-value" approach. The triangles depict the firm's value in a world with no default risk, and the circles represent the value in a world with default risk. The two solid points depict the firm's current standing, which is also highlighted in Table 4. Note the absence of a maximum in the idealised case (triangles) and its presence in the realistic one (circles).

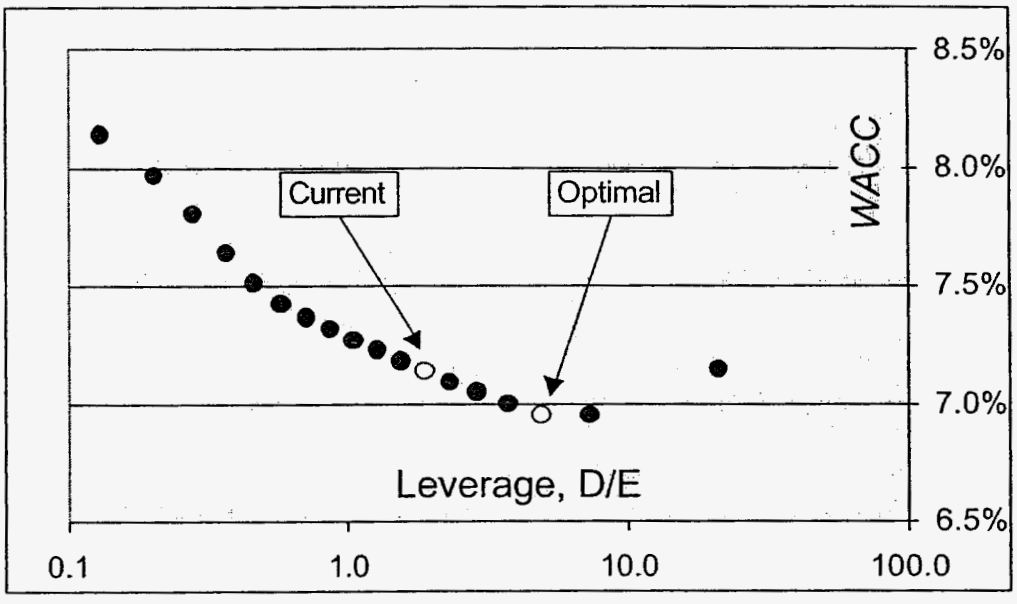

Figure 5b– The *WACC* curve obtained from the "maximum-value" approach, as outlined in Section 3.2. The optimal point, which corresponds to the minimum *WACC*, is highlighted.

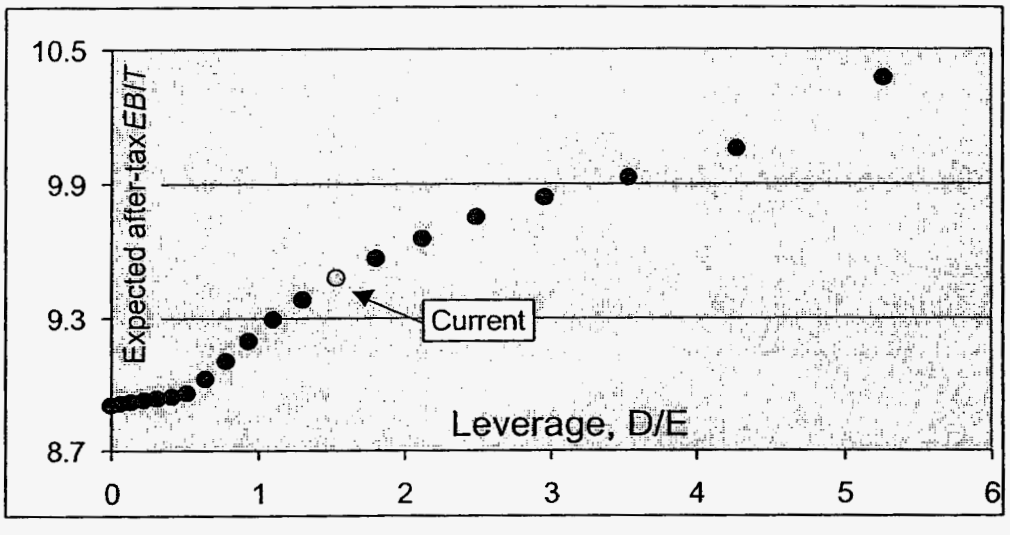

Figure 6 – The expected, unlevered earnings plotted against leverage. The calculations are based on Equation 14, using the data in Table 4. This contradicts one of M&M's important principles, namely that the *EBIT* remains constant, independent of leverage.

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RISK IN THE EQUITY MARKETS: AN EMPIRICAL APPRAISAL OF MARKET EFFICIENCY

George W. Douglas

AP
Y17
E19
9

Summary: Two principal questions are posed concerning the efficient performance of equity markets. First, is there adequate information about financial risk to enable investors to select portfolios efficiently, and therefore enable the market to allocate efficiently the risky assets? Two levels of information are distinguished: the ability of the market to perceive and price the total financial risk of each common stock, and the ability of the market to perceive and price covariances of returns. Cross-section regressions detect significant evidence of the former type of activity, but not of the latter. Second, are the risk premiums set on financial assets relevant measures of the earnings risk of the firm, and would the application of such risk premiums in setting the cost of capital result in an efficient allocation (with respect to risk) of current capital formation? A study of the sources of the financial risk of common stocks indicates that earnings volatility plays a statistically significant but minor role in the determination of its principal component, price volatility. Furthermore, the observed effect of earnings volatility on risk premiums is negligible. These results indicate that the market, with its present behavior, would not be an efficient mechanism for rationing real investment with respect to risk.

This essay is based on a Dissertation submitted to Yale University in 1967 in partial fulfillment of the requirements for the degree of Doctor of Philosophy. Dissertation committee: Professors James Tobin, chairman, William Brainard and Henry Wallich.

The study was aided by a grant from the National Science Foundation; Standard Statistics Co., Inc. of New York, a subsidiary of Standard and Poor's Corporation, which made available the primary data source, Compustat; Yale University and the University of North Carolina, which provided computer services. The author, an assistant professor of economics at the University of North Carolina, is on leave at the Brookings Institution, as an Economic Policy Fellow, working as an economist in the office of the Secretary of Transportation.

G.W.D.

I. Introduction: The Significance of Risk in Financial Markets

A. *The Financial Market as an Allocator:* Traditionally the stock market has been regarded primarily as an economic sideshow, the gyrations of which have little direct significance in the determination of the level or composition of real production. Received theory of intertemporal allocation focuses, instead, on interest rates, relegating stock prices and returns to a subordinate role. In addition, traditional views of investment, and the implied monetary linkage through interest rates, have been the least satisfactory of all elements of income and allocation theory. The inability of interest rates alone to provide a realistic description of the cost of capital in the investment process is apparent and is reflected in the lack of success of many investment models.

Recent applications to financial behavior of theories of utility maximization under conditions of uncertainty have provided a more general framework within which to describe the role of equity and other financial markets in the allocation problem. This framework enables one to describe efficiency criteria in an additional dimension, the efficient allocation of risk.

These aspects of consumer efficiency can be seen by describing the opportunities provided to an economy for intertemporal allocation by the introduction of financial assets. Without financial assets the opportunity for intertemporal transformation of consumption is limited to the holding of commodities (which have a zero rate of return) or tangible capital goods. With the introduction of financial assets, the ownership of the latter may be efficiently subdivided; thus efficiencies of scale in the aggregation of units of tangible capital may be realized, but with smaller ownership shares. This has various important effects. First, the time rate of transformation is improved for

Exhibit 27.13
Pg. 2 of 2

MEASURING INVESTORS GROWTH EXPECTATIONS: THE ANALYSTS VERSUS HISTORICAL GROWTH EXTRAPOLATION

by

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and

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September 1985

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Introduction

For the purposes of implementing the Discounted Cash Flow (DCF) cost of equity model it is important to know which growth estimate is embodied in the firm's stock price. An earlier study by Cragg and Malkiel [4] suggests that analysts' forecasts are embodied in the stock valuation process rather than historically-based growth figures such as the ten-year historical growth in dividends per share or the five-year growth in book value per share. However, the Cragg and Malkiel study is based on data for the 1960's, a decade that was considerably more stable than the recent past.

Since the issue of which growth rate to use in implementing the DCF model is so important to applications of the model in regulatory proceedings, we decided to investigate whether the Cragg and Malkiel conclusions continue to hold in more recent periods. This paper describes the results of our study.

THE DISCOUNTED CASH FLOW MODEL

Finance theory suggests that investors value an asset on the basis of the future cash flows they expect to receive from owning the asset. Thus, investors value an investment in a bond because they expect to receive a sequence of semi-annual coupon payments over the life of the bond and a terminal payment equal to the bond's face value at the time the bond matures. Likewise, investors value an investment in a firm's stock because they expect to receive a sequence of dividend payments and, perhaps, expect to sell the stock at a higher price sometime in the future.

A second fundamental principle of finance theory is that investors value a dollar received in the future less than a dollar received today. This is because, if they had the dollar today, they could invest it in an interest earning account and increase their wealth. This principle is sometimes called the time value of money.

Applying the financial principles noted above to an investment in a bond suggests that investors should value their investment in the bond on the basis of the present value of the bond's future cash flows. Thus, the price of the bond should be equal to:

$$P_B = \frac{C}{(1 + i)} + \frac{C}{(1 + i)^2} + \ldots + \frac{C + F}{(1 + i)^n} \qquad (1)$$

where: P_B = bond price,

C = cash value of the coupon payment (assumed for notational convenience to occur annually rather than semi-annually,

F = face value of the bond,

i = the rate of interest the investor could earn by investing his money in alternative bonds of equal risk, and

n = the number of periods before the bond matures.

Applying these same principles to an investment in the firm's stock suggests that the price of the stock should be equal to:

$$P_S = \frac{D_1}{(1 + k)} + \frac{D_2}{(1 + k)^2} + \ldots + \frac{D_n + P_n}{(1 + k)^n} \qquad (2)$$

where P_S = current price per share of the firm's stock,

$D_1, D_2 \ldots D_n$ = expected annual dividends per share on the firm's stock,

P_n = price per share of stock at the time the investor expects to sell the stock, and

k = return the investor expects to earn on alternative investments of the same risk, i.e., the investor's required rate of return.

Equation (2) is frequently called the Discounted Cash Flow (DCF) Model of stock valuation.

Statistical Model

The DCF Model suggests that the firm's stock price is equal to the present value of the stream of dividends that investors expect to receive from owning the firm's shares. Under the assumption that investors expect dividends to grow at a constant rate, g, in perpetuity, the stock price is given by the following simple expression:

$$P_S = \frac{D\ (1 + g)}{k - g} \qquad (3)$$

where: P_S = current price per share of the firm's stock,

D = current annual dividend per share,

g = expected constant dividend growth rate,

k = required return on the firm's stock.

Dividing both sides of equation (3) by the firm's current earnings, E, we obtain:

$$\frac{P_S}{E} = \frac{D}{E} \cdot \frac{(1 + g)}{k - g} \qquad (4)$$

Thus, the firm's price/earnings (P/E) ratio is a non-linear function of the firm's dividend-payout ratio (D/E), the expected growth in dividends (g), and the required rate of return.

For the purpose of investigating what growth expectation is embodied in the firm's current stock price, it is more convenient to work with a linear approximation to equation (4). Thus, we will assume that:

$$P/E = a_0(D/E) + a_1 g + a_2 k. \qquad (5)$$

(Cragg and Malkiel found this assumption to be reasonable throughout their investigation). Furthermore, we will assume that the required rate of return, k in equation (5), depends on the values of the risk variables β, Cov, Rsq and Sa where β is the firm's Value Line beta, Cov is the firm's pre-tax interest coverage ratio; Rsq is a measure of the stability of the firm's five-year historical EPS and Sa is the standard deviation of the consensus analysts' five-year EPS growth forecast for the firm. Finally, since the linear form of the P/E equation is only an approximation to the true P/E equation and β, Cov, Rsq and Sa are only proxies for K, we will add an error term, e, that represents the degree of approximation to the true

relationship. With these assumptions, the final form of our P/E equation is as follows:

$$P/E = a_0(D/E) + a_1 g + a_2 + a_3 + a_4 + a_5 + e \qquad (6)$$

With the above as background, we can now state the purpose of our study. It is to determine which of the frequently used approaches for estimating future growth in the DCF Model is embodied in the market price of the firm's shares. We can use equation (6) for this purpose. In particular, a regression can be performed to determine which estimate of future growth, g, in equation (6), when combined with the payout ratio, D/E, and risk variables, β, Cov, Rsq and Sa provides the best predictor of the firm's P/E ratio. To paraphrase Cragg and Malkiel, we would expect that growth estimates found in the best fitting equation more closely approximate the expectation used by investors than those found in poorer fitting equatons.

Description of Data

Our data sets include both historically-based measures of future growth and the consensus analysts' forecasts of 5-year earnings growth supplied by the Institutional Brokers Estimate System of Lynch, Jones & Ryan. They also include the firm's dividend-payout ratio and various measures of the firm's risk. The latter data items are included in the regression, along with earnings growth, to account for other variables that may affect the firm's stock price.

A more detailed description of our data set follows:

1. Earnings Per Share Since our goal is to determine which earnings variable is embodied in the firm's market price, we need to define this variable with great care. Financial analysts who study a firm's financial results in detail generally prefer to "normalize" the firm's reported earnings for the effect of extraordinary items such as write-offs of discontinued operations or mergers and acquisitions. They also attempt, to the extent possible, to state earnings for different firms using a common set of accounting conventions.

   In this study, we defined "earnings" as the consensus analyst estimate (as reported by IBES) of the firm's earnings for the forthcoming year.[3] This definition approximates the normalized earnings that investors most likely have in mind when making stock purchase and sell decisions. It implicitly incorporates the analyst's adjustments for differences in accounting treatment among firms and the effects of the business cycle on each firm's results of operations. Although we at first thought that this earnings estimate

[3] We also tried several other definitions of "earnings" including the firm's most recent primary earnings per share prior to any extraordinary items or discontinued operations. Since our results were insensitive to reasonable alternative definitions of "earnings", we only report the results for one definition in this paper.

might be highly correlated with the analysts' 5-year earnings growth forecasts, this was not the case. Thus, a potential spurious correlation problem was avoided.

2. Price/Earnings Ratio Corresponding to our definition of "earnings", the price/earnings ratio (P/E) is calculated as the closing stock price for the year (i.e., year-end 1981, 1982 and 1983) divided by the consensus analyst earnings forecast for the forthcoming fiscal year, (i.e., 1982, 1983 and 1984).

3. Dividends Dividends per share represent the common dividends declared per share during the calendar year (it includes an adjustment for all stock splits and stock dividends). The firm's dividend payout ratio is then defined as common dividends per share divided by the consensus analyst estimate of earnings per share for the forthcoming calendar year (D/E). Although this definition has the deficiency that it is obviously biased downwards (because it divides this year's dividend by next year's earnings), it has the advantage that it implicitly uses a "normalized" figure for earnings. We believe that this advantage outweighs the deficiency, especially when one considers the flaws of the apparent alternatives. Furthermore, we have verified that the results are insensitive to reasonable alternative definitions (see footnote 3).

4. Growth In comparing historically-based and consensus analysts' forecasts, we calculated 41 different historical growth measures. These included the

following: a) the past growth rate in EPS as determined by a log-linear least squares regression for the latest year,[4] two years, three years ... and ten years, b) the past growth rate in DPS for the latest year, two years, three years ... and ten years, 3) the past growth rate in book value per share (computed as the ratio of common equity to the outstanding common equity shares) for the latest year, two years, three years ... and ten years, 4) the past growth rate in cash flow per share (computed as the ratio of pre-tax income, depreciation and deferred taxes to the outstanding common equity shares) for the latest year, two years, three years ... and ten years, and 5) plowback growth (computed as the firm's retention ratio for the current year times the firm's latest annual return on common equity).

We also used the five-year forecast of earnings per share growth compiled by IBES and reported in mid-January of each year. This represents the consensus (i.e., mean) forecast produced by analysts from the research departments of leading Wall Street and regional brokerage firms over the preceding three months. The contributing brokers have been selected by IBES "because of the superior quality of their research, professional reputation, and client demand." (IBES Monthly Summary Book. [7])

4 For the latest year, we actually employed a point-to-point growth calculation because there were only two available observations.

5. Risk Variables Although there are a great many risk factors that could potentially affect the firm's stock price, most of these are highly correlated with one another. We have decided to restrict our attention to four risk measures that have intuitive appeal and are followed by many financial analysts. These include: a) B, the firm's "beta" as published by Value Line, b) Cov, the firm's pre-tax interest coverage ratio (obtained from Standard & Poor's Compustat), c) Rsq, the stability of the firm's five-year historical EPS (measured by the R^2 from a log-linear least squares regression), and d) Sa, the standard deviation of the consensus analysts' five-year EPS growth forecast (mean forecast) as computed by IBES.

After careful analysis of the data used in our study, we felt that more meaningful results could be obtained by imposing several restrictions on the companies included in our study. These restrictions are listed below:

A. Because of the need to calculate ten-year historical growth rates and because we studied three different time periods, 1981, 1982 and 1983, our study requires data for the 13-year period 1971-1983. Only companies with at least a 13-year operating history were included in our study.

B. Since our historical growth rate calculations were based on log-linear regressions, and the logarithm of a negative number is not defined, we excluded all companies which experienced negative EPS during any of the years 1971-1983.

C. For similar reasons, we also eliminated companies which did not pay a dividend during any one of the years 1971-1983.

D. To insure comparability of time periods covered by each consensus earnings figure in the P/E ratios, we eliminated all companies which did not have a December 31 fiscal year-end.

E. To eliminate distortions caused by highly unusual events that impact current earnings, but not expected future earnings, and thus the firm's price/earnings ratio, we eliminated any firm having a price/earnings ratio greater than 50.

F. Since the evaluation of anlaysts' forecasts is a major part of this study, we eliminated all firms that were not followed by IBES.

Our final sample consisted of approximately 65 utility firms.[5]

RESULTS

To keep the number of calculations in our study at a reasonable level, we performed the study in two stages. In stage 1, all 41 historically-oriented approaches for estimating future growth were correlated with each firm's P/E

5 We use the word "approximately" because the set of available firms varied each year. However, in each case it was only from 0-3 firms on either side of the figures cited here.

ratio. In stage 2, the historical growth rate with the highest correlation to the P/E ratio was compared to the consensus analyst growth rate in the multiple-regression model described by equation (4) above. Because we felt the results of our study might vary over time, we performed our regressions for each of three recent time periods.

First-Stage Correlation Study

Table 1 contains the results of our first-stage correlation study for each group of companies in each of the years 1981, 1982 and 1983. The values in this table measure the correlation between the historically- oriented growth rates for various time periods (one-year, two- year, three- year, etc.) and the firm's end-of-year P/E ratio. The four variables for which historical growth rates were calculated are shown in the left-hand column: EPS indicates historical earnings per share growth, DPS indicates historical dividend per share growth, BVPS indicates historical book value per share growth and CFPS indicates historical cash flow per share growth. The term "Plowback" refers to the product of the firm's retention ratio in the current year and its return on book equity for that year. In all, we calculated 41 historically-oriented growth rates for each group of firms in each study period.

The goal of the first-stage correlation analysis is to determine which historically-oriented growth rate is most highly correlated with each group's year-end P/E ratio. Eight-year growth in CFPS has the highest correlation with P/E in 1981 and 1982, and ten-year growth in CFPS has the highest

correlation with year-end P/E in 1983 (see Table 1). In all cases, the "plowback" estimate of future growth performed very poorly, indicating that it is not a factor in investor's expectations of future growth.

Second-Stage Regression Study

In the second stage of our regression study, we ran regression equation (4) using two different measures of future growth, g: 1) the best historically-oriented growth rate (g_h) from the first-stage correlation study, and 2) the consensus analysts' forecast (g_a) of five-year EPS growth. The regression results are shown in Table 2

These results support at least four general conclusions regarding the pricing of equity securities. First, there is overwhelming evidence that the consensus analysts' forecast of future growth is superior to historically-oriented growth measures in predicting the firm's stock price. In every case, the R^2 in the regression containing the consensus analysts' forecast is higher than the R^2 in the regression containing the historical growth measure. Furthermore, the regression coefficients in the equation containing the consensus analysts' forecast are considerably more significant than they are in the alternative regression. These results are consistent with those found by Cragg and Malkiel for data covering the period 1961-1968. They are also consistent with the hypothesis that investors use analysts' forecasts, rather than historically-oriented growth calculations, in making stock buy and sell decisions.

Second, there is some evidence that investors tend to view risk in fairly traditional terms: the interest coverage variable is statistically significant in all but one of our samples and the stability of the operating income variable is statistically significant in six of the twelve samples we studied, while the beta is never statistically significant and the standard deviation of the analysts' 5-year growth forecasts is statistically significant in only two of our twelve samples. However this evidence is far from conclusive since, as we demonstrate later, there is a significant degree of cross-correlation among our four risk variables. This cross-correlation makes any general conclusions about risk extremely hazardous.

Table 2

Regression Results

Model I

Part A: Historical

$$P/E = a_0 + a_1 D/E + a_2 g_h + a_3 B + a_4 Cov + a_5 Rsq + a_6 Sa$$

Year	$\hat{a}_0$	$\hat{a}_1$	$\hat{a}_2$	$\hat{a}_3$	$\hat{a}_4$	$\hat{a}_5$	$\hat{a}_6$	R^2	F Ratio
1981	-6.42*	10.31*	7.67*	3.24	0.54*	1.42*	57.43	0.83	46.49
	(5.50)	(14.79)	(2.20)	(2.86)	(2.50)	(2.85)	(4.07)		
1982	-2.90*	9.32*	8.49*	2.85	0.45*	-0.42	3.63	0.86	65.53
	(2.75)	(18.52)	(4.18)	(2.83)	(2.60)	(0.05)	(0.26)		
1983	-5.96*	10.20*	19.78*	4.85	0.44*	0.33	32.49	0.82	45.26
	(3.70)	(12.20)	(4.83)	(2.95)	(1.89)	(0.50)	(1.29)		

Part B: Analysts

$$P/E = a_0 + a_1 D/E + a_2 g_a + a_3 B + a_4 Cov + a_5 Rsq + a_6 Sa$$

Year	$\hat{a}_0$	$\hat{a}_1$	$\hat{a}_2$	$\hat{a}_3$	$\hat{a}_4$	$\hat{a}_5$	$\hat{a}_6$	R^2	F Ratio
1981	-4.97*	10.62*	54.85*	-0.61	0.33*	0.63*	4.34	0.91	103.10
	(6.23)	(21.57)	(8.56)	(0.68)	(2.28)	(1.74)	(0.37)		
1982	-2.16*	9.47*	50.71*	-1.07	0.36*	-0.31	119.05*	0.90	97.62
	(2.59)	(22.46)	(9.31)	(1.14)	(2.53)	(1.09)	(1.60)		
1983	-8.47*	11.96*	79.05*	2.16	0.56*	0.20	-34.43	0.87	69.81
	(7.07)	(16.48)	(7.84)	(1.55)	(3.08)	(0.38)	(1.44)		

Notes:

* = Coefficient is significant at the 5% level (using a 1-tailed test) and has the correct sign.

The t-statistic is indicated in parentheses.

Possible Misspecification of Risk

Since the stock valuation theory says nothing about which risk variables are most important to investors, we need to consider the possibility that the risk variables of our study are actually only proxies for the "true" risk variables used by investors. It is well known that the inclusion of proxy variables may increase the variance of the parameters of most concern, which in this case are the coefficients of the growth variables.[7]

To allow for the possibility that the use of risk proxies has caused us to draw incorrect conclusions concerning the relative importance of analysts' growth forecasts and historical growth extrapolations, we have also estimated regression equation (4) with the risk variables excluded. The results of these regressions are shown in Table . Again, there is overwhelming evidence that the consensus analysts' growth forecast is superior to the historically-oriented growth measures in predicting the firm's stock price (the R^2 and t-statistics are higher in every case).

7 See Maddala, G.S., Econometrics, McGraw-Hill Book Company, New York, 1977, pp. 158-162.

Table 3

Regression Results

Model II

Part A: Historical

$P/E = a_0 + a_1 D/E + a_2 g_h$

Year	$\hat{a}_0$	$\hat{a}_1$	$\hat{a}_2$	R^2	F Ratio
1981	-1.05 (1.61)	9.59 (12.13)	21.20 (7.05)	.73	82.95
1982	0.54 (1.38)	8.92 (17.73)	12.18 (6.95)	.83	167.97
1983	-0.75 (1.13)	8.92 (12.38)	12.18 (7.94)	.77	107.82

Part B: Analysts

$P/E = a_0 + a_1 D/E + a_2 g_a$

Year	$\hat{a}_0$	$\hat{a}_1$	$\hat{a}_2$	R^2	F Ratio
1981	3.96 (8.31)	10.07 (20.91)	60.53 (15.79)	.90	274.16
1982	-1.75 (4.00)	9.19 (21.35)	44.92 (11.06)	.88	246.36
1983	-4.97 (6.93)	10.95 (15.93)	82.02 (11.02)	.83	168.28

Notes:
* = Coefficient is significant at the 5% level (using a 1-tailed test) and has the correct sign.

The t-statistic is indicated in parentheses.

CONCLUSION

The relationship between growth expectations and share prices is important in several major areas of finance. The database of analysts' growth forecasts collected by Lynch, Jones & Ryan provides a unique opportunity to test the hypothesis that investors rely more heavily on analysts' growth forecasts than on historical growth extrapolations in making security buy and sell decisions. With the help of this database, we have conducted extensive studies that affirm the superiority of analysts' forecasts over simple historical growth extrapolations in the stock price formation process. Indirectly, this finding lends support to the use of those valuation models whose input includes expected growth rates.

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FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 27.15

Stock Returns, Inflation, and Interest Rates: Ex Post and Ex Ante Relationships

GLENN W. BOYLE
LESLIE YOUNG

Researchers have inferred negative relationships between ex ante stock returns and ex ante inflation from regressions of ex post stock returns on nominal interest rates. In a general equilibrium model subject to real disturbances, the observed ex post relationships between nominal stock returns and interest rates hold so long as preferences are not logarithmic, a restriction compatible with a negative *or* positive *ex ante* relationship between nominal stock returns and inflation. However, the observed ex post relationships between *real* stock returns and interest rates do imply restrictions on model parameters which, in turn, imply negative ex ante relationships between real stock returns and inflation.

I. INTRODUCTION

The Fisher hypothesis suggests that stocks should serve as a hedge against inflation because they represent claims on real assets. Initial attempts to relate stock returns to inflation regressed (real and nominal) ex post stock returns on contemporaneous inflation, generally finding negative relationships.[1] Recognizing that the Fisher hypothesis in fact pertains to ex ante variables, subsequent researchers attempted to relate ex ante stock returns to ex ante inflation by regressing (real and nominal) stock returns on nominal interest rates, the latter serving as proxies for expected inflation, following Fama (1975). These regressions yielded coefficients that were interpreted as implying negative relationships between ex ante stock returns and ex ante inflation, outcomes viewed as puzzling departures from the Fisher hypothesis. However, the Fisherian view can be rigorously justified only if the fluctuations in stock returns and inflation are due solely to monetary shocks. Recognizing this, Fama (1981) suggested that the negative relationship might be due to real shocks. Subsequently, Day (1984) and Stulz (1986) used models of rational investor choice to show that a negative relationship between expected inflation and ex ante stock returns is indeed a theoretical possibility under real disturbances.

However, the link between the regression results obtained using ex post data and the ex ante interpretations attached to those results is by no means clear. Within any model, let Φ_{ea}

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denote the set of conditions under which ex ante stock returns are negatively correlated with ex ante inflation and let Φ_{ep} denote the set of conditions under which ex post stock returns and interest rates are negatively related, as implied by the regressions. The inferences about the ex ante relationship made by empirical researchers from their observations on the ex post relationship would be valid in the model in question only if $\Phi_{ea} \supseteq \Phi_{ep}$. Even if this held (so that the observed ex post relationship indeed implies the corresponding ex ante relationship), explanations for the ex ante relationship such as those offered by Day (1984) and Stulz (1986) need not constitute explanations for the observed ex post relationship. (Even if thunder implies lightning, explanations for lightning need not constitute explanations for thunder.)

This paper analyzes the relationships among stock returns, expected inflation and nominal interest rates within a model of rational investor choice under real disturbances. We show that:

(i) The observed ex post relationships between *nominal* stock returns and interest rates hold whenever relative risk aversion is non-unitary. This restriction is compatible with a negative or positive ex ante relationship between nominal stock returns and inflation.
(ii) The observed ex post relationships between *real* stock returns and interest rates imply restrictions on model parameters which, in turn, imply the hypothesized ex ante relationships between real stock returns and inflation.

Thus, our model not only provides an explanation for the ex post relationships actually observed but, in so doing, also provides conditions under which the inferences from the ex post to the ex ante relationships made by empirical researchers would be valid.

Section II discusses the empirical literature in more detail. Section III sets out our model. Section IV analyzes the ex post relationships between stock returns and nominal interest rates, and Section V considers their implications for the ex ante relationships between stock returns and inflation. Concluding remarks appear in Section VI.

II. THE EMPIRICAL RESULTS

Geske and Roll (1983), Solnik (1983) and Kaul (1987) attempted to test the ex ante version of the Fisher hypothesis by regressing the realized time t (nominal or real) stock return R_t on nominal interest rates.[2] Specifically, they estimated the equation:

$$R_t = b_0 + b_1 i_{t-1} + b_2(i_t - i_{t-1}) + \zeta t \qquad (1)$$

where i_t is the riskless nominal interest rate at time t and ζ_t is a random disturbance. Since the realized stock return R_t was viewed as the sum of an anticipated component and an unanticipated component, the coefficient b_1 was interpreted as the impact of anticipated inflation on the anticipated component of realized stock returns, while b_2 was interpreted as the impact of new information about inflation on the unanticipated component. Almost all these regressions yielded negative estimates of b_1 and b_2.[3] Their authors then concluded that the anticipated (unanticipated) component of stock returns is negatively correlated with anticipated (unanticipated) inflation.

$$\frac{d \ln \{E_{t-1}[Q_t]/Q_{t-1}\}}{d \ln Y_{t-1}} = (\rho - 1)\left\{\alpha\left(1 - \frac{E_{t-1}[S_t]}{E_{t-1}[Q_t]}\right) - \left(1 - \frac{S_{t-1}}{Q_{t-1}}\right)\right\} \qquad (18)$$

which, like Equation (17), cannot be signed unambiguously, but is likely to be negative if $\rho > 1$. Moreover, by Equation (15), the time t nominal dividend yield expected at time $t - 1$, M_{t-1}/Q_{t-1}, decreases (increases) with Y_{t-1} if $\rho > (<) 1$. Thus, subject to the caveat on the sign of Equation (18), the time t nominal stock return expected at time $t - 1$, $E_{t-1}[R_t^n]$, decreases (increases) with Y_{t-1} if $\rho > (<) 1$. It follows from Equation (16) that $E_{t-1}[R_t^n]$ is negatively (positively) correlated with expected inflation if $\rho > (<) 1$.

Recall from Propositions 1 and 2 that the correlations documented by estimates of Equation (1) for nominal stock returns hold regardless of the value of ρ. These empirical correlations, therefore, yield no information about the correlation between expected nominal stock returns and expected inflation. However, the observed relationships between ex post *real* stock returns and interest rates imply that $\rho > 1$ in our model; so they also imply a negative correlation between expected *nominal* stock returns and expected inflation.

VI. CONCLUSION

The ex post relationships between nominal interest rates and nominal stock returns found in the empirical literature always hold in our model, whereas those involving real returns hold provided that $\rho > 1$. Our analysis supports the inferences about ex ante relationships between real stock returns and inflation that empirical researchers have drawn from the observed ex post relationships, but shows that the corresponding inferences regarding nominal stock returns need not hold if $\rho < 1$. However, in our model, the latter outcome is excluded by the observed correlations between *real* stock returns and nominal interest rates. In this indirect manner, our analysis supports the inferences regarding ex ante relationships that have been drawn from data on ex post relationships in this particular case, but also illustrates the caution that is needed in making such inferences in general.[12]

ACKNOWLEDGMENTS

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Notes

1. E.g., Bodie (1976), Jaffe and Mandelker (1976), Nelson (1976) and Gultekin (1983). Firth (1979) found a positive relationship using British data.

2. Geske and Roll's main objective was to investigate the possibility of a "reversed causality" between stock returns and expected inflation. In general equilibrium, of course, neither endogenous variable can be said to "cause" the other.

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 27.16

Monetary Policy and Asset Prices: A Look Back at Past U.S. Stock Market Booms

Michael D. Bordo and David C. Wheelock

Large swings in asset prices and economic activity in the United States, Japan, and other countries over the past several years have brought new attention to the linkages between monetary policy and asset markets. Monetary policy has been cited as both a possible cause of asset price booms and a tool for defusing those booms before they can cause macroeconomic instability. Economists and policymakers have focused on how monetary policy might cause an asset price boom or turn a boom caused by real phenomena, such as an increase in aggregate productivity growth, into a bubble. They have also addressed how monetary policy authorities should respond to asset price booms.

This article examines the economic environments in which past U.S. stock market booms occurred as a first step toward understanding how asset price booms come about. Have past booms reflected real economic growth and advances in productivity, expansionary monetary policy, inflation, or simply "irrational exuberance" that defies explanation? We use a simple metric to identify several episodes of sustained, rapid rises in equity prices in the 19th and 20th centuries and then assess both narrative and quantitative information about the growth of real output, productivity, the price level, the money supply, and credit during each episode. Across some two hundred years, we find that two U.S. stock market booms stand out in terms of their length and rate of increase in market prices—the booms of 1923-29 and 1994-2000. In general, we find that booms occurred in periods of rapid real growth and advances in productivity. We find, however, no consistent relationship between inflation and stock market booms, though booms have typically occurred when money and credit growth were above average. Finally, contrary to conventional wisdom, we find that wars have not always been good for the market.

This article begins by reviewing relevant issues concerning the links between monetary policy and asset prices. The following section presents a monthly time series index of U.S. equity prices spanning two hundred years and identifies boom episodes. Subsequent sections present a descriptive history of U.S. stock market booms since 1834, summarize our findings, and offer conclusions.

MONETARY POLICY ISSUES

The literature on the linkages between monetary policy and asset markets is vast. Here, we focus on two issues—the role of asset prices in the transmission of monetary policy to the economy as a whole and the appropriate response of monetary policy to asset price booms. The first concerns the extent to which monetary policy might cause an asset price boom. The second concerns the circumstances in which monetary policymakers should attempt to defuse asset price booms.

Asset Prices and the Transmission Mechanism

There are many views about how monetary policy might cause an asset price boom. For example, a traditional view focuses on the response of asset prices to a change in money supply. In this view, added liquidity increases the demand for assets, thereby causing their prices to rise, stimulating the economy as a whole. A second view, voiced by Austrian economists in the 1920s and more recently by economists of the Bank for International Settlements (BIS), argues that asset price booms are more likely to arise in an environment of low, stable inflation. In this view, monetary policy can encourage

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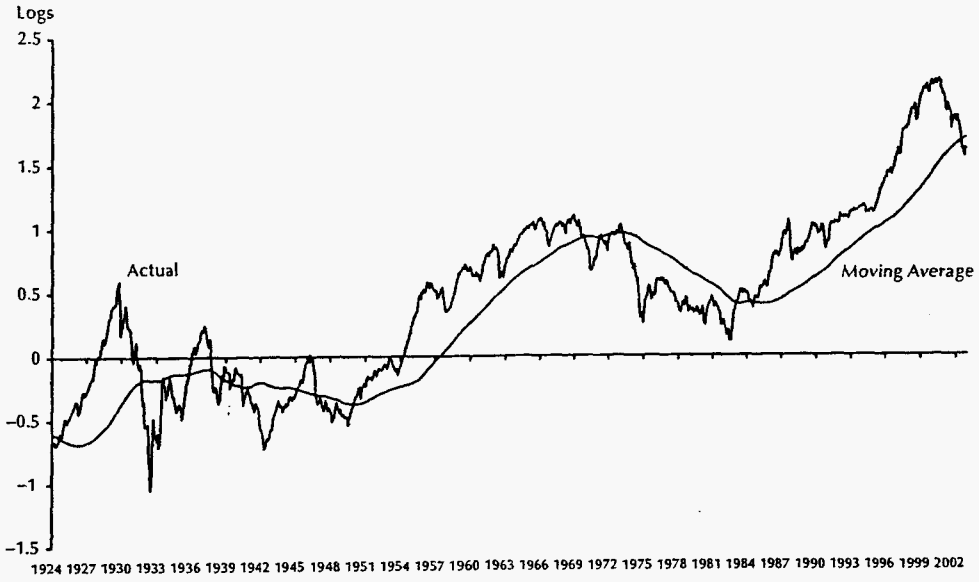
Figure 5

Real Stock Price Index and Nine-Year Trailing Moving Average, 1924-2002



observations. It appears, however, that market booms generally occurred during periods of relatively rapid growth of output and productivity. Pre-World War II booms also tended to occur during periods of above-average growth in the money stock, bank credit, and, sometimes, the price level. The growth rates of the money stock, bank credit, and the price level were not above average during the boom of 1923-29, however, nor during most post-World War II booms.

We next examine specific historical episodes in more detail. Obviously, not every episode identified in Table 1 deserves attention. From looking closely at a few episodes, however, we identify certain characteristics about the environments in which booms have occurred.

Antebellum Stock Market Booms

The stock market booms of the 19th century were closely associated with the development of the nation's infrastructure—first canals and steamships, then railroads.

1834-35. Schwert's (1990) stock market index for this period combines indices of bank and railroad stocks from Smith and Cole (1935), with more weight put on the railroad stock index. Smith and Cole (1935) document a close relationship between public land sales and railroad stock prices in 1834-35, though stock prices peaked and began to fall before land sales started to decline in 1836 (p. 82). The close correlation between land sales and railroad stock prices throughout the antebellum period led Smith and Cole to conclude that "both series... may be regarded as reflecting a common element—that of the well-known speculative spirit of the country" (p. 82).

Federal government land sales rose from under $2 million a year in the 1820s to $5 million in 1834, $15 million in 1835, and $25 million in 1836. The land-sales and stock market booms occurred during a period of commodity price inflation. Temin (1969, p. 92) argues that the land boom was sparked by a sharp increase in the price of cotton, which rose some 50 percent during 1834 alone. The money stock increased sharply in 1835-36, spurred by large inflows of Mexican silver, which increased the growth rate of the monetary base (Temin, 1969, pp. 68-69).[12] It appears from limited data that the boom also occurred during a period of fairly strong growth of real economic activity. Smith and Cole's (1935, p. 73) index of the volume of trade shows a 14 percent rise in domestic trade in 1834-35 and even larger percentage gains in exports in 1835-36. Davis's

[12] At the time, the United States was on a bimetallic—gold and silver—standard. An increase in British investment in U.S. securities, coupled with a decline in silver exports to China, caused the inflow of Mexican silver to increase the monetary base.

Table 2

The Macroeconomic Environment of U.S. Stock Market Booms

Trough month	Peak month	Avg. % change stock index	Avg. % change productivity	Avg. % change money stock
Feb 1834	May 1835	35.06	NA	6.58
Jan 1843	Dec 1845	23.35	NA	16.57
Nov 1848	Dec 1852	9.80	NA	11.65
Jul 1861	Mar 1864	40.20	NA	NA
Apr 1867	Apr 1872	8.83	NA	4.00
Jun 1877	Jun 1881	22.58	1.20	11.93
Aug 1896	Apr 1899	20.74	3.44	12.38
Sep 1900	Sep 1902	22.02	2.30	12.10
Oct 1903	Sep 1906	16.74	3.16	8.47
Aug 1896	Sep 1906	10.33	2.57	9.88
Oct 1923	Sep 1929	23.70	2.08	3.93
Mar 1935	Feb 1937	41.32	2.49	10.93
Apr 1942	May 1946	21.92	1.90	17.91
Jun 1949	Jan 1953	18.08	3.86	3.75
Sep 1953	Jul 1956	26.87	1.69	2.85
Jun 1949	Jul 1956	18.27	2.71	3.30
Jun 1962	Jan 1966	14.79	3.68	7.83
Jul 1984	Aug 1987	26.04	1.54	7.37
Dec 1987	Jan 1994	11.57	1.62	3.43
Apr 1994	Aug 2000	19.64	1.98	5.13
Comparison periods				
Jan 1834	Dec 1859	–0.62	NA	5.93
Jan 1866	Dec 1913	2.31	1.30†	5.71‡
Jan 1919	Dec 1940	3.99	2.05	3.29
Jan 1946	Dec 2002	7.67	2.21§	6.09

NOTE: *Crashes and wars that occurred immediately prior to, during, or immediately after a boom. 20th century crashes are documented by Mishkin and White (2002). † Average for 1875-1913; ‡ average for 1867-1913; § average for 1949-2002; ¶ average for 1947-2002.

DEFINITIONS and SOURCES:

Percentage changes (%Δ) are computed as annualized percentage changes in monthly data, i.e., $\%\Delta_t = 1200[(x_t/x_{t-1}) - 1]$ (similar formulas are used for quarterly or annual data). The figures reported in the table are averages of these percentage changes from the month (quarter or year) following the trough month to the peak month, except as noted below.

Productivity: For 1879-1946, labor productivity data are from Gordon (2000b). The data are annual; we report the average annual percentage change in productivity from the year after the year in which the trough occurs to the year in which the peak occurs. For 1947-2002, data for non-farm business sector labor productivity (output/hour, seasonally adjusted, 1992=100) are from the Commerce Department. The data are quarterly; we report average annualized growth rates from the quarter following the trough to the quarter of the peak, unless the peak occurred in the first month of a quarter, in which case our averages are based on data through the previous quarter.

Money stock: For 1834-1906, data are annual, and we report the average annual percent change in the money stock from the trough year to the peak year. For 1907-2002, data are monthly, and we report the average annualized percent change from the month following the trough to the peak month. The data for 1834-59 are the broad money stock series in Friedman and Schwartz (1970). For 1860-62, we use estimates provided by Hugh Rockhoff. Data for 1863-66 are not available. The data for 1867-1946 are the broad money stock

Avg. % change bank credit	Avg. % change price level	Avg. % change industrial production	Avg. % change real GDP	Crashes and wars*
13.33	13.26	11.91	NA	Crash, May 1835
7.29	7.83	11.13	NA	
5.25	6.75	7.45	NA	
–2.24	25.80	9.68	NA	Civil War
5.26	–3.54	5.93	NA	
3.20	–1.22	12.76	8.40	Crash, 1880
10.29	4.58	11.48	6.76	Crash, summer 1896
11.64	2.33	10.04	6.58	Crash, 1900
7.82	1.79	12.68	7.03	Crash, Jul-Oct 1903; 1907
9.41	3.27	8.98	5.90	
5.02	0.02	10.95	4.33	Crash, Oct 1929
5.78	1.51	19.49	10.63	Crash, Oct 1937–March 1938
21.42	3.42	–1.01	1.67	World War II; crash, Sep 1946
5.17	3.01	10.08	6.60	
3.51	0.53	2.09	2.84	
4.63	1.89	6.00	4.70	
8.47	1.53	7.77	5.61	Crash, Apr-Jun 1962
9.29	3.04	2.41	3.38	Crash, Oct 1987
5.50	3.88	1.71	2.34	Crash, Aug-Oct 1990
7.43	2.53	5.06	3.76	Crash, Aug 2000–Sep 2001
4.00	0.51	6.93	NA	
6.64	–1.06	5.41	4.02†	
1.81	–0.67	12.73	2.29	
7.24	4.05	3.62	3.37¶	

DEFINITIONS and SOURCES cont'd:

series in Friedman and Schwartz (1963a). The data for 1947-58 are a broad money stock series from the National Bureau of Economic Research Macro-History Database (series m14195b). For 1960-2002, we use the M2 money stock (seasonally adjusted) from the Board of Governors of the Federal Reserve System.

Bank credit: For 1834-1946, data are annual (June figures), and we report the average annual percent change in total bank credit from the trough year to the peak year from *Historical Statistics of the United States* (1976, series X580). Data prior to 1896 are incomplete. For 1947-2002, data are monthly from the Board of Governors of the Federal Reserve System.

Price level: For 1834-1912, monthly wholesale price index data (Warren-Pearson and Bureau of Labor Statistics) are from Cole (1938) and the National Bureau of Economic Research Macro-History database (series m04048a/b). For 1913-2002, we use CPI-U (all items, seasonally adjusted).

Industrial Production: For 1834-95, data are from Davis (2002). Davis's data are annual; we report the average annual growth rate from the year following the trough (except that for the boom beginning in January 1843, we include 1843) through the peak year. For 1896-1940, (monthly) data are from Miron and Romer (1989). For 1941-2002, we use the Federal Reserve monthly Index of Industrial Production (seasonally adjusted).

GDP: For 1879-1946, (quarterly) data are from Balke and Gordon (1986). For 1949-2002, we use real GDP (chained $1996) (quarterly data). We report the average annual growth rate from the quarter following the trough to the peak quarter.

Technological breakthroughs in chemicals, electronics, and other industries during the 1930s and 1940s enabled rapid growth in labor productivity and living standards during the 1950s and 1960s (Field, 2003; Gordon, 2000a). These decades also witnessed high levels of investment in public infrastructure and education. Our metric identifies three specific stock market booms in these decades, though one might characterize the entire period as a boom.

The first boom began as the economy pulled out of a mild recession in 1949. The market rose at an average annual rate of 18 percent between June 1949 and January 1953. Following a pause during another recession in 1953-54, the market rose at an average annual rate of nearly 27 percent from September 1953 to July 1956. Although the growth rates of output and productivity were somewhat slower during the latter boom, the return to more stable monetary and fiscal policies after the Korean War may explain why the stock market increased at a faster pace. The third distinct boom lasted from June 1962 to January 1966 and coincided with a long period of economic expansion, characterized by high average growth of GDP, industrial production, and productivity, as well as low inflation.

The stock market performed poorly during the 1970s, with the market peak of January 1973 not reached again until July 1980. No stock market booms occurred during this decade of adverse supply shocks, low productivity growth, highly variable output growth, and high inflation. The next market boom occurred during the three-year period from July 1984 to August 1987. This period of economic recovery was characterized by moderately strong real economic growth and falling inflation, but productivity growth that was below its post-World War II average.

The macroeconomic environment of the April 1994–August 2000 boom period is well known. This period was characterized by somewhat above-average growth of real output and industrial production and low and stable inflation. An increase in the trend growth rate of productivity to approximately the rate that had prevailed during the 1950s and 1960s was the feature of this boom period that has received the most attention; it has often been cited as the main fundamental cause of the stock market boom.

CONCLUSION

Our survey finds that U.S. stock market booms have occurred in a variety of macroeconomic environments. Nevertheless, some common patterns are evident:

1. Most booms occurred during periods of relatively rapid economic growth and, to the extent it can be measured, increases in productivity growth. This suggests that booms were driven at least to some extent by fundamentals.
2. Many booms also occurred during periods of relatively rapid growth of the money stock and bank credit, reflecting either passive accommodation of booms by the banking system or expansion of the monetary base by means of gold inflows or monetary policy actions.
3. Stock market booms have occurred in periods of deflation (e.g., the late 1870s and early 1880s), in periods of inflation (e.g., the 1830s, 1840s, late 1890s, and early 1900s) and in periods of price stability (e.g., the 1920s and 1990s). In general, booms appear to have been driven by increases in the growth of real output and productivity and can persist despite either inflation or deflation so long as the growth of output and productivity remains strong.[24] The tendency for the money stock, but not the price level, to grow rapidly during booms suggests that money growth accommodated increases in productivity, which fueled booms. In the absence of an increase in money growth, the quantity theory predicts that an increase in productivity and potential output growth would lead to deflation. In future work, we intend to examine formally whether accelerations in money stock growth during booms were quantitatively consistent with increases in long-run productivity growth.
4. Wartime experience seems to have been different from peacetime, but no consistent

[24] Periods of depressed stock market returns occurred during periods of declining productivity growth or other adverse supply shocks. Some such periods were characterized by deflation (e.g., 1929-32), while others were characterized by inflation (e.g., the 1970s). In deflationary periods when aggregate supply growth outpaced aggregate demand, such as in the late 1870s and early 1880s, the market did as well as it did in the inflationary 1830s, 1840s, late 1890s, and early 1900s, when rapid aggregate supply growth was surpassed by demand growth (Bordo, Lane, and Redish, 2004; Bordo and Redish, 2004). This contrasts sharply with the experiences of the Great Depression, when collapsing aggregate demand coincided with a decline in aggregate supply, and the Stagflation of the 1970s, which was characterized by excessive growth of aggregate demand in the face of low or negative aggregate supply growth.

wartime pattern emerges. The old adage that "war is good for the market" does not seem to always hold up. Stock market booms occurred during World War II and to a lesser extent the Civil War, but market performance was relatively poor during World War I and the Vietnam War.

The stock market booms of 1923-29 and 1994-2000 stand alone in terms of their length and the extent to which market averages increased. Both bull markets have been attributed to increased productivity growth associated with the widespread application of new general-purpose technologies that promised new eras of rapid economic growth. The macroeconomic environments in which these two booms occurred were strikingly similar. Both decades saw above-average, though not exceptional, growth of real output and industrial production, while consumer price inflation was quite low and stable. Productivity growth did increase in both the 1920s and 1990s; though, in the 1920s, productivity growth appears to have occurred prior to the stock market boom, whereas the increase in productivity growth during the 1990s coincided with the boom.

Policymakers paid a great deal of attention to the stock market during each of the great booms. In the 1920s, debate centered on whether the Fed had fostered the boom by oversupplying Federal Reserve credit through open market purchases and inadequate administration of the discount window. Many Fed officials adhered to the Real Bills Doctrine, which held that an increase in credit beyond that required to finance short-term production and distribution of real goods would end up fostering speculation and inflation. Despite the absence of consumer price inflation, officials interpreted the stock market boom as evidence of inflation. Accordingly, the Fed tightened policy in 1928 and 1929, which may have hastened the collapse of both stock prices and the economy (Schwartz, 1981; Hamilton, 1987). Lingering doubts about the efficacy of using monetary policy to foster economic recovery then contributed to the Fed's failure to ease aggressively to fight the Great Depression (Wheelock, 1991; Meltzer, 2002).

The Fed's understanding of the role of monetary policy was quite different in the 1990s and 2000s. Transcripts of FOMC meetings indicate that, during the 1990s, the Fed was mainly concerned about the potential consequences of a sharp decline in stock prices, fearing that falling stock prices would reduce consumption by reducing wealth. Although the Fed did tighten policy in the later stages of the boom by raising its target for the federal funds rate in 1999-2000, it eased aggressively when stock prices declined and the economy entered recession. In sharp contrast to its policy in the early 1930s, the Fed maintained an aggressively accommodative monetary policy well after the stock market decline had ended, with the objectives of preventing deflation and encouraging economic recovery.

Our survey of U.S. stock market booms finds that booms do not occur in the absence of increases in real economic growth and perhaps productivity growth. We find little indication that booms were caused by excessive growth of money or credit, though 19th century booms tended to occur during periods of monetary expansion. The view that monetary authorities can cause asset market speculation by failing to control the use of credit has been largely discarded. Nevertheless, anecdotal evidence suggests that the stock market sometimes rises more than can be justified by fundamentals, though economists continue to debate whether even the market peak of 1929 was too high. Not surprisingly, these questions leave unsettled the issue of how monetary policy should respond to an asset price boom. Although one can offer plausible theoretical arguments for responding proactively to an asset price boom, our survey suggests that policymakers should be cautious about attempting to deflate asset prices without strong evidence that a collapse of asset prices would have severe macroeconomic costs.

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Debt/Equity Ratio and Expected Common Stock Returns: Empirical Evidence

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ABSTRACT

The expected common stock returns are positively related to the ratio of debt (non-common equity liabilities) to equity, controlling for the beta and firm size and including as well as excluding January, though the relation is much larger in January. This relationship is not sensitive to variations in the market proxy, estimation technique, etc. The evidence suggests that the "premium" associated with the debt/equity ratio is not likely to be just some kind of "risk premium".

BETA, THE RISK MEASURE suggested by the mean-variance equilibrium models, has been found to be inadequate in explaining the expected common stock returns. For example, the common stocks with higher earnings/price ratios (Basu [2]), smaller market values outstanding (Banz [1]), and lower share prices (Stoll and Whaley [15]) earn higher average returns controlling for beta, though there seems to be an agreement that all of these variables represent the same underlying influence (Reinganum [12], Basu [3], and Stoll and Whaley [15]). These studies conclude either that beta may be an inadequate measure of risk or that we need to account for the market imperfections such as transaction costs. A natural proxy for the risk of common equity of a firm is that firm's debt/equity ratio (*DER*). Therefore, we propose to use *DER* as an additional variable to explain the expected common stock returns.

An increase in the *DER* of a firm increases the risk of its common equity, measuring risk in any reasonable way.[1] Though it does not follow that, cross-sectionally, the common equity of a higher *DER* firm always has higher risk since the firm-level risk may vary, *DER* is expected to be positively correlated to the risk of common equity across firms.[2] Thus, *DER* can be used as a proxy for the risk of common equity when an adequate measure of risk is not known or cannot be calculated from available information.

Generally, an estimate of beta, which we term *BETA*, is used to control for beta. *BETA* is based on a market proxy and calculated from a period termed the

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[1] We assume that the common equity has more risk than the debt in a firm. Thus, the unlikely possibility of a negative common-equity beta, for example, is excluded.

[2] We assume that the cross-sectional correlation between *DER* and the firm-level risk is not so highly negative as to negate this conclusion.

BETA calculation period, which does not overlap with the corresponding test period. The above argument, in conjunction with the estimation errors in *BETA*, use of a proxy for the market portfolio, and possible changes in beta over time, suggests that *BETA* alone may not be as good a proxy for beta *during* the test period as *BETA* and *DER* together. For example, to the extent that the firm beta is relatively stable, a higher *DER* during the test period relative to that during the *BETA* calculation period will indicate a higher-than-estimated common-equity beta during the test period. Since *DER* is available on a more current basis, it can be used as a proxy for beta during the test period in addition to *BETA*. Also, usually the data requirements are such that the *BETA* calculation period for a firm excludes the period surrounding the time it drops out of the data set. Then the combination of low return on the market proxy and low "residual" return for a firm is more likely to be excluded from *BETA* calculation since such a combination is more likely to cause that firm to go bankrupt and drop out. This sample-selection bias will bias *BETA* downward in all practical cases. Since the probability of bankruptcy increases as *DER* increases, a higher *DER* may indicate more downward bias in *BETA*.

Subject to the limitations on their applicability across firms, the above arguments suggest that *DER* may be a useful proxy for risk in addition to *BETA* even when beta is an adequate measure of risk. Of course, *DER* is likely to be more useful as a proxy for risk if beta is not an adequate measure of risk. Furthermore, to the extent that *DER* is likely to be a better proxy for risk cross-sectionally than firm size (and the other variables mentioned above), its inclusion as an explanatory variable will take us a step closer to understanding the nature of the "size premium".

With risk-averse investors, we expect a positive correlation between *DER* and the expected common stock returns when the other explanatory variables used are inadequate to control for risk. In this paper, we test whether the expected common stock returns are positively related to *DER* controlling for *BETA* and size and find that they are. Since we control for an estimated beta, it is interesting to know whether this result is due to *DER* acting as a proxy for beta. We find that that is not the case. Actually, the evidence suggests that the "premium" associated with *DER* is not likely to be just some kind of "risk premium".

Section I describes the model, data, and test design used. Section II provides the empirical results that show that the expected common stock returns are positively related to *DER* and that this result is not due to *DER* acting as a proxy for beta. A summary of the empirical results and the conclusions are presented in Section III.

I. Model, Data, and Test Design

The following equation forms the basis of our tests:

$$\mathrm{E}(\tilde{r}_i) = \mathrm{E}(\tilde{\gamma}_0) + \mathrm{E}(\tilde{\gamma}_1)LTEQ_i + \mathrm{E}(\tilde{\gamma}_2)BETA_i + \mathrm{E}(\tilde{\gamma}_3)DER_i, \quad i = 1, \cdots, N, \quad (1)$$

where E is the expectation operator and $\sim$ denotes a random variable. Subscript i represents the common stock i, and $\mathrm{E}(\tilde{\gamma})$'s are assumed to be fixed within a

test subperiod. (Henceforth, the word "test" is omitted where the context is clear.) However, $\tilde{\gamma}$'s can be stochastic within a subperiod. Noting that our tests are not conditional on the return on the market proxy, $\tilde{\gamma}_2$ is clearly stochastic.

The monthly real rate of return [i.e., return adjusted for changes in the Consumer Price Index (CPI)] on stock i is denoted r_i. In a cross-sectional equation like (1), the use of real rather than nominal returns only changes the scale. However, since the rate of inflation varied considerably over the time period across which we average our results, the use of real returns seems preferable. For the same reason, we express our size variable in constant dollars. In any case, the results are virtually identical when nominal returns are used in place of the real returns, except that the estimated intercept term goes up approximately by the average amount of inflation.

LTEQ is the natural logarithm of total common equity, where total common equity is the number of shares outstanding times (month-end) price per share, expressed in millions of December 31, 1925 dollars using the CPI to deflate them. *BETA* is the ordinary least squares (OLS) estimate of the slope coefficient in the regression of (real) returns on a market proxy. The (real) returns on the equally weighted portfolio of all stocks traded on the New York Stock Exchange (NYSE) are used as the market proxy. *DER* is the ratio:

$$\frac{\text{book value of total assets} - \text{book value of common equity}}{\text{market value of common equity}},$$

measured at the accounting year-ends. The mean-variance equilibrium models and Banz's [1] empirical findings, respectively, suggest that the expected common stock returns should be linearly related to *BETA* and *LTEQ*. We propose, as a first approximation, that the expected common stock returns are linearly related to *DER* as well. Our main objective is to test whether $E(\tilde{\gamma}_3)$ is positive.

The following sources of data provided by the Center for Research in Security Prices (CRSP) at the University of Chicago are used. Number of shares outstanding, price per share, and nominal returns are taken from the CRSP monthly stock returns file. Returns on the equally weighted NYSE portfolio are provided by the CRSP monthly stock index file. The COMPUSTAT files provide the book values of total assets and common equity, and the CPI is from the Ibbotson-Sinquefield file. Our test period is essentially restricted by the COMPUSTAT files, which contain data from 1946.

A. Sample Selection and Model Estimation

We use the Fama-MacBeth [5] (henceforth FM) methodology with some improvements. While an alternative methodology proposed by Gibbons [7] and refined by other authors (e.g., Jobson and Korkie [8]) is currently more popular in this area, there are several reasons for our choice of the FM methodology. To explain these reasons in detail would require a separate paper. The following, however, are some of the major considerations.

First of all, our tests (as well as the evidence in previous studies, e.g., Banz [1]) show that the estimation errors in *BETA* have no significant effect (statistically or economically) on our results except for lowering the estimated coeffi-

cient of *BETA*. The lower estimated coefficient of *BETA* is reflected in the higher estimated intercept, but the estimated coefficients of *LTEQ* and *DER* are virtually unaffected. Furthermore, one of our modifications to the FM methodology substantially reduces the bias in the estimated coefficient of *BETA*, in some cases to a statistically (as well as economically) insignificant amount. Thus, the only limitation of the FM methodology, namely the error-in-the-variables problem, is not a serious problem in our case. Even if it were, there are ways to adjust for it. See Banz [1] for one possible approach.

Second, the Gibbons methodology is convenient only when the alternative is two-sided. For example, we would be testing $E(\tilde{\gamma}) = 0$ against $E(\tilde{\gamma}) \neq 0$. When these tests are done in subperiods and aggregated, which is always the case due to stationarity considerations, we will tend to reject the null hypothesis if $E(\tilde{\gamma})$ was varying randomly across subperiods with mean zero. Under the FM methodology, by using a one-sided alternative $E(\tilde{\gamma}) > 0$ or $E(\tilde{\gamma}) < 0$, we will tend to reject the null hypothesis only if $E(\tilde{\gamma})$ is consistently positive or negative across subperiods. We prefer the latter because in this paper we are not interested in random effects. The tests with a one-sided alternative are also more powerful.

Third, unlike the FM tests, the Gibbons tests are usually conditional on the returns on the market proxy during a subperiod disallowing any test of the hypothesis that $E(\tilde{\gamma}_2) = 0$. Modifications to permit tests of this hypothesis essentially take us back to the FM methodology. Fourth, unlike the FM methodology, the Gibbons methodology is not easily adapted to allow for nonsynchronous trading in estimation of *BETA*, to allow for autocorrelation in returns caused by nonsynchronous trading (or other reasons), etc.[3]

Finally, the FM tests are less sensitive to departures from the standard assumptions such as normal distribution of errors[4] and are more easily aggregated across subperiods, and their small-sample properties are better understood. On the other hand, the Gibbons tests based on the χ^2 distribution can be misleading when small subperiods are used (see Jobson and Korkie [8]), while those based on the F-distribution are not as easily aggregated across subperiods. Due to the two-sided nature of the Gibbons tests, unlike the FM tests, their large-sample properties cannot be assumed after aggregation across subperiods. While the above is not a complete list of considerations for our choice, it should be clear that the advantages of the FM methodology outweigh its disadvantages.

We use two-year subperiods that go from 1948–1949 to 1980–1981. The choice of two-year subperiods reflects our desire to minimize the possible changes in the parameters during a subperiod while retaining reasonable degrees of freedom in our test statistics. The sample-selection and estimation procedures are illustrated

[3] There is a significant amount of positive first-order autocorrelation in monthly portfolio returns as noted by Fisher [6]. Scholes and Williams [13] show that the measured portfolio returns will have positive first-order autocorrelation when trades in individual securities are not synchronized.

[4] Bhandari [4] provides some evidence of departure from the normal distribution of monthly portfolio returns. One of the advantages of the Gibbons methodology is that it can be used with individual security returns, while the FM methodology requires portfolio returns to minimize the error-in-the-variables problem. In fact, the Gibbons methodology *is* often used with individual security returns. However, the problem of non-normally distributed returns is more serious at the individual security level, making the use of this methodology questionable.

below for the 1948–1949 subperiod. For other subperiods, these procedures are identical except that all periods are advanced by the appropriate number of years.

First, the explanatory variables are calculated for each common stock. For the 1948–1949 subperiod, *LTEQ* and *DER* are their latest available values during 1946–1947. *BETA* is calculated from the 1946–1947 and 1950–1951 return data.[5] The *BETA* calculated from 1946–1947 and 1950–1951 is likely to better approximate the beta prevailing *during* 1948–1949 than the *BETA* calculated from, say, 1944–1947, when beta may be changing through time.[6] The use of the former is therefore likely to reduce the bias in the estimated coefficient of beta. (See Bhandari [4].) Our empirical evidence confirms this.

Another *BETA* is calculated from the 1942–1945 return data for portfolio-formation purposes.[7] All common stocks that have at least one nonmissing monthly return during 1948–1949 and have enough data available to calculate the explanatory variables as well as the portfolio-formation *BETA* are included in the sample. All sample stocks are first ranked on *LTEQ* and divided into three groups containing equal numbers of stocks.[8] Within each of these groups, the stocks are ranked on the portfolio-formation *BETA* and subdivided into three equal-sized groups. They are further subdivided into three equal-sized groups each after ranking the stocks on *DER*. This procedure gives us twenty-seven groups or portfolios that are used in our tests. The individual stocks are given equal weights (that sum to one) within a portfolio, and therefore, the value of an explanatory variable for a portfolio is the simple average of the corresponding values for individual stocks in that portfolio.

Within a subperiod, the same twenty-seven portfolios are used each month, except for the stocks having missing returns for a month, which are excluded for that month. Values of explanatory variables are not updated within a subperiod. Both the portfolios and the values of explanatory variables are updated for each new subperiod.

The actual returns for month t can be written as

$$\tilde{r}_{it} = \tilde{\gamma}_{0t} + \tilde{\gamma}_{1t} LTEQ_i + \tilde{\gamma}_{2t} BETA_i + \tilde{\gamma}_{3t} DER_i + \tilde{e}_{it}, \quad i = 1, \cdots, N, \qquad (2)$$

[5] Two separate calculations of *BETA* are made for 1946–1947 and 1950–1951. This allows beta and the other parameters of the return distributions to be different in 1946–1947 from in 1950–1951. To make these calculations, the returns on the stock must be available continuously from at least February of the first year (1946 or 1950, respectively) to November of the second year. The final value of *BETA* is a simple average of these two values when both are available, which is the usual case. When only one of these values is available, that is our final value of *BETA*.

[6] Use of the period before and after the test period to estimate the input parameters is common in event studies in finance.

[7] Separate calculations of *BETA* are made for 1942–1943, 1943–1944, and 1944–1945, with data requirements as in footnote 5. The final value of *BETA* is a simple average of the 1942–1943 and 1944–1945 values when both are available, which is the usual case. When only one of the above three values is available, that is our final value of *BETA*. When only two of the above three values are available, and they use overlapping periods, the final value of *BETA* is 0.3 times the first estimate (chronologically) plus 0.7 times the second estimate. These weights are chosen as an attempt to give at least one-third weight to the (chronologically) last year's observations.

[8] When equal division results in fractional stocks, the cumulative number of stocks up to a group is rounded to the nearest integer.

or

$$\tilde{r}_{it} = \mathrm{E}(\tilde{\gamma}_0) + \mathrm{E}(\tilde{\gamma}_1)LTEQ_i + \mathrm{E}(\tilde{\gamma}_2)BETA_i + \mathrm{E}(\tilde{\gamma}_3)DER_i + \tilde{u}_{it},\ i = 1, \cdots, N, \quad (3)$$

where

$$\tilde{u}_{it} = [\tilde{\gamma}_{0t} - \mathrm{E}(\tilde{\gamma}_0)] + [\tilde{\gamma}_{1t} - \mathrm{E}(\tilde{\gamma}_1)]LTEQ_i + [\tilde{\gamma}_{2t} - \mathrm{E}(\tilde{\gamma}_2)]BETA_i + [\tilde{\gamma}_{3t} - \mathrm{E}(\tilde{\gamma}_3)]DER_i + \tilde{e}_{it},\quad i = 1, \cdots, N, \quad (4)$$

where subscript i now refers to portfolio i and $\tilde{u}_{it}$ is the unexpected return on portfolio i for month t. The OLS estimates of $\mathrm{E}(\tilde{\gamma})$'s are calculated for each month in our test period using (3). OLS gives the minimum-variance linear unbiased estimators for $\mathrm{E}(\tilde{\gamma})$'s as long as the $\tilde{e}_{it}$'s are uncorrelated across stocks and have one common variance. (See Bhandari [4].) Note that $\tilde{u}_{it}$'s are, in general, correlated across stocks and have different variances. In particular, a stochastic $\tilde{\gamma}_2$, for example, allows the $\tilde{r}_{it}$'s to covary with the market proxy in proportion to their *BETA*s (which, of course, they do) and, as a result, to covary with each other. Similarly, the covariances between stock returns are allowed to have a constant component as well as components proportional to *LTEQ*s and *DER*s.

It should also be noted that, when using this (or similar) methodology with OLS, one should always include *BETA* as an explanatory variable, even if *BETA* has no effect on the expected returns and therefore $\mathrm{E}(\tilde{\gamma}_2)$ equals zero. The reason is that the unexpected returns ($\tilde{u}_{it}$'s) are cross-sectionally correlated with *BETA*s through stochastic $\tilde{\gamma}_2$, and, if *BETA* is not included as an explanatory variable, OLS will no longer give the *minimum-variance* linear unbiased estimators for the parameters in (3).[9] (See Bhandari [4].)

Since a large part of the unexpected returns is explained by the "market factor", especially at the portfolio level, which is already allowed for in (4), generalizing it further and using the generalized least squares (GLS) for estimation does not seem justified in view of the number of additional parameters that would need to be estimated relative to our small (twenty-four months) subperiods. When GLS is used, the estimation errors in the estimated variance-covariance matrix of $\tilde{u}_{it}$'s are typically ignored, which is justified only if the sample size is reasonably large. With our sample size, the estimated precision of the GLS estimates may be questionable. In any case, Banz [1], whose specification is slightly more restrictive than (4), finds virtually no gain in the precision when he uses GLS in place of OLS. Therefore, we use OLS only in this paper.

In testing hypotheses, unless stated otherwise, we assume that $\tilde{u}_{it}$'s are independently distributed over time, have a constant variance-covariance matrix

[9] In fact, any variable that is cross-sectionally correlated with the unexpected returns should be included as an explanatory variable even if it does not affect the expected returns, if the gain in the precision of estimates due to the correlation of this variable with the unexpected returns outweighs the loss in the precision due to the estimation of an unnecessary parameter that will depend on the contribution of this variable to the level of multicollinearity. Given the high cross-sectional correlation of *BETA*s with the unexpected returns, the inclusion of *BETA* as an explanatory variable would usually result in a net gain in precision. Therefore, we do not drop *BETA* as an explanatory variable, except for sensitivity analysis, even when its estimated effect on the expected returns is statistically and economically insignificant.

within a subperiod, and are multivariate-normally distributed. However, the evidence for our conclusions usually is so strong that, unless stated otherwise, our conclusions are not likely to change if we allow for reasonable deviations from the above assumptions.

B. Overall Estimates and Test Statistics

Two overall estimates are calculated for each $E(\tilde{\gamma})$. One is a simple average (SA) of the month-by-month estimates for the entire test period. The t-statistic for this estimate is calculated in the usual way. The other overall estimate is a weighted average (WA) of the subperiod mean estimates (simple averages of the month-by-month estimates within the respective subperiods) where weights are inversely proportional to their (usual) estimated standard errors. An appropriate t-statistic for the WA estimate turns out to be simply $\sqrt{s}$ times the simple average of the corresponding subperiod t-statistics (calculated in the usual way) "standardized" to have standard deviation equal to one,[10] where s is the number of subperiods.

In our empirical results, we reject the hypothesis that the sampling variances of the month-by-month estimates are constant across subperiods. The WA estimates, therefore, have smaller sampling variances compared with the SA estimates. Sometimes we also reject the hypothesis that a given coefficient is constant across subperiods. The standard error of an SA estimate is overestimated in such cases because we make no allowance for such nonconstancy, though it is possible to do so, to maintain some comparability with the related papers. The estimated standard error of a WA estimate does allow for such nonconstancy.[11] Clearly the WA estimates provide a better basis for hypothesis testing. We always refer to the t-statistics corresponding to the WA estimates, unless noted otherwise, in testing hypotheses and making statements about their *statistical* significance. However, when a given coefficient changes across subperiods, the SA estimate is economically more meaningful as it estimates the (simple) average of that coefficient across subperiods. The weights given to different subperiods in a WA estimate are economically meaningless. Therefore, we always use the SA estimates, unless noted otherwise, in discussing the magnitudes of different coefficients and their *economic* significance.

Unless noted otherwise, the distribution of all t-statistics used in this paper is approximately standard normal under the corresponding null hypotheses, and all statistical tests are done at the 0.05 significance level.

II. Empirical Results

Table I summarizes the empirical results. The results are reported including as well as excluding January because January seasonality has been found in other

[10] A t-statistic with υ degrees of freedom is divided by the square root of $\upsilon/(\upsilon - 2)$ to "standardize".

[11] The standard errors of both the WA estimates and the SA estimates are overestimated to the extent that the coefficients in (1) change within a subperiod. Other than causing the standard errors/sampling variances to be overestimated, the assumption that these coefficients are constant within a subperiod is not critical.

Table I

Estimated Coefficients (Percent per Month) for the Expected-Return Equation $[E(\tilde{r}_i) = \gamma_0 + \gamma_1 LTEQ_i + \gamma_2 BETA_i + \gamma_3 DER_i]$, Their Estimated Test-Period Betas, and the Summary Statistics for the Explanatory Variables: 1948–1979[a]

	All-Firms Sample				Manufacturing-Firms Sample			
	Constant	*LTEQ*	*BETA*	*DER*	Constant	*LTEQ*	*BETA*	*DER*
Panel A: Weighted (in Inverse Proportion to Estimated Standard Errors) Averages of the Subperiod Mean Estimates								
Including January	1.01	−0.10	0.30	0.09	1.29	−0.11	−0.05	0.17
t-Statistic		(−3.12)	(1.23)	(3.93)		(−3.14)	(−0.21)	(3.91)
Excluding January	0.56	−0.01	0.16	0.05	0.85	−0.02	−0.19	0.10
t-Statistic		(−0.45)	(0.60)	(2.37)		(−0.62)	(−0.76)	(2.24)
Panel B: Simple Averages of the Subperiod Mean Estimates								
Including January	1.01	−0.11	0.17	0.13	1.45	−0.12	−0.24	0.18
t-Statistic		(−3.00)	(0.60)	(3.84)		(−3.32)	(−0.87)	(3.47)
Excluding January	0.52	0.00	0.01	0.09	1.01	−0.02	−0.40	0.11
t-Statistic		(0.01)	(0.04)	(2.47)		(−0.57)	(−1.47)	(2.00)
Panel C: Estimated Test-Period Betas of the Estimated Coefficients (Including January)								
Estimated Test-Period Beta	0.07	−0.00	0.93	−0.00	0.18	−0.01	0.83	0.02
t-Statistic	(0.94)	(−0.23)	(−1.00)	(−0.08)	(2.10)	(−0.47)	(−2.39)	(0.82)

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Panel D: Summary Statistics for the Explanatory Variables at the Portfolio Level

Mean	3.97	0.96	1.38	3.94	1.02	0.97
Median	3.87	0.98	0.91	3.76	1.01	0.69
Range:						
Minimum	2.29	0.60	0.17	2.16	0.72	0.14
Maximum	6.10	1.44	4.44	6.17	1.42	2.81
Correlation with:						
BETA	−0.44			−0.47		
DER	−0.33	0.25		−0.44	0.51	

• *LTEQ*, *BETA*, and *DER* stand for the logarithm of total equity, debt/equity ratio, and estimated beta, respectively. All results are based on twenty-seven portfolios, formed by ranking the securities on the explanatory variables, for each two-year subperiod. The test-period betas and the means and correlations of the explanatory variables are simple averages of the corresponding subperiod values. The values of the explanatory variables are averaged across subperiods for each portfolio, and the medians and ranges are for these averaged values. The *t*-statistics for the average estimated coefficients are distributed as approximately standard normal under the null hypothesis that the coefficient is zero. the *t*-statistics for the estimated test-period betas are distributed as "Student's" *t* with 15 d.f. under the null hypothesis that the test-period beta is zero (one, in the case of the coefficient of *BETA*).

studies (e.g., Keim [9]). To facilitate interpretation of these results, the means, medians, ranges, and correlations of the explanatory variables at the portfolio level are provided in the bottom portion of the table. The ranges in individual subperiods tend to be wider than those shown in the table.

When all firms are used, the average correlation between *BETA* and *DER* is only 0.25. Moreover, their correlation varies from −0.10 for the subperiod 1978–1979 to 0.56 for the subperiod 1948–1949. The low average and high variability of their correlation are explained to a large extent by many finance, real estate, and insurance companies having very large *DER*s, especially in the later subperiods, but not correspondingly large common-equity *BETA*s. Utilities are, of course, another reason since they tend to have higher *DER*s and lower common-equity *BETA*s. As shown in Figure 1, the average *DER* increased substantially in the 1970's, especially for the nonmanufacturing firms.[12] In fact, many finance, real estate, and insurance companies have a *DER* well in excess of twenty-five during this period, and they dominate the average. This results in a very skewed cross-sectional distribution of *DER*s, with the mean and median *DER*s equal to 1.38 and 0.91, respectively. The results below suggest that the linear functional form for *DER* proposed in (1) is probably not adequate for the extreme *DER*s. Therefore, we also present the results for the manufacturing firms only.

When only manufacturing firms are used, the average correlation of *DER* with *BETA* increases to 0.51, and it varies only from 0.35 for the subperiod 1958–1959 to 0.69 for the subperiod 1952–1953. As reflected in the mean, median, and range for *DER*, the distribution of *DER*s is much less skewed in this sample. The average correlation between *DER* and *LTEQ* is higher in this sample as well.

The correlation between *LTEQ* and *BETA* varies substantially across subperiods in both samples. When all firms are used, it varies from −0.73 for the subperiod 1976–1977 to 0.04 for the subperiod 1954–1955. When only manufacturing firms are used, it varies from −0.77 for the subperiod 1976–1977 to 0.10 for the subperiod 1954–1955.

The number of stocks included in the sample varies between 331 (for 1948–1949) and 1241 (for 1978–1979), the average being about 728 stocks or about twenty-seven stocks in each portfolio when all firms are used. When only manufacturing firms are used, the sample includes between 259 (for 1948–1949) and 679 stocks (for 1978–1979), with an average of about 462 stocks or about seventeen stocks in each portfolio.

The hypothesis that the sampling variances of the month-by-month estimates are constant across subperiods is strongly rejected for all coefficients in both samples, including or excluding January, using a likelihood-ratio test. (See Kendall and Stuart [11], p. 252.) For example, when all firms are used and January is included, the value of the test statistic is 87.16, 70.74, and 155.66 for the coefficients of *LTEQ*, *BETA*, and *DER*, respectively. The distribution of this test statistic is approximately χ^2 with 15 degrees of freedom (d.f.). Thus, as expected, the WA estimates have noticeably lower estimated standard errors compared with the SA estimates. The estimated standard errors of the WA

[12] Manufacturing firms are those firms with SIC (Standard Industrial Classification) codes starting with 20 to 39 all through their existence on the CRSP monthly returns tape.

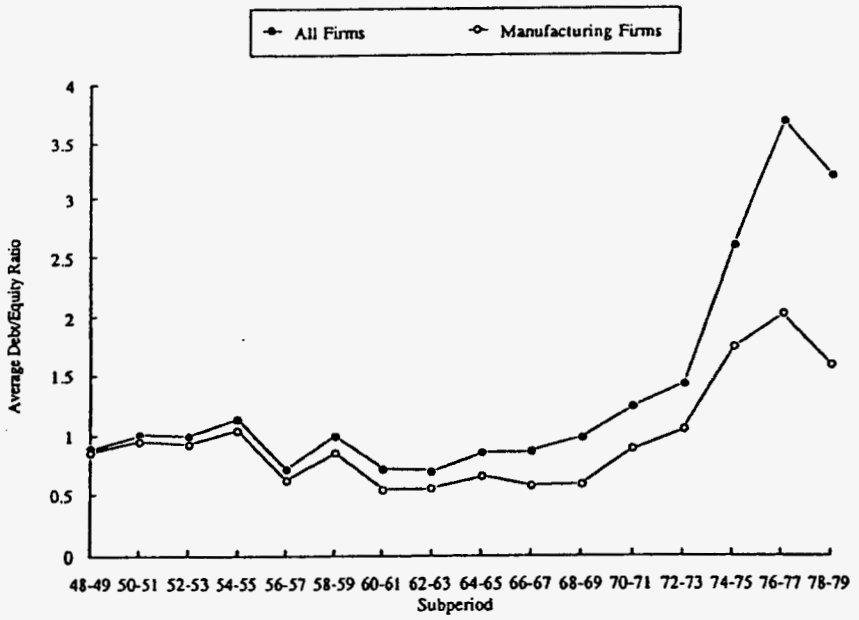

Figure 1. Average Debt/Equity Ratio by Subperiods

estimates including January are sixteen percent, fifteen percent, and thirty-five percent lower for the coefficients of *LTEQ*, *BETA*, and *DER*, respectively, in the all-firms sample. They are eleven percent, fifteen percent, and twenty percent lower, respectively, in the manufacturing-firms sample. A larger gain in precision occurs for the coefficient of *DER*, especially in the all-firms sample, partly due to the larger variation in the sampling variances of the month-by-month estimates across subperiods and partly because the standard error of the SA estimate is overestimated due to the nonconstancy of this coefficient, both of which in turn are mostly due to the extreme *DER*s as discussed below.

In the all-firms sample, the SA estimate gives a much higher coefficient for *DER* compared with the WA estimate including or excluding January. This difference indicates significant changes in this coefficient across subperiods, which in turn can be traced mainly to the extreme *DER*s discussed above. The extreme *DER*s result in smaller estimated coefficients for *DER*, indicating that the linear functional form for *DER* proposed in (1) is probably not adequate for the extreme *DER*s. They also result in lower estimated standard errors for the estimated coefficients of *DER* because they double, triple, and even quadruple the dispersion of the *DER*s. For example, for the subperiod 1958–1959, which is a typical subperiod without many extreme *DER*s, the mean estimate of the coefficient of *DER* including January is 0.16 percent, with an estimated standard error of 0.14 percent. In contrast, for the subperiod 1976–1977, which has a large number of extreme *DER*s, the mean estimate of the coefficient of *DER* including January is 0.03 percent, with an estimated standard error of 0.02 percent. We can reject the hypothesis that the coefficient of *DER* including (excluding)

January during 1948–1969, when there are fewer firms with extreme *DER*s, is the same as that during 1970–1979, with a t-statistic of 2.19 (1.95).[13] Figures 2 and 3 plot the estimated coefficients of *DER* by subperiods. Since more precise subperiod estimates are given higher weights in the WA estimate, this leads to a lower estimate. As noted above, the SA estimate is a better indicator of the average magnitude of the coefficient in this case.

It is apparent from Table I that the expected common stock returns are significantly related to *DER* both including and excluding January, though the estimated coefficient of *DER* is much higher in January. Using the SA estimates, *DER* has an average coefficient of 0.13 percent and 0.18 percent per month, respectively, in the all-firms and manufacturing-firms samples including January. Excluding January, its average coefficient goes down to 0.09 percent and 0.11 percent, respectively. In January, the average coefficient is 0.64 percent and 1.00 percent in the respective samples. We can reject the hypothesis that the coefficient of *DER* in January is the same as that in the other months with a t-statistic of 5.31 (5.41) in the all-firms (manufacturing-firms) sample.[14] Thus, *DER* has a much larger coefficient in January compared with the other months, the difference being larger in the manufacturing-firms sample (see Figure 4), and it has a larger coefficient in the manufacturing-firms sample, especially in January.

Given the wide range of *DER*s, the estimated coefficients of *DER* are economically substantial. For example, they imply a difference in the expected returns of 5.83 percent [$= (2.81 - 0.14) \times 0.182 \times 12$] per annum (we ignore compounding in annualizing the results since we are dealing with "excess" returns) including January, 2.66 percent in January and 3.17 percent in the remaining months, between our maximum and minimum average *DER* portfolios, controlling for *LTEQ* and *BETA*, in the manufacturing-firms sample. For comparison, the implied difference in the expected returns between our minimum and maximum average *LTEQ* portfolios, controlling for *BETA* and *DER*, is 5.79 percent per annum including January, 5.00 percent in January and 0.79 percent in the remaining months, in the same sample.[15] It should be remembered that, given

[13] We allow the sampling variances of the month-by-month estimates to be different in the two periods. (See Kendall and Stuart [11], equation 21.21.)

[14] The t-statistic reported is $\sqrt{s}$ times the average of the subperiod t-statistics "standardized" to have standard deviation equal to one (see footnote 10), where s is the number of subperiods. Each subperiod t-statistic is the usual two-sample t-statistic, assuming that the sampling variance of the estimated coefficient in January is the same as that in the other months. Our conclusion, however, does not change when we allow the sampling variance to be much higher (say four times) or lower (say one-fourth) in January compared with the other months. The evidence on the sampling variance in January relative to that in the other months is discussed later.

[15] These calculations apply *average* (across subperiods) estimated coefficients to the range of *average DERs/LTEQs*, which can be misleading if the range and the estimated coefficient of a variable are significantly correlated across subperiods. To check for this possibility, we apply the subperiod estimates to the subperiod *DERs/LTEQs* and average their products across subperiods. In this case, the implied difference in expected returns between the maximum and minimum average *DER portfolios is 5.51 percent per annum including January, 2.54 percent in January and 2.97* percent in the remaining months, controlling for *BETA* and *LTEQ*, in the manufacturing-firms sample. Similarly, the implied difference in expected returns between the minimum and maximum average *LTEQ* portfolios is 6.05 percent per annum including January, 5.10 percent in January and 0.95 percent in the remaining months, controlling for *BETA* and *DER*, in the same sample. Clearly, the results using the *averages* are not misleading in these cases.

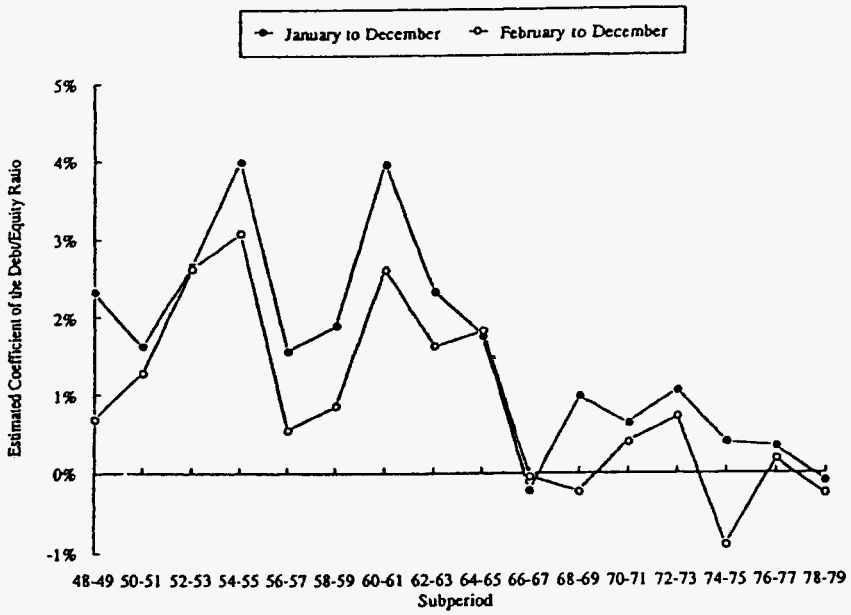

Figure 2. Estimated Coefficients of Debt/Equity Ratio by Subperiods—All Firms

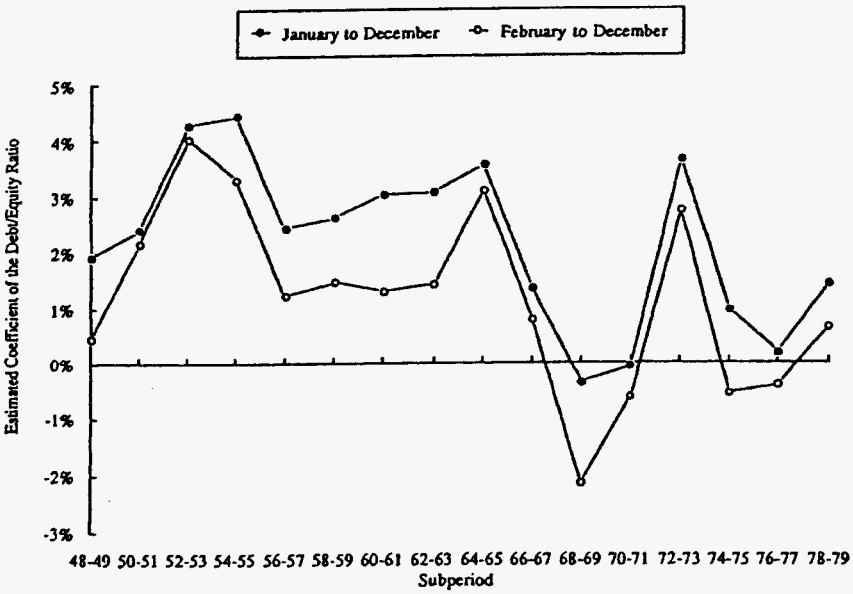

Figure 3. Estimated Coefficients of Debt/Equity Ratio by Subperiods—Manufacturing Firms

the way these portfolios are formed, the maximum (minimum) average *DER/LTEQ* portfolio usually does not contain all of the largest (smallest) *DER/LTEQ* stocks.

Figures 2 and 3 depict the estimated coefficients of *DER* by subperiods for the

all-firms and manufacturing-firms samples, respectively. The estimated coefficients are plotted for January to December (sum of the coefficients for individual months, averaged across the two years in a subperiod) and February to December. The difference between the former and the latter represents the estimated coefficient for January. The estimated coefficient of *DER* for January is positive in each one of the subperiods in the manufacturing-firms sample. It is negative in only two subperiods (out of sixteen) in the all-firms sample and, even then, only slightly negative. The estimated coefficient of *DER* for January to December is negative in only two subperiods in either sample and again only slightly negative even then. Noting that an estimated coefficient can be interpreted as the difference between returns on two particular portfolios, we can create a portfolio based on *DER*s that will give positive "excess" returns most of the time and slightly negative "excess" returns once in a while. Therefore, the "excess" return associated with *DER* is *not* likely to be just some kind of "risk premium".

As noted above, there are more stocks with extreme *DER*s in the later subperiods, especially in the all-firms sample, resulting in lower estimated coefficients for *DER*. This partly explains the lower estimated coefficients in the second half of the subperiods in Figures 2 and 3, especially when all firms are used.

Figure 4 shows the simple averages of the estimated coefficients (across subperiods) of *DER* for each of the twenty-four subperiod months. As noted above, the two January coefficients are larger compared with the other months in both the all-firms and manufacturing-firms samples. The first January tends to have a somewhat larger coefficient than the second January. No other month consistently stands out in this figure.

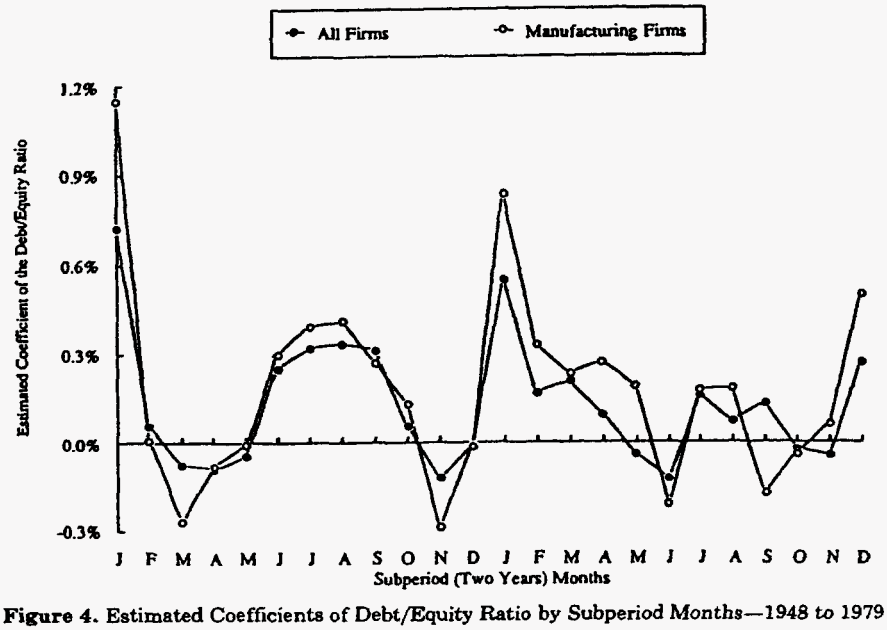

Figure 4. Estimated Coefficients of Debt/Equity Ratio by Subperiod Months—1948 to 1979

The expected common stock returns are significantly related to *LTEQ*, but only in January, in either sample. We can reject the hypothesis that the coefficient of *LTEQ* in January is the same as that in the other months with a *t*-statistic of −12.26 (−11.68) in the all-firms (manufacturing-firms) sample. (See footnote 14.) In January, using the SA estimates, *LTEQ* has an average coefficient of −1.31 percent and −1.25 percent per month, respectively, in the all-firms and manufacturing-firms samples. The economic significance of these estimates has already been indicated above. The estimated coefficient of *LTEQ* for January is negative in each one of the subperiods, in either sample. Thus, the "size premium" in January is also *not* likely to be just some kind of "risk premium".

Excluding January, the expected common stock returns are not significantly related to *BETA* in either sample. *BETA* actually has a negative estimated coefficient including or excluding January in the manufacturing-firms sample. However, we can reject the hypothesis that the coefficient of *BETA* in January is the same as that in the other months with a *t*-statistic of 1.98 (2.01) in the all-firms (manufacturing-firms) sample.[16] The expected common stock returns tend to be significantly related to *BETA* in January with a *t*-statistic of 1.86 (1.39) in the all-firms (manufacturing-firms) sample. These *t*-statistics are distributed as "Student's" *t* with 15 d.f.[17] In January, using the SA estimates, *BETA* has an average coefficient of 1.87 percent and 1.56 percent per month, respectively, in the all-firms and manufacturing-firms samples. These imply a difference in the expected returns of 1.57 percent (1.09 percent) in January between our maximum and minimum average *BETA* portfolios, controlling for *LTEQ* and *DER*, in the all-firms (manufacturing-firms) sample.[18] This difference, however, is more than offset by the opposite difference in the remaining months in the manufacturing-firms sample.

To summarize, then, *DER* has a significant positive effect on the expected common stock returns, both in January and in the other months, though the effect is much larger in January. The effect of *DER* is smaller in the later subperiods, partly due to certain firms with extreme *DER*s for which the linear functional form specified in (1) is probably not adequate. *LTEQ* has a significant negative effect, but only in January. *BETA* tends to have a significant positive effect in January, which is offset by an opposite effect in the other months in the manufacturing-firms sample. We also argue that the "excess returns" or "premiums" associated with *DER* and *LTEQ* are *not* likely to be just some kind of "risk premiums".

A. Are "January Premiums" More Uncertain?

Given the large "January premiums", it is natural to ask whether they are partly due to higher risk. Essentially, we want to test whether January estimates

[16] See footnote 14 for details of the test statistic used. When we allow the sampling variances to be 1.5 to 2.5 times larger in January compared with the other months, we can still reject this hypothesis, but at the 0.1 significance level (one-sided).

[17] Because there are only two January observations in each subperiod, we use the time series of mean January estimates across subperiods to calculate this *t*-statistic.

[18] Applying the procedure described in footnote 15, the implied differences are 1.66 percent and 1.16 percent, respectively, in the all-firms and manufacturing-firms samples.

have larger sampling variances. Unfortunately, tests of this hypothesis are sensitive to depatures from the standard assumptions we have already made, such as normally distributed errors, and require some additional assumptions to aggregate across subperiods. The problem is made worse because of only two January observations in a subperiod. We consider three different tests, all based on the usual F-test for equality of variances, requiring different sets of additional assumptions. In these tests, we always put the estimated sampling variance of the January estimate in the numerator of the F-statistic.

In the first test, we do a separate F-test for each subperiod. Each subperiod F-statistic is distributed as $F_{1,21}$, the subscripts being the numerator and denominator d.f., respectively. We reject the hypothesis in the overall period at the 0.05 significance level if it is rejected at the 0.0032 significance level in at least one subperiod out of sixteen. (See Kendall and Stuart [10], p. 40.) In the second test, we assume that the sampling variances (though not the mean coefficients) are constant across subperiods. In this case, the F-statistic is the ratio of the sums of the subperiod estimates of the respective sampling variances and is distributed as $F_{16,336}$. The third F-test is based on the time series of mean subperiod estimates, assuming that both the mean coefficients and sampling variances are constant across subperiods. This F-statistic is distributed as $F_{15,15}$.

For *DER*, the maximum and minimum subperiod F-statistics are 4.74 and 0.026 (3.03 and 0.017), respectively, in the all-firms (manufacturing-firms) sample. The second and third F-statistics are 0.81 and 2.74 (0.81 and 1.13), respectively, in the all-firms (manufacturing-firms) sample. Only the third F-test in the all-firms sample rejects the null hypothesis. However, the value of this F-statistic seems quite unreasonable in comparison with the others and, in view of the other evidence, is probably caused by the nonconstancy of the mean coefficients across subperiods. Thus, we cannot reject the hypothesis that the "premium" associated with *DER* has the same variance in January as in the other months. Based on the second F-test, its estimated variance in January is about eighty-one percent of that in the other months in either sample.

For *LTEQ*, the maximum and minimum subperiod F-statistics are 12.13 and 0.0012 (10.30 and 0.0031), respectively, in the all-firms (manufacturing-firms) sample. The second and third F-statistics are 2.07 and 2.66 (2.52 and 1.54), respectively, in the all-firms (manufacturing-firms) sample. All three F-tests indicate a rejection of the null hypothesis in favor of the one-sided alternative that the "premium" associated with *LTEQ* has a larger variance in January compared with the other months in the all-firms sample. The evidence in the manufacturing-firms sample is mixed, where the second F-test rejects the null hypothesis strongly, the first F-test comes close to rejecting it, but the third F-test does not reject it even at the 0.1 significance level. The nonconstancy of the coefficient between the two Januaries of a subperiod, which affects the first two F-tests, is probably part of the reason for this difference. Our conclusion is that the "premium" associated with *LTEQ* has about a 1.5 to 2.5 times larger variance in January compared with the other months.

For *BETA*, the maximum and minimum subperiod F-statistics are 6.16 and 0.0013 (6.49 and 0.0129), respectively, in the all-firms (manufacturing-firms) sample. The second and third F-statistics are 1.81 and 0.84 (2.26 and 0.95),

respectively, in the all-firms (manufacturing-firms) sample. The evidence is clearly mixed because the second F-test rejects the null hypothesis while the others do not in either sample. Thus, the "premium" associated with *BETA* may have from about the same to about twice as large a variance in January compared with the other months.

To summarize, the larger "premium" associated with *DER* in January is not likely to be due to higher risk. There remains a possibility, however, that the "premiums" associated with *LTEQ* and *BETA* in January may be partly, but partly only in view of the other evidence, due to higher risk.

B. Effects of Estimation Errors in BETA

Since *BETA* contains estimation errors, the other variables may proxy for the true beta. We can test this by estimating the test-period betas of the estimated coefficients. The OLS estimate of the slope coefficient in the regression of the estimated coefficients on the market proxy is their estimated test-period beta. A test-period beta equal to zero for the estimated coefficients of a variable means that the variable does not proxy for beta. On the other hand, if *BETA* is a good proxy for the true beta, the test-period beta of its estimated coefficients will be close to one. (See Bhandari [4].)

The test-period betas of the estimated coefficients are estimated for each subperiod. The simple averages of these subperiod estimates are reported in Table I. The corresponding t-statistics are based on the time series of the subperiod estimates. The estimated test-period betas of the estimated coefficients are close to zero for *DER* and *LTEQ* in either sample. They are statistically insignificant and economically negligible. Thus, neither *DER* nor *LTEQ* seems to proxy for the true beta. *BETA* is a better proxy for the true beta in the all-firms sample than it is in the manufacturing-firms sample. As expected, the estimation errors cause the test-period beta of the estimated coefficients of *BETA* to be less than one and, correspondingly, the test-period beta of the estimated intercept terms to be greater than zero. Thus, we can conclude that the only major effect of the estimation errors in *BETA* is the underestimation of the coefficient of beta, probably by about seven percent (seventeen percent) in the all-firms (manufacturing-firms) sample. These errors have virtually no effect on the estimation of the coefficients of *DER* and *LTEQ*.

C. "Incremental" Effects of Explanatory Variables

In this subsection, we analyze the effects of inclusion or exclusion of an explanatory variable on the estimated coefficients of the other variables. Table II summarizes the results for each possible combination of explanatory variables. To keep the other things constant, the portfolios used in all of these combinations are exactly the same as those used when all of the explanatory variables are included. In this table, only the results based on the SA estimates are shown because they provide a better basis for comparison by keeping the subperiod weights constant across different combinations. Note, however, that the coefficient of *DER* excluding January is sometimes not statistically significant based on the t-statistics in this table, even though it is based on the t-statistics

Table II

Estimated Coefficients (Percent per Month) for the Expected-Return Equation $[E(\tilde{r}_i) = \gamma_0 + \gamma_1 LTEQ_i + \gamma_2 BETA_i + \gamma_3 DER_i]$ Using All Possible Combinations of the Explanatory Variables: 1948–1979[a]

	All-Firms Sample				Manufacturing-Firms Sample			
Explanatory Variables	Constant	*LTEQ*	*BETA*	*DER*	Constant	*LTEQ*	*BETA*	*DER*
Panel A: Results Including January								
LTEQ	1.49	−0.15			1.42	−0.13		
		(−3.29)				(−2.87)		
BETA	0.27		0.63		0.30		0.57	
			(2.15)				(1.89)	
DER	0.70			0.16	0.68			0.22
				(3.97)				(3.06)
LTEQ, BETA	1.15	−0.13	0.25		1.44	−0.15	0.02	
		(−3.33)	(0.92)			(−3.82)	(0.08)	
LTEQ, DER	1.28	−0.13		0.12	1.13	−0.09		0.14
		(−2.93)		(3.54)		(−2.30)		(2.48)
BETA, DER	0.24		0.49	0.16	0.48		0.21	0.23
			(1.68)	(4.02)			(0.72)	(3.70)
LTEQ, BETA, DER	1.01	−0.11	0.17	0.13	1.45	−0.12	−0.24	0.18
		(−3.00)	(0.60)	(3.84)		(−3.32)	(−0.87)	(3.47)
Panel B: Results Excluding January								
LTEQ	0.68	−0.01			0.60	0.01		
		(−0.39)				(0.15)		
BETA	0.48		0.13		0.65		−0.04	
			(0.47)				(−0.16)	
DER	0.56			0.07	0.58			0.04
				(1.70)				(0.54)
LTEQ, BETA	0.57	−0.01	0.07		1.00	−0.04	−0.24	
		(−0.33)	(0.27)			(−1.06)	(−0.91)	
LTEQ, DER	0.57	−0.00		0.07	0.49	0.02		0.05
		(−0.09)		(2.17)		(0.63)		(0.93)

Exhibit 27.17
Pg. 20 of 24

BETA, DER	0.47		0.07	0.08	0.73		−0.19	0.10
			(0.26)	(2.09)			(−0.70)	(1.63)
LTEQ, BETA, DER	0.52	0.00	0.01	0.09	1.01	−0.02	−0.40	0.11
		(0.01)	(0.04)	(2.47)		(−0.57)	(−1.47)	(2.00)

[a] *LTEQ*, *BETA*, and *DER* stand for the logarithm of total equity, debt/equity ratio, and estimated beta, respectively. The results in all combinations are based on twenty-seven portfolios, formed by ranking the securities on all three explanatory variables, for each two-year subperiod. The estimated coefficients are simple averages of the corresponding subperiod mean estimates. Their *t*-statistics, given in parentheses, are distributed as approximately standard normal under the null hypothesis that the coefficient is zero.

Exhibit 27.17
Pg. 21 of 24

corresponding to the WA estimates, because the former t-statistics are usually ten to fifteen percent lower than the latter ones in the case of *DER*.

The following effects can be seen in Table II. Including January, *DER* and *LTEQ*, when included, reduce the absolute value of each other's estimated coefficients. Excluding January, the inclusion of *DER* still makes the estimated coefficient of *LTEQ* less negative, but the inclusion of *LTEQ* increases the estimated coefficient of *DER*. The estimated coefficient of *BETA* goes down when either of the other variables is included, and the inclusion of *BETA* increases the estimated coefficient of *DER*, including or excluding January. These effects occur in both samples and are more pronounced in the manufacturing-firms sample. Inclusion of *BETA* makes the estimated coefficient of *LTEQ* less negative in the all-firms sample but more negative in the manufacturing-firms sample, including or excluding January.

The estimated coefficient of *DER* excluding January in the manufacturing-firms sample becomes small and statistically insignificant when *BETA* is not included because *DER* is positively correlated with *BETA* (see Table I), which in turn has a negative, though possibly unexpected, effect on the returns in this sample for this period. Similarly, the estimated coefficient for *BETA* including January becomes large and statistically significant, in both samples, when *LTEQ* and *DER* are not included.

Unfortunately, the usual R^2 criterion is not applicable in our case to decide which explanatory variables should be included.[19] (See Bhandari [4].) Based on the above evidence, excluding any one of the explanatory variables seems undesirable.

D. Some Further Comments

The results are not sensitive to changes in the order of explanatory variables in ranking to form the portfolios used in the tests or the market proxy and estimation technique used for *BETA*.[20] They are also not sensitive to the use of nominal returns rather than real returns or to excluding January in calculating *BETA*.

The monthly portfolio returns used in our tests have a small but significant positive first-order autocorrelation. (See footnote 3.) As a result, the estimated coefficients have a positive first-order autocorrelation as well. The correction for such autocorrelation lowers our t-statistics somewhat, but none of our conclusions is otherwise changed.

The use of COMPUSTAT data induces a survival bias in our sample because a given edition of the COMPUSTAT tapes excludes firms that did not exist at the end of the period covered by that edition. This problem is mitigated to some extent by our use of a file provided by the CRSP that merges several editions of

[19] The basic reason is the use of portfolios formed in a certain way rather than the use of individual securities. Also, the computation of the correct R^2 will require the knowledge of the variance-covariance matrix of $\tilde{u}_{it}$'s in (3) up to a constant scalar multiplier.

[20] The market proxies used are the equally weighted and value-weighted portfolios of the NYSE securities, as well as an extended market portfolio similar to that of Stambaugh [14]. The *BETA* estimation techniques used are OLS and the technique developed by Scholes and Williams [13].

the COMPUSTAT tapes. Actually, when survival bias was artificially introduced in those years when it did not exist by requiring the data to be available for the following years, the results were virtually unchanged.

When the stock price goes down, other things equal, the corresponding *DER* goes up. If down movements in the stock prices tend to be followed by up movements, then this "reversal" effect can cause the *DER* to have a significant coefficient in our regressions. To check for this, we included the average returns for the previous four years as another independent variable in our regressions.[21] For the all-firms sample reported in Table I, this additional explanatory variable caused the estimated coefficient of *DER* to change from 0.13 percent (0.09 percent) per month to 0.11 percent (0.09 percent) per month including (excluding) January using the SA estimtes, with the corresponding *t*-statistic changing from 3.84 (2.47) to 3.44 (2.75).[22] Similar results are obtained for other samples. Thus, the "reversal" effect can explain only a part of the coefficient of *DER* in January.

The ratio of long-term debt to equity does not perform as well as our measure of *DER*. The major reason for this seems to be that a large number of firms have no long-term debt, especially in the earlier period. Almost half of the firms used in the subperiod 1948–1949 had no long-term debt. Thus, the ratio of long-term debt to equity is not able to differentiate between many firms that have different amounts of common equity relative to their total assets.

Finally, since debt liabilities are fixed in monetary terms, it is interesting to know whether the estimated coefficients of *DER* are related to inflation. We calculated the correlation of the estimated coefficients over time with the actual inflation and the change in inflation from the previous month, where inflation is measured as the rate of change in the CPI, for each subperiod. The change in inflation is used as a measure of the unexpected inflation. The average (across subperiods) correlation of the estimated coefficients of *DER* with both the total and the unexpected inflation rates ranges from −0.01 to 0.06 in different samples. The estimated coefficients of *LTEQ* and *BETA*, on average, have a somewhat higher correlation with the inflation than that. Thus, the coefficient of *DER* does not seem to be related to the inflation in any important way.

III. Summary and Conclusions

The expected returns on common stocks are positively related to the debt/equity ratio (*DER*), controlling for the beta and firm size, both including and excluding January. The estimated coefficient of *DER* is 0.13 percent (0.18 percent) per month including January and 0.09 percent (0.11 percent) per month excluding January when all (only manufacturing) firms are used. The estimated coefficient is 0.64 percent (1.00 percent) per month in January using all (only manufacturing)

[21] This additional check was suggested by an associate editor and the editor of this Journal. The reason for using raw average returns, rather than "risk-adjusted" returns, is to avoid another variable with the error-in-the-variables problem, especially in view of the fact that *BETA* is already an independent variable and that the estimation error of *BETA* would be correlated with the estimation error of the "risk-adjusted" return.

[22] Use of average returns from two years before and two years after the test subperiod increases the estimated coefficient of *DER* both including and excluding January.

firms. Given the wide range of *DER*s, these estimated coefficients are economically substantial. The results are not sensitive to the choice of the market proxy or estimation technique used for beta.

DER does not proxy for the true beta with respect to the market proxies used. Though it may proxy for the true beta with respect to the *true* market portfolio, the insensitivity of our results to different market proxies used suggests that this is not likely. Thus, if *DER* is just a proxy for risk, a measure of risk different from beta is required or the risk-expected return tradeoff will have to be nonlinear. Actually, considering that the "premium" associated with *LTEQ* occurs only in January, that the "premium" associated with *DER* is much larger but no more uncertain in January compared with the other months, and especially that the "premiums" associated with *DER* and *LTEQ* are very consistently positive, it is not likely that the "premiums" associated with *DER*, *LTEQ*, and probably even *BETA* are due to higher risk. In any case, the evidence presented here has clear implications for the evaluation of investment performance, for tests of capital market efficiency, and for estimating the cost of capital for firms.

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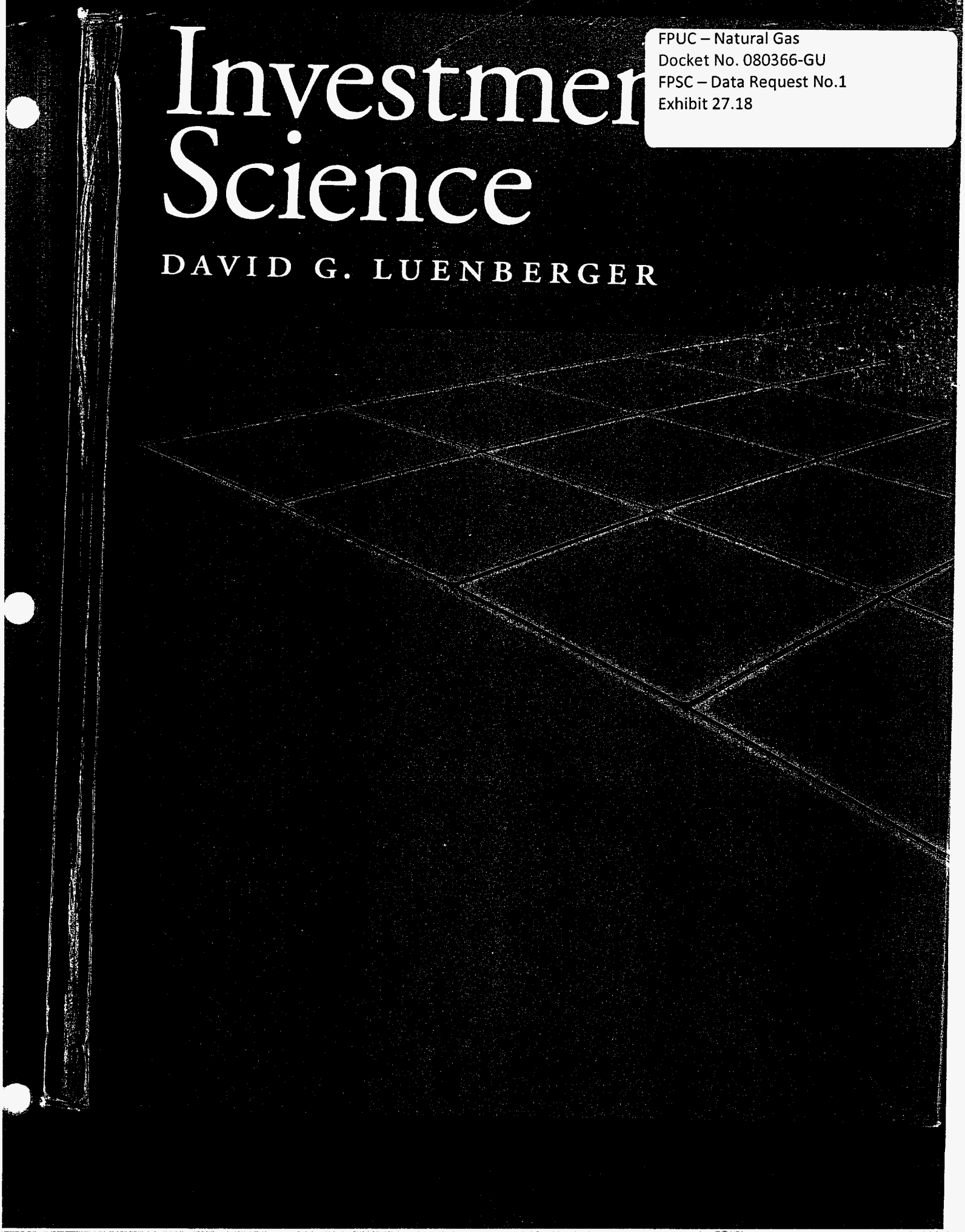
FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 27.18

Investment Science

DAVID G. LUENBERGER



3.4 YIELD

A bond's yield is the interest rate implied by the payment structure. Specifically, it is the interest rate at which the present value of the stream of payments (consisting of the coupon payments and the final face-value redemption payment) is exactly equal to the current price. This value is termed more properly the **yield to maturity** (YTM) to distinguish it from other yield numbers that are sometimes used. Yields are always quoted on an annual basis.

It should be clear that the yield to maturity is just the internal rate of return of the bond at the current price. But when discussing bonds, the term *yield* is generally used instead.

Suppose that a bond with face value F makes m coupon payments of C/m each year and there are n periods remaining. The coupon payments sum to C within a year.

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Suppose also that the current price of the bond is P. Then the yield to maturity is the value of λ such that

$$P = \frac{F}{[1 + (\lambda/m)]^n} + \sum_{k=1}^{n} \frac{C/m}{[1 + (\lambda/m)]^k}. \tag{3.1}$$

This value of λ, the yield to maturity, is the interest rate implied by the bond when interest is compounded m times per year. Note that the first term in (3.1) is the present value of the face-value payment. The kth term in the summation is the present value of the kth coupon payment C/m. The sum of the present values, based on a nominal interest rate of λ, is set equal to the bond's price.

The summation in (3.1) can be collapsed by use of the general value formula for annuities in the previous section, since this sum represents the present value of the equal coupon payments of C/m. The collapsed form is highlighted here:

Bond price formula *The price of a bond, having exactly n coupon periods remaining to maturity and a yield to maturity of λ, satisfies*

$$P = \frac{F}{[1 + (\lambda/m)]^n} + \frac{C}{\lambda}\left\{1 - \frac{1}{[1 + (\lambda/m)]^n}\right\} \tag{3.2}$$

where F is the face value of the bond, C is the yearly coupon payment, and m is the number of coupon payments per year.

Equation (3.2) must be solved for λ to determine the yield. This cannot be done by hand except for very simple cases. It should be clear that the terms in (3.2) are the familiar terms giving the present value of a single future payment and of an annuity. However, to determine λ one must do more than just evaluate these expressions. One must adjust λ so that (3.2) is satisfied. As in any calculation of internal rate of return, this generally requires an iterative procedure, easily carried out by a computer. There are, however, specialized calculators and bond tables devised for this purpose, which are used by bond dealers and other professionals. Spreadsheet packages also typically have built-in bond formulas.

The formulas discussed here assume that there is an exact number of coupon periods remaining to the maturity date. The price–yield formula requires adjustment for dates between coupon payment dates.

Qualitative Nature of Price–Yield Curves

Although the bond equation is complex, it is easy to obtain a qualitative understanding of the relationship between price, yield, coupon, and time to maturity. This qualitative understanding helps motivate the ideas underlying bond portfolio construction and, specifically, leads to an understanding of the interest rate risk properties of bonds. The following examples should be studied with an eye toward obtaining this kind of understanding.

As a general rule, the yields of various bonds track one another and the prevailing interest rates of other fixed-income securities quite closely. After all, most people

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would not buy a bond with a yield of 6% when bank CDs are offering 10%. The general interest rate environment exerts a force on every bond, urging its yield to conform to that of other bonds. However, the only way that the yield of a bond can change is for the bond's price to change. So as yields move, prices move correspondingly. But the price change required to match a yield change varies with the structure of the bond (its coupon rate and its maturity). So as the yields of various bonds move more or less in harmony, their prices move by different amounts. To understand bonds, it is important to understand this relation between the price and the yield. For a given bond, this relationship is shown pictorially by the **price–yield curve.**

Examples of price–yield curves are shown in Figure 3.3. Here the price, as a percentage of par, is shown as a function of YTM expressed in percentage terms. Let us focus on the bond labeled 10%. This bond has a 10% coupon (which means 10% of the face value is paid each year, or 5% every 6 months), and it has 30 years to maturity. The price–yield curve shows how yield and price are related.

The first obvious feature of the curve is that it has negative slope; that is, price and yield have an inverse relation. If yield goes up, price goes down. If I am to obtain a higher yield on a fixed stream of received payments, the price I pay for this stream must be lower. This is a fundamental feature of bond markets. When people say "the bond market went down," they mean that interest rates went up.

Some points on the curve can be calculated by inspection. First, suppose that YTM = 0. This means that the bond is priced as if it offered no interest. Within the framework of this bond, money in the future is not discounted. In that case, the present value of the bond is just equal to the sum of all payments: here coupon payments of 10 points each year for 30 years, giving 300, plus the 100% of par value received at maturity, for a total of 400. This is the value of the bond at zero yield. Second, suppose that YTM = 10%. Then the value of the bond is equal to the par value. The reason for this is that each year the coupon payment just equals the 10% yield expected on the

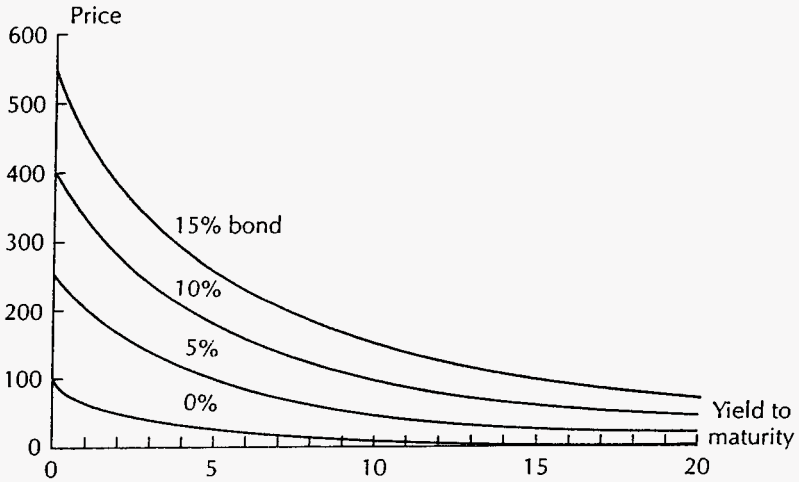

FIGURE 3.3 Price–yield curves and coupon rate. All bonds shown have a maturity of 30 years and the coupon rates indicated on the respective curves. Prices are expressed as a percentage of par.

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investment. The value remains at 100 every year. The bond is like a loan where the interest on the principal is paid each year and hence the principal remains constant. In this situation, where the yield is exactly equal to the coupon rate, the bond is termed a **par bond.** In addition to these two specific points on the price–yield curve, we can deduce that the price of the bond must tend toward zero as the yield increases—large yields imply heavy discounting, so even the nearest coupon payment has little present value. Overall, the shape of the curve is **convex** since it bends toward the origin and out toward the horizontal axis. Just given the two points and this rough knowledge of shape, it is possible to sketch a reasonable approximation to the true curve.

Let us briefly examine another one of the curves, say, the 15% bond. The price at YTM $= 0$ is $15 \times 30 + 100 = 550$, and the par point of 100 is at 15%. We see that with a fixed maturity date, the price–yield curve rises as the coupon rate increases.

Now let us consider the influence of the time to maturity. Figure 3.4 shows the price–yield curves for three different bonds. Each of these bonds has a 10% coupon rate, but they have different maturities: 30 years, 10 years, and 3 years. All of these bonds are at par when the yield is 10%; hence the three curves all pass through the common par point. However, the curves pivot upward around that point by various amounts, depending on the maturity. The values at YTM $= 0$ can be found easily, as before, by simply summing the total payments. The main feature is that as the maturity is increased, the price–yield curve becomes steeper, essentially pivoting about the par point. This increased steepness is an indication that longer maturities imply greater sensitivity of price to yield.

The price–yield curve is important because it describes the interest rate risk associated with a bond. For example, suppose that you purchased the 10% bond illustrated in Figure 3.3 at par (when the yield was 10%). It is likely that all bonds of maturity approximately equal to 30 years would have yields of 10%, even though some might not be at par. Then 10% would represent the market rate for such bonds.

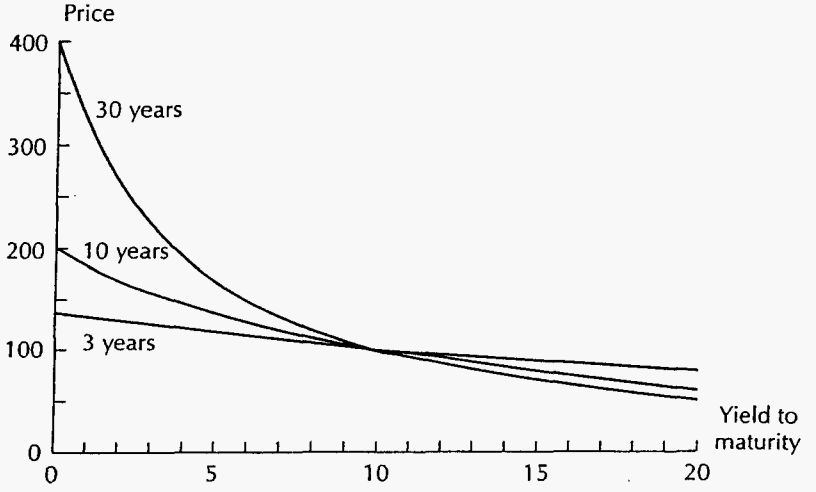

FIGURE 3.4 Price–yield curves and maturity. The price–yield curve is shown for three maturities. All bonds have a 10% coupon.

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TABLE 3.5
Prices of 9% Coupon Bonds

	Yield				
Time to maturity	**5%**	**8%**	**9%**	**10%**	**15%**
1 year	103.85	100.94	100.00	99.07	94.61
5 years	117.50	104.06	100.00	96.14	79.41
10 years	131.18	106.80	100.00	93.77	69.42
20 years	150.21	109.90	100.00	91.42	62.22
30 years	161.82	111.31	100.00	90.54	60.52

The prices of long-maturity bonds are more sensitive to yield changes than are the prices of bonds of short maturity.

Now suppose that market conditions change and the yield on your bond increases to 11%. The price of your bond will drop to 91.28. This represents an 8.72% change in the value of your bond. It is good to consider the possibility of such a change when purchasing this bond. For example, with a 3-year 10% par bond, if the yield rose to 11%, the price would drop only to 97.50, and hence the interest rate risk is lower with this bond. Of course if yields *decreased*, you would *profit* by similar amounts.

Bond holders are subject to yield risk in the sense described: if yields change, bond prices also change. This is an immediate risk, affecting the near-term value of the bond. You may, of course, continue to hold the bond and thereby continue to receive the promised coupon payments and the face value at maturity. This cash flow stream is not affected by interest rates. (That is after all why the bond is classified as a fixed-income security.) But if you plan to sell the bond before maturity, the price will be governed by the price–yield curve.

Table 3.5 displays the price–yield relation in tabular form for bonds with a 9% coupon rate. It is easy to see that the bond with 30-year maturity is much more sensitive to yield changes than the bond with 1-year maturity.

It is the quantification of this risk that underlies the importance of the price–yield relation. Our rough qualitative understanding is important. The next sections develop additional tools for studying this risk.

Other Yield Measures

Other measures of yield, aside from yield to maturity, are used to gain additional insight into a bond's properties. For example, one important yield measure is **current yield** (CY), which is defined as

$$\text{CY} = \frac{\text{annual coupon payment}}{\text{bond price}} \times 100.$$

The current yield gives a measure of the annual return of the bond. For instance, consider a 10%, 30-year bond. If it is selling at par (that is, at 100), then the current yield is 10, which is identical to the coupon rate and to the yield to maturity. If the same bond were selling for 90, then CY = 10/90 = 11.11 while YTM = 11.16.

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Another measure, used if the bond is callable after some number of years, is the **yield to call** (YTC), which is defined as the internal rate of return calculated assuming that the bond is in fact called at the earliest possible date.

There are several other yield measures that account for sinking funds, principal payments, and other features.

3.5 DURATION

Everything else being equal, bonds with long maturities have steeper price–yield curves than bonds with short maturities. Hence the prices of **long bonds** are more sensitive to interest rate changes than those of **short bonds.** This is shown clearly in Table 3.5. However, this is only a rough rule of thumb. Maturity itself does not give a complete quantitative measure of interest rate sensitivity.

Another measure of time length termed **duration** *does* give a direct measure of interest rate sensitivity. This section describes this measure.

The duration of a fixed-income instrument is a weighted average of the times that payments (cash flows) are made. The weighting coefficients are the present values of the individual cash flows.

We can write out this definition more explicitly. Suppose that cash flows are received at times $t_0, t_1, t_2, \ldots, t_n$. Then the duration of this stream is

$$D = \frac{\text{PV}(t_0)t_0 + \text{PV}(t_1)t_1 + \text{PV}(t_2)t_2 + \cdots + \text{PV}(t_n)t_n}{\text{PV}}.$$

In this formula the expression $\text{PV}(t_k)$ denotes the present value of the cash flow that occurs at time t_k. The term PV in the denominator is the total present value, which is the sum of the individual $\text{PV}(t_k)$ values.

The expression for D is indeed a weighted average of the cash flow times. Hence D itself has units of time. When the cash flows are all nonnegative, as they are for a bond already owned (so that the purchase is not included in the cash flow), then it is clear that $t_0 \le D \le t_n$. Duration is a time intermediate between the first and last cash flows.

Clearly, a zero-coupon bond, which makes only a final payment at maturity, has a duration equal to its maturity date. Nonzero-coupon bonds have durations strictly less than their maturity dates. This shows that duration can be viewed as a generalized maturity measure. It is an average of the maturities of all the individual payments.

Macaulay Duration

The preceding definition is (intentionally) a bit vague about how the present value is calculated; that is, what interest rate to use. For a bond it is natural to base those calculations on the bond's yield. If indeed the yield is used, the general duration formula becomes the Macaulay duration.

Specifically, suppose a financial instrument makes payments m times per year, with the payment in period k being c_k, and there are n periods remaining. The

A	B	C	D	E	F
Year	Payment	Discount factor (@ 8%)	Present value of payment (B × C)	Weight (D/Price)	A × E
.5	3.5	.962	3.365	.035	.017
1	3.5	.925	3.236	.033	.033
1.5	3.5	.889	3.111	.032	.048
2	3.5	.855	2.992	.031	.061
2.5	3.5	.822	2.877	.030	.074
3	103.5	.790	81.798	.840	2.520
Sum			97.379 Price	1.000	2.753 Duration

FIGURE 3.5 Layout for calculating duration. Present values of payments are calculated in column *D*. Dividing these by the total present value gives the weights shown in column *E*. The duration is obtained using this weighted average of the payment times.

Macaulay duration D is defined as

$$D = \frac{\sum_{k=1}^{n} (k/m)c_k/[1 + (\lambda/m)]^k}{\text{PV}}$$

where λ is the yield to maturity and

$$\text{PV} = \sum_{k=1}^{n} \frac{c_k}{[1 + (\lambda/m)]^k}.$$

Note that the factor k/m in the numerator of the formula for D is time, measured in years. In this chapter we always use the Macaulay duration (or a slight modification of it), and hence we do not give it a special symbol, but denote it by D, the same as in the general definition of duration.

Example 3.6 (A short bond) Consider a 7% bond with 3 years to maturity. Assume that the bond is selling at 8% yield. We can find the value and the Macaulay duration by the simple spreadsheet layout shown in Figure 3.5. The duration is 2.753 years.

Explicit Formula*

In the case where all coupon payments are identical (which is the normal case for bonds) there is an explicit formula for the sum of the series that appears in the numerator of the expression for the Macaulay duration. We skip the algebra here and just give the result.

Macaulay duration formula *The Macaulay duration for a bond with a coupon rate c per period, yield y per period, m periods per year, and exactly n periods remaining, is*

$$D = \frac{1 + y}{my} - \frac{1 + y + n(c - y)}{mc[(1 + y)^n - 1] + my}. \tag{3.3}$$

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Example 3.7 (Duration of a 30-year par bond) Consider the 10%, 30-year bond represented in Figure 3.3. Let us assume that it is at par; that is, the yield is 10%. At par, $c = y$, and (3.3) reduces to

$$D = \frac{1+y}{my}\left[1 - \frac{1}{(1+y)^n}\right].$$

Hence,

$$D = \frac{1.05}{.1}\left[1 - \frac{1}{(1.05)^{60}}\right] = 9.938.$$

Qualitative Properties of Duration*

The duration of a coupon-paying bond is always less than its maturity, but often it is surprisingly short. An appreciation for the relation between a bond's duration and other parameters of the bond can be obtained by examination of Table 3.6. In this table the yield is held fixed at 5%, but various maturities and coupon rates are considered. This procedure approximates the situation of looking through a list of available bonds at a time when all yields hover near 5%. Within a given class (say, government securities) the available bonds then differ mainly by these two parameters.

One striking feature of this table is that as the time to maturity increases to infinity, the durations do *not* also increase to infinity, but instead tend to a finite limit that is independent of the coupon rate. (See Exercise 14.) Another feature of the table is that the durations do not vary rapidly with respect to the coupon rate. The fact that the yield is held constant tends to cancel out the influence of the coupons.

A general conclusion is that very long durations (of, say, 20 years or more) are achieved only by bonds that have both very long maturities and very low coupon rates.

TABLE 3.6
Duration of a Bond Yielding 5% as Function of Maturity and Coupon Rate

	Coupon rate			
Years to maturity	1%	2%	5%	10%
1	.997	.995	.988	.977
2	1.984	1.969	1.928	1.868
5	4.875	4.763	4.485	4.156
10	9.416	8.950	7.989	7.107
25	20.164	17.715	14.536	12.754
50	26.666	22.284	18.765	17.384
100	22.572	21.200	20.363	20.067
∞	20.500	20.500	20.500	20.500

Duration does not increase appreciably with maturity. In fact, with fixed yield, duration increases only to a finite limit as maturity is increased.

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Duration and Sensitivity

Duration is useful because it measures directly the sensitivity of price to changes in yield. This follows from a simple expression for the derivative of the present value expression.

In the case where payments are made m times per year and yield is based on those same periods, we have

$$\mathrm{PV}_k = \frac{c_k}{[1 + (\lambda/m)]^k}.$$

The derivative with respect to λ is

$$\frac{\mathrm{d}\,\mathrm{PV}_k}{\mathrm{d}\lambda} = \frac{-(k/m)c_k}{[1 + (\lambda/m)]^{k+1}} = -\frac{k/m}{1 + (\lambda/m)}\mathrm{PV}_k.$$

We now apply this to the expression for price,

$$P = \sum_{k=1}^{n} \mathrm{PV}_k.$$

Here we have used the fact that the price is equal to the total present value at the yield (by definition of yield). We find that

$$\frac{\mathrm{d}P}{\mathrm{d}\lambda} = \sum_{k=1}^{n} \frac{\mathrm{d}\,\mathrm{PV}_k}{\mathrm{d}\lambda} = -\sum_{k=1}^{n} \frac{(k/m)\mathrm{PV}_k}{1 + (\lambda/m)} = -\frac{1}{1 + (\lambda/m)} DP \equiv -D_M P. \tag{3.4}$$

The value D_M is called the **modified duration.** It is the usual duration modified by the extra term in the denominator. Note that $D_M \approx D$ for large values of m or small values of λ. We highlight this important sensitivity relation:

Price sensitivity formula *The derivative of price P with respect to yield λ of a fixed-income security is*

$$\frac{\mathrm{d}P}{\mathrm{d}\lambda} = -D_M P \tag{3.5}$$

where $D_M = D/[1 + (\lambda/m)]$ is the modified duration.

It is perhaps most revealing to write (3.5) as

$$\frac{1}{P}\frac{\mathrm{d}P}{\mathrm{d}\lambda} = -D_M.$$

The left side is then the relative change in price (or the fractional change). Hence D_M measures the relative change in a bond's price directly as λ changes.

By using the approximation $\mathrm{d}P/\mathrm{d}\lambda \approx \Delta P/\Delta\lambda$, Equation (3.5) can be used to estimate the change in price due to a small change in yield (or vice versa). Specifically, we would write

$$\Delta P \approx -D_M P\,\Delta\lambda.$$

This gives explicit values for the impact of yield variations.

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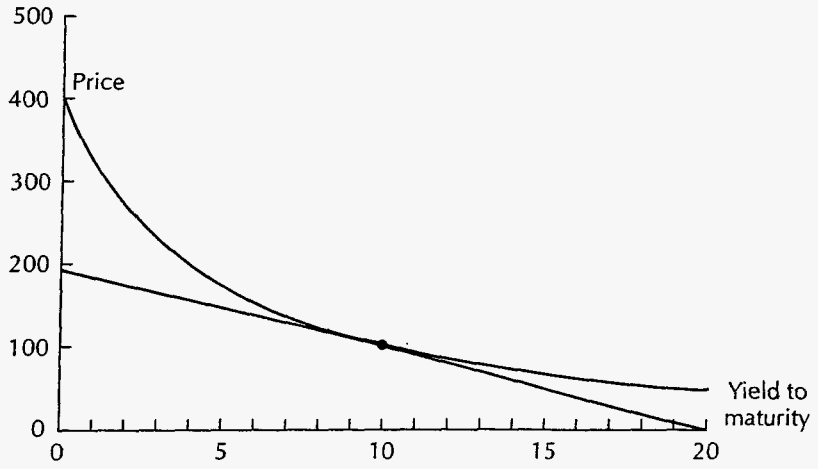


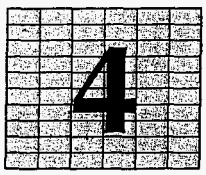
FIGURE 3.6 Price–yield curve and slope. The slope of the line tangent to the curve at P is $-D_M P$.

Example 3.8 (A 10% bond) The price–yield curve for a 30-year, 10% coupon bond is shown in Figure 3.6. As computed earlier, the duration of this bond at the par point (where price = 100) is $D = 9.94$. Hence $D_M = 9.94/1.05 = 9.47$. The slope of the price–yield curve at that point is, according to (3.3), equal to $dP/d\lambda = -947$. A line with this slope can be placed tangent to the price–yield curve at the point where the duration was calculated, as shown in Figure 3.6. This line provides a straight-line approximation to the curve for nearby points. For example, if the yield changes to 11%, we can estimate the change in price as

$$\Delta P = -D_M 100\, \Delta\lambda = -947 \times .01 = -9.47.$$

Hence $P \approx 90.53$.

Example 3.9 (A zero-coupon bond) Consider a 30-year zero-coupon bond. Suppose its current yield is 10%. Then we have $D = 30$ and $D_M \approx 27$. Suppose that yields increase to 11%. According to (3.5), the relative price change is approximately equal to 27%. This is a very large loss in value. Because of their long durations, zero-coupon bonds have very high interest rate risk.



THE TERM STRUCTURE OF INTEREST RATES

A richer theory of interest rates is explored in this chapter, as compared to that in previous chapters. The enriched theory allows for a whole family of interest rates at any one time—a different rate for each maturity time—providing a clearer understanding of the interest rate market and a foundation for more sophisticated investment analysis techniques.

4.1 THE YIELD CURVE

The yield to maturity of any bond is strongly tied to general conditions in the fixed-income securities market. All yields tend to move together in this market. However, all bond yields are not exactly the same.

The variation in yields across bonds is explained in part by the fact that bonds have various quality ratings. A strong AAA-rated bond is likely to cost more (and hence have lower yield) than a bond with an identical promised income stream but having a B-quality rating. It is only natural that high quality is more expensive than low quality. However, quality alone does not fully explain the observed variations in bond yields.

Another factor that partially explains the differences in the yields of various bonds is the time to maturity. As a general rule, "long" bonds (bonds with very distant maturity dates) tend to offer higher yields than "short" bonds of the same quality. The situation is depicted in Figure 4.1. The curve featured in this figure is an example of a **yield curve.** It displays yield as a function of time to maturity. The curve is constructed by plotting the yields of various available bonds of a given quality class. Figure 4.1 shows the yields for various government securities as a function of the maturity date. Note that the yields trace out an essentially smooth curve, which rises gradually as the time to maturity increases. A rising curve is a "normally shaped" yield curve; this shape occurs most often. However, the yield curve undulates around in time, somewhat like a branch in the wind, and can assume various other shapes. If long bonds happen to have *lower* yields than short bonds, the result is said to be an **inverted yield curve.** The inverted shape tends to occur when short-term rates

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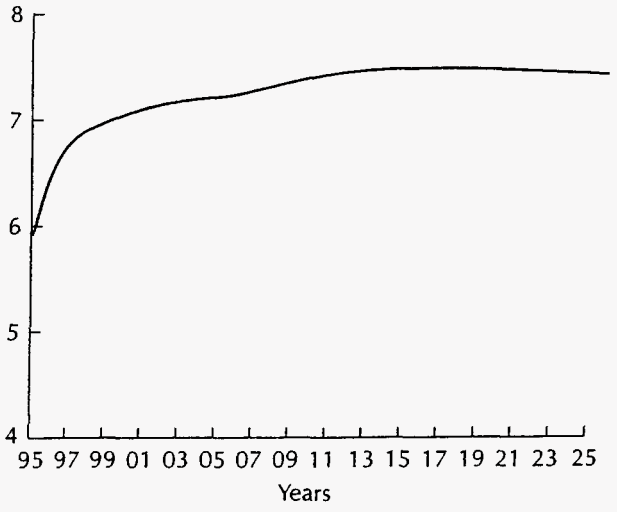

FIGURE 4.1 Yield curve. Yields are plotted as a function of maturity date. The curve shown here is typical and has a normal upward slope. Source: *Treasury Bulletin*, June 1995.

increase rapidly, and investors believe that the rise is temporary, so that long-term rates remain near their previous levels.

When studying a particular bond, it is useful to determine its yield and maturity date and place it as a point on the yield curve for bonds in its risk class. This will give a general indication of how it is priced relative to the overall market. If it is far from the curve, there is probably a reason, related to special situations or special features (such as call features of the bond or news affecting the potential solvency of the issuer).

The yield curve is helpful, but because it is a bit arbitrary, it does not provide a completely satisfactory explanation of yield differences. Why, for example, should the maturity date be used as the horizontal axis of the curve rather than, say, duration? A more basic theory is required, and such a theory is introduced in the next section.

4.2 THE TERM STRUCTURE

Term structure theory puts aside the notion of yield and instead focuses on pure interest rates. The theory is based on the observation that, in general, the interest rate charged (or paid) for money depends on the length of time that the money is held. Your local bank, for example, is likely to offer you a higher rate of interest for deposits committed for 3 years than for demand deposits (which can be withdrawn at any time). This basic fact, that the interest rate charged depends on the length of time that the funds are held, is the basis of term structure theory. This chapter works out the details and implications of that fact.

Spot Rates

Spot rates are the basic interest rates defining the term structure. The spot rate s_t is the rate of interest, expressed in yearly terms, charged for money held from the present

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time ($t = 0$) until time t. Both the interest and the original principal are paid at time t. Hence, in particular, s_1 is the 1-year interest rate; that is, it is the rate paid for money held 1 year. Similarly, the rate s_2 represents the rate that is paid for money held 2 years; however, it is expressed on an annualized basis. Thus if your bank promises to pay a rate of s_2 for a 2-year deposit of an amount A compounded yearly, it will actually repay $(1 + s_2)^2 A$ at the end of 2 years; your money grows by a factor of $(1 + s_2)^2$.

The definition of spot rates implicitly assumes a compounding convention, and this convention might vary with the purpose at hand. The preceding discussion assumed a 1-year compounding convention. It is common to use m periods per year, or continuous compounding, as well. In all cases the rates are usually still quoted as yearly rates. For completeness, we list the various possibilities:

(*a*) **Yearly** Under the yearly compounding convention, the spot rate s_t is defined such that

$$(1 + s_t)^t$$

is the factor by which a deposit held t years will grow. (Here t must be an integer, or an adjustment must be made.)

(*b*) **m periods per year** Under a convention of compounding m periods per year, the spot rate s_t is defined so that

$$(1 + s_t/m)^{mt}$$

is the corresponding factor. (Here mt must be an integer, so t must be an integral multiple of $1/m$.)

(*c*) **Continuous** Under a continuous compounding convention, the spot rate s_t is defined so that $e^{s_t t}$ is the corresponding growth factor. This formula applies directly to all values of t.

For theoretical purposes, continuous compounding is "neater" since the formulas apply without change to all values of t. The other methods require an adjustment for values of t between compounding dates. However, the yearly compounding convention is the most convenient, and it is the convention mainly used in this chapter.

Spot rates can, in theory, be measured by recording the yields of zero-coupon bonds. (In order to eliminate the influence of default risk, it would be best to consider only Treasury securities for this purpose.) Since a zero-coupon bond promises to pay a fixed amount at a fixed date in the future, the ratio of the payment amount to the current price defines the spot rate for the maturity date of the bond. By this measurement process we can develop a **spot rate curve,** which is analogous to the yield curve. Such a curve and a chart of the corresponding data are shown in Figure 4.2.

Discount Factors and Present Value

Once the spot rates have been determined, it is natural to define the corresponding **discount factors** d_t for each time point. These are the factors by which future cash flows

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Years	Spot Rate
1	5.571
2	6.088
3	6.555
4	6.978
5	7.361
6	7.707
7	8.020
8	8.304
9	8.561
10	8.793
11	9.003
12	9.193
13	9.365
14	9.520
15	9.661
16	9.789
17	9.904
18	10.008
19	10.103
20	10.188

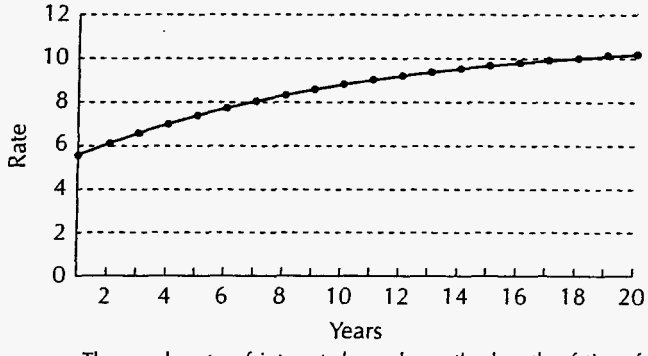

FIGURE 4.2 Spot rate curve. The yearly rate of interest depends on the length of time funds are held.

must be multiplied to obtain an equivalent present value. For the various compounding conventions, they are defined as follows:

(*a*) **Yearly** For yearly compounding,

$$d_k = \frac{1}{(1+s_k)^k}.$$

(*b*) ***m* periods per year** For compounding m periods per year,

$$d_k = \frac{1}{(1+s_k/m)^{mk}}.$$

(*c*) **Continuous** For continuous compounding,

$$d_t = e^{-s_t t}.$$

The discount factors transform future cash flows directly into an equivalent present value. Hence given any cash flow stream $(x_0, x_1, x_2, \ldots, x_n)$, the present value, relative to the prevailing spot rates, is

$$\text{PV} = x_0 + d_1x_1 + d_2x_2 + \cdots + d_nx_n.$$

The discount factor d_k acts like a *price* for cash received at time k. We determine the value of a stream by adding up "price times quantity" for all the cash components of the stream.

TABLE 4.1
Bond Evaluation

Year	1	2	3	4	5	6	7	8	9	10	Total PV
Discount	.947	.889	.827	.764	.701	.641	.583	.528	.477	.431	
Cash flow	8	8	8	8	8	8	8	8	8	108	
PV	7.58	7.11	6.61	6.11	5.61	5.12	4.66	4.22	3.82	46.50	97.34

Each cash flow is discounted by the discount factor for its time.

Example 4.1 (Price of a 10-year bond) Using the spot rate curve of Figure 4.2, let us find the value of an 8% bond maturing in 10 years.

Normally, for bonds we would use the rates and formulas for 6-month compounding; but for this example let us assume that coupons are paid only at the end of each year, starting a year from now, and that 1-year compounding is consistent with our general evaluation method. We write the cash flows together with the discount factors, take their products, and then sum, as shown in Table 4.1. The value of the bond is found to be 97.34.

Example 4.2 (Simplico gold mine) Consider the lease of the Simplico gold mine discussed in Chapter 2, Example 2.6, but now let us assume that interest rates follow the term structure pattern of Figure 4.2. We shall find the present value of the lease.

The cash flow stream is identical to that of the earlier example; namely, \$2M each year for 10 years. The present value is therefore just the sum of the first 10 discount figures multiplied by \$2M, for a total of \$13.58M.

Determining the Spot Rate

The obvious way to determine a spot rate curve is to find the prices of a series of zero-coupon bonds with various maturity dates. Unfortunately the set of available zero-coupon bonds is typically rather sparse, and, indeed, until recently there were essentially no "zeros" available with long maturities. Thus it is not always practical to determine a complete set of spot rates this way. However, the existence of zero-coupon bonds is not necessary for the concept of spot rates to be useful, nor are they needed as data to determine the spot rate value.

The spot rate curve can be determined from the prices of coupon-bearing bonds by beginning with short maturities and working forward toward longer maturities. We illustrate the process for the 1-year compounding convention (and assuming coupons are paid only once a year). First determine s_1 by direct observation of the 1-year interest rate—as determined, for example, by the 1-year Treasury bill rate. Next consider a 2-year bond. Suppose that bond has price P, makes coupon payments of amount C at

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the end of both years, and has a face value F. The price should equal the discounted value of the cash flow stream, so we can write

$$P = \frac{C}{1+s_1} + \frac{C+F}{(1+s_2)^2}.$$

Since s_1 is already known, we can solve this equation for s_2. Working forward this way, by next considering 3-year bonds, then 4-year bonds, and so forth, we can determine $s_3, s_4, \ldots$, step by step.

Spot rates can also be determined by a subtraction process. Two bonds of different coupon rates but identical maturity dates can be used to construct the equivalent of a zero-coupon bond. The following example illustrates the method.

Example 4.3 (Construction of a zero) Bond A is a 10-year bond with a 10% coupon. Its price is $P_A = 98.72$. Bond B is a 10-year bond with an 8% coupon. Its price is $P_B = 85.89$. Both bonds have the same face value, normalized to 100.

Consider a portfolio with $-.8$ unit of bond A and 1 unit of bond B. This portfolio will have a face value of 20 and a price of $P = P_B - .8P_A = 6.914$. The coupon payments cancel, so this is a zero-coupon portfolio. The 10-year spot rate s_{10} must satisfy $(1+s_{10})^{10}P = 20$. Thus $s_{10} = 11.2\%$.

In practice, since spot rates are an idealization, and the spot rates implied by different bonds may differ slightly from one another, it is advisable to modify these procedures to incorporate an averaging method when estimating the spot rates. (See Exercise 4.)

4.3 FORWARD RATES

An elegant and useful concept emerges directly from the definition of spot rates; namely, the concept of forward rates. **Forward rates** are interest rates for money to be borrowed between two dates in the future, *but under terms agreed upon today.*

It is easiest to explain the concept for a 2-year situation. Suppose that s_1 and s_2 are known. If we leave \$1 in a 2-year account it will, by definition, grow to $\$(1+s_2)^2$ at the end of the 2 years. Alternatively, we might place the \$1 in a 1-year account and simultaneously make arrangements that the proceeds, which will be $\$(1+s_1)$, will be lent for 1 year starting a year from now. That loan will accrue interest at a prearranged rate (agreed upon now) of say f. The rate f is the forward rate for money to be lent in this way. The final amount of money we receive at the end of 2 years under this compound plan is $\$(1+s_1)(1+f)$.

We now invoke the comparison principle. We have two alternative methods for investing \$1 for 2 years. The first returns $(1+s_2)^2$ and the second returns $(1+s_1)(1+f)$.

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These two should be equal, since both are available.[1] Thus we have

$$(1 + s_2)^2 = (1 + s_1)(1 + f)$$

or

$$f = \frac{(1 + s_2)^2}{1 + s_1} - 1.$$

Hence the forward rate is determined by the two spot rates.

We can justify the use of the comparison principle here through an **arbitrage argument.** If these two methods of investing money did not return the same amount, then there would be an opportunity to make arbitrage profits—defined to be either instantaneous profit or sure future profit with zero net investment. In the preceding example, if $(1 + s_1)(1 + f) > (1 + s_2)^2$, meaning that the second method of investment returned more than the first, then an arbitrageur could reverse the first plan (by *borrowing* for 2 years) and then carry out the second plan by investing the money that was borrowed. This arbitrageur would have zero net investment because he or she used only borrowed capital, but after repaying the loan the arbitrageur would have a profit factor of $(1 + s_1)(1 + f) - (1 + s_2)^2 > 0$. This arbitrage scheme could be carried out at any magnitude, and hence, in theory, the arbitrageur could make very large sums of money from no initial capital. We assume that it is not possible to implement this scheme in the market because potential arbitrageurs are always on the lookout for such discrepancies. If a slight discrepancy does arise, they take advantage of it, and this action tends to close the gap in rates. If the inequality were in the other direction, the arbitageur could just reverse the procedure. Thus equality must hold.

The arbitrage argument assumes that there are no transaction costs—either real costs such as brokerage fees or opportunity costs related to the time and effort of finding the discrepancy and arranging for the trades. The argument also assumes that the borrowing and lending rates are identical. If there were transaction costs or unequal rates, there could be a slight "wedge" between the 2-year rates associated with the two alternative strategies. However, in practice the transaction cost associated with a highly liquid security such as a U.S. Treasury is a very small fraction of the security's total cost, especially if large amounts are involved; and borrowing and lending rates are quite close, again if large amounts of capital are involved. So although the arbitrage argument represents an idealization, it is in practice a reasonable approximation.

The comparison principle can be used to argue that the two overall rates must be equal even in the absence of arbitrageurs. If there were a difference in rates, then investors seeking to loan money for 2 years would choose the best alternative—and so would borrowers. Market forces would tend to equalize the rates.

Example 4.4 Suppose that the spot rates for 1 and 2 years are, respectively, $s_1 = 7\%$ and $s_2 = 8\%$. We then find that the forward rate is $f = (1.08)^2/1.07 - 1 = .0901 = 9.01\%$. Hence the 2-year 8% rate can be obtained either as a direct 2-year investment, or by investing for 1 year at 7% followed by a second year at 9.01%.

[1] Forward contracts of this type are actually implemented by the use of futures contracts on Treasury securities, as explained in Chapter 10. They are highly liquid, so forwards of this type are obtained easily.

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This discussion can be generalized to define other forward rates between different time periods. The rate f used earlier is more completely labeled as $f_{1,2}$ because it is the forward rate between years 1 and 2. In general we use the following:

Forward rate definition *The forward rate between times t_1 and t_2 with $t_1 < t_2$ is denoted by f_{t_1,t_2}. It is the rate of interest charged for borrowing money at time t_1 which is to be repaid (with interest) at time t_2.*

In general, forward rates are expressed on an annualized basis, like other interest rates, unless another basis is explicitly specified.

In the market there could be more than one rate for any particular forward period. For example, the forward rate for borrowing may differ from that for lending. Thus when discussing market rates one must be specific. However, in theoretical discussions the definition of forward rates is based on an underlying set of spot rates (which themselves generally represent idealizations or averages of market conditions). These calculated forward rates are often termed **implied forward rates** to distinguish them from **market forward rates.**

The implied forward rates are found by extending the logic given earlier for assigning the value $f_{1,2}$. If we use 1-year compounding, the basic forward rates are defined between various yearly periods. They are defined to satisfy the following equation (for $i < j$):

$$(1 + s_j)^j = (1 + s_i)^i (1 + f_{i,j})^{j-i}.$$

The left side of this equation is the factor by which money grows if it is directly invested for j years. This amount is determined by the spot rate s_j. The right side of the equation is the factor by which money grows if it is invested first for i years and then in a forward contract (arranged now) between years i and j. The term $(1 + f_{i,j})$ is raised to the $(j - i)$th power because the forward rate is expressed in yearly terms.

The extension to other compounding conventions is straightforward. For completeness, the formulas for forward rates (expressed as yearly rates) under various compounding conventions are listed here:

Forward rate formulas *The implied forward rate between times t_1 and $t_2 > t_1$ is the rate of interest between those times that is consistent with a given spot rate curve. Under various compounding conventions the forward rates are specified as follows:*

(a) **Yearly** *For yearly compounding, the forward rates satisfy, for $j > i$,*

$$(1 + s_j)^j = (1 + s_i)^i (1 + f_{i,j})^{j-i}.$$

Hence,

$$f_{i,j} = \left[\frac{(1 + s_j)^j}{(1 + s_i)^i}\right]^{1/(j-i)} - 1.$$

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(b) **m periods per year** *For m period-per-year compounding, the forward rates satisfy, for $j > i$, expressed in periods,*

$$(1 + s_j/m)^j = (1 + s_i/m)^i (1 + f_{i,j}/m)^{(j-i)}.$$

Hence,

$$f_{i,j} = m\left[\frac{(1 + s_j/m)^j}{(1 + s_i/m)^i}\right]^{1/(j-i)} - m.$$

(c) **Continuous** *For continuous compounding, the forward rates f_{t_1,t_2} are defined for all t_1 and t_2, with $t_2 > t_1$, and satisfy*

$$e^{s_{t_2}t_2} = e^{s_{t_1}t_1} e^{f_{t_1,t_2}(t_2 - t_1)}.$$

Hence,

$$f_{t_1,t_2} = \frac{s_{t_2}t_2 - s_{t_1}t_1}{t_2 - t_1}.$$

Note again that continuous compounding produces the simplest formula. As a further convention, it is useful to define spot rates, discount factors, and forward rates when one of the time points is zero, representing current time. Hence we define $s_{t_0} = 0$ and correspondingly $d_{t_0} = 1$, where t_0 is the current time. (Alternatively we write $s_0 = 0$ and $d_0 = 1$ when denoting time by period integers.) For forward rates, we write similarly $f_{t_0,t_1} = s_{t_1}$. The forward rates from time zero are the corresponding spot rates.

There are a large number of forward rates associated with a spot rate curve. In fact, if there are n periods, there are n spot rates (excluding s_0); and there are $n(n + 1)/2$ forward rates (including the basic spot rates.) However, all these forward rates are derived from the n underlying spot rates.

The forward rates are introduced partly because they represent rates of actual transactions. Forward contracts do in fact serve a very important hedging role, and their use in this manner is discussed further in Chapter 10. They are introduced here, however, mainly because they are important for the full development of the term structure theory. They are used briefly in the next section and then extensively in the section following that.

4.4 TERM STRUCTURE EXPLANATIONS

The yield curve can be observed, at least roughly, by looking at a series of bond quotes in the financial press. The curve is almost never *flat* but, rather, it usually slopes gradually upward as maturity increases. The spot rate curve has similar characteristics. Typically it, too, slopes rapidly upward at short maturities and continues to slope upward, but more gradually as maturities lengthen. It is natural to ask if there is a simple explanation for this typical shape. Why is the curve not just flat at a common interest rate?

There are three standard explanations (or "theories") for the term structure, each of which provides some important insight. We outline them briefly in this section.

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Expectations Theory

The first explanation is that spot rates are determined by expectations of what rates will be in the future. To visualize this process, suppose that, as is usually the case, the spot rate curve slopes upward, with rates increasing for longer maturities. The 2-year rate is greater than the 1-year rate. It is argued that this is so because the market (that is, the collective of all people who trade in the interest rate market) believes that the 1-year rate will most likely go up next year. (This belief may, for example, be because most people believe inflation will rise, and thus to maintain the same real rate of interest, the nominal rate must increase.) This majority belief that the interest rate will rise translates into a market *expectation*. An expectation is only an average guess; it is not definite information—for no one knows for sure what will happen next year—but people on average assume, according to this explanation, that the rate will increase.

This argument is made more concrete by expressing the expectations in terms of forward rates. This more precise formulation is the **expectations hypothesis.** To outline this hypothesis, consider the forward rate $f_{1,2}$, which is the implied rate for money loaned for 1 year, a year from now. According to the expectations hypothesis, this forward rate is *exactly* equal to the market expectation of what the 1-year spot rate will be next year. Thus the expectation can be inferred from existing rates.

Earlier we considered a situation where $s_1 = 7\%$ and $s_2 = 8\%$. We found that the implied forward rate was $f_{1,2} = 9.01\%$. According to the unbiased expectations hypothesis, this value of 9.01% is the market's expected value of next year's 1-year spot rate s_1'.

The same argument applies to the other rates as well. As additional spot rates are considered, they define corresponding forward rates for next year. Specifically, s_1, s_2, and s_3 together determine the forward rates $f_{1,2}$ and $f_{1,3}$. The second of these is the forward rate for borrowing money for 2 years, starting next year. This rate is assumed to be equal to the current expectation of what the 2-year spot rate s_2' will be next year. In general, then, the current spot rate curve leads to a set of forward rates $f_{1,2}, f_{1,3}, \ldots, f_{1,n}$, which define the expected spot rate curve $s_1', s_2', \ldots, s_{n-1}'$ for next year. The expectations are inherent in the current spot rate structure.

There are two ways of looking at this construction. One way is that the current spot rate curve implies an expectation about what the spot rate curve will be next year. The other way is to turn this first view around and say that the expectation of next year's curve determines what the current spot rate curve must be. Both views are intertwined; expectations about future rates are part of today's market and influence today's rates.

This theory or hypothesis is a nice explanation of the spot rate curve, even though it has some important weaknesses. The primary weakness is that, according to this explanation, the market expects rates to increase whenever the spot rate curve slopes upward; and this is practically all the time. Thus the expectations cannot be right even on average, since rates do not go up as often as expectations would imply. Nevertheless, the expectations explanation is plausible, although the expectations may themselves be skewed.

The expectations explanation of the term structure can be regarded as being (loosely) based on the comparison principle. To see this, consider again the 2-year

situation. An investor can invest either in a 2-year instrument or in a 1-year instrument followed by another 1-year investment. The follow-on investment can also be carried out two ways. It can be arranged currently through a forward contract at rate $f_{1,2}$, or it can simply be "rolled over" by reinvesting the following year at the then prevailing 1-year rate. A wise investor would compare the two alternatives. If the investor expects that next year's 1-year rate will equal the current value of $f_{1,2}$, then he or she will be indifferent between these two alternatives. Indeed, the fact that both are viable implies that they must seem (approximately) equal.

Liquidity Preference

The liquidity preference explanation asserts that investors usually prefer short-term fixed income securities over long-term securities. The simplest justification for this assertion is that investors do not like to tie up capital in long-term securities, since those funds may be needed before the maturity date. Investors prefer their funds to be **liquid** rather than tied up. However, the term *liquidity* is used in a slightly nonstandard way in this argument. There are large active markets for bonds of major corporations and of the Treasury, so it is easy to sell any such bonds one might hold. Short-term and long-term bonds of this type are equally liquid.

Liquidity is used in this explanation of the term structure shape instead to express the fact that most investors prefer short-term bonds to long-term bonds. The reason for this preference is that investors anticipate that they may need to sell their bonds soon, and they recognize that long-term bonds are more sensitive to interest rate changes than are short-term bonds. Hence an investor who may need funds in a year or so will be be reluctant to place these funds in long-term bonds because of the relatively high near-term risk associated with such bonds. To lessen risk, such an investor prefers short-term investments. Hence to induce investors into long-term instruments, better rates must be offered for long bonds. For this reason, according to the theory, the spot rate curve rises.

Market Segmentation

The market segmentation explanation of the term structure argues that the market for fixed-income securities is segmented by maturity dates. This argument assumes that investors have a good idea of the maturity date that they desire, based on their projected need for future funds or their risk preference. The argument concludes that the group of investors competing for long-term bonds is different from the group competing for short-term bonds. Hence there need be no relation between the prices (defined by interest rates) of these two types of instruments; short and long rates can move around rather independently. Taken to an extreme, this viewpoint suggests that all points on the spot rate curve are mutually independent. Each is determined by the forces of supply and demand in its own market.

A moderated version of this explanation is that, although the market is basically segmented, individual investors are willing to shift segments if the rates in an adja-

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cent segment are substantially more attractive than those of the main target segment. Adjacent rates cannot become grossly out of line with each other. Hence the spot rate curve must indeed be a curve rather than a jumble of disjointed numbers, but this curve can bend in various ways, depending on market forces.

Discussion

Certainly each of the foregoing explanations embodies an element of truth. The whole truth is probably some combination of them all.

The expectations theory is the most analytical of the three, in the sense that it offers concrete numerical values for expectations, and hence it can be tested. These tests show that it works reasonably well with a deviation that seems to be explained by liquidity preference. Hence expectations tempered by the risk considerations of liquidity preference seem to offer a good straightforward explanation.

4.5 EXPECTATIONS DYNAMICS

The concept of market expectations introduced in the previous section as an explanation for the shape of the spot rate curve can be developed into a useful tool in its own right. This tool can be used to form a plausible **forecast** of future interest rates.

Spot Rate Forecasts

The basis of this method is to assume that the expectations implied by the current spot rate curve will actually be fulfilled. Under this assumption we can then predict next year's spot rate curve from the current one. This new curve implies yet another set of expectations for the following year. If we assume that these, too, are fulfilled, we can predict ahead once again. Going forward in this way, an entire future of spot rate curves can be predicted. Of course, it is understood that these predicted spot rate curves are based on the assumption that expectations will be fulfilled (and we recognize that this may not happen), but once made, the assumption does provide a logical forecast.

Let us work out some of the details. We begin with the current spot rate curve $s_1, s_2, \ldots, s_n$, and we wish to estimate next year's spot rate curve $s'_1, s'_2, \ldots, s'_{n-1}$. The current forward rate $f_{1,j}$ can be regarded as the expectation of what the interest rate will be next year—measured from next year's current time to a time $j-1$ years ahead—in other words, $f_{1,j}$ is next year's spot rate s'_{j-1}. Explicitly,[2]

$$s'_{j-1} = f_{1,j} = \left[\frac{(1+s_j)^j}{1+s_1}\right]^{1/(j-1)} - 1 \tag{4.1}$$

[2]Recall that this formula for $f_{i,j}$ was given in Section 4.3. It is derived from the relation $(1+s_j)^j = (1+f_{1,j})^{j-1}(1+s_1)$.

for $1 < j \leq n$. This is the basic formula for updating a spot rate curve under the assumption that expectations are fulfilled. Starting with the current curve, we obtain an estimate of next year's curve.

We term this transformation **expectations dynamics,** since it gives an explicit characterization of the dynamics of the spot rate curve based on the expectations assumption. Other assumptions are certainly possible. For instance, we could assume that the spot rate curve will remain unchanged, or that it will shift upward by a fixed amount, and so forth; however, expectations dynamics has a nice logical appeal.

The expectations process can be carried out for another step to obtain the spot rate curve for the third year, and so forth. Note, however, that if the original curve has finite length, each succeeding curve is shorter by one term—and hence the curves eventually become quite short. This problem can be rectified by initially assuming a very long (or infinite) spot rate curve, or by adding a new s_n term each year. This latter approach would require an additional hypothesis.

Example 4.5 (A simple forecast) Let us take as given the spot rate curve shown in the first row of the table. The second row is then the forecast of next year's spot rate curve under expectations dynamics. This row is found using (4.1).

	s_1	s_2	s_3	s_4	s_5	s_6	s_7
Current	6.00	6.45	6.80	7.10	7.36	7.56	7.77
Forecast	6.90	7.20	7.47	7.70	7.88	8.06	

The first two entries in the second row were computed as follows:

$$f_{1,2} = \frac{(1.0645)^2}{1.06} - 1 = .069$$

$$f_{1,3} = \left[\frac{(1.068)^3}{1.06}\right]^{1/2} - 1 = .072.$$

All future spot rate curves implied by an initial spot rate curve can be displayed by listing all of the forward rates associated with the initial spot rate curve. Such a list is shown in a triangular array:

$$\begin{array}{llllllll}
f_{0,1} & f_{0,2} & f_{0,3} & \cdots & f_{0,n-2} & f_{0,n-1} & f_{0,n} \\
f_{1,2} & f_{1,3} & f_{1,4} & \cdots & f_{1,n-1} & f_{1,n} & \\
f_{2,3} & f_{2,4} & f_{2,5} & \cdots & f_{2,n} & & \\
\vdots & \vdots & & & & & \\
f_{n-2,n-1} & f_{n-2,n} & & & & & \\
f_{n-1,n}. & & & & & &
\end{array}$$

The first row of the array lists the forward rates from the initial time. These are identical to the spot rates themselves; that is, $s_j = f_{0,j}$ for all j with $0 < j \leq n$.

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The next row lists the forward rates from time 1. These will be next year's spot rates according to expectations dynamics. The third row will be the spot rates for the third year, and so forth.

Discount Factors

Another important concept is that of a **discount factor** between two times. The discount factors are, of course, fundamental quantities used in present value calculations.

It is useful to apply a double indexing system to the discount factors paralleling the system used for forward rates. Accordingly, the symbol $d_{j,k}$ denotes the discount factor used to discount cash received at time k back to an equivalent amount of cash at time j. The normal, time zero, discount factors are $d_1 = d_{0,1}, d_2 = d_{0,2}, \ldots, d_n = d_{0,n}$. The discount factors can be expressed in terms of the forward rates as

$$d_{j,k} = \left[\frac{1}{1 + f_{j,k}}\right]^{k-j}.$$

The discount factors are related by a compounding rule: to discount from time k back to time i, one can first discount from time k back to an intermediate time j and then discount from j back to i. In other words, $d_{i,k} = d_{i,j}d_{j,k}$ for $i < j < k$.

Discount factor relation *The discount factor between periods i and j is defined as*

$$d_{i,j} = \left[\frac{1}{1 + f_{i,j}}\right]^{j-i}.$$

These factors satisfy the compounding rule

$$d_{i,k} = d_{i,j}d_{j,k}$$

for $i < j < k$.

Short Rates

Short rates are the forward rates spanning a single time period. The short rate at time k is accordingly $r_k = f_{k,k+1}$; that is, it is the forward rate from k to $k + 1$. The short rates can be considered fundamental just as spot rates, for a complete set of short rates fully specifies a term structure.

The spot rate s_k is found from the short rates from the fact that interest earned from time zero to time k is identical to the interest that would be earned by rolling over an investment each year. Specifically,

$$(1 + s_k)^k = (1 + r_0)(1 + r_1)\cdots(1 + r_{k-1}).$$

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The relation generalizes because all forward rates can be found from the short rates in a similar way. Specifically,

$$(1 + f_{i,j})^{j-i} = (1 + r_i)(1 + r_{i+1}) \cdots (1 + r_{j-1}) .$$

Hence the short rates form a convenient basis for generating all other rates.

The short rates are especially appealing in the context of expectations dynamics, because they do not change from year to year, whereas spot rates do. Given the initial short rates $r_0, r_1, r_2, \ldots, r_{n-1}$, next year (under expectations dynamics) the short rates will be $r_1, r_2, \ldots, r_{n-1}$. The short rate for a specific year does not change; however, that year is 1 year closer to the sliding current time. For example, if we are at the beginning of year 2020, the short rate r_4 is the rate for the year beginning January 2024. A year later, in 2021, the new r_3 will be the rate for the year 2024 and this short rate will be identical (under expectations dynamics) to the previous r_4.

An example of a complete set of forward rates, discount factors, and short rates is shown in Table 4.2. Here the rows represent the rates or factors for a given year: the top row of each array contains the initial rates or factors for 7 years forward. The forward rate array is, as discussed, identical to the spot rate array. Hence the basic spot rate curve is defined by the top line of the forward rate array. Everything else is derived from that single row. The discount factors for the current time are those listed in the top row of the discount factor array. These are the values used to find the present values of future cash flows. Note that successive rows of the short rate table are just shifted versions of the rows above. Short rates remain fixed in absolute time.

TABLE 4.2
Forward Rates, Discount Factors, and Short Rates

Forward rates							Short rates						
6.00	6.45	6.80	7.10	7.36	7.56	7.77	6.00	6.90	7.50	8.00	8.40	8.60	9.00
6.90	7.20	7.47	7.70	7.88	8.06		6.90	7.50	8.00	8.40	8.60	9.00	
7.50	7.75	7.97	8.12	8.30			7.50	8.00	8.40	8.60	9.00		
8.00	8.20	8.33	8.50				8.00	8.40	8.60	9.00			
8.40	8.50	8.67					8.40	8.60	9.00				
8.60	8.80						8.60	9.00					
9.00							9.00						

Discount factors						
.943	.883	.821	.760	.701	.646	.592
.935	.870	.806	.743	.684	.628	
.930	.861	.795	.732	.671		
.926	.854	.787	.722			
.923	.849	.779				
.921	.845					
.917						

The original spot rate curve is defined by the top row of the forward rate array. All other terms are derived from this row.

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Invariance Theorem

Suppose that you have a sum of money to invest in fixed-income securities, and you will not draw from these funds for n periods (say, n years). You will invest only in Treasury instruments, and there is a current known spot rate curve for these securities. You have a multitude of choices for structuring a portfolio using your available money. You may select some bonds with long maturities, some zero-coupon bonds, and some bonds with short maturities. If you select a mix of these securities, then, as time passes, you will obtain income from coupons and from the redemption of the short maturity bonds. You may also elect to sell some bonds early, before maturity. As income is generated in these ways, you will reinvest this income in other bonds; again you have a multitude of choices. Finally you will cash out everything at time period n. How should you invest in order to obtain the maximum amount of money at the terminal time?

To address this question, you must have a model of how interest rates will change in the intervening years, since future rates will determine the prices for bonds that you sell early and those that you buy when reinvesting income. There are a variety of models you could select (some of which might involve randomness, as discussed in Chapter 14), but a straightforward choice is to assume expectations dynamics—so let us make that assumption. Let us assume that the initial spot rate curve is transformed, after 1 year, to a new curve in accordance with the updating formula presented earlier. This updating is repeated each year. Now, how should you invest?

The answer is revealed by the title of this subsection. It makes absolutely *no* difference how you invest (as long as you remain fully invested). All choices will produce exactly the same result. In particular, investing in a single zero-coupon bond will produce this invariant amount, which is, accordingly, $(1+s_n)^n$ times your original sum of money. This result is spelled out in the following theorem:

Invariance theorem *Suppose that interest rates evolve according to expectations dynamics. Then (assuming a yearly compounding convention) a sum of money invested in the interest rate market for n years will grow by a factor of* $(1 + s_n)^n$ *independent of the investment and reinvestment strategy (so long as all funds are fully invested).*

> ***Proof:*** The conclusion is easiest to see from the example used earlier. Suppose that $n = 2$. You have two basic choices for investment. You can invest in a 2-year zero-coupon bond, or you can invest in a 1-year bond and then reinvest the proceeds at the end of the year. Under expectations dynamics, the reinvestment rate after 1 year will be equal to the current forward rate $f_{1,2}$. Both of these choices lead to a growth of $(1 + s_2)^2$. Any other investment, such as a 2-year bond that makes a coupon payment after 1 year that must be reinvested, will be a combination of these two basic strategies. It should be clear that a similar argument applies for any n. ∎

The simplest way to internalize this result is to think in terms of the short rates. Every investment earns the relevant short rates over its duration. A 10-year zero-

coupon bond earns the 10 short rates that are defined initially. An investment rolled over year by year for 10 years earns the 10 short rates that happen to occur. Under expectations dynamics, the short rates do not change; that is, the rate initially implied for a specified period in the future will be realized when that period arrives. Hence no matter how an initial sum is invested, it will progress step by step through each of the short rates.

This theorem is very helpful in discussing how to structure an actual portfolio. It shows that the motivation for selecting a mixture of bonds must be due to anticipated deviations from expectations dynamics—deviations of the realized short rates from their originally implied values. Expectations dynamics is, therefore, in a sense the *simplest* assumption about the future because it implies invariance of portfolio growth with respect to strategy.

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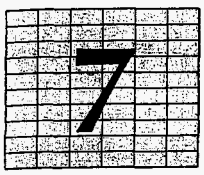

THE CAPITAL ASSET PRICING MODEL

Two main problem types dominate the discipline of investment science. The first is to determine the best course of action in an investment situation. Problems of this type include how to devise the best portfolio, how to devise the optimal strategy for managing an investment, how to select from a group of potential investment projects, and so forth. Several examples of such problems were treated in Part 1 of this book. The second type of problem is to determine the correct, arbitrage-free, fair, or equilibrium price of an asset. We saw examples of this in Part 1 as well, such as the formula for the correct price of a bond in terms of the term structure of interest rates, and the formula for the appropriate value of a firm.

This chapter concentrates mainly on the pricing issue. It deduces the correct price of a risky asset within the framework of the mean–variance setting. The result is the **capital asset pricing model** (CAPM) developed primarily by Sharpe, Lintner, and Mossin, which follows logically from the Markowitz mean–variance portfolio theory described in the previous chapter. Later in this chapter we discuss how this result can be applied to investment decision problems.

7.1 MARKET EQUILIBRIUM

Suppose that everyone is a mean–variance optimizer as described in the previous chapter. Suppose further that everyone agrees on the probabilistic structure of assets; that is, everyone assigns to the returns of assets the same mean values, the same variances, and the same covariances. Furthermore, assume that there is a unique risk-free rate of borrowing and lending that is available to all, and that there are no transactions costs. With these assumptions what will happen?

From the one-fund theorem we know that everyone will purchase a single fund of risky assets, and they may, in addition, borrow or lend at the risk-free rate. Furthermore, since everyone uses the same means, variances, and covariances, everyone will use the

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same risky fund. The mix of these two assets, the risky fund and the risk-free asset, will likely vary across individuals according to their individual tastes for risk. Some will seek to avoid risk and will, accordingly, have a high percentage of the risk-free asset in their portfolios; others, who are more aggressive, will have a high percentage of the risky fund. However, every individual will form a portfolio that is a mix of the risk-free asset and the single, risky *one fund*. Hence the *one fund* in the theorem is really the *only fund* that is used.

If everyone purchases the same fund of risky assets, what must that fund be? The answer to this question is the key insight underlying the CAPM. A bit of reflection reveals that the answer is that this fund must equal the **market portfolio.** The market portfolio is the summation of all assets. In the world of equity securities, it is the totality of shares of IBM, GM, DIS, and so forth. If everyone buys just one fund, and their purchases add up to the market, then that one fund must be the market as well; that is, it must contain shares of every stock in proportion to that stock's representation in the entire market.

An asset's weight in a portfolio is defined as the proportion of portfolio capital that is allocated to that asset. Hence the weight of an asset in the market portfolio is equal to the proportion of that asset's total capital value to the total market capital value. These weights are termed **capitalization weights.** It is these weights that we usually denote by w_i. In other words, the w_i's of the market portfolio are the capitalization weights of the assets.

The exact definition of the market portfolio is illustrated as follows. Suppose there are only three stocks in the market: Jazz, Inc., Classical, Inc., and Rock, Inc. Their outstanding shares and prices are shown in Table 7.1. The market weights are proportional to the total market capitalization, not to the number of shares.

In the situation where everyone follows the mean–variance methodology with the same estimates of parameters, we know that the efficient fund of risky assets will be the market portfolio. Hence under these assumptions there is no need for us to formulate the mean–variance problem, to estimate the underlying parameters, or to solve the system of equations that define the optimal portfolio. We know that the optimal portfolio will turn out to be the market portfolio.

TABLE 7.1
Market Capitalization Weights

Security	Shares outstanding	Relative shares in market	Price	Capitalization	Weight in market
Jazz, Inc.	10,000	1/8	$6.00	$60,000	3/20
Classical, Inc.	30,000	3/8	$4.00	$120,000	3/10
Rock, Inc.	40,000	1/2	$5.50	$220,000	11/20
Total	80,000	1		$400,000	1

The percentage of shares of a stock in the market portfolio is a share-weighted proportion of total shares. These percentages are not *the market portfolio weights. The market portfolio weight of a stock is proportional to capitalization. If the price of an asset changes, the share proportions do not change, but the capitalization weights do change.*

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How does this happen? How can it be that we solve the problem even without knowing the required data? The answer is based on an **equilibrium** argument. If everyone else (or at least a large number of people) solves the problem, we do not need to. It works like this: The return on an asset depends on both its initial price and its final price. The other investors solve the mean–variance portfolio problem using their common estimates, and they place orders in the market to acquire their portfolios. If the orders placed do not match what is available, the prices must change. The prices of assets under heavy demand will increase; the prices of assets under light demand will decrease. These price changes affect the estimates of asset returns directly, and hence investors will recalculate their optimal portfolios. This process continues until demand exactly matches supply; that is, it continues until there is equilibrium.

In the idealized world, where every investor is a mean–variance investor and all have the same estimates, everyone buys the same portfolio, and that must be equal to the market portfolio. In other words, prices adjust to drive the market to efficiency. Then after other people have made the adjustments, we can be sure that the efficient portfolio is the market portfolio, so we need not make any calculations.

This theory of equilibrium is usually applied to assets that are traded repeatedly over time, such as the stock market. In this case it is argued that individuals adjust their return estimates slowly, and only make a series of minor adjustments to their calculations rather than solving the entire portfolio optimization problem at one time.

Finally, in such equilibrium models it is argued that the appropriate equilibrium need be calculated by only a few devoted (and energetic) individuals. They move prices around to the proper value, and other investors follow their lead by purchasing the market portfolio.

These arguments about the equilibrium process all have a degree of plausibility, and all have weaknesses. Deeper analysis can be carried out, but for our purposes we will merely consider that equilibrium occurs. Hence the ultimate conclusion of the mean–variance approach is that the *one fund* must be the market portfolio.

7.2 THE CAPITAL MARKET LINE

Given the preceding conclusion that the single efficient fund of risky assets is the market portfolio, we can label this fund on the $\bar{r}$–σ diagram with an M for *market*. The efficient set therefore consists of a single straight line, emanating from the risk-free point and passing through the market portfolio. This line, shown in Figure 7.1, is called the **capital market line.**

This line shows the relation between the expected rate of return and the risk of return (as measured by the standard deviation) for efficient assets or portfolios of assets. It is also referred to as a pricing line, since prices should adjust so that efficient assets fall on this line.

The line has great intuitive appeal. It states that as risk increases, the corresponding expected rate of return must also increase. Furthermore, this relationship can be

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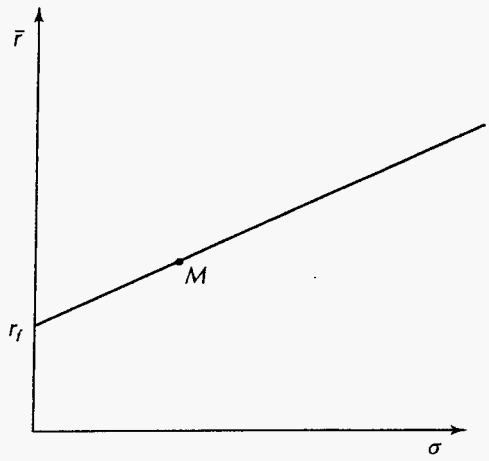

FIGURE 7.1 Capital market line. Efficient assets must all lie on the line determined by the risk-free rate and the market portfolio.

described by a straight line if risk is measured by standard deviation. In mathematical terms the capital market line states that

$$\bar{r} = r_f + \frac{\bar{r}_M - r_f}{\sigma_M}\sigma \tag{7.1}$$

where $\bar{r}_M$ and σ_M are the expected value and the standard deviation of the market rate of return and $\bar{r}$ and σ are the expected value and the standard deviation of the rate of return of an arbitrary efficient asset.

The slope of the capital market line is $K = (\bar{r}_M - r_f)/\sigma_M$, and this value is frequently called the **price of risk.** It tells by how much the expected rate of return of a portfolio must increase if the standard deviation of that rate increases by one unit.

Example 7.1 (The impatient investor) Mr. Smith is young and impatient. He notes that the risk-free rate is only 6% and the market portfolio of risky assets has an expected return of 12% and a standard deviation of 15%. He figures that it would take about 60 years for his $1,000.00 nest egg to increase to $1 million if it earned the market rate of return. He can't wait that long. He wants that $1 million in 10 years.

Mr. Smith easily determines that he must attain an average rate of return of about 100% per year to achieve his goal (since $\$1{,}000 \times 2^{10} = \$1{,}048{,}000$). Correspondingly, his yearly standard deviation according to the capital market line would be the value of σ satisfying

$$1.0 = .06 + \frac{.12 - .06}{.15}\sigma$$

or $\sigma = 10$. This corresponds to $\sigma = 1{,}000\%$. So this young man is certainly not guaranteed success (even if he could borrow the amount required to move far beyond the market on the capital market line).

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Example 7.2 (An oil venture) Consider an oil drilling venture. The price of a share of this venture is \$875. It is expected to yield the equivalent of \$1,000 after 1 year, but due to high uncertainty about how much oil is at the drilling site, the standard deviation of the return is $\sigma = 40\%$. Currently the risk-free rate is 10%. The expected rate of return on the market portfolio is 17%, and the standard deviation of this rate is 12%.

Let us see how this venture compares with assets on the capital market line. Given the level of σ, the expected rate of return predicted by the capital market line is

$$\bar{r} = .10 + \frac{.17 - .10}{.12}.40 = 33\%.$$

However, the actual expected rate of return is only $\bar{r} = 1{,}000/875 - 1 = 14\%$. Therefore the point representing the oil venture lies well below the capital market line. (This does *not* mean that the venture is necessarily a poor one, as we shall see later, but it certainly does not, by itself, constitute an efficient portfolio.)

7.3 THE PRICING MODEL

The capital market line relates the expected rate of return of an efficient portfolio to its standard deviation, but it does not show how the expected rate of return of an individual asset relates to its individual risk. This relation is expressed by the capital asset pricing model.

We state this major result as a theorem. The reader may wish merely to glance over the proof at first reading since it is a bit involved. We shall discuss the implications of the result following the proof.

The capital asset pricing model (CAPM) *If the market portfolio M is efficient, the expected return $\bar{r}_i$ of any asset i satisfies*

$$\bar{r}_i - r_f = \beta_i(\bar{r}_M - r_f) \tag{7.2}$$

where

$$\beta_i = \frac{\sigma_{iM}}{\sigma_M^2}. \tag{7.3}$$

Proof: For any α consider the portfolio consisting of a portion α invested in asset i and a portion $1 - \alpha$ invested in the market portfolio M. (We allow $\alpha < 0$, which corresponds to borrowing at the risk-free rate.) The expected rate of return of this portfolio is

$$\bar{r}_\alpha = \alpha\bar{r}_i + (1 - \alpha)\bar{r}_M$$

and the standard deviation of the rate of return is

$$\sigma_\alpha = [\alpha^2\sigma_i^2 + 2\alpha(1 - \alpha)\sigma_{iM} + (1 - \alpha)^2\sigma_M^2]^{1/2}.$$

As α varies, these values trace out a curve in the $\bar{r}$–σ diagram, as shown in Figure 7.2. In particular, $\alpha = 0$ corresponds to the market portfolio M. This

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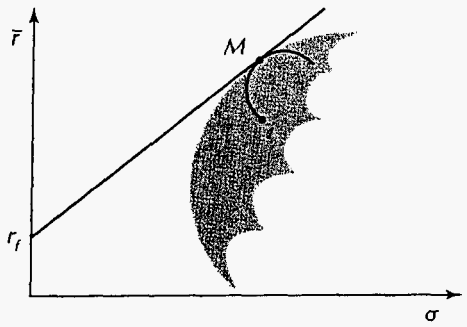

FIGURE 7.2 Portfolio curve. The family of portfolios traces out a curve on the diagram. This curve cannot cross the capital market line, and hence must be tangent to that line.

curve cannot cross the capital market line. If it did, the portfolio corresponding to a point above the capital market line would violate the very definition of the capital market line as being the efficient boundary of the feasible set. Hence as α passes through zero, the curve must be tangent to the capital market line at M. This tangency is the condition that we exploit to derive the formula.

The tangency condition can be translated into the condition that the slope of the curve is equal to the slope of the capital market line at the point M. To set up this condition we need to calculate a few derivatives.

First we have

$$\frac{d\bar{r}_\alpha}{d\alpha} = \bar{r}_i - \bar{r}_M$$

$$\frac{d\sigma_\alpha}{d\alpha} = \frac{\alpha\sigma_i^2 + (1-2\alpha)\sigma_{iM} + (\alpha-1)\sigma_M^2}{\sigma_\alpha}.$$

Thus,

$$\left.\frac{d\sigma_\alpha}{d\alpha}\right|_{\alpha=0} = \frac{\sigma_{iM} - \sigma_M^2}{\sigma_M}.$$

We then use the relation

$$\frac{d\bar{r}_\alpha}{d\sigma_\alpha} = \frac{d\bar{r}_\alpha/d\alpha}{d\sigma_\alpha/d\alpha}$$

to obtain

$$\left.\frac{d\bar{r}_\alpha}{d\sigma_\alpha}\right|_{\alpha=0} = \frac{(\bar{r}_i - \bar{r}_M)\sigma_M}{\sigma_{iM} - \sigma_M^2}.$$

This slope must equal the slope of the capital market line. Hence,

$$\frac{(\bar{r}_i - \bar{r}_M)\sigma_M}{\sigma_{iM} - \sigma_M^2} = \frac{\bar{r}_M - r_f}{\sigma_M}.$$

We now just solve for $\bar{r}_i$, obtaining the final result

$$\bar{r}_i = r_f + \left(\frac{\bar{r}_M - r_f}{\sigma_M^2}\right)\sigma_{iM} = r_f + \beta_i(\bar{r}_M - r_f).$$

This is clearly equivalent to the stated formula. ∎

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The value β_i is referred to as the **beta** of an asset. When the asset is fixed in a discussion, we often just write beta without a subscript—β. An asset's beta is all that need be known about the asset's risk characteristics to use the CAPM formula.

The value $\bar{r}_i - r_f$ is termed the **expected excess rate of return** of asset i; it is the amount by which the rate of return is expected to exceed the risk-free rate. Likewise, $\bar{r}_M - r_f$ is the expected excess rate of return of the market portfolio. In terms of these expected excess rates of return, the CAPM says that the expected excess rate of return of an asset is proportional to the expected excess rate of return of the market portfolio, and the proportionality factor is β. So with r_f taken as a base point, the expected returns of a particular asset and of the market above that base are proportional.

An alternative interpretation of the CAPM formula is based on the fact that β is a normalized version of the covariance of the asset with the market portfolio. Hence the CAPM formula states that the expected excess rate of return of an asset is directly proportional to its covariance with the market. It is this covariance that determines the expected excess rate of return.

To gain insight into this result, let us consider some extreme cases. Suppose, first, that the asset is completely *uncorrelated* with the market; that is, $\beta = 0$. Then, according to the CAPM, we have $\bar{r} = r_f$. This is perhaps at first sight a surprising result. It states that even if the asset is very risky (with large σ), the expected rate of return will be that of the risk-free asset—there is no premium for risk. The reason for this is that the risk associated with an asset that is uncorrelated with the market can be diversified away. If we had many such assets, each uncorrelated with the others and with the market, we could purchase small amounts of each of them, and the resulting total variance would be small. Since the final composite return would have small variance, the corresponding expected rate of return should be close to r_f.

Even more extreme is an asset with a negative value of β. In that case $\bar{r} < r_f$; that is, even though the asset may have very high risk (as measured by its σ), its expected rate of return should be even less than the risk-free rate. The reason is that such an asset reduces the overall portfolio risk when it is combined with the market. Investors are therefore willing to accept the lower expected value for this risk-reducing potential. Such assets provide a form of insurance. They do well when everything else does poorly.

The CAPM changes our concept of the risk of an asset from that of σ to that of β. It is still true that, overall, we measure the risk of a portfolio in terms of σ, but this does not translate into a concern for the σ's of individual assets. For those, the proper measure is their β's.

Example 7.3 (A simple calculation) We illustrate how simple it is to use the CAPM formula to calculate an expected rate of return. Let the risk-free rate be $r_f = 8\%$. Suppose the rate of return of the market has an expected value of 12% and a standard deviation of 15%.

Now consider an asset that has covariance of .045 with the market. Then we find $\beta = .045/(.15)^2 = 2.0$. The expected return of the asset is $\bar{r} = .08 + 2 \times (.12 - .08) = .16 = 16\%$.

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Betas of Common Stocks

The concept of beta is well established in the financial community, and it is referred to frequently in technical discussions about particular stocks. Beta values are estimated by various financial service organizations. Typically, these estimates are formed by using a record of past stock values (usually about 6 or 18 months of weekly values) and computing, from the data, average values of returns, products of returns, and squares of returns in order to approximate expected returns, covariances, and variances. The beta values so obtained drift around somewhat over time, but unless there are drastic changes in a company's situation, its beta tends to be relatively stable.

Table 7.2 lists some well-known U.S. companies and their corresponding beta (β) and volatility (σ) values as estimated at a particular date. Try scanning the list and see if the values given support your intuitive impression of the company's market

TABLE 7.2
Some U.S. Companies: Their Betas and Sigmas

Ticker sym	Company name	Beta	Volatility
KO	Coca-Cola Co	1.19	18%
DIS	Disney Productions	2.23	22%
EK	Eastman Kodak	1.43	34%
XON	Exxon Corp	.67	18%
GE	General Electric CO	1.26	15%
GM	General Motors Corp	.81	19%
GS	Gillette Co	1.09	21%
HWP	Hewlett-Packard Co	1.65	21%
HIA	Holiday Inns Inc	2.56	39%
KM	K-Mart Corp	.82	20%
LK	Lockheed Corp	3.02	43%
MCD	McDonalds Corp	1.56	21%
MRK	Merck & Co	.94	20%
MMM	Minnesota Mining & Mfg	1.00	17%
JCP	Penny J C Inc	1.22	20%
MO	Phillip Morris Inc.	.87	21%
PG	Procter & Gamble	.70	14%
SA	Safeway Stores Inc	.72	14%
S	Sears Roebuck & Co	1.04	19%
SD	Standard Oil of Calif	.85	24%
SYN	Syntex Corp	1.18	31%
TXN	Texas Instruments	1.46	23%
X	US Steel Corp	1.03	26%
UNP	Union Pacific Corp	.65	18%
ZE	Zenith Radio Corp	2.01	32%

Source: *Dailygraph Stock Option Guide.* William O'Neil & Co, Inc., Los Angeles, December 7, 1979. Reprinted with permission of Daily Graphs, P.O. Box 66919, Los Angeles, CA 90066.

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properties. Generally speaking, we expect aggressive companies or highly leveraged companies to have high betas, whereas conservative companies whose performance is unrelated to the general market behavior are expected to have low betas. Also, we expect that companies in the same business will have similar, but not identical, beta values. Compare, for instance, JC Penny with Sears Roebuck, or Exxon with Standard Oil of California.

Beta of a Portfolio

It is easy to calculate the overall beta of a portfolio in terms of the betas of the individual assets in the portfolio. Suppose, for example, that a portfolio contains n assets with the weights $w_1, w_2, \ldots, w_n$. The rate of return of the portfolio is $r = \sum_{i=1}^{n} w_i r_i$. Hence $\text{cov}(r, r_M) = \sum_{i=1}^{n} w_i \,\text{cov}(r_i, r_M)$. It follows immediately that

$$\beta_p = \sum_{i=1}^{n} w_i \beta_i \,. \tag{7.4}$$

In other words, the portfolio beta is just the weighted average of the betas of the individual assets in the portfolio, with the weights being identical to those that define the portfolio.

7.4 THE SECURITY MARKET LINE

The CAPM formula can be expressed in graphical form by regarding the formula as a linear relationship. This relationship is termed the **security market line.** Two versions are shown in Figure 7.3.

Both graphs show the linear variation of $\bar{r}$. The first expresses it in covariance form, with $\text{cov}(r, r_M)$ being the horizontal axis. The market portfolio corresponds to the point σ_M^2 on this axis. The second graph shows the relation in beta form, with beta being the horizontal axis. In this case the market corresponds to the point $\beta = 1$.

Both of these lines highlight the essence of the CAPM formula. Under the equilibrium conditions assumed by the CAPM, any asset should fall on the security market line.

The security market line expresses the risk–reward structure of assets according to the CAPM, and emphasizes that the risk of an asset is a function of its covariance with the market or, equivalently, a function of its beta.

Systematic Risk

The CAPM implies a special structural property for the return of an asset, and this property provides further insight as to why beta is the most important measure of risk. To develop this result we write the (random) rate of return of asset i as

$$r_i = r_f + \beta_i (r_M - r_f) + \varepsilon_i \,. \tag{7.5}$$

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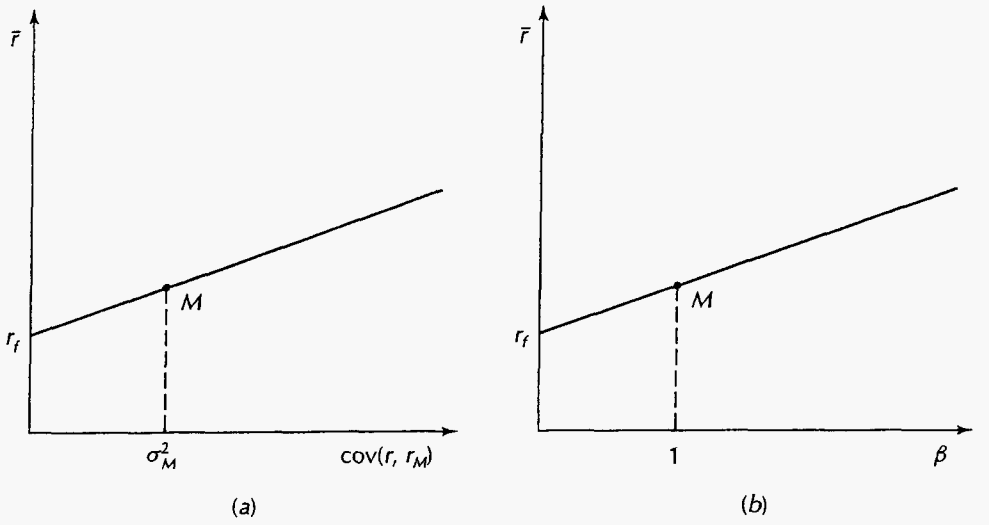


FIGURE 7.3 Security market line. The expected rate of return increases linearly as the covariance with the market increases or, equivalently, as β increases.

This is just an arbitrary equation at this point. The random variable ε_i is chosen to make it true. However, the CAPM formula tells us several things about ε_i.

First, taking the expected value of (7.5), the CAPM says that $E(\varepsilon_i) = 0$. Second, taking the correlation of (7.5) with r_M (and using the definition of β_i), we find $\text{cov}(\varepsilon_i, \sigma_M) = 0$. We can therefore write

$$\sigma_i^2 = \beta_i^2 \sigma_M^2 + \text{var}(\varepsilon_i)$$

and we see that σ_i^2 is the sum of two parts. The first part, $\beta_i^2 \sigma_M^2$, is termed the **systematic risk.** This is the risk associated with the market as a whole. This risk cannot be reduced by diversification because every asset with nonzero beta contains this risk. The second part, $\text{var}(\varepsilon_i)$, is termed the **nonsystematic, idiosyncratic,** or **specific risk.** This risk is uncorrelated with the market and can be reduced by diversification. It is the systematic (or nondiversifiable) risk, measured by beta, that is most important, since it directly combines with the systematic risk of other assets.

Consider an asset on the capital market line[1] with a value of β. The standard deviation of this asset is $\beta\sigma_M$. It has only systematic risk; there is no nonsystematic risk. This asset has an expected rate of return equal to $\bar{r} = r_f + \beta(\bar{r}_M - r_f)$. Now consider a whole group of other assets, all with the same value of β. According to CAPM, these all have the same expected rate of return, equal to $\bar{r}$. However, if these assets carry nonsystematic risk, they will not fall on the capital market line. Indeed, as the nonsystematic risk increases, the points on the $\bar{r}$–σ plane representing these assets drift to the right, as shown in Figure 7.4. The horizontal distance of a point from the capital market line is therefore a measure of the nonsystematic risk.

[1] Of course, to be exactly on the line, the asset must be equivalent to a combination of the market portfolio and the risk-free asset.

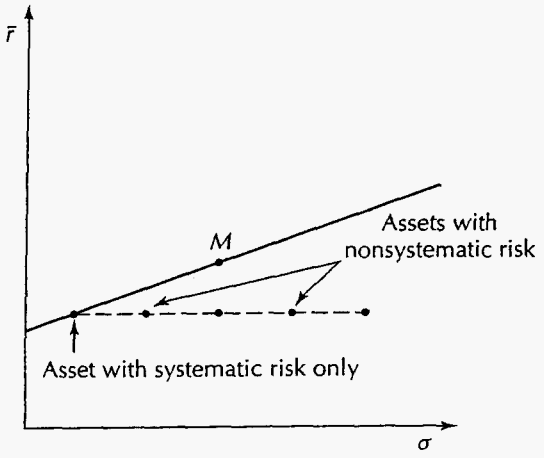
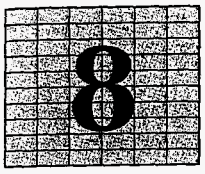


FIGURE 7.4 Systematic and nonsystematic risk. An asset on the capital market line has only systematic risk. Assets with nonsystematic risk fall to the right of the capital market line.



MODELS AND DATA

8.1 INTRODUCTION

The theory of the previous two chapters is quite general, for it can be applied to bets on a wheel of fortune, to analysis of an oil wild cat venture, to construction of a portfolio of stocks, and to many other single-period investment problems. However, the primary application of mean–variance theory is to stocks, and this chapter focuses primarily on those special securities, although much of the material is applicable to other assets as well.

A major obstacle in the application of mean–variance theory to stocks is the determination of the parameter values that the theory requires: the mean values of each of the assets and the covariances among them. These parameter values are not readily available for stocks and other financial securities; nor can they be surmised by logical deduction as they can be for a wheel of fortune, which has clear payoffs and associated probabilities. For stocks and other financial securities, we must use indirect and subtle methods to obtain the information required for a mean–variance formulation.

This chapter examines how models of stock returns, suitable for mean–variance analysis, can be specified. It shows how to build a **factor model** of the return process to simplify the structure and reduce the number of required parameters. Along the way a new theory of asset pricing, termed **arbitrage pricing theory** (APT), is obtained. Later we turn directly to the issue of determining parameter values. We consider the possibility of using historical data to determine parameter values, but we discover that this approach is of limited value.

It should become clear that the application of mean–variance theory and the CAPM to the design of a portfolio of stocks is not straightforward, but is fraught with many practical and conceptual difficulties. Understanding these difficulties and developing strategies for alleviating them is an essential element of investment science.

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8.2 FACTOR MODELS

The information required by the mean–variance approach grows substantially as the number n of assets increases. There are n mean values, n variances, and $n(n-1)/2$ covariances—a total of $2n + n(n-1)/2$ parameters. When n is large, this is a very large set of required values. For example, if we consider a universe of 1,000 stocks, 501,500 values are required to fully specify a mean–variance model. Clearly it is a formidable task to obtain this information directly. We need a simplified approach.

Fortunately the randomness displayed by the returns of n assets often can be traced back to a smaller number of underlying basic sources of randomness (termed factors) that influence the individual returns. A factor model that represents this connection between factors and individual returns leads to a simplified structure for the covariance matrix, and provides important insight into the relationships among assets.

The factors used to explain randomness must be chosen carefully—and the proper choice depends on the universe of assets being considered. For real estate parcels within a city, the underlying factors might be population, employment rate, and school budgets. For common stocks listed on an exchange, the factors might be the stock market average, gross national product, employment rate, and so forth. Selection of factors is somewhat of an art, or a trial-and-error process, although formal analysis methods can also be helpful. (See Exercise 3.)

This section introduces the factor model concept and shows how it simplifies the covariance structure.

Single-Factor Model

Single-factor models are the simplest of the factor models, but they illustrate the concept quite well. Suppose that there are n assets, indexed by i, with rates of return r_i, $i = 1, 2, \ldots, n$. There is a single factor f which is a random quantity (such as the stock market average rate of return for the period). We assume that the rates of return and the factor are related by the following equation:

$$r_i = a_i + b_i f + e_i \tag{8.1}$$

for $i = 1, 2, \ldots, n$. In this equation, the a_i's and the b_i's are fixed constants. The e_i's are random quantities which represent **errors.** Without loss of generality, it can be assumed that the errors each have zero mean, that is, $\mathrm{E}(e_i) = 0$, since any nonzero mean could be transferred to a_i. In addition, however, it is usually assumed that the errors are uncorrelated with f and with each other; that is, $\mathrm{E}[(f - \bar{f})e_i] = 0$ for each i and $\mathrm{E}(e_i e_j) = 0$ for $i \neq j$. These are idealizing assumptions which may not actually be true, but are usually assumed to be true for purposes of analysis. It is also assumed that variances of the e_i's are known, and they are denoted by $\sigma_{e_i}^2$.

An individual factor model equation can be viewed graphically as defining a linear fit to (potential) data, as shown in Figure 8.1. Imagine that several independent observations are made of both the rate of return r_i and the factor f. These points are plotted on the graph. Since both are random quantities, the points are likely to be

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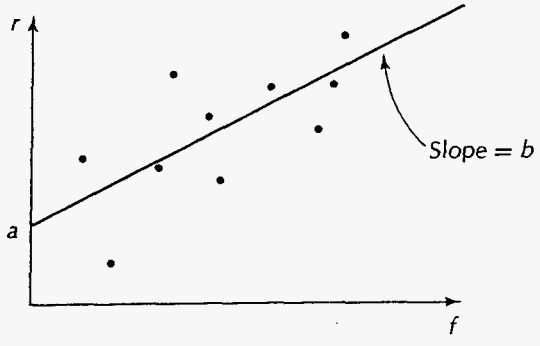

FIGURE 8.1 Single-factor model. Returns are related linearly to the factor f, except that random errors are added to the return.

scattered. A straight line is fitted through these points in such a way that the average value of the error, as measured by the vertical distance from a point to the line, is zero.

It is helpful to view Figure 8.1 in two ways. First, given the model (8.1), we can draw the line on the diagram before obtaining data points. Then if we believe the model, we believe that the data points will fall in the kind of pattern shown in the diagram. In the second view, we imagine that we first obtain the data points, then we construct the line that fits the data. When we draw the line, however, we are implying that additional data are likely to support it in the sense of falling in the same pattern.

When applied to a group of assets, the fitting process is carried out for each asset separately. As a result, we obtain for each asset i an a_i and b_i. The a_i's are termed **intercepts** because a_i is the intercept of the line for asset i with the vertical axis. The b_i's are termed **factor loadings** because they measure the sensitivity of the return to the factor.

If an historical record of asset returns and the factor values are available, the parameters of a single-factor model can be estimated by actually fitting straight lines, as suggested before. Note, however, that different values of the a_i's and b_i's are likely to be obtained for different sets of data. For example, if we use monthly data on returns and the factor f for one year to obtain values of the a_i's and b_i's, and then we do it again the next year, we are likely to get different values. In what follows, we assume that the model is given, and that it represents our understanding of how the returns are related to the factor f. We ignore the question of where this model comes from—at least for now.

If we agree to use a single-factor model, then the standard parameters for mean–variance analysis can be determined directly from that model. We calculate

$$\bar{r}_i = a_i + b_i \bar{f} \tag{8.2a}$$

$$\sigma_i^2 = b_i^2 \sigma_f^2 + \sigma_{e_i}^2 \tag{8.2b}$$

$$\sigma_{ij} = b_i b_j \sigma_f^2, \qquad i \neq j \tag{8.2c}$$

$$b_i = \operatorname{cov}(r_i, f)/\sigma_f^2. \tag{8.2d}$$

These equations reveal the primary advantage of a factor model. In the usual representation of asset returns, a total of $2n + n(n-1)/2$ parameters are required to

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specify means, variances, and covariances. In a single-factor model, only the a_i's, b_i's, $\sigma_{e_i}^2$'s, and $\overline{f}$ and σ_f^2 are required—a total of just $3n + 2$ parameters.

Portfolio Parameters

When asset returns are described by a single-factor model, the return of any portfolio of these assets is described by a corresponding factor model equation of its own. To verify this important property, suppose that there are n assets with rates of return governed by the factor model

$$r_i = a_i + b_i f + e_i\,, \qquad i = 1, 2, \ldots, n\,.$$

Suppose that a portfolio is constructed with weights w_i, with $\sum_{i=1}^n w_i = 1$. Then the rate of return r of the portfolio is just the corresponding combination of individual rates of return; namely,

$$r = \sum_{i=1}^n w_i a_i + \sum_{i=1}^n w_i b_i f + \sum_{i=1}^n w_i e_i\,.$$

We can write this as

$$r = a + bf + e$$

where

$$a = \sum_{i=1}^n w_i a_i$$

$$b = \sum_{i=1}^n w_i b_i$$

$$e = \sum_{i=1}^n w_i e_i\,.$$

Both a and b are constants, which are weighted averages of the individual a_i's and b_i's. The error term e is random, but it, too, is an average. Under the assumptions that $\mathrm{E}(e_i) = 0$, $\mathrm{E}[(f - \overline{f})e_i] = 0$, and $\mathrm{E}(e_i e_j) = 0$ for all $i \neq j$, it is clear that $\mathrm{E}(e) = 0$ and $\mathrm{E}\big[(f - \overline{f})e\big] = 0$; that is, e and f are uncorrelated. The variance of e is

$$\sigma_e^2 = \mathrm{E}(e^2) = \mathrm{E}\left[\left(\sum_{i=1}^n w_i e_i\right)\left(\sum_{j=1}^n w_j e_j\right)\right] = \mathrm{E}\left(\sum_{i=1}^n w_i^2 e_i^2\right) = \sum_{i=1}^n w_i^2 \sigma_{e_i}^2$$

where we have used the fact that the e_i's are uncorrelated with each other. Thus we have a simple and full description of the portfolio return as a factor equation.

A factor model is a good model to use to explore the effects of diversification, showing how risk can be reduced but not entirely eliminated. For simplicity, let us assume that in the one-factor model $\sigma_{e_i}^2$ is the same for all i; say, $\sigma_{e_i}^2 = s^2$. Suppose that

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a portfolio is formed by taking equal fractions of each asset; that is, we put $w_i = 1/n$ for each i. In that case, from before, we find

$$\sigma_e^2 = \frac{1}{n} s^2 .$$

Hence as $n \to \infty$ we see that $\sigma_e^2 \to 0$. So in a well-diversified portfolio the error term in the factor equation is small.

The overall variance of the portfolio is

$$\sigma^2 = b^2 \sigma_f^2 + \sigma_e^2 .$$

The σ_e^2 term goes to zero, but since b is an average of the b_i's, the $b^2\sigma_f^2$ term remains more or less constant. Hence the variance of the portfolio tends to decrease as n increases because σ_e^2 goes to zero, but the portfolio variance does not go to zero.

This observation leads to a general conclusion. For any one asset with a rate of return described by a factor model

$$r_i = a_i + b_i f + e_i$$

there are two sources of risk: that due to the $b_i f$ term and that due to e_i. The risk due to e_i is said to be **diversifiable** because this term's contribution to overall risk is essentially zero in a well-diversified portfolio. On the other hand, the $b_i f$ term is said to be a **systematic** or **nondiversifiable risk,** since it is present even in a diversified portfolio. The systematic risk is due to the factor that influences every asset, so diversification cannot eliminate it. The risks due to the e_i's are independent and, hence, each can be reduced by diversification.

Example 8.1 (Four stocks and one index) The upper portion of Table 8.1 shows the historical rates of return (in percent) for four stocks over a period of 10 years. Also shown is a record of an industrial price index over this same period. We shall build a single-index model for each of the stocks using this index as the factor. As a first step, we calculate the historical averages of the returns and the index. We denote the averages by $\hat{\bar{r}}_i$ and $\hat{\bar{f}}$ to distinguish these values from the true (but unknown) values $\bar{r}_i$ and $\bar{f}$.

Let r_i^k, for $k = 1, 2, \ldots, 10$, denote the 10 samples of the rate of return r_i. Then the estimate of $\bar{r}_i$ is

$$\hat{\bar{r}}_i = \frac{1}{10} \sum_{k=1}^{10} r_i^k .$$

We estimate the variances with the formula

$$\text{var}(r_i) = \frac{1}{9} \sum_{k=1}^{10} \left(r_i^k - \hat{\bar{r}}_i\right)^2$$

which is the standard way to estimate variance.[1] Analogous formulas are used to calculate estimates of the mean and the variance of the index.

[1] See Section 8.6 for details on this estimation formula.

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TABLE 8.1
Factor Model

Year	Stock 1	Stock 2	Stock 3	Stock 4	Index
1	11.91	29.59	23.27	27.24	12.30
2	18.37	15.25	19.47	17.05	5.50
3	3.64	3.53	−6.58	10.20	4.30
4	24.37	17.67	15.08	20.26	6.70
5	30.42	12.74	16.24	19.84	9.70
6	−1.45	−2.56	−15.05	1.51	8.30
7	20.11	25.46	17.80	12.24	5.60
8	9.28	6.92	18.82	16.12	5.70
9	17.63	9.73	3.05	22.93	5.70
10	15.71	25.09	16.94	3.49	3.60
aver	15.00	14.34	10.90	15.09	6.74
var	90.28	107.24	162.19	68.27	6.99
cov	2.34	4.99	5.45	11.13	6.99
b	0.33	0.71	0.78	1.59	1.00
a	12.74	9.53	5.65	4.36	0.00
e-var	89.49	103.68	157.95	50.55	

The record of the rates of return for four stocks and an index of industrial prices are shown. The averages and variances are all computed, as well as the covariance of each with the index. From these quantities, the b_i's and the a_i's are calculated. Finally, the computed error variances are also shown. The index does not explain the stock price variations very well.

Next the covariances of the returns with the index are estimated. The formula used for this purpose is

$$\operatorname{cov}(r_i, f) = \frac{1}{9}\sum_{k=1}^{10}\left(r_i^k - \hat{\bar{r}}_i\right)\left(f^k - \hat{\bar{f}}\right). \tag{8.3}$$

Once the covariances are estimated, we find the values of b_i and a_i from the formulas

$$b_i = \frac{\operatorname{cov}(r_i, f)}{\operatorname{var}(f)}$$

$$a_i = \hat{\bar{r}}_i - b_i\hat{\bar{f}}.$$

(The first of these is obtained by forming the covariance with respect to f of both sides of the factor equation.)

After the model is constructed, we estimate the variance of the error under the assumption that the errors are uncorrelated with each other and with the index. Hence using (8.2*b*) we write

$$\operatorname{var}(e_i) = \operatorname{var}(r_i) - b_i^2 \operatorname{var}(f).$$

These values are shown in the last row of Table 8.1. Notice that these error variances are almost as large as the variances of the stock returns themselves, and hence the

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factor does not explain much of the variation in returns. In other words, there is high nonsystematic risk. Furthermore, by applying a version of (8.3) to estimate $\text{cov}(e_i, e_j)$, it turns out that the errors are highly correlated. For example, the estimation formula gives $\text{cov}(e_1, e_2) = 44$ and $\text{cov}(e_2, e_3) = 91$, whereas the factor model was constructed under the assumption that these error covariances are zero. Hence this single-index model is not a very accurate representation of the stock returns. (A better model for these data is given in the next section.)

Multifactor Models

The preceding development can be extended to include more than one factor. For example, if there are two factors f_1 and f_2, with perhaps the first factor being a broad index of the market return and the second an index of the change since the previous period of consumer spending, the model for the rate of return of asset i would have the form

$$r_i = a_i + b_{1i} f_1 + b_{2i} f_2 + e_i.$$

Again the constant a_i is called the intercept, and b_{1i} and b_{2i} are the factor loadings. The factors f_1 and f_2 and the error e_i are random variables. It is assumed that the expected value of the error is zero, and that the error is uncorrelated with the two factors and with the errors of other assets. However, it is not assumed that the two factors are uncorrelated with each other. These factors are presumably observable variables, and their statistical properties can be studied independently of the asset returns.

In the case of the two-factor model we easily derive the following values for the expected rates of return and the covariances:

$$\bar{r}_i = a_i + b_{1i}\bar{f}_1 + b_{2i}\bar{f}_2$$

$$\text{cov}(r_i, r_j) = \begin{cases} b_{1i}b_{1j}\sigma_{f_1}^2 + (b_{1i}b_{2j} + b_{2i}b_{1j})\text{cov}(f_1, f_2) + b_{2i}b_{2j}\sigma_{f_2}^2, & i \neq j \\ b_{1i}^2\sigma_{f_1}^2 + 2b_{1i}b_{2i}\text{cov}(f_1, f_2) + b_{2i}^2\sigma_{f_2}^2 + \sigma_{e_i}^2, & i = j. \end{cases}$$

The b_{1i}'s and b_{2i}'s can be obtained by forming the covariance of r_i with f_1 and f_2, leading to

$$\text{cov}(r_i, f_1) = b_{1i}\sigma_{f_1}^2 + b_{2i}\sigma_{f_1, f_2}$$

$$\text{cov}(r_i, f_2) = b_{1i}\sigma_{f_1, f_2} + b_{21}\sigma_{f_2}^2.$$

These give two equations that can be solved for the two unknowns b_{1i} and b_{2i}.

A two-factor model is often an improvement of a single-factor model. For example, suppose a single-factor model were proposed and the a_i's and b_i's determined by fitting data. It might be found that the resulting error terms are large and that they exhibit correlation with the factor and with each other. In this case the single-factor model is not a good representation of the actual returns structure. A two-factor model may lead to smaller error terms, and these terms may exhibit the assumed correlation

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properties. The two-factor model will still be much simpler than a full unstructured covariance matrix.

It should be clear how to extend the model to include a greater number of factors. Quite comprehensive models of this type have been constructed. It is generally agreed that for models of U.S. stocks, it is appropriate to use between 3 and 15 factors.

Selection of Factors

The selection of appropriate factors for a factor model is part science and part art (like most practical analyses). It is helpful, however, to place factors in three categories. Once these categories are recognized, you will no doubt be able to dream up additional useful factors. Here are the categories:

1. External factors Very commonly, factors are chosen to be variables that are external to the securities being explicitly considered in the model. Examples are gross national product (GNP), consumer price index (CPI), unemployment rate, or a new construction index. The U.S. Government publishes numerous such statistics. It is possible to use other external variables as well, such as the number of traffic accidents in a month or sun spot activity.

2. Extracted factors It is possible to extract factors from the known information about security returns. For example, the factor used most frequently is the rate of return on the market portfolio. This factor is constructed directly from the returns of the individual securities. As another example, the rate of return of one security can be used as a factor for others. More commonly, an average of the returns of the securities in an industry is used as a factor; for example, there might be an industrial factor, a utilities factor, and a transportation factor. Factors can also be extracted by the method of principal components. (See Exercise 3.) This method uses the covariance matrix of the returns to find combinations of securities that have large variances. Indeed, extracted factors are usually linear combinations of the returns of individual securities (as in the preceding examples). Factors can be extracted in more complex ways. For example, a factor might be defined as the ratio of the returns of two stocks, the number of days since the last market peak, or a moving average of the market return.

3. Firm characteristics Firms are characterized financially by a number of firm-specific values, such as the price–earnings ratio, the dividend-payout ratio, an earnings forecast, and many other variables. About 50 such variables for each major security are available from various data services. These characteristics can be used in a factor model. The characteristics do not serve as factors in the usual sense, but they play a similar role. As an example, suppose that we decide to use a single factor f (of the normal kind) and a single firm characteristic g (such as last quarter's price–earnings ratio). We then represent the rate of return on security i as

$$r_i = a_i + b_i f + c g_i + e_i. \tag{8.4}$$

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In this model, the constant c is the same for each security, but g_i (the value of the characteristic) varies. The characteristic term does not contribute to systematic (or nondiversifiable) risk, but rather it may reduce the variance of the error term e_i. In other words, the term cg_i can be regarded as an estimate of the error term that would appear in the standard single-factor model. Firm characteristics are effective additions to factor models.

8.3 THE CAPM AS A FACTOR MODEL

The CAPM can be derived as a special case of a single-factor model. This view adds considerable insight to the CAPM development.

The Characteristic Line

Let us hypothesize a single-factor model for stock returns, with the factor being the market rate of return r_M. For convenience we can subtract the constant r_f from this factor and also from the rate of return r_i, thereby expressing the model in terms of the excess returns $r_i - r_f$ and $r_M - r_f$. The factor model then becomes

$$r_i - r_f = \alpha_i + \beta_i(r_M - r_f) + e_i. \tag{8.5}$$

It is conventional to use the notation α_i and β_i for the coefficients of this special model, rather than the a_i's and b_i's that are being used more generally. Again it is assumed that $E(e_i) = 0$ and that e_i is uncorrelated with the market return (the factor) and with other e_j's.

The **characteristic equation** or **characteristic line** corresponding to (8.5) is the line formed by putting $e_i = 0$; that is, it is the line $r_i - r_f = \alpha_i + \beta_i(r_M - r_f)$ drawn on a diagram of r_i versus r_M. Such a line is shown in Figure 8.2. A single typical point is indicated on the line. If measurements of $r_i - r_f$ and $r_M - r_f$ were taken and plotted on this diagram, they would fall at various places, but the characteristic line would presumably define a good fit through the scatter of points.

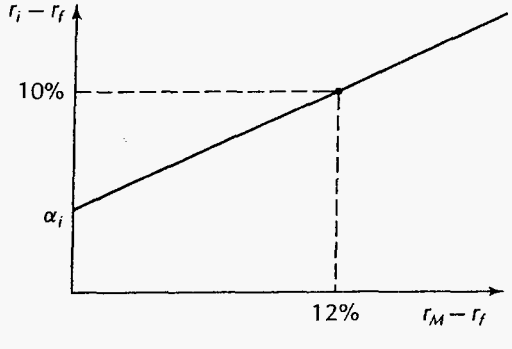

FIGURE 8.2 Characteristic line. This line represents a single-factor model that has $r_M - r_f$ as the factor for the variable $r_i - r_f$.

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The expected value of this equation is

$$\bar{r}_i - r_f = \alpha_i + \beta_i(\bar{r}_M - r_f)$$

which is identical to the CAPM except for the presence of α_i. The CAPM predicts that $\alpha_i = 0$.

The value of β_i in this model can be calculated directly. We take the covariance of both sides of (8.5) with r_M. This produces

$$\sigma_{iM} = \beta_i \sigma_M^2$$

and hence

$$\beta_i = \frac{\sigma_{iM}}{\sigma_M^2}.$$

This is exactly the same expression that holds for the β_i used in the CAPM (and that is why we use the same notation).

The characteristic line is in a sense more general than the CAPM because it allows α_i to be nonzero. From the CAPM viewpoint, α_i can be regarded as a measure of the amount that asset i is mispriced. A stock with a positive α_i is, according to this view, performing better than it should, and a stock with a negative α_i is performing worse than it should. Some financial services organizations (and some highly technical investors) estimate α as well as β for a large assortment of stocks. Note, however, that the single-factor model that leads to the CAPM formula is not equivalent to the general model underlying the CAPM, since the general model is based on an arbitrary covariance matrix, but assumes that the market is efficient. The single-factor model has a very simple covariance structure, but makes no assumption about efficiency.

Example 8.2 (Four stocks and the market) Let us rework Example 8.1 by using the excess market return as a factor. We assume that the market consists of just the four stocks, with equal weights. Therefore the market return in any year is just the average of the returns of the four stocks. These are shown in the upper portion of Table 8.2. We also adjoin the historical value of the risk-free rate of return for each of the 10 years. The relevant statistical quantities are computed by the same estimating formulas as in the earlier example, except that the factor is taken to be the excess return on the market, which will change the formula for a_i to α_i. As seen from the table, a large portion of the variability of the stock returns is explained by the factor. In other words, there is relatively low nonsystematic risk. Furthermore, a side calculation shows that the errors are close to being uncorrelated with each other and with the market return. For example, the data provide the estimates $\text{cov}(e_1, e_2) = -14$ and $\text{cov}(e_2, e_3) = 2$, which are much smaller than for the earlier model. We conclude that this single-factor model is an excellent representation of the stock returns of the four stocks. In other words, for this example, the market return serves as a much better factor than the industrial index factor used earlier. However, this may not be true for other examples.

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TABLE 8.2
Factor Model with Market

Year	Stock 1	Stock 2	Stock 3	Stock 4	Market	Riskless
1	11.91	29.59	23.27	27.24	23.00	6.20
2	18.37	15.25	19.47	17.05	17.54	6.70
3	3.64	3.53	−6.58	10.20	2.70	6.40
4	24.37	17.67	15.08	20.26	19.34	5.70
5	30.42	12.74	16.24	19.84	19.81	5.90
6	−1.45	−2.56	−15.05	1.51	−4.39	5.20
7	20.11	25.46	17.80	12.24	18.90	4.90
8	9.28	6.92	18.82	16.12	12.78	5.50
9	17.63	9.73	3.05	22.93	13.34	6.10
10	15.71	25.09	16.94	3.49	15.31	5.80
aver	15.00	14.34	10.90	15.09	13.83	5.84
var	90.28	107.24	162.19	68.27	72.12	
cov	65.08	73.62	100.78	48.99	72.12	
β	.90	1.02	1.40	.68	1.00	
α	1.95	.34	−6.11	3.82	0.00	
e-var	31.54	32.09	21.37	34.99		

Now the factor is taken to be the excess return on the market portfolio. The variation in stock returns is largely explained by this return, and the errors are uncorrelated with each other and with the market. This model provides an excellent fit to the data.

8.4 ARBITRAGE PRICING THEORY*

The factor model framework leads to an alternative theory of asset pricing, termed **arbitrage pricing theory** (APT). This theory does not require the assumption that investors evaluate portfolios on the basis of means and variances; only that, when returns are certain, investors prefer greater return to lesser return. In this sense the theory is much more satisfying than the CAPM theory, which relies on both the mean–variance framework and a strong version of equilibrium, which assumes that everyone uses the mean–variance framework.

The APT does, however, require a special assumption of its own. This is the assumption that the universe of assets being considered is large. For the theory to work exactly, we must, in fact, assume that there are an infinite number of securities, and that these securities differ from each other in nontrivial ways. This assumption is generally felt to be satisfied well enough by, say, the universe of all publicly traded U.S. stocks.

Simple Version of APT

To explain the concept underlying the APT, we first consider an idealized special case. Assume that all asset rates of return satisfy the following one-factor model:

$$r_i = a_i + b_i f.$$

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Different assets will have different a_i's and b_i's. This factor model is special because there is no error term. The uncertainty associated with a return is due only to the uncertainty in the factor f. The point of APT is that the values of a_i and b_i must be related if arbitrage opportunities are to be excluded. To work out the relationship between a_i and b_i we write the model for two assets i (as before) and j, which is

$$r_j = a_j + b_j f.$$

The only requirement in the selection of these two securities is that $b_i \neq b_j$. Now form a portfolio with weights $w_i = w$ and $w_j = 1 - w$. We know that the rate of return of this portfolio is

$$r = wa_i + (1 - w)a_j + [wb_i + (1 - w)b_j]f.$$

We shall select w so that the coefficient of f in this equation is zero. Specifically, we select $w = b_j/(b_j - b_i)$. This yields a rate of return of

$$r = wa_i + (1 - w)a_j = \frac{a_i b_j}{b_j - b_i} + \frac{a_j b_i}{b_i - b_j}. \tag{8.6}$$

This special portfolio is risk free because the equation for r contains no random element. If there is a separate risk-free asset with rate of return r_f, it is clear that the portfolio constructed in (8.6) must have this same rate—otherwise there would be an arbitrage opportunity. Even if there is no explicit risk-free asset, all portfolios constructed this way, with no dependence on f, must have the same rate of return. We denote this rate by λ_0, recognizing that $\lambda_0 = r_f$ if there is an explicit risk-free asset.

Setting the right-hand side of (8.6) equal to λ_0, we find

$$\lambda_0(b_j - b_i) = a_i b_j - a_j b_i$$

which can be rearranged to

$$\frac{a_j - \lambda_0}{b_j} = \frac{a_i - \lambda_0}{b_i}.$$

This is a general relation that must hold for all i and j. Therefore,

$$\frac{a_i - \lambda_0}{b_i} = c$$

holds for all i for some constant c. This shows explicitly that the values of a_i and b_i are not independent. Indeed, $a_i = \lambda_0 + b_i c$.

To see that such a relation is reasonable, suppose we take f to be the rate of return on the S&P 500 average. If a_i and b_i were arbitrary, we might specify a stock i with $a_i = .50$ and $b_i = 1.0$, which would give i a rate of return of 50% plus the S&P 500 rate. Clearly this is unreasonably high. No stock does this well. More realistically, if we have $a_i = .50$, then b_i will be negative so that, overall, r_i makes sense. As another case, if a_i is the risk-free rate, then b_i should be zero. The relation $a_i = \lambda_0 + b_i c$ keeps things in proper alignment.

We can use this information to write a simple formula for the expected rate of return of asset i. We have

$$\bar{r}_i = a_i + b_i \bar{f} = \lambda_0 + b_i c + b_i \bar{f}$$

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or, alternatively,

$$\bar{r}_i = \lambda_0 + b_i\lambda_1 \tag{8.7}$$

for the constant $\lambda_1 = c + \bar{f}$. We see that once the constants λ_0 and λ_1 are known, the expected return of an asset is determined entirely by the factor loading b_i (since a_i must follow b_i).

Notice that the pricing formula (8.7) looks similar to the CAPM. If the factor f is chosen to be the rate of return on the market r_M, then we can set $\lambda_0 = r_f$ and $\lambda_1 = \bar{r}_M - r_f$, and the APT is identical to the CAPM with $b_i = \beta_i$.

For additional factors the result is similar. We now give a more general statement and proof:

Simple APT *Suppose that there are n assets whose rates of return are governed by $m < n$ factors according to the equation*

$$r_i = a_i + \sum_{j=1}^{m} b_{ij} f_j$$

for $i = 1, 2, \ldots, n$. Then there are constants $\lambda_0, \lambda_1, \ldots, \lambda_m$ such that

$$\bar{r}_i = \lambda_0 + \sum_{j=1}^{m} b_{ij}\lambda_j$$

for $i = 1, 2, \ldots, n$.

Proof: We prove the statement for the case of two factors. Suppose we invest a dollar amount x_i in asset i, $i = 1, 2, \ldots, n$, in order to satisfy $\sum_{i=1}^{n} x_i = 0$, $\sum_{i=1}^{n} x_i b_{i1} = 0$, and $\sum_{i=1}^{n} x_i b_{i2} = 0$. This portfolio requires zero net investment and has zero risk. Therefore its expected payoff must be zero. Hence $\sum_{i=1}^{n} x_i \bar{r}_i = 0$. Defining the vectors $\mathbf{x} = (x_1, x_2, \ldots, x_n)$, $\mathbf{b}_1 = (b_{11}, b_{21}, \ldots, b_{n1})$, $\mathbf{b}_2 = (b_{12}, b_{22}, b_{32}, \ldots, b_{n2})$, $\mathbf{1} = (1, 1, \ldots, 1)$, and $\bar{\mathbf{r}} = (\bar{r}_1, \bar{r}_2, \ldots, \bar{r}_n)$, we can restate the foregoing as follows: For any $\mathbf{x}$ satisfying $\mathbf{x}^T\mathbf{1} = 0$, $\mathbf{x}^T\mathbf{b}_1 = 0$, and $\mathbf{x}^T\mathbf{b}_2 = 0$ it follows that $\mathbf{x}^T\bar{\mathbf{r}} = 0$; that is, any $\mathbf{x}$ orthogonal to $\mathbf{1}$, $\mathbf{b}_1$, and $\mathbf{b}_2$ is also orthogonal to $\bar{\mathbf{r}}$. It follows from a standard result in linear algebra[2] that $\bar{\mathbf{r}}$ must be a linear combination of the vectors $\mathbf{1}$, $\mathbf{b}_1$, and $\mathbf{b}_2$. Thus there are constants λ_0, λ_1, λ_2 such that $\bar{\mathbf{r}} = \lambda_0\mathbf{1} + \mathbf{b}_1\lambda_1 + \mathbf{b}_2\lambda_2$. This is identical to the given statement. ∎

To understand this result, let us look at some special cases. If all the b_{ij}'s are zero, then there is no risk and we have $a_i = \lambda_0$, which is appropriate. If a b_{ij} is nonzero, then $\bar{r}_i$ increases in proportion to b_{ij}; the value λ_j is the **price of risk** associated with the factor f_i, often called the **factor price.** As one accepts greater amounts of f_i, one obtains greater expected return.

[2]You can visualize this in the three dimensions of a room. Fix a vector $\mathbf{b}$, say, running along the floor and perpendicular to a wall. Suppose that for *all* $\mathbf{x}$ with $\mathbf{x}^T\mathbf{b} = 0$, there also holds $\mathbf{x}^T\bar{\mathbf{r}} = 0$. The set of $\mathbf{x}$'s are those on the wall. Then you should see that $\bar{\mathbf{r}} = \lambda\mathbf{b}$ for some λ.

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Well-Diversified Portfolios

We now consider more realistic factor models, which have error terms as well as factor terms. Suppose there are a total of n assets and the rate of return on asset i satisfies

$$r_i = a_i + \sum_{j=1}^{m} b_{ij} f_j + e_i$$

where $\mathrm{E}(e_i) = 0$ and $\mathrm{E}[e_i]^2 = \sigma_{e_i}^2$. Also assume that e_i is uncorrelated with the factors and with the error terms of other assets. Let us form a portfolio using the weights $w_1, w_2, \ldots, w_n$ with $\sum_{i=1}^{n} w_i = 1$. The rate of return of the portfolio is

$$r = a + \sum_{j=1}^{m} b_j f_j + e$$

where

$$a = \sum_{i=1}^{n} w_i a_i$$

$$b_j = \sum_{i=1}^{n} w_i b_{ij}$$

$$\sigma_e^2 = \sum_{i=1}^{n} w_i^2 \sigma_{e_i}^2 .$$

Suppose that for each i there holds $\sigma_{e_i}^2 \leq S^2$ for some constant S. Suppose also that the portfolio is **well diversified** in the sense that for each i there holds $w_i \leq W/n$ for some constant $W \approx 1$. This assures that no one asset is heavily weighted in the portfolio. We then find that

$$\sigma_e^2 \leq \frac{1}{n^2} \sum_{i=1}^{n} W^2 S^2 \leq \frac{1}{n} W^2 S^2 .$$

We now let $n \to \infty$. While doing this we assume that the bound $\sigma_{e_i}^2 \leq S^2$ remains valid for all i. Also for each n, we select a portfolio that is well diversified. As $n \to \infty$, we see that $\sigma_e^2 \to 0$. In other words, the error term associated with a well-diversified portfolio of an infinite number of assets has a variance of zero. For a finite, but large, number of assets the error term has approximately zero variance.

General APT

We now combine the ideas of the preceding two subsections. We imagine forming thousands of different well-diversified portfolios, each being (essentially) error free. These portfolios form a collection of assets, the return on each satisfying a factor model without error. We therefore can apply the simple APT to conclude that there

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are constants $\lambda_0, \lambda_1, \ldots, \lambda_m$ such that for any well-diversified portfolio having a rate of return

$$r = a + \sum_{j=1}^{m} b_j f_j$$

the expected rate of return is

$$\bar{r} = \lambda_0 + \sum_{j=1}^{m} b_j \lambda_j .$$

Since various well-diversified portfolios can be formed with weights that differ on only a small number of basic assets, it follows that these individual assets must also satisfy

$$\bar{r}_i = \lambda_0 + \sum_{j=1}^{m} b_{ij} \lambda_j .$$

(This argument is not completely rigorous; but a more rigorous argument is quite complex.)

This is again basically a relation that says that a_i is not independent of the b_{ij}'s. The risk-free term must be related to the factor loadings. This is true even when there are error terms, provided there is a large number of assets so that error terms can be effectively diversified away.

APT and CAPM

The factor model underlying APT can be applied to the CAPM framework to derive a relation between the two theories.

Using a two-factor model we have

$$r_i = a_i + b_{i1} f_1 + b_{i2} f_2 + e_i .$$

We find the covariance of this asset with the market portfolio to be

$$\operatorname{cov}(r_M, r_i) = b_{i1} \operatorname{cov}(r_M, f_1) + b_{i2} \operatorname{cov}(r_M, f_2) + \operatorname{cov}(r_M, e_i).$$

If the market represents a well-diversified portfolio, it will contain essentially no error term, and hence it is reasonable to ignore the term $\operatorname{cov}(r_M, e_i)$ in the foregoing expression. We can then write the beta of the asset as

$$\beta_i = b_{i1} \beta_{f_1} + b_{i2} \beta_{f_2}$$

where

$$\beta_{f_1} = \sigma_{M, f_1} / \sigma_M^2$$

$$\beta_{f_2} = \sigma_{M, f_2} / \sigma_M^2 .$$

Hence the overall beta of the asset can be considered to be made up from underlying factor betas that do not depend on the particular asset. The weight of these factor betas in the overall asset beta is equal to the factor loadings. Hence in this framework, the reason that different assets have different betas is that they have different loadings.

ATMOS ENERGY CORP. NYSE-ATO

RECENT PRICE 27.06 | P/E RATIO 13.0 (Trailing: 14.5 Median: 16.0) | RELATIVE P/E RATIO 0.79 | DIV'D YLD 4.9% | VALUE LINE

TIMELINESS 3 Raised 1/25/08
SAFETY 2 Raised 12/16/05
TECHNICAL 2 Raised 6/13/08
BETA .85 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+50%)	14%
Low	30	(+10%)	7%

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	1	0	0	2	2	0	0	1
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	3	0	0	0	0

Institutional Decisions

	3Q2007	4Q2007	1Q2008
to Buy	100	113	112
to Sell	112	104	103
Hld's(000)	56311	59007	58504

	High:	30.5	32.3	33.0	26.3	25.8	24.5	25.5	27.6	30.0	33.1	33.5	29.3
	Low:	22.1	24.8	19.6	14.3	19.5	17.6	20.8	23.4	25.0	25.5	23.9	25.0

LEGENDS
1.25 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded area indicates recession

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 27.19

Target Price Range 2011 | 2012 | 2013

% TOT. RETURN 5/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	-11.3	-9.7
3 yr.	10.8	27.3
5 yr.	39.2	85.8

Percent shares traded: 12, 8, 4

Atmos Energy's history dates back to 1906 in the Texas Panhandle. Over the years, through various mergers, it became part of Pioneer Corporation, and, in 1981, Pioneer named its gas distribution division Energas. In 1983, Pioneer organized Energas as a separate subsidiary and distributed the outstanding shares of Energas to Pioneer shareholders. Energas changed its name to Atmos in 1988. Atmos acquired Trans Louisiana Gas in 1986, Western Kentucky Gas Utility in 1987, Greeley Gas in 1993, United Cities Gas in 1997, and others.

CAPITAL STRUCTURE as of 3/31/08
Total Debt $2128.2 mill. Due in 5 Yrs $920.0 mill.
LT Debt $2119.7 mill. LT Interest $125.0 mill.
(LT interest earned: 2.9x; total interest coverage: 2.8x)
Leases, Uncapitalized Annual rentals $16.9 mill.
Pfd Stock None
Pension Assets-9/07 $389.1 mill.
Oblig. $335.6 mill.
Common Stock 90,188,545 shs.
as of 4/25/08
MARKET CAP: $2.4 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2006	2007	3/31/08
Cash Assets	75.8	60.7	139.6
Other	1041.7	1008.2	1353.1
Current Assets	1117.5	1068.9	1492.7
Accts Payable	345.1	355.3	809.1
Debt Due	385.6	154.4	8.5
Other	388.5	410.0	408.6
Current Liab.	1119.2	919.7	1226.2
Fix. Chg. Cov.	408%	405%	410%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	8.5%	19.0%	3.5%
"Cash Flow"	4.0%	5.5%	2.0%
Earnings	3.5%	7.5%	4.5%
Dividends	2.5%	1.5%	2.0%
Book Value	7.0%	9.0%	3.5%

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) A Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	1371.0	1687.8	909.9	1004.6	4973.3
2006	2283.8	2033.8	863.2	971.6	6152.4
2007	1602.6	2075.6	1218.2	1002.0	5898.4
2008	1657.5	2484.0	*1380*	*1068.5*	*6590*
2009	*1730*	*2850*	*1480*	*1170*	*7230*

Fiscal Year Ends	EARNINGS PER SHARE A B E Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	.79	1.11	.06	d.21	1.72
2006	.88	1.10	d.22	.25	2.00
2007	.97	1.20	d.15	d.05	1.94
2008	.82	1.24	*d.04*	*d.02*	*2.00*
2009	*.90*	*1.30*	*d.06*	*d.04*	*2.10*

Cal-endar	QUARTERLY DIVIDENDS PAID C ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.305	.305	.305	.31	1.23
2005	.31	.31	.31	.315	1.25
2006	.315	.315	.315	.32	1.27
2007	.32	.32	.32	.325	1.29
2008	.325	.325			

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
	27.90	22.09	26.61	35.36	22.82	54.39	46.50	61.75	75.27	66.03	*70.10*	*73.05*	Revenues per sh A	*83.50*
	3.38	2.62	3.01	3.03	3.39	3.23	2.91	3.90	4.26	4.14	*4.15*	*4.25*	"Cash Flow" per sh	*4.65*
	1.84	.81	1.03	1.47	1.45	1.71	1.58	1.72	2.00	1.94	*2.00*	*2.10*	Earnings per sh A B	*2.45*
	1.06	1.10	1.14	1.16	1.18	1.20	1.22	1.24	1.26	1.28	*1.30*	*1.32*	Div'ds Decl'd per sh C ■	*1.40*
	4.44	3.53	2.36	2.77	3.17	3.10	3.03	4.14	5.20	4.39	*4.85*	*5.00*	Cap'l Spending per sh	*6.20*
	12.21	12.09	12.28	14.31	13.75	16.66	18.05	19.90	20.16	22.01	*23.20*	*23.45*	Book Value per sh	*25.15*
	30.40	31.25	31.95	40.79	41.68	51.48	62.80	80.54	81.74	89.33	*94.00*	*99.00*	Common Shs Outst'g D	*115.00*
	15.4	33.0	18.9	15.6	15.2	13.4	15.9	16.1	13.5	15.9	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*14.5*
	.80	1.88	1.23	.80	.83	.76	.84	.86	.73	.83			Relative P/E Ratio	*.95*
	3.7%	4.1%	5.9%	5.1%	5.4%	5.2%	4.9%	4.5%	4.7%	4.2%			Avg Ann'l Div'd Yield	*4.0%*
	848.2	690.2	850.2	1442.3	950.8	2799.9	2920.0	4973.3	6152.4	5898.4	*6590*	*7230*	Revenues ($mill) A	*9600*
	55.3	25.0	32.2	56.1	59.7	79.5	86.2	135.8	162.3	170.5	*190*	*210*	Net Profit ($mill)	*280*
	36.5%	35.0%	36.1%	37.3%	37.1%	37.1%	37.4%	37.7%	37.6%	35.8%	*36.0%*	*36.5%*	Income Tax Rate	*38.0%*
	6.5%	3.6%	3.8%	3.9%	6.3%	2.8%	3.0%	2.7%	2.6%	2.9%	*2.9%*	*2.9%*	Net Profit Margin	*3.0%*
	51.8%	50.0%	48.1%	54.3%	53.9%	50.2%	43.2%	57.7%	57.0%	52.0%	*50.0%*	*50.0%*	Long-Term Debt Ratio	*51.0%*
	48.2%	50.0%	51.9%	45.7%	46.1%	49.8%	56.8%	42.3%	43.0%	48.0%	*50.0%*	*50.0%*	Common Equity Ratio	*49.0%*
	769.7	755.1	755.7	1276.3	1243.7	1721.4	1994.8	3785.5	3828.5	4092.1	*4360*	*4640*	Total Capital ($mill)	*5900*
	917.9	965.8	982.3	1335.4	1300.3	1516.0	1722.5	3374.4	3629.2	3836.8	*4050*	*4270*	Net Plant ($mill)	*5450*
	9.0%	5.1%	6.5%	5.9%	6.8%	6.2%	5.8%	5.3%	6.1%	5.9%	*6.0%*	*6.0%*	Return on Total Cap'l	*6.5%*
	14.9%	6.6%	8.2%	9.6%	10.4%	9.3%	7.6%	8.5%	9.8%	8.7%	*8.5%*	*9.0%*	Return on Shr. Equity	*9.5%*
	14.9%	6.6%	8.2%	9.6%	10.4%	9.3%	7.6%	8.5%	9.8%	8.7%	*8.5%*	*9.0%*	Return on Com Equity	*9.5%*
	6.3%	NMF	NMF	2.1%	1.9%	2.8%	1.7%	2.3%	3.6%	3.0%	*3.0%*	*3.5%*	Retained to Com Eq	*4.0%*
	58%	NMF	112%	79%	82%	70%	77%	73%	63%	65%	*64%*	*62%*	All Div'ds to Net Prof	*58%*

BUSINESS: Atmos Energy Corporation is engaged primarily in the distribution and sale of natural gas to 3.2 million customers via six regulated natural gas utility operations: Louisiana Division, West Texas Division, Mid-Tex Division, Mississippi Division, Colorado-Kansas Division, and Kentucky/Mid-States Division. Combined 2007 gas volumes: 297 MMcf. Breakdown: 56%, residential; 32%, commercial; 8%, industrial; and 4% other. 2007 depreciation rate 3.7%. Has around 4,470 employees. Officers and directors own approximately 1.8% of common stock (12/07 Proxy). Chairman and Chief Executive Officer: Robert W. Best. Incorporated: Texas. Address: P.O. Box 650205, Dallas, Texas 75265. Telephone: 972-934-9227. Internet: www.atmosenergy.com.

The performance of Atmos Energy's businesses has been a mixed bag thus far in fiscal 2008, which ends on September 30th. The natural gas distribution unit is enjoying higher rates in the Texas, Louisiana, Tennessee, Missouri, and Kentucky service areas. (Note that our estimates do not include amounts from pending rate cases in Georgia, Kansas, Texas, and Virginia.) Moreover, results for the regulated transmission and storage segment are benefiting from a jump in throughput, reflecting higher production in the Barnett Shale and Carthage regions of Texas, as well as higher per-unit margins due to greater demand. On the downside, the nonregulated marketing segment had been experiencing reduced margins because of less volatility in natural gas prices. But there may be some opportunities now that gas prices have perked up.

Earnings per share may advance just 3%, to $2.00, this fiscal year. The bottom line stands to increase at a somewhat stronger 5% pace, to $2.10 a share, in fiscal 2009, assuming further expansion in operating margins.

We look for steady, albeit unexciting, annual bottom-line growth over the 3- to 5-year horizon. With the utility unit now serving some 3.2 million customers across 12 states, Atmos Energy does not depend on the business environment in any one region of the country. Moreover, the nonregulated segments, contributing between 15% and 35% to net income on a historical basis, appear to possess healthy overall prospects. Finally, management should continue to employ its successful strategy of purchasing less-efficient utilities and shoring up their profitability via expense-reduction initiatives, rate relief, and aggressive marketing efforts. (We don't factor in future acquisitions, however.) In the present corporate configuration, share net ought to advance in the mid-single-digit range out to 2011-2013.

Income-oriented investors may be drawn to the good-quality stock's dividend. Further modest increases in the payout seem likely, as well.

Total-return potential looks appealing, on a risk-adjusted basis. But these shares don't stand out for Timeliness.

Frederick L. Harris, III *June 13, 2008*

(A) Fiscal year ends Sept. 30th. (B) Diluted shrs. Excl. nonrec. items: '99, d23¢; '00, 12¢; '03, d17¢; '06, d18¢; '07, d2¢. Next egs. rpt. due early Aug. (C) Dividends historically paid in early March, June, Sept., and Dec. ■ Div. reinvestment plan. Direct stock purchase plan avail. (D) In millions, adjusted for stock splits. (E) Qtrs may not add due to change in shrs outstanding. (F) ATO completed United Cities merger 7/97.

Company's Financial Strength	B+
Stock's Price Stability	100
Price Growth Persistence	25
Earnings Predictability	80

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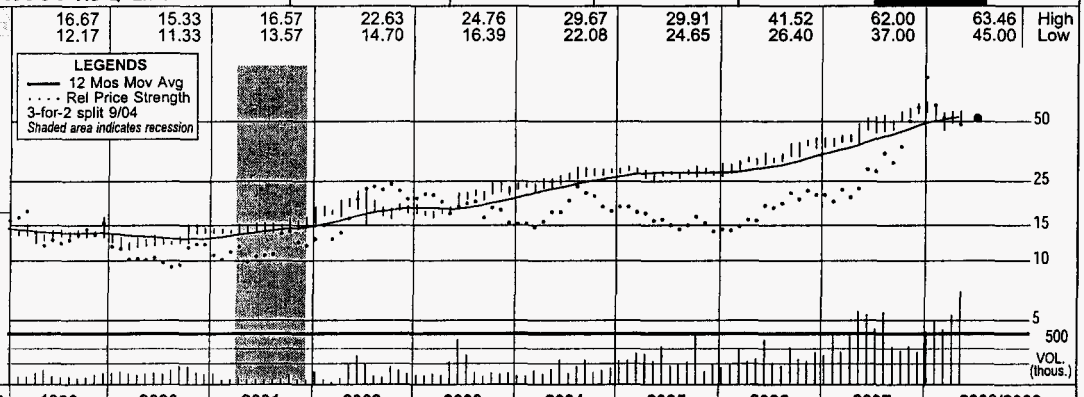
ENERGYSOUTH INC. NDQ--ENSI

RECENT PRICE	TRAILING P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE
52.00	28.3	1.63	2.0%	

RANKS

PERFORMANCE 3 Average
Technical 3 Average
SAFETY 3 Average
BETA .80 (1.00 = Market)

Financial Strength B++
Price Stability 85
Price Growth Persistence 85
Earnings Predictability 100



© VALUE LINE PUBLISHING, INC.	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008/2009
SALES PER SH	9.27	10.06	14.55	11.41	12.94	14.82	15.78	17.10	16.91	
"CASH FLOW" PER SH	2.10	2.15	2.06	2.49	2.65	2.89	3.08	3.14	3.42	
EARNINGS PER SH	1.17	1.19	1.01	1.35	1.45	1.60	1.74	1.76	1.99	*2.05*[A,B]*/2.15*[C]
DIV'DS DECL'D PER SH	.61	.66	.68	.71	.74	.78	.83	.89	.96	
CAP'L SPENDING PER SH	1.37	1.57	5.88	3.38	2.04	1.10	2.08	3.07	6.28	
BOOK VALUE PER SH	8.74	9.30	9.47	10.21	10.99	11.99	12.98	13.98	15.18	
COMMON SHS OUTST'G (MILL)	7.34	7.37	7.41	7.57	7.70	7.83	7.90	7.95	7.99	
AVG ANN'L P/E RATIO	11.8	10.7	14.1	12.9	13.1	15.3	16.0	17.4	21.6	*25.4/24.2*
RELATIVE P/E RATIO	.67	.70	.72	.70	.75	.81	.85	.94	1.14	
AVG ANN'L DIV'D YIELD	4.4%	5.2%	4.8%	4.1%	3.9%	3.2%	3.0%	2.9%	2.2%	
SALES ($MILL)	68.1	74.1	107.8	86.4	99.6	116.0	124.6	135.9	135.0	
OPERATING MARGIN	45.8%	43.1%	32.6%	47.0%	44.9%	40.6%	39.9%	36.6%	38.7%	
DEPRECIATION ($MILL)	6.8	7.1	7.7	8.6	9.3	10.1	10.5	10.9	11.3	
NET PROFIT ($MILL)	8.6	8.8	7.6	10.2	11.1	12.6	13.8	14.0	16.0	
INCOME TAX RATE	36.7%	37.5%	37.8%	36.9%	37.6%	37.7%	39.4%	38.3%	37.6%	
NET PROFIT MARGIN	12.7%	11.9%	7.0%	11.8%	11.2%	10.8%	11.1%	10.3%	11.9%	
WORKING CAP'L ($MILL)	3.1	1.6	1.8	3.2	1.8	7.4	5.2	d4.3	17.6	
LONG-TERM DEBT ($MILL)	58.0	55.2	90.6	98.6	92.6	84.7	77.6	71.4	120.5	
SHR. EQUITY ($MILL)	64.2	68.5	70.1	77.3	84.7	93.9	102.5	111.1	121.3	
RETURN ON TOTAL CAP'L	9.2%	9.1%	7.3%	8.7%	9.0%	9.3%	9.7%	9.4%	8.0%	
RETURN ON SHR. EQUITY	13.5%	12.8%	10.8%	13.2%	13.2%	13.4%	13.5%	12.6%	13.2%	
RETAINED TO COM EQ	7.2%	6.4%	3.6%	6.4%	6.5%	6.9%	7.3%	6.3%	6.8%	
ALL DIV'DS TO NET PROF	47%	50%	66%	52%	51%	48%	46%	50%	49%	

Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.

[A]*No. of analysts changing earn. est. in last 31 days: 0 up, 0 down, consensus 5-year earnings growth 10.0% per year.* [B]*Based upon one analyst's estimate.* [C]*Based upon one analyst's estimate.*

ANNUAL RATES

of change (per share)	5 Yrs.	1 Yr.
Sales	6.5%	-1.0%
"Cash Flow"	7.5%	9.0%
Earnings	9.0%	13.0%
Dividends	5.5%	8.0%
Book Value	8.0%	8.5%

Fiscal Year	QUARTERLY SALES ($mill.) 1Q	2Q	3Q	4Q	Full Year
09/30/05	36.3	44.1	22.4	21.8	124.6
09/30/06	44.8	46.1	23.1	21.9	135.9
09/30/07	38.9	46.7	23.7	25.7	135.0
09/30/08	35.9	47.4			

Fiscal Year	EARNINGS PER SHARE 1Q	2Q	3Q	4Q	Full Year
09/30/04	.52	.81	.17	.10	1.60
09/30/05	.55	.85	.18	.16	1.74
09/30/06	.56	.84	.20	.16	1.76
09/30/07	.57	.85	.17	.40	1.99
09/30/08	.50	.77			

Cal-endar	QUARTERLY DIVIDENDS PAID 1Q	2Q	3Q	4Q	Full Year
2005	.20	.20	.215	.215	.83
2006	.215	.215	.23	.23	.89
2007	.23	.23	.25	.25	.96
2008	.25	.25			

INSTITUTIONAL DECISIONS

	3Q'07	4Q'07	1Q'08
to Buy	26	28	35
to Sell	18	20	25
Hld's(000)	3114	3287	3638

ASSETS ($mill.)	2006	2007	3/31/08
Cash Assets	1.3	.3	11.6
Receivables	7.9	12.5	23.5
Inventory (Avg cost)	8.1	9.4	8.8
Other	10.6	60.6	66.2
Current Assets	27.9	82.8	110.1
Property, Plant & Equip, at cost	314.4	364.5	--
Accum Depreciation	85.8	94.0	--
Net Property	228.6	270.5	455.2
Other	6.2	19.1	19.5
Total Assets	262.7	372.4	584.8
LIABILITIES ($mill.)			
Accts Payable	7.4	30.8	15.8
Debt Due	10.9	18.2	165.0
Other	14.0	16.2	18.5
Current Liab	32.3	65.2	199.3

LONG-TERM DEBT AND EQUITY as of 3/31/08

Total Debt $283.5 mill. **Due in 5 Yrs.** NA
LT Debt $118.5 mill.
Including Cap. Leases NA (47% of Cap'l)
Leases, Uncapitalized Annual rentals NA

Pension Liability $12.0 mill. in '07 vs. None in '06

Pfd Stock None **Pfd Div'd Paid** None

Common Stock 8,105,000 shares (53% of Cap'l)

INDUSTRY: Natural Gas Utility

BUSINESS: EnergySouth, Inc., through its wholly-owned subsidiary, Mobile Gas Service Corp., engages in the distribution and transportation of natural gas to residential, commercial, and industrial customers in southwest Alabama. Its other subsidiary, EnergySouth Midstream, Inc. (ESM), provides for the underground storage of natural gas and transportation services. ESM owns 60% of Mississippi Hub, LLC, which engages in the construction and development of natural gas storage caverns. It also owns EnergySouth Services, Inc. (ESS), which is involved in natural gas marketing, trading and risk management activities. ESS is also the general partner of Southern Gas Transmission Company, which is engaged in the intrastate transportation of natural gas. As of September 30, 2007, the company provided natural gas to approximately 95,000 residential, commercial, and industrial customers in southwest Alabama, including the City of Mobile. Has 244 employees. C.E.O. & President: Constantine S. Liollio . Inc.: AL. Address: 2828 Dauphin Street, Mobile, AL 36606. Tel.: (251) 450-4774. Internet: http://www.energysouth.com.

M.W.

June 13, 2008

TOTAL SHAREHOLDER RETURN
Dividends plus appreciation as of 5/31/2008

3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
7.30%	-1.47%	12.70%	116.18%	232.79%

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LACLEDE GROUP NYSE-LG

RECENT PRICE 39.76 | P/E RATIO 15.2 (Trailing: 15.2 Median: 15.0) | RELATIVE P/E RATIO 0.93 | DIV'D YLD 3.8% | VALUE LINE

TIMELINESS 3 Raised 9/14/07
SAFETY 2 Raised 6/20/03
TECHNICAL 3 Lowered 6/6/08
BETA .90 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	50	(+25%)	9%
Low	35	(-10%)	1%

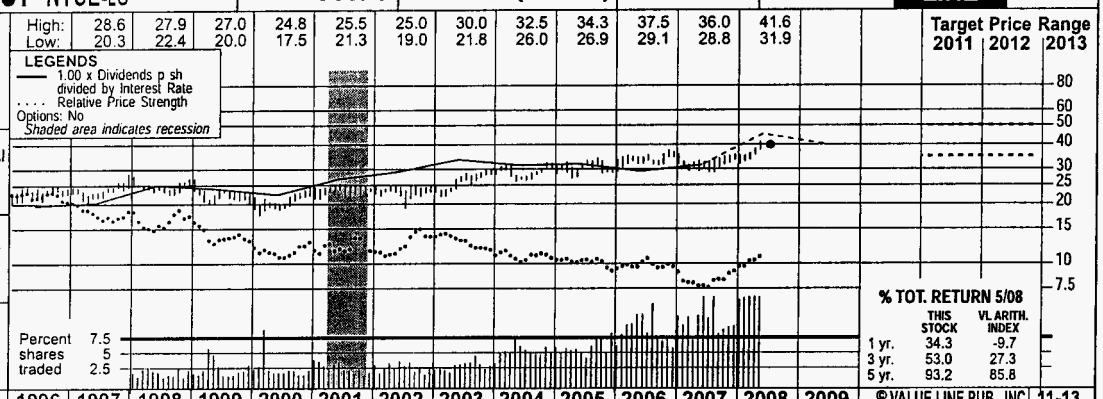
Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	1	0	0	0
Options	0	2	1	0	0	1	0	0	1
to Sell	0	2	1	0	0	1	0	0	1

Institutional Decisions

	3Q2007	4Q2007	1Q2008
to Buy	57	64	72
to Sell	57	51	55
Hld's(000)	9337	9951	10492

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	©VALUE LINE PUB., INC.	11-13
	26.83	32.33	33.43	24.79	31.03	34.33	31.04	26.04	29.99	53.08	39.84	54.95	59.59	75.43	93.51	93.40	*92.25*	*88.90*	Revenues per sh	*107.85*
	2.32	2.81	2.65	2.55	3.29	3.32	3.02	2.56	2.68	3.00	2.56	3.15	2.79	2.98	3.81	3.87	*4.40*	*4.45*	"Cash Flow" per sh	*5.30*
	1.17	1.61	1.42	1.27	1.87	1.84	1.58	1.47	1.37	1.61	1.18	1.82	1.82	1.90	2.37	2.31	*2.65*	*2.50*	Earnings per sh [A B]	*2.85*
	1.20	1.22	1.22	1.24	1.26	1.30	1.32	1.34	1.34	1.34	1.34	1.34	1.35	1.37	1.40	1.45	*1.49*	*1.53*	Div'ds Decl'd per sh [C ■]	*1.65*
	2.87	2.62	2.50	2.63	2.35	2.44	2.68	2.58	2.77	2.51	2.80	2.67	2.45	2.84	2.97	2.72	*2.85*	*2.95*	Cap'l Spending per sh	*3.70*
	11.79	12.19	12.44	13.05	13.72	14.26	14.57	14.96	14.99	15.26	15.07	15.65	16.96	17.31	18.85	19.79	*22.05*	*22.60*	Book Value per sh [D]	*26.00*
	15.59	15.59	15.67	17.42	17.56	17.56	17.63	18.88	18.88	18.88	18.96	19.11	20.98	21.17	21.36	21.65	*22.00*	*22.50*	Common Shs Outst'g [E]	*25.50*
	15.8	13.5	16.4	15.5	11.9	12.5	15.5	15.8	14.9	14.5	20.0	13.6	15.7	16.2	13.6	14.2	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*15.0*
	.96	.80	1.08	1.04	.75	.72	.81	.90	.97	.74	1.09	.78	.83	.86	.73	.75			Relative P/E Ratio	*1.00*
	6.5%	5.6%	5.3%	6.3%	5.6%	5.6%	5.4%	5.8%	6.6%	5.7%	5.7%	5.4%	4.7%	4.4%	4.3%	4.4%			Avg Ann'l Div'd Yield	*4.0%*
							547.2	491.6	566.1	1002.1	755.2	1050.3	1250.3	1597.0	1997.6	2021.6	*2030*	*2000*	Revenues ($mill) [A]	*2750*
							27.9	26.9	26.0	30.5	22.4	34.6	36.1	40.1	50.5	49.8	*58.5*	*56.5*	Net Profit ($mill)	*75.0*
							35.6%	35.5%	35.2%	32.7%	35.4%	35.0%	34.8%	34.1%	32.5%	33.4%	*34.0%*	*34.5%*	Income Tax Rate	*36.0%*
							5.1%	5.5%	4.6%	3.0%	3.0%	3.3%	2.9%	2.5%	2.5%	2.5%	*2.9%*	*2.8%*	Net Profit Margin	*2.7%*
							40.9%	41.8%	45.2%	49.5%	47.5%	50.4%	51.6%	48.1%	49.5%	45.3%	*45.0%*	*45.0%*	Long-Term Debt Ratio	*47.0%*
							58.6%	57.8%	54.5%	50.2%	52.3%	49.4%	48.3%	51.8%	50.4%	54.6%	*55.0%*	*55.0%*	Common Equity Ratio	*53.0%*
							438.0	488.6	519.2	574.1	546.6	605.0	737.4	707.9	798.9	784.5	*880*	*925*	Total Capital ($mill)	*1250*
							490.6	519.4	575.4	602.5	594.4	621.2	646.9	679.5	763.8	793.8	*825*	*855*	Net Plant ($mill)	*1150*
							8.1%	7.1%	6.7%	6.9%	6.0%	7.4%	6.6%	7.6%	8.4%	8.5%	*8.0%*	*7.5%*	Return on Total Cap'l	*7.5%*
							10.8%	9.5%	9.1%	10.5%	7.8%	11.5%	10.1%	10.9%	12.5%	11.6%	*12.0%*	*11.0%*	Return on Shr. Equity	*11.5%*
							10.8%	9.5%	9.1%	10.5%	7.8%	11.6%	10.1%	10.9%	12.5%	11.6%	*12.0%*	*11.0%*	Return on Com Equity	*11.5%*
							1.8%	1.0%	.2%	1.8%	NMF	3.1%	2.7%	3.1%	5.1%	4.3%	*5.5%*	*4.5%*	Retained to Com Eq	*5.0%*
							83%	89%	98%	83%	113%	74%	73%	72%	59%	63%	*56%*	*61%*	All Div'ds to Net Prof	*56%*



CAPITAL STRUCTURE as of 3/31/08
Total Debt $527.4 mill. Due in 5 Yrs $275.0 mill.
LT Debt $355.6 mill. LT Interest $20.0 mill.
(Total interest coverage: 3.0x)

Leases, Uncapitalized Annual rentals $.9 mill.
Pension Assets-9/07 $260.3 mill. Oblig. $293.3 mill.
Pfd Stock $.5 mill. Pfd Div'd $.04 mill.
Common Stock 21,823,168 shs.
as of 4/25/08

MARKET CAP: $875 million (Small Cap)

CURRENT POSITION ($MILL.)	2006	2007	3/31/08
Cash Assets	50.8	52.7	145.5
Other	409.0	414.6	433.5
Current Assets	459.8	467.3	579.0
Accts Payable	103.3	106.8	186.9
Debt Due	207.5	251.6	171.8
Other	120.1	115.3	91.7
Current Liab.	430.9	473.7	450.4
Fix. Chg. Cov.	285%	282%	280%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	11.5%	16.5%	3.5%
"Cash Flow"	1.5%	5.5%	7.0%
Earnings	3.0%	9.5%	4.5%
Dividends	1.0%	1.0%	2.5%
Book Value	3.0%	4.5%	5.5%

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) [A] Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	442.5	576.5	311.3	266.7	1597.0
2006	689.2	708.8	330.6	269.0	1997.6
2007	539.6	700.8	457.9	323.3	2021.6
2008	504.0	747.7	*443.3*	*335*	*2030*
2009	*500*	*500*	*500*	*500*	*2000*

Fiscal Year Ends	EARNINGS PER SHARE [A B F] Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	.79	1.06	.29	d.24	1.90
2006	1.23	1.05	.13	d.04	2.37
2007	.89	.97	.43	.03	2.31
2008	.99	1.39	*.25*	*.02*	*2.65*
2009	*.96*	*1.16*	*.33*	*.05*	*2.50*

Cal-endar	QUARTERLY DIVIDENDS PAID [C ■] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.335	.34	.34	.34	1.36
2005	.34	.345	.345	.345	1.38
2006	.345	.355	.355	.355	1.41
2007	.365	.365	.365	.365	1.46
2008	.375	.375			

BUSINESS: Laclede Group, Inc., is a holding company for Laclede Gas, which distributes natural gas in eastern Missouri, including the city of St. Louis, St. Louis County, and parts of 10 other counties. Has roughly 632,000 customers. Purchased SM&P Utility Resources, 1/02; divested, 3/08. Therms sold and transported in fiscal 2007: 1.12 mill. Revenue mix for regulated operations: residential, 60%; commercial and industrial, 24%; transportation, 1%; other, 15%. Has around 3,845 employees. Officers and directors own approximately 7.0% of common shares (1/08 proxy). Chairman, Chief Executive Officer, and President: Douglas H. Yaeger. Incorporated: Missouri. Address: 720 Olive Street, St. Louis, Missouri 63101. Telephone: 314-342-0500. Internet: www.thelacledegroup.com.

Laclede Group has registered strong earnings thus far in fiscal 2008 (which ends September 30th). Laclede Gas, the core division, is benefiting nicely from a general rate increase that became effective on August 1st of last year. But results here are being partially offset by diminished margins within the service area (reflecting an unusually late start to the heating season) and a rise in the provision for uncollectible accounts. Meanwhile, Laclede Energy Resources is enjoying higher per-unit gas sales prices and increased volumes, constrained a bit by higher operating expenses.

We expect consolidated share net to climb nearly 15%, to $2.65, this fiscal year (which would be a record). But the bottom line may retreat some in fiscal 2009, to $2.50 a share, given the difficult comparison.

The company recently sold SM&P Utility Resources, the unregulated unit specializing in locating and marking services for underground facilities, to Stripe Acquisition. A portion of the $85 million in proceeds (around double what Laclede paid for SM&P in 2002) was used to strengthen the balance sheet. It appears that SM&P was not central to present corporate strategy, since it comprised only about 6% of fiscal 2007 share net. (Note that our fiscal 2008 figures were adjusted to account for SM&P as a discontinued operation.)

We anticipate an unspectacular operating performance for the company out to 2011-2013. Given that the market for the natural gas unit has been in a mature stage, achieving meaningful customer growth ought to remain challenging. Furthermore, it seems that no major business combinations are in the immediate future. Consequently, annual share-net advances should be between 4% and 5% over the 3- to 5-year time frame.

These good-quality shares have risen to their highest levels ever, driven by Laclede Group's strong year-to-date results.

But total-return possibilities are limited. That is because of the stock's runup in price, and our assumption that moderate increases in the dividend will continue.

Frederick L. Harris, III *June 13, 2008*

(A) Fiscal year ends Sept. 30th.
(B) Based on average shares outstanding thru. '97, then diluted. Excludes nonrecurring loss: '06, 7¢. Excludes gain from discontinued operations: '08, 96¢. Next earnings report due late July. (C) Dividends historically paid in early January, April, July, and October. ■ Dividend reinvestment plan available. (D) Incl. deferred charges. In '07: $289.7 mill., $13.38/sh. (E) In millions. (F) Qtly. egs. may not sum due to rounding or change in shares outstanding.

Company's Financial Strength	B+
Stock's Price Stability	95
Price Growth Persistence	55
Earnings Predictability	70

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NEW JERSEY RES. NYSE-NJR

RECENT PRICE 32.88 | P/E RATIO 16.6 (Trailing: 19.5 Median: 15.0) | RELATIVE P/E RATIO 1.01 | DIV'D YLD 3.4% | VALUE LINE

TIMELINESS 3 Raised 6/6/08
SAFETY 1 Raised 9/15/06
TECHNICAL 3 Lowered 6/6/08
BETA .85 (1.00 = Market)

2011-13 PROJECTIONS

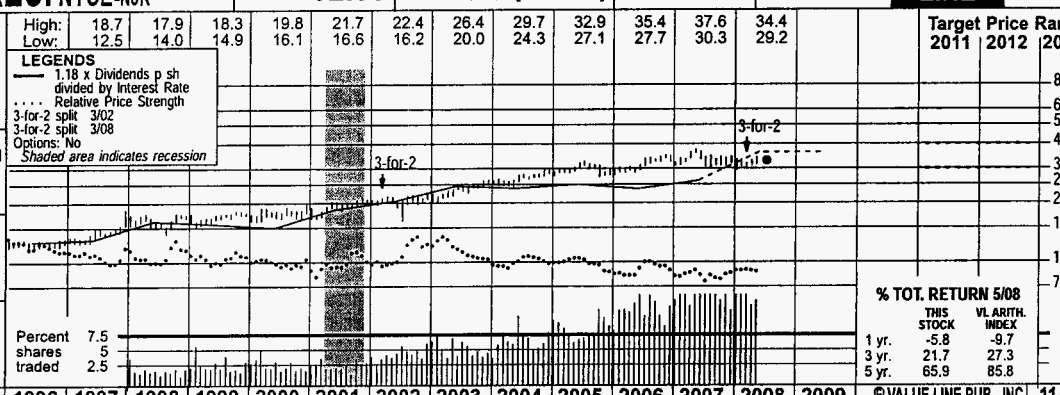
	Price	Gain	Ann'l Total Return
High	40	(+20%)	8%
Low	30	(-10%)	2%

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	1	4	2	0	0
to Sell	0	1	0	0	0	6	0	2	0

Institutional Decisions

	3Q2007	4Q2007	1Q2008
to Buy	72	82	85
to Sell	84	68	70
Hld's(000)	25729	25741	26518



1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
11.25	12.02	12.81	11.36	13.48	17.31	17.73	22.65	29.42	51.22	44.11	62.29	60.89	76.19	79.63	72.62	*77.60*	*77.65*	Revenues per sh [A]	*81.95*
1.30	1.42	1.54	1.42	1.48	1.63	1.74	1.86	1.99	2.12	2.14	2.38	2.50	2.62	2.73	2.44	*3.00*	*3.10*	"Cash Flow" per sh	*3.40*
.73	.76	.84	.86	.92	.99	1.04	1.11	1.20	1.30	1.39	1.59	1.70	1.77	1.87	1.55	*1.95*	*2.15*	Earnings per sh [B]	*2.50*
.68	.68	.68	.68	.69	.71	.73	.75	.76	.78	.80	.83	.87	.91	.96	1.01	*1.11*	*1.17*	Div'ds Decl'd per sh [C] ■	*1.36*
1.33	1.54	1.40	1.18	1.19	1.15	1.07	1.21	1.23	1.10	1.02	1.14	1.45	1.28	1.28	1.46	*1.55*	*1.65*	Cap'l Spending per sh	*1.80*
6.29	6.54	6.43	6.47	6.73	6.92	7.26	7.57	8.29	8.80	8.71	10.26	11.25	10.60	15.00	15.50	*16.50*	*17.95*	Book Value per sh [D]	*23.05*
36.64	37.84	38.93	40.03	40.69	40.23	40.07	39.92	39.59	40.00	41.50	40.85	41.61	41.32	41.44	41.61	*42.00*	*42.50*	Common Shs Outst'g [E]	*44.00*
12.4	15.1	13.0	11.7	13.6	13.5	15.3	15.2	14.7	14.2	14.7	14.0	15.3	16.8	16.1	21.6	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*14.0*
.75	.89	.85	.78	.85	.78	.80	.87	.96	.73	.80	.80	.81	.89	.87	1.13			Relative P/E Ratio	*.95*
7.5%	5.8%	6.2%	6.7%	5.6%	5.3%	4.6%	4.5%	4.4%	4.2%	3.9%	3.7%	3.3%	3.1%	3.2%	3.0%			Avg Ann'l Div'd Yield	*4.0%*
710.3	904.3	1164.5	2048.4	1830.8	2544.4	2533.6	3148.3	3299.6	3021.8	*3260*	*3300*	Revenues ($mill) [A]	*3605*
43.3	44.9	47.9	52.3	56.8	65.4	71.6	74.4	78.5	65.3	*88.0*	*94.0*	Net Profit ($mill)	*110*
30.4%	36.2%	37.8%	38.0%	38.7%	39.4%	39.1%	39.1%	38.9%	38.8%	*39.0%*	*39.0%*	Income Tax Rate	*40.0%*
6.1%	5.0%	4.1%	2.6%	3.1%	2.6%	2.8%	2.4%	2.4%	2.2%	*2.7%*	*2.8%*	Net Profit Margin	*3.1%*
51.2%	48.7%	47.0%	50.1%	50.6%	38.1%	40.3%	42.0%	34.8%	37.3%	*34.0%*	*32.0%*	Long-Term Debt Ratio	*27.0%*
45.6%	51.2%	52.9%	49.9%	49.4%	61.9%	59.7%	58.0%	65.2%	62.7%	*66.0%*	*68.0%*	Common Equity Ratio	*73.0%*
638.2	590.4	620.1	706.2	732.4	676.8	783.8	755.3	954.0	1028.0	*1050*	*1130*	Total Capital ($mill)	*1400*
680.0	705.4	730.6	743.9	756.4	852.6	880.4	905.1	934.9	970.9	*990*	*1010*	Net Plant ($mill)	*1070*
8.1%	9.0%	9.0%	8.5%	8.7%	10.7%	10.1%	11.2%	9.6%	7.7%	*9.5%*	*9.0%*	Return on Total Cap'l	*8.5%*
13.9%	14.8%	14.6%	14.8%	15.7%	15.6%	15.3%	17.0%	12.6%	10.1%	*13.0%*	*12.0%*	Return on Shr. Equity	*11.0%*
14.4%	14.8%	14.6%	14.9%	15.7%	15.6%	15.3%	17.0%	12.6%	10.1%	*13.0%*	*12.0%*	Return on Com Equity	*11.0%*
4.4%	5.0%	5.4%	6.1%	6.9%	7.7%	7.8%	8.5%	6.3%	3.6%	*6.0%*	*5.5%*	Retained to Com Eq	*5.0%*
71%	67%	63%	59%	56%	51%	49%	50%	50%	64%	*53%*	*54%*	All Div'ds to Net Prof	*54%*

CAPITAL STRUCTURE as of 3/31/08
Total Debt $541.6 mill. Due in 5 Yrs $300.0 mill.
LT Debt $357.7 mill. LT Interest $17.0 mill.
Incl. $7.4 mill. capitalized leases.
(LT interest earned: 4.8x; total interest coverage: 4.8x)
Pension Assets-9/07 $105.4 mill. Oblig. $107.9 mill.
Pfd Stock None

Common Stock 41,926,665 shs.
as of 4/29/08
MARKET CAP: $1.4 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2006	2007	3/31/08
Cash Assets	5.0	5.1	9.3
Other	960.5	794.8	957.5
Current Assets	965.5	799.9	966.8
Accts Payable	46.8	64.4	45.1
Debt Due	284.4	260.8	183.9
Other	566.0	378.1	652.7
Current Liab.	897.2	703.3	881.7
Fix. Chg. Cov.	570%	461%	450%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	18.5%	13.0%	*1.5%*
"Cash Flow"	5.5%	4.5%	*5.0%*
Earnings	6.5%	6.0%	*6.5%*
Dividends	3.5%	4.0%	*6.0%*
Book Value	7.5%	10.0%	*9.0%*

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) [A] Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	854.1	1065	544.3	684.9	3148.3
2006	1164	1064	536.1	535.5	3299.6
2007	737.4	1029	662.2	593.2	3021.8
2008	811.1	1178	*670*	*600.9*	*3260*
2009	*820*	*1190*	*680*	*610*	*3300*

Fiscal Year Ends	EARNINGS PER SHARE [A B] Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	.61	1.23	.05	d.12	1.77
2006	.82	1.43	d.09	d.29	1.87
2007	.70	.19	.60	.06	1.55 [F]
2008	.87	.30	*.68*	*.10*	*1.95*
2009	*.90*	*.40*	*.73*	*.12*	*2.15*

Cal-endar	QUARTERLY DIVIDENDS PAID [C E] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.217	.217	.217	.217	.87
2005	.227	.227	.227	.227	.91
2006	.24	.24	.24	.24	.96
2007	.253	.253	.253	.253	1.01
2008	.267	.28			

BUSINESS: New Jersey Resources Corp. is a holding company providing retail/wholesale energy svcs. to customers in New Jersey, and in states from the Gulf Coast to New England, and Canada. New Jersey Natural Gas had about 478,000 customers at 9/30/07 in Monmouth and Ocean Counties, and other N.J. Counties. Fiscal 2007 volume: 102.8 bill. cu. ft. (58% firm, 6% interruptible industrial and electric utility, 36% off-system and capacity release). N.J. Natural Energy subsidiary provides unregulated retail/wholesale natural gas and related energy svcs. 2007 dep. rate: 2.8%. Has 808 empls. Off./dir. own about 2% of common (12/07 Proxy). Chrmn., CEO, & Pres. : Laurence M. Downes. Inc.: N.J. Addr.: 1415 Wyckoff Road, Wall, NJ 07719. Tel.: 732-938-1480. Web: www.njresources.com.

New Jersey Resources posted solid top- and bottom-line advances for the March interim. The company's New Jersey Natural Gas (NJNG) unit has added 3,125 new customers so far in 2008. Higher utility gross margins, as well as incentive-based programs, have augured well for this unit's revenue and earnings contributions. But, offsetting factors stem from the NJR Energy Services (NJRES) division, which experienced a decline in profits as financial margins tightened.

We have lowered our estimates for this year and next. Last year's investigation for NJR's treatment of derivatives had a negative impact, and subsequently its financial statements were restated. SFAS 133 deals with the accounting for gains or losses on derivative instruments. Moving forward we will not be excluding these effects from New Jersey Resources' bottom line. As a result, we have trimmed our 2008 and 2009 annual tallies by 9% and 4%, respectively. In sum, the main result of this accounting change should be a more even distribution of earnings throughout the year.

The company ought to post 13% and 26% advances in share net for the June interim and the year. The NJNG unit will likely add another 5,000 accounts this year. The overall slowdown in the national economy and housing market should have slowed customer growth. But NJR has been successful in moderating that trend by converting commercial accounts.

We look for NJR's 2009 results to moderate a bit. The submission for a $58.4 million rate increase with the NJ Board of Public Utilities is moving along nicely. The rate case was initiated to cover costs associated with the construction, operation, and maintenance of NJR's infrastructure and will likely benefit next year's profits.

These shares are ranked to mirror the broader market for the year ahead. And they offer below-average total return potential. However, our projections may prove conservative depending on how successful the Steckman Ridge storage facility turns out to be. The equity's high marks for Price Stability, Above-Average Safety rank, decent dividend yield, and prospects for dividend growth give it some appeal for income.

Bryan Fong *June 13, 2008*

(A) Fiscal year ends Sept. 30th.
(B) Diluted earnings. Next earnings report due late July.
(C) Dividends historically paid in early January, April, July, and October. ■ Dividend reinvestment plan available.
(D) Includes regulatory assets in 2007: $312.4 million, $11.24/share.
(E) In millions, adjusted for split.
(F) Restated.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	75
Earnings Predictability	50

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N.W. NAT'L GAS NYSE-NWN

RECENT PRICE 45.73 | P/E RATIO 17.3 (Trailing: 17.5 Median: 16.0) | RELATIVE P/E RATIO 1.05 | DIV'D YLD 3.3% | VALUE LINE

TIMELINESS 4 Lowered 2/22/08
SAFETY 1 Raised 3/18/05
TECHNICAL 3 Lowered 5/30/08
BETA .80 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	65	(+40%)	12%
Low	55	(+20%)	8%

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	1	0	
Options	0	0	0	0	4	0	0	0	0
to Sell	0	1	0	0	5	1	0	0	0

Institutional Decisions

	3Q2007	4Q2007	1Q2008
to Buy	66	95	77
to Sell	88	60	92
Hld's(000)	16048	16848	16772

High:	31.4	30.8	27.9	27.5	26.8	30.7	31.3	34.1	39.6	43.7	52.8	50.7
Low:	23.0	24.3	19.5	17.8	21.7	23.5	24.0	27.5	32.4	32.8	39.8	41.1

LEGENDS
1.10 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-2 split 9/96
Options: Yes
Shaded area indicates recession

Target Price Range 2011 | 2012 | 2013

% TOT. RETURN 5/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	-5.5	-9.7
3 yr.	39.9	27.3
5 yr.	97.7	85.8

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
14.10	18.15	18.30	16.02	16.86	15.82	16.77	18.17	21.09	25.78	25.07	23.57	25.69	33.01	37.20	39.13	41.50	43.95	Revenues per sh	50.00
3.25	3.74	3.50	3.41	3.86	3.72	3.24	3.72	3.68	3.86	3.65	3.85	3.92	4.34	4.76	5.41	5.45	5.75	"Cash Flow" per sh	6.60
.74	1.74	1.63	1.61	1.97	1.76	1.02	1.70	1.79	1.88	1.62	1.76	1.86	2.11	2.35	2.76	2.65	2.80	Earnings per sh A	3.35
1.15	1.17	1.17	1.18	1.20	1.21	1.22	1.23	1.24	1.25	1.26	1.27	1.30	1.32	1.39	1.44	1.52	1.60	Div'ds Decl'd per sh B■	1.88
3.73	3.61	4.23	3.02	3.70	5.07	4.02	4.78	3.46	3.23	3.11	4.90	5.52	3.48	3.56	4.48	5.45	9.00	Cap'l Spending per sh	4.50
12.41	13.08	13.63	14.55	15.37	16.02	16.59	17.12	17.93	18.56	18.88	19.52	20.64	21.28	22.01	22.52	23.65	23.75	Book Value per sh	26.50
19.46	19.77	20.13	22.24	22.56	22.86	24.85	25.09	25.23	25.23	25.59	25.94	27.55	27.58	27.24	26.41	26.50	26.50	Common Shs Outst'g C	28.00
27.0	12.9	13.0	12.9	11.7	14.4	26.7	14.5	12.4	12.9	17.2	15.8	16.7	17.0	15.9	16.7	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	18.0
1.64	.76	.85	.86	.73	.83	1.39	.83	.81	.66	.94	.90	.88	.91	.86	.88			Relative P/E Ratio	1.20
5.7%	5.2%	5.5%	5.7%	5.2%	4.8%	4.5%	5.0%	5.6%	5.1%	4.5%	4.6%	4.2%	3.7%	3.7%	3.1%			Avg Ann'l Div'd Yield	3.1%
416.7	455.8	532.1	650.3	641.4	611.3	707.6	910.5	1013.2	1033.2	1100	1165	Revenues ($mill)	1400
27.3	44.9	47.8	50.2	43.8	46.0	50.6	58.1	65.2	74.5	70.0	74.0	Net Profit ($mill)	94.0
31.0%	35.4%	35.9%	35.4%	34.9%	33.7%	34.4%	36.0%	36.3%	37.2%	37.0%	37.0%	Income Tax Rate	37.0%
6.6%	9.9%	9.0%	7.7%	6.8%	7.5%	7.1%	6.4%	6.4%	7.2%	6.4%	6.4%	Net Profit Margin	6.7%
45.0%	46.0%	45.1%	43.0%	47.6%	49.7%	46.0%	47.0%	46.3%	46.3%	47.0%	48.0%	Long-Term Debt Ratio	48.0%
50.6%	49.9%	50.9%	53.2%	51.5%	50.3%	54.0%	53.0%	53.7%	53.7%	53.0%	52.0%	Common Equity Ratio	52.0%
815.6	861.5	887.8	880.5	937.3	1006.6	1052.5	1108.4	1116.5	1106.8	1150	1200	Total Capital ($mill)	1500
894.7	895.9	934.0	965.0	995.6	1205.9	1318.4	1373.4	1425.1	1495.9	1550	1650	Net Plant ($mill)	2000
5.0%	6.8%	6.7%	6.9%	5.9%	5.7%	5.9%	6.5%	7.1%	8.5%	7.5%	7.7%	Return on Total Cap'l	7.0%
6.1%	9.7%	9.8%	10.0%	8.9%	9.1%	8.9%	9.9%	10.9%	12.5%	11.5%	11.5%	Return on Shr. Equity	11.0%
6.0%	9.9%	10.0%	10.2%	8.5%	9.0%	8.9%	9.9%	10.9%	12.5%	11.5%	11.5%	Return on Com Equity	11.0%
NMF	2.8%	3.1%	3.5%	1.9%	2.6%	2.7%	3.7%	4.5%	6.0%	5.0%	5.0%	Retained to Com Eq	5.0%
118%	74%	70%	67%	79%	72%	69%	63%	59%	52%	57%	57%	All Div'ds to Net Prof	56%

CAPITAL STRUCTURE as of 3/31/08
Total Debt $571.6 mill. Due in 5 Yrs $144.0 mill.
LT Debt $512.0 mill. LT Interest $37.0 mill.

(Total interest coverage: 4.0x)

Pension Assets-12/07 $241 mill.
Oblig. $260 mill.
Pfd Stock None

Common Stock 26,415,248 shs.
as of 4/30/08
MARKET CAP $1.2 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2006	2007	3/31/08
Cash Assets	5.8	6.1	6.4
Other	303.0	268.8	230.4
Current Assets	308.8	274.9	236.8
Accts Payable	113.6	119.7	93.1
Debt Due	129.6	148.1	59.6
Other	98.3	122.1	159.3
Current Liab.	341.5	389.9	312.0
Fx. Chg. Cov.	349%	408%	NMF

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	8.5%	8.5%	6.5%
"Cash Flow"	3.0%	5.5%	5.0%
Earnings	3.0%	6.5%	7.0%
Dividends	1.5%	2.0%	5.5%
Book Value	3.5%	3.5%	3.5%

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	308.7	153.7	106.7	341.4	910.5
2006	390.4	171.0	114.9	336.9	1013.2
2007	394.1	183.2	124.2	331.7	1033.2
2008	387.7	200	130	382.3	1100
2009	420	210	135	400	1165

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	1.44	.04	d.31	.94	2.11
2006	1.48	.07	d.35	1.15	2.35
2007	1.77	.10	d.22	1.11	2.76
2008	1.63	.10	d.28	1.20	2.65
2009	1.70	.11	d.27	1.26	2.80

Calendar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.325	.325	.325	.325	1.30
2005	.325	.325	.325	.345	1.32
2006	.345	.345	.345	.355	1.39
2007	.355	.355	.355	.375	1.44
2008	.375	.375			

BUSINESS: Northwest Natural Gas Co. distributes natural gas to 90 communities, 657,000 customers, in Oregon (90% of customers) and in southwest Washington state. Principal cities served: Portland and Eugene, OR; Vancouver, WA. Service area population: 2.5 mill. (77% in OR). Company buys gas supply from Canadian and U.S. producers; has transportation rights on Northwest Pipeline system. Owns local underground storage. Rev. breakdown: residential, 55%; commercial, 28%; industrial, gas transportation, and other, 17%. Employs 1,130. Barclays Global owns 6.5% of shares; officers and directors, 1.3% (4/08 proxy). CEO: Mark S. Dodson. Inc.: Oregon. Address: 220 NW 2nd Ave., Portland, OR 97209. Telephone: 503-226-4211. Internet: www.nwnatural.com.

Northwest Natural actually began 2008 fairly well. Earnings in the first quarter of 2007 benefited from a $0.25-a-share gas hedging profit from astute forward purchasing in 2006. (In Oregon, Northwest keeps one-third of the gain or loss from such activity, while 100% of the gas cost is passed through to customers in Washington.) Thus, without that fortuitous gain in 2007, share net would have risen 7%. Customer growth continued strong, and lower operating costs and higher earnings from gas storage helped.

Earnings will likely grow at a normal utility pace through 2009. Customer growth will probably continue strong, despite a slowdown in new construction. The company has beefed up its conversion sales effort, which has led to more conversions to gas from other heating sources. Northwest expanded its gas storage capacity by about 11% last year, and that should generate earnings gains of around $0.02 a share per quarter. Finally, NWN has filed a rate case in Washington, the first since 2003, seeking a 4.8% general increase; some of that will likely be granted.

Expanding service to the suburbs should help to boost profits over the next 10 years. Oregon has increased the permitted population density in some suburban areas southeast of Portland, and expected population growth there could add 15% to customer rolls by 2015.

Two large projects could contribute substantially to earnings by 2011. Northwest and PG&E plan to build a gas storage facility near Fresno, CA, 75%-owned by NWN. And the proposed Palomar pipeline, half-owned by NWN, would give Northwest a second source of gas and could come on stream by then, as well. The company's total investment in the two projects could be around $500 million, and returns should be adequate. While completing both projects would require a stock issue, the gain in earnings per share from the two projects could run as high as $0.80. As neither project has been approved, we exclude their effects from our earnings forecast. Still, even without the big projects,

These top-quality, though untimely, shares have decent risk-adjusted long-term total return prospects.

Sigourney B. Romaine, CFA June 13, 2008

(A) Diluted earnings per share. Excludes nonrecurring items: '98, $0.15; '00, $0.11; '06, ($0.06). Next earnings report due early August.
(B) Dividends historically paid in mid-February, mid-May, mid-August, and mid-November.
■ Dividend reinvestment plan available.
(C) In millions, adjusted for stock split.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	65
Earnings Predictability	80

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PIEDMONT NAT'L. GAS NYSE-PNY

RECENT PRICE 26.55 | P/E RATIO 17.1 (Trailing: 16.8 / Median: 17.0) | RELATIVE P/E RATIO 1.07 | DIV'D YLD 3.9% | VALUE LINE

TIMELINESS 3 Raised 6/15/07
SAFETY 2 New 7/27/90
TECHNICAL 3 Lowered 6/6/08
BETA .85 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+50%)	15%
Low	30	(+15%)	10%

Insider Decisions

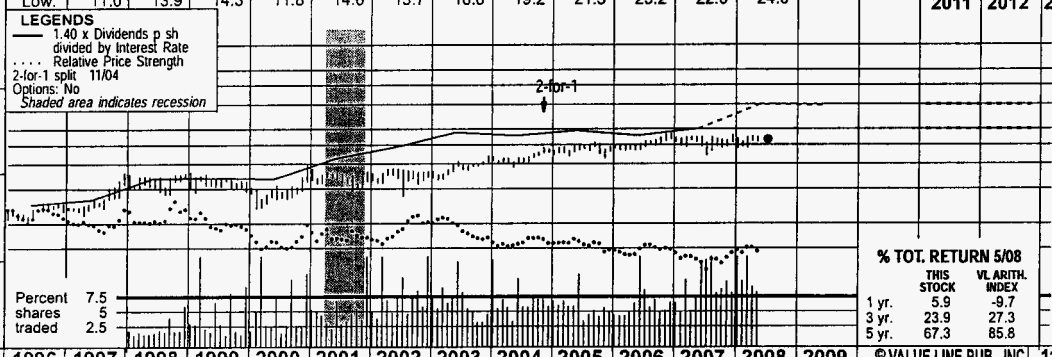
	J	A	S	O	N	D	J	F	M
to Buy	1	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	2

Institutional Decisions

	3Q2007	4Q2007	1Q2008
to Buy	78	85	78
to Sell	80	81	85
Hld's(000)	35472	36470	36778

	2011	2012	2013
High:	18.2	18.1	18.3
Low:	11.0	13.9	14.3

LEGENDS
1.40 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 11/04
Options: No
Shaded area indicates recession



Target Price Range

% TOT. RETURN 5/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	5.9	-9.7
3 yr.	23.9	27.3
5 yr.	67.3	85.8

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
	8.91	10.57	10.82	8.76	11.59	12.84	12.45	10.97	13.01	17.06	12.57	18.14	19.95	22.96	25.80	23.37	*25.60*	*26.45*	Revenues per sh [A]	*29.25*
	1.07	1.14	1.13	1.25	1.49	1.62	1.72	1.70	1.77	1.81	1.81	2.04	2.31	2.43	2.51	2.64	*2.80*	*2.85*	"Cash Flow" per sh	*3.10*
	.70	.73	.68	.73	.84	.93	.98	.93	1.01	1.01	.95	1.11	1.27	1.32	1.28	1.40	*1.55*	*1.60*	Earnings per sh [B]	*1.85*
	.46	.48	.51	.54	.57	.61	.64	.68	.72	.76	.80	.82	.85	.91	.95	.99	*1.03*	*1.07*	Div'ds Decl'd per sh [C] ■	*1.19*
	1.41	1.58	1.95	1.72	1.64	1.52	1.48	1.58	1.65	1.29	1.21	1.16	1.85	2.50	2.74	1.85	*2.00*	*2.05*	Cap'l Spending per sh	*2.30*
	5.13	5.45	5.68	6.16	6.53	6.95	7.45	7.86	8.26	8.63	8.91	9.36	11.15	11.53	11.83	11.99	*12.45*	*12.95*	Book Value per sh [D]	*14.70*
	51.59	52.30	53.15	57.67	59.10	60.39	61.48	62.59	63.83	64.93	66.18	67.31	76.67	76.70	74.61	73.23	*73.00*	*72.75*	Common Shs Outst'g [E]	*72.00*
	12.3	15.4	15.7	13.8	13.9	13.6	16.3	17.7	14.3	16.7	18.4	16.7	16.6	17.9	19.2	18.7	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.0*
	.75	.91	1.03	.92	.87	.78	.85	1.01	.93	.86	1.01	.95	.88	.95	1.04	.98			Relative P/E Ratio	*1.50*
	5.3%	4.3%	4.8%	5.4%	4.9%	4.8%	4.0%	4.1%	5.0%	4.5%	4.6%	4.4%	4.1%	3.8%	3.9%	3.8%			Avg Ann'l Div'd Yield	*3.1%*
	765.3	686.5	830.4	1107.9	832.0	1220.8	1529.7	1761.1	1924.7	1711.3	*1870*	*1925*	Revenues ($mill) [A]	*2105*
	60.3	58.2	64.0	65.5	62.2	74.4	95.2	101.3	97.2	104.4	*113*	*117*	Net Profit ($mill)	*135*
	39.2%	39.7%	34.7%	34.6%	33.1%	34.8%	35.1%	33.7%	34.2%	33.0%	*35.0%*	*35.0%*	Income Tax Rate	*35.0%*
	7.9%	8.5%	7.7%	5.9%	7.5%	6.1%	6.2%	5.8%	5.0%	6.1%	*6.0%*	*6.1%*	Net Profit Margin	*6.4%*
	44.7%	46.2%	46.1%	47.6%	43.9%	42.2%	43.6%	41.4%	48.3%	48.4%	*48.0%*	*47.6%*	Long-Term Debt Ratio	*46.0%*
	55.3%	53.8%	53.9%	52.4%	56.1%	57.8%	56.4%	58.6%	51.7%	51.6%	*52.0%*	*52.4%*	Common Equity Ratio	*54.0%*
	829.3	914.7	978.4	1069.4	1051.6	1090.2	1514.9	1509.2	1707.9	1703.3	*1750*	*1800*	Total Capital ($mill)	*1960*
	990.6	1047.0	1072.0	1114.7	1158.5	1812.3	1849.8	1939.1	2075.3	2141.5	*2200*	*2250*	Net Plant ($mill)	*2400*
	9.2%	8.1%	8.3%	7.9%	7.8%	8.6%	7.8%	8.2%	7.2%	7.8%	*8.0%*	*8.0%*	Return on Total Cap'l	*8.0%*
	13.2%	11.8%	12.1%	11.7%	10.6%	11.8%	11.1%	11.5%	11.0%	11.9%	*12.5%*	*12.5%*	Return on Shr. Equity	*12.5%*
	13.2%	11.8%	12.1%	11.7%	10.6%	11.8%	11.1%	11.5%	11.0%	11.9%	*12.5%*	*12.5%*	Return on Com Equity	*12.5%*
	4.7%	3.3%	3.5%	3.0%	1.7%	3.1%	3.7%	3.6%	2.8%	3.5%	*4.0%*	*4.0%*	Retained to Com Eq	*4.5%*
	65%	72%	71%	75%	83%	74%	66%	68%	74%	70%	*66%*	*67%*	All Div'ds to Net Prof	*64%*

CAPITAL STRUCTURE as of 1/31/08
Total Debt $1113.8 mill. Due in 5 Yrs $150.0 mill.
LT Debt $824.8 mill. LT Interest $55.7 mill.
(LT interest earned: 4.0x; total interest coverage: 4.0x)

Pension Assets-10/07 $225.0 mill. Oblig. $188.7 mill.

Pfd Stock None

Common Stock 73,407,684 shs.
as of 3/4/08
MARKET CAP: $2.0 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2006	2007	1/31/08
Cash Assets	8.9	7.5	17.7
Other	467.1	427.8	644.8
Current Assets	476.0	435.3	662.5
Accts Payable	80.3	97.2	187.1
Debt Due	170.0	195.0	289.0
Other	150.1	132.3	162.9
Current Liab.	400.4	424.5	639.0
Fix. Chg. Cov.	261%	225%	220%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	8.0%	11.0%	*3.5%*
"Cash Flow"	5.5%	7.0%	*3.5%*
Earnings	5.0%	6.0%	*6.0%*
Dividends	5.0%	4.5%	*4.0%*
Book Value	6.0%	6.5%	*4.0%*

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) [A] Jan.31	Apr.30	Jul.31	Oct.31	Full Fiscal Year
2005	680.6	508.0	232.9	339.6	1761.1
2006	921.4	483.2	237.9	282.1	1924.7
2007	677.2	531.5	224.4	278.2	1711.3
2008	788.5	*540*	*240*	*301.5*	*1870*
2009	*805*	*555*	*255*	*310*	*1925*

Fiscal Year Ends	EARNINGS PER SHARE [A B F] Jan.31	Apr.30	Jul.31	Oct.31	Full Fiscal Year
2005	.93	.52	d.06	d.07	1.32
2006	.94	.57	d.16	d.08	1.27
2007	.94	.69	d.12	d.11	1.40
2008	1.12	*.70*	*d.15*	*d.12*	*1.55*
2009	*1.08*	*.75*	*d.13*	*d.10*	*1.60*

Cal-endar	QUARTERLY DIVIDENDS PAID [C] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.208	.215	.215	.215	.85
2005	.215	.23	.23	.23	.91
2006	.23	.24	.24	.24	.95
2007	.24	.25	.25	.25	.99
2009	.25	.26			

BUSINESS: Piedmont Natural Gas Company is primarily a regulated natural gas distributor, serving over 932,097 customers in North Carolina, South Carolina, and Tennessee. 2007 revenue mix: residential (54%), commercial (30%), industrial (14%), other (2%). Principal suppliers: Transco and Tennessee Pipeline. Gas costs: 69.4% of revenues. '07 deprec. rate: 3.4%. Estimated plant age: 8.7 years. Non-regulated operations: sale of gas-powered heating equipment; natural gas brokering; propane sales. Has about 1,876 employees. Officers & directors own less than 1% of common stock (1/08 proxy). Chairman, CEO, & President: Thomas E. Skains. Inc.: NC. Addr.: 4720 Piedmont Row Drive, Charlotte, NC 28210. Telephone: 704-364-3120. Internet: www.piedmontng.com.

Piedmont Natural Gas likely posted April-period earnings little changed compared to last year. The company was scheduled to report earnings for its fiscal second quarter (ended April 30th) after this report went to press. PNY probably experienced low to mid-single-digit increases in revenues. The lift in top-line volume should have stemmed from growth in the company's customer base in the residential and commercial & power generation markets. Meanwhile, gas costs, inventories, supplier refund, and lost and unaccounted for adjustments ought to have benefited margins for that interim.

We have raised our 2008 estimate by a nickel, to $1.55 a share. Heightened volumes and widening margins lead the way for this revision. The top and bottom lines ought to get a boost from the company's nonutility business. We expect to see solid contributions from both the Hardy storage facility and Southstar Energy joint venture. Meanwhile, continued investments in the company's natural gas infrastructure will likely bear fruit. And efficiency initiatives focused on streamlining and consolidating the business processes ought to continue to take hold.

In 2009, Piedmont may benefit from a pending rate case in North Carolina. The company recently filed for the rate hikes with the North Carolina Utilities Commission. The new plan would expand PNY's energy efficiency and conservation programs, and permanently extend a margin decoupling mechanism. The rate case would also help the company recover some of the additional costs and capital expenditures used to maintain and grow its distribution network. In sum, if the case is approved, PNY would receive an additional $41 million in revenues next year.

These neutrally ranked shares may appeal to income-oriented accounts (Timeliness: 3). Indeed the equity offers a decent dividend yield thanks to the board of directors' recent hike of approximately 4%. And conservative accounts may find the Above Average Safety rank (2) and top marks for Price Stability (100) attractive. However, momentum investors should look elsewhere, as these shares offer below-average total return potential for the pull to 2011-2013.

Bryan Fong *June 13, 2008*

(A) Fiscal year ends October 31st.
(B) Diluted earnings. Excl. extraordinary item: '00, 8¢. Excl. nonrecurring charge: '97, 2¢. Next earnings report due early August.
(C) Dividends historically paid mid-January, April, July, October.
■ Div'd reinvest. plan available; 5% discount.
(D) Includes deferred charges. In 2007: $23.9 million, 33¢/share.
(E) In millions, adjusted for stock split.
(F) Quarters may not add to total due to change in shares outstanding.

Company's Financial Strength	B++
Stock's Price Stability	100
Price Growth Persistence	60
Earnings Predictability	80

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SOUTHWEST GAS NYSE-SWX

RECENT PRICE 30.58 | P/E RATIO 15.3 (Trailing: 16.0 Median: 18.0) | RELATIVE P/E RATIO 0.93 | DIV'D YLD 3.0% | VALUE LINE

TIMELINESS 3 Raised 5/23/08
SAFETY 3 Lowered 1/4/91
TECHNICAL 2 Lowered 5/30/08
BETA .90 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(+45%)	12%
Low	30	(Nil)	3%

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	1
to Sell	0	0	1	0	0	1	0	0	2

Institutional Decisions

	3Q2007	4Q2007	1Q2008
to Buy	85	82	80
to Sell	95	84	88
Hld's(000)	32940	34975	34496

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	11-13
High:	20.3	26.9	29.5	23.0	24.7	25.3	23.6	26.2	28.1	39.4	39.9	31.7							
Low:	16.1	17.3	20.4	16.9	18.6	18.1	19.3	21.5	23.5	26.0	26.5	25.1							
Revenues per sh [A]	25.93	25.68	28.16	23.03	24.09	26.73	30.17	30.24	32.61	42.98	39.68	35.96	40.14	43.59	48.47	50.27	*52.25*	*54.45*	*60.40*
"Cash Flow" per sh	3.34	3.24	5.09	2.65	3.00	3.85	4.48	4.45	4.57	4.79	5.07	5.11	5.57	5.20	5.97	6.21	*6.30*	*6.55*	*7.40*
Earnings per sh [A B]	.81	.63	1.22	.10	.25	.77	1.65	1.27	1.21	1.15	1.16	1.13	1.66	1.25	1.98	1.95	*2.00*	*2.15*	*2.60*
Div'ds Decl'd per sh [C ■]	.70	.74	.80	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.86	*.90*	*.94*	*1.06*
Cap'l Spending per sh	5.02	5.43	6.64	6.79	8.19	6.19	6.40	7.41	7.04	8.17	8.50	7.03	8.23	7.49	8.27	7.96	*6.50*	*7.80*	*9.40*
Book Value per sh	15.99	15.96	16.38	14.55	14.20	14.09	15.67	16.31	16.82	17.27	17.91	18.42	19.18	19.10	21.58	22.98	*23.85*	*24.45*	*26.05*
Common Shs Outst'g [D]	20.60	21.00	21.28	24.47	26.73	27.39	30.41	30.99	31.71	32.49	33.29	34.23	36.79	39.33	41.77	42.81	*44.00*	*45.00*	*48.00*
Avg Ann'l P/E Ratio	16.6	26.5	14.0	NMF	69.3	24.1	13.2	21.1	16.0	19.0	19.9	19.2	14.3	20.6	15.9	18.4	*Bold figures are Value Line estimates*		*15.0*
Relative P/E Ratio	1.01	1.57	.92	NMF	4.34	1.39	.69	1.20	1.04	.97	1.09	1.09	.76	1.10	.86	.98			*1.00*
Avg Ann'l Div'd Yield	5.2%	4.4%	4.7%	5.4%	4.7%	4.4%	3.8%	3.1%	4.2%	3.8%	3.6%	3.8%	3.5%	3.2%	2.6%	2.4%			*2.7%*
Revenues ($mill) [A]							917.3	936.9	1034.1	1396.7	1320.9	1231.0	1477.1	1714.3	2024.7	2152.1	*2300*	*2450*	*2900*
Net Profit ($mill)							47.5	39.3	38.3	37.2	38.6	38.5	58.9	48.1	80.5	83.3	*88.0*	*95.0*	*125*
Income Tax Rate							43.4%	35.5%	26.2%	34.5%	32.8%	30.5%	34.8%	29.7%	37.3%	36.5%	*38.0%*	*36.0%*	*36.0%*
Net Profit Margin							5.2%	4.2%	3.7%	2.7%	2.9%	3.1%	4.0%	2.8%	4.0%	3.9%	*3.8%*	*3.9%*	*4.3%*
Long-Term Debt Ratio							60.2%	60.3%	60.2%	56.2%	62.5%	66.0%	64.2%	63.8%	60.6%	58.1%	*55.5%*	*55.0%*	*52.0%*
Common Equity Ratio							35.3%	35.5%	35.8%	39.6%	34.1%	34.0%	35.8%	36.2%	39.4%	41.9%	*44.5%*	*45.0%*	*48.0%*
Total Capital ($mill)							1349.3	1424.7	1489.9	1417.6	1748.3	1851.6	1968.6	2076.0	2287.8	2349.8	*2350*	*2450*	*2600*
Net Plant ($mill)							1459.4	1581.1	1686.1	1825.6	1979.5	2175.7	2336.0	2489.1	2668.1	2845.3	*2950*	*3100*	*3600*
Return on Total Cap'l							5.8%	4.8%	4.6%	5.1%	4.3%	4.2%	5.0%	4.3%	5.5%	5.5%	*5.5%*	*6.0%*	*6.5%*
Return on Shr. Equity							8.9%	7.0%	6.5%	6.0%	5.9%	6.1%	8.3%	6.4%	8.9%	8.5%	*8.5%*	*8.5%*	*10.0%*
Return on Com Equity							10.0%	7.8%	7.2%	6.6%	6.5%	6.1%	8.3%	6.4%	8.9%	8.5%	*8.5%*	*8.5%*	*10.0%*
Retained to Com Eq							5.0%	2.8%	2.4%	1.9%	1.9%	1.7%	4.3%	2.2%	5.2%	4.8%	*4.5%*	*5.0%*	*6.0%*
All Div'ds to Net Prof							50%	64%	67%	71%	70%	72%	49%	65%	42%	44%	*44%*	*44%*	*41%*

% TOT. RETURN 5/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	-15.9	-9.7
3 yr.	35.5	27.3
5 yr.	70.7	85.8

Target Price Range 2011 | 2012 | 2013

LEGENDS
2.00 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded area indicates recession

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CAPITAL STRUCTURE as of 3/31/08

Total Debt $1301.0 mill. Due in 5 Yrs $606.3 mill.
LT Debt $1263.6 mill. LT Interest $93.0 mill.
(Total interest coverage: 2.4x)

Pension Assets-12/07 $441.7 mill. Oblig. $546.4 mill.

Pfd Stock None

Common Stock 43,276,994 shs. as of 5/1/08

MARKET CAP: $1.3 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2006	2007	3/31/08
Cash Assets	18.8	32.0	17.4
Other	482.8	470.5	383.8
Current Assets	501.6	502.5	401.2
Accts Payable	265.7	220.7	150.7
Debt Due	27.5	47.1	37.3
Other	202.9	260.1	283.3
Current Liab.	496.1	527.9	471.3
Fix. Chg. Cov.	220%	229%	232%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	6.0%	4.5%	*4.0%*
"Cash Flow"	4.5%	4.0%	*4.0%*
Earnings	12.0%	6.0%	*7.0%*
Dividends	- -	- -	*4.0%*
Book Value	3.0%	3.5%	*3.5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	542.9	361.1	313.3	497.0	1714.3
2006	676.9	430.9	351.8	565.1	2024.7
2007	793.7	426.6	371.5	560.3	2152.1
2008	813.6	*460*	*400*	*626.4*	*2300*
2009	*850*	*500*	*440*	*660*	*2450*

Calendar	EARNINGS PER SHARE [B] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	.88	d.07	d.43	.87	1.25
2006	1.11	.02	d.26	1.11	1.98
2007	1.17	d.01	d.22	1.00	1.95
2008	1.14	*Nil*	*d.20*	*1.06*	*2.00*
2009	*1.20*	*.05*	*d.20*	*1.10*	*2.15*

Calendar	QUARTERLY DIVIDENDS PAID [C ■] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.205	.205	.205	.205	.82
2005	.205	.205	.205	.205	.82
2006	.205	.205	.205	.205	.82
2007	.205	.215	.215	.215	.85
2008	.215	.225			

BUSINESS: Southwest Gas Corporation is a regulated gas distributor serving approximately 1.8 million customers in sections of Arizona, Nevada, and California. Comprised of two business segments: natural gas operations and construction services. 2007 margin mix: residential and small commercial, 86%; large commercial and industrial, 5%; transportation, 9%. Total throughput: 2.4 billion therms. Sold PriMerit Bank, 7/96. Has 5,073 employees. Off. & Dir. own 1.8% of common stock; T. Rowe Price Associates, Inc., 6.7%; GAMCO Investors, Inc., 5.8% (3/08 Proxy). Chairman: James J. Kropid. Chief Executive Officer: Jeffrey W. Shaw. Inc.: California. Address: 5241 Spring Mountain Road, Las Vegas, Nevada 89193. Telephone: 702-876-7237. Internet: www.swgas.com.

Southwest Gas reported a modest top-line improvement and a slight share-earnings decline to start off the year. Colder-than-usual temperatures helped some. Performance also benefited from rate relief and a larger customer base. That said, customer growth has slowed dramatically in recent times. The inventory of unoccupied homes remained fairly high in the company's service territories, owing to weakness in the housing market. Greater operating costs and a higher share count also hurt. Looking forward, we anticipate unimpressive bottom-line results at Southwest for the second and third quarters. This is not unusual, considering the seasonal nature of the business. Overall, we have lowered our share-net call for full-year 2008 by a nickel, to $2.00. The bottom line may advance at a faster clip in 2009, assuming customer growth picks up, although that is by no means assured.

The company has rate case proceedings in Arizona and California. Hearings in each jurisdiction are scheduled for the summer months. Southwest is seeking a rate increase of $50.2 million (almost 5%) in Arizona, and has included several proposed rate design changes that would address weather-related volatility. In California, SWX is seeking a $9.1 million increase in operating revenues. The company anticipates the resolution of these cases later in the year. These requests seem reasonable, but it's not clear what pressures the rate boards will be under, if any.

Investors should be aware of several caveats. Warmer-than-normal temperatures during the winter months hurt results at Southwest Gas. In addition, as the company continues to expand, it will likely incur higher operating costs. Moreover, insufficient, or lagging, rate relief could also hurt profits. Economic weakness could mean tougher bill collection, as well.

These shares have improved a notch in Timeliness, and are now ranked 3 (Average) for year-ahead performance. We project solid bottom-line growth at Southwest Gas over the pull to 2011-2013. At the current quotation, this issue has decent total return potential for a utility. Nevertheless, conservative investors would be wise not to overweight this stock, given the reliance on debt to fund growth.

Michael Napoli, CPA *June 13, 2008*

(A) Incl. income for PriMerit Bank on the equity basis through 1994. (B) Based on avg. shares outstand. thru. '96, then diluted. Excl. nonrec. gains (losses): '93, 8¢; '97, 16¢; '02, (10¢); '05, (11¢); '06, 7¢. Incl. asset writedown: '93, 44¢. Excl. loss from disc. ops.: '95, 75¢. Totals may not sum due to rounding. Next egs. report due in August. (C) Dividends historically paid early March, June, September, December. ■ Div'd reinvest. plan avail. (D) In millions.

Company's Financial Strength	B
Stock's Price Stability	100
Price Growth Persistence	50
Earnings Predictability	65

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WGL HOLDINGS NYSE-WGL

RECENT PRICE 34.76 | P/E RATIO 14.4 (Trailing: 13.8 Median: 15.0) | RELATIVE P/E RATIO 0.88 | DIV'D YLD 4.1% | VALUE LINE

TIMELINESS 3 Raised 5/25/07
SAFETY 1 Raised 4/2/93
TECHNICAL 3 Lowered 5/30/08
BETA .90 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	15%	7%
Low	35	Nil	4%

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	3	0	0	0	0	0
to Sell	0	0	0	3	0	1	2	0	0

Institutional Decisions

	3Q2007	4Q2007	1Q2008
to Buy	90	92	106
to Sell	96	94	89
Hld's(000)	34163	35393	35559

High:	31.4	30.8	29.4	31.5	30.5	29.5	28.8	31.4	34.8	33.6	35.9	35.7
Low:	20.9	23.1	21.0	21.8	25.3	19.3	23.2	26.7	28.8	27.0	29.8	30.3

LEGENDS
— 1.30 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 5/95
Options: Yes
Shaded area indicates recession

Target Price Range 2011 | 2012 | 2013

% TOT. RETURN 5/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	3.2	-9.7
3 yr.	21.9	27.3
5 yr.	56.5	85.8

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
18.37	21.55	21.69	19.30	22.19	24.16	23.74	20.92	22.19	29.80	32.63	42.45	42.93	44.94	53.96	53.51	*52.55*	*53.45*	Revenues per sh [A]	*54.60*
2.17	2.25	2.43	2.51	2.93	3.02	2.79	2.74	3.20	3.24	2.63	4.00	3.87	3.97	3.93	3.89	*4.25*	*4.35*	"Cash Flow" per sh	*4.55*
1.27	1.31	1.42	1.45	1.85	1.85	1.54	1.47	1.79	1.88	1.14	2.30	1.98	2.11	1.94	2.10	*2.40*	*2.45*	Earnings per sh [B]	*2.55*
1.07	1.09	1.11	1.12	1.14	1.17	1.20	1.22	1.24	1.26	1.27	1.28	1.30	1.32	1.34	1.37	*1.40*	*1.44*	Div'ds Decl'd per sh [C] ■	*1.56*
2.17	2.43	2.84	2.63	2.85	3.20	3.62	3.42	2.67	2.68	3.34	2.65	2.33	2.32	3.27	3.33	*3.35*	*3.00*	Cap'l Spending per sh	*2.50*
10.66	11.04	11.51	11.95	12.79	13.48	13.86	14.72	15.31	16.24	15.78	16.25	16.95	17.80	18.28	19.83	*21.20*	*22.00*	Book Value per sh [D]	*25.35*
40.62	41.50	42.19	42.93	43.70	43.70	43.84	46.47	46.47	48.54	48.56	48.63	48.67	48.65	48.89	49.45	*49.50*	*49.60*	Common Shs Outst'g [E]	*50.00*
13.6	15.6	14.0	12.7	11.5	12.7	17.2	17.3	14.6	14.7	23.1	11.1	14.2	14.7	15.5	15.6	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*15.0*
.82	.92	.92	.85	.72	.73	.89	.99	.95	.75	1.26	.63	.75	.78	.84	.82			Relative P/E Ratio	*1.00*
6.2%	5.3%	5.6%	6.1%	5.4%	5.0%	4.5%	4.8%	4.8%	4.6%	4.8%	5.0%	4.6%	4.2%	4.5%	4.2%			Avg Ann'l Div'd Yield	*4.2%*
1040.6	972.1	1031.1	1446.5	1584.8	2064.2	2089.6	2186.3	2637.9	2646.0	*2600*	*2650*	Revenues ($mill) [A]	*2730*
68.6	68.8	84.6	89.9	55.7	112.3	98.0	104.8	95.1	102.9	*120*	*122*	Net Profit ($mill)	*130*
35.6%	36.0%	36.1%	39.6%	34.0%	38.0%	38.2%	37.4%	39.0%	39.1%	*38.0%*	*38.0%*	Income Tax Rate	*38.0%*
6.6%	7.1%	8.2%	6.2%	3.5%	5.4%	4.7%	4.8%	3.6%	3.9%	*4.6%*	*4.6%*	Net Profit Margin	*4.7%*
40.3%	41.5%	43.1%	41.7%	45.7%	43.8%	40.9%	39.5%	38.5%	37.9%	*36.0%*	*35.0%*	Long-Term Debt Ratio	*32.0%*
57.1%	56.1%	54.8%	56.3%	52.4%	54.3%	57.2%	58.6%	61.5%	60.3%	*62.5%*	*63.5%*	Common Equity Ratio	*67.0%*
1064.8	1218.5	1299.2	1400.8	1462.5	1454.9	1443.6	1478.1	1497.8	1625.4	*1675*	*1730*	Total Capital ($mill)	*1895*
1319.5	1402.7	1460.3	1519.7	1606.8	1874.9	1915.6	1969.7	2067.9	2150.4	*2235*	*2325*	Net Plant ($mill)	*2615*
8.0%	7.1%	7.9%	7.9%	5.3%	9.1%	8.2%	8.5%	7.7%	7.6%	*8.5%*	*8.0%*	Return on Total Cap'l	*8.0%*
10.8%	9.7%	11.4%	11.0%	7.0%	13.7%	11.5%	11.7%	10.3%	10.2%	*11.5%*	*11.0%*	Return on Shr. Equity	*10.0%*
11.1%	9.9%	11.7%	11.2%	7.2%	14.0%	11.7%	12.0%	10.2%	10.4%	*12.0%*	*11.5%*	Return on Com Equity	*10.5%*
2.5%	1.8%	3.7%	3.8%	NMF	6.2%	4.1%	4.6%	3.1%	3.5%	*4.5%*	*4.5%*	Retained to Com Eq	*4.0%*
78%	82%	69%	67%	112%	56%	65%	62%	70%	66%	*58%*	*59%*	All Div'ds to Net Prof	*61%*

CAPITAL STRUCTURE as of 3/31/08
Total Debt $742.4 mill. Due in 5 Yrs $399.5 mill.
LT Debt $597.4 mill. LT Interest $40.1 mill.
(LT interest earned: 6.7x; total interest coverage: 5.7x)
Pension Assets-9/07 $740.7 mill. Oblig. $680.3 mill.
Preferred Stock $28.2 mill. Pfd. Div'd $1.3 mill.

Common Stock 49,466,678 shs.
as of 4/30/08

MARKET CAP: $1.7 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2006	2007	3/31/08
Cash Assets	4.4	4.9	18.5
Other	556.9	568.8	703.4
Current Assets	561.3	573.7	721.9
Accts Payable	208.5	216.9	291.5
Debt Due	238.4	205.4	145.0
Other	113.9	134.8	192.5
Current Liab.	560.8	557.1	629.0
Fix. Chg. Cov.	465%	460%	460%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	9.0%	12.5%	*1.0%*
"Cash Flow"	3.5%	5.0%	*2.5%*
Earnings	2.0%	5.0%	*3.5%*
Dividends	1.5%	1.5%	*2.5%*
Book Value	4.0%	3.5%	*5.0%*

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) [A] Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	623.4	929.8	349.0	284.1	2186.3
2006	902.9	1064.5	346.9	323.6	2637.9
2007	732.9	1119.9	467.5	325.7	2646.0
2008	751.6	1020.0	*478.4*	*350*	*2600*
2009	*760*	*1050*	*480*	*360*	*2650*

Fiscal Year Ends	EARNINGS PER SHARE [A] [B] Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	.88	1.63	d.17	d.23	2.11
2006	.93	1.17	d.01	d.15	1.94
2007	.92	1.27	.22	d.31	2.10
2008	.96	1.66	*.15*	*d.37*	*2.40*
2009	*.97*	*1.50*	*.23*	*d.25*	*2.45*

Calendar	QUARTERLY DIVIDENDS PAID [C] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.32	.325	.325	.325	1.30
2005	.325	.333	.333	.333	1.32
2006	.333	.338	.338	.338	1.34
2007	.34	.34	.34	.34	1.36
2008	.34	.36			

BUSINESS: WGL Holdings, Inc. is the parent of Washington Gas Light, a natural gas distributor in Washington, D.C. and adjacent areas of VA and MD to resident'l and comm'l users (1,046,201 meters). Hampshire Gas, a federally regulated sub., operates an underground gas-storage facility in WV. Non-regulated subs.: Wash. Gas Energy Svcs. sells and delivers natural gas and provides energy related products in the D.C. metro area; Wash. Gas Energy Sys. designs/installs comm'l heating, ventilating, and air cond. systems. American Century Inv. own 8.2% of common stock; Off./dir. less than 1% (1/08 proxy). Chrmn. & CEO: J.H. DeGraffenreidt. Inc.: D.C. and VA. Addr.: 1100 H St., N.W., Washington, D.C. 20080. Tel.: 202-624-6410. Internet: www.wglholdings.com.

WGL Holdings is off to a solid start this year. Both of its business segments have been performing well. Even though weather patterns have been roughly 13% warmer than last year on a degree-day basis, the distribution of that weather, along with other factors, has led to increased consumption levels. Subsequently, two of the three service territories have experienced boosts in net revenues. Both DC and Virginia do not have decoupling programs in place, therefore they were able to benefit from those fluctuations. Although, on balance, lighter volumes have been hurting the company's top line, margins have been widening due to the relatively recent rate hikes in Virginia, Maryland, and the District of Columbia. In sum, the company posted strong bottom-line gains for the March interim.

However, share-net gains are less likely to persist in the second half of the year. Seasonally, the summer months represent a substantial decline in volume levels for most in this industry. Moreover, speedy approval of rate cases, and initial profitability boosts from cost-cutting efforts have already hit the bottom line. As a result, share net will likely decline in the near term.

Next year, the company ought to experience low single-digit growth in revenues and earnings. This should come as little surprise, given the effects of recent rate case approvals and efficiency initiatives that have already been felt this year. Meanwhile, the downturn in the U.S. housing and construction market will likely continue to limit growth from new customer accounts. In sum, we view next year's growth prospects as relatively lackluster. However,

These high-quality shares may appeal to income-oriented accounts. The equity offers a healthy dividend yield in relation to its peers. Moreover, investors with an eye on capital preservation can take comfort in the stock's top mark for Price Stability (100), and Above-Average Safety rank (1). However, momentum investors should look elsewhere (Timeliness: 3). Also shares of WGL currently sit slightly below our Target Price Range, indicating minimal total return potential for the coming 3 to 5 years.

Bryan Fong *June 13, 2008*

(A) Fiscal years end Sept. 30th.
(B) Based on diluted shares. Excludes nonrecurring losses: '01, (13¢); '02, (34¢); '07, (4¢) discontinued operations: '06, (15¢). Next earnings report due late July. (C) Dividends historically paid early February, May, August, and November. ■ Dividend reinvestment plan available. (D) Includes deferred charges and intangibles. '07: $322.2 million, $6.51/sh. (E) In millions, adjusted for stock split.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	50
Earnings Predictability	65

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CH ENERGY GROUP NYSE-CHG

RECENT PRICE 37.99 | P/E RATIO 15.5 (Trailing: 14.9 / Median: 16.0) | RELATIVE P/E RATIO 0.94 | DIV'D YLD 5.7% | VALUE LINE

TIMELINESS 4 Lowered 5/30/08
SAFETY 1 Raised 12/7/01
TECHNICAL 3 Lowered 2/22/08
BETA .90 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(+20%)	9%
Low	40	(+5%)	7%

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	1	3
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	2Q2007	3Q2007	4Q2007
to Buy	56	44	44
to Sell	37	46	47
Hld's(000)	8641	9036	8942

High:	43.9	47.1	45.0	46.3	45.9	52.4	49.7	49.6	50.2	54.9	53.8	45.4
Low:	29.8	38.9	30.6	26.1	38.3	39.9	40.2	43.1	42.1	44.6	41.4	34.5

Target Price Range 2011 | 2012 | 2013

LEGENDS
0.96 x Dividends p sh divided by Interest Rate
Relative Price Strength
Options: No
Shaded area indicates recession

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 27.20

% TOT. RETURN 4/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	-22.5	-9.4
3 yr.	-4.8	30.2
5 yr.	6.0	98.8

Percent shares traded

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
32.66	30.52	29.91	29.28	29.28	30.11	29.86	30.95	45.83	44.52	43.29	51.18	50.22	61.70	63.03	75.93	*85.60*	*90.35*	Revenues per sh	*106.75*
5.22	5.23	5.25	5.33	5.69	5.80	5.83	5.92	6.49	5.50	4.18	5.02	4.89	5.11	4.83	4.98	*4.90*	*5.20*	"Cash Flow" per sh	*6.00*
2.55	2.68	2.68	2.74	2.99	2.97	2.90	2.88	3.05	3.11	2.12	2.78	2.69	2.81	2.56	2.70	*2.45*	*2.65*	Earnings per sh A	*3.00*
1.98	2.05	2.08	2.10	2.12	2.14	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	*2.16*	*2.16*	Div'd Decl'd per sh B ■ †	*2.25*
3.81	3.13	3.37	2.87	2.84	2.54	2.71	2.76	3.58	4.14	4.50	3.79	3.98	4.05	4.76	5.37	*5.60*	*5.40*	Cap'l Spending per sh	*5.25*
23.60	24.65	25.33	25.96	26.87	27.61	28.00	28.73	29.38	30.33	30.31	30.80	31.31	31.97	32.54	33.19	*33.45*	*33.95*	Book Value per sh C	*35.50*
16.03	16.95	17.24	17.50	17.56	17.28	16.86	16.86	16.36	16.36	16.06	15.76	15.76	15.76	15.76	15.76	*15.77*	*15.77*	Common Shs Outst'g D	*15.00*
11.2	12.2	10.0	10.2	10.1	11.5	14.6	13.5	11.4	13.6	22.6	15.7	17.2	16.5	19.1	17.5	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*14.0*
.68	.72	.66	.68	.63	.66	.76	.77	.74	.70	1.23	.90	.91	.88	1.03	.93			Relative P/E Ratio	*.95*
6.9%	6.3%	7.8%	7.5%	7.0%	6.3%	5.1%	5.6%	6.2%	5.1%	4.5%	4.9%	4.7%	4.7%	4.4%	4.6%			Avg Ann'l Div'd Yield	*5.3%*
503.5	521.9	749.9	728.4	695.5	806.7	791.5	972.5	993.4	1196.8	*1350*	*1425*	Revenues ($mill)	*1600*
52.5	51.8	54.2	54.1	36.6	45.4	43.4	45.3	41.4	43.6	*39.0*	*42.0*	Net Profit ($mill)	*46.0*
35.3%	35.8%	41.4%	--	36.6%	40.1%	41.9%	36.3%	36.3%	33.5%	*40.0%*	*40.0%*	Income Tax Rate	*40.0%*
1.7%	.8%	1.4%	1.4%	2.3%	1.6%	.9%	.9%	1.5%	2.5%	*1.0%*	*1.0%*	AFUDC % to Net Profit	*1.0%*
40.3%	38.3%	37.4%	28.1%	34.1%	35.5%	38.3%	39.6%	38.8%	42.6%	*44.5%*	*44.5%*	Long-Term Debt Ratio	*49.5%*
53.3%	55.3%	56.1%	64.6%	61.6%	61.8%	59.1%	58.0%	58.8%	55.2%	*53.5%*	*53.0%*	Common Equity Ratio	*48.5%*
885.1	875.9	857.1	768.5	790.3	785.3	834.4	868.7	871.8	948.1	*990*	*1005*	Total Capital ($mill)	*1100*
928.2	921.4	930.9	561.8	601.7	707.5	745.1	779.5	827.1	891.3	*940*	*985*	Net Plant ($mill)	*1100*
7.2%	7.3%	7.7%	8.1%	5.4%	6.5%	5.9%	6.0%	5.7%	5.6%	*5.0%*	*5.5%*	Return on Total Cap'l	*5.5%*
9.9%	9.6%	10.1%	9.8%	7.0%	9.0%	8.4%	8.6%	7.7%	8.0%	*7.0%*	*7.5%*	Return on Shr. Equity	*8.0%*
10.4%	10.0%	10.6%	10.2%	7.1%	9.1%	8.6%	8.8%	7.9%	8.1%	*7.5%*	*8.0%*	Return on Com Equity E	*8.5%*
2.7%	2.5%	3.1%	3.1%	NMF	2.0%	1.7%	2.0%	1.2%	1.6%	*1.0%*	*1.5%*	Retained to Com Eq	*2.0%*
76%	77%	73%	71%	102%	78%	81%	77%	85%	80%	*89%*	*83%*	All Div'ds to Net Prof	*76%*

CAPITAL STRUCTURE as of 3/31/08
Total Debt $456.9 mill. Due in 5 Yrs $133.0 mill.
LT Debt $383.9 mill. LT Interest $17.4 mill.
(LT interest earned: 4.2x)
Leases, Uncapitalized Annual rentals $3.3 mill.
Pension Assets-12/07 $397.2 mill. Oblig. $408.9 mill.
Pfd Stock $21.0 mill. Pfd Div'd $1.0 mill.
210,300 shs. 4½%-4.96% cum., $100 par, redeemable at $101-$107/sh.

Common Stock 15,774,100 shs.
as of 5/2/08
MARKET CAP: $600 million (Small Cap)

ELECTRIC OPERATING STATISTICS

	2005	2006	2007
% Change Retail Sales (KWH)	+4.5	-4.2	+2.4
Avg. Indust. Use (MWH)	1407	1377	1108
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	1204	1295	1185
Peak Load, Summer (Mw)	1204	1295	1185
Annual Load Factor (%)	57.0	50.0	56.0
% Change Customers (avg.)	+1.3	+.9	+1.0
Fixed Charge Cov. (%)	408	328	306

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	8.5%	8.5%	*8.0%*
"Cash Flow"	-1.0%	-1.5%	*3.0%*
Earnings	-.5%	-.5%	*2.0%*
Dividends	--	--	*.5%*
Book Value	2.0%	1.5%	*1.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	286.1	189.6	227.9	268.9	972.5
2006	317.2	213.9	239.8	222.5	993.4
2007	343.4	271.0	260.1	322.3	1196.8
2008	409.8	*300*	*300*	*340.2*	*1350*
2009	*425*	*300*	*325*	*375*	*1425*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	1.29	.41	.36	.74	2.81
2006	1.16	.26	.55	.60	2.56
2007	1.37	.33	.27	.73	2.70
2008	1.22	*.29*	*.29*	*.65*	*2.45*
2009	*1.30*	*.30*	*.35*	*.70*	*2.65*

QUARTERLY DIVIDENDS PAID B ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.54	.54	.54	.54	2.16
2005	.54	.54	.54	.54	2.16
2006	.54	.54	.54	.54	2.16
2007	.54	.54	.54	.54	2.16
2008	.54	.54			

BUSINESS: CH Energy Group, Inc. is a holding company for Central Hudson Gas & Electric, which provides electricity and gas in the Mid-Hudson Valley region of New York State (77% of '07 income). Customers: 298,000 electric, 73,000 gas. Griffith Energy provides gas, oil, electricity, & propane to over 100,000 customers in Northeast (7% of '07 income). Investments were 16% of '07 income. Electric revenue breakdown, '07: residential, 48%; commercial, 30%; industrial, 14%; other, 8%. Generating sources, '07: hydro, 1%; purchased, 99%. Fuel costs: 68% of revenues. '07 reported depreciation rate (utility): 2.8%. Chairman, President & CEO: Steven V. Lant. Inc.: NY. Address: 284 South Ave., Poughkeepsie, NY 12601-4879. Tel.: 845-452-2000. Internet: www.chenergy.com.

CH Energy Group is feeling the effects of lower customer demand. The usage of electricity by Central Hudson Gas and Electric's customers is 4%-5% below the level expected in the utility's 2006 regulatory agreement. For gas, the shortfall is 9%-10%. This is due mainly to higher prices, and probably due to the weakening economy, too. On the nonregulated side, higher prices are also inducing Griffith Energy's customers to reduce their usage. In total, customer conservation lowered first-quarter profits by $0.08 a share.

Uncollectible accounts have become a bigger problem for the company. As prices rise, many customers have a hard time paying their bills. Increased reserves for uncollectible accounts, for both Central Hudson and Griffith, reduced first-quarter earnings by $0.07 a share.

Earnings are likely to decline in 2008. That's understandable, given the aforementioned difficulties. Our estimate is within CH Energy's targeted range of $2.30-$2.50 a share.

Central Hudson will probably file a rate case this summer. The reduced customer usage is hurting its annual earnings by $0.25-$0.35 a share. Accordingly, the utility is earning a return on equity of just 7.5%-8.0%, compared with the allowed ROE of 9.6%. New rates would take effect in mid-2009, after Central Hudson's current regulatory agreement expires. This should accommodate the utility's usage problem, but it faces the risk that its allowed ROE will be lowered. We figure that rate relief will help the utility's earnings make a partial recovery in 2009.

This untimely equity offers one of the highest yields of any utility issue. The company's earnings weakness has caused the stock to perform poorly so far this year. We think the dividend is secure, despite the high payout ratio, but it will likely be at least a few years before the board is in a position to raise the disbursement.

A takeover is looking less likely. For many years, CH Energy has been considered a potential target. But the problems that IBERDROLA is facing with the New York commission's staff in its proposed acquisition of Energy East makes a takeover of other utilities in the state less appealing for a prospective buyer.

Paul E. Debbas, CFA *May 30, 2008*

(A) Diluted earnings. Excl. nonrecurring gains: '92, 10¢; '02, 12¢; '06, 17¢; gain from discontinued operation: '02, 29¢. '05 & '06 earnings don't add to total due to rounding. Next earnings report due late July. (B) Div'ds historically paid in early Feb., May, Aug., and Nov. ■ Div'd reinvestment plan available. † Shareholder investment plan available. (C) Incl. intangibles. In '06: $299.2 mill., $18.98/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in '06: 10.6%; earned on avg. com. eq., '06: 8.0%. Regulatory Climate: Average.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	30
Earnings Predictability	85

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EMPIRE DISTRICT NYSE-EDE

RECENT PRICE 19.96 | P/E RATIO 13.3 (Trailing: 17.4 / Median: 19.0) | RELATIVE P/E RATIO 0.82 | DIV'D YLD 6.4% | VALUE LINE

TIMELINESS 3 Lowered 8/10/07
SAFETY 3 Lowered 10/4/02
TECHNICAL 3 Raised 6/27/08
BETA .85 (1.00 = Market)

2011-13 PROJECTIONS

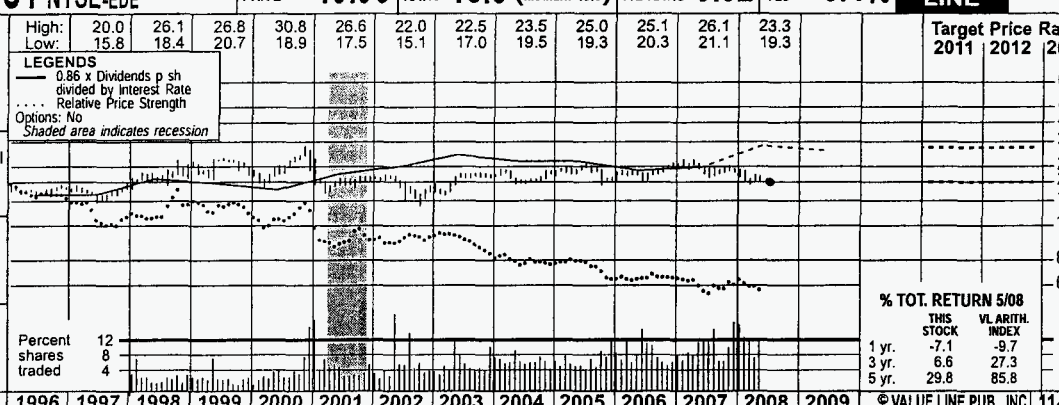
	Price	Gain	Ann'l Total Return
High	30	(+50%)	15%
Low	20	(Nil)	6%

Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	0	0	0	0	0	0	1	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	1	0	0	1	0	0

Institutional Decisions

	3Q2007	4Q2007	1Q2008
to Buy	44	57	55
to Sell	47	39	50
Hld's(000)	13678	15849	15734



% TOT. RETURN 5/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	-7.1	-9.7
3 yr.	6.6	27.3
5 yr.	29.8	85.8

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
11.31	12.41	12.75	12.67	12.53	12.83	14.02	13.94	14.78	13.37	13.56	13.03	12.67	14.80	13.67	14.59	*14.05*	*14.65*	Revenues per sh	*16.50*
2.55	2.49	2.62	2.52	2.67	2.67	2.97	2.89	3.12	2.19	2.43	2.48	2.22	2.45	2.75	2.69	*3.05*	*3.20*	"Cash Flow" per sh	*3.75*
1.26	1.16	1.32	1.18	1.23	1.29	1.53	1.13	1.35	.59	1.19	1.29	.86	.92	1.41	1.09	*1.50*	*1.60*	Earnings per sh [A]	*2.00*
1.26	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	*1.28*	*1.28*	Div'd Decl'd per sh [B] ■ †	*1.40*
2.36	3.27	5.14	3.34	3.79	3.38	3.03	4.14	7.61	4.02	3.43	2.65	1.64	2.83	3.97	5.46	*5.80*	*3.65*	Cap'l Spending per sh	*3.00*
12.29	12.37	12.47	12.69	12.96	13.06	13.43	13.48	13.65	13.58	14.59	15.17	14.76	15.08	15.49	16.04	*16.70*	*16.95*	Book Value per sh [C]	*18.25*
13.29	13.57	13.94	15.22	16.44	16.78	17.11	17.37	17.60	19.76	22.57	24.98	25.70	26.08	30.25	33.61	*37.00*	*37.50*	Common Shs Outst'g [D]	*37.50*
18.0	19.6	13.3	14.9	14.8	13.9	14.0	21.7	17.7	33.9	16.2	15.8	24.8	24.5	15.9	21.7	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*13.0*
1.09	1.16	.87	1.00	.93	.80	.73	1.24	1.15	1.74	.88	.90	1.31	1.30	.86	1.15			Relative P/E Ratio	*.85*
5.6%	5.6%	7.3%	7.3%	7.0%	7.1%	6.0%	5.2%	5.4%	6.4%	6.6%	6.3%	6.0%	5.7%	5.7%	5.4%			Avg Ann'l Div'd Yield	*5.3%*
239.9	242.2	260.0	264.3	305.9	325.5	325.5	386.2	413.5	490.2	*520*	*550*	Revenues ($mill)	*615*
28.3	22.2	23.6	10.4	25.5	29.5	21.8	23.8	39.9	33.2	*53.0*	*59.0*	Net Profit ($mill)	*70.0*
36.4%	41.9%	32.7%	--	34.3%	34.5%	34.1%	33.4%	35.4%	30.3%	*33.5%*	*34.5%*	Income Tax Rate	*35.5%*
2.3%	5.4%	24.5%	34.7%	2.2%	1.0%	1.0%	2.4%	10.7%	23.1%	*19.0%*	*8.0%*	AFUDC % to Net Profit	*3.0%*
48.4%	59.6%	57.6%	57.2%	55.5%	52.0%	51.3%	51.0%	49.7%	50.1%	*50.0%*	*50.5%*	Long-Term Debt Ratio	*44.0%*
45.2%	40.4%	42.4%	42.8%	44.5%	48.0%	48.7%	49.0%	50.3%	49.9%	*50.0%*	*49.5%*	Common Equity Ratio	*56.0%*
508.5	580.0	565.8	626.9	740.3	789.2	779.1	803.3	931.0	1081.1	*1230*	*1285*	Total Capital ($mill)	*1225*
572.2	616.0	720.3	750.5	794.1	833.9	857.0	896.0	1031.0	1178.9	*1335*	*1410*	Net Plant ($mill)	*1550*
7.3%	5.5%	6.5%	4.0%	5.4%	5.7%	4.7%	4.7%	5.9%	4.7%	*6.0%*	*6.5%*	Return on Total Cap'l	*7.5%*
10.8%	9.5%	9.8%	3.9%	7.8%	7.8%	5.8%	6.0%	8.5%	6.2%	*8.5%*	*9.5%*	Return on Shr. Equity	*10.5%*
11.3%	8.8%	9.8%	3.9%	7.8%	7.8%	5.8%	6.0%	8.5%	6.2%	*8.5%*	*9.5%*	Return on Com Equity [E]	*10.5%*
1.8%	NMF	.5%	NMF	NMF	.1%	NMF	NMF	.8%	NMF	*1.5%*	*2.0%*	Retained to Com Eq	*3.0%*
85%	107%	95%	NMF	109%	99%	NMF	NMF	90%	117%	*85%*	*80%*	All Div'ds to Net Prof	*72%*

CAPITAL STRUCTURE as of 3/31/08
Total Debt $616.2 mill. Due in 5 Yrs $144.7 mill.
LT Debt $541.8 mill. LT Interest $36.5 mill.
Incl. $50 mill. 8.5% trust preferred securities.
(LT interest earned: 2.2x)
Leases, Uncapitalized Annual rentals $1.5 mill.
Pension Assets-12/07 $131.9 mill. Oblig. $140.4 mill.
Pfd Stock None

Common Stock 33,747,685 shs.
as of 5/1/08

MARKET CAP: $675 million (Small Cap)

ELECTRIC OPERATING STATISTICS

	2005	2006	2007
% Change Retail Sales (KWH)	+6.1	+2.6	+1.4
Avg. Industrial Use (MWH)	3032	3096	3067
Avg. Industrial Rev/KWH (¢)	5.38	5.66	6.10
Capacity at Peak (Mw)	1264	1262	1255
Peak Load, Summer (Mw)	1087	1159	1173
Annual Load Factor (%)	55.6	52.5	53.4
% Change Customers (avg.)	+1.9	+2.1	+1.5
Fixed Charge Cov. (%)	224	273	203

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	1.0%	.5%	*2.5%*
"Cash Flow"	--	.5%	*6.0%*
Earnings	-1.0%	2.0%	*10.0%*
Dividends	--	--	*1.5%*
Book Value	2.0%	2.0%	*2.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	79.5	87.9	125.0	93.8	386.2
2006	84.0	91.7	131.2	106.6	413.5
2007	125.7	107.2	142.5	114.8	490.2
2008	136.9	*110*	*150*	*123.1*	*520*
2009	*145*	*115*	*160*	*130*	*550*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	d.01	.12	.75	.05	.92
2006	.08	.28	.74	.26	1.41
2007	.15	.19	.76	d.01	1.09
2008	.21	*.24*	*.75*	*.30*	*1.50*
2009	*.23*	*.25*	*.80*	*.32*	*1.60*

QUARTERLY DIVIDENDS PAID [B] ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.32	.32	.32	.32	1.28
2005	.32	.32	.32	.32	1.28
2006	.32	.32	.32	.32	1.28
2007	.32	.32	.32	.32	1.28
2008	.32	.32			

BUSINESS: The Empire District Electric Company supplies electricity to 167,000 customers in a 10,000 sq. mi. area in Missouri (89% of '07 retail elec. revs.), Kansas (5%), Oklahoma (3%), & Arkansas (3%). Acq'd Missouri Gas (46,000 customers) 6/06. Supplies water service and has various nonregulated operations. Electric revenue breakdown, '07: residential, 44%; commercial, 32%; industrial, 17%; other, 7%. Generating sources, '07: coal, 35%; gas & oil, 24%; hydro, 1%; purchased, 40%. Fuel costs: 47% of revenues. '07 reported deprec. rate: 3.0%. Has about 750 employees. Chairman: Myron W. McKinney. President & CEO: William L. Gipson. Inc.: KS. Address: 602 Joplin St., P.O. Box 127, Joplin, MO 64802-0127. Tel.: 417-625-5100. Internet: www.empiredistrict.com.

Empire District Electric is awaiting an order on a hugely important rate case in Missouri. The utility is seeking an electric rate increase of $34.7 million (10.1%) based on an 11.6% return on equity. Empire District is trying to place some capital spending into the rate base, recover higher expenses, and obtain a fuel-adjustment mechanism that would enable the company to recover 95% of any changes in fuel and purchased-power costs. This last point is critical, since the lack of such a mechanism has hurt earnings severely since 2001. (In fact, over the past seven years, Empire District has covered its dividend only twice.) The staff of the Missouri commission is proposing a lower ROE — the midpoint of its recommended range is 10.2%—and is amenable to a fuel adjustment clause, but at a much less generous level. An order is due by the start of September.

Earnings are likely to improve significantly this year, followed by further growth in 2009. In 2007, unusually harsh storm damage in the first and fourth quarters, along with costs associated with a maintenance outage at a generating plant, which ran longer than planned, hurt the bottom line considerably. In 2008, Empire District should get a modest benefit from the aforementioned rate case. We have raised our 2008 estimate by a nickel a share because the March-quarter tally was better than we expected. Having a full year's benefit of the rate hike should be the main contributor to profit growth in 2009.

Capital spending plans are rising. Empire District has a 12% stake in a coal-fired unit that is under construction for an in-service date in 2010. Rising materials and labor costs have boosted the projected cost of this facility by 15%-20%. To help finance its heavy capital budget, the company issued $90 million of debt last month. An equity offering appears likely this year or next.

Empire District stock offers an attractive yield. At more than two percentage points above the industry mean, it's one of the highest of any utility equity. What's more, we expect some long-awaited dividend growth to occur in the next 3 to 5 years.

Paul E. Debbas, CFA *June 27, 2008*

(A) Excl. loss from discontinued operations: '06, 2¢. '05 EPS don't add due to rounding convention, '06 due to change in shares. Next earnings report due late July. (B) Div'ds historically paid in mid-March, June, Sept., and Dec. ■ Div'd reinvestment plan available (3% discount). † Shareholder investment plan available. (C) Incl. intangibles. In '07: $155.1 mill., $4.62/sh. (D) In millions. (E) Rate base: Deprec. original cost. Rate allowed on common equity in '07 (MO): 10.9%; earned on avg. com. eq., '07: 7.0%. Regulatory Climate: Average.

Company's Financial Strength	B+
Stock's Price Stability	100
Price Growth Persistence	15
Earnings Predictability	55

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ENERGY EAST CORP. NYSE-EAS

RECENT PRICE 24.72 | P/E RATIO 16.5 (Trailing: 15.7 Median: 14.0) | RELATIVE P/E RATIO 1.00 | DIV'D YLD 5.0% | VALUE LINE

TIMELINESS — Suspended 7/6/07
SAFETY 2 Lowered 3/9/01
TECHNICAL — Suspended 7/6/07
BETA .75 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	30	(+20%)	9%
Low	20	(-20%)	Nil

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	2	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	2Q2007	3Q2007	4Q2007
to Buy	141	93	122
to Sell	116	134	104
Hld's(000)	88399	79099	84161

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
High:	17.9	29.0	28.6	23.6	22.1	23.1	23.7	27.1	30.1	25.7	27.9	27.7						
Low:	10.3	16.5	20.6	17.9	17.0	15.8	17.4	21.8	22.5	22.2	22.1	22.3						

LEGENDS
1.07 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 4/99
Options: Yes
Shaded area indicates recession

Target Price Range 2011 | 2012 | 2013

Percent shares traded 9 6 3

% TOT. RETURN 4/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	-1.3	-9.4
3 yr.	1.1	30.2
5 yr.	57.6	98.8

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
	12.18	12.75	13.28	14.05	14.78	15.78	19.85	20.84	25.15	32.21	27.65	31.41	32.33	35.87	35.36	32.72	*32.85*	*33.50*	Revenues per sh	*38.00*
	2.32	2.20	2.43	2.54	2.64	2.77	3.06	3.37	3.42	3.75	3.12	4.28	4.18	4.33	4.58	4.03	*4.00*	*4.05*	"Cash Flow" per sh	*4.50*
	1.20	1.04	1.19	1.25	1.26	1.29	1.51	1.91	2.07	2.00	1.50	1.43	1.62	1.74	1.76	1.61	*1.50*	*1.50*	Earnings per sh [A]	*1.65*
	1.07	1.09	1.00	.70	.70	.70	.78	.84	.88	.92	.96	1.00	1.06	1.12	1.17	1.21	*1.24*	*1.24*	Div'd Decl'd per sh [B] ■	*1.30*
	1.75	1.88	1.72	1.14	1.54	.92	1.04	.64	1.32	1.79	1.55	1.98	2.07	2.26	2.79	2.82	*3.45*	*3.80*	Cap'l Spending per sh	*4.00*
	11.42	11.44	11.64	12.19	12.70	13.36	13.61	12.84	14.59	15.26	16.97	17.59	17.89	19.45	19.37	20.26	*20.50*	*20.80*	Book Value per sh [C]	*21.75*
	138.88	141.19	143.01	143.01	139.34	135.02	125.89	109.34	117.66	116.72	144.97	146.26	147.12	147.70	147.91	158.28	*158.30*	*158.30*	Common Shs Outst'g [D]	*158.30*
	12.3	16.2	9.9	9.3	9.1	9.7	14.6	13.4	10.1	9.8	14.0	14.6	15.1	14.9	13.8	16.0	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*14.5*
	.75	.96	.65	.62	.57	.56	.76	.76	.66	.50	.76	.83	.80	.79	.75	.85			Relative P/E Ratio	*.95*
	7.3%	6.5%	8.5%	6.0%	6.1%	5.6%	3.5%	3.3%	4.2%	4.7%	4.6%	4.8%	4.3%	4.3%	4.8%	4.7%			Avg Ann'l Div'd Yield	*5.4%*
							2499.4	2278.6	2959.5	3759.8	4008.9	4593.8	4756.7	5298.5	5230.7	5178.1	*5200*	*5300*	Revenues ($mill)	*6000*
							202.8	225.1	237.6	235.4	199.6	212.1	241.3	258.3	261.0	252.4	*240*	*240*	Net Profit ($mill)	*265*
							40.4%	36.7%	39.7%	44.2%	34.1%	37.6%	51.0%	39.7%	37.3%	31.1%	*36.0%*	*36.0%*	Income Tax Rate	*36.0%*
							.2%	.1%	.4%	.3%	.7%	.9%	.2%	.6%	.8%	1.6%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*2.0%*
							44.8%	46.6%	57.1%	60.7%	58.9%	59.8%	58.6%	55.9%	56.3%	54.5%	*54.0%*	*53.5%*	Long-Term Debt Ratio	*57.0%*
							53.5%	53.0%	41.8%	38.4%	39.2%	38.5%	40.6%	43.8%	43.3%	45.1%	*45.5%*	*46.0%*	Common Equity Ratio	*42.5%*
							3203.0	2649.2	4106.7	4640.8	6273.5	6681.3	6475.6	6564.4	6615.6	7108.7	*7150*	*7130*	Total Capital ($mill)	*8100*
							3862.7	2139.8	3632.9	3626.4	4801.8	5778.1	5662.2	5783.5	5948.0	6158.5	*6435*	*6750*	Net Plant ($mill)	*7800*
							7.9%	10.5%	7.4%	7.2%	5.1%	5.1%	5.5%	5.7%	5.8%	5.3%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.0%*
							11.5%	15.9%	13.5%	12.9%	7.7%	7.9%	9.0%	8.9%	9.0%	7.8%	*7.5%*	*7.0%*	Return on Shr. Equity	*7.5%*
							11.3%	15.8%	13.8%	13.1%	8.0%	8.1%	9.0%	8.9%	9.1%	7.8%	*7.5%*	*7.0%*	Return on Com Equity [E]	*7.5%*
							5.5%	8.8%	8.0%	7.1%	2.9%	3.1%	3.8%	3.7%	3.2%	2.3%	*1.5%*	*1.0%*	Retained to Com Eq	*1.5%*
							54%	45%	42%	46%	65%	63%	58%	59%	65%	71%	*83%*	*83%*	All Div'ds to Net Prof	*78%*

CAPITAL STRUCTURE as of 3/31/08
Total Debt $4021.0 mill. Due in 5 Yrs $1339.4 mill.
LT Debt $3877.5 mill. LT Interest $232.6 mill.
Incl. $23.1 mill. capitalized leases.
(LT interest earned: 2.4x)
Pension Assets-12/07 $2.91 bill. Oblig. $2.25 bill.
Pfd Stock $24.6 mill. Pfd Div'd $1.1 mill.
242,524 shs. 3.75%-6.00%, cum., $100 par, redeemable at $100-$110; 108,706 shs. 8.0%, cum., $3.125 par, noncallable.

Common Stock 158,299,059 shs.
as of 4/30/08
MARKET CAP: $3.9 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2005	2006	2007
% Change Retail Sales (KWH)	+3.2	-2.8	+2.7
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (c)	3.66	3.81	3.56
Capacity at Peak (Mw)	NMF	NMF	NMF
Peak Load, Winter (Mw)	NA	NA	NA
Annual Load Factor (%)	NMF	NMF	NMF
% Change Customers (yr-end)	+.9	+1.0	+1.0
Fixed Charge Cov. (%)	238	225	218

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	9.0%	4.0%	*1.5%*
"Cash Flow"	5.0%	4.5%	*.5%*
Earnings	3.0%	-1.5%	*-.5%*
Dividends	5.0%	5.0%	*2.0%*
Book Value	4.5%	5.0%	*1.5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	1637	1082	1096	1483	5298.5
2006	1696	1113	1090	1332	5230.7
2007	1713	1089	1031	1345	5178.1
2008	1667	*1100*	*1100*	*1333*	*5200*
2009	*1700*	*1125*	*1100*	*1375*	*5300*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	1.05	.12	.14	.43	1.74
2006	.90	.19	.14	.53	1.76
2007	.90	.12	.16	.46	1.61
2008	.83	*.14*	*.09*	*.44*	*1.50*
2009	*.80*	*.15*	*.10*	*.45*	*1.50*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.26	.26	.26	.275	1.06
2005	.275	.275	.275	.275	1.10
2006	.29	.29	.29	.30	1.17
2007	.30	.30	.30	.31	1.21
2008	.31	.31			

BUSINESS: Energy East Corporation is a holding company for New York State Electric & Gas (NYSEG), Rochester Gas and Electric, Central Maine Power, Connecticut Natural Gas, Southern Connecticut Gas, & Berkshire Gas. Serves 1.8 million elec., 921,000 gas customers in NY & New England. Acq'd Connecticut Energy 2/00; CMP Group, CTG Resources & Berkshire Energy 9/00; RGS Energy 6/02. Elec. rev. breakdown, '07: residential, 44%; commercial, 20%; industrial, 9%; other, 27%. Purchases most of its power. Fuel costs: 58% of revs. '07 reported deprec. rate: 3.0%. Has 5,800 employees. Chairman, President & CEO: Wesley W. von Schack. Inc.: NY. Address: 52 Farm View Dr., New Gloucester, ME 12212-2904. Tel.: 207-688-6300. Internet: www.energyeast.com.

The agreement by IBERDROLA to acquire Energy East appears to be in trouble. The deal calls for the Spanish company to pay $28.50 in cash for each share of Energy East. At 19 times estimated 2008 earnings, the price is certainly generous. It requires only one more regulatory approval before it can be completed, but that's the trouble spot. The New York commission's staff wants IBERDROLA to sell its wind-power assets in the state, a condition that's unacceptable to the buyer. If the two sides can't reach an agreement (settlement talks were fruitless), then the possible outcome is that the commission rejects the transaction, or accepts it while imposing conditions that IBERDROLA finds onerous enough to induce it to walk away. We will probably find out one way or the other in the next several weeks.

The stock is reacting as if the deal is all but doomed. The share price is down 7% since our February report, and it now trades at a discount of 13% to the buyout price. That's a far wider discount than is typical in pending utility takeovers. We believe there is additional downside risk if the deal falls through, despite the stock's hefty dividend yield (more than a percentage point above the utility average). Thus, **we advise all but the more risk-tolerant shareholders to sell their stock,** even though they will miss out on a nice short-term gain if the transaction winds up being completed. The Timeliness rank of Energy East stock remains suspended due to the potential acquisition.

We expect earnings to decline in 2008 and show no improvement in 2009. The margin that Energy East is earning on its electric business is down. There is little growth in the service areas of most of the company's utilities. Even so, returns on equity are adequate enough that New York State Electric & Gas and Rochester Gas and Electric have no plans (at least for now) to file rate cases when their regulatory agreements expire at yearend.

We estimate that the dividend won't be raised for a while. Energy East has a record of dividend growth that dates back to the late 1990s, but the high payout ratio and low earnings growth potential suggest that there isn't much room to increase the disbursement for now.

Paul E. Debbas, CFA *May 30, 2008*

(A) Diluted EPS. Excl. nonrecurring losses: '00, 40¢; '01, 39¢; '02, 6¢; gain (loss) from discont. ops.: '03, 2¢; '04, (5¢). '07 EPS don't add due to change in shs. Next earnings report due early Aug. (B) Div'ds historically paid in mid-Feb., May, Aug., and Nov. ■ Div'd reinvestment plan avail. (C) Incl. intang. In '07: $23.19/sh. (D) In mill., adj. for split. (E) Rate base: Net orig. cost. Rate allowed on com. eq. for NYSEG in '07: 9.55% elec., 10.5% gas; RG&E in '04: 12.25% elec., 12% gas; earned on avg. com. eq., '07: 8.1%. Regulatory Climate: Average.

Company's Financial Strength	B++
Stock's Price Stability	100
Price Growth Persistence	40
Earnings Predictability	85

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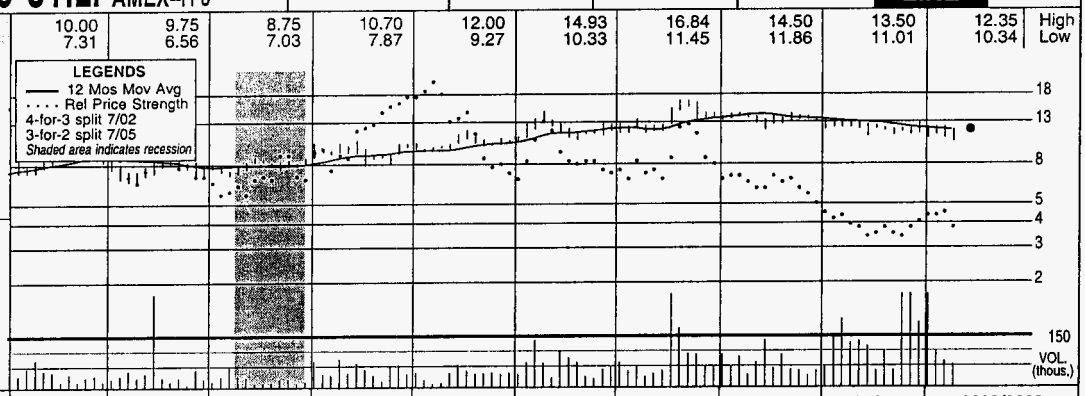
FLORIDA PUBLIC UTIL. AMEX–FPU

RECENT PRICE 11.89 | TRAILING P/E RATIO 20.9 | RELATIVE P/E RATIO 1.19 | DIV'D YLD 3.8% | VALUE LINE

RANKS

PERFORMANCE 2 Above Average
Technical 3 Average
SAFETY 3 Average
BETA .65 (1.00 = Market)

Financial Strength B+
Price Stability 90
Price Growth Persistence 55
Earnings Predictability NMF



© VALUE LINE PUBLISHING, INC.	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008/2009
SALES PER SH	13.22	14.99	15.96	15.19	17.49	18.57	21.80	22.38	22.56	
"CASH FLOW" PER SH	1.42	1.41	1.36	1.33	1.36	1.60	1.93	1.98	1.91	
EARNINGS PER SH	.57	.58	.53	.47	.43	.61	.71	.69	.54	NA/NA
DIV'DS DECL'D PER SH	.33	.35	.37	.38	.39	.40	.41	.43	.45	
CAP'L SPENDING PER SH	1.46	1.86	2.42	2.43	1.65	2.32	2.09	2.18	2.77	
BOOK VALUE PER SH	4.62	4.86	5.08	5.30	7.05	7.29	7.62	7.91	8.08	
COMMON SHS OUTST'G (MILL)	5.60	5.66	5.77	5.82	5.87	5.93	5.96	6.01	6.05	
AVG ANN'L P/E RATIO	15.4	13.5	15.0	19.9	24.2	19.9	19.1	19.7	22.6	NA/NA
RELATIVE P/E RATIO	.88	.88	.77	1.09	1.38	1.05	1.01	1.06	1.20	
AVG ANN'L DIV'D YIELD	3.8%	4.5%	4.6%	4.1%	3.8%	3.3%	3.0%	3.1%	3.6%	
SALES ($MILL)	74.1	84.8	92.1	88.5	102.7	110.0	130.0	134.4	136.5	
OPERATING MARGIN	16.7%	15.0%	16.2%	17.1%	15.4%	16.0%	16.0%	15.6%	14.8%	
DEPRECIATION ($MILL)	4.6	4.7	4.8	5.0	5.5	5.9	7.3	7.7	8.3	
NET PROFIT ($MILL)	3.4	3.3	3.1	2.8	2.5	3.6	4.2	4.2	3.3	
INCOME TAX RATE	33.1%	30.9%	33.5%	33.7%	31.6%	31.0%	35.0%	34.9%	34.0%	
NET PROFIT MARGIN	4.6%	3.9%	3.3%	3.1%	2.5%	3.3%	3.3%	3.1%	2.4%	
WORKING CAP'L ($MILL)	d17.7	d22.5	d22.5	d14.9	d6.0	d9.0	d10.5	d12.9	d16.2	
LONG-TERM DEBT ($MILL)	23.5	23.5	52.5	52.5	52.5	52.5	50.6	50.7	49.4	
SHR. EQUITY ($MILL)	26.5	28.1	29.9	31.5	42.1	43.8	46.1	48.2	49.5	
RETURN ON TOTAL CAP'L	9.0%	8.5%	5.3%	5.6%	4.8%	5.8%	6.4%	6.2%	5.3%	
RETURN ON SHR. EQUITY	12.8%	11.7%	10.2%	8.8%	6.0%	8.2%	9.2%	8.7%	6.7%	
RETAINED TO COM EQ	5.4%	4.7%	3.2%	1.8%	.6%	2.8%	4.0%	3.4%	1.3%	
ALL DIV'DS TO NET PROF	59%	61%	69%	80%	91%	66%	58%	61%	81%	

Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.

Note: No analyst estimates available.

ANNUAL RATES

of change (per share)	5 Yrs.	1 Yr.
Sales	7.5%	1.0%
"Cash Flow"	7.0%	-3.5%
Earnings	4.0%	-21.5%
Dividends	3.0%	4.5%
Book Value	9.0%	2.0%

Fiscal Year	QUARTERLY SALES ($mill.) 1Q	2Q	3Q	4Q	Full Year
12/31/05	35.4	28.3	29.2	37.1	130.0
12/31/06	43.3	29.9	29.4	31.8	134.4
12/31/07	38.6	32.5	31.6	33.8	136.5
12/31/08	45.0				

Fiscal Year	EARNINGS PER SHARE 1Q	2Q	3Q	4Q	Full Year
12/31/04	.24	.09	.03	.25	.61
12/31/05	.40	.14	.04	.13	.71
12/31/06	.38	.12	.05	.14	.69
12/31/07	.29	.07	.06	.12	.54
12/31/08	.32				

Calendar	QUARTERLY DIVIDENDS PAID 1Q	2Q	3Q	4Q	Full Year
2005	.10	.10	.103	.103	.41
2006	.103	.103	.108	.108	.42
2007	.108	.108	.113	.113	.44
2008	.113	.113			

INSTITUTIONAL DECISIONS

	2Q'07	3Q'07	4Q'07
to Buy	6	9	8
to Sell	5	4	7
Hld's(000)	1568	1623	1913

ASSETS ($mill.)	2006	2007	3/31/08
Cash Assets	.1	3.5	2.5
Receivables	14.0	14.1	17.3
Inventory (Avg cost)	4.1	4.3	4.3
Other	2.0	5.8	6.7
Current Assets	20.2	27.7	30.8
Property, Plant & Equip, at cost	189.0	202.4	--
Accum Depreciation	59.8	64.0	--
Net Property	129.2	138.4	139.7
Other	31.5	26.2	25.5
Total Assets	180.9	192.3	196.0
LIABILITIES ($mill.)			
Accts Payable	10.3	9.9	11.4
Debt Due	3.5	12.5	11.1
Other	19.3	21.5	21.8
Current Liab	33.1	43.9	44.3

LONG-TERM DEBT AND EQUITY as of 3/31/08

Total Debt $60.5 mill. Due in 5 Yrs. NA
LT Debt $49.4 mill.
Including Cap. Leases NA (49% of Cap'l)
Leases, Uncapitalized Annual rentals NA

Pension Liability $5.4 mill. in '07 vs. $4.7 mill. in '06

Pfd Stock $.6 mill. Pfd Div'd Paid $.3 mill. (1% of Cap'l)

Common Stock 6,071,565 shares (50% of Cap'l)

INDUSTRY: Electric Utility (East)

BUSINESS: Florida Public Utilities Company engages in the purchase, transmission, distribution, and sale of electricity and natural gas to residential, commercial, and industrial customers in Florida. It also sells propane gas, as well as merchandise and other service-related products. The company's strategy is to leverage expertise in the natural gas, electric, and propane gas distribution business to assist in consistently meeting customers' expectations. Its core focus is to build mutually beneficial relationships with builders, developers, and customers with high-energy usage requirements. The company owns 1,611 miles of natural gas pipe in central and south Florida; 22 miles of electric transmission lines in northeast Florida; and 1,092 miles of electric distribution lines in northeast and northwest Florida. It serves 83,000 natural gas and electricity customers and 13,000 propane gas customers. Has 356 employees. Chairman, C.E.O. & President: John T. English. Inc.: FL. Address: 401 South Dixie Highway, West Palm Beach, FL 33401. Tel.: (561) 832-0872. Internet: http://www.fpuc.com.

E.B.

May 30, 2008

TOTAL SHAREHOLDER RETURN

Dividends plus appreciation as of 4/30/2008

3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
-3.42%	-5.84%	-9.90%	1.26%	33.22%

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GREAT PLAINS EN'GY NYSE-GXP

RECENT PRICE 26.46 | P/E RATIO 16.5 (Trailing:NMF Median: 15.0) | RELATIVE P/E RATIO 1.01 | DIV'D YLD 6.3% | VALUE LINE

TIMELINESS 3 Lowered 5/16/08
SAFETY 2 Raised 7/16/93
TECHNICAL 4 Lowered 6/13/08
BETA .80 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	30	(+15%)	9%
Low	25	(-5%)	5%

Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	3Q2007	4Q2007	1Q2008
to Buy	95	115	104
to Sell	111	99	113
Hld's(000)	42390	43943	42424

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
High:	29.9	31.8	29.6	29.0	27.6	27.0	32.8	35.7	32.8	32.8	33.4	29.3								
Low:	27.4	28.0	20.8	20.9	23.2	15.7	21.4	27.9	27.1	27.1	26.9	23.6								
	12.97	13.85	14.03	14.31	14.60	14.47	15.17	14.50	18.02	23.61	26.91	31.04	33.13	34.85	33.30	37.89	*15.25*	*16.20*	Revenues per sh	*20.25*
	3.36	3.73	3.69	4.06	3.90	3.91	4.21	3.63	4.63	4.70	4.40	4.69	4.75	4.54	3.86	4.24	*3.75*	*3.95*	"Cash Flow" per sh	*5.00*
	1.35	1.66	1.64	1.92	1.69	1.69	1.89	1.26	2.05	1.59	2.04	2.27	2.46	2.18	1.62	1.85	*1.60*	*1.70*	Earnings per sh [A]	*2.00*
	1.43	1.46	1.50	1.54	1.59	1.62	1.64	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	*1.66*	*1.66*	Div'd Decl'd per sh [B] ■ †	*1.66*
	2.09	2.09	2.02	2.20	1.66	2.05	1.97	2.97	6.67	4.38	1.91	2.19	2.66	4.49	6.05	6.15	*8.05*	*7.90*	Cap'l Spending per sh	*3.50*
	13.79	13.99	14.13	14.50	14.71	14.19	14.41	13.97	14.88	12.59	13.58	13.82	15.35	16.37	16.70	18.18	*17.90*	*17.95*	Book Value per sh [C]	*18.50*
	61.91	61.91	61.91	61.91	61.91	61.91	61.91	61.91	61.91	61.91	69.20	69.26	74.37	74.74	80.35	86.23	*94.00*	*94.00*	Common Shs Outst'g [D]	*94.00*
	16.5	14.5	13.2	12.2	15.9	17.0	15.7	20.0	12.4	15.9	11.1	12.2	12.6	14.0	18.3	16.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*14.0*
	1.00	.86	.87	.82	1.00	.98	.82	1.14	.81	.81	.61	.70	.67	.75	.99	.86			Relative P/E Ratio	*.95*
	6.4%	6.1%	6.9%	6.5%	5.9%	5.6%	5.5%	6.6%	6.5%	6.6%	7.3%	6.0%	5.4%	5.5%	5.6%	5.5%			Avg Ann'l Div'd Yield	*6.0%*
	938.9	897.4	1115.9	1461.9	1861.9	2149.5	2464.0	2604.9	2675.3	3267.1	*1435*	*1525*	Revenues ($mill)	*1900*
	133.2	94.4	128.6	100.0	129.2	159.0	178.8	164.2	127.6	159.2	*145*	*160*	Net Profit ($mill)	*195*
	19.8%	3.3%	29.2%	16.6%	27.2%	34.2%	24.1%	18.7%	27.0%	30.7%	*30.0%*	*30.0%*	Income Tax Rate	*30.0%*
	4.7%	6.4%	12.6%	12.8%	1.0%	1.8%	2.0%	2.1%	8.4%	10.6%	*21.0%*	*19.0%*	AFUDC % to Net Profit	*5.0%*
	39.9%	39.4%	55.4%	53.1%	53.5%	53.8%	44.8%	47.5%	30.6%	40.7%	*46.0%*	*47.5%*	Long-Term Debt Ratio	*48.0%*
	47.4%	49.7%	42.8%	44.6%	44.7%	44.4%	53.4%	50.9%	67.5%	57.9%	*53.0%*	*51.5%*	Common Equity Ratio	*51.0%*
	1880.1	1739.6	2152.3	1747.4	2102.8	2154.6	2137.1	2403.3	1988.4	2709.8	*3175*	*3280*	Total Capital ($mill)	*3450*
	2316.4	2298.9	2527.8	2623.7	2604.1	2700.9	2734.5	2765.6	3066.2	3444.5	*3990*	*4525*	Net Plant ($mill)	*5025*
	8.6%	6.9%	7.7%	7.5%	7.7%	9.0%	10.1%	8.2%	7.9%	7.5%	*6.0%*	*6.5%*	Return on Total Cap'l	*7.5%*
	11.8%	9.0%	13.4%	12.2%	13.2%	16.0%	15.1%	13.0%	9.2%	9.9%	*8.5%*	*9.5%*	Return on Shr. Equity	*11.0%*
	13.1%	9.0%	13.8%	12.6%	13.6%	16.4%	15.5%	13.3%	9.4%	10.1%	*8.5%*	*9.5%*	Return on Com Equity [E]	*11.0%*
	1.7%	NMF	2.6%	NMF	2.3%	4.4%	5.1%	3.2%	NMF	.9%	*NMF*	*Nil*	Retained to Com Eq	*2.0%*
	89%	NMF	81%	104%	83%	73%	68%	76%	104%	91%	*106%*	*98%*	All Div'ds to Net Prof	*81%*

% TOT. RETURN 5/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	-10.5	-9.7
3 yr.	-1.3	27.3
5 yr.	20.2	85.8

Target Price Range 2011 | 2012 | 2013

CAPITAL STRUCTURE as of 3/31/08
Total Debt $1685.1 mill. Due in 5 Yrs $394.6 mill.
LT Debt $1452.9 mill. LT Interest $86.5 mill.
Incl. $150 mill. 8.3% mandatorily redeemable preferred securities.
(LT interest earned: 3.4x)
Leases, Uncapitalized Annual rentals $18.6 mill.
Pension Assets-12/07 $400.1 mill. Oblig. $512.9 mill.
Pfd Stock $39.0 mill. Pfd Div'd $1.6 mill.
390,000 shs. 3.80% to 4.50% (all $100 par & cum.), callable from $101 to $103.70.
Common Stock 86,365,262 shs. as of 5/5/08
MARKET CAP: $2.3 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2005	2006	2007
% Change Retail Sales (KWH)	+6.3	+.9	+3.6
Avg. Indust. Use (MWH)	977	981	940
Avg. Indust. Revs. per KWH (¢)	4.66	4.65	4.94
Capacity at Peak (Mw)	4054	4053	4392
Peak Load, Summer (Mw)	3512	3721	3638
Annual Load Factor (%)	51.8	49.2	52.0
% Change Customers (avg.)	+1.0	+1.0	+.6
Fixed Charge Cov. (%)	360	294	287

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	9.5%	9.0%	*NMF*
"Cash Flow"	.5%	-1.5%	*3.0%*
Earnings	.5%	--	*1.0%*
Dividends	.5%	--	*Nil*
Book Value	1.5%	4.5%	*1.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	545.1	631.7	782.9	645.2	2604.9
2006	559.2	642.1	818.5	655.5	2675.3
2007	664.3	804.6	992.0	806.2	3267.1
2008	297.6	*350*	*457.4*	*330*	*1435*
2009	*325*	*375*	*475*	*350*	*1525*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	.27	.34	1.19	.38	2.18
2006	d.02	.49	.69	.42	1.62
2007	.28	.29	.72	.56	1.85
2008	d.07	*.40*	*.90*	*.37*	*1.60*
2009	*Nil*	*.41*	*.91*	*.38*	*1.70*

QUARTERLY DIVIDENDS PAID [B] ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.415	.415	.415	.415	1.66
2005	.415	.415	.415	.415	1.66
2006	.415	.415	.415	.415	1.66
2007	.415	.415	.415	.415	1.66
2008	.415	.415			

BUSINESS: Great Plains Energy Incorporated is a holding company for Kansas City Power & Light, which supplies electricity to about 506,000 customers in western Missouri (57% of revs.) & eastern Kansas (43%). Elec. rev. breakdown, '07: residential, 34%; commercial, 38%; industrial, 8%; other, 20%. Generating sources, '07: coal, 67%; nuclear, 22%; other, 4%; purchased, 7%. Has interests in affordable housing credits. Sold Strategic Energy (energy-marketing subsidiary) in '08. Fuel costs: 67% of revs. '07 reported deprec. rate (utility): 3.0%. Has 2,500 employees. Chairman & CEO: Michael J. Chesser. President & COO: William H. Downey. Inc.: MO. Address: 1201 Walnut St., Kansas City, MO 64106-2124. Tel.: 816-556-2200. Internet: www.greatplainsenergy.com.

Great Plains Energy is awaiting a decision from the Missouri commission regarding its proposed takeover of Aquila. Under terms of the agreement, Great Plains would pay around $1.5 billion (55% in stock, 45% in cash) and assume $1 billion in debt for Aquila's two electric utilities in Missouri. The deal would probably be dilutive to earnings in 2008 but accretive beginning in 2009. The commission's ruling was expected shortly after this report went to press.

Great Plains has completed the sale of its Strategic Energy subsidiary. We have adjusted our figures to exclude this business. After taxes, the company expects to receive $270 million in cash (subject to post-closing adjustments). Great Plains will use the proceeds to help finance its capital spending. Strategic Energy, which markets energy to commercial, industrial, and institutional users, is profitable, but earnings are volatile. The divestiture of this low-margin business affects revenues much more than net profit, where it will have a dilutive effect on earnings. (Its share net was $0.45 in 2007.)

The utility has run into some problems. As expected, Kansas City Power & Light had to significantly raise the estimated cost of the 850-megawatt Iatan 2 coal-fired unit due to the rising cost of labor and materials. (This issue is hardly unique to KCPL.) The project is now budgeted at $1.77 billion-$1.87 billion, up from the expected $1.45 billion-$1.59 billion 18 months ago. KCPL also had some operating difficulties with its power plants in the first quarter, which caused a poor bottom-line showing. Finally, the utility is feeling the effect of the slowdown in the economy.

The upcoming months will be eventful. KCPL will file general rate cases in Missouri and Kansas this year, probably around late summer or early fall. Great Plains plans to have a stock sale sometime in the second half of 2008. The company has not been specific about the timing or amount of the offering.

This stock is of interest solely for its yield, which is among the highest of any equity in this industry. The lack of dividend-growth potential makes it an unexceptional selection for the 3- to 5-year period, however.

Paul E. Debbas, CFA *June 27, 2008*

(A) Excl. nonrec. gains (losses): '97, (52¢); '00, 49¢; '01, ($2.01); '02, (5¢); '03, 29¢; '04, (7¢); gain (losses) on disc. ops.: '03, (13¢); '04, 10¢; '05, (3¢); '08, 62¢. '05 EPS don't add due to rounding, '06 due to change in shs. Next egs. due early Aug. (B) Div'ds historically paid in mid-Mar., June, Sept., & Dec. ■ Div'd reinvest. plan avail. † Shareholder invest. plan avail. (C) Incl. intang. In '07: $5.66/sh. (D) In mill. (E) Rate base: Fair val. Rate all'd on com. eq. in '08: 10.75% (MO); none spec. (KS); earned on avg. com. eq., '07: 10.7%. Reg. Clim.: Avg.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	30
Earnings Predictability	75

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HAWAIIAN ELECTRIC NYSE-HE

RECENT PRICE 24.51 | P/E RATIO 22.3 (Trailing: 18.2 Median: 15.0) | RELATIVE P/E RATIO 1.44 | DIV'D YLD 5.1% | VALUE LINE

TIMELINESS 3 Lowered 7/18/08
SAFETY 2 Raised 2/15/02
TECHNICAL 3 Lowered 7/18/08
BETA .75 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	25	(Nil)	5%
Low	20	(-20%)	Nil

Insider Decisions

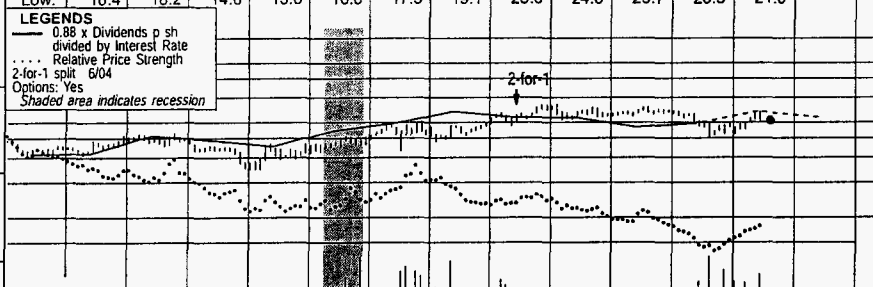
	S	O	N	D	J	F	M	A	M
to Buy	0	2	0	0	2	0	0	2	0
Options	0	0	0	0	0	0	0	0	3
to Sell	0	0	0	0	0	0	0	0	3

Institutional Decisions

	3Q2007	4Q2007	1Q2008
to Buy	57	87	94
to Sell	89	53	70
Hld's(000)	26611	27714	30608

High:	20.8	21.3	20.3	19.0	20.6	24.5	24.0	29.5	29.8	28.9	27.5	27.2
Low:	16.4	18.2	14.0	13.8	16.8	17.3	19.1	23.0	24.6	25.7	20.3	21.0

LEGENDS
0.88 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 6/04
Options: Yes
Shaded area indicates recession



Percent shares traded 9 6 3

Target Price Range 2011 | 2012 | 2013
64 48 40 32 24 20 16 12 8 6

% TOT. RETURN 6/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	10.2	-18.0
3 yr.	6.9	11.3
5 yr.	38.0	63.2

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
20.83	20.64	20.74	21.76	22.86	22.95	23.12	23.64	26.05	24.26	22.46	23.49	23.85	27.36	30.21	30.40	*34.50*	*34.85*	Revenues per sh	*38.75*
2.51	2.23	2.52	2.73	2.81	3.01	3.23	3.35	3.08	3.33	3.52	3.54	3.09	3.22	3.19	3.01	*3.00*	*3.60*	"Cash Flow" per sh	*4.00*
1.27	1.19	1.30	1.33	1.30	1.38	1.48	1.45	1.27	1.60	1.62	1.58	1.36	1.46	1.33	1.11	*1.10*	*1.65*	Earnings per sh [A]	*2.00*
1.13	1.15	1.17	1.19	1.21	1.22	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	*1.24*	*1.24*	Div'd Decl'd per sh [B] ■ †	*1.30*
4.03	4.06	3.50	3.27	3.33	2.31	2.60	2.09	2.04	1.77	1.74	2.15	2.66	2.76	2.58	2.62	*4.10*	*3.45*	Cap'l Spending per sh	*2.75*
11.06	11.62	11.90	12.25	12.52	12.77	12.87	13.16	12.72	13.06	14.21	14.36	15.01	15.02	13.44	15.29	*15.10*	*15.40*	Book Value per sh [C]	*17.00*
49.52	55.35	57.31	59.55	61.71	63.79	64.23	64.43	65.98	71.20	73.62	75.84	80.69	80.98	81.46	83.43	*85.50*	*87.50*	Common Shs Outst'g [D]	*89.00*
15.3	15.5	12.5	13.5	13.7	13.2	13.4	12.1	12.9	11.8	13.5	13.8	19.2	18.3	20.3	21.6	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*12.0*
.93	.92	.82	.90	.86	.76	.70	.69	.84	.60	.74	.79	1.01	.97	1.10	1.13			Relative P/E Ratio	*.80*
5.8%	6.2%	7.2%	6.6%	6.8%	6.7%	6.2%	7.1%	7.5%	6.6%	5.7%	5.7%	4.8%	4.6%	4.6%	5.2%			Avg Ann'l Div'd Yield	*5.5%*
1485.2	1523.3	1719.0	1727.3	1653.7	1781.3	1924.1	2215.6	2460.9	2536.4	*2950*	*3050*	Revenues ($mill)	*3450*
113.2	111.1	84.6	109.8	120.2	120.1	109.6	120.3	109.9	93.6	*95.0*	*145*	Net Profit ($mill)	*175*
33.5%	33.9%	41.6%	34.6%	34.6%	34.9%	45.8%	36.4%	36.5%	35.4%	*39.0%*	*39.0%*	Income Tax Rate	*40.0%*
14.2%	6.1%	9.8%	5.9%	4.8%	5.1%	7.6%	5.9%	8.4%	8.3%	*16.0%*	*14.0%*	AFUDC % to Net Profit	*5.0%*
44.7%	47.2%	58.4%	56.9%	52.0%	48.6%	47.6%	45.2%	49.9%	47.6%	*48.5%*	*47.5%*	Long-Term Debt Ratio	*45.0%*
43.1%	41.4%	39.9%	41.6%	46.5%	49.8%	51.0%	53.3%	48.6%	51.0%	*50.0%*	*51.0%*	Common Equity Ratio	*54.0%*
1918.9	2049.5	2101.2	2235.8	2251.0	2186.9	2375.1	2283.9	2252.7	2501.8	*2575*	*2635*	Total Capital ($mill)	*2800*
2093.4	2066.2	2091.3	2067.5	2079.3	2311.9	2422.3	2542.8	2647.5	2743.4	*2925*	*3055*	Net Plant ($mill)	*3225*
7.4%	6.8%	5.9%	6.7%	7.3%	7.3%	6.0%	6.8%	6.4%	5.2%	*5.0%*	*7.0%*	Return on Total Cap'l	*7.5%*
10.7%	10.3%	9.7%	11.4%	11.1%	10.7%	8.8%	9.6%	9.7%	7.1%	*7.0%*	*10.5%*	Return on Shr. Equity	*11.5%*
11.4%	11.0%	9.8%	11.6%	11.3%	10.8%	8.9%	9.7%	9.9%	7.2%	*7.0%*	*10.5%*	Return on Com Equity [E]	*11.5%*
1.8%	1.5%	1.7%	4.4%	4.3%	3.9%	1.1%	1.5%	.7%	.8%	*NMF*	*2.5%*	Retained to Com Eq	*4.0%*
87%	88%	84%	63%	63%	64%	87%	85%	93%	89%	*114%*	*75%*	All Div'ds to Net Prof	*67%*

CAPITAL STRUCTURE as of 3/31/08
Total Debt $1401.3 mill. **Due in 5 Yrs** *$465.0* mill.
LT Debt *$1152.0* mill. **LT Interest** *$63.0* mill.
Incl. $50 mill. 6.5% oblig. pfd. sec. of trust subsid.
(LT interest earned: 2.9x)
Pension Assets-12/07 $907.3 mill. **Oblig.** $998.6 mill.
Pfd Stock $34.3 mill. **Pfd Div'd** $2.0 mill.
1,114,657 shs. 4¼% to 5¼%, $20 par. call. $20 to $21; 120,000 shs. 7⅝%, $100 par. call. $100. Sinking fund ends 2018.
Common Stock 84,077,675 shs.
as of 4/30/08
MARKET CAP: $2.1 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2005	2006	2007
% Change Retail Sales (KWH)	+.3	+.3	--
Avg. Indust. Use (MWH)	6718	6623	6584
Avg. Indust. Revs. per KWH (¢)	15.21	17.38	17.68
Capacity at Yearend (Mw)	2184	2204	2223
Peak Load, Winter (Mw)	1641	1685	1635
Annual Load Factor (%)	74.1	72.5	74.7
% Change Customers (yr-end)	+1.7	+1.2	+1.3
Fixed Charge Cov. (%)	325	301	262

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	2.5%	4.0%	*5.0%*
"Cash Flow"	1.0%	-1.0%	*4.0%*
Earnings	-.5%	-3.0%	*7.5%*
Dividends	.5%	--	*1.0%*
Book Value	1.5%	2.0%	*2.5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	472.6	522.3	595.9	624.8	2215.6
2006	574.9	605.0	673.9	607.1	2460.9
2007	554.0	600.8	673.4	708.2	2536.4
2008	729.6	*735.4*	*740*	*745*	*2950*
2009	*750*	*750*	*775*	*775*	*3050*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	.30	.35	.46	.35	1.46
2006	.40	.33	.40	.20	1.33
2007	.17	.21	.24	.49	1.11
2008	.41	*d.05*	*.40*	*.34*	*1.10*
2009	*.40*	*.40*	*.45*	*.40*	*1.65*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.31	.31	.31	.31	1.24
2005	.31	.31	.31	.31	1.24
2006	.31	.31	.31	.31	1.24
2007	.31	.31	.31	.31	1.24
2008	.31	.31			

BUSINESS: Hawaiian Electric Industries, Inc. is the parent company of Hawaiian Electric Company (HECO) & American Savings Bank (ASB). *HECO & its subs., Maui Electric Co. (MECO) & Hawaii* Electric Light Co. (HELCO), supply electricity to 440,000 customers on Oahu, Maui, Molokai, Lanai, & Hawaii. Operating companies' systems are not interconnected. Discontinued int'l power sub. in '01. Elec. rev. breakdown, '07: res'l, 34%; comm'l, 34%; large light & power, 31%; other, 1%. Generating sources, '07: oil, 61%; purchased, 39%. Fuel costs: 52% of revs. '07 reported depr. rate (utility): 3.8%. Has 3,500 employees. Chairman: Jeffrey N. Watanabe. Pres. & CEO: Constance H. Lau. Inc.: HI. Address: P.O. Box 730, Honolulu, HI 96808-0730. Tel.: 808-543-5662. Web: www.hei.com.

Hawaiian Electric Industries has taken a major step to improve results at its American Savings Bank (ASB) subsidiary. ASB's new president determined that the bank had too many "wholesale" assets and liabilities (i.e., things other than loans and deposits) on its balance sheet. These were dragging down ASB's return on assets, which has long been subpar, at well below 1%. So the bank sold $1.3 billion of wholesale securities and unwound $1.2 billion of borrowings. Pending the approval of the Office of Thrift Supervision, HEI will seek to have roughly $75 million of excess capital returned to the parent company. This will offset some of its financing needs. ASB is also taking steps to improve its efficiency ratio, which has been hurt by excessive costs. Increased automation should help in this regard. The one downside is that the moves will force HEI to take a $36 million aftertax charge (*included* in our presentation) in the June quarter. Thus . . .

We have slashed our 2008 earnings estimate. We now estimate that profits will wind up about equal to the 2007 tally, despite the fact that HEI's utilities are benefiting from interim rate hikes that they received last year. Assuming that 2009 is a more "normal" year, the bottom line should be much improved.

Hawaiian Electric Company has filed a general rate case. The utility is seeking an increase of $97.0 million (5.2%) based on an 11.25% return on equity. HECO is asking for an interim rate hike of $73.1 million as soon as possible, followed by $23.9 million when a 110-megawatt generating plant goes into service. Due to rising operating expenses, the utility has not been earning its allowed ROE (currently 10.7%). For the 12 months that ended on March 31st, HECO earned an ROE of just 6.65%. Despite the utility's clear need for rate relief, this is a challenging time to file a rate case, given the high cost of oil, which fuels its plants. An interim rate order is due by mid-2009.

We think investors should look elsewhere, despite the high yield. The share price is near the upper end of our 3- to 5-year Target Price Range. A dividend hike is unlikely for a while, so total return potential to 2011-2013 is low.

Paul E. Debbas, CFA *August 8, 2008*

(A) *Diluted EPS. Excl. gains (losses) from disc. ops.: '98, (16¢); '99, 6¢; '00, (56¢); '01, (36¢); '03, (5¢); '04, 2¢; '05, (1¢); nonrec. gain (loss): '05, 11¢; '07, (9¢). Next egs. due early Nov.*

(B) *Div'ds historically paid in early Mar., June, Sept., and Dec.* ■ Div'd reinv. plan avail. † Shareholdr. invest. plan avail. (C) Incl. intang. In '07: $4.41/sh. (D) In mill., adj. for split. (E) Rate base: Orig. cost. Rate all'd on com. eq. in '07: HECO, 10.7% (interim); in '07: HELCO, 10.7%; in '07: MECO, 10.7%; earned on avg. com. eq., '07: 7.7%. Regulatory Climate: Above Average.

Company's Financial Strength	B++
Stock's Price Stability	100
Price Growth Persistence	40
Earnings Predictability	70

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OGE ENERGY CORP. NYSE-OGE

RECENT PRICE 33.27 | P/E RATIO 13.3 (Trailing: 12.8 Median: 14.0) | RELATIVE P/E RATIO 0.82 | DIV'D YLD 4.2% | VALUE LINE

TIMELINESS 3 Raised 6/27/08
SAFETY 2 Raised 7/1/05
TECHNICAL 3 Lowered 5/9/08
BETA .90 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+20%)	9%
Low	30	(-10%)	2%

Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	3	0	0	0	0	0
to Sell	0	0	0	4	0	0	0	1	0

Institutional Decisions

	3Q2007	4Q2007	1Q2008
to Buy	84	97	90
to Sell	143	112	114
Hld's(000)	44580	47002	45103

	High:	27.4	30.0	29.1	24.8	24.7	24.2	24.3	27.0	30.6	40.6	41.3	36.2
	Low:	20.3	25.6	18.4	16.5	20.0	13.7	16.0	22.8	24.4	26.3	29.1	29.8

LEGENDS
0.92 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 6/98
Options: Yes
Shaded area indicates recession

Target Price Range 2011 | 2012 | 2013

64 48 40 32 24 20 16 12 8 6

Percent shares traded 9 6 3

% TOT. RETURN 5/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	-5.4	-9.7
3 yr.	36.8	27.3
5 yr.	100.2	85.8

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	©VALUE LINE PUB., INC.	11-13
16.30	17.94	16.79	16.13	17.18	18.23	20.02	27.90	42.33	40.80	38.52	43.24	54.74	65.65	43.92	41.37	*44.70*	*44.60*	Revenues per sh	*52.25*
2.58	2.87	3.07	3.16	3.31	3.38	3.90	4.06	4.15	3.61	3.75	3.65	3.74	3.89	4.47	4.79	*4.70*	*4.75*	"Cash Flow" per sh	*5.50*
1.21	1.39	1.51	1.52	1.62	1.61	2.04	1.94	1.89	1.29	1.43	1.73	1.78	1.83	2.45	2.64	*2.50*	*2.55*	Earnings per sh [A]	*3.00*
1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.34	1.37	*1.40*	*1.43*	Div'd Decl'd per sh [B] ■ †	*1.55*
1.76	1.58	1.87	1.75	2.00	2.03	1.86	2.33	2.30	2.89	2.99	2.07	3.02	3.30	5.34	6.08	*7.05*	*7.40*	Cap'l Spending per sh	*6.00*
11.18	11.24	11.41	11.61	11.91	12.19	12.91	13.09	13.66	13.34	12.53	13.75	14.28	15.19	17.59	18.31	*19.70*	*21.30*	Book Value per sh [C]	*25.50*
80.66	80.69	80.71	80.75	80.76	80.77	80.80	77.86	77.92	77.99	78.50	87.40	90.00	90.60	91.20	91.80	*94.00*	*97.50*	Common Shs Outst'g [D]	*100.50*
14.7	12.8	11.1	11.9	12.3	14.0	13.3	12.1	10.6	17.4	14.1	11.8	14.1	14.9	13.7	13.8	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*11.5*
.89	.76	.73	.80	.77	.81	.69	.69	.69	.89	.77	.67	.74	.79	.74	.73			Relative P/E Ratio	*.75*
7.5%	7.5%	8.0%	7.4%	6.7%	5.9%	4.9%	5.7%	6.6%	5.9%	6.6%	6.5%	5.3%	4.9%	4.0%	3.8%			Avg Ann'l Div'd Yield	*4.4%*
1617.7	2172.4	3298.7	3182.4	3023.9	3779.0	4926.6	5948.2	4005.6	3797.6	*4200*	*4350*	Revenues ($mill)	*5250*
165.9	151.3	147.0	100.6	111.7	141.8	157.8	166.1	226.1	244.2	*235*	*245*	Net Profit ($mill)	*295*
39.6%	37.3%	34.2%	34.3%	36.4%	35.4%	34.5%	30.2%	34.8%	32.3%	*33.5%*	*33.5%*	Income Tax Rate	*33.5%*
.6%	.5%	1.5%	.7%	.8%	.4%	1.1%	1.3%	3.8%	1.6%	*3.0%*	*2.0%*	AFUDC % to Net Profit	*2.0%*
47.3%	52.8%	60.8%	59.5%	60.4%	54.4%	52.6%	49.5%	45.6%	44.4%	*48.0%*	*42.5%*	Long-Term Debt Ratio	*48.5%*
52.7%	47.2%	39.2%	40.5%	39.6%	45.6%	47.4%	50.5%	54.4%	55.6%	*52.0%*	*57.5%*	Common Equity Ratio	*51.5%*
1979.0	2159.9	2712.8	2566.9	2485.8	2637.7	2709.7	2726.6	2950.1	3025.5	*3545*	*3620*	Total Capital ($mill)	*4950*
2526.6	3242.0	3219.5	3263.7	3204.3	3309.5	3581.0	3567.4	3867.5	4246.3	*5140*	*5645*	Net Plant ($mill)	*6725*
9.9%	8.8%	7.6%	6.2%	6.6%	7.1%	7.4%	7.6%	9.1%	9.5%	*8.0%*	*8.0%*	Return on Total Cap'l	*7.5%*
15.9%	14.8%	13.8%	9.7%	11.4%	11.8%	12.3%	12.1%	14.1%	14.5%	*13.0%*	*12.0%*	Return on Shr. Equity	*11.5%*
15.8%	14.8%	13.8%	9.7%	11.4%	11.8%	12.3%	12.1%	14.1%	14.5%	*13.0%*	*12.0%*	Return on Com Equity [E]	*11.5%*
5.5%	4.7%	4.1%	NMF	1.2%	3.6%	3.4%	3.4%	6.6%	7.1%	*6.0%*	*5.0%*	Retained to Com Eq	*5.5%*
65%	68%	70%	103%	89%	70%	73%	72%	53%	51%	*55%*	*56%*	All Div'ds to Net Prof	*53%*

CAPITAL STRUCTURE as of 3/31/08
Total Debt $1810.6 mill. Due in 5 Yrs $667.3 mill.
LT Debt $1543.3 mill. LT Interest $99.5 mill.
(LT interest earned: 5.0x)

Leases, Uncapitalized Annual rentals $5.6 mill.

Pension Assets-12/07 $514.0 mill. Oblig. $518.0 mill.
Pfd Stock None

Common Stock 91,974,496 shs.

MARKET CAP: $3.1 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2005	2006	2007
% Change Retail Sales (KWH)	+5.3	+1.5	--
Avg. Indust. Use (MWH)	762	748	738
Avg. Indust. Revs. per KWH (¢)	4.94	4.86	5.22
Capacity at Peak (Mw)	6739	6688	*6800*
Peak Load, Summer (Mw)	6145	6473	6317
Annual Load Factor (%)	47.6	53.9	53.7
% Change Customers (yr-end)	+1.4	+1.3	+1.0
Fixed Charge Cov. (%)	357	431	483

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	11.5%	4.5%	*.5%*
"Cash Flow"	3.0%	2.5%	*4.0%*
Earnings	4.0%	8.5%	*4.5%*
Dividends	--	--	*2.5%*
Book Value	3.5%	5.5%	*7.0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	1274.5	1339.1	1681.5	1653.1	5948.2
2006	1109.8	934.3	1130.6	830.9	4005.6
2007	881.5	913.4	1044.5	958.2	3797.6
2008	994.7	*1005.3*	*1200*	*1000*	*4200*
2009	*1000*	*1025*	*1300*	*1025*	*4350*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	.05	.40	1.18	.20	1.83
2006	.27	.63	1.32	.24	2.45
2007	.19	.68	1.37	.40	2.64
2008	.14	*.75*	*1.41*	*.20*	*2.50*
2009	*.18*	*.72*	*1.45*	*.20*	*2.55*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	.333	.333	.333	.333	1.33
2005	.333	.333	.333	.333	1.33
2006	.333	.333	.333	.333	1.33
2007	.34	.34	.34	.34	1.36
2008	.348	.348			

BUSINESS: OGE Energy Corp. is a holding company for Oklahoma Gas and Electric Company (OG&E), which supplies electricity to 765,000 customers in Oklahoma (87% of electric revenues) and western Arkansas (9%); wholesale is (4%). Owns Enogex pipeline subsidiary. Acquired Transok 6/99. Electric revenue breakdown, '07: residential, 38%; commercial, 25%; industrial, 20%; other, 17%. Generating sources, '07: coal, 51%; gas, 29%; wind, 2%; purchased, 18%. Fuel costs: 69% of revenues. '07 reported depreciation rate (utility): 2.7%. Has 3,200 employees. Chairman, President & CEO: Peter B. Delaney. COO: Danny P. Harris. Inc.: Oklahoma. Address: 321 North Harvey, P.O. Box 321, Oklahoma City, Oklahoma 73101-0321. Tel.: 405-553-3000. Internet: www.oge.com.

OGE Energy's utility subsidiary has asked the Oklahoma Corporation Commission (OCC) to approve the purchase of a stake in a gas-fired plant. Oklahoma Gas and Electric has agreed to pay $435 million for a 51% share of the 1,230-megawatt Redbud facility. At less than $700 a kilowatt, the purchase price is well below what it would cost to build a similar plant today. Initially, OG&E would recover the cost through a rider on customers' bills. Once the utility files a general rate case and receives an order, Redbud would be rolled into base tariffs. An order is due by mid-November.

Some other regulatory matters are pending or upcoming. OG&E is asking the OCC to allow it to recover $14.7 million of costs associated with a proposed coal-fired plant that was canceled. The utility wants to retain the proceeds from the sale of sulfur dioxide allowances in order to pay for this. Instead, the OCC's staff wants OG&E to use these monies to offset part of the $35 million of storm-related costs that the company incurred last year. OG&E has proposed recovery of the storm costs as part of a general rate case that it plans to file in 2009. The utility also wants the OCC to approve the construction of a transmission line that is needed to facilitate the development of wind power, along with another rider to recover this cost until the next general rate case. Finally, in August OG&E plans to file a rate case in Arkansas, with new tariffs to take effect in mid-2009.

OGE's Enogex subsidiary is benefiting from higher commodity spreads. The price of natural gas liquids typically tracks oil prices, which have risen even more than gas prices of late. (OGE wants to spin off a portion of Enogex into a master limited partnership, but market conditions aren't right.) Our 2008 share-net estimate is at the midpoint of OGE's targeted range of $2.40-$2.60. We look for an uptick in 2009, assuming that OG&E gets a rate rider for Redbud, even though average shares outstanding will be higher. OGE plans to sell up to six million common shares in the next two years.

This stock's yield isn't much better than the utility average. Total return potential to 2011-2013 is below average.

Paul E. Debbas, CFA *June 27, 2008*

(A) Diluted EPS. Excl. nonrec. losses: '02, 39¢; '03, 14¢; '04, 6¢; gains on discont. ops.: '02, 12¢; '04, 1¢; '05, 8¢; '05, 49¢; '06, 39¢. '06 EPS don't add to total due to rounding. Next earnings report due early Aug. (B) Div'ds historically paid in late Jan., Apr., July, and Oct. ■ Div'd reinvest. plan avail. † Shareholder invest. plan avail. (C) Incl. deferred charges. In '07: $2.52/sh. (D) In mill., adj. for split. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in '06: OK, 10.75%; in '07: AR, 10.0%; earned on avg. com. eq., '07: 14.9%. Reg. Clim.: Avg.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	75
Earnings Predictability	85

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OTTER TAIL CORP. NDQ-OTTR

RECENT PRICE 39.46 | P/E RATIO 21.9 (Trailing: 23.2 / Median: 16.0) | RELATIVE P/E RATIO 1.34 | DIV'D YLD 3.0% | VALUE LINE

TIMELINESS 3 Raised 6/13/08
SAFETY 2 New 7/27/90
TECHNICAL 3 Lowered 5/30/08
BETA .95 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	35	(-10%)	1%
Low	25	(-35%)	-6%

Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	0	0	0	0	0	0	0	0	0
Options	4	0	0	0	0	0	0	3	3
to Sell	4	0	0	0	0	0	0	3	3

Institutional Decisions

	3Q2007	4Q2007	1Q2008
to Buy	47	37	45
to Sell	39	47	35
Hld's(000)	14105	13790	13984

	High:	19.2	21.4	22.8	29.0	31.0	34.9	28.9	27.5	32.0	31.9	39.4	40.9
	Low:	15.0	15.1	17.0	17.8	23.0	22.8	23.8	23.8	24.0	25.8	29.0	31.3

LEGENDS
1.17 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 3/00
Options: Yes
Shaded area indicates recession

Target Price Range 2011 | 2012 | 2013: 64, 48, 40, 32, 24, 20, 16, 12, 8, 6

% TOT. RETURN 5/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	18.7	-9.7
3 yr.	64.5	27.3
5 yr.	62.1	85.8

Percent shares traded: 9, 6, 3

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
9.37	11.86	12.86	14.70	16.13	16.80	18.14	19.48	23.45	26.53	27.75	29.28	30.45	35.59	37.43	41.50	*42.40*	*44.20*	Revenues per sh	*46.75*
2.03	2.25	2.33	2.47	2.78	2.95	2.75	2.91	3.21	3.40	3.44	3.30	2.88	3.35	3.39	3.55	*3.60*	*3.80*	"Cash Flow" per sh	*4.25*
1.09	1.12	1.17	1.19	1.24	1.29	1.29	1.45	1.60	1.68	1.79	1.51	1.50	1.78	1.69	1.78	*1.80*	*1.90*	Earnings per sh [A]	*2.25*
.82	.84	.86	.88	.90	.93	.96	.99	1.02	1.04	1.06	1.08	1.10	1.12	1.15	1.17	*1.19*	*1.21*	Div'd Decl'd per sh [B] ■	*1.27*
1.01	1.38	1.36	1.66	2.85	1.79	1.23	1.37	1.85	2.17	2.95	1.97	1.72	2.04	2.35	5.43	*8.85*	*5.65*	Cap'l Spending per sh	*5.75*
7.36	7.62	7.90	8.24	8.61	8.96	9.47	10.30	10.87	11.33	12.25	12.98	14.81	15.80	16.67	17.55	*18.30*	*19.05*	Book Value per sh [C]	*22.00*
22.36	22.36	22.36	22.36	22.43	23.46	23.76	23.85	23.85	24.65	25.59	25.72	28.98	29.40	29.52	29.85	*31.00*	*31.10*	Common Shs Outst'g [D]	*33.00*
15.5	15.6	13.8	14.2	14.0	12.8	14.4	13.9	13.5	16.4	16.0	17.8	17.3	15.4	17.3	19.0	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*13.0*
.94	.92	.91	.95	.88	.74	.75	.79	.88	.84	.87	1.01	.91	.82	.93	1.00			Relative P/E Ratio	*.85*
4.9%	4.8%	5.3%	5.2%	5.2%	5.6%	5.2%	4.9%	4.7%	3.8%	3.7%	4.0%	4.2%	4.1%	3.9%	3.5%			Avg Ann'l Div'd Yield	*4.3%*
431.1	464.6	559.4	654.1	710.1	753.2	882.3	1046.4	1105.0	1238.9	*1315*	*1375*	Revenues ($mill)	*1540*
32.6	36.9	40.2	43.6	46.1	39.7	40.0	52.9	50.8	54.0	*55.0*	*60.0*	Net Profit ($mill)	*75.0*
33.5%	32.2%	30.3%	31.5%	30.3%	27.4%	29.8%	34.6%	34.8%	34.1%	*31.0%*	*31.0%*	Income Tax Rate	*31.0%*
.3%	.7%	.8%	3.1%	5.7%	5.0%	2.4%	1.7%	1.9%	4.2%	*9.0%*	*13.0%*	AFUDC % to Net Profit	*11.0%*
40.7%	38.7%	39.5%	43.5%	44.0%	43.2%	37.1%	35.0%	33.5%	38.9%	*45.5%*	*49.0%*	Long-Term Debt Ratio	*50.0%*
50.6%	53.9%	53.5%	53.5%	53.4%	54.3%	60.7%	62.9%	64.5%	59.4%	*53.0%*	*49.5%*	Common Equity Ratio	*49.0%*
445.0	455.6	484.4	522.2	587.2	614.6	706.5	738.2	763.0	882.1	*1075*	*1195*	Total Capital ($mill)	*1475*
500.2	503.0	515.9	543.0	587.9	633.3	682.1	697.1	718.6	854.0	*1075*	*1190*	Net Plant ($mill)	*1575*
9.0%	9.7%	9.6%	9.3%	9.0%	7.8%	6.8%	8.3%	7.7%	7.2%	*6.5%*	*6.5%*	Return on Total Cap'l	*6.5%*
12.4%	13.2%	13.7%	14.8%	14.0%	11.4%	9.0%	11.0%	10.0%	10.0%	*9.5%*	*10.0%*	Return on Shr. Equity	*10.0%*
13.5%	14.1%	14.8%	14.9%	14.5%	11.7%	9.1%	11.2%	10.2%	10.2%	*10.0%*	*10.0%*	Return on Com Equity [E]	*10.0%*
3.4%	4.5%	5.4%	5.8%	6.0%	3.2%	2.5%	4.2%	3.3%	3.5%	*3.5%*	*4.0%*	Retained to Com Eq	*4.0%*
77%	70%	65%	63%	60%	73%	73%	63%	68%	66%	*66%*	*63%*	All Div'ds to Net Prof	*59%*

CAPITAL STRUCTURE as of 3/31/08
Total Debt $468.0 mill. Due in 5 Yrs $231.6 mill.
LT Debt $342.5 mill. LT Interest $21.1 mill.
(LT interest earned: 4.6x)

Leases, Uncapitalized Annual rentals $43.3 mill.
Pension Assets-12/07 $170.9 mill. Oblig. $185.2 mill.
Pfd Stock $15.5 mill. Pfd Div'd $.7 mill.
155,000 shs. $3.60-$6.75, cum., no par ($100 liquidating value).
Common Stock 30,056,148 shs.
as of 4/30/08
MARKET CAP: $1.2 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2005	2006	2007
% Change Retail Sales (KWH)	+3.2	+2.5	+3.3
Avg. Indust. Use (MWH)	29379	30169	31458
Avg. Indust. Revs. per KWH (¢)	4.96	5.04	5.20
Capacity at Peak (Mw)	714	711	NA
Peak Load, Winter (Mw)	665	690	705
Annual Load Factor (%)	66.5	66.2	NA
% Change Customers (yr-end)	+.2	+.5	+.2
Fixed Charge Cov. (%)	483	446	410

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	9.0%	8.0%	*3.5%*
"Cash Flow"	2.5%	.5%	*3.5%*
Earnings	3.5%	.5%	*4.5%*
Dividends	2.5%	2.0%	*1.5%*
Book Value	7.0%	7.5%	*4.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	232.1	256.4	272.7	285.2	1046.4
2006	257.8	279.9	280.6	286.7	1105.0
2007	301.1	305.9	302.2	329.7	1238.9
2008	300.2	*334.8*	*340*	*340*	*1315*
2009	*340*	*340*	*345*	*350*	*1375*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	.37	.37	.61	.42	1.78
2006	.50	.37	.45	.37	1.69
2007	.34	.53	.44	.46	1.78
2008	.27	*.50*	*.56*	*.47*	*1.80*
2009	*.30*	*.50*	*.60*	*.50*	*1.90*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.275	.275	.275	.275	1.10
2005	.28	.28	.28	.28	1.12
2006	.288	.288	.288	.288	1.15
2007	.293	.293	.293	.293	1.17
2008	.298	.298			

BUSINESS: Otter Tail Corporation is the parent of Otter Tail Power Company, which supplies electricity to 129,000 customers in a mainly rural area in Minnesota (50% of retail elec. revs.), North Dakota (41%), and South Dakota (9%). Elec. rev. breakdown, '07: residential, 28%; commercial & farms, 35%; industrial, 21%; other, 16%. Generating sources: coal, 52%; other, 1%; purchased, 47%. Fuel costs: 11% of revs. Has operations in manufacturing, plastics, health services, food ingredients, & others (55% of '07 net inc.). '07 reported deprec. rate (utility): 2.8%. Has 4,300 employees. Chairman: John MacFarlane. Pres. & CEO: John D. Erickson. Inc.: MN. Address: 215 South Cascade St., P.O. Box 496, Fergus Falls, MN 56538-0496. Tel.: 218-739-8479. Internet: www.ottertail.com.

Otter Tail Corporation's utility subsidiary is awaiting an order on its rate case in Minnesota. Otter Tail Power filed for a tariff hike of $14.5 million (11%). Under the utility's proposal, the net effect on customers would be an increase of $8.8 million (6.7%) because some of its profits on wholesale power sales would be shared with ratepayers. An interim rate increase of $7.1 million (5.4%) went into effect last November 30th, subject to refund. The commission's order is expected by August 1st. Otter Tail will put forth applications in North Dakota by yearend and in South Dakota in 2009.

Otter Tail went a long time without filing a general rate case. The rate application in Minnesota was the company's first in that state since 1986. The utility hasn't filed in North or South Dakota since the early 1980s. Since that time, costs have risen to the point where Otter Tail had no choice but to petition the regulators for higher tariffs.

The utility wants to build a coal-fired plant with some partners. It would be in South Dakota but would need transmission lines through Minnesota. That state's commission has yet to rule on this matter.

We have reduced our 2008 and 2009 share-earnings estimates by $0.15 and $0.20, respectively. The company's disappointing March-quarter tally prompted our revision. The weakening economy is hurting some of Otter Tail's nonregulated subsidiaries. Our revised 2008 forecast is near the low end of management's targeted range of $1.75-$2.00 a share. We still expect decent earnings growth in 2009, thanks to higher income at the utility and a nonutility operation that builds equipment used in wind-power projects.

We do not see any justification for the current stock price. It is actually *up* slightly since Otter Tail released first-quarter earnings, even though the company lowered its guidance by $0.10 a share at that time. At the current quotation, the stock is trading at a market premium, despite the fact that roughly half of Otter Tail's profits come from its regulated utility operations and most of its nonutility income comes from cyclical businesses. The stock is trading well above our 2011-2013 Target Price Range.

Paul E. Debbas, CFA *June 27, 2008*

(A) Diluted earnings. Excl. nonrecurring gains: '98, 7¢; '99, 34¢; gains from discontinued operations: '04, 8¢; '05, 33¢; '06, 1¢. '05 & '07 earnings don't add to full-year total due to rounding. Next earnings report due early Aug. (B) Div'ds historically paid in early March, June, Sept., and Dec. ■ Div'd reinvestment plan available. (C) Incl. intangibles. In '07: $5.55/sh. (D) In mill., adj. for split. (E) Est'd rate allowed on com. eq.: 12.0%; earned on avg. com. eq., '07: 10.5%. Regulatory Climate: MN, ND, Average; SD, Above Average.

Company's Financial Strength	A
Stock's Price Stability	85
Price Growth Persistence	45
Earnings Predictability	85

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SCANA CORP. NYSE-SCG

RECENT PRICE 40.85 | P/E RATIO 13.4 (Trailing: 13.8 Median: 14.0) | RELATIVE P/E RATIO 0.81 | DIV'D YLD 4.6% | VALUE LINE

TIMELINESS 3 Raised 12/21/07
SAFETY 2 Lowered 9/10/99
TECHNICAL 3 Lowered 5/30/08
BETA .85 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+35%)	11%
Low	40	(Nil)	4%

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	1	0	0	0	0	0	3	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	1	0	0	0	2	0	0	0

Institutional Decisions

	2Q2007	3Q2007	4Q2007
to Buy	129	113	148
to Sell	111	121	116
Hld's(000)	50548	50378	53086

High:	29.9	37.3	32.6	31.1	30.0	32.1	35.7	39.7	43.7	42.4	45.5	42.7		
Low:	23.4	27.9	21.1	22.0	24.3	23.5	28.1	32.8	36.6	36.9	32.9	35.8		

LEGENDS
1.09 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 5/95
Options: Yes
Shaded area indicates recession

Target Price Range 2011 | 2012 | 2013

% TOT. RETURN 4/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	-5.3	-9.4
3 yr.	15.2	30.2
5 yr.	52.6	98.8

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
12.96	13.56	13.77	13.06	14.25	14.19	15.76	15.93	32.78	32.95	26.65	30.85	34.38	41.54	39.00	39.50	*42.35*	*43.35*	Revenues per sh	*48.50*
2.78	3.50	3.77	3.68	3.75	3.53	3.62	3.15	4.43	4.55	4.56	4.95	5.26	7.41	5.67	5.72	*5.90*	*6.10*	"Cash Flow" per sh	*6.75*
1.42	1.86	1.60	1.86	2.05	1.90	2.12	1.44	2.12	2.15	2.38	2.50	2.67	2.78	2.59	2.74	*3.05*	*3.10*	Earnings per sh A	*3.50*
1.34	1.37	1.41	1.44	1.47	1.51	1.54	1.32	1.15	1.20	1.30	1.38	1.46	1.56	1.68	1.76	*1.84*	*1.92*	Div'd Decl'd per sh B ■ †	*2.10*
3.16	3.46	4.21	3.09	2.34	2.45	2.87	2.37	3.28	4.99	6.41	6.94	4.84	3.37	4.50	6.20	*9.20*	*9.95*	Cap'l Spending per sh	*11.50*
13.23	14.30	14.69	15.00	15.86	16.66	16.86	20.27	19.40	20.95	19.64	20.82	21.69	23.28	24.32	25.30	*26.65*	*28.15*	Book Value per sh C	*33.00*
87.82	93.24	96.04	103.62	106.18	107.32	103.57	103.57	104.73	104.73	110.83	110.74	113.00	115.00	117.00	117.00	*118.00*	*120.00*	Common Shs Outst'g D	*126.00*
14.5	12.8	14.0	12.3	13.1	13.4	14.5	17.5	12.5	12.6	12.2	13.0	13.6	14.4	15.4	15.0	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*13.5*
.88	.76	.92	.82	.82	.77	.75	1.00	.81	.65	.67	.74	.72	.77	.83	.80			Relative P/E Ratio	*.90*
6.5%	5.8%	6.3%	6.3%	5.5%	5.9%	5.0%	5.2%	4.3%	4.4%	4.5%	4.2%	4.0%	3.9%	4.2%	4.3%			Avg Ann'l Div'd Yield	*4.5%*
1632.0	1650.0	3433.0	3451.0	2954.0	3416.0	3885.0	4777.0	4563.0	4621.0	*5000*	*5200*	Revenues ($mill)	*6100*
235.0	160.0	228.0	231.0	259.0	285.0	305.0	323.0	306.0	327.0	*365*	*375*	Net Profit ($mill)	*445*
35.8%	41.0%	38.2%	34.9%	32.2%	31.5%	32.5%	--	26.5%	29.2%	*36.5%*	*36.5%*	Income Tax Rate	*36.5%*
6.8%	4.4%	3.9%	11.3%	13.5%	10.5%	8.5%	.9%	2.6%	4.6%	*7.0%*	*7.0%*	AFUDC % to Net Profit	*7.0%*
45.9%	40.8%	57.4%	53.9%	55.7%	57.1%	55.4%	51.4%	50.9%	48.4%	*51.0%*	*51.5%*	Long-Term Debt Ratio	*53.5%*
49.4%	54.8%	40.3%	43.8%	42.1%	40.8%	42.6%	46.6%	47.2%	49.7%	*47.5%*	*47.0%*	Common Equity Ratio	*45.5%*
3536.0	3829.0	5048.0	5006.0	5176.0	5646.0	5752.0	5739.0	6027.0	5952.0	*6640*	*7170*	Total Capital ($mill)	*9150*
3764.0	3829.0	4475.0	4803.0	5474.0	6417.0	6762.0	6734.0	7007.0	7538.0	*8275*	*9110*	Net Plant ($mill)	*12150*
8.4%	5.9%	6.8%	6.9%	7.0%	6.9%	7.1%	7.4%	6.8%	7.3%	*7.0%*	*6.5%*	Return on Total Cap'l	*6.5%*
12.3%	7.1%	10.6%	10.0%	11.3%	11.8%	11.9%	11.6%	10.3%	10.6%	*11.0%*	*11.0%*	Return on Shr. Equity	*10.5%*
12.8%	7.1%	10.9%	10.2%	11.6%	12.1%	12.2%	11.8%	10.5%	10.8%	*11.5%*	*11.0%*	Return on Com Equity E	*10.5%*
3.4%	--	4.8%	4.6%	5.5%	5.5%	5.6%	5.3%	3.8%	4.0%	*4.5%*	*4.0%*	Retained to Com Eq	*4.0%*
74%	99%	57%	56%	54%	55%	55%	56%	65%	64%	*61%*	*62%*	All Div'ds to Net Prof	*61%*

CAPITAL STRUCTURE as of 3/31/08
Total Debt $3865.0 mill. **Due in 5 Yrs** $1655.0 mill.
LT Debt $3276.0 mill. **LT Interest** $197.0 mill.
(LT interest earned: 3.3x)
Leases, Uncapitalized Annual rentals $16.0 mill.
Pension Assets-12/07 $929.5 mill. **Oblig.** $704.8 mill.
Pfd Stock $113.0 mill. **Pfd Div'd** $7.0 mill.
125,209 shs. 5% cum., $50 par., callable $52.50; 220,287 shs. 4.50% to 6.00% cum., $50 par, callable $50.50 to $51.00; 1,000,000 shs. 6.52% cum., $100 par, callable $100.00.
Common Stock 116,664,933 shs. as of 4/30/08
MARKET CAP: $4.8 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2005	2006	2007
% Change Retail Sales (KWH)	+.9	-1.4	+2.6
Avg. Indust. Use (MWH)	13249	12005	9815
Avg. Indust. Revs. per KWH (¢)	4.82	5.16	5.30
Capacity at Yearend (Mw)	5776	5749	5688
Peak Load, Summer (Mw)	4820	4747	4926
Annual Load Factor (%)	57.3	57.5	56.7
% Change Customers (yr-end)	+3.1	+2.2	+2.5
Fixed Charge Cov. (%)	190	261	272

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	11.0%	5.5%	*3.5%*
"Cash Flow"	5.5%	7.0%	*1.5%*
Earnings	3.5%	4.0%	*4.5%*
Dividends	1.0%	6.5%	*4.0%*
Book Value	4.5%	4.0%	*5.0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	1266	891.0	1127	1493	4777.0
2006	1389	944.0	1062	1168	4563.0
2007	1363	1007	1079	1172	4621.0
2008	1533	*1100*	*1167*	*1200*	*5000*
2009	*1600*	*1150*	*1200*	*1250*	*5200*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	.89	.36	.88	.65	2.78
2006	.80	.46	.76	.57	2.59
2007	.73	.47	.79	.75	2.74
2008	.94	*.50*	*.90*	*.71*	*3.05*
2009	*.95*	*.50*	*.90*	*.75*	*3.10*

QUARTERLY DIVIDENDS PAID B ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.345	.365	.365	.365	1.44
2005	.365	.39	.39	.39	1.54
2006	.39	.42	.42	.42	1.65
2007	.42	.44	.44	.44	1.74
2008	.44	.46			

BUSINESS: SCANA Corporation is a holding company for South Carolina Electric & Gas Company, which supplies electricity to 643,000 customers in South Carolina. Supplies gas and transmission service to 1.2 million customers in North and South Carolina and Georgia. Owns gas pipelines. Acquired PSNC Energy 2/00. Electric revenue breakdown, '07: residential, 41%; commercial, 31%; industrial, 17%; other, 11%. Generating sources, '07: coal, 61%; nuclear, 21%; oil & gas, 12%; hydro, 4%; purchased, 2%. Fuel costs: 62% of revenues. '07 reported deprec. rate: 3.1%. Has 5,700 employees. Chairman, President & CEO: William B. Timmerman. Inc.: South Carolina. Address: 1426 Main St., Columbia, SC 29201-2845. Tel.: 803-217-9000. Internet: www.scana.com.

SCANA's PSNC Energy subsidiary has filed a rate case. The gas utility is asking the North Carolina commission for a rate increase of $20.4 million (3%) based on a 12% return on a 53.75% common-equity ratio. Rate relief is clearly needed, since PSNC earned an ROE of just 8.82% in 2007. The company's filing includes a request for a regulatory mechanism to decouple residential and commercial revenues from sales. This would insulate PSNC from the effects of declining usage per customer (an issue that virtually every gas utility is facing). New tariffs should take effect at the start of November.

We have raised our 2008 share-net estimate by a dime, to $3.05. First-quarter earnings were better than we expected. Our revised forecast is at the upper level of SCANA's targeted range of $2.90-$3.05. If attained, it would produce an 11% earnings increase. The key factor this year was the $76.9 million electric rate hike for South Carolina Electric & Gas that took effect at the start of 2008.

We look for an earnings uptick in 2009, due in part to our assumption of rate relief at PSNC. We have boosted our estimate by $0.05 a share, to $3.10.

The company has taken the first steps towards building additional nuclear capacity. SCE&G already owns two-thirds of the Summer nuclear plant, and has filed for a construction and operating license with the NRC for two more units at this site. In South Carolina, a new law provides for a preapproval process for new nuclear capacity, followed by annual filings to place construction work in progress into the rate base. SCE&G will probably file a request with the state commission soon, with a decision expected in the first quarter of 2009. Cost estimates aren't available yet because SCE&G is still in talks with the vendor, Westinghouse. If the company builds these units, current projections call for them to come on line in 2016 and 2019.

This stock's yield is fractionally above the utility mean. Dividend-growth potential to 2011-2013 is good, too. But investors should note that the nuclear undertaking would be a huge step for a company SCANA's size, and would entail some construction risk.

Paul E. Debbas, CFA *May 30, 2008*

(A) Excl. nonrec. gains (losses): '95, (16¢); '97, 16¢; '99, 29¢; '00, 28¢; '01, $3.00; '02, ($3.72); '03, 31¢; '04, (23¢); '05, 3¢; '06, 9¢. Next earnings report due late July. (B) Div'ds historically paid in early Jan., Apr., July, and Oct. ■ Div'd reinvestment plan avail. † Shareholder investment plan avail. (C) Incl. intang. In '07: $8.00/sh. (D) In mill., adj. for split. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in SC: 11% electric in '08, 10.25% gas in '05; in '06 in NC: none specified; earned on avg. com. eq., '07: 11.0%. Regulatory Climate: Avg.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	50
Earnings Predictability	95

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UIL HOLDINGS NYSE-UIL

RECENT PRICE 31.11 | P/E RATIO 16.4 (Trailing: 16.3 Median: 17.0) | RELATIVE P/E RATIO 0.99 | DIV'D YLD 5.6% | VALUE LINE

TIMELINESS 3 Raised 11/16/07
SAFETY 2 Raised 2/29/08
TECHNICAL 3 Lowered 4/25/08
BETA .90 (1.00 = Market)

2011-13 PROJECTIONS

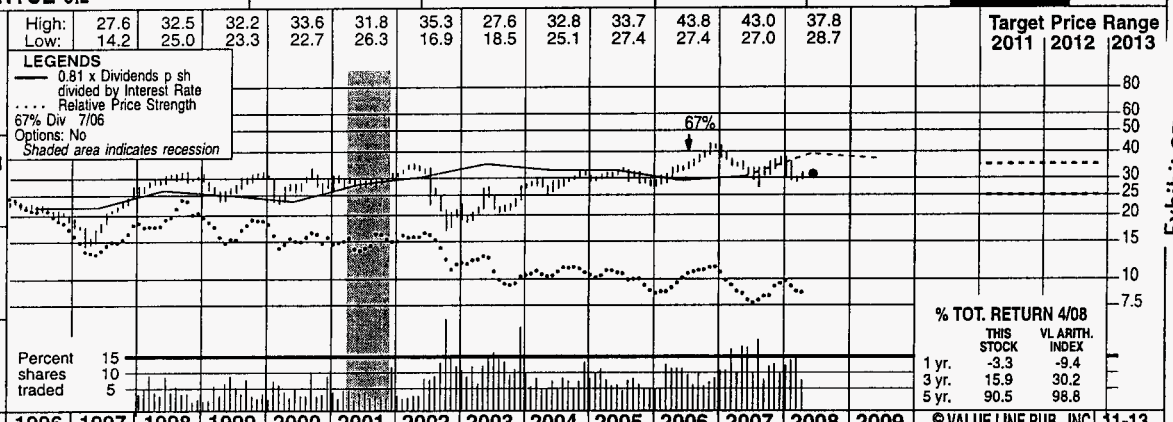
	Price	Gain	Ann'l Total Return
High	35	(+15%)	8%
Low	25	(-20%)	1%

Insider Decisions

	J	A	S	O	N	D	J	F	M
to Buy	0	2	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	2	0	0	1	1	0	0	1

Institutional Decisions

	2Q2007	3Q2007	4Q2007
to Buy	57	48	66
to Sell	66	61	49
Hld's(000)	12276	12234	12827



1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
28.53	27.82	27.97	29.38	30.89	30.64	29.34	29.01	37.54	46.15	47.55	40.39	45.87	49.88	34.03	39.23	*37.15*	*40.65*	Revenues per sh	*50.95*
4.90	4.90	4.77	4.91	4.81	5.40	5.34	4.67	5.53	6.61	5.89	4.69	4.37	4.13	4.65	5.48	*6.25*	*6.90*	"Cash Flow" per sh	*8.25*
1.90	1.88	1.91	2.18	1.90	1.96	1.80	2.23	2.56	2.53	1.85	1.24	1.54	1.30	1.86	1.87	*1.90*	*2.00*	Earnings per sh A	*2.20*
1.54	1.60	1.66	1.69	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	*1.73*	*1.73*	Div'd Decl'd per sh B■	*1.73*
2.84	4.04	2.69	2.53	2.01	1.44	1.63	1.48	2.31	2.01	2.41	2.19	2.04	2.25	3.09	9.92	*7.65*	*4.75*	Cap'l Spending per sh	*6.45*
18.07	18.03	18.23	18.72	18.72	18.94	19.05	19.55	20.42	21.25	20.28	20.65	22.84	22.39	18.53	18.55	*18.90*	*19.35*	Book Value per sh C	*21.05*
23.39	23.47	23.48	23.50	23.50	23.18	23.39	23.44	23.46	23.53	23.79	23.86	24.01	24.32	24.86	25.03	*25.30*	*25.60*	Common Shs Outst'g E	*26.50*
11.9	13.6	10.5	9.3	11.4	10.1	16.3	12.6	10.8	11.5	15.0	18.0	18.7	23.5	18.7	18.4	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*14.0*
.72	.80	.69	.62	.71	.58	.85	.72	.70	.59	.82	1.03	.99	1.25	1.01	.97			Relative P/E Ratio	*.95*
6.8%	6.2%	8.2%	8.3%	8.0%	8.8%	5.9%	6.2%	6.2%	5.9%	6.2%	7.7%	6.0%	5.7%	5.0%	5.0%			Avg Ann'l Div'd Yield	*5.6%*
686.2	680.0	880.9	1085.8	1131.0	963.7	1101.3	1213.1	846.0	982.0	*940*	*1040*	Revenues ($mill)	*1350*
42.2	52.2	59.9	59.4	44.0	29.5	36.9	31.4	45.4	46.7	*48.0*	*51.0*	Net Profit ($mill)	*58.0*
56.0%	56.0%	44.5%	44.8%	45.2%	53.1%	45.4%	44.1%	31.2%	39.5%	*40.0%*	*40.0%*	Income Tax Rate	*40.0%*
1.1%	4.3%	4.4%	3.2%	5.1%	8.5%	1.1%	9.0%	8.0%	8.3%	*6.0%*	*6.0%*	AFUDC % to Net Profit	*3.0%*
57.7%	50.5%	52.2%	49.9%	45.0%	50.1%	47.2%	47.2%	47.0%	50.8%	*50.5%*	*50.5%*	Long-Term Debt Ratio	*49.0%*
37.7%	44.6%	47.8%	50.1%	55.0%	49.9%	52.8%	52.8%	53.0%	49.2%	*49.5%*	*49.5%*	Common Equity Ratio	*51.0%*
1180.8	1026.5	1001.3	998.6	877.8	988.2	1039.6	1031.5	869.2	943.6	*970*	*995*	Total Capital ($mill)	*1100*
1226.4	521.5	550.7	546.4	517.1	548.8	563.9	592.1	647.0	878.4	*860*	*955*	Net Plant ($mill)	*1060*
5.4%	7.1%	7.9%	8.1%	7.3%	4.3%	4.5%	4.1%	6.5%	6.2%	*6.0%*	*6.5%*	Return on Total Cap'l	*6.5%*
8.4%	10.3%	12.5%	11.9%	9.1%	6.0%	6.7%	5.8%	9.9%	10.1%	*10.0%*	*10.5%*	Return on Shr. Equity	*10.5%*
9.4%	11.4%	12.5%	11.9%	9.1%	6.0%	6.7%	5.8%	9.9%	10.1%	*10.0%*	*10.5%*	Return on Com Equity D	*10.5%*
.4%	2.5%	4.0%	3.8%	.6%	NMF	NMF	NMF	NMF	3.1%	*1.0%*	*1.5%*	Retained to Com Eq	*2.0%*
96%	78%	68%	68%	93%	NMF	112%	NMF	117%	70%	*91%*	*86%*	All Div'ds to Net Prof	*79%*

CAPITAL STRUCTURE as of 3/31/08
Total Debt $636.3 mill. Due in 5 Yrs. $255.1 mill.
LT Debt $475.0 mill. LT Interest $23.4 mill.
(LT interest earned: 4.2x)
Leases, Uncapitalized: Ann. rentals $13.4 mill.

Pension Assets-12/07 $313 mill. Oblig. $341 mill.

Pfd Stock None

Common Stock 25,213,799 shs.

MARKET CAP: $775 million (Small Cap)

ELECTRIC OPERATING STATISTICS

	2005	2006	2007
% Change Retail Sales (KWH)	+2.6	-3.1	Nil
Avg. Indust. Use (MWH)	665	657	665
Avg. Indust. Revs. per KWH (¢)	9.70	10.2	7.87
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	Nil	Nil	.5
Fixed Charge Cov. (%)	263	323	343

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	3.0%	-1.5%	*3.5%*
"Cash Flow"	-.5%	-4.5%	*9.5%*
Earnings	-2.0%	-6.0%	*4.5%*
Dividends	--	--	*Nil*
Book Value	.5%	-1.0%	*1.0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	278.5	279.9	369.4	285.3	1213.1
2006	200.3	199.8	261.1	184.8	846.0
2007	274.6	216.7	267.9	222.8	982.0
2008	234.6	*215*	*265*	*225.4*	*940*
2009	*260*	*240*	*290*	*250*	*1040*

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	.13	.14	.77	.26	1.30
2006	.15	.42	1.21	.08	1.86
2007	.22	.38	.92	.35	1.87
2008	.26	*.40*	*.95*	*.29*	*1.90*
2009	*.23*	*.45*	*1.02*	*.30*	*2.00*

Calendar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.432	.432	.432	.432	1.73
2005	.432	.432	.432	.432	1.73
2006	.432	.432	.432	.432	1.73
2007	.432	.432	.432	.432	1.73
2008	.432	.432			

BUSINESS: UIL Holdings, parent of The United Illuminating Company, provides electricity to 320,000 customers in largely urban and suburban southern Connecticut. Revenue distribution: resid, 40%; commer, 46%; indust, 13%; other, 1%. Largest industrial customers: primary metals, fabricated metal products, transportation equipment. 2004, sold American Payment Systems. 2006, sold Xcelecom. Fuel costs: 53% of revenues; labor costs, 13%. '07 deprec. rate: 4.0%. Has 981 employees. Non-Executive Chairman: F. Patrick McFadden. Chief Executive Officer & President: James P. Torgerson. Incorporated: Connecticut. Address: 157 Church Street, P.O. Box 1564, New Haven, Connecticut 06506-0901. Tel.: 203-499-2394. Internet: www.uil.com.

UIL Holdings seeks to reopen the 2006 rate case. Since that time, the decline in sales and the increase in uncollectibles have not permitted the company to recover costs and earn a reasonable return. Accordingly, UIL has asked regulators to adjust 2008 and 2009 revenue requirements on a more equitable basis.

The company may, again, become a generator of power. Shortly after Connecticut opened the electric market to retail competition in 2000, the company divested all of its operating plants and directed focus on its transmission and distribution facilities. Because of the need for more power, the state passed legislation in 2007 authorizing utilities to build up to 500 megawatts of peaking energy, subject to regulatory oversight. UIL and NRG Energy jointly submitted four proposals for construction and operation of from 200 to 500 mw of power in 10 units. Depending on which plan is accepted, financing of $185 million to $483 million would be required. Commercial operation is expected in mid-2010.

The company's 69-mile transmission line should be completed by late 2009. UIL has a 20% stake in a 345-kilovolt line that will run between Middletown and Norwalk. The project's initial cost rose from $600 million to $1.3 billion, because of the need to build 24 miles underground. The facility will improve the flow of energy into southwestern Connecticut and will not only supply the two owners with power, but will permit sales to other New England utilities.

Earnings momentum may slow this year. Pluses include an attrition rate increase of $10 million and ongoing recovery of construction costs on the new transmission line. But these gains will be largely offset by a weak local economy's adverse impact on sales. For now, we estimate 2008 earnings will rise nominally, to $1.90 a share. Next year's results will depend on the extent of an economic turnaround.

The above-average yield might attract income-oriented investors. But the high payout ratio and the need to preserve cash for capital outlays suggest no dividend hike in the scope of our 3- to 5-year horizon. On balance, we rate UIL an average utility holding.

Arthur H. Medalie *May 30, 2008*

(A) EPS basic. Excl. nonrecur. gains (losses): '92, 35¢; '93, (34¢); '94, (6¢); '96, 17¢; '00, net 4¢; '03, (26¢); '04, $2.14; '06, ($5.07). Next egs. report due late July. (B) Div'ds historically paid in early Jan., early April, early July, and early Oct. ■ Div'd reinvest. plan avail. (C) Incl. deferred chgs. & regul. assets. In '07: 75¢/sh. (D) Rate base: orig. cost. Rate allowed on common equity in '06: 9.75%. Earned on average common equity in '07: 10.0%. Regul. Clim.: Below Average. (E) In millions.

Company's Financial Strength	B++
Stock's Price Stability	85
Price Growth Persistence	45
Earnings Predictability	65

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VECTREN CORP. NYSE-VVC

RECENT PRICE 30.92 | P/E RATIO 16.7 (Trailing: 17.3 Median: NMF) | RELATIVE P/E RATIO 1.02 | DIV'D YLD 4.3% | VALUE LINE

TIMELINESS 3 Lowered 5/9/08
SAFETY 2 Lowered 1/5/01
TECHNICAL 4 Lowered 6/20/08
BETA .90 (1.00 = Market)

2011-13 PROJECTIONS

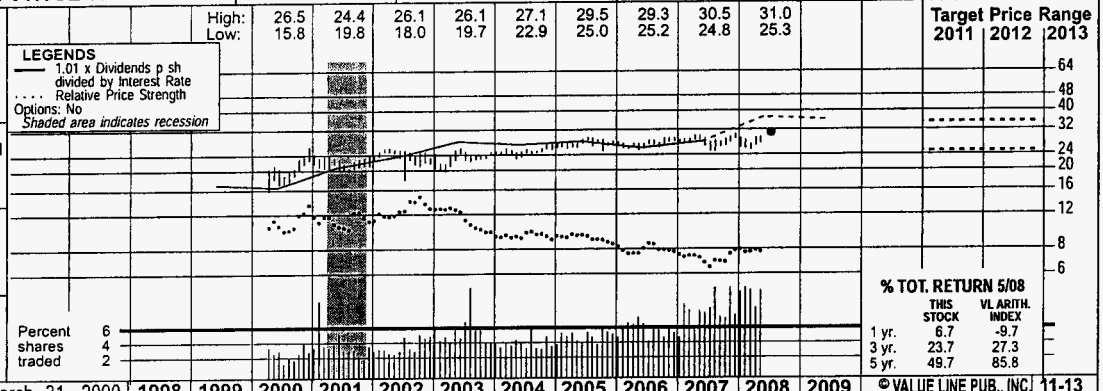
	Price	Gain	Ann'l Total Return
High	35	(+15%)	7%
Low	25	(-20%)	Nil

Insider Decisions

	A	S	O	N	D	J	F	M	A
to Buy	1	0	0	0	0	0	0	0	0
Options	0	0	0	3	0	0	0	0	0
to Sell	0	0	0	2	0	0	0	0	0

Institutional Decisions

	3Q2007	4Q2007	1Q2008
to Buy	79	112	99
to Sell	104	74	98
Hld's(000)	43375	45478	42866



Vectren was formed on March 31, 2000 through the merger of Indiana Energy and SIGCORP. The merger was consummated with a tax-free exchange of shares and has been accounted for as a pooling of interests. Indiana Energy common stockholders received one Vectren common share for each share held. SIGCORP stockholders exchanged each common share for 1.333 common shares of Vectren. Data prior to the merger are pro forma.

CAPITAL STRUCTURE as of 3/31/08
Total Debt $1634.5 mill. Due in 5 Yrs $45.9 mill.
LT Debt $1329.1 mill. LT Interest $72.2 mill.
(LT interest earned: 4.0x)

Pension Assets-12/07 $211.8 mill. Oblig. $249.6 mill.

Pfd Stock None

Common Stock 76,357,338 shs. as of 4/30/08
MARKET CAP: $2.4 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2005	2006	2007
% Change Retail Sales (KWH)	+3.5	-3.1	+3.5
Avg. Indust. Use (MWH)	24074	23800	23289
Avg. Indust. Revs. per KWH (¢)	4.64	4.99	5.50
Capacity at Peak (Mw)	1534	1517	1487
Peak Load, Summer (Mw)	1291	1300	1341
Annual Load Factor (%)	61.2	56.3	60.6
% Change Customers (yr-end)	+.6	+1.1	+.9
Fixed Charge Cov. (%)	252	226	254

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	--	-.5%	7.5%
"Cash Flow"	--	5.0%	4.0%
Earnings	--	5.5%	3.5%
Dividends	--	3.5%	3.0%
Book Value	--	4.5%	3.5%

Calendar	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
	--	16.88	26.84	32.05	26.53	21.00	22.26	26.62	26.83	29.88	*30.85*	*33.75*	Revenues per sh	*42.30*
	--	2.87	2.88	2.89	3.43	3.17	3.27	3.87	3.69	4.29	*4.20*	*4.50*	"Cash Flow" per sh	*5.05*
	--	1.48	1.17	1.08	1.68	1.56	1.42	1.81	1.44	1.83	*1.85*	*1.95*	Earnings per sh A	*2.05*
	--	.95	.98	1.03	1.07	1.11	1.15	1.19	1.23	1.27	*1.31*	*1.35*	Div'd Decl'd per sh B■†	*1.47*
	--	--	2.67	3.48	3.22	3.12	3.66	3.04	3.70	4.38	*3.85*	*3.45*	Cap'l Spending per sh	*3.65*
	--	11.55	11.91	12.53	12.79	14.18	14.42	15.01	15.43	16.16	*17.45*	*18.00*	Book Value per sh C	*19.30*
	--	61.47	61.42	67.70	68.01	75.60	75.90	76.19	76.10	76.36	*81.00*	*81.20*	Common Shs Outst'g D	*81.80*
	--	--	17.4	20.3	14.2	14.8	17.6	15.1	18.9	15.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*14.5*
	--	--	1.13	1.04	.78	.84	.93	.80	1.02	.80			Relative P/E Ratio	*.95*
	--	--	4.8%	4.7%	4.5%	4.8%	4.6%	4.4%	4.5%	4.5%			Avg Ann'l Div'd Yield	*4.9%*
	--	1037.4	1648.7	2170.0	1804.3	1587.6	1689.8	2028.0	2041.6	2281.9	*2500*	*2740*	Revenues ($mill)	*3460*
	--	90.8	72.0	73.1	114.0	111.2	108.0	136.8	108.8	143.1	*145*	*160*	Net Profit ($mill)	*170*
	--	33.6%	32.2%	20.3%	25.4%	25.3%	26.5%	24.4%	21.8%	34.7%	*35.0%*	*35.0%*	Income Tax Rate	*35.0%*
	--	--	--	7.7%	4.6%	4.5%	3.0%	1.4%	3.8%	2.8%	*3.0%*	*3.0%*	AFUDC % to Net Profit	*3.0%*
	--	40.0%	45.8%	54.4%	52.3%	50.0%	48.1%	51.2%	50.7%	50.2%	*49.0%*	*49.5%*	Long-Term Debt Ratio	*50.0%*
	--	58.4%	53.0%	45.5%	47.7%	50.0%	51.8%	48.8%	49.3%	49.8%	*51.0%*	*50.5%*	Common Equity Ratio	*50.0%*
	--	1215.8	1380.6	1863.1	1824.4	2144.7	2111.5	2341.3	2382.2	2479.1	*2785*	*2880*	Total Capital ($mill)	*3150*
	--	1336.3	1555.8	1595.0	1648.1	2003.7	2156.2	2251.9	2385.5	2539.7	*2655*	*2725*	Net Plant ($mill)	*2925*
	--	8.6%	6.1%	5.5%	7.7%	6.6%	6.4%	7.2%	6.0%	7.2%	*6.5%*	*7.0%*	Return on Total Cap'l	*6.5%*
	--	12.5%	9.6%	8.6%	13.1%	10.4%	9.9%	12.0%	9.3%	11.6%	*10.0%*	*11.0%*	Return on Shr. Equity	*10.5%*
	--	12.6%	9.7%	8.5%	13.1%	10.4%	9.9%	12.0%	9.3%	11.6%	*10.0%*	*11.0%*	Return on Com Equity E	*10.5%*
	--	4.8%	1.5%	.3%	4.8%	3.0%	1.9%	4.0%	1.3%	3.8%	*3.0%*	*3.5%*	Retained to Com Eq	*3.0%*
	--	63%	85%	96%	63%	71%	81%	66%	86%	67%	*71%*	*69%*	All Div'ds to Net Prof	*72%*

BUSINESS: Vectren is a holding company formed through the merger of Indiana Energy and SIGCORP. Supplies electricity and gas to an area nearly two-thirds of the state of Indiana. Owns gas distribution assets in Ohio. Has a customer base of 1,140,000. 2007 Elect. (gas) revs: resid., 36% (67%); commer., 25% (27%); indust., 31% (6%); other, 8% (Nil). Revenue sources: Elect., 18%; Gas, 82%. Fuel costs: elect., 36%; gas, 69%. Also provides energy-related products and services and has an investment subsidiary. Est'd plant age: electric, 10 years. '07 deprec. rate: 3.6%. Has 3,579 employees. Chairman & CEO: Niel C. Ellerbrook. President: Carl Chapman. Inc.: IN. Address: 20 Northwest 4th St., Evansville, Indiana 47741. Tel.: 812-465-5300. Internet: www.vectren.com.

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2005	677.2	326.2	310.8	713.8	2028.0
2006	774.5	317.5	340.5	609.1	2041.6
2007	834.0	421.7	381.4	644.8	2281.9
2008	902.1	*470*	*420*	*707.9*	*2500*
2009	*960*	*530*	*480*	*770*	*2740*

Calendar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2005	.74	.18	.22	.67	1.81
2006	.76	.06	.16	.46	1.44
2007	.88	.21	.22	.52	1.83
2008	.84	*.20*	*.20*	*.61*	*1.85*
2009	*.90*	*.20*	*.20*	*.65*	*1.95*

Calendar	QUARTERLY DIVIDENDS PAID B■† Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.285	.285	.285	.295	1.15
2005	.295	.295	.295	.305	1.19
2006	.305	.305	.305	.315	1.23
2007	.315	.315	.315	.325	1.27
2008	.325	.325			

Vectren is adding to its generating portfolio. VVC must not only replace the 100-megawatt (mw) purchase-power contract that expires in 2010, but must increase its 10% reserve margin to the 15% required by regulators. For starters, it bought the 30-mw output of a wind farm for 20 years. In 2007, it exited from a 20% stake in a 630-megawatt (mw) coal gasification plant because of the high cost. In its place, it planned to build a 100-mw, $80 million natural gas-fired peaking unit. This project, too, was scrapped in favor of a less-risky, three-year 100-mw purchase-power agreement starting in 2010. The new facilities, coupled with VVC's conservation program, should satisfy capacity needs for another few years.

Profits of the unregulated businesses might be down a bit this year. VVC owns two low-sulfur coal mines with reserves of 34 million tons. The mines not only supply company plants with three million tons a year, but sell one million tons annually in the open market. Too, Vectren owns mineral rights, but not the land, to another 84 million tons that will start production next year. Though mine operations incurred a small loss in the first quarter of 2008 due to the cost of securing a roof structure, they should turn profitable for the balance of the year. VVC also has a 61% stake in ProLiance Energy, which trades and markets natural gas. Results here are being hurt by this year's reduced natural gas price volatility.

Earnings may show little progress in 2008. The utility sector will benefit from base rate increases in the second half of 2007, ongoing recovery of environmental costs, and wider margins on energy sales. But these pluses will be largely offset by reduced contributions from the nonutility enterprises. On balance, we estimate near-flat earnings this year. Higher rates in Ohio on a filing for $27 million and likely improvement in noncore operations suggest a better performance in 2009.

Utility investors might consider these good-quality shares. The yield is a cut above the industry norm, and based on our projection of earnings gains after this year to 2011-2013, dividend growth prospects over the same time frame are in line with those of the group.

Arthur H. Medalie *June 27, 2008*

(A) Diluted EPS. Next earnings report due late July. Excl. nonrecur. gain (losses): '00, 8¢; '01, (13¢); '03, (6¢); incl. charges for merger costs: '00, 60¢; '01, 17¢. (B) Div'ds historically paid in early March, early June, early September, and early December. ■Div'd reinvest. plan avail. † Shareholder invest. plan avail. (C) Incl. intang. in '07, $5.42/sh. (D) In millions. (E) Electric rate base determination: fair value. Rate allowed on elect. common equity in '95: 12.25%. Earned on avg. com. eq. '07: 11.5%. Regulatory Climate: Above Average.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	35
Earnings Predictability	75

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Florida Public Utilities
13 MONTH COST OF CAPITAL
December 2006 - December 2007

REPORT GROUP NAME: ROR
REPORT NAME: CAPITAL
DATE: 2/29/2008

Line Ref	Florida Public Utilities:	Notes	Acct #	<<<<<<<<<ACTUALS >>>>>>>>> Dec-2006	Jan-2007	Feb-2007	Mar-2007	Apr-2007	May-2007	Jun-2007	Jul-2007	Aug-2007	Sep-2007	Oct-2007	Nov-2007	Dec-2007	13 mth AVERAGE
16	INV IN ASSOC CO		1230	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
17																	
18	UNAMORT DEBT		1810 & 1890	2,006,460	1,998,076	1,989,692	1,981,309	1,972,925	1,964,541	1,959,572	1,951,188	1,942,807	1,934,087	1,925,703	1,917,320	1,908,937	1,957,894
19	ACCUM DEF TAXES	Gas only	1900	5,175,856	5,222,346	5,255,651	5,297,522	5,328,888	5,376,739	5,452,781	5,501,448	5,532,033	5,546,204	5,605,129	5,616,089	5,627,434	5,426,009
20	AC DE TAX ENVIRO	Gas only	1900.**9	(2,062,991)	(2,081,739)	(2,092,448)	(2,114,851)	(2,129,135)	(2,154,977)	(2,164,531)	(2,187,289)	(2,199,718)	(2,205,069)	(2,226,410)	(2,234,558)	(2,249,050)	(2,161,751)
21	COMMON STOCK		2010	9,250,472	9,256,367	9,256,367	9,256,367	9,262,501	9,262,501	9,262,501	9,268,801	9,268,801	9,268,801	9,274,975	9,274,975	9,274,975	9,264,492
22	PREFERRED STOCK		2040	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000
23	PREM ON COMM STK		2070	5,542,986	5,589,111	5,589,111	5,589,111	5,633,681	5,633,681	5,633,681	5,679,461	5,679,461	5,679,461	5,722,679	5,722,679	5,722,679	5,647,522
24	DISC ON CAP STK		2130	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	MISC PAID IN CAP		2110	938,906	837,046	837,046	848,840	848,840	833,024	845,867	758,877	758,877	773,363	773,363	773,363	781,403	816,063
26	RETAINED EARNING		2160	32,826,619	33,447,261	33,965,988	35,651,318	35,925,472	36,077,430	35,296,438	35,439,832	35,579,174	34,964,435	35,125,618	35,418,831	34,972,913	34,976,256
27	CAPITAL STK EXP		2140	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441
28	TREASURY STOCK		2170	2,841,531	2,584,414	2,584,414	2,584,414	2,584,414	2,528,593	2,528,593	2,289,976	2,289,976	2,289,976	2,289,976	2,289,976	2,289,976	2,459,710
29	1ST MORTG BONDS		2210	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,493,846
30	DEBENTURES		2240	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	NOTES PAYABLE		2310	3,466,000	3,964,000	2,243,000	2,215,000	3,120,000	1,460,000	1,105,000	3,552,000	3,468,000	9,248,000	7,156,000	6,383,000	11,122,000	4,500,154
32	CUSTOMER DEPOSIT	Gas only	2350.1	5,491,600	5,559,619	5,604,513	5,642,261	5,652,617	5,631,942	5,607,088	5,646,460	5,649,535	5,654,542	5,663,446	5,677,146	5,679,024	5,627,676
33	INVEST TAX CRED	Gas only	2550	210,185	206,904	203,623	200,342	197,061	193,780	190,499	187,218	183,937	180,656	177,375	174,094	170,813	190,499
34	ACCUM DEF TAXES*	Gas only	2820 & 2821 & 2830	10,122,510	9,948,346	9,829,092	9,720,347	9,617,777	9,533,189	9,635,557	9,446,597	9,447,643	9,475,978	9,459,314	9,402,086	8,614,977	9,550,263
35	DEF TAX-UNDERREC	Gas only	2830.111 & 221	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	CURRENT BONDS			-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	3% INV TAX CRED	Gas only		-	-	-	-	-	-	-	-	-	-	-	-	-	-
38																	
39	FLO-GAS CORP																
40	----------																
41	INV IN ASSOC CO		1230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	ACCUM DEF TAXES	Zeroed	1900	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	COMMON STOCK		2010	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
44	RETAINED EARNING		2160	2,386,526	2,472,443	2,598,924	705,053	765,096	775,864	784,225	789,291	773,126	784,154	791,079	798,675	849,803	1,174,928
45	COMPREHENSIVE IN		2190	103,245	103,245	103,245	79,108	79,108	79,108	53,461	53,461	53,461	28,569	28,569	28,569	(87,528)	54,279
46	CUSTOMER DEPOSIT	Zeroed	2350	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	INV TAX CREDIT	Zeroed	2550	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	ACCUM DEF TAXES	Zeroed	2820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	3% INV TAX CRED	Zeroed		-	-	-	-	-	-	-	-	-	-	-	-	-	-
50																	
51	CONSOLIDATED																
52	----------		Line Reference														
53	LONG TERM DEBT		L30+L31-L16	50,493,540	50,501,924	50,510,308	50,518,691	50,527,075	50,525,459	50,530,428	50,538,812	50,547,193	50,555,913	50,564,297	50,572,680	50,581,063	50,535,953
54	SHORT TERM DEBT		L32	3,466,000	3,964,000	2,243,000	2,215,000	3,120,000	1,460,000	1,105,000	3,552,000	3,468,000	9,248,000	7,156,000	6,383,000	11,122,000	4,500,154
55	PREFERRED STOCK		L22	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000
56	CUSTOMER DEPOSITS	Gas only	L33	5,491,600	5,559,619	5,604,513	5,642,261	5,652,617	5,631,942	5,607,088	5,646,460	5,649,535	5,654,542	5,663,446	5,677,146	5,679,024	5,627,676
57	COMMON EQUITY		L16+L21+L23+L24+L26-L27-L28-L29-L42+L44+L45-L45	47,572,292	48,486,127	49,131,336	48,958,727	49,343,627	49,546,358	48,812,217	49,164,384	49,287,561	48,723,228	48,940,728	49,241,538	48,970,684	48,936,831
58	COMMON EQ EXCL FLO		+L21+L23+L24+L25+L26-L27-L28-L29	45,289,010	46,116,929	46,535,657	46,332,782	46,657,639	46,849,602	46,061,454	46,426,554	46,567,896	47,967,643	48,178,219	48,471,431	48,033,553	47,816,182
59	DEFERRED INC TAXES*	Gas only	-L13+L18+L20.L23-L24-L25	7,009,645	6,807,738	6,685,889	6,537,676	6,418,024	6,311,427	6,247,307	6,132,438	6,115,328	6,134,843	6,080,595	6,020,555	5,236,593	6,286,004
60	TAX CREDITS-ZERO CST	Gas only	L36+L49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	TAX CREDITS-WEIGHTED	Gas only	L34-L36+L47-L49	210,185	206,904	203,623	200,342	197,061	193,780	190,499	187,218	183,937	180,656	177,375	174,094	170,813	190,499
62	TOTAL INCLUDING FLO-GAS EQUITY			114,643,282	116,126,312	114,958,668	114,672,697	115,958,404	114,268,966	113,092,539	115,821,311	115,851,554	121,097,183	119,182,441	118,669,013	122,360,177	116,677,117
63	TOTAL EXCLUDING FLO-GAS EQUITY			112,559,981	113,757,118	112,462,889	114,046,762	115,172,416	113,672,209	112,361,775	115,085,481	115,131,890	120,341,597	118,419,931	117,896,907	121,423,047	115,586,468
64	TOTAL LTD,STD,EQUITY			102,131,832	103,552,051	102,484,643	102,292,418	103,590,702	102,131,817	101,047,645	103,855,196	103,902,754	109,127,141	107,261,025	106,797,218	111,273,747	104,572,938
65	TOTAL LTD,STD,EQUITY EXCL FLO-GAS			99,848,550	101,182,853	99,988,964	101,666,473	102,904,714	101,435,061	100,316,882	103,119,366	103,183,090	108,371,556	106,498,515	106,027,112	110,336,616	103,452,289

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 27.21

Florida Public Utilities
13 MONTH COST OF CAPITAL
December 2007 - December 2006

Line Ref	Florida Public Utilities:	Notes	Acct #	<<<<<< ACTUAL Dec 2007 - April 2008 >>>>>>> Dec-2007	Jan-2008	Feb-2008	Mar-2008	Apr-2008	May-2008	Jun-2008	Jul-2008	Aug-2008	Sep-2008	Oct-2008	Nov-2008	Dec-2008	13 mth AVERAGE	Basis of Projection
16	INV IN ASSOC CO		1230	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	Constant
17				-														
18	UNAMORT DEBT		1510 & 1890	1,908,937	1,900,553	1,892,170	1,883,786	1,875,403	1,867,104	1,858,805	1,850,506	1,842,207	1,833,908	1,825,609	1,817,310	1,809,011	1,858,870	Amortization Schedule
19	ACCUM DEF TAXES	Gas only	1900	5,627,434	5,647,666	5,736,534	6,449,566	6,476,173	6,543,636	6,561,685	6,609,466	6,636,800	6,642,753	6,687,277	6,701,913	6,723,563	6,368,039	Based on prior year averages
20	AC DE TAX ENVIRO	Gas only	1900.**3	(2,249,050)	(2,275,994)	(2,296,618)	(2,304,545)	(2,315,041)	(2,340,863)	(2,350,437)	(2,373,195)	(2,385,824)	(2,390,975)	(2,412,316)	(2,420,464)	(2,434,956)	(2,350,008)	Based on 2007 monthly changes
21	COMMON STOCK		2010	9,274,975	9,281,263	9,281,263	9,281,263	9,287,416	9,286,919	9,286,919	9,293,076	9,293,076	9,293,076	9,299,234	9,299,234	9,299,234	9,288,998	Cash Flow Projections
22	PREFERRED STOCK		2090	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	Constant
23	PREM ON COMM STK		2070	5,722,679	5,765,647	5,765,647	5,765,647	5,805,497	5,805,497	5,805,497	5,846,997	5,846,997	5,846,997	5,888,497	5,888,497	5,888,497	5,818,861	Orly increase of $41,500
24	DISC ON CAP STK		2130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	MISC PAID IN CAP		2110	781,403	683,662	683,662	697,572	697,592	681,776	694,619	607,629	607,629	622,115	622,115	622,115	630,155	664,003	Based on 2007 monthly changes
26	RETAINED EARNING		2160	34,972,913	35,606,205	36,137,645	35,796,227	36,002,507	36,410,247	36,065,266	36,334,709	36,436,607	36,863,532	37,004,548	37,226,364	36,832,637	36,283,800	Projected
27	CAPITAL STK EXP		2145	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	Constant
28	TREASURY STOCK		2170	2,289,976	2,048,753	2,048,753	2,048,753	2,048,609	1,992,788	1,992,788	1,754,170	1,754,170	1,754,170	1,754,170	1,754,170	1,754,170	1,922,726	Based on 2007 monthly changes
29	1ST MORTG BONDS		2210	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	51,081,000	51,081,000	51,041,000	51,041,000	51,041,000	51,041,000	51,041,000	51,041,000	51,804,462	Sinking Fund Schedule
30	DEBENTURES		2240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
31	NOTES PAYABLE		2310	11,122,000	9,230,000	6,614,000	9,680,000	8,181,000	10,803,000	12,529,000	10,388,000	10,924,000	11,124,000	13,324,000	17,824,000	19,324,000	11,620,538	Cash Flow Projections
32	CUSTOMER DEPOSIT	Gas only	2250.1	5,679,024	5,699,460	5,733,129	5,803,852	5,723,792	5,755,244	5,786,869	5,818,667	5,850,640	5,882,789	5,915,115	5,947,618	5,980,300	5,813,577	5 Year Average Growth Rate
33	INVEST TAX CRED	Gas only	2255	170,813	167,743	164,673	161,603	158,533	155,463	152,393	149,323	146,253	143,183	140,113	137,043	133,973	152,393	Monthly $3,070
34	ACCUM DEF TAXES*	Gas only	2820 & 2821 & 2830	8,614,977	8,541,794	8,213,182	8,324,313	8,220,365	7,884,295	7,904,109	7,877,279	7,911,958	7,942,429	7,951,695	7,929,165	8,090,318	8,106,620	Trended
35	DEF TAX-UNDERREC	Gas only	2830.111 & 221	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
36	CURRENT BONDS			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
37	3% INV TAX CRED	Gas only		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
38																		
39	FLO-GAS CORP																	
40	----------																	
41	INV IN ASSOC CO		1230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
42	ACCUM DEF TAXES	Zeroed	1900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
43	COMMON STOCK		2010	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	Constant
44	RETAINED EARNING		2160	849,603	1,006,412	1,151,999	1,286,384	1,307,629	1,364,369	1,342,823	1,303,041	1,268,469	226,083	189,774	222,064	294,297	908,668	
45	COMPREHENSIVE IN		2180	(87,528)	(87,528)	(87,528)	(110,255)	(110,255)	(110,225)	(132,982)	(132,982)	(132,982)					(110,252)	Est based on average change
46	CUSTOMER DEPOSIT	Zeroed	2250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
47	INV TAX CREDIT	Zeroed	2550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
48	ACCUM DEF TAXES	Zeroed	2820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
49	3% INV TAX CRED	Zeroed		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
50																		
51	CONSOLIDATED																	
52	----------		Line Reference															
53	LONG TERM DEBT		L39+L29-L19	50,581,063	50,589,447	50,597,830	50,606,214	50,614,597	49,213,896	49,222,195	49,190,494	49,198,793	49,207,092	49,215,391	49,223,690	49,231,989	49,745,592	
54	SHORT TERM DEBT		L31	11,122,000	9,230,000	6,614,000	9,680,000	8,181,000	10,803,000	12,529,000	10,388,000	10,924,000	11,124,000	13,324,000	17,824,000	19,324,000	11,620,538	
55	PREFERRED STOCK		L22	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	
56	CUSTOMER DEPOSITS	Gas only	L32+L46	5,679,024	5,699,460	5,733,129	5,803,852	5,723,792	5,755,244	5,786,869	5,818,667	5,850,640	5,882,789	5,915,115	5,947,618	5,980,300	5,813,577	
57	COMMON EQUITY		L16+L21+L23+L24+L25+L26-L27-L28-L29-L41+L43+L44-L45	46,970,684	49,953,522	50,630,549	50,460,153	50,733,848	51,237,804	50,906,877	51,335,822	51,403,149	50,669,190	50,821,556	51,075,661	50,762,206	50,689,310	
58	COMMON EQ EXCL FLO		-L16-L21+L23+L24+L25+L26-L27-L28-L29	46,033,553	48,859,562	49,391,022	49,063,514	49,315,964	49,783,210	49,431,072	49,869,799	50,001,897	50,443,108	50,831,782	50,853,597	50,467,911	49,704,293	
59	DEFERRED INC TAXES*	Gas only	-L19-L20+L34-L35-L42+L48	5,236,593	5,170,102	4,773,268	4,179,270	4,059,233	3,861,542	3,862,861	3,841,006	3,680,792	3,690,651	3,676,904	3,647,716	3,801,711	4,068,588	
60	TAX CREDITS-ZERO CST	Gas only	L37+L49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
61	TAX CREDITS-WEIGHTED	Gas only	L33+L37+L47-L49	170,813	167,743	164,673	161,603	158,533	155,463	152,393	149,323	146,253	143,183	140,113	137,043	133,973	152,393	
62	TOTAL INCLUDING FLO-GAS EQUITY			122,360,177	121,410,274	119,113,447	121,491,092	120,071,003	121,426,949	122,890,194	121,123,314	121,783,627	121,316,906	123,693,079	126,455,726	129,834,181	122,889,998	
63	TOTAL EXCLUDING FLO-GAS EQUITY			121,423,047	120,318,334	117,873,920	120,894,453	119,863,119	119,862,385	121,414,389	119,887,291	120,382,178	121,090,823	123,893,305	126,233,664	129,639,884	121,704,882	
64	TOTAL LTD,STD,EQUITY			111,273,747	110,372,968	108,442,379	111,346,367	110,129,445	111,854,700	113,258,072	111,514,316	112,125,942	111,600,283	113,960,948	116,723,351	119,918,197	112,655,440	
65	TOTAL LTD,STD,EQUITY EXCL FLO-GAS			110,336,816	109,279,029	107,202,852	109,949,728	108,711,561	110,380,108	111,782,267	110,078,293	110,724,490	111,374,200	113,771,173	116,501,288	119,623,900	111,670,423	

Exhibit 27.21
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Florida Public Utilities
13 MONTH COST OF CAPITAL
December 2008 - December 2009

Line Ref	Florida Public Utilities:	Notes	Acct #	Dec-2008	Jan-2009	Feb-2009	Mar-2009	Apr-2009	May-2009	Jun-2009	Jul-2009	Aug-2009	Sep-2009	Oct-2009	Nov-2009	Dec-2009	13 mth AVERAGE	Basis of Projection
16	INV IN ASSOC CO		1230	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	Constant
17																		
18	UNAMORT DEBT		1810 & 1890	1,809,011	1,800,712	1,792,413	1,784,114	1,775,815	1,767,599	1,759,383	1,751,167	1,742,951	1,734,735	1,726,519	1,718,303	1,710,087	1,759,447	Amortization Schedule
19	ACCUM DEF TAXES	Gas only	1990	6,723,563	6,722,284	6,696,940	6,668,864	6,626,842	6,579,693	6,560,606	6,515,413	6,490,715	6,479,749	6,437,503	6,420,963	6,388,080	6,561,564	Based on prior year averages
20	AC DE TAX ENVIRO	Gas only	1990.1	(2,434,958)	(2,418,209)	(2,405,499)	(2,383,098)	(2,368,812)	(2,342,970)	(2,333,416)	(2,310,658)	(2,296,229)	(2,292,878)	(2,271,537)	(2,263,369)	(2,248,897)	(2,336,196)	Based on 2007 monthly changes
21	COMMON STOCK		3010	9,299,234	9,305,523	9,305,522	9,305,522	9,311,878	9,311,878	9,311,878	9,311,878	11,363,605	11,363,605	11,369,782	11,369,782	11,369,782	10,257,784	Cash Flow Projections
22	PREFERRED STOCK		3040	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	Constant
23	PREM ON COMM STK		3070	5,888,497	5,929,997	5,929,997	5,929,997	5,971,497	5,971,497	5,971,497	16,967,230	16,967,230	16,967,230	19,008,730	19,008,730	19,008,730	11,963,143	Only increase of $41,500
24	DISC ON CAP STK		3100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	MISC PAID IN CAP		3110	630,155	528,295	528,295	540,089	540,089	524,273	537,116	450,126	450,126	464,612	464,612	464,612	472,652	507,312	Based on 2007 monthly changes
26	RETAINED EARNING		2100	36,832,637	35,606,205	36,137,845	35,796,227	36,002,507	36,733,356	36,592,493	39,020,417	39,182,250	38,517,536	38,741,499	39,093,783	38,714,187	37,766,980	Projected
27	CAPITAL STK EXP		3140	428,441	428,441	428,441	428,441	428,441	428,441	428,441	1,328,441	1,328,441	1,328,441	1,328,441	1,328,441	1,328,441	843,826	Constant Jan - Jun; then Equity Issuance Cos
28	TREASURY STOCK		3170	1,754,170	1,497,053	1,497,053	1,497,053	1,497,053	1,441,232	1,441,232	1,202,614	1,202,614	1,202,614	1,202,614	1,202,614	1,202,614	1,372,349	Based on 2007 monthly changes
29	1ST MORTG BONDS		3210	51,041,000	51,041,000	51,041,000	51,041,000	51,041,000	49,832,000	49,832,000	49,832,000	49,832,000	49,832,000	49,832,000	49,832,000	49,832,000	50,173,923	Sinking Fund Sch & Cash Proj
30	DEBENTURES		3240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
31	NOTES PAYABLE		3310	19,324,000	18,724,000	17,224,000	16,224,000	17,424,000	19,424,000	19,424,000	5,924,000	6,924,000	7,024,000	8,724,000	11,324,000	11,524,000	13,785,538	Cash Flow Projections
32	CUSTOMER DEPOSIT	Gas only	2350.1	5,980,300	6,013,161	6,046,203	6,079,426	6,112,832	6,146,422	6,180,196	6,214,156	6,248,302	6,282,636	6,317,159	6,351,871	6,386,774	6,181,495	5 Year Average Growth Rate
33	INVEST TAX CRED	Gas only	2850	133,973	130,903	127,833	124,763	121,693	118,623	115,553	112,483	109,413	106,343	103,273	100,203	97,133	115,553	Monthly $3,070
34	ACCUM DEF TAXES*	Gas only	2820 & 2821 & 2830	8,090,318	7,047,136	7,018,037	6,995,467	7,001,236	6,806,790	6,823,486	6,812,575	6,826,530	6,839,103	6,844,142	6,835,164	7,049,437	6,999,186	Trended
35	DEF TAX-UNDERREC	Gas only	2830.111 & 221	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
36	CURRENT BONDS			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
37	3% INV TAX CRED	Gas only		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
38																		
39	FLO-GAS CORP																	
40																		
41	INV IN ASSOC CO		1230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
42	ACCUM DEF TAXES	Zeroed	1900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
43	COMMON STOCK		3010	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	Constant
44	RETAINED EARNING		2100	294,297	461,502	614,862	757,572	779,937	842,523	819,576	777,208	740,390	695,246	656,579	890,968	787,896	684,504	
45	COMPREHENSIVE IN		2160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
46	CUSTOMER DEPOSIT	Zeroed	2350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
47	INV TAX CREDIT	Zeroed	2850	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
48	ACCUM DEF TAXES	Zeroed	2820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
49	3% INV TAX CRED	Zeroed		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
50																		
51	CONSOLIDATED																	
52			Line Reference															
53	LONG TERM DEBT		L30+L31+L32	49,231,969	49,240,268	49,248,567	49,256,866	49,265,185	47,864,401	47,872,617	47,880,833	47,889,049	47,897,265	47,905,481	47,913,697	47,921,913	48,414,476	
54	SHORT TERM DEBT		L31	19,324,000	18,724,000	17,224,000	16,224,000	17,424,000	19,424,000	19,424,000	5,924,000	6,924,000	7,024,000	8,724,000	11,324,000	11,524,000	13,785,538	
55	PREFERRED STOCK		L22	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	
56	CUSTOMER DEPOSITS	Gas only	L32+L46	5,980,300	6,013,161	6,046,203	6,079,426	6,112,832	6,146,422	6,180,196	6,214,156	6,248,302	6,282,636	6,317,159	6,351,871	6,386,774	6,181,495	
57	COMMON EQUITY		L19+L20+L21+L23+L25+L26+L27+L28+L29+L44+L45	50,762,206	49,906,026	50,590,826	50,403,912	50,680,214	53,513,654	53,362,686	68,047,531	68,172,545	67,477,178	67,710,128	68,096,800	67,802,172	58,963,529	
58	COMMON EQ EXCL FLO		L19+L21+L23+L25+L26+L27+L28+L29	50,467,911	49,444,524	49,975,964	49,646,341	49,900,277	52,671,131	52,543,110	67,270,322	67,432,156	66,781,930	67,053,548	67,405,832	67,034,276	58,279,025	
59	DEFERRED INC TAXES*	Gas only	L19+L20+L34+L36+L24+L44	3,801,711	2,741,061	2,724,095	2,722,599	2,743,206	2,570,066	2,596,295	2,607,620	2,634,044	2,652,232	2,678,176	2,677,570	2,910,265	2,773,818	
60	TAX CREDITS-ZERO CST	Gas only	L37+L49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
61	TAX CREDITS-WEIGHTED	Gas only	L33+L37+L47+L49	133,973	130,903	127,833	124,763	121,693	118,623	115,553	112,483	109,413	106,343	103,273	100,203	97,133	115,553	
62	TOTAL INCLUDING FLO-GAS EQUITY			129,834,181	127,355,439	129,562,044	125,411,587	126,947,130	130,237,166	130,151,347	131,366,823	132,577,354	132,039,654	134,038,217	137,064,141	137,242,247	130,834,410	
63	TOTAL EXCLUDING FLO-GAS EQUITY			129,539,884	126,893,837	125,947,182	124,854,015	126,167,183	129,394,643	129,331,771	130,909,814	131,936,964	131,344,406	133,361,638	136,373,173	136,474,351	130,149,906	
64	TOTAL LTD,STD,EQUITY			119,918,197	118,470,314	117,663,413	116,484,798	117,989,399	121,402,055	121,259,303	122,452,364	123,585,594	122,996,443	124,939,909	127,934,497	127,848,085	121,763,544	
65	TOTAL LTD,STD,EQUITY EXCL FLO-GAS			119,623,900	118,008,612	117,048,551	115,727,227	117,189,462	120,559,532	120,439,727	121,675,195	122,845,205	122,303,195	124,283,029	127,243,529	127,080,189	121,079,039	

Exhibit 27.21
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INTERIM

COST OF CAPITAL - 13-MONTH AVERAGE

FLORIDA PUBLIC SERVICE COMMISSION

COMPANY: Florida Public Utilities
Consolidated Gas

DOCKET NO.:

EXPLANATION: Provide the company's 13-month average cost of capital for the test year, the prior year, and historical base year.

Type of Data Shown:
Prior Year Ended 12/31/07
Witness: Doreen Cox, Robert Camfield

Line No.	Class of Capital	(A) Company Total Per Books	(B) Specific Adjustments	(C) Pro Rata Adjustments	(D) System Adjusted	(E) Jurisdictional Factor	(F) Jurisdictional Capital Structure	(G) Ratio	(H) Cost Rate	(I) Weighted Cost Rate	(J) Interest Expense
	Regulatory Capital Structure, 2007 INTERIM										
1.	Long Term Debt	50,535,952			50,535,952	45.83%	23,161,901	0.3892	8.01%	3.12%	1,854,224
2.	Short Term Debt	4,500,154			4,500,154	45.83%	2,062,534	0.0347	4.15%	0.14%	85,595
3.	Preferred Stock	600,000			600,000	45.83%	274,995	0.0046	4.75%	0.02%	
4.	Common Equity	47,816,182			47,816,182	45.83%	21,915,362	0.3682	10.25%	3.77%	
5.	Customer Deposits	5,627,676			5,627,676		5,627,676	0.0946	6.09%	0.58%	342,725
6.	Deferred Income Taxes	6,286,004			6,286,004		6,286,004	0.1056	0.00%	0.00%	
7.	Tax Credits-Zero Cost	0			0		0	0.0000	0.00%	0.00%	
8.	Tax Credits-Weighted Cost	190,499			190,499		190,499	0.0032	8.86%	0.03%	16,869
9.	TOTAL	115,556,468			115,556,468		59,518,973	1.0000		7.66%	2,299,414

	Class of Capital	Company Total Per Books	Ratio	Cost Rate	Weighted Cost Rate
	Conventional Capital Structure, 2007				
10.	Long Term Debt	50,535,952	0.4885	8.01%	3.91%
11.	Short Term Debt	4,500,154	0.0435	4.15%	0.18%
12.	Preferred Stock	600,000	0.0058	4.75%	0.03%
13.	Common Equity	47,816,182	0.4622	10.25%	4.74%
14.	TOTAL	103,452,288	1.0000		8.86%

Rate Base	$59,518,973
Direct Components	$12,104,180
	$47,414,793
Jurisdictional Factor	45.83%

Common Equity excludes Flo-Gas

Supporting Schedules: B-1 (2007) B-3 (2007), D-3, D-4a, D-5, D-6

Recap Schedules:

Schedule D-1a (2007)

COST OF CAPITAL - 13-MONTH AVERAGE

FLORIDA PUBLIC SERVICE COMMISSION

COMPANY: Florida Public Utilities
Consolidated Gas
DOCKET NO.: 080366-GU

EXPLANATION: Provide the company's 13-month average cost of capital for the test year, the prior year, and historical base year.

Type of Data Shown:
Prior Year Ended 12/31/07
Witness: Doreen Cox, Robert Camfield

Line No.	Class of Capital	(A) Company Total Per Books	(B) Specific Adjustments	(C) Pro Rata Adjustments	(D) System Adjusted	(E) Jurisdictional Factor	(F) Jurisdictional Capital Structure	(G) Ratio	(H) Cost Rate	(I) Weighted Cost Rate	(J) Interest Expense
					Regulatory Capital Structure, 2007						
1.	Long Term Debt	50,535,952			50,535,952	45.83%	23,161,901	0.3892	8.01%	3.12%	1,854,224
2.	Short Term Debt	4,500,154			4,500,154	45.83%	2,062,534	0.0347	4.15%	0.14%	85,574
3.	Preferred Stock	600,000			600,000	45.83%	274,995	0.0046	4.75%	0.02%	
4.	Common Equity	47,816,182			47,816,182	45.83%	21,915,362	0.3682	11.25%	4.14%	
5.	Customer Deposits	5,627,676			5,627,676		5,627,676	0.0946	6.09%	0.58%	342,848
6.	Deferred Income Taxes	6,286,004			6,286,004		6,286,004	0.1056	0.00%	0.00%	
7.	Tax Credits-Zero Cost	0			0		0	0.0000	0.00%	0.00%	
8.	Tax Credits-Weighted Cost	190,499			190,499		190,499	0.0032	9.32%	0.03%	17,749
9.	TOTAL	115,556,468			115,556,468		59,518,973	1.0000		8.03%	2,300,395

	Class of Capital	Company Total Per Books	Ratio	Cost Rate	Weighted Cost Rate
		Conventional Capital Structure, 2007			
10.	Long Term Debt	50,535,952	0.4885	8.01%	3.91%
11.	Short Term Debt	4,500,154	0.0435	4.15%	0.18%
12.	Preferred Stock	600,000	0.0058	4.75%	0.03%
13.	Common Equity	47,816,182	0.4622	11.25%	5.20%
14.	TOTAL	103,452,288	1.0000		9.32%

Rate Base	$59,518,973
Direct Components	$12,104,180
	$47,414,793
Jurisdictional Factor	45.83%

Common Equity excludes Flo-Gas

Supporting Schedules: B-1 (2007) B-3 (2007), D-3, D-4a, D-5, D-6

Recap Schedules:

COST OF CAPITAL - 13-MONTH AVERAGE

FLORIDA PUBLIC SERVICE COMMISSION

COMPANY: Florida Public Utilities
Consolidated Gas
DOCKET NO.: 080366-GU

EXPLANATION: Provide the company's 13-month average cost of capital for the test year, the prior year, and historical base year.

Type of Data Shown:
Projected Prior Year 12/31/08
Witness: Doreen Cox, Robert Camfield

Line No.	Class of Capital	(A) Company Total Per Books	(B) Specific Adjustments	(C) Pro Rata Adjustments	(D) System Adjusted	(E) Jurisdictional Factor	(F) Jurisdictional Capital Structure	(G) Ratio	(H) Cost Rate	(I) Weighted Cost Rate	(J) Interest Expense
	Regulatory Capital Structure, 2008										
1.	Long Term Debt	49,745,592			49,745,592	49.22%	24,486,818	0.3767	7.97%	3.00%	1,951,599
2.	Short Term Debt	11,620,538			11,620,538	49.22%	5,720,105	0.0880	3.93%	0.35%	224,531
3.	Preferred Stock	600,000			600,000	49.22%	295,345	0.0045	4.75%	0.02%	
4.	Common Equity	49,704,293			49,704,293	49.22%	24,466,489	0.3764	11.25%	4.23%	
5.	Customer Deposits	5,813,577			5,813,577		5,813,577	0.0894	6.12%	0.55%	355,932
6.	Deferred Income Taxes	4,068,588			4,068,588		4,068,588	0.0626	0.00%	0.00%	
7.	Tax Credits-Zero Cost	0			0		0	0.0000	0.00%	0.00%	
8.	Tax Credits-Weighted Cost	152,393			152,393		152,393	0.0023	8.99%	0.02%	13,705
9.	TOTAL	121,704,982			121,704,982		65,003,315	1.0000		8.17%	2,545,767

	Class of Capital	Company Total Per Books	Ratio	Cost Rate	Weighted Cost Rate
	Conventional Capital Structure, 2008				
10.	Long Term Debt	49,745,592	0.4455	7.97%	3.55%
11.	Short Term Debt	11,620,538	0.1041	3.93%	0.41%
12.	Preferred Stock	600,000	0.0054	4.75%	0.03%
13.	Common Equity	49,704,293	0.4451	11.25%	5.01%
14.	TOTAL	111,670,423	1.0000		8.99%

Rate Base	$65,003,315
Direct Components	$10,034,558
	$54,968,757
Jurisdictional Factor	49.22%

Common Equity excludes Flo-Gas

Supporting Schedules: B-1 (2007) B-3 (2007), D-3, D-4a, D-5, D-6

Recap Schedules:

COST OF CAPITAL - 13-MONTH AVERAGE

FLORIDA PUBLIC SERVICE COMMISSION

COMPANY: Florida Public Utilities
Consolidated Gas
DOCKET NO.: 080366-GU

EXPLANATION: Provide the company's 13-month average cost of capital for the test year, the prior year, and historical base year.

Type of Data Shown:
Projected Test Year 12/31/09
Witness: Doreen Cox, Robert Camfield

Line No.	Class of Capital	(A) Company Total Per Books	(B) Specific Adjustments	(C) Pro Rata Adjustments	(D) System Adjusted	(E) Jurisdictional Factor	(F) Jurisdictional Capital Structure	(G) Ratio	(H) Cost Rate	(I) Weighted Cost Rate	(J) Interest Expense
					Regulatory Capital Structure, 2009						
1.	Long Term Debt	48,414,476			48,414,476	53.4%	25,861,386	0.3507	7.90%	2.77%	2,043,050
2.	Short Term Debt	13,785,538			13,785,538	53.4%	7,363,771	0.0999	4.71%	0.47%	346,541
3.	Preferred Stock	600,000			600,000	53.4%	320,500	0.0043	4.75%	0.02%	
4.	Common Equity	58,279,025			58,279,025	53.4%	31,130,696	0.4221	11.75%	4.96%	
5.	Customer Deposits	6,181,495			6,181,495		6,181,495	0.0838	6.13%	0.51%	378,753
6.	Deferred Income Taxes	2,773,818			2,773,818		2,773,818	0.0376	0.00%	0.00%	
7.	Tax Credits-Zero Cost	0			0		0	0.0000	0.00%	0.00%	
8.	Tax Credits-Weighted Cost	115,553			115,553		115,553	0.0016	9.38%	0.01%	10,838
9.	TOTAL	130,149,906			130,149,906		73,747,220	1.0000		8.74%	2,779,182

	Class of Capital	Company Total Per Books	Ratio	Cost Rate	Weighted Cost Rate
		Conventional Capital Structure, 2009			
10.	Long Term Debt	48,414,476	0.3999	7.90%	3.16%
11.	Short Term Debt	13,785,538	0.1139	4.71%	0.54%
12.	Preferred Stock	600,000	0.0050	4.75%	0.02%
13.	Common Equity	58,279,025	0.4813	11.75%	5.66%
14.	TOTAL	121,079,039	1.0000		9.38%

Rate Base	$73,747,220
Direct Components	$9,070,866
	$64,676,354
Jurisdictional Factor	53.4%

Common Equity excludes Flo-Gas

Supporting Schedules: B-1 (2007) B-3 (2007), D-3, D-4a, D-5, D-6

Recap Schedules:

EXHIBIT 25.1
G-3 D-1 showing removal of Flo-Gas

COST OF CAPITAL - 13-MONTH AVERAGE

FLORIDA PUBLIC SERVICE COMMISSION

COMPANY: Florida Public Utilities
Consolidated Gas
DOCKET NO.: 080366-GU

EXPLANATION: 13-month average cost of capital for 2009 showing the removal of Flo-Gas

Type of Data Shown:
Projected Test Year 12/31/09
Witness: Doreen Cox, Robert Camfield

Line No.	Class of Capital	(A) Company Total Per Books	(B) Specific Adjustments	(C) Pro Rata Adjustments	(D) System Adjusted	(E) Jurisdictional Factor	(F) Jurisdictional Capital Structure	(G) Ratio	(H) Cost Rate	(I) Weighted Cost Rate	(J) Interest Expense
					Regulatory Capital Structure, 2009						
1.	Long Term Debt	48,414,476			48,414,476	53.4%	25,861,386	0.3507	7.90%	2.77%	2,043,050
2.	Short Term Debt	13,785,538			13,785,538	53.4%	7,363,771	0.0999	4.71%	0.47%	346,541
3.	Preferred Stock	600,000			600,000	53.4%	320,500	0.0043	4.75%	0.02%	
4.	Common Equity	58,963,529	(684,504)		58,279,025	53.4%	31,130,696	0.4221	11.75%	4.96%	
5.	Customer Deposits	6,181,495			6,181,495		6,181,495	0.0838	6.13%	0.51%	378,753
6.	Deferred Income Taxes	2,773,818			2,773,818		2,773,818	0.0376	0.00%	0.00%	
7.	Tax Credits-Zero Cost	0			0		0	0.0000	0.00%	0.00%	
8.	Tax Credits-Weighted Cost	115,553			115,553		115,553	0.0016	9.38%	0.01%	10,838
9.	TOTAL	130,834,410	(684,504)	0	130,149,906		73,747,220	1.0000		8.74%	2,779,182

	Class of Capital	Company Total Per Books	Ratio	Cost Rate	Weighted Cost Rate
		Conventional Capital Structure, 2009			
10.	Long Term Debt	48,414,476	0.3999	7.90%	3.16%
11.	Short Term Debt	13,785,538	0.1139	4.71%	0.54%
12.	Preferred Stock	600,000	0.0050	4.75%	0.02%
13.	Common Equity	58,279,025	0.4813	11.75%	5.66%
14.	TOTAL	121,079,039	1.0000		9.38%

Rate Base	$73,747,220
Direct Components	$9,070,866
	$64,676,354
Jurisdictional Factor	53.4%

FLORIDA PUBLIC .ITIES COMPANY
CASH PROJECTION
BUDGET 2008

TOTAL CONSOLIDATED

		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
Operating Revenues		13,748,561	11,705,272	11,095,447	9,958,322	9,195,071	9,368,554	9,318,485	9,477,959	8,944,815	9,332,294	10,643,069	13,325,244	126,113,091
Fuel Revenue & Pass-thrus		(7,952,211)	(6,730,066)	(6,549,612)	(5,809,736)	(5,208,195)	(5,447,478)	(5,468,786)	(5,579,188)	(5,059,428)	(5,549,509)	(6,550,245)	(8,392,639)	(74,297,091)
Gross Profit		5,796,350	4,975,206	4,545,835	4,148,586	3,986,875	3,921,076	3,849,700	3,898,771	3,885,388	3,782,785	4,092,824	4,932,605	**51,816,000**
Other Income - Net (excl. taxes & int cap)		52,995	93,679	69,362	88,991	24,570	78,073	42,605	78,359	53,133	25,425	66,853	55,957	730,000
Total		5,849,345	5,068,884	4,615,197	4,237,577	4,011,445	3,999,148	3,892,304	3,977,130	3,938,520	3,808,209	4,159,677	4,988,562	52,546,000
DEDUCTIONS:														
Operation & Mtnce Excl Fuel etc		3,408,235	2,925,405	2,672,936	2,439,355	2,344,270	2,305,580	2,263,611	2,292,465	2,284,596	2,224,265	2,406,567	2,900,356	30,467,642
Non-Cash O&M (Storm Resv)		(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(100,000)
Income Taxes Paid					448,955		448,955			448,955		0	448,955	1,795,820
Taxes Paid - Other		243,846	13,307	150,813	94,142	62,735	81,210	247,241	91,353	50,307	201,782	1,965,000	11,264	3,233,000
Interest On Long - Term Debt						754,325	363,200					685,754	363,200	2,166,479
Interest on Additional LT Debt	6.85%	256,800			256,800			256,700			256,500			1,026,800
Interest on Environmental Expenditure		0	0	0	0	0	0	0	0	0	0	0	0	0
Interest on Private Activity Bond	4.90%					343,000						342,400		685,400
Interest on LOC		34,100	27,300	24,849	29,567	30,893	36,385	37,977	34,349	37,117	40,848	52,715	62,960	449,061
Other Interest Payments		0	0	0	222,800	222,800	0	0	0	0	0	0	0	445,600
Payment Of Environmental Clean Up		310	4,795	25,005	603	100,495	19,447	5,945	4,183	43,429	43,429	43,429	43,429	334,500
Dividends Paid - Preferred		7,125	0	0	7,125	0	0	7,125	0	0	7,125	0	0	28,500
Dividends Paid - Common		681,000	0	0	683,000	0	0	714,000	0	0	717,000	0	0	2,795,000
Proceeds Form Sale - Common Stock		(158,499)	0	0	(84,111)	0	0	(164,455)	0	0	(80,892)	0	0	(487,957)
Pension Contributions										400,000				400,000
TOTAL DEDUCTIONS		4,464,584	2,962,473	2,865,270	4,089,902	3,850,185	3,246,442	3,359,811	2,414,016	3,256,071	3,401,725	5,507,533	3,821,832	43,239,845
BALANCE		1,384,761	2,106,412	1,749,927	147,675	161,260	752,706	532,493	1,563,113	682,449	406,484	(1,347,856)	1,166,731	9,306,155
Increase (Decrease) In Cash Due to Fluctuation in Certain Assets & Liab.		(2,298,117)	283,644	(16,914)	957,029	78,907	(705,490)	573,709	(388,468)	-	-	-	-	(1,515,700)
Construction Requirements (including AEP)		647,009	700,579	1,382,970	869,443	890,086	772,723	605,121	613,601	2,059,417	2,525,257	2,766,017	2,592,517	16,423,740
Construction Adj Bare Steel Amort & Cost of Removal		82,916	77,189	37,350	78,908	71,812	81,198	82,192	82,192	125,393	153,757	168,355	157,852	1,199,113
0		0	0	0	0	0	0	0	0	0	0	0	0	0
Net Const. Cash Refunds/(Contributions)		32,146	32,146	32,146	32,146	32,146	32,146	32,146	32,146	32,146	32,146	32,146	32,146	385,756
BALANCE		(1,675,428)	1,580,141	280,547	124,206	(753,877)	(838,851)	386,743	446,706	(1,534,507)	(2,304,676)	(4,313,375)	(1,615,784)	(10,218,155)
Add Proceeds From Financing -SunTrust LOC (See Detail Below)														0
Proceeds from Water Sale & LWG				300,000										300,000
Less Tax on Gain of Sale Water & LWG														0
Add Proceeds from Financing - BOA LOC		(1,892,000)	(2,616,000)	3,066,000	(1,499,000)	2,622,000	1,726,000	(2,141,000)	536,000	200,000	2,200,000	4,500,000	1,500,000	8,202,000
Less LT Debt Principal Repayments						(1,409,000)								(1,409,000)
Less Loan Expenses (LT Debt)														0
Add Proceeds from Bond Issue														0
Less Loan Expenses (Bonds)														0
Add Proceeds from Equity Issue														0
Less Equity Issue Expenses														0
Less ST Investments														0
Cash Balance - Beginning Of Period		3,477,649	(89,778)	(1,125,637)	2,520,909	1,146,116	1,605,239	2,492,387	738,130	1,720,836	386,329	281,654	468,279	3,477,649
Cash Balance - End of Period		(89,778)	(1,125,637)	2,520,909	1,146,116	1,605,239	2,492,387	738,130	1,720,836	386,329	281,654	468,279	352,495	352,495
Actual Cash Balance		(89,778)	(1,125,637)	2,520,909	1,146,116	1,605,239	2,492,387	738,130	1,720,836					
Customer Deposit - Annual Payments	445,578													
Line of Credit - Bank of America	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	26,000,000	26,000,000	26,000,000
Interest on LOC	0.10%	1,000	1,000	1,000	1,000	1,300	1,300	1,300	1,300	1,300	1,300	1,300	2,200	2,200	16,500
Notes Payable Balance - BOA	**11,122,000**	**9,230,000**	**6,614,000**	**9,680,000**	**8,181,000**	**10,803,000**	**12,529,000**	**10,388,000**	**10,924,000**	**11,124,000**	**13,324,000**	**17,824,000**	**19,324,000**	**19,324,000**	**19,324,000**
Interest on Borrowings	3.86%	32,700	25,500	26,200	28,700	30,500	37,500	36,900	34,300	35,500	39,300	50,100	59,700	436,900
Unused Portion of LOC	878,000	2,770,000	5,386,000	2,320,000	6,819,000	4,197,000	2,471,000	4,612,000	4,076,000	3,876,000	1,676,000	8,176,000	6,676,000	6,676,000	6,676,000
Interest on Unused Portion of LOC	0.25%	400	800	800	1,000	1,100	700	700	900	800	600	1,000	1,500	10,300	
Additional LT Debt Balance	14,990,000	14,990,000	14,990,000	14,990,000	14,990,000	14,990,000	14,990,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000		
Interest On additional LT Debt	6.85%	85,600	85,600	85,600	85,600	85,600	85,600	85,500	85,500	85,500	85,500	85,500	85,500	1,026,600	
Bond	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Interest on Bond	5.50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private Activity Bond - Used	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	
Interest On Private Activity Bond	4.90%	57,200	57,200	57,200	57,200	57,200	57,200	57,100	57,100	57,100	57,100	57,100	57,100	685,800	

FLORIDA PUBLIC .ITIES COMPANY
CASH PROJECTION
BUDGET 2009

TOTAL CONSOLIDATED

		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
Operating Revenues		14,502,325	12,348,449	11,699,051	10,502,512	9,703,120	9,881,162	9,826,558	9,994,127	9,439,287	9,838,531	11,212,524	14,031,378	132,979,023
Fuel Revenue & Pass-thrus		(8,268,709)	(6,997,923)	(6,810,286)	(6,040,963)	(5,415,461)	(5,664,288)	(5,686,443)	(5,801,240)	(5,260,793)	(5,770,379)	(6,810,945)	(8,726,666)	(77,254,116)
Gross Profit		6,233,616	5,350,526	4,888,765	4,461,548	4,287,638	4,216,875	4,140,114	4,192,887	4,178,495	4,068,152	4,401,579	5,304,713	**55,724,908**
Other Income - Net (excl. taxes & int cap)		54,652	96,608	71,531	91,774	25,338	80,514	43,937	80,809	54,794	26,220	68,943	57,707	752,827
Total		6,288,268	5,447,135	4,960,296	4,553,322	4,312,976	4,297,389	4,184,051	4,273,696	4,233,289	4,094,371	4,470,522	5,362,419	56,477,735
DEDUCTIONS:														
Operation & Mtnce Excl Fuel etc		3,472,809	2,980,831	2,723,579	2,485,572	2,388,685	2,349,262	2,306,498	2,335,898	2,327,880	2,266,407	2,452,163	2,955,307	31,044,892
Non-Cash O&M (Storm Resv)		(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(8,333)	(100,000)
Income Taxes Paid					696,955		696,955			696,955		0	696,955	2,787,820
Taxes Paid - Other		251,162	13,706	155,337	96,966	64,617	83,646	254,658	94,094	51,816	207,836	2,022,300	11,602	3,307,740
Interest On Long - Term Debt						685,754	363,200					617,184	363,200	2,029,338
Interest on Additional LT Debt	6.85%	256,500			256,500			256,500			256,500			1,026,000
Interest on Environmental Expenditure		0	0	0	0	0	0	0	0	0	0	0	0	0
Interest on Private Activity Bond	4.90%					342,400						342,400		684,800
Interest on LOC		87,307	82,970	77,586	77,958	84,743	89,290	60,510	34,413	36,708	40,360	49,327	55,356	776,528
Other Interest Payments		0	0	0	229,500	229,500	0	0	0	0	0	0	0	459,000
Payment Of Environmental Clean Up		181,125			181,125			181,125			181,125			724,500
Dividends Paid - Preferred		7,125	0	0	7,125	0	0	7,125	0	0	7,125	0	0	28,500
Dividends Paid - Common		717,000	0	0	719,000	0	0	732,000	0	0	897,000	0	0	3,065,000
Proceeds Form Sale - Common Stock		(164,807)	0	0	(87,459)	0	0	(171,000)	0	0	(84,111)	0	0	(507,378)
Pension Contributions									1,790,772					1,790,772
TOTAL DEDUCTIONS		4,799,887	3,069,173	2,948,169	4,654,909	3,787,366	3,574,020	3,619,083	4,246,844	3,105,026	3,763,908	5,475,040	4,074,087	47,117,511
BALANCE		1,488,381	2,377,962	2,012,128	(101,587)	525,610	723,368	564,968	26,852	1,128,263	330,463	(1,004,518)	1,288,332	9,360,224
Increase (Decrease) in Cash Due to Fluctuation in Certain Assets & Liab.		-	-	-	-	-	-	-	-	-	-	-	-	-
Construction Requirements (including AEP)		810,019	810,946	1,128,442	959,514	987,222	885,188	743,734	1,073,005	1,106,862	1,795,352	1,452,265	1,475,051	13,227,600
Construction Adj Bare Steel Amort & Cost of Removal		83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	83,333	1,000,000
0		0	0	0	0	0	0	0	0	0	0	0	0	0
Net Const. Cash Refunds/(Contributions)		33,426	33,426	33,426	33,426	33,426	33,426	33,426	33,426	33,426	33,426	33,426	33,426	401,110
BALANCE		561,603	1,450,257	766,926	(1,177,861)	(578,371)	(278,578)	(295,525)	(1,162,911)	(95,358)	(1,581,647)	(2,573,542)	(303,478)	(5,268,486)
Add Proceeds From Financing -SunTrust LOC (See Detail Below)														0
Proceeds from Water Sale & LWG				300,000										300,000
Less Tax on Gain of Sale Water & LWG														0
Add Proceeds from Financing - BOA LOC		(600,000)	(1,500,000)	(1,000,000)	1,200,000	2,000,000		(13,500,000)	1,000,000	100,000	1,700,000	2,600,000	200,000	(7,800,000)
Less LT Debt Principal Repayments						(1,409,000)								(1,409,000)
Less Loan Expenses (LT Debt)														0
Add Proceeds from Bond Issue														0
Less Loan Expenses (Bonds)														0
Add Proceeds from Equity Issue								15,000,000						15,000,000
Less Equity Issue Expenses								(900,000)						(900,000)
Less ST Investments														0
Cash Balance - Beginning Of Period		352,495	314,097	264,354	331,280	353,420	366,049	87,471	391,946	229,034	233,676	352,029	378,487	352,495
Cash Balance - End of Period		314,097	264,354	331,280	353,420	366,049	87,471	391,946	229,034	233,676	352,029	378,487	275,009	275,009
Actual Cash Balance														
Customer Deposit - Annual Payments	458,945													
Line of Credit - Bank of America	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	26,000,000
Interest on LOC	0.10%	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	26,400
Notes Payable Balance - BOA	**19,324,000**	**16,724,000**	**17,224,000**	**16,224,000**	**17,424,000**	**19,424,000**	**19,424,000**	**5,924,000**	**6,924,000**	**7,024,000**	**8,724,000**	**11,324,000**	**11,524,000**	**11,524,000**
Interest on Borrowings	5.30%	84,000	79,400	73,900	74,300	81,400	85,800	56,000	28,400	30,800	34,800	44,300	50,500	723,600
Unused Portion of LOC	6,676,000	7,276,000	8,776,000	9,776,000	8,576,000	6,576,000	6,576,000	20,076,000	19,076,000	18,976,000	17,276,000	14,676,000	14,476,000	14,476,000
Interest on Unused Portion of LOC	0.25%	1,500	1,700	1,900	1,900	1,600	1,400	2,800	4,100	4,000	3,800	3,300	3,000	31,000
Additional LT Debt Balance	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	14,975,000	
Interest On additional LT Debt	6.85%	85,500	85,500	85,500	85,500	85,500	85,500	85,500	85,500	85,500	85,500	85,500	85,500	1,026,000
Bond	0	0	0	0	0	0	0	0	0	0	0	0	0	
Interest on Bond	5.50%	0	0	0	0	0	0	0	0	0	0	0	0	0
Private Activity Bond - Used	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	13,975,000	
Interest On Private Activity Bond	4.90%	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	685,200

		<<<<<<<<<ACTUALS >>>>>>>>>												
		Dec-2006	Jan-2007	Feb-2007	Mar-2007	Apr-2007	May-2007	Jun-2007	Jul-2007	Aug-2007	Sep-2007	Oct-2007	Nov-2007	Dec-2007
Shares Outstanding		6,166,648	6,166,648	6,170,578	6,170,578	6,170,578	6,174,667	6,174,667	6,174,667	6,178,867	6,178,867	6,178,867	6,182,983	6,182,983
DRIP	2010.1		3,930			4,089			4,200			4,116		
Total Shares Outstanding		**6,166,648**	**6,170,578**	**6,170,578**	**6,170,578**	**6,174,667**	**6,174,667**	**6,174,667**	**6,178,867**	**6,178,867**	**6,178,867**	**6,182,983**	**6,182,983**	**6,182,983**
Treasury Shares	2170.1	160,349	160,349	145,839	145,839	145,839	145,839	142,689	142,689	129,223	129,223	129,223	129,223	129,223
Employee Stock Purchase Plan	2010.1		14,510						13,466					
BOD Stock Compensation	2010.1						3,150							
		160,349	**145,839**	**145,839**	**145,839**	**145,839**	**142,689**	**142,689**	**129,223**	**129,223**	**129,223**	**129,223**	**129,223**	**129,223**
Net Shares Outstanding Excl Treasury		**6,006,299**	**6,024,739**	**6,024,739**	**6,024,739**	**6,028,828**	**6,031,978**	**6,031,978**	**6,049,644**	**6,049,644**	**6,049,644**	**6,053,760**	**6,053,760**	**6,053,760**
Total Shares Outstanding	$1.50	$ 9,249,972	$ 9,255,867	$ 9,255,867	$ 9,255,867	$ 9,262,001	$ 9,262,001	$ 9,262,001	$ 9,268,301	$ 9,268,301	$ 9,268,301	$ 9,274,475	$ 9,274,475	$ 9,274,475
GL		9,250,472	9,256,367	9,256,367	9,256,367	9,262,500	9,262,500	9,262,500	9,268,800	9,268,800	9,268,800	9,274,974	9,274,974	9,274,974
Difference to GL		$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500
Cash Flow Projections		6,006,299	6,024,739	6,024,739	6,024,739	6,028,828	6,031,978	6,031,978	6,049,644	6,049,644	6,049,644	6,053,760	6,053,760	6,053,760
		0	0	0	0	0	0	0	0	0	0	0	0	0

Exhibit 27.21
Pg. 11

		Dec-2007	Jan-2008	Feb-2008	Mar-2008	Apr-2008	May-2008	Jun-2008	Jul-2008	Aug-2008	Sep-2008	Oct-2008	Nov-2008	Dec-2008
Shares Outstanding		6,182,983	6,182,983	6,187,175	6,187,175	6,187,175	6,191,279	6,191,279	6,191,279	6,195,384	6,195,384	6,195,384	6,199,489	6,199,489
DRIP	2010.1		4,192			4,104			4,105			4,105		
Total Shares Outstanding		**6,182,983**	**6,187,175**	**6,187,175**	**6,187,175**	**6,191,279**	**6,191,279**	**6,191,279**	**6,195,384**	**6,195,384**	**6,195,384**	**6,199,489**	**6,199,489**	**6,199,489**
Treasury Shares	2170.1	129,223	129,223	115,610	115,610	115,610	115,610	111,445	111,445	97,350	97,350	97,350	97,350	97,350
Employee Stock Purchase Plan	2010.1		13,613						14,095					
BOD Stock Compensation	2010.1						4,165							
		129,223	**115,610**	**115,610**	**115,610**	**115,610**	**111,445**	**111,445**	**97,350**	**97,350**	**97,350**	**97,350**	**97,350**	**97,350**
Net Shares Outstanding Excl Treasury		**6,053,760**	**6,071,565**	**6,071,565**	**6,071,565**	**6,075,669**	**6,079,834**	**6,079,834**	**6,098,034**	**6,098,034**	**6,098,034**	**6,102,139**	**6,102,139**	**6,102,139**
Total Shares Outstanding	$1.50	$ 9,274,475	$ 9,280,763	$ 9,280,763	$ 9,280,763	$ 9,286,919	$ 9,286,919	$ 9,286,919	$ 9,293,076	$ 9,293,076	$ 9,293,076	$ 9,299,234	$ 9,299,234	$ 9,299,234
GL		9,274,974	9,281,263	9,281,263	9,281,263	9,287,419								
Difference to GL		$ 500	$ 500	$ 500	$ 500	$ 500								
Cash Flow Projections		6,053,760	6,071,565	6,071,565	6,071,565	6,075,669	6,079,834	6,079,834	6,098,034	6,098,034	6,098,034	6,102,139	6,102,139	6,102,139
		0	0	0	0	0	0	0	0	0	0	(0)	(0)	(0)

		Dec-2008	Jan-2009	Feb-2009	Mar-2009	Apr-2009	May-2009	Jun-2009	Jul-2009	Aug-2009	Sep-2009	Oct-2009	Nov-2009	Dec-2009
Shares Outstanding		6,199,489	6,199,489	6,203,681	6,203,681	6,203,681	6,207,785	6,207,785	7,571,630	7,575,737	7,575,737	7,575,737	7,579,842	7,579,842
DRIP	2010.1		4,192			4,104			4,107			4,105		
Total Shares Outstanding		**6,199,489**	**6,203,681**	**6,203,681**	**6,203,681**	**6,207,785**	**6,207,785**	**6,207,785**	**7,575,737**	**7,575,737**	**7,575,737**	**7,579,842**	**7,579,842**	**7,579,842**
Treasury Shares	2170.1	97,350	97,350	83,571	83,571	83,571	83,571	79,406	79,406	65,543	65,543	65,543	65,543	65,543
Employee Stock Purchase Plan	2010.1		13,780						13,863					
BOD Stock Compensation	2010.1						4,165							
		97,350	**83,571**	**83,571**	**83,571**	**83,571**	**79,406**	**79,406**	**65,543**	**65,543**	**65,543**	**65,543**	**65,543**	**65,543**
Net Shares Outstanding Excl Treasury		**6,102,139**	**6,120,111**	**6,120,111**	**6,120,111**	**6,124,215**	**6,128,380**	**6,128,380**	**7,510,194**	**7,510,194**	**7,510,194**	**7,514,299**	**7,514,299**	**7,514,299**
Shares @ par value	$1.50	$ 9,299,234	$ 9,305,522	$ 9,305,522	$ 9,305,522	$ 9,311,678	$ 9,311,678	$ 9,311,678	$ 11,363,605	$ 11,363,605	$ 11,363,605	$ 11,369,762	$ 11,369,762	$ 11,369,762
Cash Flow Projections		6,102,139	6,120,110	6,120,110	6,120,110	6,124,215	6,128,380	6,128,380	7,510,195	7,510,195	7,510,195	7,514,300	7,514,300	7,514,300
		(0)	1	1	1	(0)	(0)	(0)	(1)	(1)	(1)	(1)	(1)	(1)

FPU
Long Term Debt
Actual Dec 2006 - Aug 2008

BONDS
100.2210.1

		Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 Mth Avg
$10M	9.57 % due 2018	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000
$5.5M	10.03 % due 2018	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000
$8M	9.08 % due 2022	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000
$15M	6.85 % due 2031	$ 15,000,000	$ 15,000,000	$ 15,000,000	$ 15,000,000	$ 15,000,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,993,846
$14M	4.90 % due 2031	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000
		$ 52,500,000	$ 52,500,000	$ 52,500,000	$ 52,500,000	$ 52,500,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,493,846

BONDS		Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 Mth Avg
$10M	9.57 % due 2018	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,440,615
$5.5M	10.03 % due 2018	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,192,308
$8M	9.08 % due 2022	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000
$15M	6.85 % due 2031	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,983,077
$14M	4.90 % due 2031	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,968,462
		$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 51,081,000	$ 51,081,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,604,462

Redemption

BONDS		Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 Mth Avg
$10M	9.57 % due 2018	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,531,615
$5.5M	10.03 % due 2018	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,692,308
$8M	9.08 % due 2022	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000
$15M	6.85 % due 2031	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000
$14M	4.90 % due 2031	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000
		$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 50,173,923

UNAMORTIZED DEBT DISCOUNT
100.1810.1

	Monthly Amortization		Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 Mth Avg
$10M	$	601	$ 45,671	$ 45,070	$ 44,469	$ 43,869	$ 43,268	$ 42,667	$ 42,066	$ 41,465	$ 40,864	$ 40,263	$ 39,662	$ 39,061	$ 38,460	$ 42,066
$5.5M	$	324	$ 24,590	$ 24,267	$ 23,943	$ 23,620	$ 23,296	$ 22,972	$ 22,649	$ 22,325	$ 22,002	$ 21,678	$ 21,355	$ 21,031	$ 20,707	$ 22,649
$8M	$	339	$ 63,036	$ 62,697	$ 62,358	$ 62,019	$ 61,680	$ 61,341	$ 61,002	$ 60,664	$ 60,325	$ 59,649	$ 59,310	$ 58,971	$ 58,632	$ 60,899
$15M	$	3,357	$ 997,152	$ 993,795	$ 990,438	$ 987,080	$ 983,723	$ 980,365	$ 978,438	$ 976,080	$ 972,723	$ 969,366	$ 966,008	$ 962,651	$ 959,293	$ 978,316
$14M	$	2,239	$ 667,269	$ 665,029	$ 662,790	$ 660,551	$ 658,312	$ 656,072	$ 654,818	$ 652,579	$ 650,341	$ 648,103	$ 645,864	$ 643,625	$ 641,386	$ 654,365
	$	6,860	$ 1,797,719	$ 1,790,859	$ 1,783,999	$ 1,777,139	$ 1,770,278	$ 1,763,418	$ 1,759,973	$ 1,753,113	$ 1,746,255	$ 1,738,059	$ 1,732,199	$ 1,725,339	$ 1,718,480	$ 1,758,295

	Monthly Amortization		Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 Mth Avg
$10M	$	601 $546	$ 38,460	$ 37,860	$ 37,259	$ 36,658	$ 36,057	$ 35,511	$ 34,965	$ 34,419	$ 33,873	$ 33,327	$ 32,781	$ 32,235	$ 31,689	$ 35,007
$5.5M	$	324 $294	$ 20,707	$ 20,384	$ 20,060	$ 19,737	$ 19,413	$ 19,119	$ 18,825	$ 18,531	$ 18,237	$ 17,943	$ 17,649	$ 17,355	$ 17,061	$ 18,848
$8M	$	339	$ 58,632	$ 58,293	$ 57,954	$ 57,615	$ 57,277	$ 56,938	$ 56,599	$ 56,260	$ 55,921	$ 55,582	$ 55,243	$ 54,904	$ 54,565	$ 56,599
$15M	$	3,357	$ 959,293	$ 955,936	$ 952,578	$ 949,221	$ 945,864	$ 942,506	$ 939,149	$ 935,791	$ 932,434	$ 929,076	$ 925,719	$ 922,362	$ 919,004	$ 939,149
$14M	$	2,239	$ 641,386	$ 639,147	$ 636,908	$ 634,669	$ 632,430	$ 630,191	$ 627,952	$ 625,713	$ 623,474	$ 621,235	$ 618,996	$ 616,757	$ 614,518	$ 627,952
	$	6,860	$ 1,718,480	$ 1,711,620	$ 1,704,760	$ 1,697,900	$ 1,691,041	$ 1,684,265	$ 1,677,490	$ 1,670,715	$ 1,663,939	$ 1,657,164	$ 1,650,388	$ 1,643,613	$ 1,636,838	$ 1,677,555

	Monthly Amortization		Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 Mth Avg
$10M	$	546 $492	$ 31,689	$ 31,143	$ 30,597	$ 30,051	$ 29,505	$ 29,013	$ 28,521	$ 28,029	$ 27,537	$ 27,045	$ 26,553	$ 26,061	$ 25,569	$ 28,562
$5.5M	$	294 $265	$ 17,061	$ 16,787	$ 16,473	$ 16,179	$ 15,885	$ 15,620	$ 15,355	$ 15,090	$ 14,825	$ 14,560	$ 14,295	$ 14,030	$ 13,765	$ 15,378
$8M	$	339	$ 54,565	$ 54,226	$ 53,887	$ 53,548	$ 53,209	$ 52,871	$ 52,532	$ 52,193	$ 51,854	$ 51,515	$ 51,176	$ 50,837	$ 50,498	$ 52,532
$15M	$	3,357	$ 919,004	$ 915,647	$ 912,289	$ 908,932	$ 905,575	$ 902,217	$ 898,860	$ 895,502	$ 892,145	$ 888,787	$ 885,430	$ 882,073	$ 878,715	$ 898,860
$14M	$	2,239	$ 614,518	$ 612,279	$ 610,040	$ 607,801	$ 605,562	$ 603,323	$ 601,084	$ 598,845	$ 596,606	$ 594,367	$ 592,128	$ 589,889	$ 587,650	$ 601,084
	$	6,775	$ 1,636,838	$ 1,630,082	$ 1,623,287	$ 1,616,512	$ 1,609,736	$ 1,603,044	$ 1,596,352	$ 1,589,659	$ 1,582,967	$ 1,576,275	$ 1,569,582	$ 1,562,890	$ 1,556,198	$ 1,596,416

LOSS ON RE'ACQD DEBT
100.1890.1

	Monthly Amortization		Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 Mth Avg
	$	1524	$ 208,741	$ 207,217	$ 205,694	$ 204,170	$ 202,646	$ 201,123	$ 199,599	$ 198,075	$ 196,552	$ 195,028	$ 193,504	$ 191,981	$ 190,457	$ 199,599

	Monthly Amortization		Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 Mth Avg
	$	1524	$ 190,457	$ 188,933	$ 187,410	$ 185,886	$ 184,362	$ 182,839	$ 181,315	$ 179,791	$ 178,268	$ 176,744	$ 175,220	$ 173,697	$ 172,173	$ 181,315

	Monthly Amortization		Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 Mth Avg
	$	1524	$ 172,173	$ 170,650	$ 169,126	$ 167,602	$ 166,079	$ 164,555	$ 163,031	$ 161,508	$ 159,984	$ 158,460	$ 156,937	$ 155,413	$ 153,889	$ 163,031

Total 1810.1 & 1890.1		DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	13 Mth Avg
	2007	$ 2,006,460	$ 1,998,076	$ 1,989,692	$ 1,981,309	$ 1,972,925	$ 1,964,541	$ 1,959,572	$ 1,951,186	$ 1,942,807	$ 1,934,067	$ 1,925,703	$ 1,917,320	$ 1,908,937	$ 1,957,894
	2008	$ 1,908,937	$ 1,900,553	$ 1,892,170	$ 1,883,786	$ 1,875,403	$ 1,867,104	$ 1,858,805	$ 1,850,506	$ 1,842,207	$ 1,833,908	$ 1,825,609	$ 1,817,310	$ 1,809,011	$ 1,858,870
	2009	$ 1,809,011	$ 1,800,712	$ 1,792,413	$ 1,784,114	$ 1,775,815	$ 1,767,599	$ 1,759,383	$ 1,751,167	$ 1,742,951	$ 1,734,735	$ 1,726,519	$ 1,718,303	$ 1,710,087	$ 1,759,447
	2007	$ 50,493,540	$ 50,501,924	$ 50,510,308	$ 50,518,691	$ 50,527,075	$ 50,525,459	$ 50,530,428	$ 50,538,812	$ 50,547,193	$ 50,555,913	$ 50,564,297	$ 50,572,680	$ 50,581,063	$ 50,535,953
	2008	$ 50,581,063	$ 50,589,447	$ 50,597,830	$ 50,606,214	$ 50,614,597	$ 49,213,896	$ 49,222,195	$ 49,190,494	$ 49,198,793	$ 49,207,092	$ 49,215,391	$ 49,223,890	$ 49,231,989	$ 49,745,592
	2009	$ 49,231,989	$ 49,240,288	$ 49,248,587	$ 49,256,886	$ 49,265,185	$ 47,864,401	$ 47,872,617	$ 47,880,833	$ 47,889,049	$ 47,897,265	$ 47,905,481	$ 47,913,697	$ 47,921,913	$ 48,414,476

EFFECTIVE COST OF ST DEBT
2007

	2006 DEC	2007 JAN	2007 FEB	2007 MAR	2007 APR	2007 MAY	2007 JUN	2007 JUL	2007 AUG	2007 SEP	2007 OCT	2007 NOV	2007 DEC	TOTAL or Average %	Rate	
Method as per Surveillance Report																
Int Accrued on NP		20,437	8,046	2,565	2,784	4,380	2,229	24,030	17,791	15,739	31,348	25,390	31,971	186,710		
NP BAL @ End of Mth	3,466,000	3,964,000	2,243,000	2,215,000	3,120,000	1,460,000	1,105,000	3,552,000	3,468,000	9,248,000	7,156,000	6,383,000	11,122,000	4,500,154	4.15%	Using End of Month Balance
Annualized Interest Rate		5.99%	4.61%	1.34%	1.07%	3.48%	2.42%	7.86%	5.96%	2.04%	5.09%	4.77%	3.34%	4.15%		
Avg Int Rate as per Sch L		6.22%	6.22%	6.22%	6.22%	6.22%	6.22%	6.22%	6.44%	6.34%	5.82%	5.87%	5.82%	6.15%		Average Cost Rate using daily balances
Interest Cost using Avg Mthly Bal																
Int Exp		20,437	8,046	2,565	2,784	4,380	2,229	24,030	17,791	15,739	31,348	25,390	31,971	186,710		
Avg LOC Balance as per Sch L		3,741,355	1,582,857	544,806	660,367	793,452	339,567	4,152,097	3,240,452	3,883,200	5,869,452	5,208,500	6,644,967	3,055,089	6.11%	Using Avg LOC Mthly Bal
		6.34%	6.54%	5.47%	5.06%	6.41%	7.88%	6.72%	6.38%	4.86%	6.20%	5.85%	5.59%	6.11%		
Effective Cost of ST Debt																
LOC Available	$ 12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000			
Int Exp		$ 20,437	$ 8,046	$ 2,565	$ 2,784	$ 4,380	$ 2,229	$ 24,030	$ 17,791	$ 15,739	$ 31,348	$ 25,390	$ 31,971	$ 186,710	6.11%	
Fee on Unused Portion of LOC	0.25%	$ 1,778	$ 2,276	$ 2,466	$ 2,446	$ 2,413	$ 2,429	$ 1,689	$ 1,886	$ 1,691	$ 1,320	$ 1,415	$ 1,153	$ 22,962	0.75%	
Fee on Total Available LOC	0.10%	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 12,000	0.39%	
		23,215	11,322	6,031	6,230	7,793	5,658	26,719	20,677	18,430	33,668	27,805	34,124	221,672	7.26%	
Ratio of Average Daily Balance to	0.0000	0.9438	0.7057	0.2460	0.2117	0.5435	0.3073	1.1689	0.9344	0.4199	0.8202	0.8160	0.5975	0.5934		
														0.68		

Florida Public Utilities
ST Debt Effective Cost
Projected Prior Year 2008
Witnesses: Camfield, Cox

Effective Cost of Short Term Debt

	Nominal Rate
Projected Fed Funds	2.26%
LIBOR Margin	0.17%
BOA Spread [8]	0.80%
BOA Projected Int Rate	3.23%
BOA Fee on Unused Portion of LOC	0.25%
BOA Fee on Total Available LOC	0.10%
Cost of ST Debt	3.58%

Total Int Exp & Fees	$ 329,064	= 3.93%
Average LOC Balance	$ 8,383,168	

		2007 DEC	2008 JAN	2008 FEB	2008 MAR	2008 APR	2008 MAY	2008 JUN	2008 JUL	2008 AUG	2008 SEP	2008 OCT	2008 NOV	2008 DEC	Effective Cost of ST Debt
Projected Credit Limit	[1]	**12,000,000**	**12,000,000**	**12,000,000**	**12,000,000**	**15,000,000**	**15,000,000**	**15,000,000**	**15,000,000**	**15,000,000**	**15,000,000**	**15,000,000**	**26,000,000**	**26,000,000**	
LOC Ending Balance	[2]	11,122,000	9,230,000	6,614,000	9,680,000	8,181,000	10,803,000	12,529,000	10,388,000	10,924,000	11,124,000	13,324,000	17,824,000	19,324,000	Average Balance based month end 11,620,538
Average Monthly LOC Balance	[3]		8,479,484	6,655,690	6,753,935	6,584,107	7,334,000	8,505,757	7,052,263	7,416,146	7,551,923	9,045,471	12,100,456	13,118,784	Average Balance based on monthly avg 8,383,168
		Nominal Rate													Total Expense
BOA Projected Int Rate	[4]	3.23%	$ 39,075	$ 21,946	$ 20,059	$ 19,575	$ 19,741	$ 22,895	$ 18,982	$ 19,962	$ 20,327	$ 24,347	$ 32,570	$ 35,311	$ 294,791 3.52%
BOA Fee on Unused Portion of LOC	[5]	0.25%	$ 758	$ 1,076	$ 1,129	$ 1,753	$ 1,597	$ 1,353	$ 1,656	$ 1,580	$ 1,552	$ 1,241	$ 2,896	$ 2,684	$ 19,273 0.23%
BOA Fee on Total Available LOC	[6]	0.10%						$ 15,000							$ 15,000 0.18%
			39,833	23,022	21,188	21,328	21,338	39,248	20,638	21,542	21,879	25,588	35,466	37,995	329,064 3.93%

Notes:

[1] Available LOC can be increased to $26M with 30 days written notice.
[2] Projected Month-end LOC balance May - Dec 2008 as per Cash Forecast.
[3] Average Monthly Balance.
[4] BOA Agreement calulates interest on the daily balance outstanding, which fluctuates significantly.
[5] BOA Agreement - 0.25% per annum of the average daily unused amount of the availability.
[6] BOA Agreement - 0.10% of the availability on June 30th.
[7] Actuals - Jan - Apr 2008
[8] BOA spread reduced from 0.9% to 0.8% in March 2008

Florida Public Utilities
ST Debt Effective Cost
Projected Test Year 2009
Witnesses: Camfield, Cox

Effective Cost of Short Term Debt

	Nominal Rate	Effective Cost
Projected Fed Funds	2.98%	2.98%
LIBOR Margin	0.17%	0.17%
BOA Spread	0.80%	0.80%
BOA Projected Int Rate	3.95%	3.95%
BOA Fee on Unused Portion of LOC	0.25%	0.47%
BOA Fee on Total Available LOC	0.10%	0.29%
Cost of ST Debt	4.30%	4.71%

Total Int Exp & Fees	$ 425,682	=	4.71%
Average LOC Balance	$ 9,045,471		

		2008 DEC	2009 JAN	2009 FEB	2009 MAR	2009 APR	2009 MAY	2009 JUN	2009 JUL	2009 AUG	2009 SEP	2009 OCT	2009 NOV	2009 DEC	Effective Cost of ST Debt	
Projected Credit Limit	[1]	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**		
LOC Ending Balance	[2]	19,324,000	18,724,000	17,224,000	16,224,000	17,424,000	19,424,000	19,424,000	5,924,000	6,924,000	7,024,000	8,724,000	11,324,000	11,524,000	Average Balance based month end 13,785,538	
Average Monthly LOC Balance	[3]		12,711,453	11,693,124	11,014,239	11,828,901	13,186,673	13,186,673	4,021,718	4,700,603	4,768,492	5,922,597	7,687,700	7,823,477	Average Balance based on monthly avg 9,045,471	
		Nominal Rate													Total Expense	
BOA Projected Int Rate	[4]	3.95%	$ 41,842	$ 38,490	$ 36,255	$ 38,937	$ 43,406	$ 43,406	$ 13,238	$ 15,473	$ 15,696	$ 19,495	$ 25,305	$ 25,752	$ 357,296	3.95%
BOA Fee on Unused Portion of LOC	[5]	0.25%	$ 2,768	$ 2,981	$ 3,122	$ 2,952	$ 2,669	$ 2,669	$ 4,579	$ 4,437	$ 4,423	$ 4,183	$ 3,815	$ 3,787	$ 42,386	0.47%
BOA Fee on Total Available LOC	[6]	0.10%						$ 26,000							$ 26,000	0.29%
			44,610	41,470	39,377	41,889	46,076	72,076	17,817	19,910	20,120	23,678	29,120	29,539	425,682	4.71%

Notes:

[1] Available LOC $26M
[2] Projected Month-end LOC balance as per Cash Forecast.
[3] Average Monthly Balance.
[4] BOA Agreement calulates interest on the daily balance outstanding, which fluctuates significantly.
[5] BOA Agreement - 0.25% per annum of the average daily unused amount of the availability.
[6] BOA Agreement - 0.10% of the availability on June 30th.

Projected Equity Issue	*Jul-2009*			
Price per Share	$ 11.00			
Projected Number of Shares	1,363,845			
Gross Proceeds		15,000,000		
Projected Issuance Costs	*2140*	(900,000)		
Net Proceeds		14,100,000		
Par Value	*2010*	2,045,767	$	1.50
Premium on Common Stock	*2070*	12,954,233		

Equity	15,000,000
Debt	-
	15,000,000

Average Share Price (AMEX)	2008	Jan	$	11.61
		Feb	$	11.81
		Mar	$	11.55
		Apr	$	11.19
		May	$	11.21
		Jun	$	11.66
		Jul	$	11.84
		Average	$	11.55
		Discounted by 4.8%	$	11.00

Florida Public Utilities
Accumulated Deferred Income Taxes
2007

	SL #	Dec-07
1900		
Category		
Self Insurance	**2	524,110
Audit Fees	**3	26,596
Uncollectible	**1	87,815
Vacation Pay	**6	203,563
General Liability	*15 & *25	46,757
Miscellaneous Accrual	*35 & *45	0
Rate Refund	*40	9,908
True-Up	*34 & *44	0
Storm Reserve	150 & 250	230,587
Environmental	**9	2,249,050
Over / Under Rec - Unbundling	151 & 251	0
Deferred Gain	111 &221	0
Total		3,378,384
2820		
Property		(8,744,801)
2821		
Regulatory Liability		(728,907)
2830		
Unbundled	109 & 209	0
Undercovery	111	0
Underrecovered Purchase	221	0
Conservation Cost	113 & 223	161,278
Pension	114 & 224	836,837
Loss on Reacquired Debt	118 & 228	(40,852)
Odorizer	112 222	(10,272)
AEP	115 255 256	0
Rate Case	117 &227	(90,460)
Refurbished	156	0
Sub Total		856,531
Total		(5,814,977)
	NET	(5,236,593)
LESS UNDERRECOVERIES NOT INCL FOR COC:		0
		(5,236,593)
100.2530.3 & .31 Environmental Liability		5,978,746
Tax on Environ Liab &2530.3 & .31	Exclude for COC	2,249,050
Taxable Contribution	Include for COC	
Taxable Contribution	Include for COC	
		2,249,050
MEMO:		
LESS ACCOUNTS NOT INCL - ENVIRONMENTAL	**9	
	139	1,920,329
	249	328,721
1900	139 & 249 **9	2,249,050
COC SUMMARY		5,236,593
DIFFERENCE		0

DEFERRED TAX RECONCILIATION TO SCH B-18	Dec 2007
COC SUMMARY	5,236,593
UNDERRECOVERIES NOT INCL FOR COC:	0
NET BALANCE AS PER B-18	5,236,593

3LIC UTILITIES CORP.

TURAL GAS
CCUMULATED DEFERRED INCOME TAXES

ACCT#		ACCOUNT DESCRIPTION	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07
1900	**9	ACCUM DEF TAX - ENVIRONMENTAL	2,062,991	2,081,738	2,092,448	2,114,851	2,129,135	2,154,977	2,164,531	2,187,289	2,199,718	2,205,069	2,226,410	2,234,568	2,249,050
1900	111	ACCUM DEF TAX-DEF GAIN FE	13,062	9,838	6,613	3,389	2,542	1,695	847	0	0	0	0	0	0
1900	112	ACCUM DEF TAXES-SELF	429,768	431,989	434,385	437,254	439,760	442,136	442,068	444,444	446,974	448,234	450,441	452,722	447,507
1900	115	ACC DEF TXS-GEN LIAB	32,646	30,975	25,215	20,172	20,433	17,231	26,768	22,082	15,934	27,471	28,492	29,795	39,923
1900	116	ACCUM DEF TXS-VACATI	167,623	167,623	167,623	167,623	167,623	167,623	167,623	167,623	167,623	164,843	164,843	164,843	173,811
1900	131	ACC FED DEF EL-UNCOL	94,880	90,453	92,788	97,576	97,316	89,821	95,875	91,714	93,385	87,034	84,065	81,636	74,980
1900	133	ACC DEF TXS-OUTSID A	17,669	25,861	33,621	39,671	34,798	36,087	38,328	44,503	47,833	41,696	51,128	45,418	22,709
1900	134	ACC DEF - TRUE-UP													
1900	135	ACC DEF TAXES-MISC A	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	140	ACC DEF TAX -RATE REF	231,801	231,801	231,799	216,891	216,891	216,891	244,246	244,246	244,246	8,033	8,033	8,033	8,458
1900	150	ACC DEF TAX - STORM RESERV	-91,033	-84,442	-77,800	-70,838	-65,237	-60,631	-56,278	-52,445	-48,939	192,707	196,884	196,884	196,884
1900	151	ACC DEF TAX - OVER/UNDER REC UNBUND	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	221	ACCUM DEF TAX - DEF GAIN ST	2,236	1,684	1,132	580	435	290	145	0	0	0	0	0	0
1900	222	ACCUM DEF TXS-SELF I	73,568	73,947	74,358	74,849	75,278	75,685	75,673	76,080	76,513	76,728	77,107	77,497	76,603
1900	224	ACCUM DEF TXS-PENS	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	225	ACC DEF TXS-GEN LIAB	5,588	5,302	4,316	3,453	3,498	2,950	4,582	3,780	2,728	4,703	4,878	5,100	6,834
1900	226	ACCUM DEF TXS-VACATI	28,693	28,693	28,693	28,693	28,693	28,693	28,693	28,693	28,693	28,218	28,218	28,218	29,752
1900	240	ACC DEF TAX - RATE REF -S	39,690	39,690	39,692	37,140	37,140	37,140	41,810	41,810	41,810	1,375	1,375	1,375	1,448
1900	241	ACC STATE DEF-UNCOLL	16,242	15,484	15,883	16,703	16,658	15,376	16,412	15,700	15,986	14,898	14,390	13,974	12,835
1900	243	ACC DEF TXS-OUTSID A	3,024	4,427	5,755	6,790	5,957	6,177	6,561	7,618	8,188	7,138	8,752	7,775	3,887
1900	244	ACC DEF - TRUE-UP													
1900	245	ACC DEF TXS-MISC ACC	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	250	ACC DEF TAX - STORM RESERV	-15,583	-14,455	-13,318	-12,126	-11,167	-10,379	-9,634	-8,978	-8,377	32,988	33,703	33,703	33,703
1900	251	ACC DEF TAX - OVER/UNDER REC UNBUND	0	0	0	0	0	0	0	0	0	0	0	0	0
			3,112,865	3,140,608	3,163,203	3,182,671	3,199,753	3,221,762	3,268,250	3,314,159	3,332,315	3,341,135	3,378,719	3,381,531	3,378,384
2820	100	LONG-TERM LIBERALIZE	-8,648,788	-8,625,063	-8,594,821	-8,583,469	-8,467,625	-8,437,898	-8,399,944	-8,363,141	-8,325,786	-8,317,450	-8,304,213	-8,289,690	-7,700,038
2820	200	LONG-TERM LIBERALIZE	-1,480,491	-1,476,430	-1,471,253	-1,469,309	-1,449,480	-1,444,391	-1,437,894	-1,431,594	-1,425,200	-1,423,772	-1,421,507	-1,419,020	-1,318,088
2820	300	ACCUM DEFERRED TAXES	291,153	291,153	291,153	291,153	291,153	291,153	291,153	291,153	291,153	291,153	291,153	291,153	273,525
			-9,838,126	-9,810,340	-9,774,921	-9,761,625	-9,625,952	-9,591,136	-9,546,685	-9,503,582	-9,459,833	-9,450,069	-9,434,567	-9,417,557	-8,744,601
2830	109	UNBUNDLING	0	0	0	0	0	0	0	0	0	0	0	0	0
2830	110	ACC DEF TAXES-DEP ST	0	0	0	0	0	0	0	0	0	0	0	0	0
2830	111	ACC FED DEF EL-UNDER	0	0	0	0	0	0	0	0	0	0	0	0	0
2830	112	ODORIZER	-12,333	-12,037	-11,739	-11,442	-11,146	-10,849	-10,552	-10,255	-9,958	-9,661	-9,364	-9,067	-8,771
2830	113	ACC FED DEF EL-CONSE	99,819	157,033	205,343	234,943	212,943	222,626	188,913	195,253	177,208	158,017	126,979	129,291	137,705
2830	114	ACCUM DEF TAXES-PENS	424,870	490,362	510,684	559,634	550,420	580,285	571,072	600,937	577,787	561,499	590,578	619,657	714,527
2830	117	ACC DEF RATE CASE - FEDERAL	-56,954	-54,581	-52,208	-49,835	-47,461	-45,088	-42,715	-40,342	-37,969	-35,596	-33,223	-30,850	-77,238
2830	118	ACC FED DEF-LOSS ON	-37,559	-37,950	-37,671	-37,392	-37,113	-36,834	-36,555	-36,276	-35,997	-35,718	-35,438	-35,159	-34,881
2830	155	AEP	0	0	0	0	0	0	0	0	0	0	0	0	0
2830	156	REFURBISHING	0	0	0	0	0	0	0	0	0	0	0	0	0
2830	209	UNBUNDLING	0	0	0	0	0	0	0	0	0	0	0	0	0
2830	220	ACC DEF TAXES-DEP ST	0	0	0	0	0	0	0	0	0	0	0	0	0
2830	221	ACC DEF UNDERREC PUR	0	0	0	0	0	0	0	0	0	0	0	0	0
2830	222	ODORIZER	-2,111	-2,060	-2,010	-1,959	-1,908	-1,857	-1,806	-1,755	-1,705	-1,654	-1,603	-1,552	-1,501
2830	223	ACC DEF EL- CONSERV	17,087	26,881	35,150	40,217	36,451	38,109	32,338	33,424	30,334	27,049	21,736	22,132	23,573
2830	224	ACCUM DEF TXS-PENSIO	72,729	83,939	87,419	95,798	94,220	99,333	97,756	102,869	98,906	96,117	101,095	106,073	122,310
2830	227	ACC DEF RATE CASE - STATE	-9,749	-9,343	-8,937	-8,531	-8,124	-7,718	-7,312	-6,906	-6,500	-6,093	-5,687	-5,281	-13,222
2830	228	ACC STATE DEF-LOSS R	-6,429	-6,496	-6,448	-6,401	-6,353	-6,306	-6,257	-6,210	-6,162	-6,115	-6,066	-6,019	-5,971
2830	255	AEP	0	0	0	0	0	0	0	0	0	0	0	0	0
2830	256	AEP	0	0	0	0	0	0	0	0	0	0	0	0	0
			489,370	635,748	719,583	815,032	781,929	831,701	784,882	830,739	785,944	747,845	749,007	789,225	856,531
		TOTALS	-6,235,891	-6,033,984	-5,892,135	-5,763,922	-5,644,270	-5,537,673	-5,473,553	-5,358,684	-5,341,574	-5,361,089	-5,306,841	-5,246,801	-4,509,686
2821	****	REGULATORY LIABILITY	-773,754	-773,754	-773,754	-773,754	-773,754	-773,754	-773,754	-773,754	-773,754	-773,754	-773,754	-773,754	-726,907
2830	221	ACC DEF UNDERREC PUR	0	0	0	0	0	0	0	0	0	0	0	0	0
2830	111	ACC FED DEF EL-UNDER	0	0	0	0	0	0	0	0	0	0	0	0	0
			-7,009,645	-6,807,738	-6,665,889	-6,537,676	-6,418,024	-6,311,427	-6,247,307	-6,132,438	-6,115,328	-6,134,843	-6,080,595	-6,020,555	-5,236,593
		BALANCE AS PER COC SCHEDULE	-7,009,645	-6,807,738	-6,665,889	-6,537,676	-6,418,024	-6,311,427	-6,247,307	-6,132,438	-6,115,328	-6,134,843	-6,080,595	-6,020,555	-5,236,593
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0

Florida Public Utilities
Accumulated Deferred Income Taxes
2007

GAS

	SL #	Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 MTH AVG
1900															
Category															
Self Insurance	**2	503,336	505,936	508,743	512,103	515,038	517,821	517,741	520,524	523,487	524,962	527,548	530,219	524,110	517,813
Audit Fees	**3	20,693	30,288	39,376	46,461	40,755	42,264	44,889	52,121	56,021	48,834	59,880	53,193	26,596	43,182
Uncollectible	**1	111,122	105,937	108,671	114,279	113,974	105,197	112,287	107,414	109,371	101,932	98,455	95,610	87,815	105,543
Vacation Pay	**6	196,316	196,316	196,316	196,316	196,316	196,316	196,316	196,316	196,316	193,061	193,061	193,061	203,563	196,122
General Liability	*15 & *25	38,234	36,277	29,531	23,625	23,931	20,181	31,350	25,862	18,662	32,174	33,370	34,895	46,757	30,373
Miscellaneous Accrual	*35 & *45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rate Refund	*40	271,491	271,491	271,491	254,031	254,031	254,031	286,056	286,056	286,056	9,408	9,408	9,408	9,906	190,220
True-Up	*34 & *44	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Storm Reserve	150 & 250	(106,616)	(98,897)	(91,118)	(82,964)	(76,404)	(71,010)	(65,912)	(61,423)	(57,316)	225,695	230,587	230,587	230,587	15,830
Environmental	**9	2,062,991	2,081,738	2,092,448	2,114,851	2,129,135	2,154,977	2,164,531	2,187,289	2,199,718	2,205,069	2,226,410	2,234,558	2,249,050	2,161,751
Over / Under Rec - Unbundling	151 & 251	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deferred Gain	111 &221	15,298	11,522	7,745	3,969	2,977	1,985	992	0	0	0	0	0	0	3,422
Total		3,112,865	3,140,608	3,163,203	3,182,671	3,199,753	3,221,762	3,288,250	3,314,159	3,332,315	3,341,135	3,378,719	3,381,531	3,378,384	3,264,258
2820															
Property		(9,838,126)	(9,810,340)	(9,774,921)	(9,761,625)	(9,625,952)	(9,591,136)	(9,546,685)	(9,503,582)	(9,459,833)	(9,450,069)	(9,434,567)	(9,417,557)	(8,744,601)	(9,535,307)
2821															
Regulatory Liability		(773,754)	(773,754)	(773,754)	(773,754)	(773,754)	(773,754)	(773,754)	(773,754)	(773,754)	(773,754)	(773,754)	(773,754)	(726,907)	(770,150)
2830															
Unbundled	109 & 209	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underecovery	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underrecovered Purchase	221	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Conservation Cost	113 & 223	116,906	183,914	240,493	275,160	249,394	260,735	221,251	228,677	207,542	185,066	148,715	151,423	161,278	202,350
Pension	114 & 224	497,599	574,301	598,103	655,432	644,840	679,618	668,828	703,806	676,693	657,616	691,673	725,730	836,837	662,375
Loss on Reacquired Debt	118 & 228	(43,988)	(44,446)	(44,119)	(43,793)	(43,466)	(43,140)	(42,812)	(42,486)	(42,159)	(41,833)	(41,504)	(41,178)	(40,852)	(42,752)
Odorizer	112 222	(14,444)	(14,097)	(13,749)	(13,401)	(13,054)	(12,706)	(12,358)	(12,010)	(11,663)	(11,315)	(10,967)	(10,619)	(10,272)	(12,358)
AEP	115 255 256	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rate Case	117 &227	(66,703)	(63,924)	(61,145)	(58,366)	(55,585)	(52,806)	(50,027)	(47,248)	(44,469)	(41,689)	(38,910)	(36,131)	(90,460)	(54,420)
Refurbished	156	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total		489,370	635,748	719,583	815,032	781,929	831,701	784,882	830,739	785,944	747,845	749,007	789,225	856,531	755,195
Total		(10,122,510)	(9,948,346)	(9,829,092)	(9,720,347)	(9,617,777)	(9,533,189)	(9,535,557)	(9,446,597)	(9,447,643)	(9,475,978)	(9,459,314)	(9,402,086)	(8,614,977)	(9,550,263)
	NET	(7,009,645)	(6,807,738)	(6,665,889)	(6,537,676)	(6,418,024)	(6,311,427)	(6,247,307)	(6,132,438)	(6,115,328)	(6,134,843)	(6,080,595)	(6,020,555)	(5,236,593)	(6,286,004)

BALANCE SHEET - DEFERRED INCOME TAXES

		PROJECTED 12/2009	PROJECTED 12/2008	Consolidated Natural Gas 12/2007	12/2006	12/2005
Deferred tax assets:						
Environmental						
Environmental - Current	C	2,580,181	2,407,784	2,249,050	2,062,991	1,931,582
Self insurance		582,219	555,925	524,110	503,336	460,481
Vacation pay	C	232,472	220,420	203,563	196,316	169,849
Other deferred credits - Gain	C			-	15,298	60,612
Alternative Minimum Tax				-	-	
Allowance for uncollectible accounts	C	89,131	96,461	87,815	111,122	70,523
Outside Audit Fees	C	35,664	30,674	26,596	20,693	18,441
General liability	C	40,120	39,491	46,757	38,234	61,289
Storm reserve liability		230,587	230,587	230,587	(106,616)	(159,201)
Charitable Contribution C/F						
Net Operating Loss						
Misc. Accruals				-	-	
Rate Refund		9,906	9,906	9,906	271,491	263,438
Under/Over Recoveries-Unbundling	C			-	-	
Cust Intangible		670,188	670,188			
Pension - SFAS 158						
Other						
Total deferred tax assets		4,470,466	4,261,435	3,378,384	3,112,865	2,877,014
Deferred tax liabilities:						
Utility plant related		8,018,001	8,624,709	8,744,601	9,838,126	8,984,384
		-	-			
Regulatory Liability		631,273	678,767	726,907	773,754	823,188
		-	-			
Pension		(1,463,242)	(1,141,361)	(836,837)	(497,599)	(227,789)
Pension - Current	C					
Pension - SFAS 158		-	-			
Rate case expense		95,143	85,663	90,460	66,703	100,054
Loss on Reacquired Debt		34,683	37,785	40,852	43,988	46,987
Under/Over Recoveries-Conservation Costs	C	(327,827)	(257,520)	(161,278)	(116,906)	31,206
IRS Audit		49,571	49,571			
Other		11,836	12,705	10,272	14,444	5,406
Total deferred tax liabilities		7,049,437	8,090,318	8,614,977	10,122,510	9,763,436
Net deferred income taxes		$ 2,578,971	$ 3,828,883	$ 5,236,593	$ 7,009,645	$ 6,886,422

Projection based on 2005 - 2007 trend			
Projection based on 2007	$ -	$ -	$ -
Projection based on April 2008 actual			
Projection based on 2006 - 2008 trend			

Florida Public Utilities
Accumulated Deferred Income Taxes
2008

(Actual Dec 2007 - Apr 2008)

GAS

	SL #	Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 MTH AVG
1900															
Category															
Self Insurance	**2	524,110	525,044	533,547	535,068	537,213	556,840	556,835	557,011	557,198	557,291	557,455	557,624	555,925	547,012
Audit Fees	**3	26,596	31,246	17,494	28,004	25,937	34,924	35,441	36,866	37,635	36,219	38,395	37,078	30,674	32,039
Uncollectible	**1	87,815	96,190	101,145	109,600	113,189	96,000	96,552	96,172	96,325	95,746	95,475	95,254	96,461	98,148
Vacation Pay	**6	203,563	203,563	203,564	212,308	212,308	220,420	220,420	220,420	220,420	220,141	220,141	220,141	220,420	215,218
General Liability	*15 & *25	46,757	(838)	47,055	44,754	46,680	42,922	40,799	41,842	43,210	40,643	40,415	40,126	39,491	39,527
Miscellaneous Accrual	*35 & *45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rate Refund	*40	9,906	9,906	9,906	9,989	9,989	9,989	9,989	9,989	9,989	9,989	9,989	9,989	9,906	9,963
True-Up	*34 & *44	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Storm Reserve	150 & 250	230,587	230,587	230,587	230,587	230,587	230,587	230,587	230,587	230,587	230,587	230,587	230,587	230,587	230,587
Environmental	**9	2,249,050	2,275,994	2,296,618	2,304,545	2,315,041	2,340,883	2,350,437	2,373,195	2,385,624	2,390,975	2,412,316	2,420,464	2,434,956	2,350,008
Over / Under Rec - Unbundling	151 & 251	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cust Intangible	153 & 253	0	0	0	670,188	670,188	670,188	670,188	670,188	670,188	670,188	670,188	670,188	670,188	515,529
Deferred Gain	111 &221	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		3,378,384	3,371,692	3,439,916	4,145,043	4,161,132	4,202,753	4,211,248	4,236,271	4,251,176	4,251,778	4,274,961	4,281,449	4,288,607	4,038,032
2820															
Property		(8,744,601)	(8,687,657)	(8,531,492)	(8,635,618)	(8,534,333)	(8,627,719)	(8,628,261)	(8,628,786)	(8,629,319)	(8,629,438)	(8,629,627)	(8,629,835)	(8,624,709)	(8,627,800)
2821															
Regulatory Liability		(726,907)	(726,907)	(726,907)	(726,907)	(726,907)	(678,767)	(678,767)	(678,767)	(678,767)	(678,767)	(678,767)	(678,767)	(678,767)	(697,282)
2830															
Unbundled	109 & 209	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underecovery	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underrecovered Purchase	221	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Conservation Cost	113 & 223	161,278	182,682	206,213	207,504	218,139	375,926	343,421	349,535	332,135	313,632	283,707	285,936	257,520	270,587
Pension	114 & 224	836,837	828,217	878,941	916,758	908,116	1,252,754	1,246,151	1,267,557	1,250,964	1,239,289	1,260,132	1,280,974	1,141,361	1,100,619
		0													
Loss on Reacquired Debt	118 & 228	(40,852)	(40,526)	(40,198)	(39,871)	(39,544)	(37,844)	(37,867)	(37,889)	(37,912)	(37,935)	(37,958)	(37,980)	(37,785)	(38,782)
Odorizer	112 222	(10,272)	(9,923)	(9,576)	(9,224)	(8,881)	(12,412)	(12,354)	(12,295)	(12,237)	(12,178)	(12,119)	(12,061)	(12,705)	(11,249)
AEP	115 255 256	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rate Case	117 &227	(90,460)	(87,680)	9,837	12,616	12,616	(86,662)	(86,862)	(87,062)	(87,262)	(87,462)	(87,662)	(87,862)	(85,663)	(64,582)
Refurbished	156	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRS Audit	157 & 257	0	0	0	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(38,132)
Sub Total		856,531	872,770	1,045,217	1,038,212	1,040,875	1,442,191	1,402,919	1,430,274	1,396,118	1,365,776	1,356,528	1,379,436	1,213,158	1,218,462
Total		(8,614,977)	(8,541,794)	(8,213,182)	(8,324,313)	(8,220,365)	(7,864,295)	(7,904,109)	(7,877,279)	(7,911,968)	(7,942,429)	(7,951,865)	(7,929,165)	(8,090,318)	(8,106,620)
	NET	(5,236,593)	(5,170,102)	(4,773,266)	(4,179,270)	(4,059,233)	(3,661,542)	(3,692,861)	(3,641,008)	(3,660,792)	(3,690,651)	(3,676,904)	(3,647,716)	(3,801,711)	(4,068,588)
LESS UNDERRECOVERIES NOT INCL FOR COC:		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(5,236,593)	(5,170,102)	(4,773,266)	(4,179,270)	(4,059,233)	(3,661,542)	(3,692,861)	(3,641,008)	(3,660,792)	(3,690,651)	(3,676,904)	(3,647,716)	(3,801,711)	(4,068,588)

Florida Public Utilities
Accumulated Deferred Income Taxes
PROJECTED 2009

GAS

	SL #	Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 MTH AVG
1900															
Category															
Self Insurance	**2	555,925	582,266	582,692	582,769	582,876	583,861	583,861	583,869	583,879	583,883	583,892	583,900	582,219	581,222
Audit Fees	**3	30,674	36,536	33,956	35,928	35,540	37,226	37,323	37,591	37,735	37,469	37,878	37,630	35,664	36,242
Uncollectible	**1	96,461	88,431	88,018	87,312	87,012	88,447	88,401	88,433	88,420	88,468	88,491	88,510	89,131	88,887
Vacation Pay	**6	220,420	232,472	232,472	232,990	232,990	233,470	233,470	233,470	233,470	233,453	233,453	233,453	232,472	232,158
General Liability	*15 & *25	39,491	39,480	40,124	40,093	40,118	40,068	40,039	40,053	40,072	40,037	40,034	40,030	40,120	39,981
Miscellaneous Accrual	*35 & *45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rate Refund	*40	9,906	9,906	9,906	9,906	9,906	9,906	9,906	9,906	9,906	9,906	9,906	9,906	9,906	9,906
True-Up	*34 & *44	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Storm Reserve	150 & 250	230,587	230,587	230,587	230,587	230,587	230,587	230,587	230,587	230,587	230,587	230,587	230,587	230,587	230,587
Environmental	**9	2,434,956	2,416,209	2,405,499	2,383,096	2,368,812	2,342,970	2,333,416	2,310,658	2,298,229	2,292,878	2,271,537	2,263,389	2,248,897	2,336,196
Over / Under Rec - Unbundling	151 & 251	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cust Intangible	153 & 253	670,188	670,188	670,188	670,188	670,188	670,188	670,188	670,188	670,188	670,188	670,188	670,188	670,188	670,188
Deferred Gain	111 &221	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		4,288,607	4,306,075	4,293,441	4,272,868	4,258,030	4,236,723	4,227,192	4,204,755	4,192,486	4,186,871	4,165,966	4,157,594	4,139,183	4,225,368
2820															
Property		(8,624,709)	(8,021,952)	(8,032,787)	(8,025,563)	(8,032,590)	(8,026,111)	(8,026,073)	(8,026,037)	(8,026,000)	(8,025,991)	(8,025,978)	(8,025,964)	(8,018,001)	(8,072,135)
2821															
Regulatory Liability		(678,767)	(631,273)	(631,273)	(631,273)	(631,273)	(634,418)	(634,418)	(634,418)	(634,418)	(634,418)	(634,418)	(634,418)	(631,273)	(636,620)
2830															
Unbundled	109 & 209	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underecovery	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Underrecovered Purchase	221	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Conservation Cost	113 & 223	257,520	337,158	347,416	347,979	352,615	421,400	407,230	409,895	402,310	394,244	381,198	382,170	327,827	366,843
Pension	114 & 224	1,141,361	1,459,926	1,479,437	1,493,983	1,490,659	1,623,220	1,620,680	1,628,914	1,622,532	1,618,041	1,626,058	1,634,075	1,463,242	1,530,933
		0													
Loss on Reacquired Debt	118 & 228	(37,785)	(34,708)	(34,732)	(34,757)	(34,782)	(34,911)	(34,909)	(34,908)	(34,906)	(34,904)	(34,903)	(34,901)	(34,683)	(35,061)
Odorizer	112 222	(12,705)	(11,865)	(11,894)	(11,924)	(11,953)	(11,654)	(11,659)	(11,664)	(11,669)	(11,674)	(11,679)	(11,684)	(11,836)	(11,836)
AEP	115 255 256	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rate Case	117 &227	(85,663)	(94,852)	(84,632)	(84,341)	(84,341)	(94,745)	(94,766)	(94,787)	(94,808)	(94,829)	(94,850)	(94,871)	(95,143)	(91,741)
Refurbished	156	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IRS Audit	157 & 257	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)	(49,571)
Sub Total		1,213,158	1,606,089	1,646,023	1,661,368	1,662,626	1,853,739	1,837,005	1,847,879	1,833,888	1,821,307	1,816,254	1,825,218	1,599,837	1,709,568
Total		(8,090,318)	(7,047,136)	(7,018,037)	(6,995,467)	(7,001,236)	(6,806,790)	(6,823,486)	(6,812,575)	(6,826,530)	(6,839,103)	(6,844,142)	(6,835,164)	(7,049,437)	(6,999,186)
	NET	(3,801,711)	(2,741,061)	(2,724,595)	(2,722,599)	(2,743,206)	(2,570,066)	(2,596,295)	(2,607,820)	(2,634,044)	(2,652,232)	(2,678,176)	(2,677,570)	(2,910,255)	(2,773,818)
LESS UNDERRECOVERIES NOT INCL FOR COC:		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(3,801,711)	(2,741,061)	(2,724,595)	(2,722,599)	(2,743,206)	(2,570,066)	(2,596,295)	(2,607,820)	(2,634,044)	(2,652,232)	(2,678,176)	(2,677,570)	(2,910,255)	(2,773,818)

FLORIDA PUBLIC UTILITIES CORP.

NATURAL GAS
ET ACCOUNTS - ACCUMULATED DEFERRED INCOME TAXES

<<<<<<<< ACTUAL >>>>>>>>

ACCT#		ACCOUNT DESCRIPTION	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08
1900	**9	ACCUM DEF TAX - ENVIRNMENTAL (Allowable)	2,249,050	2,275,994	2,296,618	2,304,545	2,315,041								
1900	111	ACCUM DEF TAX-DEF GAIN FE	0	0	0	0	0								
1900	112	ACCUM DEF TAXES-SELF	447,507	448,305	455,564	456,862	458,694								
1900	115	ACC DEF TXS-GEN LIAB	39,923	-715	40,178	38,213	39,857								
1900	116	ACCUM DEF TXS-VACATI	173,811	173,811	173,811	181,277	181,277								
1900	131	ACC FED DEF EL-UNCOL	74,980	82,131	86,362	93,581	96,645								
1900	133	ACC DEF TXS-OUTSID A	22,709	26,679	14,937	23,911	22,146								
1900	134	ACC DEF - TRUE-UP	0	0	0	0	0								
1900	135	ACC DEF TAXES-MISC A	0	0	0	0	0								
1900	140	ACC DEF TAX -RATE REF	8,458	8,458	8,458	8,529	8,529								
1900	150	ACC DEF TAX - STORM RESERV	196,884	196,884	196,884	196,884	196,884								
1900	151	ACC DEF TAX - OVER/UNDER REC UNBUND	0	0	0	0	0								
1900	153	ACC DEF TAX - CUST INTANGIBLE	0	0	0	572,234	572,234								
1900	221	ACCUM DEF TAX - DEF GAIN ST	0	0	0	0	0								
1900	222	ACCUM DEF TXS-SELF I	76,603	76,739	77,983	78,206	78,519								
1900	224	ACCUM DEF TXS-PENS	0	0	0	0	0								
1900	225	ACC DEF TXS-GEN LIAB	6,834	-123	6,877	6,541	6,823								
1900	226	ACCUM DEF TXS-VACATI	29,752	29,752	29,753	31,031	31,031								
1900	240	ACC DEF TAX - RATE REF -S	1,448	1,448	1,448	1,460	1,460								
1900	241	ACC STATE DEF-UNCOLL	12,835	14,059	14,783	16,019	16,544								
1900	243	ACC DEF TXS-OUTSID A	3,887	4,567	2,557	4,093	3,791								
1900	244	ACC DEF - TRUE-UP	0	0	0	0	0								
1900	245	ACC DEF TXS-MISC ACC	0	0	0	0	0								
1900	250	ACC DEF TAX - STORM RESERV	33,703	33,703	33,703	33,703	33,703								
1900	251	ACC DEF TAX - OVER/UNDER REC UNBUND	0	0	0	0	0								
1900	253	ACC DEF TAX - CUST INTANGIBLE	0	0	0	97,954	97,954								
			3,378,384	3,371,692	3,439,916	4,145,043	4,161,132	0	0	0	0	0	0	0	0
2820	100	LONG-TERM LIBERALIZE	-7,700,038	-7,651,416	-7,518,077	-7,606,984	-7,520,503								
2820	200	LONG-TERM LIBERALIZE	-1,318,088	-1,309,766	-1,286,940	-1,302,159	-1,287,355								
2820	300	ACCUM DEFERRED TAXES	273,525	273,525	273,525	273,525	273,525								
			-8,744,601	-8,687,657	-8,531,492	-8,635,618	-8,534,333	0	0	0	0	0	0	0	0
2830	109	UNBUNDLING	0	0	0	0	0								
2830	110	ACC DEF TAXES-DEP ST	0	0	0	0	0								
2830	111	ACC FED DEF EL-UNDER	0	0	0	0	0								
2830	112	ODORIZER	-8,771	-8,473	-8,176	-7,876	-7,583								
2830	113	ACC FED DEF EL-CONSE	137,705	155,981	176,073	177,175	186,256								
2830	114	ACCUM DEF TAXES-PENS	714,527	707,167	750,477	782,767	775,388								
2830	117	ACC DEF RATE CASE - FEDERAL	-77,238	-74,865	8,399	10,772	10,772								
2830	118	ACC FED DEF-LOSS ON	-34,881	-34,602	-34,323	-34,043	-33,764								
2830	155	AEP	0	0	0	0	0								
2830	156	REFURBISHING	0	0	0	0	0								
2830	157	IRS AUDIT	0	0	0	-42,326	-42,326								
2830	209	UNBUNDLING	0	0	0	0	0								
2830	220	ACC DEF TAXES-DEP ST	0	0	0	0	0								
2830	221	ACC DEF UNDERREC PUR	0	0	0	0	0								
2830	222	ODORIZER	-1,501	-1,450	-1,400	-1,348	-1,298								
2830	223	ACC DEF EL- CONSERV	23,573	26,701	30,140	30,329	31,883								
2830	224	ACCUM DEF TXS-PENSIO	122,310	121,050	128,464	133,991	132,728								
2830	227	ACC DEF RATE CASE - STATE	-13,222	-12,815	1,438	1,844	1,844								
2830	228	ACC STATE DEF-LOSS R	-5,971	-5,924	-5,875	-5,828	-5,780								
2830	255	AEP	0	0	0	0	0								
2830	256	AEP	0	0	0	0	0								
2830	257	IRS AUDIT	0	0	0	-7,245	-7,245								
			856,531	872,770	1,045,217	1,038,212	1,040,875	0	0	0	0	0	0	0	0
		TOTALS	-4,509,686	-4,443,195	-4,046,359	-3,452,363	-3,332,326	0	0	0	0	0	0	0	0
2821	****	REGULATORY LIABILITY	-726,907	-726,907	-726,907	-726,907	-726,907								
2830	221	ACC DEF UNDERREC PUR	0	0	0	0	0								
2830	111	ACC FED DEF EL-UNDER	0	0	0	0	0								
			-5,236,593	-5,170,102	-4,773,266	-4,179,270	-4,059,233	0	0	0	0	0	0	0	0
		BALANCE AS PER COC SCHEDULE	-5,236,593	-5,170,102	-4,773,266	-4,179,270	-4,059,233	-3,661,542	-3,692,861	-3,641,008	########	########	-3,676,904	-3,647,716	-3,801,711
		Difference	0	0	0	0	0	3,661,542	3,692,861	3,641,008	3,660,792	3,690,651	3,676,904	3,647,716	3,801,711

CONSOLIDATED NATURAL GAS
CUSTOMER DEPOSITS

<<<<<<<<<ACTUALS >>>>>>>>>

	Dec-2006	Jan-2007	Feb-2007	Mar-2007	Apr-2007	May-2007	Jun-2007	Jul-2007	Aug-2007	Sep-2007	Oct-2007	Nov-2007	Dec-2007	Average
121.2350.1	3,784,747	3,826,097	3,831,932	3,842,145	3,865,626	3,861,601	3,851,041	3,856,588	3,840,570	3,871,795	3,868,269	3,882,729	3,882,047	3,851,168
123.2350.1	1,706,854	1,733,523	1,772,581	1,800,116	1,786,991	1,770,341	1,756,047	1,789,872	1,808,966	1,782,748	1,795,177	1,794,417	1,796,977	1,776,508
126.2350.1		0	0	0	0	0	0	0	0	0	0	0	0	0
	5,491,600	5,559,619	5,604,513	5,642,261	5,652,617	5,631,942	5,607,088	5,646,460	5,649,535	5,654,542	5,663,446	5,677,146	5,679,024	5,627,676

<<<<<<<<<ACTUALS >>>>>>>>>

	Dec-2007	Jan-2008	Feb-2008	Mar-2008	Apr-2008
121.2350.1	3,882,047	3,903,777	3,905,639	3,948,821	3,889,463
123.2350.1	1,796,977	1,795,683	1,827,490	1,855,032	1,834,329
126.2350.1	0	0	0	0	0
	5,679,024	5,699,460	5,733,129	5,803,852	5,723,792

Natural Gas
Customer Deposits
Percentage Spread
2007

Report Date	Month	Balance 6%	Balance 7%	Total	GL	Difference to GL		Interest 6%	Interest 7%
1/4/2007	Dec	4,849,910	641,608	5,491,518	5,491,601	(83)			
2/2/2007	Jan	4,927,154	632,383	5,559,537	5,559,620	(83)		24,636	3,689
3/5/2007	Feb	4,976,073	628,358	5,604,431	5,604,514	(83)		24,880	3,665
4/4/2007	Mar	5,015,371	626,808	5,642,179	5,642,262	(83)		25,077	3,656
5/3/2007	Apr	5,024,052	630,983	5,655,035	5,652,618	2,417		25,120	3,681
6/4/2007	May	5,003,827	628,033	5,631,860	5,631,943	(83)		25,019	3,664
7/3/2007	Jun	4,982,052	626,453	5,608,506	5,607,088	1,418		24,910	3,654
8/3/2007	Jul	5,025,044	621,333	5,646,378	5,646,460	(82)		25,125	3,624
9/5/2007	Aug	5,033,595	615,858	5,649,453	5,649,536	(83)		25,168	3,593
10/3/2007	Sep	5,032,387	615,158	5,647,545	5,654,543	(6,998)		25,162	3,588
11/2/2007	Oct	5,049,941	613,423	5,663,364	5,663,447	(83)		25,250	3,578
12/4/2007	Nov	5,053,689	607,523	5,661,212	5,677,147	(15,935)		25,268	3,544
1/4/2008	Dec	5,074,639	604,323	5,678,962	5,679,025	(63)		25,373	3,525
13 Mth Average		5,003,672	622,480	5,626,152	5,627,677		Total	300,989	43,462
%		89%	11%					344,451	
							GI	342,848	
							Difference	1,603	

Consolidated Natural Gas
Customer Deposits

5 year average growth year 0.549%

Year 2007

<<<<<<<<<ACTUALS >>>>>>>>>

	Dec-2006	Jan-2007	Feb-2007	Mar-2007	Apr-2007	May-2007	Jun-2007	Jul-2007	Aug-2007	Sep-2007	Oct-2007	Nov-2007	Dec-2007		13 mth AVERAGE
Month End Balance	5,491,600	5,559,619	5,604,513	5,642,261	5,652,617	5,631,942	5,607,088	5,646,460	5,649,535	5,654,542	5,663,446	5,677,146	5,679,024		5,627,676
Interest														Interest 12 Mths	
Total Interest		27,663	26,919	25,557	26,551	29,437	29,281	28,396	31,495	27,818	29,747	29,950	30,034	342,848	

Effective Interest Rate 6.09%

2008

<<<<<<<<< ACTUALS >>>>>>>>> <<<<<<<<<< PROJECTED >>>>>>>>>>

	Dec-2007	Jan-2008	Feb-2008	Mar-2008	Apr-2008	May-2008	Jun-2008	Jul-2008	Aug-2008	Sep-2008	Oct-2008	Nov-2008	Dec-2008		13 mth AVERAGE
Month End Balance	5,679,024	5,699,460	5,733,129	5,803,852	5,723,792	5,755,244	5,786,869	5,818,667	5,850,640	5,882,789	5,915,115	5,947,618	5,980,300		5,813,577
Interest														Interest 12 Mths	
Ratio 89% 6%	25,253	25,344	25,494	25,809	25,453	25,592	25,733	25,874	26,017	26,160	26,303	26,448	26,593	310,820	
11% 7%	3,665	3,678	3,700	3,746	3,694	3,714	3,735	3,755	3,776	3,797	3,818	3,839	3,860	45,112	
Total Interest	28,919	29,023	29,194	29,554	29,147	29,307	29,468	29,630	29,793	29,956	30,121	30,286	30,453	355,932	

Effective Interest Rate 6.12%

2009

<<<<<<<<< PROJECTED >>>>>>>>>

	Dec-2008	Jan-2009	Feb-2009	Mar-2009	Apr-2009	May-2009	Jun-2009	Jul-2009	Aug-2009	Sep-2009	Oct-2009	Nov-2009	Dec-2009		13 mth AVERAGE
	5,980,300	6,013,161	6,046,203	6,079,426	6,112,832	6,146,422	6,180,196	6,214,156	6,248,302	6,282,636	6,317,159	6,351,871	6,386,774	Interest	6,181,495
Interest														12 Mths	
Ratio 89% 6%	26,593	26,739	26,886	27,034	27,183	27,332	27,482	27,633	27,785	27,938	28,091	28,245	28,401	330,749	
11% 7%	3,860	3,881	3,902	3,924	3,945	3,967	3,989	4,011	4,033	4,055	4,077	4,100	4,122	48,005	
Total Interest	30,453	30,620	30,788	30,958	31,128	31,299	31,471	31,644	31,818	31,992	32,168	32,345	32,523	378,753	

Effective Interest Rate 6.13%

Exhibit 27.21
Pg. 28

CONSOLIDATED NATURAL GAS
5 YEAR GROWTH RATE ANALYSIS

YEAR	MONTH	121	123	CONSOLIDATED	CHANGE $	CHANGE %		ADJUSTED %
2002	DEC	2,512,116	931,823	3,443,939				
2003	JAN	2,532,096	943,253	3,475,349	31,410	0.912%		0.912%
2003	FEB	2,563,066	952,058	3,515,124	39,775	1.144%		1.144%
2003	MAR	2,559,876	949,529	3,509,404	(5,720)	-0.163%		-0.163%
2003	APR	2,559,242	950,529	3,509,771	367	0.010%		0.010%
2003	MAY	2,561,697	954,386	3,516,083	6,312	0.180%		0.180%
2003	JUN	2,567,552	962,323	3,529,875	13,792	0.392%		0.392%
2003	JUL	2,568,942	958,055	3,526,997	(2,878)	-0.082%		-0.082%
2003	AUG	2,841,988	948,980	3,790,968	263,971	7.484%	**	0.342%
2003	SEP	2,822,100	960,773	3,782,873	(8,095)	-0.214%		-0.214%
2003	OCT	2,786,845	1,051,806	3,838,651	55,778	1.474%		1.474%
2003	NOV	2,803,838	1,062,796	3,866,635	27,984	0.729%		0.729%
2003	DEC	2,836,146	1,065,891	3,902,037	35,402	0.916%		0.916%
2004	JAN	2,846,884	1,074,151	3,921,035	18,998	0.487%		0.487%
2004	FEB	2,860,929	1,082,856	3,943,785	22,750	0.580%		0.580%
2004	MAR	3,110,424	1,091,682	4,202,106	258,321	6.550%	**	0.388%
2004	APR	3,158,276	1,099,715	4,257,991	55,885	1.330%		1.330%
2004	MAY	3,096,713	1,108,955	4,205,668	(52,323)	-1.229%		-1.229%
2004	JUN	3,085,788	1,111,739	4,197,527	(8,141)	-0.194%		-0.194%
2004	JUL	3,096,351	1,125,608	4,221,959	24,432	0.582%		0.582%
2004	AUG	3,108,076	1,124,552	4,232,627	10,668	0.253%		0.253%
2004	SEP	3,116,462	1,129,655	4,246,116	13,489	0.319%		0.319%
2004	OCT	3,130,751	1,149,140	4,279,890	33,774	0.795%		0.795%
2004	NOV	3,142,346	1,214,579	4,356,924	77,034	1.800%		1.800%
2004	DEC	3,155,881	1,219,319	4,375,199	18,275	0.419%		0.419%
2005	JAN	3,172,354	1,235,246	4,407,600	32,401	0.741%		0.741%
2005	FEB	3,293,756	1,241,550	4,535,306	127,706	2.897%		2.897%
2005	MAR	3,304,301	1,235,980	4,540,281	4,975	0.110%		0.110%
2005	APR	3,304,564	1,236,621	4,541,186	905	0.020%		0.020%
2005	MAY	3,292,247	1,218,252	4,510,499	(30,687)	-0.676%		-0.676%
2005	JUN	3,298,779	1,391,220	4,689,999	179,500	3.980%		3.980%
2005	JUL	3,310,164	1,432,210	4,742,374	52,375	1.117%		1.117%
2005	AUG	3,307,934	1,810,880	5,118,815	376,441	7.938%	**	0.981%
2005	SEP	3,650,727	1,798,136	5,448,863	330,048	6.448%	**	1.042%
2005	OCT	3,652,537	1,445,266	5,097,803	(351,060)	-6.443%	**	1.102%
2005	NOV	3,636,592	1,457,075	5,093,667	(4,137)	-0.081%		-0.081%
2005	DEC	3,635,428	1,458,188	5,093,616	(51)	-0.001%		-0.001%
2006	JAN	3,615,891	1,471,600	5,087,491	(6,125)	-0.120%		-0.120%
2006	FEB	3,630,085	1,505,210	5,135,295	47,804	0.940%		0.940%
2006	MAR	3,651,001	1,552,800	5,203,801	68,506	1.334%		1.334%
2006	APR	3,672,230	1,559,522	5,231,752	27,951	0.537%		0.537%
2006	MAY	3,684,755	1,556,391	5,241,146	9,394	0.180%		0.180%
2006	JUN	3,693,545	1,560,810	5,254,355	13,209	0.252%		0.252%
2006	JUL	3,708,120	1,630,110	5,338,230	83,875	1.596%		1.596%
2006	AUG	3,698,611	1,641,261	5,339,872	1,642	0.031%		0.031%
2006	SEP	3,725,411	1,637,302	5,362,713	22,841	0.428%		0.428%
2006	OCT	3,728,075	1,668,166	5,396,241	33,528	0.625%		0.625%
2006	NOV	3,743,120	1,683,821	5,426,941	30,700	0.569%		0.569%
2006	DEC	3,784,747	1,706,854	5,491,600	64,660	1.191%		0.531%
2007	JAN	3,826,097	1,733,523	5,559,619	68,019	1.239%		1.239%
2007	FEB	3,831,932	1,772,581	5,604,513	44,894	0.807%		0.807%
2007	MAR	3,842,145	1,800,116	5,642,261	37,748	0.674%		0.674%
2007	APR	3,865,626	1,786,991	5,652,617	10,356	0.184%		0.184%
2007	MAY	3,861,601	1,770,341	5,631,942	(20,675)	-0.366%		-0.366%
2007	JUN	3,851,041	1,756,047	5,607,088	(24,854)	-0.441%		-0.441%
2007	JUL	3,856,588	1,789,872	5,646,460	39,372	0.702%		0.702%
2007	AUG	3,840,570	1,808,966	5,649,535	3,076	0.054%		0.054%
2007	SEP	3,871,795	1,782,748	5,654,542	5,007	0.089%		0.089%
2007	OCT	3,868,269	1,795,177	5,663,446	8,904	0.157%		0.157%
2007	NOV	3,882,729	1,794,417	5,677,146	13,700	0.242%		0.242%
2007	DEC	3,882,047	1,796,977	5,679,024	1,878	0.033%		0.323%
				5 year average growth rate		0.858%		0.549%

Note: Growth Rates greater than or less than 5% normalized using prior periods percentage change

CONSOLIDATED NATURAL GAS
INVESTMENT TAX CREDIT

<<<<<<<<<ACTUALS >>>>>>>>>

	Dec-2006	Jan-2007	Feb-2007	Mar-2007	Apr-2007	May-2007	Jun-2007	Jul-2007	Aug-2007	Sep-2007	Oct-2007	Nov-2007	Dec-2007	Average
121.2550.1	165,471	162,835	160,199	157,563	154,927	152,291	149,655	147,019	144,383	141,747	139,111	136,475	133,839	149,655
123.2550.1	44,713	44,068	43,423	42,778	42,133	41,488	40,843	40,198	39,553	38,908	38,263	37,618	36,974	40,844
126.2550.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	210,185	206,904	203,623	200,342	197,061	193,780	190,499	187,218	183,937	180,656	177,375	174,094	170,813	190,499

<<<<<<<<<ACTUALS >>>>>>>>>

	Dec-2007	Jan-2008	Feb-2008	Mar-2008	Apr-2008
121.2550.1	133,839	131,370	128,901	126,432	123,963
123.2550.1	36,974	36,373	35,772	35,171	34,570
126.2550.1	0	0	0	0	0
	170,813	167,743	164,673	161,603	158,533

FLORIDA PUBLIC UTILITIES COMPANY
AND FLO-GAS CORPORATION
13 MONTH COST OF CAPITAL
12 2007

REPORT GROUP NAME: ROR
REPORT NAME: CAPITAL
DATE: 2/29/2008
USER: YOUNG
COST OF CAPITAL

FLORIDA PUBLIC	12 MTHS AGO	11 MTHS AGO	10 MTHS AGO	9 MTHS AGO	8 MTHS AGO	7 MTHS AGO	6 MTHS AGO	5 MTHS AGO	4 MTHS AGO	3 MTHS AGO	2 MTHS AGO	1 MTH AGO	12 2007	13 MONTH AVERAGE	
123 INV IN ASSOC CO	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	
															revised by Malena Bolden
1240.1 OTHER INVEST	14933.59	14933.45	14933.06	14933.27	14932.65	14932.86	14933.15	14932.78	14933.01	14933.08	14933.27	14932.83	14933.02	14932.85	on 03/03/08
181 UNAMORT DEBT	2006460.19	1998076.46	1989692.73	1981309	1972925.27	1964541.54	1959572.41	1951190.15	1942806.91	1934086.9	1925703.66	1917320.42	1908937.27	1957894.07	
190 ACCUM DEF TAXES	4473150	4509432	4529993	4245313	4264202	4290020	4367205	4398385	4419747	4443392	4496152	4498075	4493908	4417613.38	
190 AC DE TAX ENVIRO	-2006902.34	-2011234.12	-2011234.12	-2025335.88	-2025335.88	-2039526.06	-2039526.06	-2050625.21	-2050625.21	-2050625.21	-2057347.45	-2057347.45	-2067724.61	-2037953.05	
201 COMMON STOCK	9250472	9256367	9256367	9256367	9262500.5	9262500.5	9262500.5	9268800.5	9268800.5	9268800.5	9274974.5	9274974.5	9274974.5	9264492.27	
204 PREFERRED STOCK	600000	600000	600000	600000	600000	600000	600000	600000	600000	600000	600000	600000	600000	600000	
207 PREM ON COMM STK	5542985.56	5589111.08	5589111.08	5589111.08	5633681.18	5633681.18	5633681.18	5679461.18	5679461.18	5679461.18	5722679.18	5722679.18	5722679.18	5647521.8	
213 DISC ON CAP STK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
211 MISC PAID IN CAP	938905.84	837045.64	837045.64	848840.31	848840.31	833024.16	845867.27	758876.91	758876.91	773362.95	773362.95	773362.95	781403.1	816062.69	
216 RETAINED EARNING	32826618.99	33447260.66	33965987.92	35651318.3	35925471.83	36077429.74	35296438.34	35439831.8	35579174.02	34964434.77	35125618.21	35418830.98	34972912.52	34976256.01	
214 CAPITAL STK EXP	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	
217 TREASURY STOCK	2841531.38	2584414.18	2584414.18	2584414.18	2584414.18	2528593.03	2528593.03	2289975.51	2289975.51	2289975.51	2289975.51	2289975.51	2289975.51	2459709.79	
219 COMPREHENSIVE IN	103245	103245	103245	79108	79108	79108	53461	53461	53461	28569	28569	28569	-87528	54278.54	
221 1ST MORTG BONDS	52500000	52500000	52500000	52500000	52500000	52490000	52490000	52490000	52490000	52490000	52490000	52490000	52490000	52493846.15	
224 DEBENTURES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
231 NOTES PAYABLE	3466000	3964000	2243000	2215000	3120000	1460000	1105000	3552000	3468000	9248000	7156000	6383000	11122000	4500153.85	
235 CUSTOMER DEPOSIT	8024473.96	8050644.21	8156254.52	8463971.82	8685605.49	8690872.82	8671724.36	8692891.85	8677811.89	8698379.27	8743911.52	8691942.63	8685536.64	8534924.69	
255 INVEST TAX CRED	335145.65	329402.65	323659.65	317916.65	312173.65	306430.65	300687.65	294944.65	289201.65	283458.65	277715.65	271972.65	266235.78	300688.12	
282 ACCUM DEF TAXES*	18032064.07	17877148.07	17685995.07	17474762.07	17336808.07	17274344.07	17319852.07	17115955.07	17054924.07	16965897.07	16852193.07	16699459.07	17152563.07	17295535.76	
282 DEF TAX-UNDERREC	642599	676370	672093	622371	570527	640696	712111	658562	620580	567030	513479	459930	406380	597132.92	
CURRENT BONDS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3% INV TAX CRED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FLO-GAS CORP															
123 INV IN ASSOC CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
190 ACCUM DEF TAXES	183576	181910	183909	82714	83985	85697	80560	79366	82384	86701	85895	84332	62142	104859.31	
201 COMMON STOCK	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	
216 RETAINED EARNING	2386526.38	2472442.6	2598923.87	705053.05	765096.14	775864.19	784224.66	789290.79	773125.59	784154.36	791078.83	798675.3	849602.87	1174927.59	
235 CUSTOMER DEPOSIT	718150.15	730526.04	736985.15	741060.15	749336.15	752487.89	752507.89	758737.73	774608.73	778290.73	789237.73	793772.87	804803.02	760038.79	
255 INV TAX CREDIT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
282 ACCUM DEF TAXES	3872323.93	3879049.93	3890066.93	3811346.93	3820250.93	3830094.93	3854368.93	3863902.93	3873376.93	3900330.93	3910295.93	3920210.93	3908826.93	3871880.55	
3% INV TAX CRED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CONSOLIDATED															
LONG TERM DEBT	50,493,540	50,501,924	50,510,307	50,518,691	50,527,075	50,525,458	50,530,428	50,538,810	50,547,193	50,555,913	50,564,296	50,572,680	50,581,063	50,535,952	
SHORT TERM DEBT	3,466,000	3,964,000	2,243,000	2,215,000	3,120,000	1,460,000	1,105,000	3,552,000	3,468,000	9,248,000	7,156,000	6,383,000	11,122,000	4,500,154	
PREFERRED STOCK	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	
CUSTOMER DEPOSITS	8,742,624	8,781,170	8,893,240	9,225,032	9,434,942	9,443,361	9,424,232	9,451,630	9,452,421	9,476,670	9,533,149	9,485,716	9,490,340	9,294,963	
COMMON EQUITY	47,557,358	48,471,194	49,116,403	48,943,794	49,328,694	49,531,425	48,797,284	49,149,451	49,272,628	48,708,295	48,925,795	49,226,605	48,955,751	48,921,898	
COMMON EQ EXCL FLO	45,170,832	45,998,751	46,517,479	48,238,740	48,563,598	48,755,561	48,013,059	48,360,160	48,499,502	47,924,141	48,134,716	48,427,930	48,106,148	47,746,971	
DEFERRED INC TAXES*	18,611,965	18,399,720	18,201,301	18,361,047	18,263,681	18,127,552	18,053,871	17,894,170	17,856,215	17,819,730	17,724,310	17,634,680	18,166,685	18,085,764	
TAX CREDITS-ZERO CST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TAX CREDITS-WEIGHTED	335,146	329,403	323,660	317,917	312,174	306,431	300,688	294,945	289,202	283,459	277,716	271,973	266,236	300,688	
TOTAL	129,806,633	131,047,410	129,887,910	130,181,480	131,586,565	129,994,227	128,811,503	131,481,005	131,485,658	136,692,067	134,781,267	134,174,653	139,182,074	132,239,420	
TOTAL LTD,STD,EQUITY	102,116,898	103,537,117	102,469,710	102,277,485	103,575,769	102,116,884	101,032,712	103,840,261	103,887,821	109,112,209	107,246,091	106,782,284	111,258,814	104,558,004	
*excl environ tax in	accts. 2830.	**9 & 1900.	**9 and unde	rrec accts.2	830.111 & 22	1									

FLORIDA PUBLIC UTILITIES COMPANY
AND FLO-GAS CORPORATION
13 MONTH COST OF CAPITAL
03 2008

REPORT GROUP NAME: ROR
REPORT NAME: CAPITAL
DATE: 5/15/2008
USER: YOUNG
COST OF CAPITAL

FLORIDA PUBLIC	12 MTHS AGO	11 MTHS AGO	10 MTHS AGO	9 MTHS AGO	8 MTHS AGO	7 MTHS AGO	6 MTHS AGO	5 MTHS AGO	4 MTHS AGO	3 MTHS AGO	Jan 2008 2 MTHS AGO	Feb 2008 1 MTH AGO	Mar 2008 03 2008	13 MONTH AVERAGE	
123 INV IN ASSOC CO	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	revised by Curtis D. Young on 05/16/08
1240.1 OTHER INVEST	14,933	14,933	14,933	14,933	14,933	14,933	14,933	14,933	14,933	14,933	14,933	14,933	14,933	14,933	
181 UNAMORT DEBT	1,981,309	1,972,925	1,964,542	1,959,572	1,951,190	1,942,807	1,934,087	1,925,704	1,917,320	1,908,937	1,900,554	1,892,171	1,883,788	1,933,454	
190 ACCUM DEF TAXES	4,245,313	4,264,202	4,290,020	4,367,205	4,398,385	4,419,747	4,443,392	4,496,152	4,498,075	4,493,908	4,455,999	4,551,193	4,602,862	4,425,112	
190 AC DE TAX ENVIRO	(2,025,336)	(2,025,336)	(2,039,526)	(2,039,526)	(2,050,625)	(2,050,625)	(2,050,625)	(2,057,347)	(2,057,347)	(2,067,725)	(2,080,475)	(2,088,595)	(2,085,286)	(2,055,260)	
201 COMMON STOCK	9,256,367	9,262,501	9,262,501	9,262,501	9,268,801	9,268,801	9,268,801	9,274,975	9,274,975	9,274,975	9,281,263	9,281,263	9,281,263	9,270,691	
204 PREFERRED STOCK	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	
207 PREM ON COMM STK	5,589,111	5,633,681	5,633,681	5,633,681	5,679,461	5,679,461	5,679,461	5,722,679	5,722,679	5,722,679	5,765,647	5,765,647	5,765,647	5,691,809	
213 DISC ON CAP STK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
211 MISC PAID IN CAP	848,840	848,840	833,024	845,867	758,877	758,877	773,363	773,363	773,363	781,403	683,662	683,662	697,572	773,901	
216 RETAINED EARNING	35,651,318	35,925,472	36,077,430	35,296,438	35,439,832	35,579,174	34,964,435	35,125,618	35,418,831	34,972,913	35,606,205	36,137,645	35,796,227	35,537,811	
214 CAPITAL STK EXP	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	
217 TREASURY STOCK	2,584,414	2,584,414	2,528,593	2,528,593	2,289,976	2,289,976	2,289,976	2,289,976	2,289,976	2,289,976	2,048,753	2,048,753	2,048,753	2,316,317	
219 COMPREHENSIVE IN	79,108	79,108	79,108	53,461	53,461	53,461	28,569	28,569	28,569	(87,528)	(87,528)	(87,528)	(110,255)	8,506	
221 1ST MORTG BONDS	52,500,000	52,500,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,491,538	
224 DEBENTURES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
231 NOTES PAYABLE	2,215,000	3,120,000	1,460,000	1,105,000	3,552,000	3,468,000	9,248,000	7,156,000	6,383,000	11,122,000	9,230,000	6,614,000	9,680,000	5,719,462	
235 CUSTOMER DEPOSIT	8,483,972	8,685,605	8,690,873	8,671,724	8,692,892	8,677,812	8,698,379	8,743,912	8,691,943	8,685,537	8,656,820	8,733,480	8,803,448	8,685,877	
255 INVEST TAX CRED	317,917	312,174	306,431	300,688	294,945	289,202	283,459	277,716	271,973	266,236	260,957	255,678	250,399	283,675	
282 ACCUM DEF TAXES*	17,474,762	17,336,808	17,274,344	17,319,852	17,115,955	17,054,924	16,965,897	16,852,193	16,699,459	17,318,239	17,202,026	16,858,525	16,922,446	17,107,341	
282 DEF TAX-UNDERREC	622,371	570,527	640,696	712,111	658,562	620,580	567,030	513,479	459,930	406,380	473,973	453,744	454,274	550,281	
CURRENT BONDS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3% INV TAX CRED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FLO-GAS CORP															
123 INV IN ASSOC CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
190 ACCUM DEF TAXES	82,714	83,985	85,697	80,560	79,366	82,384	86,701	85,895	84,332	62,142	67,186	64,587	70,622	78,167	
201 COMMON STOCK	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	
216 RETAINED EARNING	705,053	765,096	775,864	784,225	789,291	773,126	784,154	791,079	798,675	849,603	1,006,412	1,151,999	1,286,384	866,228	
235 CUSTOMER DEPOSIT	741,060	749,336	752,488	752,508	758,738	774,609	778,291	789,238	793,773	804,803	807,604	811,970	810,071	778,807	
255 INV TAX CREDIT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
282 ACCUM DEF TAXES	3,811,347	3,820,251	3,830,095	3,854,369	3,863,903	3,873,377	3,900,331	3,910,296	3,920,211	3,908,827	3,918,561	3,893,704	3,952,901	3,881,398	
3% INV TAX CRED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CONSOLIDATED															
LONG TERM DEBT	**50,518,691**	**50,527,075**	**50,525,458**	**50,530,428**	**50,538,810**	**50,547,193**	**50,655,913**	**50,564,296**	**50,572,680**	**50,581,063**	**50,589,446**	**50,597,829**	**50,606,212**	**50,558,084**	
SHORT TERM DEBT	**2,215,000**	**3,120,000**	**1,460,000**	**1,105,000**	**3,552,000**	**3,468,000**	**9,248,000**	**7,156,000**	**6,383,000**	**11,122,000**	**9,230,000**	**6,614,000**	**9,680,000**	**5,719,462**	
PREFERRED STOCK	**600,000**	**600,000**	**600,000**	**600,000**	**600,000**	**600,000**	**600,000**	**600,000**	**600,000**	**600,000**	**600,000**	**600,000**	**600,000**	**600,000**	
CUSTOMER DEPOSITS	**9,225,032**	**9,434,942**	**9,443,381**	**9,424,232**	**9,451,630**	**9,452,421**	**9,476,670**	**9,533,149**	**9,485,716**	**9,490,340**	**9,464,424**	**9,545,449**	**9,613,519**	**9,464,683**	
COMMON EQUITY	**48,943,794**	**49,328,694**	**49,531,425**	**48,797,284**	**49,149,451**	**49,272,628**	**48,708,295**	**48,925,795**	**49,226,605**	**48,955,751**	**49,938,589**	**50,615,617**	**50,445,220**	**49,372,242**	
COMMON EQ EXCL FLO	**48,238,740**	**48,563,598**	**48,755,561**	**48,013,059**	**48,360,160**	**48,499,502**	**47,924,141**	**48,134,716**	**48,427,930**	**48,106,148**	**48,932,177**	**49,463,618**	**49,158,836**	**48,506,014**	
DEFERRED INC TAXES*	**18,361,047**	**18,263,681**	**18,127,552**	**18,053,871**	**17,894,170**	**17,856,215**	**17,819,730**	**17,724,310**	**17,634,680**	**18,332,361**	**18,203,904**	**17,771,300**	**17,832,875**	**17,990,438**	
TAX CREDITS-ZERO CST	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	
TAX CREDITS-WEIGHTED	**317,917**	**312,174**	**306,431**	**300,688**	**294,945**	**289,202**	**283,459**	**277,716**	**271,973**	**266,236**	**260,957**	**255,678**	**250,399**	**283,675**	
TOTAL	**130,181,480**	**131,586,565**	**129,994,227**	**128,811,503**	**131,481,005**	**131,485,658**	**136,692,067**	**134,781,267**	**134,174,653**	**139,347,750**	**138,287,320**	**135,999,872**	**139,028,226**	**133,988,584**	
TOTAL LTD,STD,EQUITY	**102,277,485**	**103,575,769**	**102,116,884**	**101,032,712**	**103,840,261**	**103,887,821**	**109,112,209**	**107,246,091**	**106,782,284**	**111,258,814**	**110,358,035**	**108,427,446**	**111,331,433**	**106,249,788**	

***excl environ tax in accts. 2830. **9 & 1900. **9 and unde rrec accts.2 830.111 & 22 1**

Exhibit 27.21
Pg. 32

Schedule D-1a (2007)

COST OF CAPITAL - 13-MONTH AVERAGE

FLORIDA PUBLIC SERVICE COMMISSION

COMPANY: Florida Public Utilities
Consolidated Gas
DOCKET NO.: 080366-GU

EXPLANATION: Provide the company's 13-month average cost of capital for the test year, the prior year, and historical base year.

Type of Data Shown:
Prior Year Ended 12/31/07
Witness: Doreen Cox, Robert Camfield

Line No.	Class of Capital	(A) Company Total Per Books	(B) Specific Adjustments	(C) Pro Rata Adjustments	(D) System Adjusted	(E) Jurisdictional Factor	(F) Jurisdictional Capital Structure	(G) Ratio	(H) Cost Rate	(I) Weighted Cost Rate	(J) Interest Expense
					Regulatory Capital Structure, 2007						
1.	Long Term Debt	50,535,952			50,535,952	45.83%	23,161,901	0.3892	8.01%	3.12%	1,854,224
2.	Short Term Debt	4,500,154			4,500,154	45.83%	2,062,534	0.0347	4.15%	0.14%	85,574
3.	Preferred Stock	600,000			600,000	45.83%	274,995	0.0046	4.75%	0.02%	
4.	Common Equity	47,816,182			47,816,182	45.83%	21,915,362	0.3682	11.25%	4.14%	
5.	Customer Deposits	5,627,676			5,627,676		5,627,676	0.0946	6.09%	0.58%	342,848
6.	Deferred Income Taxes	6,286,004			6,286,004		6,286,004	0.1056	0.00%	0.00%	
7.	Tax Credits-Zero Cost	0			0		0	0.0000	0.00%	0.00%	
8.	Tax Credits-Weighted Cost	190,499			190,499		190,499	0.0032	9.32%	0.03%	17,749
9.	TOTAL	115,556,468			115,556,468		59,518,973	1.0000		8.03%	2,300,395

	Class of Capital	Company Total Per Books	Ratio	Cost Rate	Weighted Cost Rate
		Conventional Capital Structure, 2007			
10.	Long Term Debt	50,535,952	0.4885	8.01%	3.91%
11.	Short Term Debt	4,500,154	0.0435	4.15%	0.18%
12.	Preferred Stock	600,000	0.0058	4.75%	0.03%
13.	Common Equity	47,816,182	0.4622	11.25%	5.20%
14.	TOTAL	103,452,288	1.0000		9.32%

Rate Base	$59,518,973
Direct Components	$12,104,180
	$47,414,793
Jurisdictional Factor	45.83%

Common Equity excludes Flo-Gas

Supporting Schedules: B-1 (2007) B-3 (2007), D-3, D-4a, D-5, D-6

Recap Schedules:

INTERIM

COST OF CAPITAL - 13-MONTH AVERAGE

FLORIDA PUBLIC SERVICE COMMISSION

COMPANY: Florida Public Utilities
Consolidated Gas
DOCKET NO.:

EXPLANATION: Provide the company's 13-month average cost of capital for the test year, the prior year, and historical base year.

Type of Data Shown:
Prior Year Ended 12/31/07
Witness: Doreen Cox, Robert Camfield

Line No.	Class of Capital	(A) Company Total Per Books	(B) Specific Adjustments	(C) Pro Rata Adjustments	(D) System Adjusted	(E) Jurisdictional Factor	(F) Jurisdictional Capital Structure	(G) Ratio	(H) Cost Rate	(I) Weighted Cost Rate	(J) Interest Expense
					Regulatory Capital Structure, 2007						
1.	Long Term Debt	50,535,952			50,535,952	45.83%	23,161,901	0.3892	8.01%	3.12%	1,854,224
2.	Short Term Debt	4,500,154			4,500,154	45.83%	2,062,534	0.0347	4.15%	0.14%	85,595
3.	Preferred Stock	600,000			600,000	45.83%	274,995	0.0046	4.75%	0.02%	
4.	Common Equity	47,816,182			47,816,182	45.83%	21,915,362	0.3682	10.25%	3.77%	
5.	Customer Deposits	5,627,676			5,627,676		5,627,676	0.0946	6.09%	0.58%	342,725
6.	Deferred Income Taxes	6,286,004			6,286,004		6,286,004	0.1056	0.00%	0.00%	
7.	Tax Credits-Zero Cost	0			0		0	0.0000	0.00%	0.00%	
8.	Tax Credits-Weighted Cost	190,499			190,499		190,499	0.0032	8.86%	0.03%	16,869
9.	TOTAL	115,556,468			115,556,468		59,518,973	1.0000		7.66%	2,299,414

	Class of Capital	Company Total Per Books	Ratio	Cost Rate	Weighted Cost Rate
		Conventional Capital Structure, 2007			
10.	Long Term Debt	50,535,952	0.4885	8.01%	3.91%
11.	Short Term Debt	4,500,154	0.0435	4.15%	0.18%
12.	Preferred Stock	600,000	0.0058	4.75%	0.03%
13.	Common Equity	47,816,182	0.4622	10.25%	4.74%
14.	TOTAL	103,452,288	1.0000		8.86%

Rate Base	$59,518,973
Direct Components	$12,104,180
	$47,414,793
Jurisdictional Factor	45.83%

Common Equity excludes Flo-Gas

Supporting Schedules: B-1 (2007) B-3 (2007), D-3, D-4a, D-5, D-6

Recap Schedules:

Florida Public Utilities
13 MONTH COST OF CAPITAL
December 2006 - December 2007

REPORT GROUP NAME: ROR
REPORT NAME: CAPITAL
DATE: 2/29/2008

Line Ref	Florida Public Utilities:	Notes	Acct #	Dec-2006	Jan-2007	Feb-2007	Mar-2007	Apr-2007	May-2007	Jun-2007	Jul-2007	Aug-2007	Sep-2007	Oct-2007	Nov-2007	Dec-2007	13 mth AVERAGE
				<<<<<<<<<ACTUALS >>>>>>>>>													
16	INV IN ASSOC CO		1230	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
17				-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	UNAMORT DEBT		1810 & 1890	2,006,460	1,998,076	1,989,693	1,981,309	1,972,925	1,964,542	1,959,572	1,951,190	1,942,807	1,934,067	1,925,704	1,917,320	1,908,937	1,957,894
19	ACCUM DEF TAXES	Gas only	1900	5,175,856	5,222,346	5,265,851	5,297,522	5,328,888	5,376,739	5,452,781	5,501,448	5,532,033	5,546,204	5,605,129	5,616,089	5,627,434	5,426,009
20	AC DE TAX ENVIRO	Gas only	1900.**9	(2,062,991)	(2,081,738)	(2,092,448)	(2,114,851)	(2,129,135)	(2,154,977)	(2,164,531)	(2,187,289)	(2,199,718)	(2,205,069)	(2,226,410)	(2,234,558)	(2,249,050)	(2,161,751)
21	COMMON STOCK		2010	9,250,472	9,256,367	9,256,367	9,256,367	9,262,501	9,262,501	9,262,501	9,268,801	9,268,801	9,268,801	9,274,975	9,274,975	9,274,975	9,264,492
22	PREFERRED STOCK		2040	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000
23	PREM ON COMM STK		2070	5,542,986	5,589,111	5,589,111	5,589,111	5,633,681	5,633,681	5,633,681	5,679,461	5,679,461	5,679,461	5,722,679	5,722,679	5,722,679	5,647,522
24	DISC ON CAP STK		2130	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	MISC PAID IN CAP		2110	938,906	837,046	837,046	846,840	846,840	833,024	845,867	758,877	758,877	773,363	773,363	781,403	816,063	
26	RETAINED EARNING		2180	32,826,619	33,447,261	33,965,988	35,651,318	35,925,472	36,077,430	35,296,438	35,439,832	35,579,174	34,964,435	35,125,618	35,418,631	34,972,913	34,976,256
27	CAPITAL STK EXP		2140	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441
28	TREASURY STOCK		2170	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	1ST MORTG BONDS		2210	2,841,531	2,584,414	2,584,414	2,584,414	2,584,414	2,528,593	2,528,593	2,289,976	2,289,976	2,289,976	2,289,976	2,289,976	2,289,976	2,459,710
30	DEBENTURES		2240	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,493,846
31	NOTES PAYABLE		2310	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	CUSTOMER DEPOSIT	Gas only	2350.1	3,466,000	3,964,000	2,243,000	2,215,000	3,120,000	1,460,000	1,105,000	3,552,000	3,468,000	9,248,000	7,156,000	6,383,000	11,122,000	4,500,154
33	INVEST TAX CRED	Gas only	2550	5,491,600	5,559,619	5,604,513	5,642,261	5,652,617	5,631,942	5,607,088	5,646,460	5,649,535	5,654,542	5,663,446	5,677,146	5,679,024	5,627,676
34	ACCUM DEF TAXES*	Gas only	2820 & 2821 & 2830	210,185	206,904	203,623	200,342	197,061	193,780	190,499	187,218	183,937	180,656	177,375	174,094	170,813	190,499
35	DEF TAX-UNDERREC	Gas only	2830.111 & 221	10,122,510	9,848,346	9,829,092	9,720,347	9,617,777	9,533,189	9,535,557	9,446,597	9,447,643	9,475,978	9,459,314	9,402,086	8,614,977	9,550,263
36	CURRENT BONDS			-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	3% INV TAX CRED	Gas only		-	-	-	-	-	-	-	-	-	-	-	-	-	-
38				-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	FLO-GAS CORP																
40	----------																
41	INV IN ASSOC CO		1230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	ACCUM DEF TAXES	Zeroed	1900	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	COMMON STOCK		2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	RETAINED EARNING		2160	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
45	COMPREHENSIVE IN		2190	2,386,526	2,472,443	2,598,924	705,053	795,096	775,864	784,225	789,291	773,126	784,154	791,079	798,675	849,603	1,174,928
46	CUSTOMER DEPOSIT	Zeroed	2350	103,245	103,245	103,245	79,108	79,108	79,108	53,461	53,461	53,461	28,569	28,569	28,569	(87,528)	54,279
47	INV TAX CREDIT	Zeroed	2550	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	ACCUM DEF TAXES	Zeroed	2820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	3% INV TAX CRED	Zeroed		-	-	-	-	-	-	-	-	-	-	-	-	-	-
50				-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	CONSOLIDATED																
52	----------																
53	LONG TERM DEBT		Line Reference L30+L31-L18	50,493,540	50,501,924	50,510,307	50,518,691	50,527,075	50,525,458	50,530,428	50,538,810	50,547,193	50,555,913	50,564,296	50,572,680	50,581,063	50,535,952
54	SHORT TERM DEBT		L32	3,466,000	3,964,000	2,243,000	2,215,000	3,120,000	1,460,000	1,105,000	3,552,000	3,468,000	9,248,000	7,156,000	6,383,000	11,122,000	4,500,154
55	PREFERRED STOCK		L22	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000
56	CUSTOMER DEPOSITS	Gas only	L33	5,491,600	5,559,619	5,604,513	5,642,261	5,652,617	5,631,942	5,607,088	5,646,460	5,649,535	5,654,542	5,663,446	5,677,146	5,679,024	5,627,676
57	COMMON EQUITY		-L18+L21+L23+L24+L26-L27-L28-L29-L42+L44+L45-L45	47,572,292	48,486,127	49,131,336	48,958,727	49,343,627	49,546,358	48,812,217	49,164,364	49,287,561	48,723,228	48,940,728	49,241,536	48,970,684	48,936,831
58	COMMON EQ EXCL FLO		+L21+L23+L24+L25+L26-L27-L28-L29	45,289,010	46,116,929	46,635,657	48,332,782	48,657,639	48,849,602	48,081,454	48,428,554	48,567,896	47,967,643	48,178,219	48,471,431	48,033,553	47,816,182
59	DEFERRED INC TAXES*	Gas only	-L13+L18-L30-L23-L24-L25	7,009,645	6,807,736	6,665,889	6,537,676	6,418,024	6,311,427	6,247,307	6,132,438	6,115,328	6,134,843	6,080,595	6,020,565	5,236,593	6,286,004
60	TAX CREDITS-ZERO CST	Gas only	L38+L49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	TAX CREDITS-WEIGHTED	Gas only	L34-L38+L47-L49	210,185	206,904	203,623	200,342	197,061	193,780	190,499	187,218	183,937	180,656	177,375	174,094	170,813	190,499
62	TOTAL INCLUDING FLO-GAS EQUITY			114,843,262	116,126,312	114,958,668	114,672,696	115,858,403	114,268,965	113,092,538	115,821,309	115,851,554	121,097,183	119,162,441	118,669,012	122,360,177	116,677,117
63	TOTAL EXCLUDING FLO-GAS EQUITY			112,559,980	113,767,114	112,462,989	114,046,751	115,172,415	113,572,209	112,361,774	115,088,479	115,131,890	120,341,597	118,419,931	117,898,906	121,423,048	116,586,468
64	TOTAL LTD,STD,EQUITY			102,131,831	103,552,051	102,484,643	102,292,418	103,590,702	102,131,816	101,047,645	103,855,194	103,902,754	109,127,142	107,261,025	106,797,217	111,273,747	104,572,937
65	TOTAL LTD,STD,EQUITY EXCL FLO-GAS			99,848,550	101,182,853	99,988,964	101,666,473	102,904,714	101,435,060	100,316,881	103,119,364	103,183,089	108,371,556	106,498,515	106,027,111	110,336,616	103,452,288

FPU
Unamortized Debt Discount
100.1810.1
Actual Dec 2006 - Apr 2008

	Monthly Amortization	Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 Mth Avg
$10M	$ 601	$ 45,671	$ 45,070	$ 44,469	$ 43,869	$ 43,268	$ 42,667	$ 42,066	$ 41,465	$ 40,864	$ 40,263	$ 39,662	$ 39,061	$ 38,460	$ 42,066
$5.5M	$ 324	$ 24,590	$ 24,267	$ 23,943	$ 23,620	$ 23,296	$ 22,972	$ 22,649	$ 22,325	$ 22,002	$ 21,678	$ 21,355	$ 21,031	$ 20,707	$ 22,649
$8M	$ 339	$ 63,036	$ 62,697	$ 62,358	$ 62,019	$ 61,680	$ 61,341	$ 61,002	$ 60,664	$ 60,325	$ 59,649	$ 59,310	$ 58,971	$ 58,632	$ 60,899
$15M	$ 3,357	$ 997,152	$ 993,795	$ 990,438	$ 987,080	$ 983,723	$ 980,365	$ 979,436	$ 976,080	$ 972,723	$ 969,366	$ 966,008	$ 962,651	$ 959,293	$ 978,316
$14M	$ 2,239	$ 667,269	$ 665,029	$ 662,790	$ 660,551	$ 658,312	$ 656,072	$ 654,818	$ 652,579	$ 650,341	$ 648,103	$ 645,864	$ 643,625	$ 641,386	$ 654,365
	$ 6,860	$ 1,797,719	$ 1,790,859	$ 1,783,999	$ 1,777,139	$ 1,770,278	$ 1,763,418	$ 1,759,973	$ 1,753,113	$ 1,746,255	$ 1,739,059	$ 1,732,199	$ 1,725,339	$ 1,718,480	$ 1,758,295

	Monthly Amortization		Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 Mth Avg
$10M	$ 601	$ 546	$ 38,460	$ 37,860	$ 37,259	$ 36,658	$ 36,057	$ 35,511	$ 34,965	$ 34,419	$ 33,873	$ 33,327	$ 32,781	$ 32,235	$ 31,689	$ 35,007
$5.5M	$ 324	$ 294	$ 20,707	$ 20,384	$ 20,060	$ 19,737	$ 19,413	$ 19,119	$ 18,825	$ 18,531	$ 18,237	$ 17,943	$ 17,649	$ 17,355	$ 17,061	$ 18,848
$8M	$ 339		$ 58,632	$ 58,293	$ 57,954	$ 57,615	$ 57,277	$ 56,938	$ 56,599	$ 56,260	$ 55,921	$ 55,582	$ 55,243	$ 54,904	$ 54,565	$ 56,599
$15M	$ 3,357		$ 959,293	$ 955,936	$ 952,578	$ 949,221	$ 945,864	$ 942,506	$ 939,149	$ 935,791	$ 932,434	$ 929,076	$ 925,719	$ 922,362	$ 919,004	$ 939,149
$14M	$ 2,239		$ 641,386	$ 639,147	$ 636,908	$ 634,669	$ 632,430	$ 630,191	$ 627,952	$ 625,713	$ 623,474	$ 621,235	$ 618,996	$ 616,757	$ 614,518	$ 627,952
	$ 6,860		$ 1,718,480	$ 1,711,620	$ 1,704,760	$ 1,697,900	$ 1,691,041	$ 1,684,265	$ 1,677,490	$ 1,670,715	$ 1,663,939	$ 1,657,164	$ 1,650,388	$ 1,643,613	$ 1,636,838	$ 1,677,555

	Monthly Amortization		Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 Mth Avg
$10M	$ 546	$ 492	$ 31,689	$ 31,143	$ 30,597	$ 30,051	$ 29,505	$ 29,013	$ 28,521	$ 28,029	$ 27,537	$ 27,045	$ 26,553	$ 26,061	$ 25,569	$ 28,562
$5.5M	$ 294	$ 265	$ 17,061	$ 16,767	$ 16,473	$ 16,179	$ 15,885	$ 15,620	$ 15,355	$ 15,090	$ 14,825	$ 14,560	$ 14,295	$ 14,030	$ 13,765	$ 15,378
$8M	$ 339		$ 54,565	$ 54,226	$ 53,887	$ 53,548	$ 53,209	$ 52,871	$ 52,532	$ 52,193	$ 51,854	$ 51,515	$ 51,176	$ 50,837	$ 50,498	$ 52,532
$15M	$ 3,357		$ 919,004	$ 915,647	$ 912,289	$ 908,932	$ 905,575	$ 902,217	$ 898,860	$ 895,502	$ 892,145	$ 888,787	$ 885,430	$ 882,073	$ 878,715	$ 898,860
$14M	$ 2,239		$ 614,518	$ 612,279	$ 610,040	$ 607,801	$ 605,562	$ 603,323	$ 601,084	$ 598,845	$ 596,606	$ 594,367	$ 592,128	$ 589,889	$ 587,650	$ 601,084
	$ 6,775		$ 1,636,838	$ 1,630,062	$ 1,623,287	$ 1,616,512	$ 1,609,736	$ 1,603,044	$ 1,596,352	$ 1,589,659	$ 1,582,967	$ 1,576,275	$ 1,569,582	$ 1,562,890	$ 1,556,198	$ 1,596,416

LOSS ON RE'ACQD DEBT
100.1890.1

Monthly Amortization	Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 Mth Avg
1524	$ 208,741	$ 207,217	$ 205,694	$ 204,170	$ 202,646	$ 201,123	$ 199,599	$ 198,075	$ 196,552	$ 195,028	$ 193,504	$ 191,981	$ 190,457	$ 199,599

Monthly Amortization	Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 Mth Avg
1524	$ 190,457	$ 188,933	$ 187,410	$ 185,886	$ 184,362	$ 182,839	$ 181,315	$ 179,791	$ 178,268	$ 176,744	$ 175,220	$ 173,697	$ 172,173	$ 181,315

Monthly Amortization	Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 Mth Avg
1524	$ 172,173	$ 170,650	$ 169,126	$ 167,602	$ 166,079	$ 164,555	$ 163,031	$ 161,508	$ 159,984	$ 158,460	$ 156,937	$ 155,413	$ 153,889	$ 163,031

Total 1810.1 & 1890.1	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	13 Mth Avg
2007	$ 2,006,460	$ 1,998,076	$ 1,989,692	$ 1,981,309	$ 1,972,925	$ 1,964,541	$ 1,959,572	$ 1,951,188	$ 1,942,807	$ 1,934,087	$ 1,925,703	$ 1,917,320	$ 1,908,937	$ 1,957,894
2008	$ 1,908,937	$ 1,900,553	$ 1,892,170	$ 1,883,786	$ 1,875,403	$ 1,867,104	$ 1,858,805	$ 1,850,506	$ 1,842,207	$ 1,833,908	$ 1,825,609	$ 1,817,310	$ 1,809,011	$ 1,858,870
2009	$ 1,809,011	$ 1,800,712	$ 1,792,413	$ 1,784,114	$ 1,775,815	$ 1,767,599	$ 1,759,383	$ 1,751,167	$ 1,742,951	$ 1,734,735	$ 1,726,519	$ 1,718,303	$ 1,710,087	$ 1,759,447

Schedule of Customer Deposits

Company: Florida Public Utilities Company
Company: Gas Division -Consolidated

Schedule Year Ended: December 31, 2007

Explanation: Provide a schedule of customer deposits on a 13-month average basis.

Line No.	(1) For the Month Ended	(2) Gas Consolidated Beginning Balance	(3) Gas Deposits Received/ (Refunded)	(4) Deposits Refunded	(5) Ending Balance (2+3-4)	(6)	(7) Gas Interest	(8) Monthly Effective rate
1	12/31/2006	5,426,941	64,660		5,491,601			
2	1/31/2007	5,491,601	68,019		5,559,620		27,663	5.97%
3	2/28/2007	5,559,620	44,894		5,604,514		26,919	5.76%
4	3/31/2007	5,604,514	37,748		5,642,262		25,557	5.44%
5	4/30/2007	5,642,262	10,356		5,652,618		26,551	5.64%
6	5/31/2007	5,652,618	(20,675)		5,631,943		29,437	6.27%
7	6/30/2007	5,631,943	(24,854)		5,607,088		29,281	6.27%
8	7/31/2007	5,607,088	39,372		5,646,460		28,396	6.03%
9	8/31/2007	5,646,460	3,076		5,649,536		31,495	6.69%
10	9/30/2007	5,649,536	5,007		5,654,543		27,818	5.90%
11	10/31/2007	5,654,543	8,904		5,663,447		29,747	6.30%
12	11/30/2007	5,663,447	13,700		5,677,147		29,950	6.33%
13	12/31/2007	5,677,147	1,878		5,679,025		30,034	6.35%
14	Total	72,907,718	252,084	-	73,159,802	-	342,848	
15								
16	@ 1/13th	5,608,286	19,391	-	5,627,677	-		

Average Effective Cost of Customers' Deposits - H28 / F30	6.09%
Year End Effective Cost of Customers' Deposits - H27 / F27	6.35%

Schedule of Customer Deposits

Company: Florida Public Utilities Company
Company: Gas Division - South Florida

Schedule Year Ended: December 31, 2007

Explanation: Provide a schedule of customer deposits on a 12-month average basis.

Line No.	(1) For the Month Ended	(2) South Fl. Beginning Balance	(3) Gas Deposits Received/ (Refunded)	(4) South Fl. Deposits Refunded	(5) Fernandina Ending Balance (2+3-4)	(6)	(7) South Fl. Interest	(8) Monthly Effective rate
1	12/31/2006	3,743,120	41,627		3,784,747			
2	1/31/2007	3,784,747	41,350		3,826,097		19,121	6.00%
3	2/28/2007	3,826,097	5,835		3,831,932		18,560	5.81%
4	3/31/2007	3,831,932	10,213		3,842,145		17,527	5.47%
5	4/30/2007	3,842,145	23,481		3,865,626		18,153	5.64%
6	5/31/2007	3,865,626	(4,025)		3,861,601		20,213	6.28%
7	6/30/2007	3,861,601	(10,560)		3,851,041		20,109	6.27%
8	7/31/2007	3,851,041	5,547		3,856,588		19,565	6.09%
9	8/31/2007	3,856,588	(16,018)		3,840,570		21,541	6.73%
10	9/30/2007	3,840,570	31,225		3,871,795		18,939	5.87%
11	10/31/2007	3,871,795	(3,525)		3,868,269		20,389	6.33%
12	11/30/2007	3,868,269	14,460		3,882,729		20,522	6.34%
13	12/31/2007	3,882,729	(682)		3,882,047		20,573	6.36%
14	Total	49,926,260	138,927	-	50,065,187	-	235,211	
15								
16	@ 1/13th	3,840,482	10,687	-	3,851,168	-		

Average Effective Cost of Customers' Deposits - H28 / F30	6.11%
Year End Effective Cost of Customers' Deposits - H27 / F27	6.36%

Schedule of Customer Deposits

Company: Florida Public Utilities Company
Company: Gas Division - Central Florida

Schedule Year Ended: December 31, 2007

Explanation: Provide a schedule of customer deposits on a 12-month average basis.

Line No.	(1) For the Month Ended	(2) Central Fl. Beginning Balance	(3) Gas Deposits Received/ (Refunded)	(4) Central Fl. Deposits Refunded	(5) Marianna Ending Balance (2+3-4)	(6)	(7) Central Fl. Interest	(8) Monthly Effective rate
1	12/31/2006	1,683,821	23,033		1,706,854			
2	1/31/2007	1,706,854	26,669		1,733,523		8,543	5.91%
3	2/28/2007	1,733,523	39,059		1,772,582		8,359	5.66%
4	3/31/2007	1,772,582	27,535		1,800,117		8,030	5.35%
5	4/30/2007	1,800,117	(13,125)		1,786,992		8,398	5.64%
6	5/31/2007	1,786,992	(16,650)		1,770,342		9,225	6.25%
7	6/30/2007	1,770,342	(14,294)		1,756,047		9,172	6.27%
8	7/31/2007	1,756,047	33,825		1,789,872		8,831	5.92%
9	8/31/2007	1,789,872	19,094		1,808,966		9,953	6.60%
10	9/30/2007	1,808,966	(26,218)		1,782,748		8,878	5.98%
11	10/31/2007	1,782,748	12,429		1,795,178		9,358	6.26%
12	11/30/2007	1,795,178	(760)		1,794,418		9,428	6.30%
13	12/31/2007	1,794,418	2,560		1,796,978		9,461	6.32%
14	Total	22,981,458	113,157	-	23,094,615	-	107,636	
15								
16	@ 1/13th	1,767,804	8,704	-	1,776,509	-		

Average Effective Cost of Customers' Deposits - H28 / F30	6.06%
Year End Effective Cost of Customers' Deposits - H27 / F27	6.32%

EFFECTIVE COST OF ST DEBT
2007

	2006 DEC	2007 JAN	2007 FEB	2007 MAR	2007 APR	2007 MAY	2007 JUN	2007 JUL	2007 AUG	2007 SEP	2007 OCT	2007 NOV	2007 DEC	TOTAL or Average %	Rate	
Method as per Surveillance Report																
Int Accrued on NP		20,437	8,046	2,565	2,784	4,380	2,229	24,030	17,791	15,739	31,348	25,390	31,971	186,710		
NP BAL @ End of Mth	3,466,000	3,964,000	2,243,000	2,215,000	3,120,000	1,460,000	1,105,000	3,552,000	3,468,000	9,248,000	7,156,000	6,383,000	11,122,000	4,500,154	4.15%	Using End of Month Balance
Annualized Interest Rate		5.99%	4.61%	1.34%	1.07%	3.48%	2.42%	7.86%	5.96%	2.04%	5.09%	4.77%	3.34%	4.15%		
Avg Int Rate as per Sch L		6.22%	6.22%	6.22%	6.22%	6.22%	6.22%	6.22%	6.44%	6.34%	5.82%	5.87%	5.82%	6.15%		Average Cost Rate using daily balances
		0														
Interest Cost using Avg Mthly Bal																
Int Exp		20,437	8,046	2,565	2,784	4,380	2,229	24,030	17,791	15,739	31,348	25,390	31,971	186,710		
Avg LOC Balance as per Sch L		3,741,355	1,582,857	544,806	660,367	793,452	339,567	4,152,097	3,240,452	3,883,200	5,869,452	5,208,500	6,644,967	3,055,089	6.11%	Using Avg LOC Mthly Bal
		6.34%	6.54%	5.47%	5.06%	6.41%	7.88%	6.72%	6.38%	4.86%	6.20%	5.85%	5.59%	6.11%		
Effective Cost of ST Debt																
LOC Available	$ 12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000			
Int Exp		$ 20,437	$ 8,046	$ 2,565	$ 2,784	$ 4,380	$ 2,229	$ 24,030	$ 17,791	$ 15,739	$ 31,348	$ 25,390	$ 31,971	$ 186,710	6.11%	
Fee on Unused Portion of LOC	0.25%	$ 1,778	$ 2,276	$ 2,466	$ 2,446	$ 2,413	$ 2,429	$ 1,689	$ 1,886	$ 1,691	$ 1,320	$ 1,415	$ 1,153	$ 22,962	0.75%	
Fee on Total Available LOC	0.10%	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 12,000	0.39%	
		23,215	11,322	6,031	6,230	7,793	5,658	26,719	20,677	18,430	33,668	27,805	34,124	221,672	7.26%	
Ratio of Average Daily Balance to	0.0000	0.9438	0.7057	0.2460	0.2117	0.5435	0.3073	1.1689	0.9344	0.4199	0.8202	0.8160	0.5975	0.5934		
														0.68		

FLORIDA PUBLIC UTILITIES

IN THOUSANDS

INTEREST COVERAGE RATIO	Source	HBY-4 2003	HBY-3 2004	HBY-2 2005	HBY-1 2006	HISTORIC BASE YEAR* 2007
		*				
Earnings before Interest & Taxes		8,177	9,671	11,103	11,015	9,868
Divide by:						
Interest Expense		4,488	4,462	4,568	4,608	4,870
Interest Coverage Ratio		**1.82**	**2.17**	**2.43**	**2.39**	**2.03**

* Excluding discontinued operations

Interest - Coverage Ratio (Pre-Tax): EBIT = Earnings before Interest and Taxes / Interest Expense

Florida Public Utilities Company
Projected Issuance Costs

Equity - Common Stock				
Amount of Common Financing	15,000,000	Gross Spread % (sales charge)	4.85%	1
Price per Share	11	Other Fees %	1.15%	2
Shares Issued	1,363,636	Net Proceeds	14,100,000	

1 Spread between what Investment Bankers' cost and the price offered to the public.
2 Other costs such as accounting, legal, printing and other costs associated with the issue.

FPU
Long Term Debt
Actual Dec 2006 - Aug 2008

BONDS
100.2210.1

		Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 Mth Avg
$10M	9.57 % due 2018	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000
$5.5M	10.03 % due 2018	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000
$8M	9.08 % due 2022	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000
$15M	6.85 % due 2031	$ 15,000,000	$ 15,000,000	$ 15,000,000	$ 15,000,000	$ 15,000,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,993,846
$14M	4.90 % due 2031	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000
		$ 52,500,000	$ 52,500,000	$ 52,500,000	$ 52,500,000	$ 52,500,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,493,846

BONDS		Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 Mth Avg
$10M	9.57 % due 2018	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,440,615
$5.5M	10.03 % due 2018	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,192,308
$8M	9.08 % due 2022	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000
$15M	6.85 % due 2031	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,983,077
$14M	4.90 % due 2031	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,988,462
		$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 51,081,000	$ 51,081,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,604,462
															Redemption pos

BONDS		Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 Mth Avg
$10M	9.57 % due 2018	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,531,615
$5.5M	10.03 % due 2018	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,692,308
$8M	9.08 % due 2022	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000
$15M	6.85 % due 2031	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000
$14M	4.90 % due 2031	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000
		$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 50,173,923

UNAMORTIZED DEBT DISCOUNT
100.1810.1

	Monthly Amortization	Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 Mth Avg
$10M	$ 601	$ 45,671	$ 45,070	$ 44,469	$ 43,869	$ 43,268	$ 42,667	$ 42,066	$ 41,465	$ 40,864	$ 40,263	$ 39,662	$ 39,061	$ 38,460	$ 42,066
$5.5M	$ 324	$ 24,590	$ 24,267	$ 23,943	$ 23,620	$ 23,296	$ 22,972	$ 22,649	$ 22,325	$ 22,002	$ 21,678	$ 21,355	$ 21,031	$ 20,707	$ 22,649
$8M	$ 358	$ 63,036	$ 62,697	$ 62,358	$ 62,019	$ 61,680	$ 61,341	$ 61,002	$ 60,664	$ 60,325	$ 59,986	$ 59,310	$ 58,971	$ 58,632	$ 60,899
$15M	$ 1,357	$ 997,152	$ 993,795	$ 990,438	$ 987,080	$ 983,723	$ 980,365	$ 979,438	$ 976,080	$ 972,723	$ 969,366	$ 966,008	$ 962,651	$ 959,293	$ 978,316
$14M	$ 2,236	$ 687,269	$ 685,029	$ 682,790	$ 680,551	$ 658,312	$ 656,072	$ 654,818	$ 652,579	$ 650,341	$ 648,103	$ 645,864	$ 643,625	$ 641,386	$ 654,365
	$ 8,860	$ 1,797,719	$ 1,790,859	$ 1,783,999	$ 1,777,139	$ 1,770,278	$ 1,763,418	$ 1,758,973	$ 1,753,113	$ 1,746,255	$ 1,739,059	$ 1,732,199	$ 1,725,339	$ 1,718,480	$ 1,758,295

	Monthly Amortization	Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 Mth Avg
$10M	$ 601 $ 546	$ 36,460	$ 37,860	$ 37,258	$ 36,658	$ 36,057	$ 35,511	$ 34,965	$ 34,419	$ 33,873	$ 33,327	$ 32,781	$ 32,235	$ 31,689	$ 35,007
$5.5M	$ 324 $ 294	$ 20,707	$ 20,384	$ 20,060	$ 19,737	$ 19,413	$ 19,119	$ 18,825	$ 18,531	$ 18,237	$ 17,943	$ 17,649	$ 17,355	$ 17,061	$ 18,848
$8M	$ 358	$ 58,632	$ 58,293	$ 57,954	$ 57,615	$ 57,277	$ 56,938	$ 56,599	$ 56,260	$ 55,921	$ 55,582	$ 55,243	$ 54,904	$ 54,565	$ 56,599
$15M	$ 1,357	$ 959,293	$ 955,936	$ 952,578	$ 949,221	$ 945,864	$ 942,506	$ 939,149	$ 935,791	$ 932,434	$ 929,076	$ 925,719	$ 922,362	$ 919,004	$ 939,149
$14M	$ 2,236	$ 641,366	$ 639,147	$ 636,908	$ 634,669	$ 632,430	$ 630,191	$ 627,952	$ 625,713	$ 623,474	$ 621,235	$ 618,996	$ 616,757	$ 614,518	$ 627,952
	$ 8,860	$ 1,718,460	$ 1,711,620	$ 1,704,760	$ 1,697,900	$ 1,691,041	$ 1,684,265	$ 1,677,490	$ 1,670,715	$ 1,663,939	$ 1,657,164	$ 1,650,388	$ 1,643,613	$ 1,636,838	$ 1,677,555

	Monthly Amortization	Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 Mth Avg
$10M	$ 546 $ 492	$ 31,689	$ 31,143	$ 30,597	$ 30,051	$ 29,505	$ 29,013	$ 28,521	$ 28,029	$ 27,537	$ 27,045	$ 26,553	$ 26,061	$ 25,569	$ 28,562
$5.5M	$ 294 $ 265	$ 17,061	$ 16,767	$ 16,473	$ 16,179	$ 15,885	$ 15,620	$ 15,355	$ 15,090	$ 14,825	$ 14,560	$ 14,295	$ 14,030	$ 13,765	$ 15,378
$8M	$ 358	$ 54,565	$ 54,226	$ 53,887	$ 53,548	$ 53,209	$ 52,871	$ 52,532	$ 52,193	$ 51,854	$ 51,515	$ 51,176	$ 50,837	$ 50,498	$ 52,532
$15M	$ 1,357	$ 919,004	$ 915,647	$ 912,289	$ 908,932	$ 905,575	$ 902,217	$ 898,860	$ 895,502	$ 892,145	$ 888,787	$ 885,430	$ 882,073	$ 878,715	$ 898,860
$14M	$ 2,236	$ 614,518	$ 612,278	$ 610,040	$ 607,801	$ 605,562	$ 603,323	$ 601,084	$ 598,845	$ 596,606	$ 594,367	$ 592,128	$ 589,889	$ 587,650	$ 601,084
	$ 6,775	$ 1,636,838	$ 1,630,062	$ 1,623,287	$ 1,616,512	$ 1,609,736	$ 1,603,044	$ 1,596,352	$ 1,589,659	$ 1,582,967	$ 1,576,275	$ 1,569,582	$ 1,562,890	$ 1,556,198	$ 1,596,416

LOSS ON RE'ACQD DEBT
100.1890.1

	Monthly Amortization	Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 Mth Avg
	1524	$ 208,741	$ 207,217	$ 205,694	$ 204,170	$ 202,646	$ 201,123	$ 199,599	$ 198,075	$ 196,552	$ 195,028	$ 193,504	$ 191,981	$ 190,457	$ 199,599

	Monthly Amortization	Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 Mth Avg
	1524	$ 190,457	$ 188,933	$ 187,410	$ 185,886	$ 184,362	$ 182,839	$ 181,315	$ 179,791	$ 178,268	$ 176,744	$ 175,220	$ 173,697	$ 172,173	$ 181,315

	Monthly Amortization	Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 Mth Avg
	1524	$ 172,173	$ 170,650	$ 169,126	$ 167,602	$ 166,079	$ 164,555	$ 163,031	$ 161,508	$ 159,984	$ 158,460	$ 156,937	$ 155,413	$ 153,889	$ 163,031

Total 1810.1 & 1890.1		DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	13 Mth Avg
	2007	$ 2,008,460	$ 1,998,078	$ 1,989,692	$ 1,981,309	$ 1,972,925	$ 1,964,541	$ 1,959,572	$ 1,951,188	$ 1,942,807	$ 1,934,087	$ 1,925,703	$ 1,917,320	$ 1,908,937	$ 1,957,894
	2008	$ 1,906,937	$ 1,900,553	$ 1,892,170	$ 1,883,786	$ 1,875,403	$ 1,867,104	$ 1,858,805	$ 1,850,506	$ 1,842,207	$ 1,833,908	$ 1,825,609	$ 1,817,310	$ 1,809,011	$ 1,858,870
	2009	$ 1,809,011	$ 1,800,712	$ 1,792,413	$ 1,784,114	$ 1,775,815	$ 1,767,599	$ 1,759,383	$ 1,751,167	$ 1,742,951	$ 1,734,735	$ 1,726,519	$ 1,718,303	$ 1,710,087	$ 1,759,447
	2007	$ 50,493,540	$ 50,501,924	$ 50,510,308	$ 50,518,691	$ 50,527,075	$ 50,525,459	$ 50,530,428	$ 50,538,812	$ 50,547,193	$ 50,555,913	$ 50,564,297	$ 50,572,680	$ 50,581,063	$ 50,535,953
	2008	$ 50,581,063	$ 50,589,447	$ 50,597,830	$ 50,606,214	$ 50,614,597	$ 49,213,896	$ 49,222,195	$ 49,190,494	$ 49,198,793	$ 49,207,092	$ 49,215,391	$ 49,223,690	$ 49,231,989	$ 49,745,592
	2009	$ 49,231,989	$ 49,240,288	$ 49,248,587	$ 49,256,886	$ 49,265,185	$ 47,864,401	$ 47,872,617	$ 47,880,833	$ 47,889,049	$ 47,897,265	$ 47,905,481	$ 47,913,697	$ 47,921,913	$ 48,414,476

Florida Public Utilities
Long-Term Debt

	GL #	Start of Sinking Fund Payments	December 31 2007	December 31 2006	December 31 2005
First mortgage bonds series					
9.57 % due 2018		5/1/2008	10,000,000	10,000,000	10,000,000
10.03 % due 2018		5/1/2008	5,500,000	5,500,000	5,500,000
9.08 % due 2022		n/a	8,000,000	8,000,000	8,000,000
4.90 % due 2031		n/a	14,000,000	14,000,000	14,000,000
6.85 % due 2031		n/a	14,990,000	15,000,000	15,000,000
Total long-term debt	2210		52,490,000	52,500,000	52,500,000
Unamortized debt discount	1810		(1,718,480)	(1,797,719)	(1,880,040)
LT DEBT net of Unamortized Debt Discount (10K & 10Q)			50,771,520	50,702,281	50,619,960
Unamortized Loss on Reacquired Debt	1890		(190,457)	(208,741)	(227,025)
LT DEBT net of Unamortized Debt Discount & Loss on Reacq Debt			50,581,063	50,493,540	50,392,935

Exhibit 27.21
Pg. 44

Florida Public Utilities Make-Whole Premium Analysis

Par Amount	Due	Current Coupon	Discount Rate
$10,000,000	2018	9.57%	5.06625%
		$478,500	

Actual Due Dates
1-May
1-Nov

Period	Date	Principal O/S	Principal	Interest	PV - PRIN	PV-INT	PV Multiplier
2	5/1/2003	$10,000,000	$0	$478,500	$0	$474,485	0.991609423
8	11/1/2003	$10,000,000	$0	$478,500	$0	$462,641	0.966857746
14	5/1/2004	$10,000,000	$0	$478,500	$0	$451,093	0.942723898
20	11/1/2004	$10,000,000	$0	$478,500	$0	$439,834	0.919192458
26	5/1/2005	$10,000,000	$0	$478,500	$0	$428,855	0.896248388
32	11/1/2005	$10,000,000	$0	$478,500	$0	$418,150	0.873877029
38	5/1/2006	$10,000,000	$0	$478,500	$0	$407,713	0.852064083
44	11/1/2006	$10,000,000	$0	$478,500	$0	$397,536	0.830795613
50	5/1/2007	$10,000,000	$0	$478,500	$0	$387,613	0.810058028
56	11/1/2007	$10,000,000	$0	$478,500	$0	$377,938	0.789838076
62	5/1/2008	$10,000,000	$909,000	$478,500	$700,042	$368,504	0.770122836
68	11/1/2008	$9,091,000	$0	$435,004	$0	$326,645	0.750899711
74	5/1/2009	$9,091,000	$909,000	$435,004	$665,530	$318,491	0.732156417
80	11/1/2009	$8,182,000	$0	$391,509	$0	$279,491	0.713880976
86	5/1/2010	$8,182,000	$909,000	$391,509	$632,720	$272,514	0.69606171
92	11/1/2010	$7,273,000	$0	$348,013	$0	$236,192	0.678687233
98	5/1/2011	$7,273,000	$909,000	$348,013	$601,528	$230,296	0.661746443
104	11/1/2011	$6,364,000	$0	$304,517	$0	$196,483	0.645228513
110	5/1/2012	$6,364,000	$909,000	$304,517	$571,873	$191,579	0.62912289
116	11/1/2012	$5,455,000	$0	$261,022	$0	$160,116	0.613419281
122	5/1/2013	$5,455,000	$909,000	$261,022	$543,680	$156,119	0.598107651
128	11/1/2013	$4,546,000	$0	$217,526	$0	$126,856	0.583178217
134	5/1/2014	$4,546,000	$909,000	$217,526	$516,877	$123,690	0.568621438
140	11/1/2014	$3,637,000	$0	$174,030	$0	$96,487	0.554428013
146	5/1/2015	$3,637,000	$909,000	$174,030	$491,395	$94,079	0.540588871
152	11/1/2015	$2,728,000	$0	$130,535	$0	$68,804	0.52709517
158	5/1/2016	$2,728,000	$909,000	$130,535	$467,170	$67,087	0.513938286
164	11/1/2016	$1,819,000	$0	$87,039	$0	$43,616	0.501109813
170	5/1/2017	$1,819,000	$909,000	$87,039	$444,139	$42,527	0.488601553
176	11/1/2017	$910,000	$0	$43,544	$0	$20,744	0.476405513
182	5/1/2018	$910,000	$910,000	$43,544	$422,708	$20,227	0.4645139
			$10,000,000		$6,057,661	$7,686,406	

Florida Public Utilities Make-Whole Premium Analysis

Par Amount	Due	Current Coupon	Discount Rate
$5,500,000	2018	10.03%	5.06625%
		$275,825	

Actual Due Dates
1-May
1-Nov

Period	Date		Principal	Interest	PV - PRIN	PV-INT	PV Multiplier
2	5/1/2003	$5,500,000	$0	$275,825	$0	$273,511	0.991609423
8	11/1/2003	$5,500,000	$0	$275,825	$0	$266,684	0.966857746
14	5/1/2004	$5,500,000	$0	$275,825	$0	$260,027	0.942723898
20	11/1/2004	$5,500,000	$0	$275,825	$0	$253,536	0.919192458
26	5/1/2005	$5,500,000	$0	$275,825	$0	$247,208	0.896248388
32	11/1/2005	$5,500,000	$0	$275,825	$0	$241,037	0.873877029
38	5/1/2006	$5,500,000	$0	$275,825	$0	$235,021	0.852064083
44	11/1/2006	$5,500,000	$0	$275,825	$0	$229,154	0.830795613
50	5/1/2007	$5,500,000	$0	$275,825	$0	$223,434	0.810058028
56	11/1/2007	$5,500,000	$0	$275,825	$0	$217,857	0.789838076
62	5/1/2008	$5,500,000	$500,000	$275,825	$385,061	$212,419	0.770122836
68	11/1/2008	$5,000,000	$0	$250,750	$0	$188,288	0.750899711
74	5/1/2009	$5,000,000	$500,000	$250,750	$366,078	$183,588	0.732156417
80	11/1/2009	$4,500,000	$0	$225,675	$0	$161,105	0.713880976
86	5/1/2010	$4,500,000	$500,000	$225,675	$348,031	$157,084	0.69606171
92	11/1/2010	$4,000,000	$0	$200,600	$0	$136,145	0.678687233
98	5/1/2011	$4,000,000	$500,000	$200,600	$330,873	$132,746	0.661746443
104	11/1/2011	$3,500,000	$0	$175,525	$0	$113,254	0.645228513
110	5/1/2012	$3,500,000	$500,000	$175,525	$314,561	$110,427	0.62912289
116	11/1/2012	$3,000,000	$0	$150,450	$0	$92,289	0.613419281
122	5/1/2013	$3,000,000	$500,000	$150,450	$299,054	$89,985	0.598107651
128	11/1/2013	$2,500,000	$0	$125,375	$0	$73,116	0.583178217
134	5/1/2014	$2,500,000	$500,000	$125,375	$284,311	$71,291	0.568621438
140	11/1/2014	$2,000,000	$0	$100,300	$0	$55,609	0.554428013
146	5/1/2015	$2,000,000	$500,000	$100,300	$270,294	$54,221	0.540588871
152	11/1/2015	$1,500,000	$0	$75,225	$0	$39,651	0.52709517
158	5/1/2016	$1,500,000	$500,000	$75,225	$256,969	$38,661	0.513938286
164	11/1/2016	$1,000,000	$0	$50,150	$0	$25,131	0.501109813
170	5/1/2017	$1,000,000	$500,000	$50,150	$244,301	$24,503	0.488601553
176	11/1/2017	$500,000	$0	$25,075	$0	$11,946	0.476405513
182	5/1/2018	$500,000	$500,000	$25,075	$232,257	$11,648	0.4645139
			$5,500,000		$3,331,791	$4,430,575	

Florida Public Utilities Make-Whole Premium Analysis

Par Amount	Current Coupon	Discount Rate
$8,000,000	9.08%	5.06625%
	$363,200	

Period	Date	Principal	Interest	PV	PV Multiplier
2	12/1/2003	$0	$363,200	$360,152.54	0.991609423
8	6/1/2004	$0	$363,200	$351,162.73	0.966857746
14	12/1/2004	$0	$363,200	$342,397.32	0.942723898
20	6/1/2005	$0	$363,200	$333,850.70	0.919192458
26	12/1/2005	$0	$363,200	$325,517.41	0.896248388
32	6/1/2006	$0	$363,200	$317,392.14	0.873877029
38	12/1/2006	$0	$363,200	$309,469.68	0.852064083
44	6/1/2007	$0	$363,200	$301,744.97	0.830795613
50	12/1/2007	$0	$363,200	$294,213.08	0.810058028
56	6/1/2008	$0	$363,200	$286,869.19	0.789838076
62	12/1/2008	$0	$363,200	$279,708.61	0.770122836
68	6/1/2009	$0	$363,200	$272,726.78	0.750899711
74	12/1/2009	$0	$363,200	$265,919.21	0.732156417
80	6/1/2010	$0	$363,200	$259,281.57	0.713880976
86	12/1/2010	$0	$363,200	$252,809.61	0.696061710
92	6/1/2011	$0	$363,200	$246,499.20	0.678687233
98	12/1/2011	$0	$363,200	$240,346.31	0.661746443
104	6/1/2012	$0	$363,200	$234,347.00	0.645228513
110	12/1/2012	$0	$363,200	$228,497.43	0.629122890
116	6/1/2013	$0	$363,200	$222,793.88	0.613419281
122	12/1/2013	$0	$363,200	$217,232.70	0.598107651
128	6/1/2014	$0	$363,200	$211,810.33	0.583178217
134	12/1/2014	$0	$363,200	$206,523.31	0.568621438
140	6/1/2015	$0	$363,200	$201,368.25	0.554428013
146	12/1/2015	$0	$363,200	$196,341.88	0.540588871
152	6/1/2016	$0	$363,200	$191,440.97	0.527095170
158	12/1/2016	$0	$363,200	$186,662.39	0.513938286
164	6/1/2017	$0	$363,200	$182,003.08	0.501109813
170	12/1/2017	$0	$363,200	$177,460.08	0.488601553
176	6/1/2018	$0	$363,200	$173,030.48	0.476405513
182	12/1/2018	$0	$363,200	$168,711.45	0.464513900
188	6/1/2019	$0	$363,200	$164,500.22	0.452919115
194	12/1/2019	$0	$363,200	$160,394.11	0.441613749
200	6/1/2020	$0	$363,200	$156,390.50	0.430590577
206	12/1/2020	$0	$363,200	$152,486.82	0.419842556
212	6/1/2021	$0	$363,200	$148,680.58	0.409362817
218	12/1/2021	$0	$363,200	$144,969.34	0.399144665
224	6/1/2022	$8,000,000	$363,200	$141,350.75	0.389181568
		$8,000,000	$13,801,600	$8,907,056.59	
			PV of Principal	$3,113,452.55	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
76		Investment Tax Credit				$ (3,070)	$ (3,070)	$ (3,070)	$ (3,070)									
77																		
78																		
79																		
80	Assumptions:																	
81	RETAINED EARNINGS:																	
82	Annual Profit Margin Projected Increase																	
83					TOTAL	Jan-2007	Feb-2007	Mar-2007	Apr-2007	May-2007	Jun-2007	Jul-2007	Aug-2007	Sep-2007	Oct-2007	Nov-2007	Dec-2007	
84	PRIOR YEAR NET INCOME			2007	3,325	707	645	446	334	163	(87)	148	123	84	168	301	293	
85				FPU	2,862	621	519	340	274	152	(95)	143	139	73	161	293	242	
86				FLO-GAS	463	86	126	106	60	11	8	5	(16)	11	7	8	51	
87						Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	
88				2008	4,164	789	677	482	251	442	355	230	67	108	105	254	403	
89				FPU	3,719	632	533	348	230	383	377	269	102	151	141	222	330	
90			(444,694)	FLO-GAS	445	157	144	134	21	59	(22)	(40)	(35)	(42)	(36)	32	72	
91																		
92																		
93		FPU RETAINED EARNINGS 2008				Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	
94		B/F				34,972,913	35,605,285	36,138,648	35,796,759	36,027,087	36,410,247	36,065,266	36,334,709	36,436,607	36,863,532	37,004,548	37,226,364	34,972,913
95		NET INCOME		FPU		632,372	533,363	348,288	230,328	383,160	378,524	269,442	101,898	150,569	141,017	221,815	330,400	3,719,177
96		Preferred Dividend						(7,125)			(7,125)			(7,125)			(7,125)	(28,500)
97		Common Dividend				0	0	(683,051)	0	0	(714,380)	0	0	(716,519)	0	0	(717,001)	(2,830,952)
98		Flo-Gas Dividend												1,000,000				1,000,000
99		Projected Interim Rate Relief	Ann NOI	0	Jan-00	0	0	0	0									0
100		Projected NOI - Elec Rate Case	Annual	0	Jan-00					0	0	0	0	0	0	0	0	0
101		BALANCE C/F				35,605,285	36,138,648	35,796,759	36,027,087	36,410,247	36,065,266	36,334,709	36,436,607	36,863,532	37,004,548	37,226,364	36,832,637	36,832,637
102																		
103																		
104		FLO-GAS RETAINED EARNINGS																
105		B/F				849,603	1,006,603	1,150,603	1,284,603	1,305,603	1,364,369	1,342,823	1,303,041	1,268,469	226,083	189,774	222,064	849,603
106		NET INCOME				157,000	144,000	134,000	21,000	58,767	(21,547)	(39,782)	(34,572)	(42,387)	(36,308)	32,290	72,233	444,694
107		DIVIDEND												(1,000,000)				(1,000,000)
108		BAL C/F				1,006,603	1,150,603	1,284,603	1,305,603	1,364,369	1,342,823	1,303,041	1,268,469	226,083	189,774	222,064	294,297	294,297
109																		
110																		
111		CONSOLIDATED PROJECTED RETAINED EARNINGS																
112		B/F				35,822,515	36,611,887	37,289,250	37,081,362	37,332,690	37,774,617	37,408,089	37,637,750	37,705,076	37,089,614	37,194,323	37,448,428	35,822,515
113		NET INCOME				789,372	677,363	482,288	251,328	441,926	354,978	229,661	67,327	106,182	104,709	254,105	402,533	4,163,871
114		Preferred Dividend				0	0	(7,125)	0	0	(7,125)	0	0	(7,125)	0	0	(7,125)	(28,500)
115		Common Dividend				0	0	(683,051)	0	0	(714,380)	0	0	(716,519)	0	0	(717,001)	(2,830,952)
116		Projected NOI - Elec Rate Case				0	0	0	0	0	0	0	0	0	0	0	0	0
117		BALANCE C/F				36,611,887	37,289,250	37,081,362	37,332,690	37,774,617	37,408,089	37,637,750	37,705,076	37,089,614	37,194,323	37,448,428	37,126,934	37,126,934
118																		
119					Effective													
120		Projected Rate Relief:		0		0	0	0	0	0	0	0	0	0	0	0	0	0
121		Projected Interim Rate Relief:	Ann NOI	0		0	0	0	0	0	0	0	0	0	0	0	0	0
122																		
123					11,122,000	8,230,000	6,614,000	9,880,000	8,181,000	10,863,000	12,529,000	10,388,000	10,924,000	11,124,000	13,324,000	17,824,000	19,324,000	11,620,538
130																		
131																		

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
80	Assumptions:																	
81	RETAINED EARNINGS:			1.07														
82	Annual Profit Margin Projected Increase																	
83					TOTAL	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	
84	PRIOR YEAR NET INCOME			2008	4,184	789	677	482	251	442	355	230	87	108	105	254	403	
85				FPU	3,719	632	533	348	230	383	377	269	102	151	141	222	330	
86				FLO-GAS	445	157	144	134	21	59	(22)	(40)	(15)	(42)	(36)	32	72	
87						Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	
88				2009	4,435	841	721	514	268	471	378	245	72	115	112	271	429	
89				FPU	3,961	673	568	371	245	408	401	287	109	160	150	236	352	
90			(473,599)	FLO-GAS	474	167	153	143	22	63	(23)	(42)	(37)	(45)	(39)	34	77	
91																		
92																		
93		FPU RETAINED EARNINGS 2008				Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	
94		B/F				36,832,637	37,637,042	38,315,504	38,032,303	38,325,291	38,733,356	38,592,493	39,020,417	39,182,250	38,517,538	38,741,499	39,093,783	36,832,637
95		NET INCOME		FPU		673,476	568,032	370,927	245,299	408,065	400,999	286,956	108,522	160,355	150,183	236,233	351,876	3,960,923
96		Preferred Dividend						(7,125)			(7,125)			(7,125)			(7,125)	(28,500)
97		Common Dividend				0	0	(719,113)	0	0	(731,729)	0	0	(896,717)	0	0	(897,207)	(3,244,766)
98		Flo-Gas Dividend																0
99		Projected Interim Rate Relief	Ann NOI	770,033	Jan 2009	130,929	110,430	72,111	47,688									361,157
100		Projected NOI - Gas Rate Case	Annual	0	Jun 2009					0	196,992	140,968	53,312	78,775	73,778	116,050	172,860	832,735
101		BALANCE C/F				37,637,042	38,315,504	38,032,303	38,325,291	38,733,356	38,592,493	39,020,417	39,182,250	38,517,538	38,741,499	39,093,783	38,714,187	38,714,187
102																		
103																		
104		FLO-GAS RETAINED EARNINGS																
105		B/F				294,297	461,502	614,862	757,572	779,937	842,523	819,576	777,208	740,390	695,248	656,579	690,968	294,297
106		NET INCOME				167,205	153,360	142,710	22,365	62,586	(22,947)	(42,367)	(36,819)	(45,142)	(38,668)	34,389	76,928	473,599
107		DIVIDEND																0
108		BAL C/F				461,502	614,862	757,572	779,937	842,523	819,576	777,208	740,390	695,248	656,579	690,968	767,896	767,896
109																		
110																		
111		CONSOLIDATED PROJECTED RETAINED EARNINGS																
112		B/F				37,126,934	38,098,544	38,930,365	38,789,875	39,105,228	39,575,879	39,412,069	39,797,625	39,922,640	39,212,786	39,398,079	39,784,751	37,126,934
113		NET INCOME				840,681	721,392	513,837	267,664	470,652	378,051	244,589	71,703	115,214	111,515	270,622	428,804	4,434,522
114		Preferred Dividend				0	0	(7,125)	0	0	(7,125)	0	0	(7,125)	0	0	(7,125)	(28,500)
115		Common Dividend				0	0	(719,113)	0	0	(731,729)	0	0	(896,717)	0	0	(897,207)	(3,244,766)
116		Projected NOI - Gas Rate Case				0	0	0	0	0	196,992	140,968	53,312	78,775	73,778	116,050	172,860	832,735
117		BALANCE C/F				37,967,616	38,819,936	38,717,764	39,057,540	39,575,879	39,412,069	39,797,625	39,922,640	39,212,786	39,398,079	39,784,751	39,482,083	39,120,925
118																		
119					Annual	Effective												
120		Projected Rate Relief:		1,945,815	Jun 2009													
121		Projected Interim Rate Relief:	Ann NOI	770,033	Jan 2009	130,929	110,430	72,111	47,688	79,331		196,992	140,968	53,312	78,775	73,778	116,050	172,860	832,735
122																		440,488
129					19,324,000	18,724,000	17,224,000	16,224,000	17,424,000	19,424,000	19,424,000	5,824,000	6,824,000	7,024,000	8,724,000	11,324,000	11,524,000	13,785,538
130																		

Florida Public Utilities Company
100.2210.1 - BONDS SUMMARY
Jul-08

Dr./ (Cr.)

Prepared By:_____
M JAEGER

Approved By:_____
M Napier

DATE	14M Balance	15M Balance	5.5M Balance	10M Balance	8M Balance	Account Balance	GL Balance	Difference
Beg Balance as of 1/1/08	(14,000,000.00)	(14,990,000.00)	(5,500,000.00)	(10,000,000.00)	(8,000,000.00)	(52,490,000.00)	(52,490,000.00)	A4
JANUARY	(14,000,000.00)	(14,990,000.00)	(5,500,000.00)	(10,000,000.00)	(8,000,000.00)	(52,490,000.00)	(52,490,000.00)	S2 -
FEBRUARY	(14,000,000.00)	(14,990,000.00)	(5,500,000.00)	(10,000,000.00)	(8,000,000.00)	(52,490,000.00)	(52,490,000.00)	S3 -
MARCH	(14,000,000.00)	(14,990,000.00)	(5,500,000.00)	(10,000,000.00)	(8,000,000.00)	(52,490,000.00)	(52,490,000.00)	S4 -
APRIL	(14,000,000.00)	(14,990,000.00)	(5,500,000.00)	(10,000,000.00)	(8,000,000.00)	(52,490,000.00)	(52,490,000.00)	S5 -
MAY	(14,000,000.00)	(14,990,000.00)	(5,000,000.00)	(9,091,000.00)	(8,000,000.00)	(51,081,000.00)	(51,081,000.00)	S6 -
JUNE	(14,000,000.00)	(14,990,000.00)	(5,000,000.00)	(9,091,000.00)	(8,000,000.00)	(51,081,000.00)	(51,081,000.00)	S7 -
JULY	0.00							
AUGUST	0.00							
SEPTEMBER	0.00							
OCTOBER	0.00							
NOVEMBER	0.00							
DECEMBER	0.00							

A: $14,000,000 PBC IND DEV REV BOND, 4.9%, ISSUED 11/1/2001 -, DUE 2031
B: $15,000,000 FIRST MORTGAGE BONDS, 6.85%, ISSUED 10/1/2001 -, DUE 2031
C: $5,500,000 FIRST MORTGAGE BONDS, 10.03%, ISSUED 5/1/88, DUE 2018 and $10,000,000 FIRST MORTGAGE BONDS, 9.57%, ISSUED 5/1/88, DUE 2018
D: $8,000,000 FIRST MORTGAGE BONDS, 9.08%, ISSUED 6/1/92, DUE 2022
E: Calculation of Interest on Long Term Debt
F: Schedule of Bond Retirements
G: $10,000 Redemption for the $15,000,000 FIRST MORTGAGE BONDS @6.85% in May 2007
H: $500,000 Sinking fund Payment on $5.5 Million Bond and $909,000 Sinking Fund Payment on $10 Million Bond in May 2008.

Florida Public Utilities Company
100.1810.1 - UNAMORTIZED DEBT DISCOUNT SUMMARY
Period Ending: July 2008

Prepared By:_____

Approved By:_____

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE	G/L AGREE
12/31/2007	BALANCES FORWARD	2,413,935.47	(695,455.70)	1,718,479.77	59
Jan-08	JE 6	0.00	(6,859.58)	1,711,620.19	60
Feb-08	JE 6	0.00	(6,859.58)	1,704,760.61	61
Mar-08	JE 6	0.00	(6,859.58)	1,697,901.03	62
Apr-08	JE 6	0.00	(6,858.20)	1,691,042.83	63
May-08	JE 6	0.00	(6,775.55)	1,684,267.28	64
Jun-08	JE 6	0.00	(6,775.55)	1,677,491.73	65
Jul-08	JE 6	0.00	(6,775.55)	1,670,716.18	
Aug-08	JE 6	0.00	0.00	1,670,716.18	
Sep-08	JE 6	0.00	0.00	1,670,716.18	
Oct-08	JE 6	0.00	0.00	1,670,716.18	
Nov-08	JE 6	0.00	0.00	1,670,716.18	
Dec-08	JE 6	0.00	0.00	1,670,716.18	
	TOTAL	2,413,935.47	(743,219.29)	1,670,716.18	

L T Asset/L T Liab reclass	(6,775.55)	* 12 =	(81,306.60)

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: July 2008
14 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	JE6 AMORTIZATION	BALANCE
12/31/2007	14M Rev Bond 11/14/01	805,955.81	(164,569.50)	641,386.31
Jan-08	JE 6		(2,238.77)	639,147.54
Feb-08	JE 6		(2,238.77)	636,908.77
Mar-08	JE 6		(2,238.77)	634,670.00
Apr-08	JE 6		(2,238.77)	632,431.23
May-08	JE 6		(2,238.77)	630,192.46
Jun-08	JE 6		(2,238.77)	627,953.69
Jul-08	JE 6		(2,238.77)	625,714.92
Aug-08	JE 6			625,714.92
Sep-08	JE 6			625,714.92
Oct-08	JE 6			625,714.92
Nov-08	JE 6			625,714.92
Dec-08	JE 6			625,714.92
	TOTAL	805,955.81	(180,240.89)	625,714.92

L T Asset/L T Liab reclass	(2,238.77)	* 12 =	(26,865.24)

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: July 2008
15 MILLION

			JE6	
DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2007	BALANCES FORWARD	1,208,669.91	(249,376.61)	959,293.30
Jan-08	JE 6		(3,357.42)	955,935.88
Feb-08	JE 6		(3,357.42)	952,578.46
Mar-08	JE 6		(3,357.42)	949,221.04
Apr-08	JE 6		(3,357.42)	945,863.62
May-08	JE 6		(3,357.42)	942,506.20
Jun-08	JE 6		(3,357.42)	939,148.78
Jul-08	JE 6		(3,357.42)	935,791.36
Aug-08	JE 6			935,791.36
Sep-08	JE 6			935,791.36
Oct-08	JE 6			935,791.36
Nov-08	JE 6			935,791.36
Dec-08	JE 6			935,791.36
	TOTAL	1,208,669.91	(272,878.55)	935,791.36

L T Asset/L T Liab reclass	(3,357.42)	* 12 =	(40,289.04)

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: July 2008
5.5 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2007	BALANCES FORWARD	97,070.01	(76,362.52)	20,707.49
Jan-08	JE 6		(323.57)	20,383.92
Feb-08	JE 6		(323.57)	20,060.35
Mar-08	JE 6		(323.57)	19,736.78
Apr-08	JE 6		(322.78)	19,414.00
May-08	JE 6		(294.16)	19,119.84
Jun-08	JE 6		(294.16)	18,825.68
Jul-08	JE 6		(294.16)	18,531.52
Aug-08	JE 6			18,531.52
Sep-08	JE 6			18,531.52
Oct-08	JE 6			18,531.52
Nov-08	JE 6			18,531.52
Dec-08	JE 6			18,531.52
	TOTAL	97,070.01	(78,538.49)	18,531.52

L T Asset/L T Liab reclass	(294.16)	* 12 =	(3,529.92)

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: July 2008
10 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2007	BALANCES FORWARD	180,272.87	(141,812.40)	38,460.47
Jan-08	JE 6		(600.90)	37,859.57
Feb-08	JE 6		(600.90)	37,258.67
Mar-08	JE 6		(600.90)	36,657.77
Apr-08	JE 6		(600.31)	36,057.46
May-08	JE 6		(546.28)	35,511.18
Jun-08	JE 6		(546.28)	34,964.90
Jul-08	JE 6		(546.28)	34,418.62
Aug-08	JE 6			34,418.62
Sep-08	JE 6			34,418.62
Oct-08	JE 6			34,418.62
Nov-08	JE 6			34,418.62
Dec-08	JE 6			34,418.62
	TOTAL	180,272.87	(145,854.25)	34,418.62

L T Asset/L T Liab reclass	(546.28)	* 12 =	(6,555.36)

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: July 2008
8 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2007	BALANCES FORWARD	121,966.87	(63,334.67)	58,632.20
Jan-08	JE 6		(338.92)	58,293.28
Feb-08	JE 6		(338.92)	57,954.36
Mar-08	JE 6		(338.92)	57,615.44
Apr-08	JE 6		(338.92)	57,276.52
May-08	JE 6		(338.92)	56,937.60
Jun-08	JE 6		(338.92)	56,598.68
Jul-08	JE 6		(338.92)	56,259.76
Aug-08	JE 6			56,259.76
Sep-08	JE 6			56,259.76
Oct-08	JE 6			56,259.76
Nov-08	JE 6			56,259.76
Dec-08	JE 6			56,259.76
	TOTAL	121,966.87	(65,707.11)	56,259.76

L T Asset/L T Liab reclass	(338.92)	* 12 =	(4,067.04)

CALCULATION OF INTEREST AMORTIZATION ON LONG TERM DEBT

	COST	INTEREST RATE	NO. OF YEARS HELD	TOTAL INTEREST EXPENSE	NO. OF MONTHS TO ACCRUE	MONTHLY AMORTIZATION
$10,000,000.00 FIRST MORTGAGE BOND 9.57% DUE 2018 AMORTIZATION OVER 30 YEARS	9,091,000.00	9.57%	30	26,100,261	360	72,500.73
$5,500,000.00 FIRST MORTGAGE BOND 10.03% DUE 2018 AMORTIZATION OVER 30 YEARS	5,000,000.00	10.03%	30	15,045,000	360	41,791.67
$8,000,000.00 FIRST MORTGAGE BOND 9.08% DUE 2022 AMORTIZATION OVER 30 YEARS	8,000,000.00	9.08%	30	21,792,000	360	60,533.33
$14,990.000.00 FIRST MORTGAGE BOND 6.85% DUE 2031 AMORTIZATION OVER 30 YEARS	14,990,000.00	6.85%	30	30,804,450	360	85,567.92
$14,000,000.00 PBC IND DEV REV BOND 4.9% DUE 2031 AMORTIZATION OVER 30 YEARS	14,000,000.00	4.9%	30	20,580,000.00	360	57,166.67
Total	**51,081,000.00**			**114,321,711.00**		**317,560.32**

A1

d:/work/ledgers/p_a/FPUC UNAMORT DEBT DISCOUNT 1810.1 2008

Florida Public Utilities Company
100.1890.1 - UNAMORTIZED LOSS ON REAQUIRED DEBT SUMMARY
Period Ending: July-08

Prepared By:_____
M JAEGER
Approved By:_____

Description	Total	Period of Accrual	Monthly Accrual	Remaining Months to Accrue	Account Balance This Month
$5,000,000 BOND 30 Years @ 1523.66/ Month	$548,516.00	6/01/88 thru 5/30/2018	1,523.66	118	179,791.88
				Total	179,791.88
				GL Balance	179,791.88
				Difference	**.00**

66

L T Asset/L T Liability reclass to Current **(1,523.66)** *** 12 =** **(18,283.92)**

Exhibit 27.21
Pg. 58

9/12/2008 15:33:05 Interactive Trial Balance GLGITB GLDITB

Account/mask . . 001.0.0.1890.****** + Balance type . . M +
Year/period . . . 2008 + 7 Macro name . . . _____ +
Zero balance? . . 1 1=Include, 0=Exclude Budget code . . . _____ +
Subtotal mask . . 010000000 1=Yes, 0=No Subtotal option . 1 0=Off,1=Det,2=Sum
Company masked? . 0 1=Yes, 0=No Active accts? . . 2 0=Inac,1=Ac,2=All
Comparative view 0 0=No, 1=M/M, 2=Q/Q, 3=Y/Y, 4=Cust ____ __ / ____ __
Type options, press Enter. 5=Display
1 4 5 2 3

O	Co#.U.D.Acct.Subacc	Current Period	YTD/Cumulative
_	001.0.0.1890.1	1,523.66-	179,791.88
	1890	1,523.66-	179,791.88
	Grand total for all currencies:	1,523.66-	179,791.88

Exhibit 27.21
Pg. 59

Bottom

F2=Function keys F3=Exit F4=Prompt F5=Fold/unfold F24=More keys

9/19/2008 10:58:02 Interactive Trial Balance GLGITB GLDITB

Account/mask . . 001.*.*.2210.1 + Balance type . . M +
Year/period . . . 2008 + 7 Macro name . . . +
Zero balance? . . 1 1=Include, 0=Exclude Budget code . . . +
Subtotal mask . . 010000000 1=Yes, 0=No Subtotal option . 1 0=Off,1=Det,2=Sum
Company masked? . 0 1=Yes, 0=No Active accts? . . 2 0=Inac,1=Ac,2=All
Comparative view 0 0=No, 1=M/M, 2=Q/Q, 3=Y/Y, 4=Cust /
Type options, press Enter. 5=Display

1 4 5 2 3		
O Co#.U.D.Acct.Subacc	Current Period	YTD/Cumulative
_ 001.0.0.2210.1	15,000.00	51,066,000.00-
2210	15,000.00	51,066,000.00-
Grand total for all currencies:	15,000.00	51,066,000.00-

Bottom

F2=Function keys F3=Exit F4=Prompt F5=Fold/unfold F24=More keys

Cox Doreen

From: Jaeger Melanie
Sent: Tuesday, September 23, 2008 11:47 AM
To: Cox Doreen
Subject: Bond Redemption
Attachments: us bank.pdf

Hi Doreen,

While reconciling 2370.1, I noticed a bond redemption for $25K for the 4.9% bond was incorrectly booked to this interest account in July. I am creating the voucher to correct it and also letting Tan know how to allocate principal and interest in the future. I remember you asking about the other July bond redemption for $15K (that was booked correctly), so I thought you might need this information. A copy of the US Bank invoice is attached. The correction to 2210.1 will occur in Sept.

Melanie Jaeger
Florida Public Utilities Company
561.650.8424

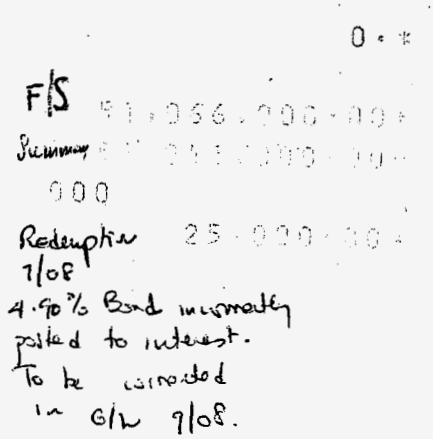

Exhibit 27.21
Pg. 62

REDACTED

P/L JUL 18 2008

FLORIDA PUBLIC UTILITIES COMPANY
ACH/WIRE FORM

WIRE DATE: 07/22/2008

DATE: July 18, 2008 TOTAL: $25,265.42 DIVISION: Tax Exempt PREPARED BY: T. JONES

CORRECT TAX RATE: 0.0% COMPANY: FPUC ACH OR WIRE: WIRE

APPROVALS

AUDITED BY	LOCAL MANAGER	DIVISION MANAGER	ADD'L EXECUTIVE	EXECUTIVE	FINANCIAL

GL YEAR/PERIOD
08/ 07

VENDOR #: 70328 VENDOR NAME: U.S. BANK NA

VOUCHER MESSAGE: SECURED INSURED NOTES

INVOICE

INVOICE NUMBER	INVOICE DATE	GROSS AMOUNT	WIRE/ACH DATE	DISCOUNT %	DISCOUNT TERMS	NET AMOUNT DUE
MM071808	07/18/2008	$ 25,265.42	07/22/2008			$ 25,265.42
PURCHASE ORDER # CODE/RSI	SALES TAX CHARGED	FREIGHT CHARGED	TOTAL TAX & FREIGHT		DISCOUNT $$	
EPO			$0.00		$0.00	

%	ACCOUNT NUMBER($) / DISTRIBUTION CODE	DISTRIBUTION AMOUNT	EXPENSE DESCRIPTION	SUBLEDGER
		$ -		
0%	100.2370.1	$ -	SERIES 5.85%	
100%	100.2370.1	$ 25,265.42	SERIES 4.9%	
		$ -		
		$ -		
		$ -		
		$ -		
		$ -		
		$ -		
		$ -		
		$ -		
		$ -		
		$ -		
	TOTAL OF ALL INVOICES:	$ 25,265.42		

WIRED TO:

REPORT OF FUNDS WIRED FROM:
FLORIDA PUBLIC UTILITIES COMPANY
BANK OF AMERICA 1-800-325-4296
WIRE DEPARTMENT
ACCOUNT #003466080210
ABA #063100277

COMPLETE THIS INFORMATION
AMOUNT WIRED:
ACCOUNT NAME: US BANK TRUST NA
ABA NO.:
ACCOUNT NO.:
TRANSACTION NO.:
WIRED BY:
REFERENCE NO.: FL PUBLIC UTILITES # 6748502
CONFIRMED BY:

Jul. 18. 2008 1:16PM REDACTED No. 4963 P. 2

U.S. Bank Corporate Trust Services
Bob Heigl
2204 Lake Shore Drive
Birmingham, AL 35209

July 18, 2008 via fax: (561) 833-0151

George Bachman
Treasurer
Florida Public Utilities Company
P. O. Box 3395
West Palm Beach, Florida 33402-3395

Re: Florida Public Utilities Company 4.9% Secured Insured Notes (Palm Beach)

Dear Mr. Bachman:

With regard to a Redemption Request from The Depository Trust Company ("DTC") relating to $25,000 of the above-referenced bonds, I've calculated the accrued interest to be paid to the estate of the holder as follows:

Holder: Ester Y McManus
Principal: $25,000.00
Interest period: 5/1/08-6/24/08 or 54 days
Rate: 4.9%
Total accrued interest due: $183.75

Please remit the sum of $25,265.42 no later than Tuesday, 7/22/08 by 11AM to:

U S Bank NA
ABA
Beneficiary: US Bank CT WIRE CLRG
Bene Account:
Beneficiary address: 777 E Wisconsin Ave, Milwaukee, WI 53202

OBI: Fl Public Utilities
Ref: account number
Attn: Beth Driggs

We will remit through Depository Trust Company (DTC) to the holder.

If you have any questions, please free feel to contact me at 205-802-5505

Sincerely,

Bob Heigl
Trust Financial Analyst

,8 08:08:00
Jul. 29. 2008 7:56AM No. 503.

REDACTED July 2008

U.S. Bank Corporate Trust Services
Bob Heigl
2204 Lakeshore Drive Suite 302
Birmingham, Al 35209

July 29, 2008 via fax: (561) 833-0151

George Bachman
Treasurer
Florida Public Utilities Company
P. O. Box 3395
West Palm Beach, Florida 33402-3395

$15M

Re: Florida Public Utilities Company 6.85% Secured Insured Quarterly Notes

Dear Mr. Bachman:

With regard to a Redemption Request from The Depository Trust Company ("DTC") relating to $15,000 of the above-referenced bonds, I've calculated the accrued interest to be paid to the estate of the holder as follows:

Principal: $15,000
Interest period: 7/1/08-7/28/07 or 28 days
Rate: 6.85%
Total accrued interest due: $79.92
Please remit the sum of $15,079.92 no later than Wednesday, 7/30/08 by 11AM to:

U S Bank NA
ABA
Beneficiary: US Bank CT WIRE CLRG
Bene Account:
Beneficiary address: 777 E Wisconsin Ave, Milwaukee, WI 53202

OBI: Fl Public Utilities
Ref: account number
Attn: Bob Heigl

We will remit through Depository Trust Company (DTC) to the holder.

Sincerely,

Bob Heigl
Trust Financial Analyst

9/18/2008 16:33:35 Interactive Trial Balance GLGITB GLDITB

Journals

Select journal to display account transactions.

Account . : 001.0.0.2210.1 BONDS

Period . . . . . : 2008 7 JUL 7/31/2008 Monetary USD

rt balance . . : 51,081,000.00- Posted activity . 15,000.00

l balance . . . : 51,066,000.00- Unposted activity .00

S	Journal	Date	Reference	Source	N/A	Amount
_	51362	8/15/2008	PLSUMMARY	PL		30,000.00
_	51362	8/15/2008	PLSUMMARY	PL		15,000.00-

Bottom

F2=Function keys F3=Exit F5=Fold/unfold F24=More keys

Exhibit 27.21
Pg. 65

9/18/2008 14:53:02 Interactive Trial Balance GLGITB GLDITB
Monthly activity

Exhibit 27.21
Pg. 66

Select option, press Enter.
Account . : 001.0.0.2210.1 BONDS

	Period End	Starting Balance	Posted Activity	Ending Balance
_	JAN 1/31/2008	52,490,000.00-	.00	52,490,000.00-
_	FEB 2/29/2008	52,490,000.00-	.00	52,490,000.00-
_	MAR 3/31/2008	52,490,000.00-	.00	52,490,000.00-
_	APR 4/30/2008	52,490,000.00-	.00	52,490,000.00-
_	MAY 5/31/2008	52,490,000.00-	1,409,000.00	51,081,000.00-
_	JUN 6/30/2008	51,081,000.00-	.00	51,081,000.00-
_	JUL 7/31/2008	51,081,000.00-	15,000.00	51,066,000.00-
_	AUG 8/31/2008	51,066,000.00-	.00	51,066,000.00-
_	SEP 9/30/2008	51,066,000.00-	.00	51,066,000.00-
_	OCT 10/31/2008	51,066,000.00-	.00	51,066,000.00-
_	NOV 11/30/2008	51,066,000.00-	.00	51,066,000.00-
_	DEC 12/31/2008	51,066,000.00-	.00	51,066,000.00-
_	ADJ 12/31/2008	51,066,000.00-	.00	51,066,000.00-

F2=Function keys F3=Exit F5=Refresh F6=More info. F24=More keys

7/17/2008 15:01:40 Interactive Trial Balance
Monthly activity

Select option, press Enter.
Account . : 001.0.0.1810.1 UNAMORTIZED DEBT DISCOUNT

	Period End	Starting Balance	Posted Activity	Ending Balance
_	JAN 1/31/2008	1,718,479.77	6,859.58-	1,711,620.19
_	FEB 2/29/2008	1,711,620.19	6,859.58-	1,704,760.61
_	MAR 3/31/2008	1,704,760.61	6,859.58-	1,697,901.03
_	APR 4/30/2008	1,697,901.03	6,858.20-	1,691,042.83
_	MAY 5/31/2008	1,691,042.83	6,775.55-	1,684,267.28
_	JUN 6/30/2008	1,684,267.28	.00	1,684,267.28
_	JUL 7/31/2008	1,684,267.28	.00	1,684,267.28
_	AUG 8/31/2008	1,684,267.28	.00	1,684,267.28
_	SEP 9/30/2008	1,684,267.28	.00	1,684,267.28
_	OCT 10/31/2008	1,684,267.28	.00	1,684,267.28
_	NOV 11/30/2008	1,684,267.28	.00	1,684,267.28
_	DEC 12/31/2008	1,684,267.28	.00	1,684,267.28
_	ADJ 12/31/2008	1,684,267.28	.00	1,684,267.28

F2=Function keys F3=Exit F5=Refresh F6=More info. F24=More keys

Florida Public Utilities Company
100.1810.1 - UNAMORTIZED DEBT DISCOUNT SUMMARY
Period Ending: *June 2008*

Prepared By:_____

Approved By:_____

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE	G/L AGREE
12/31/2007	BALANCES FORWARD	2,413,935.47	(695,455.70)	1,718,479.77	
Jan-08	JE 6	0.00	(6,859.58)	1,711,620.19	
Feb-08	JE 6	0.00	(6,859.58)	1,704,760.61	
Mar-08	JE 6	0.00	(6,859.58)	1,697,901.03	
Apr-08	JE 6	0.00	(6,858.20)	1,691,042.83	
May-08	JE 6	0.00	(6,775.55)	1,684,267.28	
Jun-08	JE 6	0.00	(6,775.55)	1,677,491.73	
Jul-08	JE 6	0.00	0.00	1,677,491.73	
Aug-08	JE 6	0.00	0.00	1,677,491.73	
Sep-08	JE 6	0.00	0.00	1,677,491.73	
Oct-08	JE 6	0.00	0.00	1,677,491.73	
Nov-08	JE 6	0.00	0.00	1,677,491.73	
Dec-08	JE 6	0.00	0.00	1,677,491.73	
	TOTAL	2,413,935.47	(736,443.74)	1,677,491.73	

L T Asset/L T Liab reclass	(6,775.55)	* 12 =	(81,306.60)

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: June 2008
14 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	JE6 AMORTIZATION	BALANCE
12/31/2007	14M Rev Bond 11/14/01	805,955.81	(164,569.50)	641,386.31
Jan-08	JE 6		(2,238.77)	639,147.54
Feb-08	JE 6		(2,238.77)	636,908.77
Mar-08	JE 6		(2,238.77)	634,670.00
Apr-08	JE 6		(2,238.77)	632,431.23
May-08	JE 6		(2,238.77)	630,192.46
Jun-08	JE 6		(2,238.77)	627,953.69
Jul-08	JE 6			627,953.69
Aug-08	JE 6			627,953.69
Sep-08	JE 6			627,953.69
Oct-08	JE 6			627,953.69
Nov-08	JE 6			627,953.69
Dec-08	JE 6			627,953.69
	TOTAL	805,955.81	(178,002.12)	627,953.69

L T Asset/L T Liab reclass	(2,238.77)	* 12 =	(26,865.24)

FLORIDA PUBLIC UTILITIES COMPANY
SCHEDULE OF AMORTIZATION
Period Ending: FEBRUARY 2007
$14,000,000 PBC IND DEV REV BOND, 4.9%, ISSUED 11/1/2001 -, DUE 2031

Prepared By:_____

Approved By:_____

	2001.00												TOTAL
INSURANCE	349426.00								0	0	0	0	0	0	349426
EXPENSES - UNDERWRITER FEE	280000.00														280000
ADJ OF PPD INS - 1ST YEAR	-14000.00														-14000.00
ADDTL BOND EXPENSES - UNDERWRITER FEI	140000.00														140000
ANALYTICAL SERVICES - S&P	12000.00														12000.00
ADDTL BOND FINANCING EXPENSES	36107.31														36107.31
ADDTL BOND FINANCING EXPENSES 2003	1250.00														1250.00
ADDTL BOND FINANCING EXPENSES 2003	1172.50														1172.50
INITIAL UNAMORTIZED DEBT	805955.81	0							0	0	0	0	0	0	805955.81

AMORTIZATION EXPENSE		PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	Annual
	2001	4464.08	2232.04	0	0		0	0	0	0	0	0	0	2232.04	2232.04	4464.08
	2002	26784.44	2232.04	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232**	26784.44
	2003	25860.22	2232.04	**1267.08**	**2232.04**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2239.26**	25860.22
	2004	26865.19	2238.77	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.72**	26865.19
	2005	26865.19	2238.77	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.72**	26865.19
	2006	26865.19	2238.77	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.72**	26865.19
	2007	26865.19	2238.77	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.72**	26865.19
	2008	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2009	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2010	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2011	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2012	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2013	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2014	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2015	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2016	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2017	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2018	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2019	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2020	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2021	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2022	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2023	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2024	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2025	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2026	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2027	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2028	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2029	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2030	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2031	23486.94	2,348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.73			23486.94
TOTAL AMORTIZATION		805955.81	69491.6	66294.6	67259.56	67263.28	67263.28	67263.28	67263.28	67263.28	67263.28	67263.28	60556.75	58208.02	58206.72	805955.81

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: June 2008
15 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	JE6 AMORTIZATION	BALANCE
12/31/2007	BALANCES FORWARD	1,208,669.91	(249,376.61)	959,293.30
Jan-08	JE 6		(3,357.42)	955,935.88
Feb-08	JE 6		(3,357.42)	952,578.46
Mar-08	JE 6		(3,357.42)	949,221.04
Apr-08	JE 6		(3,357.42)	945,863.62 ✓
May-08	JE 6		(3,357.42)	942,506.20
Jun-08	JE 6		(3,357.42)	939,148.78
Jul-08	JE 6			939,148.78
Aug-08	JE 6			939,148.78
Sep-08	JE 6			939,148.78
Oct-08	JE 6			939,148.78
Nov-08	JE 6			939,148.78
Dec-08	JE 6			939,148.78
	TOTAL	1,208,669.91	(269,521.13)	939,148.78

L T Asset/L T Liab reclass	(3,357.42)	* 12 =	(40,289.04)

LORIDA PUBLIC UTILITIES COMPANY
CHEDULE OF AMORTIZATION
0 YEARS 9/27/01
5,000,000 SECURED INSURED QUARTERLY NOTE @ 6.85% - DUE OCTOBER 1, 2031

	2001												TOTAL
NSURANCE - 459,613.24	459,613.24						0	0	0	0	0	0	459613.24
ALES COSTS - 472,500.00	472,500.00											0	472500
DJ OF PPD INS - IST YR	(15,000.00)												-15000
ddt'l bond financing Costs	55,601.66												55601.66
ddt'l bond financing exp tansf fr 14M	235,955.01												235955.01
NITIAL UNAMORTIZED DEBT	1,208,669.91	0					0	0	0	0	0	0	1208669.91

AMORTIZATION EXPENSE	PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2001	7,642.61	2,547.54	-		-	-	-	-	-	-	-	**2,589.21**	**2,505.87**	**2,547.53**	7,642.61
2002	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	3,357.38	40,289.00
2003	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2004	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2005	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2006	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2007	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2008	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2009	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2010	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2011	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2012	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2013	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2014	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2015	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2016	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2017	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2018	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2019	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2020	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2021	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2022	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2023	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2024	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2025	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2026	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2027	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2028	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2029	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2030	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2031	32,646.30	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.34				32,646.30
TOTAL AMORTIZATION	1,208,669.91	103,540.09	100,992.55	100,992.55	100,992.55	100,992.55	100,992.55	100,992.55	100,992.55	100,992.55	100,992.52	87,292.92	87,292.92	87,291.88	1,208,669.91

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: June 2008
5.5 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2007	BALANCES FORWARD	97,070.01	(76,362.52)	20,707.49
Jan-08	JE 6		(323.57)	20,383.92
Feb-08	JE 6		(323.57)	20,060.35
Mar-08	JE 6		(323.57)	19,736.78
Apr-08	JE 6		(322.78)	19,414.00
May-08	JE 6		(294.16)	19,119.84
Jun-08	JE 6		(294.16)	18,825.68
Jul-08	JE 6			18,825.68
Aug-08	JE 6			18,825.68
Sep-08	JE 6			18,825.68
Oct-08	JE 6			18,825.68
Nov-08	JE 6			18,825.68
Dec-08	JE 6			18,825.68
	TOTAL	97,070.01	(78,244.33)	18,825.68

L T Asset/L T Liab reclass	(294.16)	* 12 =	(3,529.92)

LORIDA PUBLIC UTILITIES COMPANY
CHEDULE OF AMORTIZATION
0 YEARS 5/1/88
5,500,000 First Mortgage Bonds @ 10.03% - DUE May 1, 2018

	1988														TOTAL
Original Issue Cost	97,070.01														
							0	0	0	0	0	0	0		97070.01
														0	0
															0
															0
															0
INITIAL UNAMORTIZED DEBT	97,070.01	0					0	0	0	0	0	0	0		97070.01

AMORTIZATION EXPENSE	PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	YTD
1988	2,588.56	323.57	-		-		323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	2,588.56
1989	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1990	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1991	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1992	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1993	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1994	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1995	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1996	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1997	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1998	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1999	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2000	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2001	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2002	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2003	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2004	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2005	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2006	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2007	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2008	3,646.77	323.57	323.57	323.57	323.57	322.78	294.16	294.16	294.16	294.16	294.16	294.16	294.16	294.16	3,646.77
2009	3,294.56	294.16	294.16	294.16	294.16	294.16	264.74	264.74	264.74	264.74	264.74	264.74	264.74	264.74	3,294.56
2010	2,941.52	264.74	264.74	264.74	264.74	264.74	235.32	235.32	235.32	235.32	235.32	235.32	235.32	235.32	2,941.52
2011	2,588.56	235.32	235.32	235.32	235.32	235.32	205.91	205.91	205.91	205.91	205.91	205.91	205.91	205.91	2,588.56
2012	2,235.56	205.91	205.91	205.91	205.91	205.91	176.49	176.49	176.49	176.49	176.49	176.49	176.49	176.49	2,235.56
2013	1,882.60	176.49	176.49	176.49	176.49	176.49	147.08	147.08	147.08	147.08	147.08	147.08	147.08	147.08	1,882.60
2014	1,529.60	147.08	147.08	147.08	147.08	147.08	117.66	117.66	117.66	117.66	117.66	117.66	117.66	117.66	1,529.60
2015	1,176.64	117.66	117.66	117.66	117.66	117.66	88.25	88.25	88.25	88.25	88.25	88.25	88.25	88.25	1,176.64
2016	823.64	88.25	88.25	88.25	88.25	88.25	58.83	58.83	58.83	58.83	58.83	58.83	58.83	58.83	823.64
2017	470.60	58.83	58.83	58.83	58.83	58.83	29.41	29.41	29.41	29.41	29.41	29.41	29.41	29.41	470.60
2018	117.44	29.41	29.41	29.41	29.41	29.21									117.44
TOTAL AMORTIZATION	97,070.01	8,412.82	8,089.25	8,089.25	8,089.25	8,088.26	8,089.25	8,089.25	8,089.25	8,089.25	8,089.25	6,794.97	6,794.97	6,794.97	97,070.01

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: June 2008
10 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2007	BALANCES FORWARD	180,272.87	(141,812.40)	38,460.47
Jan-08	JE 6		(600.90)	37,859.57
Feb-08	JE 6		(600.90)	37,258.67
Mar-08	JE 6		(600.90)	36,657.77
Apr-08	JE 6		(600.31)	36,057.46
May-08	JE 6		(546.28)	35,511.18
Jun-08	JE 6		(546.28)	34,964.90
Jul-08	JE 6			34,964.90
Aug-08	JE 6			34,964.90
Sep-08	JE 6			34,964.90
Oct-08	JE 6			34,964.90
Nov-08	JE 6			34,964.90
Dec-08	JE 6			34,964.90
	TOTAL	180,272.87	(145,307.97)	34,964.90

L T Asset/L T Liab reclass	(546.28)	* 12 =	(6,555.36)

ORIDA PUBLIC UTILITIES COMPANY
:HEDULE OF AMORTIZATION
YEARS 5/1/88
0,000,000 First Mortgage Bonds @ 9.57% - DUE May 1, 2018

	1988												TOTAL
iginal Issue Cost	180,272.87								0	0	0	0	0	0	180272.87
														0	0
															0
															0
															0
IITIAL UNAMORTIZED DEBT	180,272.87	0							0	0	0	0	0	0	180272.87

MORTIZATION EXPENSE		PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	YTD
	1988	4,807.20	600.90	-		-		**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	4,807.20
	1989	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	1990	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	1991	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	1992	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	1993	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	1994	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	1995	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	1996	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	1997	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	1998	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	1999	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	2000	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	2001	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	2002	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	2003	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	2004	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	2005	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	2006	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	2007	7,210.80	600.90	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	**600.90**	7,210.80
	2008	6,773.25	600.90	**600.90**	**600.90**	**600.90**	**600.31**	546.28	546.28	546.28	546.28	546.28	546.28	546.28	546.28	6,773.25
	2009	6,118.32	546.28	546.28	546.28	546.28	546.28	491.65	491.65	491.65	491.65	491.65	491.65	491.65	491.65	6,118.32
	2010	5,462.84	491.65	491.65	491.65	491.65	491.65	437.03	437.03	437.03	437.03	437.03	437.03	437.03	437.03	5,462.84
	2011	4,807.40	437.03	437.03	437.03	437.03	437.03	382.41	382.41	382.41	382.41	382.41	382.41	382.41	382.41	4,807.40
	2012	4,151.96	382.41	382.41	382.41	382.41	382.41	327.79	327.79	327.79	327.79	327.79	327.79	327.79	327.79	4,151.96
	2013	3,496.52	327.79	327.79	327.79	327.79	327.79	273.17	273.17	273.17	273.17	273.17	273.17	273.17	273.17	3,496.52
	2014	2,841.08	273.17	273.17	273.17	273.17	273.17	218.55	218.55	218.55	218.55	218.55	218.55	218.55	218.55	2,841.08
	2015	2,185.64	218.55	218.55	218.55	218.55	218.55	163.93	163.93	163.93	163.93	163.93	163.93	163.93	163.93	2,185.64
	2016	1,530.12	163.93	163.93	163.93	163.93	163.93	109.30	109.30	109.30	109.30	109.30	109.30	109.30	109.30	1,530.12
	2017	874.64	109.30	109.30	109.30	109.30	109.30	54.68	54.68	54.68	54.68	54.68	54.68	54.68	54.68	874.64
	2018	218.70	54.68	54.68	54.68	54.68	54.66									218.70
TOTAL AMORTIZATION		180,272.87	15,623.69	15,022.79	15,022.79	15,022.79	15,022.18	15,022.79	15,022.79	15,022.79	15,022.79	15,022.79	12,619.19	12,619.19	12,619.19	180,272.87

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: June 2008
8 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2007	BALANCES FORWARD	121,966.87	(63,334.67)	58,632.20
Jan-08	JE 6		(338.92)	58,293.28
Feb-08	JE 6		(338.92)	57,954.36
Mar-08	JE 6		(338.92)	57,615.44
Apr-08	JE 6		(338.92)	57,276.52
May-08	JE 6		(338.92)	56,937.60
Jun-08	JE 6		(338.92)	56,598.68
Jul-08	JE 6			56,598.68
Aug-08	JE 6			56,598.68
Sep-08	JE 6			56,598.68
Oct-08	JE 6			56,598.68
Nov-08	JE 6			56,598.68
Dec-08	JE 6			56,598.68
	TOTAL	121,966.87	(65,368.19)	56,598.68

L T Asset/L T Liab reclass	(338.92)	* 12 =	(4,067.04)

.ORIDA PUBLIC UTILITIES COMPANY
:HEDULE OF AMORTIZATION
YEARS 6/1/92
3,000,000 First Mortgage Bonds @ 9.08% - DUE June 1, 2022

	1992														TOTAL
riginal Issue Cost	121,629.20							0	0	0	0	0	0		121629.2
ldt'l bond financing Costs-Aug 1992	381.04												0		381.04
															0
															0
															0
IITIAL UNAMORTIZED DEBT	122,010.24	0						0	0	0	0	0	0	0	122010.24

MORTIZATION EXPENSE	PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	YTD
1992	2,372.44	338.92	-		-	-	-	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	2,372.44
1993	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
1994	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
1995	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
1996	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
1997	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
1998	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
1999	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
2000	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
2001	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
2002	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
2003	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
2004	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
2005	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
2006	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
2007	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
2008	4,067.04	338.92	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	**338.92**	4,067.04
2009	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2010	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2011	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2012	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2013	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2014	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2015	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2016	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2017	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2018	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2019	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2020	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2021	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2022	1,693.64	338.73	338.73	338.73	338.73	338.73	338.72			-					1,693.64
TOTAL AMORTIZATION	122,010.24	10,506.33	10,167.41	10,167.41	10,167.41	10,167.41	10,167.40	10,167.60	10,167.60	10,167.60	10,167.60	8,811.92	8,811.92	8,811.92	122,010.24

CALCULATION OF INTEREST AMORTIZATION ON LONG TERM DEBT

	COST	INTEREST RATE	NO. OF YEARS HELD	TOTAL INTEREST EXPENSE	NO. OF MONTHS TO ACCRUE	MONTHLY AMORTIZATION
$10,000,000.00 FIRST MORTGAGE BOND 9.57% DUE 2018 AMORTIZATION OVER 30 YEARS	9,091,000.00	9.57%	30	26,100,261	360	72,500.73
$5,500,000.00 FIRST MORTGAGE BOND 10.03% DUE 2018 AMORTIZATION OVER 30 YEARS	5,000,000.00	10.03%	30	15,045,000	360	41,791.67
$8,000,000.00 FIRST MORTGAGE BOND 9.08% DUE 2022 AMORTIZATION OVER 30 YEARS	8,000,000.00	9.08%	30	21,792,000	360	60,533.33
$14,990.000.00 FIRST MORTGAGE BOND 6.85% DUE 2031 AMORTIZATION OVER 30 YEARS	14,990,000.00	6.85%	30	30,804,450	360	85,567.92
$14,000,000.00 PBC IND DEV REV BOND 4.9% DUE 2031 AMORTIZATION OVER 30 YEARS	14,000,000.00	4.9%	30	20,580,000.00	360	57,166.67
Total	**51,081,000.00**			**114,321,711.00**		**317,560.32**

A1

SCHEDULE D-2 | LONG-TERM DEBT OUTSTANDING | PAGE 1 OF 1

FLORIDA PUBLIC SERVICE COMMISSION

COMPANY: FLORIDA PUBLIC UTILITIES COMPANY
CONSOLIDATED NATURAL GAS DIVISION
DOCKET NO.: 080366-GU

EXPLANATION: PROVIDE ANALYSIS, AS SPECIFIED, OF EACH OUTSTANDING ISSUE OF LONG-TERM DEBT, ON A 13 MONTH AVERAGE BASIS, FOR THE HISTORIC BASE YEAR.

TYPE OF DATA SHOWN:
HISTORIC YEAR ENDED: 12/31/07
WITNESS: COX, CAMFIELD

LINE NO.	ISSUE (1)	ISSUE DATE (2)	MATURITY DATE (3)	PRINCIPAL OUTSTANDING 12/31/2007 (4)	(PREMIUM) DISCOUNT (5)	ISSUING EXPENSE (6)	NET (5)+(6) (7)	LIFE (YEARS) (8)	AMORTIZATION (9)	INTEREST (10)	ANNUAL TOTAL COST (9)+(10) (11)
1	9.57%	5/1/1988	5/12/2018	$10,000,000		$42,066	$42,066	30	$7,211	$957,000	$964,211
2											
3	10.03%	5/1/1988	5/1/2018	$5,500,000		$22,649	$22,649	30	$3,883	$551,650	$555,533
4											
5	9.08%	6/1/1992	6/1/2022	$8,000,000		$60,899	$60,899	30	$4,404	$726,400	$730,804
6											
7	6.85%	10/1/2001	10/1/2031	$14,993,846		$978,316	$978,316	30	$37,859	$1,027,078	$1,064,937
8											
9	4.90%	11/12001	11/1/2031	$14,000,000		$654,365	$654,365	30	$25,882	$686,000	$711,882
10											
11											
12											
13	Loss on Reaquired Debt, Environmental Proceeds,										
14	Debt Discount Correction, Bond Insurance Fees					$199,599	199,599		18,284		$18,284
15											
16	TOTAL			$52,493,846	$0	$1,957,894	$1,957,894		$97,523	$3,948,128	$4,045,651
17	UNAMORTIZED PREMIUM, DISCOUNT, AND ISSUE EXPENSE			1,957,894							
18	NET			$50,535,952							
19	EMBEDDED COST OF LONG-TERM DEBT (11)/(4)			8.01%							
20	Note: For Long Term Call Provisions please see Agreements on site.										

SUPPORTING SCHEDULES: B-1 p.2

RECAP SCHEDULES: D-1 p.1

SCHEDULE D-2 – 2007

LONG-TERM DEBT OUTSTANDING

PAGE 1 OF 1

FLORIDA PUBLIC SERVICE COMMISSION

COMPANY: FLORIDA PUBLIC UTILITIES COMPANY
CONSOLIDATED NATURAL GAS DIVISION
DOCKET NO.: 040216-GU

EXPLANATION: PROVIDE ANALYSIS, AS SPECIFIED, OF EACH OUTSTANDING ISSUE OF LONG-TERM DEBT, ON A 13 MONTH AVERAGE BASIS, FOR THE HISTORIC BASE YEAR.

TYPE OF DATA SHOWN:
HISTORIC BASE YEAR DATA: 12/31/07
WITNESS: CAMFIELD, COX

LINE NO.	ISSUE (1)	ISSUE DATE (2)	MATURITY DATE (3)	PRINCIPAL OUTSTANDING (4)	(PREMIUM) DISCOUNT (5)	ISSUING EXPENSE (6)	NET (5)+(6) (7)	LIFE (YEARS) (8)	AMORTIZATION (9)	INTEREST (10)	ANNUAL TOTAL COST (9)+(10) (11)
1	9.57%	5/1/1988	5/12/018	1 $10,000,000		9 $42,066	$42,066	30	$7,211	$957,000	$964,211
2											
3	10.03%	5/1/1988	5/1/2018	3 $5,500,000		10 $22,649	$22,649	30	$3,883	$551,650	$555,533
4											
5	9.08%	6/1/1992	6/1/2022	3 $8,000,000		11 $60,899	$60,899	30	$4,404	$726,400	$730,804
6											
7	6.85%	10/1/2001	10/1/2031	4 $14,993,846		12 $978,316	$978,316	30	$37,859	$1,027,078	$1,064,938
8											
9	4.90%	11/12001	11/1/2031	5 $14,000,000		13 $654,365	$654,365	30	$25,882	$686,000	$711,882
10											
11											
12											
13	Loss on Reacquired Debt					14 $199,599	$199,599		18,284		18,284
14											
15											
16	TOTAL			6 $52,493,846	$0	7 $1,957,894	$1,957,894		$97,523	$3,948,128	15 $4,045,651
17	UNAMORTIZED PREMIUM, DISCOUNT, AND ISSUE EXPENSE			7 1,957,894							
18	NET			8 $50,535,953							
19	EMBEDDED COST OF LONG-TERM DEBT (11)/(4)			8.01%							
20	Note: For Long Term Debt Call Provisions please see Agreements on site										

SUPPORTING SCHEDULES: B-1 p.2

RECAP SCHEDULES: D-1 p.1

0 * 4,045,651 * 50,535,953 * 100 * = 8.01 *

FLO[illegible]IBLIC UTILITIES COMPANY
13 MO[illegible]VERAGE ADJUSTMENTS

EPORT GROUP NAME: ROR
REPORT NAME: ROR_DEBT
DATE: 2/29/2008
USER: YOUNG

OR ST DEBT, LT DEBT, FUEL COST

	12 MTHS AG	11 MTHS AGO	10 MTHS AGO	9 MTHS AGO	8 MTHS AGO	7 MTHS AGO	6 MTHS AGO	5 MTHS AGO	4 MTHS AGO	3 MTHS AGO	2 MTHS AGO	1 MTH AGO	12 2007	12 MONTH ENDED	13 MONTH AVERAGE
HORT TERM DEBT															
INTEREST ON NP	9599	20437	8046	2565	2784	4380	2229	24030	17791	15739	31348	25390	31971	186710	
NP BALANCE	-3466000	-3964000	-2243000	-2215000	-3120000	-1460000	-1105000	-3552000	-3468000	-9248000	-7156000	-6383000	-11122000		-4500154
												YR END RATE	-1.67	13MTH RATE	-4.14
ONG TERM DEBT															
INTEREST ON LT	337430	337430	337430	337430	337430	337468	333958	337314	337372	337709	337372	337372	337372	4045657	
BONDS BALANCE	-50493540	-50501924	-50510307	-50518691	-50527075	-50525458	-50530428	-50538810	-50547193	-50555913	-50564296	-50572680	-50581063		-50535952
												YR END RATE	-7.99	13MTH RATE	-8
UEL COST															
NW ELECTRIC	1259359	1233435	1206796	1165187	1030551	1077343	1293162	1528051	1585776	1384804	1247607	1034516	1245510	15032738	
NE ELECTRIC	1151723	1792168	1832638	1727328	1754970	1677711	1830753	2271163	2323669	2017067	1861234	1413726	1605760	22108187	
OTAL ELEC FUEL	2411082	3025603	3039434	2892515	2785521	2755054	3123915	3799214	3909445	3401871	3108841	2448242	2851270	37140925	
SOUTH FL NG	2909942	2246666	2716220	2718098	2535999	1622046	1601086	1452290	1215098	1080264	1316111	2319543	2458518	23281939	
CENTRAL FL NG	1146149	998869	1228211	1017476	498926	567423	660825	648393	529335	454347	510032	945027	979051	9037915	
TOTAL NG FUEL	4056091	3245535	3944431	3735574	3034925	2189469	2261911	2100683	1744433	1534611	1826143	3264570	3437569	32319854	
SOUTH FL PRO	394178	440203	411234	457486	413479	324532	353358	319797	321505	322052	349584	465623	472643	4651496	
CENTRAL FL PRO	102543	89618	111255	109603	82113	75919	70031	69542	72083	77319	76342	109872	134163	1077860	
NE FL PROPANE	131397	151080	151991	135688	130900	134075	117998	128715	124050	82441	152307	172688	197021	1678954	
NATURE COST PRO	74916	65313	83654	72148	51629	52457	48855	43268	39807	73598	46639	63147	37336	677851	
TOTAL FUEL PRO	703034	746214	758134	774925	678121	586983	590242	561322	557445	555410	624872	811330	841163	8086161	

Exhibit 27.21
Pg. 82

FLORIDA PUBLIC UTILITIES COMPANY
CONSOLIDATED GAS DIVISIONS
CAPITAL STRUCTURE
FPSC ADJUSTED BASIS
DECEMBER 2007

SCHEDULE 4

AVERAGE	SYSTEM PER BOOKS	ADJUSTMENT FOR FLO-GAS	RETAIL PER BOOKS	ADJUSTMENTS PRORATA	ADJUSTMENTS SPECIFIC	ADJUSTED RETAIL	RATIO (%)	LOW POINT COST RATE (%)	LOW POINT WEIGHTED COST (%)	MID POINT COST RATE (%)	MID POINT WEIGHTED COST (%)	HIGH POINT COST RATE (%)	HIGH POINT WEIGHTED COST (%)
LONG TERM DEBT	$24,717,431	281,287	$24,998,718	(1,306,228)		$23,692,490	39.15	8.00	3.13	8.00	3.13	8.00	3.13
SHORT TERM DEBT	2,199,151	25,571	2,224,722	(116,246)		2,108,476	3.48	4.14	0.14	4.14	0.14	4.14	0.14
PREFERRED STOCK	291,515	5,115	296,630	(15,499)		281,131	0.46	4.75	0.02	4.75	0.02	4.75	0.02
CUSTOMER DEPOSITS	5,627,676		5,627,676			5,627,676	9.30	6.59	0.61	6.59	0.61	6.59	0.61
COMMON EQUITY	23,934,943	(311,973)	23,622,970	(1,234,343)		22,388,627	36.99	10.25	3.79	11.25	4.16	12.25	4.53
DEFERRED INCOME TAXES	6,231,942		6,231,942			6,231,942	10.30						
TAX CREDITS-ZERO COST													
TAX CREDITS-WEIGHTED COST	190,499		190,499			190,499	0.32	8.85	0.03	9.32	0.03	9.78	0.03
TOTAL	$63,193,157		$63,193,157	($2,672,316)		$60,520,841	100.00		7.72		8.09		8.46

YEAR END	SYSTEM PER BOOKS	ADJUSTMENT FOR FLO-GAS	RETAIL PER BOOKS	ADJUSTMENTS PRORATA	ADJUSTMENTS SPECIFIC	ADJUSTED RETAIL	RATIO (%)	LOW POINT COST RATE (%)	LOW POINT WEIGHTED COST (%)	MID POINT COST RATE (%)	MID POINT WEIGHTED COST (%)	HIGH POINT COST RATE (%)	HIGH POINT WEIGHTED COST (%)
LONG TERM DEBT	$25,855,516	199,064	$26,054,580	(1,433,541)		$24,621,039	38.03	7.99	3.04	7.99	3.04	7.99	3.04
SHORT TERM DEBT	5,687,531	39,813	5,727,344	(315,123)		5,412,221	8.36	1.67	0.14	1.67	0.14	1.67	0.14
PREFERRED STOCK	307,127		307,127	(16,898)		290,229	0.45	4.75	0.02	4.75	0.02	4.75	0.02
CUSTOMER DEPOSITS	5,679,024		5,679,024			5,679,024	8.77	6.35	0.56	6.35	0.56	6.35	0.56
COMMON EQUITY	25,025,137	(238,877)	24,786,260	(1,363,758)		23,422,502	36.18	10.25	3.71	11.25	4.07	12.25	4.43
DEFERRED INCOME TAXES	5,141,855		5,141,855			5,141,855	7.94						
TAX CREDITS-ZERO COST													
TAX CREDITS-WEIGHTED COST	170,813		170,813			170,813	0.27	8.33	0.02	8.76	0.02	9.20	0.02
TOTAL	$67,867,003		$67,867,003	($3,129,320)		$64,737,683	100.00		7.49		7.85		8.21

9/18/2008 14:45:42 Interactive Trial Balance GLGITB GLDITB
Monthly activity

Exhibit 27.21
Pg. 84

Select option, press Enter.
Account . : 001.0.0.2210.1 BONDS

	Period End	Starting Balance	Posted Activity	Ending Balance
_	JAN 1/31/2007	52,500,000.00-	.00	52,500,000.00-
_	FEB 2/28/2007	52,500,000.00-	.00	52,500,000.00-
_	MAR 3/31/2007	52,500,000.00-	.00	52,500,000.00-
_	APR 4/30/2007	52,500,000.00-	.00	52,500,000.00-
_	MAY 5/31/2007	52,500,000.00-	10,000.00	52,490,000.00-
_	JUN 6/30/2007	52,490,000.00-	.00	52,490,000.00-
_	JUL 7/31/2007	52,490,000.00-	.00	52,490,000.00-
_	AUG 8/31/2007	52,490,000.00-	.00	52,490,000.00-
_	SEP 9/30/2007	52,490,000.00-	.00	52,490,000.00-
_	OCT 10/31/2007	52,490,000.00-	.00	52,490,000.00-
_	NOV 11/30/2007	52,490,000.00-	.00	52,490,000.00-
_	DEC 12/31/2007	52,490,000.00-	.00	52,490,000.00-
_	ADJ 12/31/2007	52,490,000.00-	.00	52,490,000.00-

F2=Function keys F3=Exit F5=Refresh F6=More info. F24=More keys

Select option, press Enter.
Account . : 001.0.0.4270.1 INTEREST ON LONG-TERM DEB

	Period End	Starting Balance	Posted Activity	Ending Balance
_ JAN	1/31/2007	.00	329,045.83	329,045.83
_ FEB	2/28/2007	329,045.83	329,045.83	658,091.66
_ MAR	3/31/2007	658,091.66	329,045.83	987,137.49
_ APR	4/30/2007	987,137.49	329,045.83	1,316,183.32
_ MAY	5/31/2007	1,316,183.32	329,084.05	1,645,267.37
_ JUN	6/30/2007	1,645,267.37	328,988.75	1,974,256.12
_ JUL	7/31/2007	1,974,256.12	328,931.67	2,303,187.79
_ AUG	8/31/2007	2,303,187.79	328,988.75	2,632,176.54
_ SEP	9/30/2007	2,632,176.54	328,988.75	2,961,165.29
_ OCT	10/31/2007	2,961,165.29	328,988.75	3,290,154.04
_ NOV	11/30/2007	3,290,154.04	328,988.75	3,619,142.79
_ DEC	12/31/2007	3,619,142.79	328,988.75	3,948,131.54
_ ADJ	12/31/2007	3,948,131.54	3,948,131.54-	.00

F2=Function keys F3=Exit F5=Refresh F6=More info. F24=More keys

Select option, press Enter.
Account . : 001.0.0.4280.1 AMORT OF LOSS ON REACQ'D

	Period End	Starting Balance	Posted Activity	Ending Balance
_ JAN	1/31/2007	.00	1,523.66	1,523.66
_ FEB	2/28/2007	1,523.66	1,523.66	3,047.32
_ MAR	3/31/2007	3,047.32	1,523.66	4,570.98
_ APR	4/30/2007	4,570.98	1,523.66	6,094.64
_ MAY	5/31/2007	6,094.64	1,523.66	7,618.30
_ JUN	6/30/2007	7,618.30	1,523.66	9,141.96
_ JUL	7/31/2007	9,141.96	1,523.66	10,665.62
_ AUG	8/31/2007	10,665.62	1,523.66	12,189.28
_ SEP	9/30/2007	12,189.28	1,523.66	13,712.94
_ OCT	10/31/2007	13,712.94	1,523.66	15,236.60
_ NOV	11/30/2007	15,236.60	1,523.66	16,760.26
_ DEC	12/31/2007	16,760.26	1,523.66	18,283.92
_ ADJ	12/31/2007	18,283.92	18,283.92-	.00

F2=Function keys F3=Exit F5=Refresh F6=More info. F24=More keys

Select option, press Enter.
Account . : 001.0.0.4280.2 AMORTIZ OF DEBT DISCOUNT

	Period End	Starting Balance	Posted Activity	Ending Balance
_	JAN 1/31/2007	.00	6,860.07	6,860.07
_	FEB 2/28/2007	6,860.07	6,860.07	13,720.14
_	MAR 3/31/2007	13,720.14	6,860.07	20,580.21
_	APR 4/30/2007	20,580.21	6,860.07	27,440.28
_	MAY 5/31/2007	27,440.28	6,860.07	34,300.35
_	JUN 6/30/2007	34,300.35	3,445.47	37,745.82
_	JUL 7/31/2007	37,745.82	6,858.60	44,604.42
_	AUG 8/31/2007	44,604.42	6,859.58	51,464.00
_	SEP 9/30/2007	51,464.00	7,196.35	58,660.35
_	OCT 10/31/2007	58,660.35	6,859.58	65,519.93
_	NOV 11/30/2007	65,519.93	6,859.58	72,379.51
_	DEC 12/31/2007	72,379.51	6,859.49	79,239.00
_	ADJ 12/31/2007	79,239.00	79,239.00-	.00

F2=Function keys F3=Exit F5=Refresh F6=More info. F24=More keys

6,860.*
12.=
82,320.00*
82,320.00*
79,239.-00-
3,081.00*

0.*
79,239.÷
12.=
6,603.25*

9/19/2008 11:40:01 Interactive Trial Balance GLGITB GLDITB

Account/mask . . 001.*.*.4270.1 + Balance type . . M +
Year/period . . . 2007 + 12 Macro name . . . _____ +
Zero balance? . . 1 1=Include, 0=Exclude Budget code . . . _____ +
Subtotal mask . . 010000000 1=Yes, 0=No Subtotal option . 1 0=Off,1=Det,2=Sum
mpany masked? . 0 1=Yes, 0=No Active accts? . . 2 0=Inac,1=Ac,2=All
mparative view 0 0=No, 1=M/M, 2=Q/Q, 3=Y/Y, 4=Cust ____ __ / ____ __
Type options, press Enter. 5=Display

1 4 5 2 3

O	Co#.U.D.Acct.Subacc	Current Period	YTD/Cumulative
_	001.0.0.4270.1	328,988.75	3,948,131.54
	4270	328,988.75	3,948,131.54
	Grand total for all currencies:	328,988.75	3,948,131.54

Exhibit 27.21
Pg. 88

Bottom

F2=Function keys F3=Exit F4=Prompt F5=Fold/unfold F24=More keys

```
 9/19/2008 11:41:12     Interactive Trial Balance          GLGITB     GLDITB
Account/mask  . . 001.*.*.4280.1                    + Balance type  . . M +
Year/period . . . 2007 + 12                  Macro name  . . . _________ +
Zero balance? . . 1 1=Include, 0=Exclude Budget code . . . _________ +
Subtotal mask . . 010000000 1=Yes, 0=No  Subtotal option . 1 0=Off,1=Det,2=Sum
Company masked? . 0 1=Yes, 0=No          Active accts? . . 2 0=Inac,1=Ac,2=All
Comparative view 0 0=No, 1=M/M, 2=Q/Q, 3=Y/Y, 4=Cust  ____ __ / ____ __
Type options, press Enter.                          5=Display
  1   4 5 2    3
O Co#.U.D.Acct.Subacc                      Current Period    YTD/Cumulative
_ 001.0.0.4280.1                                1,523.66         18,283.92
          4280                                  1,523.66         18,283.92
  Grand total for all currencies:               1,523.66         18,283.92

                                                                      Bottom

F2=Function keys  F3=Exit  F4=Prompt  F5=Fold/unfold  F24=More keys
```

Exhibit 27.21
Pg. 89

9/19/2008 11:41:25 Interactive Trial Balance GLGITB GLDITB

Account/mask . . 001.*.*.4280.2 + Balance type . . M +
Year/period . . . 2007 + 12 Macro name . . . _____ +
Zero balance? . . 1 1=Include, 0=Exclude Budget code . . . _____ +
Subtotal mask . . 010000000 1=Yes, 0=No Subtotal option . 1 0=Off,1=Det,2=Sum
ıpany masked? . 0 1=Yes, 0=No Active accts? . . 2 0=Inac,1=Ac,2=All
ıparative view 0 0=No, 1=M/M, 2=Q/Q, 3=Y/Y, 4=Cust ____ __ / ____ __

Type options, press Enter. 5=Display

1 4 5 2 3

O	Co#.U.D.Acct.Subacc	Current Period	YTD/Cumulative
_	001.0.0.4280.2	6,859.49	79,239.00
	4280	6,859.49	79,239.00
	Grand total for all currencies:	6,859.49	79,239.00

Bottom

F2=Function keys F3=Exit F4=Prompt F5=Fold/unfold F24=More keys

Florida Public Utilities Company
100.1890.1 - UNAMORTIZED LOSS ON REAQUIRED DEBT SUMMARY
Period Ending: December-07

Prepared By:_____
A WILSON
Approved By:_____

Description	Total	Period of Accrual	Monthly Accrual	Remaining Months to Accrue	Account Balance This Month
$5,000,000 BOND 30 Years @ 1523.66/ Month	$548,516.00	6/01/88 thru 5/30/2018	1,523.66	125	190,457.50
				Total	190,457.50
				GL Balance	190,457.50
				Difference	**.00**

46

L T Asset/L T Liability reclass to Current (1,523.66) * 12 = (18,283.92)

Exhibit 27.21
Pg. 91

9/12/2008 15:33:13 Interactive Trial Balance GLGITB GLDITB

Account/mask . . 001.0.0.1890.****** + Balance type . . M +
Year/period . . . 2007 + 12 Macro name . . . _____ +
Zero balance? . . 1 1=Include, 0=Exclude Budget code . . . _____ +
Subtotal mask . . 010000000 1=Yes, 0=No Subtotal option . 1 0=Off,1=Det,2=Sum
mpany masked? . 0 1=Yes, 0=No Active accts? . . 2 0=Inac,1=Ac,2=All
nparative view 0 0=No, 1=M/M, 2=Q/Q, 3=Y/Y, 4=Cust ____ __ / ____ __
pe options, press Enter. 5=Display
1 4 5 2 3

O	Co#.U.D.Acct.Subacc	Current Period	YTD/Cumulative
_	001.0.0.1890.1	1,523.66-	190,457.50
	1890	1,523.66-	190,457.50
	Grand total for all currencies:	1,523.66-	190,457.50

Bottom

F2=Function keys F3=Exit F4=Prompt F5=Fold/unfold F24=More keys

Florida Public Utilities Company
UNAMORTIZED LOSS ON REACQUIRED DEBT
$5,000,000 BONDS, 30 YEARS $548,516.00
100.1890.1

	Carrying Amt	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Amt
1988	548,516.00						1,522.06	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	10,664.02
1989	537,851.98	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1990	519,568.06	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1991	501,284.14	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1992	483,000.22	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1993	464,716.30	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1994	446,432.38	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1995	428,148.46	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1996	409,864.54	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1997	391,580.62	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1998	373,296.70	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1999	355,012.78	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2000	336,728.86	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2001	318,444.94	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2002	300,161.02	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2003	281,877.10	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2004	263,593.18	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2005	245,309.26	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2006	227,025.34	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2007	**208,741.42**	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2008	190,457.50	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2009	172,173.58	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2010	153,889.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2011	135,605.74	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2012	117,321.82	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2013	99,037.90	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2014	80,753.98	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2015	62,470.06	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2016	44,186.14	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2017	25,902.22	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2018	**7,618.30**	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	-	-	-	-	-	-	-	7,618.30

Florida Public Utilities Company
100.1810.1 - UNAMORTIZED DEBT DISCOUNT SUMMARY
Period Ending: DEC 2007

Prepared By:_____

Approved By:_____

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE	G/L AGREE	
12/31/2006	BALANCES FORWARD	2,413,935.47	(616,216.70)	1,797,718.77		
Jan-07	JE 6	0.00	(6,860.07)	1,790,858.70		
Feb-07	JE 6	0.00	(6,860.07)	1,783,998.63		
Mar-07	JE 6	0.00	(6,860.07)	1,777,138.56		
Apr-07	JE 6	0.00	(6,860.07)	1,770,278.49		
May-07	JE 6	0.00	(6,860.07)	1,763,418.42		
Jun-07	JE 6	0.00	(3,445.47)	1,759,972.95		B & C
Jul-07	JE 6	0.00	(6,858.60)	1,753,114.35		
Aug-07	JE 6	0.00	(6,859.58)	1,746,254.77		
Sep-07	JE 6	0.00	(7,196.35)	1,739,058.42		
Oct-07	JE 6	0.00	(6,859.58)	1,732,198.84		
Nov-07	JE 6	0.00	(6,859.58)	1,725,339.26		
Dec-07	JE 6	0.00	(6,859.49)	1,718,479.77		
	TOTAL	2,413,935.47	(695,455.71)	1,718,479.76		

Ex B and C: Unamortized Debt Discount adjustment.

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: DEC 2007
14 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	JE6 AMORTIZATION	BALANCE
12/31/2006	14M Rev Bond 11/14/01	805,955.81	(138,687.10)	667,268.71
Jan-07	JE 6		(2,239.26)	665,029.45
Feb-07	JE 6		(2,239.26)	662,790.19
Mar-07	JE 6		(2,239.26)	660,550.93
Apr-07	JE 6		(2,239.26)	658,311.67
May-07	JE 6		(2,239.26)	656,072.41
Jun-07	JE 6		(1,254.51)	654,817.90
Jul-07	JE 6		(2,237.79)	652,580.11
Aug-07	JE 6		(2,238.77)	650,341.34
Sep-07	JE 6		(2,238.77)	648,102.57
Oct-07	JE 6		(2,238.77)	645,863.80
Nov-07	JE 6		(2,238.77)	643,625.03
Dec-07	JE 6		(2,238.72)	641,386.31
	TOTAL	805,955.81	(164,569.50)	641,386.31

FLORIDA PUBLIC UTILITIES COMPANY
SCHEDULE OF AMORTIZATION
Period Ending: FEBRUARY 2007
$14,000,000 PBC IND DEV REV BOND, 4.9%, ISSUED 11/1/2001 -, DUE 2031

Prepared By:_____

Approved By:_____

	2001.00												TOTAL
INSURANCE	349426.00						0	0	0	0	0	0	349426
EXPENSES - UNDERWRITER FEE	280000.00												280000
ADJ OF PPD INS - 1ST YEAR	-14000.00												-14000.00
ADDTL BOND EXPENSES - UNDERWRITER FEI	140000.00												140000
ANALYTICAL SERVICES - S&P	12000.00												12000.00
ADDTL BOND FINANCING EXPENSES	36107.31												36107.31
ADDTL BOND FINANCING EXPENSES 2003	1250.00												1250.00
ADDTL BOND FINANCING EXPENSES 2003	1172.50												1172.50
INITIAL UNAMORTIZED DEBT	805955.81	0					0	0	0	0	0	0	805955.81

AMORTIZATION EXPENSE		PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	Annual
	2001	4464.08	2232.04	0	0		0	0	0	0	0	0	0	2232.04	2232.04	4464.08
	2002	26784.44	2232.04	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232**	26784.44
	2003	25860.22	2232.04	**1267.08**	**2232.04**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2239.26**	25860.22
	2004	26865.19	2238.77	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	2238.72	26865.19
	2005	26865.19	2238.77	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.72**	26865.19
	2006	26865.19	2238.77	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.72**	26865.19
	2007	26865.19	2238.77	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.72**	26865.19
	2008	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2009	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2010	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2011	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2012	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2013	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2014	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2015	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2016	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2017	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2018	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2019	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2020	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2021	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2022	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2023	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2024	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2025	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2026	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2027	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2028	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2029	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2030	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
	2031	23486.94	2,348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.73			23486.94
TOTAL AMORTIZATION		805955.81	69491.6	66294.6	67259.56	67263.28	67263.28	67263.28	67263.28	67263.28	67263.28	67263.28	60556.75	58208.02	58206.72	805955.81

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: DEC 2007
15 MILLION

			JE6	
DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2006	BALANCES FORWARD	1,208,669.91	(211,517.46)	997,152.45
Jan-07	JE 6		(3,357.42)	993,795.03
Feb-07	JE 6		(3,357.42)	990,437.61
Mar-07	JE 6		(3,357.42)	987,080.19
Apr-07	JE 6		(3,357.42)	983,722.77
May-07	JE 6		(3,357.42)	980,365.35
Jun-07	JE 6		(927.57)	979,437.78
Jul-07	JE 6		(3,357.42)	976,080.36
Aug-07	JE 6		(3,357.42)	972,722.94
Sep-07	JE 6		(3,357.42)	969,365.52
Oct-07	JE 6		(3,357.42)	966,008.10
Nov-07	JE 6		(3,357.42)	962,650.68
Dec-07	JE 6		(3,357.38)	959,293.30
	TOTAL	1,208,669.91	(249,376.61)	959,293.30

LORIDA PUBLIC UTILITIES COMPANY
CHEDULE OF AMORTIZATION
) YEARS 9/27/01
5,000,000 SECURED INSURED QUARTERLY NOTE @ 6.85% - DUE OCTOBER 1, 2031

	2001														TOTAL
NSURANCE - 459,613.24	459,613.24								0	0	0	0	0	0	459613.24
ALES COSTS - 472,500.00	472,500.00													0	472500
DJ OF PPD INS - IST YR	(15,000.00)														-15000
ddt'l bond financing Costs	55,601.66														55601.66
ddt'l bond financing exp tansf fr 14M	235,955.01														235955.01
NITIAL UNAMORTIZED DEBT	1,208,669.91	0							0	0	0	0	0	0	1208669.91

AMORTIZATION EXPENSE	PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2001	7,642.61	2,547.54	-		-	-	-	-	-	-	-	2,589.21	2,505.87	2,547.53	7,642.61
2002	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	3,357.38	40,289.00
2003	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2004	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2005	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2006	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2007	40,289.00	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2008	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2009	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2010	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2011	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2012	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2013	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2014	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2015	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2016	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2017	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2018	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2019	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2020	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2021	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2022	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2023	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2024	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2025	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2026	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2027	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2028	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2029	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2030	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2031	32,646.30	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.34				32,646.30
TOTAL AMORTIZATION	1,208,669.91	103,540.09	100,992.55	100,992.55	100,992.55	100,992.55	100,992.55	100,992.55	100,992.55	100,992.55	100,992.52	87,292.92	87,292.92	87,291.88	1,208,669.91

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: DEC 2007
5.5 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2006	BALANCES FORWARD	97,070.01	(72,479.68)	24,590.33
Jan-07	JE 6		(323.57)	24,266.76
Feb-07	JE 6		(323.57)	23,943.19
Mar-07	JE 6		(323.57)	23,619.62
Apr-07	JE 6		(323.57)	23,296.05
May-07	JE 6		(323.57)	22,972.48
Jun-07	JE 6		(323.57)	22,648.91
Jul-07	JE 6		(323.57)	22,325.34
Aug-07	JE 6		(323.57)	22,001.77
Sep-07	JE 6		(323.57)	21,678.20
Oct-07	JE 6		(323.57)	21,354.63
Nov-07	JE 6		(323.57)	21,031.06
Dec-07	JE 6		(323.57)	20,707.49
	TOTAL	97,070.01	(76,362.52)	20,707.49

ORIDA PUBLIC UTILITIES COMPANY
CHEDULE OF AMORTIZATION
YEARS 5/1/88
5,500,000 First Mortgage Bonds @ 10.03% - DUE May 1, 2018

	1988														TOTAL
riginal Issue Cost	97,070.01								0	0	0	0	0	0	97070.01
														0	0
															0
															0
															0
IITIAL UNAMORTIZED DEBT	97,070.01	0							0	0	0	0	0	0	97070.01

MORTIZATION EXPENSE	PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	YTD
1988	2,588.56	323.57	-		-		323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	2,588.56
1989	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1990	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1991	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1992	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1993	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1994	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1995	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1996	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1997	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1998	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1999	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2000	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2001	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2002	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2003	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2004	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2005	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2006	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2007	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2008	3,646.77	323.57	323.57	323.57	323.57	322.78	294.16	294.16	294.16	294.16	294.16	294.16	294.16	294.16	3,646.77
2009	3,294.56	294.16	294.16	294.16	294.16	294.16	264.74	264.74	264.74	264.74	264.74	264.74	264.74	264.74	3,294.56
2010	2,941.52	264.74	264.74	264.74	264.74	264.74	235.32	235.32	235.32	235.32	235.32	235.32	235.32	235.32	2,941.52
2011	2,588.56	235.32	235.32	235.32	235.32	235.32	205.91	205.91	205.91	205.91	205.91	205.91	205.91	205.91	2,588.56
2012	2,235.56	205.91	205.91	205.91	205.91	205.91	176.49	176.49	176.49	176.49	176.49	176.49	176.49	176.49	2,235.56
2013	1,882.60	176.49	176.49	176.49	176.49	176.49	147.08	147.08	147.08	147.08	147.08	147.08	147.08	147.08	1,882.60
2014	1,529.60	147.08	147.08	147.08	147.08	147.08	117.66	117.66	117.66	117.66	117.66	117.66	117.66	117.66	1,529.60
2015	1,176.64	117.66	117.66	117.66	117.66	117.66	88.25	88.25	88.25	88.25	88.25	88.25	88.25	88.25	1,176.64
2016	823.64	88.25	88.25	88.25	88.25	88.25	58.83	58.83	58.83	58.83	58.83	58.83	58.83	58.83	823.64
2017	470.60	58.83	58.83	58.83	58.83	58.83	29.41	29.41	29.41	29.41	29.41	29.41	29.41	29.41	470.60
2018	117.44	29.41	29.41	29.41	29.41	29.21									117.44
TOTAL AMORTIZATION	97,070.01	8,412.82	8,089.25	8,089.25	8,089.25	8,088.26	8,089.25	8,089.25	8,089.25	8,089.25	8,089.25	6,794.97	6,794.97	6,794.97	97,070.01

Exhibit 27.21
Pg. 100

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: DEC 2007
10 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2006	BALANCES FORWARD	180,272.87	(134,601.60)	45,671.27
Jan-07	JE 6		(600.90)	45,070.37
Feb-07	JE 6		(600.90)	44,469.47
Mar-07	JE 6		(600.90)	43,868.57
Apr-07	JE 6		(600.90)	43,267.67
May-07	JE 6		(600.90)	42,666.77
Jun-07	JE 6		(600.90)	42,065.87
Jul-07	JE 6		(600.90)	41,464.97
Aug-07	JE 6		(600.90)	40,864.07
Sep-07	JE 6		(600.90)	40,263.17
Oct-07	JE 6		(600.90)	39,662.27
Nov-07	JE 6		(600.90)	39,061.37
Dec-07	JE 6		(600.90)	38,460.47
	TOTAL	180,272.87	(141,812.40)	38,460.47

ORIDA PUBLIC UTILITIES COMPANY
CHEDULE OF AMORTIZATION
YEARS 5/1/88
10,000,000 First Mortgage Bonds @ 9.57% - DUE May 1, 2018

	1988														TOTAL
riginal Issue Cost	180,272.87								0	0	0	0	0	0	180272.87
														0	0
															0
															0
															0
NITIAL UNAMORTIZED DEBT	180,272.87	0							0	0	0	0	0	0	180272.87

MORTIZATION EXPENSE	PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	YTD
1988	4,807.20	600.90	-		-		600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	4,807.20
1989	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1990	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1991	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1992	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1993	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1994	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1995	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1996	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1997	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1998	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1999	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2000	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2001	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2002	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2003	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2004	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2005	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2006	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2007	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2008	6,773.25	600.90	600.90	600.90	600.90	600.31	546.28	546.28	546.28	546.28	546.28	546.28	546.28	546.28	6,773.25
2009	6,118.32	546.28	546.28	546.28	546.28	546.28	491.65	491.65	491.65	491.65	491.65	491.65	491.65	491.65	6,118.32
2010	5,462.84	491.65	491.65	491.65	491.65	491.65	437.03	437.03	437.03	437.03	437.03	437.03	437.03	437.03	5,462.84
2011	4,807.40	437.03	437.03	437.03	437.03	437.03	382.41	382.41	382.41	382.41	382.41	382.41	382.41	382.41	4,807.40
2012	4,151.96	382.41	382.41	382.41	382.41	382.41	327.79	327.79	327.79	327.79	327.79	327.79	327.79	327.79	4,151.96
2013	3,496.52	327.79	327.79	327.79	327.79	327.79	273.17	273.17	273.17	273.17	273.17	273.17	273.17	273.17	3,496.52
2014	2,841.08	273.17	273.17	273.17	273.17	273.17	218.55	218.55	218.55	218.55	218.55	218.55	218.55	218.55	2,841.08
2015	2,185.64	218.55	218.55	218.55	218.55	218.55	163.93	163.93	163.93	163.93	163.93	163.93	163.93	163.93	2,185.64
2016	1,530.12	163.93	163.93	163.93	163.93	163.93	109.30	109.30	109.30	109.30	109.30	109.30	109.30	109.30	1,530.12
2017	874.64	109.30	109.30	109.30	109.30	109.30	54.68	54.68	54.68	54.68	54.68	54.68	54.68	54.68	874.64
2018	218.70	54.68	54.68	54.68	54.68	54.66									218.70
TOTAL AMORTIZATION	180,272.87	15,623.69	15,022.79	15,022.79	15,022.79	15,022.18	15,022.79	15,022.79	15,022.79	15,022.79	15,022.79	12,619.19	12,619.19	12,619.19	180,272.87

Exhibit 27.21
Pg. 102

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: DEC 2007
8 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2006	BALANCES FORWARD	121,966.87	(58,930.86)	63,036.01
Jan-07	JE 6		(338.92)	62,697.09
Feb-07	JE 6		(338.92)	62,358.17
Mar-07	JE 6		(338.92)	62,019.25
Apr-07	JE 6		(338.92)	61,680.33
May-07	JE 6		(338.92)	61,341.41
Jun-07	JE 6		(338.92)	61,002.49
Jul-07	JE 6		(338.92)	60,663.57
Aug-07	JE 6		(338.92)	60,324.65
Sep-07	JE 6		(675.69)	59,648.96
Oct-07	JE 6		(338.92)	59,310.04
Nov-07	JE 6		(338.92)	58,971.11
Dec-07	JE 6		(338.92)	58,632.19
	TOTAL	121,966.87	(63,334.68)	58,632.19

LORIDA PUBLIC UTILITIES COMPANY
CHEDULE OF AMORTIZATION
) YEARS 6/1/92
8,000,000 First Mortgage Bonds @ 9.08% - DUE June 1, 2022

	1992														TOTAL
)riginal Issue Cost	121,629.20								0	0	0	0	0	0	121629.2
,ddt'l bond financing Costs-Aug 1992	381.04													0	381.04
															0
															0
															0
\ITIAL UNAMORTIZED DEBT	122,010.24	0							0	0	0	0	0	0	122010.24

\MORTIZATION EXPENSE	PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	YTD
1992	2,372.44	338.92	-		-	-	-	338.92	338.92	338.92	338.92	338.92	338.92	338.92	2,372.44
1993	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
1994	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
1995	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
1996	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
1997	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
1998	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
1999	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2000	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2001	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2002	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2003	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2004	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2005	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2006	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2007	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2008	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2009	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2010	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2011	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2012	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2013	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2014	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2015	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2016	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2017	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2018	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2019	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2020	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2021	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
2022	1,693.64	338.73	338.73	338.73	338.73	338.73	338.72			-					1,693.64
TOTAL AMORTIZATION	122,010.24	10,506.33	10,167.41	10,167.41	10,167.41	10,167.41	10,167.40	10,167.60	10,167.60	10,167.60	10,167.60	8,811.92	8,811.92	8,811.92	122,010.24

CALCULATION OF INTEREST AMORTIZATION ON LONG TERM DEBT

	COST	INTEREST RATE	NO. OF YEARS HELD	TOTAL INTEREST EXPENSE	NO. OF MONTHS TO ACCRUE	MONTHLY AMORTIZATION
$10,000,000.00 FIRST MORTGAGE BOND 9.57% DUE 2018 AMORTIZATION OVER 30 YEARS	10,000,000.00	9.57%	30	28,710,000	360	79,750.00
$5,500,000.00 FIRST MORTGAGE BOND 10.03% DUE 2018 AMORTIZATION OVER 30 YEARS	5,500,000.00	10.03%	30	16,549,500	360	45,970.83
$8,000,000.00 FIRST MORTGAGE BOND 9.08% DUE 2022 AMORTIZATION OVER 30 YEARS	8,000,000.00	9.08%	30	21,792,000	360	60,533.33
$14,990.000.00 FIRST MORTGAGE BOND 6.85% DUE 2031 AMORTIZATION OVER 30 YEARS	14,990,000.00	6.85%	30	30,804,450	360	85,567.92
$14,000,000.00 PBC IND DEV REV BOND 4.9% DUE 2031 AMORTIZATION OVER 30 YEARS	14,000,000.00	4.9%	30	20,580,000.00	360	57,166.67
Total	**52,490,000.00**			**118,435,950.00**		**328,988.75**

Exhibit 27.21
Pg. 105

ANNUAL REPORT

CONSOLIDATED STATEMENTS OF CAPITALIZATION
(Dollars in thousands)

	December 31, 2007	December 31, 2006
Common Shareholders' Equity		
Common stock, $1.50 par value, authorized 10,000,000 shares; issued 6,182,983 shares in 2007; issued 6,166,648 shares in 2006	$ 9,275	$ 9,250
Paid-in capital	6,076	6,054
Retained earnings	35,797	35,213
Accumulated other comprehensive income/(loss), retirement plan adjustment, net of income tax benefit	88	(103)
Treasury stock - at cost (129,223 shares in 2007, 160,349 shares in 2006)	(2,290)	(2,842)
Total common shareholders' equity	48,946	47,572
Preferred Stock		
4 ¾% Series A, $100 par value, redemption price $106, authorized and outstanding 6,000 shares	600	600
4 ¾% Series B Cumulative Preferred, $100 par value, redemption price $101, authorized 5,000 and none issued	-	-
$1.12 Convertible Preference, $20 par value, redemption price $22, authorized 32,500 and none issued	-	-
Total preferred stock	600	600
Long-Term Debt		
First mortgage bonds series		
9.57 % due 2018	9,091	10,000
10.03 % due 2018	5,000	5,500
9.08 % due 2022	8,000	8,000
4.90 % due 2031	14,000	14,000
6.85 % due 2031	14,990	15,000
Unamortized debt discount	(1,718)	(1,798)
Total long-term debt	49,363	50,702
Total Capitalization	$ 98,909	$ 98,874

See Notes to Consolidated Financial Statements

See Notes to Consolidated Financial Statements

CONSOLIDATED BALANCE SHEETS
(Dollars in thousands)

	December 31,	
CAPITALIZATION AND LIABILITIES	**2007**	**2006**
Capitalization		
Common shareholders' equity	$ 48,946	$ 47,572
Preferred stock	600	600
Long-term debt	49,363	50,702
Total capitalization	98,909	98,874
Current Liabilities		
Line of credit	11,122	3,466
Accounts payable	9,901	10,279
Long term debt - current	1,409	-
Insurance accrued	218	181
Interest accrued	1,163	789
Other accruals and payables	2,729	2,410
Environmental liability - current	1,379	613
Taxes accrued	2,168	1,180
Over-earnings liability	26	722
Over-recovery of fuel costs	2,761	3,656
Over-recovery of conservation	446	355
Customer deposits	10,547	9,608
Total current liabilities	43,869	33,259
Other Liabilities		
Deferred income taxes	16,630	17,101
Unamortized investment tax credits	266	335
Environmental liability	12,250	13,140
Regulatory liability – cost of removal	9,359	8,800
Regulatory tax liabilities	796	876
Regulatory liability – retirement plan	564	-
Long-term medical and pension reserve	4,817	4,580
Customer advances for construction	2,497	2,633
Regulatory liability – storm reserve	2,387	1,636
Total other liabilities	49,566	49,101
Total	$ 192,344	$ 181,234

See Notes to Consolidated Financial Statements

ANNUAL REPORT

See Notes to Consolidated Financial Statements

CONSOLIDATED BALANCE SHEETS

(Dollars in thousands)

	December 31, 2007	December 31, 2006
ASSETS		
Utility Plant		
Natural gas	$ 104,770	$ 95,393
Electric	76,520	72,776
Propane gas	17,141	17,153
Common	3,953	3,646
Total	202,384	188,968
Less accumulated depreciation	64,012	59,757
Net utility plant	138,372	129,211
Current Assets		
Cash	3,478	84
Accounts receivable	12,269	12,199
Notes receivable	298	298
Allowance for uncollectible accounts	(326)	(429)
Unbilled receivables	1,879	1,957
Inventories (at average or unit cost)	4,251	4,120
Prepaid expenses	861	963
Under-recovery of fuel costs	-	862
Deferred charges – current	125	238
Other regulatory assets – storm reserve current	-	228
Other regulatory assets- environmental, current	456	456
Investments held for environmental costs - current	3,444	3,364
Deferred income taxes - current	949	418
Total current assets	27,684	24,758
Other Assets		
Other regulatory assets – storm reserve	-	55
Other regulatory assets – environmental	7,197	7,815
Other regulatory assets – retirement plans	-	587
Long-term receivables and other investments	5,622	5,740
Deferred charges	6,634	6,258
Goodwill	2,405	2,405
Intangible assets (net)	4,430	4,405
Total other assets	26,288	27,265
Total	$ 192,344	$ 181,234

7/17/2008 14:37:51 Interactive Trial Balance GLGITB GLDITB
Monthly activity

Select option, press Enter.
Account . : 001.0.0.1890.1 UNAMORT LOSS ON REACQ'D D

	Period End	Starting Balance	Posted Activity	Ending Balance
_	JAN 1/31/2007	208,741.42	1,523.66-	207,217.76
_	FEB 2/28/2007	207,217.76	1,523.66-	205,694.10
_	MAR 3/31/2007	205,694.10	1,523.66-	204,170.44
_	APR 4/30/2007	204,170.44	1,523.66-	202,646.78
_	MAY 5/31/2007	202,646.78	1,523.66-	201,123.12
_	JUN 6/30/2007	201,123.12	1,523.66-	199,599.46
_	JUL 7/31/2007	199,599.46	1,523.66-	198,075.80
_	AUG 8/31/2007	198,075.80	1,523.66-	196,552.14
_	SEP 9/30/2007	196,552.14	1,523.66-	195,028.48
_	OCT 10/31/2007	195,028.48	1,523.66-	193,504.82
_	NOV 11/30/2007	193,504.82	1,523.66-	191,981.16
_	DEC 12/31/2007	191,981.16	1,523.66-	190,457.50
_	ADJ 12/31/2007	190,457.50	.00	190,457.50

F2=Function keys F3=Exit F5=Refresh F6=More info. F24=More keys

7/17/2008 15:17:22 Interactive Trial Balance GLGITB GLDITB
Monthly activity

Select option, press Enter.
Account . : 001.0.0.1890.1 UNAMORT LOSS ON REACQ'D D

	Period End	Starting Balance	Posted Activity	Ending Balance
_	JAN 1/31/2008	190,457.50	1,523.66-	188,933.84
_	FEB 2/29/2008	188,933.84	1,523.66-	187,410.18
_	MAR 3/31/2008	187,410.18	1,523.66-	185,886.52
_	APR 4/30/2008	185,886.52	1,523.66-	184,362.86
_	MAY 5/31/2008	184,362.86	1,523.66-	182,839.20
_	JUN 6/30/2008	182,839.20	.00	182,839.20
_	JUL 7/31/2008	182,839.20	.00	182,839.20
_	AUG 8/31/2008	182,839.20	.00	182,839.20
_	SEP 9/30/2008	182,839.20	.00	182,839.20
_	OCT 10/31/2008	182,839.20	.00	182,839.20
_	NOV 11/30/2008	182,839.20	.00	182,839.20
_	DEC 12/31/2008	182,839.20	.00	182,839.20
_	ADJ 12/31/2008	182,839.20	.00	182,839.20

F2=Function keys F3=Exit F5=Refresh F6=More info. F24=More keys

Florida Public Utilities Company
100.1890.1 - UNAMORTIZED LOSS ON REAQUIRED DEBT SUMMARY
Period Ending: December-07

Prepared By:_____
A WILSON
Approved By:_____

Description	Total	Period of Accrual	Monthly Accrual	Remaining Months to Accrue	Account Balance This Month
$5,000,000 BOND 30 Years @ 1523.66/ Month	$548,516.00	6/01/88 thru 5/30/2018	1,523.66	125	190,457.50
				Total	190,457.50
				GL Balance	190,457.50
				Difference	**.00**

L T Asset/L T Liability reclass to Current **(1,523.66)** *** 12 =** **(18,283.92)**

Florida Public Utilities Company
UNAMORTIZED LOSS ON REACQUIRED DEBT
$5,000,000 BONDS, 30 YEARS $548,516.00
100.1890.1

	Carrying Amt	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Amt
1988	548,516.00						1,522.06	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	10,664.02
1989	537,851.98	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1990	519,568.06	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1991	501,284.14	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1992	483,000.22	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1993	464,716.30	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1994	446,432.38	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1995	428,148.46	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1996	409,864.54	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1997	391,580.62	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1998	373,296.70	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1999	355,012.78	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2000	336,728.86	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2001	318,444.94	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2002	300,161.02	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2003	281,877.10	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2004	263,593.18	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2005	245,309.26	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2006	227,025.34	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2007	**208,741.42**	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2008	190,457.50	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2009	172,173.58	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2010	153,889.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2011	135,605.74	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2012	117,321.82	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2013	99,037.90	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2014	80,753.98	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2015	62,470.06	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2016	44,186.14	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2017	25,902.22	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2018	**7,618.30**	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	-	-	-	-	-	-	-	7,618.30

Florida Public Utilities Company
UNAMORTIZED LOSS ON REACQUIRED DEBT
$5,000,000 BONDS, 30 YEARS @ 1,523.66 / MO.
December-07
100.1890.1

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2005	BALANCES FORWARD	548,516.00	3,394.58	545,121.42
January	JE 6		1,523.66	543,597.76
February	JE 6			543,597.76
March	JE 6			543,597.76
April	JE 6			543,597.76
May	JE 6			543,597.76
June	JE 6			543,597.76
July	JE 6			543,597.76
August	JE 6			543,597.76
September	JE 6			543,597.76
October	JE 6			543,597.76
November	JE 6			543,597.76
December	JE 6			543,597.76
	TOTAL	548,516.00	4,918.24	543,597.76

Florida Public Utilities Company
100.1890.1 - UNAMORTIZED LOSS ON REACQUIRED DEBT SUMMARY

December-07

DATE	DESCRIPTION	INITIAL LOSS DEBT	AMORTIZATION	BALANCE	G/L AGREE
12/31/2001	**BALANCES FORWARD**	585,214.82	303,339.32	281,875.50	
1/31/2002	JE 6		1,863.48	545,295.12	
2/28/2002	JE 6		339.82	544,955.30	
3/31/2002	JE 6		339.82	544,615.48	
4/30/2002	JE 6		339.82	544,275.66	
5/31/2002	JE 6		339.82	543,935.84	
6/30/2002	JE 6		338.08	543,597.76	
7/31/2002	JE 6		0.00	543,597.76	
8/31/2002	JE 6		0.00	543,597.76	
9/30/2002	JE 6		0.00	543,597.76	
10/31/2002	JE 6		1,523.66	543,597.76	
11/30/2002	JE 6		0.00	543,597.76	
12/31/2002	JE 6		0.00	543,597.76	
	TOTAL	585,214.82	308,423.82	276,791.00	

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
$2,000,000 BOND @ $339.82 / MO.
Period Ending: DECEMBER 2003

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2000	**BALANCES FORWARD**	36,698.82	34,661.64	2,037.18
1/31/2001	JE 6		339.82	1,697.36
2/28/2001	JE 6		339.82	1,357.54
3/31/2001	JE 6		339.82	1,017.72
4/30/2001	JE 6		339.82	677.90
5/31/2001	JE 6		339.82	338.08
6/30/2001	JE 6		338.08	0.00
7/31/2001	JE 6			0.00
8/31/2001	JE 6		0.00	0.00
9/30/2001	JE 6		0.00	0.00
10/31/2001	JE 6		0.00	0.00
11/30/2001	JE 6			0.00
12/31/2001	JE 6			0.00
	TOTAL	36,698.82	36,698.82	0.00

Florida Public Utilities Company
100.1890.1 - UNAMORTIZED LOSS ON REAQUIRED DEBT SUMMARY
Period Ending: June-08

Prepared By:_____
A WILSON
Approved By:_____

Description	Total	Period of Accrual	Monthly Accrual	Remaining Months to Accrue	Account Balance This Month
$5,000,000 BOND 30 Years @ 1523.66/ Month	$548,516.00	6/01/88 thru 5/30/2018	1,523.66	119	181,315.54
				Total	181,315.54
				GL Balance	182,839.20
				Difference	**(1,523.66)**

L T Asset/L T Liability reclass to Current **(1,523.66)** *** 12 =** **(18,283.92)**

P:\Departments & Divisions\Accounting Departments\Reconciliations\GL Acct\LEDGERS 2008\FPUC UNAMORT LOSS OF REAQUIRED DEBT 1890.1 2008

Florida Public Utilities Company
UNAMORTIZED LOSS ON REACQUIRED DEBT
$5,000,000 BONDS, 30 YEARS $548,516.00
100.1890.1

	Carrying Amt	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Amt
1988	548,516.00						1,522.06	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	10,664.02
1989	537,851.98	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1990	519,568.06	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1991	501,284.14	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1992	483,000.22	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1993	464,716.30	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1994	446,432.38	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1995	428,148.46	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1996	409,864.54	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1997	391,580.62	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1998	373,296.70	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
1999	355,012.78	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2000	336,728.86	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2001	318,444.94	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2002	300,161.02	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2003	281,877.10	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2004	263,593.18	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2005	245,309.26	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2006	227,025.34	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2007	208,741.42	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2008	190,457.50	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2009	172,173.58	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2010	153,889.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2011	135,605.74	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2012	117,321.82	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2013	99,037.90	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2014	80,753.98	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2015	62,470.06	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2016	44,186.14	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2017	25,902.22	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	18,283.92
2018	**7,618.30**	1,523.66	1,523.66	1,523.66	1,523.66	1,523.66	-	-	-	-	-	-	-	7,618.30

Florida Public Utilities Company
UNAMORTIZED LOSS ON REACQUIRED DEBT
$5,000,000 BONDS, 30 YEARS @ 1,523.66 / MO.
June-08
100.1890.1

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2005	BALANCES FORWARD	548,516.00	3,394.58	545,121.42
January	JE 6		1,523.66	543,597.76
February	JE 6			543,597.76
March	JE 6			543,597.76
April	JE 6			543,597.76
May	JE 6			543,597.76
June	JE 6			543,597.76
July	JE 6			543,597.76
August	JE 6			543,597.76
September	JE 6			543,597.76
October	JE 6			543,597.76
November	JE 6			543,597.76
December	JE 6			543,597.76
	TOTAL	548,516.00	4,918.24	543,597.76

Florida Public Utilities Company
100.1890.1 - UNAMORTIZED LOSS ON REACQUIRED DEBT SUMMARY

June-08

DATE	DESCRIPTION	INITIAL LOSS DEBT	AMORTIZATION	BALANCE	G/L AGREE
12/31/2001	BALANCES FORWARD	585,214.82	303,339.32	281,875.50	
1/31/2002	JE 6		1,863.48	545,295.12	
2/28/2002	JE 6		339.82	544,955.30	
3/31/2002	JE 6		339.82	544,615.48	
4/30/2002	JE 6		339.82	544,275.66	
5/31/2002	JE 6		339.82	543,935.84	
6/30/2002	JE 6		338.08	543,597.76	
7/31/2002	JE 6		0.00	543,597.76	
8/31/2002	JE 6		0.00	543,597.76	
9/30/2002	JE 6		0.00	543,597.76	
10/31/2002	JE 6		1,523.66	543,597.76	
11/30/2002	JE 6		0.00	543,597.76	
12/31/2002	JE 6		0.00	543,597.76	
	TOTAL	585,214.82	308,423.82	276,791.00	

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
$2,000,000 BOND @ $339.82 / MO.
Period Ending: DECEMBER 2003

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2000	**BALANCES FORWARD**	36,698.82	34,661.64	2,037.18
1/31/2001	JE 6		339.82	1,697.36
2/28/2001	JE 6		339.82	1,357.54
3/31/2001	JE 6		339.82	1,017.72
4/30/2001	JE 6		339.82	677.90
5/31/2001	JE 6		339.82	338.08
6/30/2001	JE 6		338.08	0.00
7/31/2001	JE 6			0.00
8/31/2001	JE 6		0.00	0.00
9/30/2001	JE 6		0.00	0.00
10/31/2001	JE 6		0.00	0.00
11/30/2001	JE 6			0.00
12/31/2001	JE 6			0.00
	TOTAL	36,698.82	36,698.82	0.00

Florida Public Utilities Company
100.1810.1 - UNAMORTIZED DEBT DISCOUNT SUMMARY
Period Ending: DEC 2007

Prepared By:_____

Approved By:_____

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE	G/L AGREE	
12/31/2006	BALANCES FORWARD	2,413,935.47	(616,216.70)	1,797,718.77		
Jan-07	JE 6	0.00	(6,860.07)	1,790,858.70		
Feb-07	JE 6	0.00	(6,860.07)	1,783,998.63		
Mar-07	JE 6	0.00	(6,860.07)	1,777,138.56		
Apr-07	JE 6	0.00	(6,860.07)	1,770,278.49		
May-07	JE 6	0.00	(6,860.07)	1,763,418.42		
Jun-07	JE 6	0.00	(3,445.47)	1,759,972.95		B & C
Jul-07	JE 6	0.00	(6,858.60)	1,753,114.35		
Aug-07	JE 6	0.00	(6,859.58)	1,746,254.77		
Sep-07	JE 6	0.00	(7,196.35)	1,739,058.42		
Oct-07	JE 6	0.00	(6,859.58)	1,732,198.84		
Nov-07	JE 6	0.00	(6,859.58)	1,725,339.26		
Dec-07	JE 6	0.00	(6,859.49)	1,718,479.77		
	TOTAL	2,413,935.47	(695,455.71)	1,718,479.76		

Ex B and C: Unamortized Debt Discount adjustment.

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: DEC 2007
14 MILLION

			JE6	
DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2006	14M Rev Bond 11/14/01	805,955.81	(138,687.10)	667,268.71 ✓
Jan-07	JE 6		(2,239.26)	665,029.45 ✓
Feb-07	JE 6		(2,239.26)	662,790.19 ✓
Mar-07	JE 6		(2,239.26)	660,550.93 ✓
Apr-07	JE 6		(2,239.26)	658,311.67 ✓
May-07	JE 6		(2,239.26)	656,072.41 ✓
Jun-07	JE 6		(1,254.51)	654,817.90 ✓
Jul-07	JE 6		(2,237.79)	652,580.11 ✓
Aug-07	JE 6		(2,238.77)	650,341.34
Sep-07	JE 6		(2,238.77)	648,102.57
Oct-07	JE 6		(2,238.77)	645,863.80
Nov-07	JE 6		(2,238.77)	643,625.03
Dec-07	JE 6		(2,238.72)	641,386.31
	TOTAL	805,955.81	(164,569.50)	641,386.31 ✓

LORIDA PUBLIC UTILITIES COMPANY
CHEDULE OF AMORTIZATION
eriod Ending: FEBRUARY 2007
14,000,000 PBC IND DEV REV BOND, 4.9%, ISSUED 11/1/2001 -, DUE 2031

Prepared By:_____

Approved By:_____

	2001.00												TOTAL
NSURANCE	349426.00												349426
XPENSES - UNDERWRITER FEE	280000.00												280000
DJ OF PPD INS - 1ST YEAR	-14000.00												-14000.00
DDTL BOND EXPENSES - UNDERWRITER FEI	140000.00												140000
NALYTICAL SERVICES - S&P	12000.00												12000.00
DDTL BOND FINANCING EXPENSES	36107.31												36107.31
DDTL BOND FINANCING EXPENSES 2003	1250.00												1250.00
DDTL BOND FINANCING EXPENSES 2003	1172.50												1172.50
NITIAL UNAMORTIZED DEBT	805955.81	0							0	0	0	0	805955.81

AMORTIZATION EXPENSE	PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	Annual
2001	4464.08	2232.04	0	0		0	0	0	0	0	0	0	2232.04	2232.04	4464.08
2002	26784.44	2232.04	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232.04**	**2232**	26784.44
2003	25860.22	2232.04	**1267.08**	**2232.04**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2235.76**	**2239.26**	25860.22
2004	26865.19	2238.77	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	2238.72	26865.19
2005	26865.19	2238.77	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.72**	26865.19
2006	26865.19	2238.77	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.72**	26865.19
2007	26865.19	2238.77	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.77**	**2238.72**	26865.19
2008	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2009	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2010	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2011	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2012	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2013	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2014	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2015	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2016	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2017	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2018	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2019	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2020	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2021	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2022	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2023	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2024	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2025	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2026	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2027	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2028	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2029	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2030	26865.19	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.77	2238.72	26865.19
2031	23486.94	2,348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.69	2348.73			23486.94
TOTAL AMORTIZATION	805955.81	69491.6	66294.6	67259.56	67263.28	67263.28	67263.28	67263.28	67263.28	67263.28	67263.28	60556.75	58208.02	58206.72	805955.81

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: DEC 2007
15 MILLION

			JE6		
DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE	
12/31/2006	BALANCES FORWARD	1,208,669.91	(211,517.46)	997,152.45	✓
Jan-07	JE 6		(3,357.42)	993,795.03	✓
Feb-07	JE 6		(3,357.42)	990,437.61	✓
Mar-07	JE 6		(3,357.42)	987,080.19	✓
Apr-07	JE 6		(3,357.42)	983,722.77	✓
May-07	JE 6		(3,357.42)	980,365.35	✓
Jun-07	JE 6		(927.57)	979,437.78	
Jul-07	JE 6		(3,357.42)	976,080.36	✓
Aug-07	JE 6		(3,357.42)	972,722.94	✓
Sep-07	JE 6		(3,357.42)	969,365.52	✓
Oct-07	JE 6		(3,357.42)	966,008.10	✓
Nov-07	JE 6		(3,357.42)	962,650.68	✓
Dec-07	JE 6		(3,357.38)	959,293.30	✓
	TOTAL	1,208,669.91	(249,376.61)	959,293.30	

ORIDA PUBLIC UTILITIES COMPANY
:HEDULE OF AMORTIZATION
YEARS 9/27/01
5,000,000 SECURED INSURED QUARTERLY NOTE @ 6.85% - DUE OCTOBER 1, 2031

	2001														TOTAL
SURANCE - 459,613.24	459,613.24								0	0	0	0	0	0	459613.24
\LES COSTS - 472,500.00	472,500.00													0	472500
)J OF PPD INS - IST YR	(15,000.00)														-15000
idt'l bond financing Costs	55,601.66														55601.66
idt'l bond financing exp tansf fr 14M	235,955.01														235955.01
IITIAL UNAMORTIZED DEBT	1,208,669.91	0							0	0	0	0	0	0	1208669.91

MORTIZATION EXPENSE	PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2001	7,642.61	2,547.54	-	-	-	-	-	-	-	-	-	2,589.21	2,505.87	2,547.53	7,642.61
2002	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2003	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2004	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2005	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2006	40,289.00	3,357.42	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2007	40,289.00	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.42**	**3,357.38**	40,289.00
2008	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2009	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2010	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2011	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2012	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2013	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2014	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2015	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2016	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2017	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2018	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2019	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2020	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2021	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2022	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2023	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2024	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2025	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2026	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2027	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2028	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2029	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2030	40,289.00	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.42	3,357.38	40,289.00
2031	32,646.30	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.37	3,627.34				32,646.30
TOTAL AMORTIZATION	1,208,669.91	103,540.09	100,992.55	100,992.55	100,992.55	100,992.55	100,992.55	100,992.55	100,992.55	100,992.55	100,992.52	87,292.92	87,292.92	87,291.88	1,208,669.91

Exhibit 27.21
Pg. 125

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: DEC 2007
5.5 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2006	BALANCES FORWARD	97,070.01	(72,479.68)	24,590.33
Jan-07	JE 6		(323.57)	24,266.76
Feb-07	JE 6		(323.57)	23,943.19
Mar-07	JE 6		(323.57)	23,619.62
Apr-07	JE 6		(323.57)	23,296.05
May-07	JE 6		(323.57)	22,972.48
Jun-07	JE 6		(323.57)	22,648.91
Jul-07	JE 6		(323.57)	22,325.34
Aug-07	JE 6		(323.57)	22,001.77
Sep-07	JE 6		(323.57)	21,678.20
Oct-07	JE 6		(323.57)	21,354.63
Nov-07	JE 6		(323.57)	21,031.06
Dec-07	JE 6		(323.57)	20,707.49
	TOTAL	97,070.01	(76,362.52)	20,707.49

ORIDA PUBLIC UTILITIES COMPANY
HEDULE OF AMORTIZATION
YEARS 5/1/88
,500,000 First Mortgage Bonds @ 10.03% - DUE May 1, 2018

	1988														TOTAL
iginal Issue Cost	97,070.01								0	0	0	0	0	0	97070.01
														0	0
															0
															0
															0
IITIAL UNAMORTIZED DEBT	97,070.01	0							0	0	0	0	0	0	97070.01

MORTIZATION EXPENSE	PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	YTD
1988	2,588.56	323.57	-		-		323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	2,588.56
1989	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1990	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1991	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1992	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1993	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1994	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1995	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1996	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1997	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1998	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
1999	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2000	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2001	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2002	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2003	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2004	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2005	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2006	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2007	3,882.84	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	323.57	3,882.84
2008	3,646.77	323.57	323.57	323.57	323.57	322.78	294.16	294.16	294.16	294.16	294.16	294.16	294.16	294.16	3,646.77
2009	3,294.56	294.16	294.16	294.16	294.16	294.16	264.74	264.74	264.74	264.74	264.74	264.74	264.74	264.74	3,294.56
2010	2,941.52	264.74	264.74	264.74	264.74	264.74	235.32	235.32	235.32	235.32	235.32	235.32	235.32	235.32	2,941.52
2011	2,588.56	235.32	235.32	235.32	235.32	235.32	205.91	205.91	205.91	205.91	205.91	205.91	205.91	205.91	2,588.56
2012	2,235.56	205.91	205.91	205.91	205.91	205.91	176.49	176.49	176.49	176.49	176.49	176.49	176.49	176.49	2,235.56
2013	1,882.60	176.49	176.49	176.49	176.49	176.49	147.08	147.08	147.08	147.08	147.08	147.08	147.08	147.08	1,882.60
2014	1,529.60	147.08	147.08	147.08	147.08	147.08	117.66	117.66	117.66	117.66	117.66	117.66	117.66	117.66	1,529.60
2015	1,176.64	117.66	117.66	117.66	117.66	117.66	88.25	88.25	88.25	88.25	88.25	88.25	88.25	88.25	1,176.64
2016	823.64	88.25	88.25	88.25	88.25	88.25	58.83	58.83	58.83	58.83	58.83	58.83	58.83	58.83	823.64
2017	470.60	58.83	58.83	58.83	58.83	58.83	29.41	29.41	29.41	29.41	29.41	29.41	29.41	29.41	470.60
2018	117.44	29.41	29.41	29.41	29.41	29.21									117.44
TOTAL AMORTIZATION	97,070.01	8,412.82	8,089.25	8,089.25	8,089.25	8,088.26	8,089.25	8,089.25	8,089.25	8,089.25	8,089.25	6,794.97	6,794.97	6,794.97	97 070.01

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: DEC 2007
10 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2006	BALANCES FORWARD	180,272.87	(134,601.60)	45,671.27
Jan-07	JE 6		(600.90)	45,070.37
Feb-07	JE 6		(600.90)	44,469.47
Mar-07	JE 6		(600.90)	43,868.57
Apr-07	JE 6		(600.90)	43,267.67
May-07	JE 6		(600.90)	42,666.77
Jun-07	JE 6		(600.90)	42,065.87
Jul-07	JE 6		(600.90)	41,464.97
Aug-07	JE 6		(600.90)	40,864.07
Sep-07	JE 6		(600.90)	40,263.17
Oct-07	JE 6		(600.90)	39,662.27
Nov-07	JE 6		(600.90)	39,061.37
Dec-07	JE 6		(600.90)	38,460.47
	TOTAL	180,272.87	(141,812.40)	38,460.47

LORIDA PUBLIC UTILITIES COMPANY
CHEDULE OF AMORTIZATION
) YEARS 5/1/88
10,000,000 First Mortgage Bonds @ 9.57% - DUE May 1, 2018

	1988															TOTAL
Original Issue Cost	180,272.87								0	0	0	0	0	0		180272.87
														0		0
																0
																0
																0
NITIAL UNAMORTIZED DEBT	180,272.87	0							0	0	0	0	0	0		180272.87

AMORTIZATION EXPENSE	PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	YTD
1988	4,807.20	600.90	-		-		600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	4,807.20
1989	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1990	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1991	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1992	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1993	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1994	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1995	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1996	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1997	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1998	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
1999	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2000	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2001	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2002	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2003	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2004	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2005	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2006	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2007	7,210.80	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	600.90	7,210.80
2008	6,773.25	600.90	600.90	600.90	600.90	600.31	546.28	546.28	546.28	546.28	546.28	546.28	546.28	546.28	6,773.25
2009	6,118.32	546.28	546.28	546.28	546.28	546.28	491.65	491.65	491.65	491.65	491.65	491.65	491.65	491.65	6,118.32
2010	5,462.84	491.65	491.65	491.65	491.65	491.65	437.03	437.03	437.03	437.03	437.03	437.03	437.03	437.03	5,462.84
2011	4,807.40	437.03	437.03	437.03	437.03	437.03	382.41	382.41	382.41	382.41	382.41	382.41	382.41	382.41	4,807.40
2012	4,151.96	382.41	382.41	382.41	382.41	382.41	327.79	327.79	327.79	327.79	327.79	327.79	327.79	327.79	4,151.96
2013	3,496.52	327.79	327.79	327.79	327.79	327.79	273.17	273.17	273.17	273.17	273.17	273.17	273.17	273.17	3,496.52
2014	2,841.08	273.17	273.17	273.17	273.17	273.17	218.55	218.55	218.55	218.55	218.55	218.55	218.55	218.55	2,841.08
2015	2,185.64	218.55	218.55	218.55	218.55	218.55	163.93	163.93	163.93	163.93	163.93	163.93	163.93	163.93	2,185.64
2016	1,530.12	163.93	163.93	163.93	163.93	163.93	109.30	109.30	109.30	109.30	109.30	109.30	109.30	109.30	1,530.12
2017	874.64	109.30	109.30	109.30	109.30	109.30	54.68	54.68	54.68	54.68	54.68	54.68	54.68	54.68	874.64
2018	218.70	54.68	54.68	54.68	54.68	54.66									218.70
TOTAL AMORTIZATION	180,272.87	15,623.69	15,022.79	15,022.79	15,022.79	15,022.18	15,022.79	15,022.79	15,022.79	15,022.79	15,022.79	12,619.19	12,619.19	12,619.19	180,272.87

Florida Public Utilities Company
UNAMORTIZED DEBT DISCOUNT
Period Ending: DEC 2007
8 MILLION

DATE	DESCRIPTION	INITIAL UNAMORTIZED DEBT	AMORTIZATION	BALANCE
12/31/2006	BALANCES FORWARD	121,966.87	(58,930.86)	63,036.01
Jan-07	JE 6		(338.92)	62,697.09
Feb-07	JE 6		(338.92)	62,358.17
Mar-07	JE 6		(338.92)	62,019.25
Apr-07	JE 6		(338.92)	61,680.33
May-07	JE 6		(338.92)	61,341.41
Jun-07	JE 6		(338.92)	61,002.49
Jul-07	JE 6		(338.92)	60,663.57
Aug-07	JE 6		(338.92)	60,324.65
Sep-07	JE 6		(675.69)	59,648.96
Oct-07	JE 6		(338.92)	59,310.04
Nov-07	JE 6		(338.92)	58,971.11
Dec-07	JE 6		(338.92)	58,632.19
	TOTAL	121,966.87	(63,334.68)	58,632.19

.ORIDA PUBLIC UTILITIES COMPANY
CHEDULE OF AMORTIZATION
) YEARS 6/1/92
3,000,000 First Mortgage Bonds @ 9.08% - DUE June 1, 2022

	1992															TOTAL
riginal Issue Cost	121,629.20								0	0	0	0	0	0		121629.2
ddt'l bond financing Costs-Aug 1992	381.04													0		381.04
																0
																0
																0
NITIAL UNAMORTIZED DEBT	122,010.24	0							0	0	0	0	0	0	0	122010.24

AMORTIZATION EXPENSE		PER YEAR	Per Month	January	February	March	April	May	June	July	August	September	October	November	December	YTD
	1992	2,372.44	338.92	-		-	-	-	338.92	338.92	338.92	338.92	338.92	338.92	338.92	2,372.44
	1993	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	1994	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	1995	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	1996	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	1997	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	1998	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	1999	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2000	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2001	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2002	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2003	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2004	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2005	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2006	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2007	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2008	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2009	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2010	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2011	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2012	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2013	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2014	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2015	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2016	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2017	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2018	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2019	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2020	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2021	4,067.04	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	338.92	4,067.04
	2022	1,693.64	338.73	338.73	338.73	338.73	338.73	338.72			-					1,693.64
TOTAL AMORTIZATION		122,010.24	10,506.33	10,167.41	10,167.41	10,167.41	10,167.41	10,167.40	10,167.60	10,167.60	10,167.60	10,167.60	8,811.92	8,811.92	8,811.92	122,010.24

7/17/2008 14:35:21 Interactive Trial Balance GLGITB GLDITB
Monthly activity

Select option, press Enter.
Account . : 001.0.0.1810.1 UNAMORTIZED DEBT DISCOUNT

	Period End	Starting Balance	Posted Activity	Ending Balance
_	JAN 1/31/2007	1,797,718.77 ✓	6,860.07-	1,790,858.70 ✓
_	FEB 2/28/2007	1,790,858.70	6,860.07-	1,783,998.63 ✓
_	MAR 3/31/2007	1,783,998.63	6,860.07-	1,777,138.56 ✓
_	APR 4/30/2007	1,777,138.56	6,860.07-	1,770,278.49 ✓
_	MAY 5/31/2007	1,770,278.49	6,860.07-	1,763,418.42 ✓
_	JUN 6/30/2007	1,763,418.42	(1) 3,445.47-	1,759,972.95
_	JUL 7/31/2007	1,759,972.95	6,858.60-	1,753,114.35
_	AUG 8/31/2007	1,753,114.35	6,859.58-	1,746,254.77
_	SEP 9/30/2007	1,746,254.77	(2) 7,196.35-	1,739,058.42
_	OCT 10/31/2007	1,739,058.42	6,859.58-	1,732,198.84
_	NOV 11/30/2007	1,732,198.84	6,859.58-	1,725,339.26
_	DEC 12/31/2007	1,725,339.26	6,859.49-	1,718,479.77
_	ADJ 12/31/2007	1,718,479.77	.00	1,718,479.77

F2=Function keys F3=Exit F5=Refresh F6=More info. F24=More keys

Exhibit 27.21
Pg. 132

7/17/2008 14:45:13 Interactive Trial Balance GLGITB GLDITB

Journals

Select journal to display account transactions.

Account . : 001.0.0.1810.1 UNAMORTIZED DEBT DISCOUNT

Period . . . . . : 2007 6 JUN 6/30/2007 Monetary USD

art balance . . : 1,763,418.42 Posted activity . 3,445.47-

id balance . . . : 1,759,972.95

O	Journal	Date	Reference	Source	N/A	Amount
_	47770	7/12/2007	6	JE		6,860.07-
_	47816	7/16/2007	6M	JE		984.75
_	47816	7/16/2007	6M	JE		2,429.85

Bottom

F2=Function keys F3=Exit F5=Fold/unfold F24=More keys

Exhibit 27.21
Pg. 133

7/17/2008 14:45:34 Interactive Trial Balance GLGITB GLDITB
Journals
Select journal to display account transactions.
Account . : 001.0.0.1810.1 UNAMORTIZED DEBT DISCOUNT
Period . . . . . : 2007 9 SEP 9/30/2007 Monetary USD
rt balance . . : 1,746,254.77 Posted activity . 7,196.35-
id balance . . . : 1,739,058.42

O	Journal	Date	Reference	Source	N/A	Amount
_	48535	10/02/2007	6M	JE	(2)	336.77-
_	48706	10/12/2007	6	JE		6,859.58-

Bottom

F2=Function keys F3=Exit F5=Fold/unfold F24=More keys

Exhibit 27.21
Pg. 134

FPU
Long Term Debt
Actual Dec 2006 - Aug 2008

BONDS
100.2210.1

		Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 Mth Avg	
$10M	9.57 % due 2018	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	1
$5.5M	10.03 % due 2018	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	2
$8M	9.06 % due 2022	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	3
$15M	6.85 % due 2031	$ 15,000,000	$ 15,000,000	$ 15,000,000	$ 15,000,000	$ 15,000,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,993,846	4
$14M	4.80 % due 2031	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	5
		$ 52,500,000	$ 52,500,000	$ 52,500,000	$ 52,500,000	$ 52,500,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,493,846	6

48 44

BONDS		Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 Mth Avg	
$10M	9.57 % due 2018	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,440,615	16
$5.5M	10.03 % due 2018	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,192,308	17
$8M	9.06 % due 2022	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	18
$15M	6.85 % due 2031	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,983,077	19
$14M	4.80 % due 2031	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,868,462	20
		$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 51,081,000	$ 51,081,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,604,462	21
			52	53	54	55	56	57	58*	*					Redemption pos	

Note difference of $25,000 to GL - Redemption posted incorrectly 1 to be corrected in Sept

BONDS		Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 Mth Avg	
$10M	9.57 % due 2018	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 8,091,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,531,615	30
$5.5M	10.03 % due 2018	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,692,308	31
$8M	9.06 % due 2022	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	32
$15M	6.85 % due 2031	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	33
$14M	4.80 % due 2031	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	34
		$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 50,173,923	35

UNAMORTIZED DEBT DISCOUNT*
100.1810.1

	Monthly Amortization	Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 Mth Avg	
$10M	$ 801	$ 45,671	$ 45,070	$ 44,469	$ 43,869	$ 43,268	$ 42,667	$ 42,066	$ 41,465	$ 40,864	$ 40,263	$ 39,662	$ 39,061	$ 38,460	$ 42,066	9
$5.5M	$ 324	$ 24,590	$ 24,267	$ 23,943	$ 23,620	$ 23,296	$ 22,972	$ 22,649	$ 22,325	$ 22,002	$ 21,678	$ 21,355	$ 21,031	$ 20,707	$ 22,649	10
$8M	$ 339	$ 63,036	$ 62,697	$ 62,356	$ 62,019	$ 61,680	$ 61,341	$ 61,002	$ 60,664	$ 60,325	$ 59,649	$ 59,310	$ 58,971	$ 58,632	$ 60,899	11
$15M	$ 1,357	$ 997,152	$ 993,795	$ 990,438	$ 987,080	$ 983,723	$ 980,365	$ 978,436	$ 978,080	$ 972,723	$ 969,366	$ 966,008	$ 962,651	$ 959,293	$ 978,316	12
$14M	$ 2,239	$ 867,269	$ 865,029	$ 862,790	$ 860,551	$ 858,312	$ 856,072	$ 854,816	$ 852,579	$ 850,341	$ 848,103	$ 845,864	$ 843,625	$ 841,386	$ 854,365	13
	$ 5,060	$ 1,797,719	$ 1,790,859	$ 1,783,999	$ 1,777,138	$ 1,770,278	$ 1,763,418	$ 1,759,973	$ 1,753,113	$ 1,746,255	$ 1,739,058	$ 1,732,199	$ 1,725,339	$ 1,718,480	$ 1,758,295	

49 45

	Monthly Amortization	Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 Mth Avg	
$10M	$ 801 $ 546	$ 38,460	$ 37,860	$ 37,259	$ 36,658	$ 36,057	$ 35,511	$ 34,965	$ 34,419	$ 33,873	$ 33,327	$ 32,781	$ 32,235	$ 31,689	$ 35,007	23
$5.5M	$ 324 $ 294	$ 20,707	$ 20,364	$ 20,060	$ 19,737	$ 19,413	$ 19,119	$ 18,825	$ 18,531	$ 18,237	$ 17,943	$ 17,649	$ 17,355	$ 17,061	$ 18,848	24
$8M	$ 339	$ 58,632	$ 58,293	$ 57,954	$ 57,615	$ 57,277	$ 56,938	$ 56,599	$ 56,260	$ 55,921	$ 55,582	$ 55,243	$ 54,904	$ 54,565	$ 56,599	25
$15M	$ 1,357	$ 959,293	$ 955,936	$ 952,578	$ 949,221	$ 945,864	$ 942,506	$ 939,149	$ 935,791	$ 932,434	$ 929,076	$ 925,719	$ 922,362	$ 919,004	$ 939,149	26
$14M	$ 2,239	$ 641,386	$ 639,147	$ 636,908	$ 634,669	$ 632,430	$ 630,191	$ 627,952	$ 625,713	$ 623,474	$ 621,235	$ 618,996	$ 616,757	$ 614,518	$ 627,952	27
	$ 5,060	$ 1,718,480	$ 1,711,620	$ 1,704,760	$ 1,697,900	$ 1,691,041	$ 1,684,265	$ 1,677,490	$ 1,670,715	$ 1,663,939	$ 1,657,164	$ 1,650,388	$ 1,643,613	$ 1,636,838	$ 1,677,555	

59 60 61 62 63 64 65

	Monthly Amortization	Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 Mth Avg	
$10M	$ 546 $ 402	$ 31,688	$ 31,143	$ 30,597	$ 30,051	$ 29,505	$ 29,013	$ 28,521	$ 28,029	$ 27,537	$ 27,045	$ 26,553	$ 26,061	$ 25,569	$ 28,562	38
$5.5M	$ 294 $ 245	$ 17,081	$ 16,767	$ 16,473	$ 16,179	$ 15,885	$ 15,620	$ 15,355	$ 15,090	$ 14,825	$ 14,560	$ 14,295	$ 14,030	$ 13,765	$ 15,376	39
$8M	$ 339	$ 54,565	$ 54,226	$ 53,887	$ 53,548	$ 53,209	$ 52,871	$ 52,532	$ 52,193	$ 51,854	$ 51,515	$ 51,176	$ 50,837	$ 50,498	$ 52,532	40
$15M	$ 1,357	$ 919,004	$ 915,647	$ 912,289	$ 908,932	$ 905,575	$ 902,217	$ 898,860	$ 895,502	$ 892,145	$ 888,787	$ 885,430	$ 882,073	$ 878,715	$ 898,860	41
$14M	$ 2,239	$ 614,518	$ 612,279	$ 610,040	$ 607,801	$ 605,562	$ 603,323	$ 601,084	$ 598,845	$ 596,606	$ 594,367	$ 592,128	$ 589,889	$ 587,650	$ 601,084	42
	$ 5,775	$ 1,636,836	$ 1,630,062	$ 1,623,287	$ 1,616,512	$ 1,609,736	$ 1,603,044	$ 1,596,352	$ 1,589,659	$ 1,582,967	$ 1,576,275	$ 1,569,582	$ 1,562,890	$ 1,556,198	$ 1,596,416	

LOSS ON RE'ACQD DEBT
100.1890.1

	Monthly Amortization	Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 Mth Avg	
	1524	$ 208,741	$ 207,217	$ 205,694	$ 204,170	$ 202,646	$ 201,123	$ 199,599	$ 198,075	$ 196,552	$ 195,028	$ 193,504	$ 191,981	$ 190,457	$ 199,599	14

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	Monthly Amortization	Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 Mth Avg	
	1524	$ 190,457	$ 188,933	$ 187,410	$ 185,886	$ 184,362	$ 182,839	$ 181,315	$ 179,791	$ 178,268	$ 176,744	$ 175,220	$ 173,697	$ 172,173	$ 181,315	28

	Monthly Amortization	Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 Mth Avg	
	1524	$ 172,173	$ 170,650	$ 169,126	$ 167,602	$ 166,078	$ 164,555	$ 163,031	$ 161,508	$ 159,984	$ 158,460	$ 156,937	$ 155,413	$ 153,889	$ 163,031	43

Total 1810.1 & 1890.1

	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	13 Mth Avg	
2007	$ 2,006,460	$ 1,998,076	$ 1,989,692	$ 1,981,309	$ 1,972,925	$ 1,964,541	$ 1,959,572	$ 1,951,188	$ 1,942,807	$ 1,934,087	$ 1,925,703	$ 1,917,320	$ 1,908,937	$ 1,957,694	1
2008	$ 1,908,937	$ 1,900,553	$ 1,892,170	$ 1,883,786	$ 1,875,403	$ 1,867,104	$ 1,858,805	$ 1,850,506	$ 1,842,207	$ 1,833,908	$ 1,825,609	$ 1,817,310	$ 1,809,011	$ 1,858,870	24
2009	$ 1,809,011	$ 1,800,712	$ 1,792,413	$ 1,784,114	$ 1,775,815	$ 1,767,599	$ 1,759,383	$ 1,751,167	$ 1,742,951	$ 1,734,735	$ 1,726,519	$ 1,718,303	$ 1,710,087	$ 1,759,447	36

51 47

Total LT Debt

2007	$ 50,493,540	$ 50,501,924	$ 50,510,308	$ 50,518,691	$ 50,527,075	$ 50,525,459	$ 50,530,428	$ 50,538,812	$ 50,547,193	$ 50,555,913	$ 50,564,297	$ 50,572,680	$ 50,581,063	$ 50,535,953	8
2008	$ 50,581,063	$ 50,589,447	$ 50,597,830	$ 50,606,214	$ 50,614,597	$ 49,213,896	$ 49,222,195	$ 49,190,494	$ 49,198,793	$ 49,207,092	$ 49,215,391	$ 49,223,690	$ 49,231,989	$ 49,745,592	22
2009	$ 49,231,989	$ 49,240,288	$ 49,248,587	$ 49,256,886	$ 49,265,185	$ 47,864,401	$ 47,872,617	$ 47,880,833	$ 47,889,049	$ 47,897,265	$ 47,905,481	$ 47,913,697	$ 47,921,913	$ 48,414,476	37

Florida Public Utilities
Long-Term Debt

	GL #	Start of Sinking Fund Payments	December 31 2007	December 31 2006	December 31 2005
First mortgage bonds series					
9.57 % due 2018		5/1/2008	10,000,000	10,000,000	10,000,000
10.03 % due 2018		5/1/2008	5,500,000	5,500,000	5,500,000
9.08 % due 2022		n/a	8,000,000	8,000,000	8,000,000
4.90 % due 2031		n/a	14,000,000	14,000,000	14,000,000
6.85 % due 2031		n/a	14,990,000	15,000,000	15,000,000
Total long-term debt	2210		52,490,000	52,500,000	52,500,000
Unamortized debt discount	1810		(1,718,480)	(1,797,719)	(1,880,040)
LT DEBT net of Unamortized Debt Discount (10K & 10Q)			50,771,520	50,702,281	50,619,960
Unamortized Loss on Reacquired Debt	1890		(190,457)	(208,741)	(227,025)
LT DEBT net of Unamortized Debt Discount & Loss on Reacq Debt			50,581,063	50,493,540	50,392,935

Exhibit 27.21
Pg. 136

FPU
Long Term Debt
Actual Dec 2006 - Aug 2008

BONDS
100.2210.1

		Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 Mth Avg
$10M	9.57 % due 2016	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000
$5.5M	10.03 % due 2016	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000
$8M	8.08 % due 2022	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000
$15M	6.85 % due 2031	$ 15,000,000	$ 15,000,000	$ 15,000,000	$ 15,000,000	$ 15,000,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,993,846
$14M	4.90 % due 2031	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000
		$ 52,500,000	$ 52,500,000	$ 52,500,000	$ 52,500,000	$ 52,500,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,493,846

BONDS		Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 Mth Avg
$10M	9.57 % due 2016	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,440,615
$5.5M	10.03 % due 2016	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,192,306
$8M	8.08 % due 2022	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000
$15M	6.85 % due 2031	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,990,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,983,077
$14M	4.90 % due 2031	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 14,000,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,988,462
		$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 52,490,000	$ 51,081,000	$ 51,081,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,604,462
															Redemption pos

BONDS		Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 Mth Avg
$10M	9.57 % due 2016	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 9,091,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,182,000	$ 8,531,615
$5.5M	10.03 % due 2016	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,692,306
$8M	8.08 % due 2022	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000	$ 8,000,000
$15M	6.85 % due 2031	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000	$ 14,975,000
$14M	4.90 % due 2031	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000	$ 13,975,000
		$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 51,041,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 49,632,000	$ 50,173,923

UNAMORTIZED DEBT DISCOUNT
100.1810.1

	Monthly Amortization	Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 Mth Avg
$10M	$ 601	$ 45,671	$ 45,070	$ 44,469	$ 43,869	$ 43,268	$ 42,667	$ 42,068	$ 41,465	$ 40,864	$ 40,263	$ 39,662	$ 39,061	$ 38,460	$ 42,066
$5.5M	$ 324	$ 24,590	$ 24,267	$ 23,943	$ 23,620	$ 23,296	$ 22,972	$ 22,649	$ 22,325	$ 22,002	$ 21,678	$ 21,355	$ 21,031	$ 20,707	$ 22,649
$8M	$ 339	$ 63,036	$ 62,697	$ 62,358	$ 62,019	$ 61,680	$ 61,341	$ 61,002	$ 60,664	$ 60,325	$ 59,849	$ 59,310	$ 58,971	$ 58,632	$ 60,899
$15M	$ 1,357	$ 997,152	$ 993,795	$ 990,438	$ 987,080	$ 983,723	$ 980,365	$ 879,438	$ 978,080	$ 972,723	$ 969,366	$ 966,008	$ 962,651	$ 959,293	$ 978,316
$14M	$ 2,239	$ 667,269	$ 665,029	$ 662,790	$ 660,551	$ 658,312	$ 656,072	$ 654,816	$ 652,579	$ 650,341	$ 648,103	$ 645,864	$ 643,625	$ 641,386	$ 654,365
	$ 5,860	$ 1,797,719	$ 1,790,858	$ 1,783,998	$ 1,777,139	$ 1,770,278	$ 1,763,418	$ 1,759,873	$ 1,753,113	$ 1,746,255	$ 1,739,059	$ 1,732,199	$ 1,725,338	$ 1,718,480	$ 1,756,295

	Monthly Amortization	Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 Mth Avg
$10M	$ 601 / $ 546	$ 38,480	$ 37,860	$ 37,259	$ 36,658	$ 36,057	$ 35,511	$ 34,965	$ 34,419	$ 33,873	$ 33,327	$ 32,781	$ 32,235	$ 31,689	$ 35,007
$5.5M	$ 324 / $ 294	$ 20,707	$ 20,384	$ 20,060	$ 19,737	$ 19,413	$ 19,118	$ 18,825	$ 18,531	$ 18,237	$ 17,943	$ 17,649	$ 17,355	$ 17,061	$ 18,848
$8M	$ 339	$ 58,632	$ 58,293	$ 57,954	$ 57,615	$ 57,277	$ 56,938	$ 56,599	$ 56,260	$ 55,921	$ 55,582	$ 55,243	$ 54,904	$ 54,565	$ 56,599
$15M	$ 1,357	$ 959,293	$ 955,936	$ 952,578	$ 949,221	$ 945,864	$ 942,506	$ 939,149	$ 935,791	$ 932,434	$ 929,076	$ 925,719	$ 922,362	$ 919,004	$ 939,149
$14M	$ 2,239	$ 641,386	$ 639,147	$ 636,908	$ 634,669	$ 632,430	$ 630,191	$ 627,952	$ 625,713	$ 623,474	$ 621,235	$ 618,996	$ 616,757	$ 614,518	$ 627,952
	$ 5,860	$ 1,718,480	$ 1,711,620	$ 1,704,760	$ 1,697,900	$ 1,691,041	$ 1,684,265	$ 1,677,490	$ 1,670,715	$ 1,663,939	$ 1,657,164	$ 1,650,388	$ 1,643,613	$ 1,636,838	$ 1,677,555

	Monthly Amortization	Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 Mth Avg
$10M	$ 546 / $ 492	$ 31,689	$ 31,143	$ 30,597	$ 30,051	$ 29,505	$ 29,013	$ 28,521	$ 28,029	$ 27,537	$ 27,045	$ 26,553	$ 26,061	$ 25,569	$ 28,562
$5.5M	$ 294 / $ 265	$ 17,061	$ 16,787	$ 16,473	$ 16,179	$ 15,885	$ 15,620	$ 15,355	$ 15,090	$ 14,825	$ 14,560	$ 14,295	$ 14,030	$ 13,765	$ 15,378
$8M	$ 339	$ 54,565	$ 54,226	$ 53,887	$ 53,548	$ 53,209	$ 52,871	$ 52,532	$ 52,193	$ 51,854	$ 51,515	$ 51,178	$ 50,837	$ 50,498	$ 52,532
$15M	$ 1,357	$ 919,004	$ 915,647	$ 912,289	$ 908,932	$ 905,575	$ 902,217	$ 898,860	$ 895,502	$ 892,145	$ 888,787	$ 885,430	$ 882,073	$ 878,715	$ 898,860
$14M	$ 2,239	$ 614,518	$ 612,279	$ 610,040	$ 607,801	$ 605,562	$ 603,323	$ 601,084	$ 598,845	$ 596,606	$ 594,367	$ 592,128	$ 589,889	$ 587,650	$ 601,084
	$ 6,775	$ 1,636,838	$ 1,630,082	$ 1,623,287	$ 1,616,512	$ 1,609,736	$ 1,603,044	$ 1,596,352	$ 1,589,659	$ 1,582,967	$ 1,576,275	$ 1,569,582	$ 1,562,890	$ 1,556,198	$ 1,596,416

LOSS ON RE'ACQD DEBT
100.1890.1

	Monthly Amortization	Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	13 Mth Avg
	1524	$ 208,741	$ 207,217	$ 205,694	$ 204,170	$ 202,646	$ 201,123	$ 199,599	$ 198,075	$ 196,552	$ 195,028	$ 193,504	$ 191,981	$ 190,457	$ 199,599

	Monthly Amortization	Dec 2007	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008	Aug 2008	Sep 2008	Oct 2008	Nov 2008	Dec 2008	13 Mth Avg
	1524	$ 190,457	$ 188,933	$ 187,410	$ 185,886	$ 184,362	$ 182,839	$ 181,315	$ 179,791	$ 178,268	$ 176,744	$ 175,220	$ 173,697	$ 172,173	$ 181,315

	Monthly Amortization	Dec 2008	Jan 2009	Feb 2009	Mar 2009	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	13 Mth Avg
	1524	$ 172,173	$ 170,650	$ 169,126	$ 167,602	$ 166,079	$ 164,555	$ 163,031	$ 161,508	$ 159,984	$ 158,460	$ 156,937	$ 155,413	$ 153,889	$ 163,031

Total 1810.1 & 1890.1

	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	13 Mth Avg
2007	$ 2,006,460	$ 1,998,076	$ 1,989,692	$ 1,981,309	$ 1,972,925	$ 1,964,541	$ 1,959,572	$ 1,951,188	$ 1,942,807	$ 1,934,087	$ 1,925,703	$ 1,917,320	$ 1,908,937	$ 1,957,894
2008	$ 1,906,937	$ 1,900,553	$ 1,892,170	$ 1,883,786	$ 1,875,403	$ 1,867,104	$ 1,858,805	$ 1,850,506	$ 1,842,207	$ 1,833,908	$ 1,825,609	$ 1,817,310	$ 1,809,011	$ 1,858,870
2009	$ 1,809,011	$ 1,800,712	$ 1,792,413	$ 1,784,114	$ 1,775,815	$ 1,767,598	$ 1,759,383	$ 1,751,167	$ 1,742,951	$ 1,734,735	$ 1,726,519	$ 1,718,303	$ 1,710,087	$ 1,759,447

2007	$ 50,493,540	$ 50,501,924	$ 50,510,308	$ 50,518,691	$ 50,527,075	$ 50,525,459	$ 50,530,428	$ 50,538,812	$ 50,547,193	$ 50,555,813	$ 50,564,297	$ 50,572,680	$ 50,581,063	$ 50,535,953
2008	$ 50,581,063	$ 50,589,447	$ 50,597,830	$ 50,606,214	$ 50,614,597	$ 49,213,896	$ 49,222,195	$ 49,190,494	$ 49,198,793	$ 49,207,092	$ 49,215,391	$ 49,223,690	$ 49,231,989	$ 49,745,582
2009	$ 49,231,989	$ 49,240,286	$ 49,248,587	$ 49,256,888	$ 49,265,185	$ 47,864,401	$ 47,872,617	$ 47,880,833	$ 47,889,049	$ 47,897,265	$ 47,905,481	$ 47,913,697	$ 47,921,913	$ 48,414,476

CONFIDENTIAL**
INTERNAL USE ONLY**

FLORIDA PUBLIC UTILITIES
CONSOLIDATED BALANCE SHEET
PERIOD ENDED 08 2008

DESCRIPTION	CURRENT MONTH FPUC	CURRENT MONTH FLO-GAS	CURRENT MONTH CONSOLIDATED	DECEMBER OF PRIOR YEAR FPUC	DECEMBER OF PRIOR YEAR FLO-GAS	DECEMBER OF PRIOR YEAR CONSOLIDATED
ASSETS						
UTILITY PLANT:						
ELECTRIC	78,816,174		78,816,174	76,516,511		76,516,511
NATURAL & BOTTLED GAS	107,117,904	17,076,577	124,194,481	103,506,493	17,141,403	120,647,896
WATER						
PLANT ACQUISITION AD	1,267,467		1,267,467	1,267,467		1,267,467
COMMON PLANT	3,693,106		3,693,106	3,952,230		3,952,230
TOTAL	190,894,651	17,076,577	207,971,228	185,242,701	17,141,403	202,384,104
LESS ACCUM DEP & AMORT	(71,814,936)	(5,462,684)	(77,277,620)	(68,129,897)	(5,240,985)	(73,370,882)
NET UTILITY PLANT	119,079,715	11,613,893	130,693,608	117,112,804	11,900,418	129,013,222
NET OTHER PLANT	8,436		8,436	8,436		8,436
INVEST IN ASSOC. CO. ($10 X 1,000 SHARES)	10,000		10,000	10,000		10,000
CURRENT ASSETS:						
CASH	1,680,186		1,680,186	2,753,836		2,753,836
WORKING FUNDS	40,650		40,650	33,738	1,950	35,688
SPECIAL DEPOSIT-OTHER	3,609,056		3,609,056	3,762,094		3,762,094
ACCOUNTS RECEIVABLE	11,351,129	1,640,270	12,991,399	9,174,543	1,982,670	11,157,213
ALLOW FOR UNCOLL ACCT	(372,806)	(100,181)	(472,987)	(264,805)	(61,361)	(326,166)
RECEIVABLES ASSOC CO	14,338,180		14,338,180	15,251,882		15,251,882
OTHER INVESTMENTS	5,798,669		5,798,669	5,920,083		5,920,083
MATERIALS & SUPPLIES	1,996,265	2,555,338	4,551,603	1,903,928	2,346,847	4,250,775
PREPAYMENTS-INS & PEN	228,977		228,977	956,974		956,974
PREPAYMENTS-OTHER-I/T						
UNBILLED REVENUES	1,453,188	379,226	1,832,414	1,505,850	373,052	1,878,902
TOTAL CURRENT ASSETS	40,123,494	4,474,653	44,598,147	40,998,123	4,643,158	45,641,281
FERRED DEBITS:						
GOODWILL	552,803	1,852,435	2,405,238	552,803	1,852,435	2,405,238
INTANG ASSETS-NET	3,233,216	951,676	4,184,892	3,464,350	965,521	4,429,871
UNAMORTIZED DEBT EXP	1,663,941		1,663,941	1,718,480		1,718,480
PREPAY PENSIONS-RETIRE						
CLEARING ACCOUNTS	1,418		1,418			
TEMPORARY FACILITIES	15,458		15,458	14,060		14,060
OTH WORK IN PROGRESS	881,163		881,163	583,235		583,235
MISC. DEFERRED DEBITS	5,488,454	4,674	5,493,128	5,644,078	688	5,644,766
UNDERREC FUEL	1,823,899		1,823,899	1,079,935		1,079,935
UNDERREC CON & UNBUND	9,168		9,168			
UNAMORT LOSS/REACQD DEB	178,268		178,268	190,458		190,458
REGULATORY ASSETS	6,424,273		6,424,273	7,088,909		7,088,909
ACCUM DEFERRED I/T	5,393,139	76,548	5,469,687	4,493,908	62,142	4,556,050
TOTAL DEFERRED DEBITS	25,665,200	2,885,333	28,550,533	24,830,216	2,880,786	27,711,002
TOTAL ASSETS	184,886,845	18,973,879	203,860,724	182,959,579	19,424,362	202,383,941

*CONFIDENTIAL**
*INTERNAL USE ONLY**

FLORIDA PUBLIC UTILITIES
CONSOLIDATED BALANCE SHEET
PERIOD ENDED 08 2008

PA

DESCRIPTION	CURRENT MONTH FPUC	CURRENT MONTH FLO-GAS	CURRENT MONTH CONSOLIDATED	DECEMBER OF PRIOR YEAR FPUC	DECEMBER OF PRIOR YEAR FLO-GAS	DECEMBER OF PRIOR YEAR CONSOLIDATED
EQUITY:						
RE DEC 31	34,947,836	849,603	35,797,439	32,826,619	2,386,526	35,213,145
YTD NET INCOME	1,864,933	428,525	2,293,458	2,862,686	463,076	3,325,762
DIV DECLARED PREFER	(14,250)		(14,250)	(28,500)		(28,500)
DIV DECLARED COMMON	(1,397,433)		(1,397,433)	(687,893)	(2,000,000)	(2,687,893)
YTD RETAINED EARNINGS	35,401,086	1,278,128	36,679,214	34,972,912	849,602	35,822,514
COMMON STOCK	9,293,576	10,000	9,303,576	9,274,975	10,000	9,284,975
PREMIUM ON COMMON	5,848,189		5,848,189	5,722,679		5,722,679
MISC PAID IN CAPITAL	578,061		578,061	781,403		781,403
CAP STOCK EXP & DISC	(428,441)		(428,441)	(428,441)		(428,441)
TREASURY STOCK	(1,725,042)		(1,725,042)	(2,289,976)		(2,289,976)
COMPREHENSIVE INC	133,956		133,956	87,528		87,528
COMMON SH EQUITY	49,101,385	1,288,128	50,389,513	48,121,080	859,602	48,980,682
PREF STK ($100 X 6000)	600,000		600,000	600,000		600,000
LONG TERM DEBT	51,066,000		51,066,000	52,490,000		52,490,000
TOTAL CAPITALIZATION	100,767,385	1,288,128	102,055,513	101,211,080	859,602	102,070,682
LIABILITIES:						
L-T DEBT - CURRENT						
NOTES PAYABLE	10,924,000		10,924,000	11,122,000		11,122,000
ACCOUNTS PAYABLE	11,044,763		11,044,763	9,940,937		9,940,937
PAYABLES TO ASSOC CO		14,338,180	14,338,180		15,251,882	15,251,882
CUSTOMER DEPOSITS	8,914,837	837,210	9,752,047	8,685,537	804,803	9,490,340
TAXES ACCRUED	2,901,234	(1,629,047)	1,272,187	2,730,751	(1,570,271)	1,160,480
INTEREST ACCRUED	1,280,326	849	1,281,175	1,121,870	1,510	1,123,380
DIVIDENDS DECLARED						
TAX COLLECTIONS PAY	1,127,556	54,086	1,181,642	750,142	77,845	827,987
VACATION PAY ACCRUED	1,344,664		1,344,664	1,289,281		1,289,281
INSURANCE ACCRUED	249,686		249,686	217,991		217,991
RATE REFUND	26,717		26,717	26,325		26,325
MISC. CURRENT LIABS.	194,652		194,652	171,787		171,787
INACTIVE DIV CHECKS						
TOTAL LIABILITIES	38,008,435	13,601,278	51,609,713	36,056,621	14,565,769	50,622,390
DEFERRED CREDITS:						
OVERRREC. FUEL	3,131,137		3,131,137	3,840,782		3,840,782
OVERREC CON & UNBUND	432,712		432,712	446,380		446,380
MIS DEF CR-ENV INS PR	13,481,674		13,481,674	13,629,402		13,629,402
STORM DAMAGE RESERVE	2,468,350		2,468,350	2,387,270		2,387,270
MED, PENSION, 401(K)	5,860,521		5,860,521	4,905,229		4,905,229
CUST ADVANCES-CONSTR	3,244,384	76,913	3,321,297	2,898,337	90,163	2,988,500
UNAMORTIZED I.T.C.	224,004		224,004	266,236		266,236
OTHER DEF CR	(301)		(301)			
REGULATORY LIAB	795,551		795,551	795,551		795,551
CONTRIBUTIONS IN AID						
TOTAL DEFERRED CREDITS	29,638,032	76,913	29,714,945	29,169,187	90,163	29,259,350
ACCUM DEFERRED I/T	16,472,993	4,007,560	20,480,553	16,522,691	3,908,828	20,431,519
TOTAL LIABILITIES & EQUIT	184,886,845	18,973,879	203,860,724	182,959,579	19,424,362	202,383,941
AVE SHARES OUTSTANDING	6,098,034		6,098,034	6,039,767		6,039,767
PAR VALUE PER SHARE	1.50		1.50	1.50		1.50

EFFECTIVE COST DEBT
2007

	2006 DEC	2007 JAN	2007 FEB	2007 MAR	2007 APR	2007 MAY	2007 JUN	2007 JUL	2007 AUG	2007 SEP	2007 OCT	2007 NOV	2007 DEC	TOTAL or Average %	Rate	
Method as per Surveillance Report																
Int Accrued on NP		20,437	8,046	2,565	2,784	4,380	2,229	24,030	17,791	15,739	31,348	25,390	31,971	186,710		
NP BAL @ End of Mth	3,466,000	3,964,000	2,243,000	2,215,000	3,120,000	1,460,000	1,105,000	3,552,000	3,468,000	9,248,000	7,156,000	6,383,000	11,122,000	4,500,154	4.15%	Using End of Month Balance
Annualized Interest Rate		5.99%	4.61%	1.34%	1.07%	3.48%	2.42%	7.86%	5.96%	2.04%	5.09%	4.77%	3.34%	4.15%		
Avg Int Rate as per Sch L		6.22%	6.22%	6.22%	6.22%	6.22%	6.22%	6.22%	6.44%	6.34%	5.82%	5.87%	5.82%	6.15%		Average Cost Rate using daily balances
Interest Cost using Avg Mthly Bal																
Int Exp		20,437	8,046	2,565	2,784	4,380	2,229	24,030	17,791	15,739	31,348	25,390	31,971	186,710		
Avg LOC Balance as per Sch L		3,741,355	1,582,857	544,806	660,367	793,452	339,567	4,152,097	3,240,452	3,883,200	5,869,452	5,208,500	6,644,967	3,055,089	6.11%	Using Avg LOC Mthly Bal
		6.34%	6.54%	5.47%	5.06%	6.41%	7.88%	6.72%	6.38%	4.86%	6.20%	5.85%	5.59%	6.11%		
Effective Cost of ST Debt																
LOC Available	$ 12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000			
Int Exp		$ 20,437	$ 8,046	$ 2,565	$ 2,784	$ 4,380	$ 2,229	$ 24,030	$ 17,791	$ 15,739	$ 31,348	$ 25,390	$ 31,971	$ 186,710	6.11%	
Fee on Unused Portion of LOC	0.25%	$ 1,778	$ 2,276	$ 2,466	$ 2,446	$ 2,413	$ 2,429	$ 1,689	$ 1,886	$ 1,691	$ 1,320	$ 1,415	$ 1,153	$ 22,962	0.75%	
Fee on Total Available LOC	0.10%	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 12,000	0.39%	
		23,215	11,322	6,031	6,230	7,793	5,658	26,719	20,677	18,430	33,668	27,805	34,124	221,672	7.26%	
Ratio of Average Daily Balance to Month End		0.9438	0.7057	0.2460	0.2117	0.5435	0.3073	1.1689	0.9344	0.4199	0.8202	0.8160	0.5975	0.6429		
														0.6789		

FLOR JBLIC UTILITIES COMPANY
13 MON... AVERAGE ADJUSTMENTS

REPORT GROUP NAME: ROR
REPORT NAME: ROR_DEBT
DATE: 2/29/2008
USER: YOUNG

ROR ST DEBT, LT DEBT, FUEL COST

	Dec '06	Jan '07	Feb '07	Mar '07	Apr '07	May '07	June '07	July '07	Aug '07	Sept '07	Oct '07	Nov '07	Dec '07		
	12 MTHS AG	11 MTHS AGO	10 MTHS AGO	9 MTHS AGO	8 MTHS AGO	7 MTHS AGO	6 MTHS AGO	5 MTHS AGO	4 MTHS AGO	3 MTHS AGO	2 MTHS AGO	1 MTH AGO	12 2007	12 MONTH ENDED	13 MONTH AVERAGE
SHORT TERM DEBT															
INTEREST ON NP	9599	20437	8046	2565	2784	4380	2229	24030	17791	15739	31348	25390	31971	186710	
NP BALANCE	-3466000	-3964000	-2243000	-2215000	-3120000	-1460000	-1105000	-3552000	-3468000	-9248000	-7156000	-6383000	-11122000		-4500154
												YR END RATE	-1.67	13MTH RATE	-4.14
LONG TERM DEBT															
INTEREST ON LT	337430	337430	337430	337430	337430	337468	333958	337314	337372	337709	337372	337372	337372	4045657	
BONDS BALANCE	-50493540	-50501924	-50510307	-50518691	-50527075	-50525458	-50530428	-50538810	-50547193	-50555913	-50564296	-50572680	-50581063		-50535952
												YR END RATE	-7.99	13MTH RATE	-8
FUEL COST															
NW ELECTRIC	1259359	1233435	1206796	1165187	1030551	1077343	1293162	1526051	1585776	1384804	1247607	1034516	1245510	15032738	
NE ELECTRIC	1151723	1792168	1832638	1727328	1754970	1677711	1830753	2271163	2323669	2017067	1861234	1413726	1605760	22108187	
TOTAL ELEC FUEL	2411082	3025603	3039434	2892515	2785521	2755054	3123915	3799214	3909445	3401871	3108841	2448242	2851270	37140925	
SOUTH FL NG	2909942	2246666	2716220	2718098	2535999	1622046	1601086	1452290	1215098	1080264	1316111	2319543	2458518	23281939	
CENTRAL FL NG	1146149	998869	1228211	1017476	498926	567423	660825	648393	529335	454347	510032	945027	979051	9037915	
TOTAL NG FUEL	4056091	3245535	3944431	3735574	3034925	2189469	2261911	2100683	1744433	1534611	1826143	3264570	3437569	32319854	
SOUTH FL PRO	394178	440203	411234	457486	413479	324532	353358	319797	321505	322052	349584	465623	472643	4651496	
CENTRAL FL PRO	102543	89618	111255	109603	82113	75919	70031	69542	72083	77319	76342	109872	134163	1077860	
NE FL PROPANE	131397	151080	151991	135688	130900	134075	117998	128715	124050	82441	152307	172688	197021	1678954	
NATURE COST PRO	74916	65313	83654	72148	51629	52457	48855	43268	39807	73598	46639	63147	37336	677851	
TOTAL FUEL PRO	703034	746214	758134	774925	678121	586983	590242	561322	557445	555410	624872	811330	841163	8086161	

* Agrees to TB 100.4310.2

7/18/2008 09:09:11 Interactive Trial Balance GLGITB GLDITB
Monthly activity

Select option, press Enter.
Account . : 001.0.0.4310.2 INTEREST ON NOTES PAYABLE

	Period End	Starting Balance	Posted Activity	Ending Balance
_ JAN	1/31/2007	.00	20,436.70	20,436.70
_ FEB	2/28/2007	20,436.70	8,045.74	28,482.44
_ MAR	3/31/2007	28,482.44	2,565.33	31,047.77
_ APR	4/30/2007	31,047.77	2,783.62	33,831.39
_ MAY	5/31/2007	33,831.39	4,379.57	38,210.96
_ JUN	6/30/2007	38,210.96	2,228.84	40,439.80
_ JUL	7/31/2007	40,439.80	24,030.27	64,470.07
_ AUG	8/31/2007	64,470.07	17,790.78	82,260.85
_ SEP	9/30/2007	82,260.85	15,738.65	97,999.50
_ OCT	10/31/2007	97,999.50	31,348.14	129,347.64
_ NOV	11/30/2007	129,347.64	25,389.68	154,737.32
_ DEC	12/31/2007	154,737.32	31,970.72	186,708.04
_ ADJ	12/31/2007	186,708.04	186,708.04-	.00

F2=Function keys F3=Exit F5=Refresh F6=More info. F24=More keys

Exhibit 27.21
Pg. 142

7/18/2008 09:06:48 Interactive Trial Balance GLGITB GLDITB

Account/mask . . 001.*.*.4310.****** + Balance type . . M +
Year/period . . . 2007 + 12 Macro name . . . _____ +
Zero balance? . . 1 1=Include, 0=Exclude Budget code . . . _____ +
Subtotal mask . . 010000000 1=Yes, 0=No Subtotal option . 1 0=Off,1=Det,2=Sum
Company masked? . 0 1=Yes, 0=No Active accts? . . 2 0=Inac,1=Ac,2=All
Comparative view 0 0=No, 1=M/M, 2=Q/Q, 3=Y/Y, 4=Cust ____ __ / ____ __
Type options, press Enter. 5=Display

1 4 5 2 3

O	Co#.U.D.Acct.Subacc		Current Period	YTD/Cumulative
_	001.0.0.4310.1	Int on Cust Deposits JE2	44,981.21	515,950.12
_	001.0.0.4310.2	Int on Note Payable JE6	31,970.72	186,708.04
_	001.0.0.4310.3	Int Misc - JE 33	1,325.00	79,309.53
	4310		78,276.93	781,967.69
	Grand total for all currencies:		78,276.93	781,967.69

Bottom

F2=Function keys F3=Exit F4=Prompt F5=Fold/unfold F24=More keys

Exhibit 27.21
Pg. 143

Florida Public Utilities Company
100.2370.2 - Accrued Interest on Notes Payable
Period Ending: DEC 2007
Dr. / (Cr.)

Prepared By:_____
A WILSON
Approved By:_____
M Napier

DATE	Payments Ref.	Description	Amount	Accruals Ref.	Description	Amount	Balance
					BALANCE FORWARD		(9,015.91)
JANUARY	PL	Notes Payable	8,743.88	JE 6	Accrual	(20,436.70)	(20,708.73)
							(20,708.73)
FEBRUARY	PL	Notes Payable	20,436.70	JE 6	Accrual	(8,045.74)	(8,317.77)
			.00				(8,317.77)
MARCH	PL	Notes Payable	8,045.74	JE 6	Accrual	(2,837.36)	(3,109.39)
				JE 6M	Accrual-CORRECTION	272.03	(2,837.36)
APRIL	PL	Notes Payable	2,837.36	JE 6	Accrual	(2,783.62)	(2,783.62)
			.00			0.00	(2,783.62)
MAY	PL	Notes Payable	2,783.62	JE 6	Accrual	(4,379.57)	(4,379.57)
							(4,379.57)
JUNE	PL	Notes Payable	4,379.57	JE 6	Accrual	(2,228.84)	(2,228.84)
							(2,228.84)
JULY	PL	Notes Payable	2,228.84	JE 6	Accrual	(24,030.27)	(24,030.27)
							(24,030.27)
AUGUST	PL	Notes Payable	24,030.27	JE 6	Accrual	(17,790.78)	(17,790.78)
							(17,790.78)
SEPTEBER	PL	Notes Payable	17,790.78	JE 6	Accrual	(15,738.65)	(15,738.65)
							(15,738.65)
OCTOBER	PL	Notes Payable	15,738.65	JE 6	Accrual	(31,348.14)	(31,348.14)
							(31,348.14)
NOVEMBER	PL	Notes Payable	31,348.14	JE 6	Accrual	(25,389.68)	(25,389.68)
							(25,389.68)
DECEMBER	PL	Notes Payable	25,389.68	JE 6	Accrual	(31,970.72)	(31,970.72)
Totals			163,753.23			(186,708.04)	

'da Public Utilities Company
10.1 - Notes Payable Bank of America
CREDIT ACTIVITY SHEET

Prepared By:_____
A WILSON
Approved By:_____
M Napier

Period Ending: DEC 2007

LOC:		BOA 12,000,000	Reserved:	Propane Bond 125,000	114 Storm Res 1,000,000	Total Available 10,875,000
DATE	DRAW	PAYDOWN	STATEMENT LOC BALANCE	BOA BALANCE	GL Balance	DIFFERENCE
Beginning Balance			(3,466,000)	7,409,000	(3,466,000)	
1/3/2007	1,260,000		(4,726,000)	6,149,000		
1/12/2007	500,000		(5,226,000)	5,649,000		
1/18/2007	450,000		(5,676,000)	5,199,000		
1/19/2007	910,000		(6,586,000)	4,289,000		
1/24/2007	590,000		(7,176,000)	3,699,000		
1/25/2007	2,230,000		(9,406,000)	1,469,000		
1/31/2007		5,442,000	(3,964,000)	6,911,000	(3,964,000)	-
2/1/2007	110,000		(4,074,000)	6,801,000		
2/12/2007	260,000		(4,334,000)	6,541,000		
2/15/2007	340,000		(4,674,000)	6,201,000		
2/26/2007	1,560,000		(6,234,000)	4,641,000		
2/27/2007	1,380,000		(7,614,000)	3,261,000		
2/28/2007		5,371,000	(2,243,000)	8,632,000	(2,243,000)	-
3/1/2007	60,000		(2,303,000)	8,572,000		
3/26/2000	540,000		(2,843,000)	8,032,000		
3/28/2007	10,000		(2,853,000)	8,022,000		
3/29/2007	2,220,000		(5,073,000)	5,802,000		
3/31/2007		2,858,000	(2,215,000)	8,660,000	(2,215,000)	-
4/2/2007	340,000		(2,555,000)	8,320,000		
4/13/2007	60,000		(2,615,000)	8,260,000		
4/26/2007	920,000		(3,535,000)	7,340,000		
4/27/2007	1,370,000		(4,905,000)	5,970,000		
4/30/2007	830,000		(5,735,000)	5,140,000		
4/30/2007		2,615,000	(3,120,000)	7,755,000	(3,120,000)	-
5/24/2007	490,000		(3,610,000)	7,265,000		
5/25/2007	2,040,000		(5,650,000)	5,225,000		
5/31/2007	1,460,000		(7,110,000)	3,765,000		
5/31/2007		5,650,000	(1,460,000)	9,415,000	(1,460,000)	-
6/25/2007	520,000		(1,980,000)	8,895,000		
6/26/2007	1,550,000		(3,530,000)	7,345,000		
6/28/2007	20,000		(3,550,000)	7,325,000		
6/30/2007		2,445,000	(1,105,000)	9,770,000	(1,105,000)	-
7/2/2007	200,000		(1,305,000)	(1,305,000)		
/5/2007	150,000		(1,455,000)	(1,455,000)		
7/6/2007	3,340,000		(4,795,000)	(4,795,000)		
7/13/2007	390,000		(5,185,000)	(5,185,000)		
7/17/2007	180,000		(5,365,000)	(5,365,000)		
7/18/2007	1,430,000		(6,795,000)	(6,795,000)		
7/19/2007	2,030,000		(8,825,000)	(8,825,000)		
7/20/2007	320,000		(9,145,000)	(9,145,000)		
7/25/2007	940,000		(10,085,000)	(10,085,000)		
7/31/2007		6,533,000	(3,552,000)	(3,552,000)	(3,552,000)	-
8/6/2007	140,000		(3,692,000)	(3,692,000)		
8/10/2007	470,000		(4,162,000)	(4,162,000)		
8/16/2007	4,090,000		(8,252,000)	(8,252,000)		
8/17/2007	730,000		(8,982,000)	(8,982,000)		
8/27/2007	490,000		(9,472,000)	(9,472,000)		
8/30/2007	640,000		(10,112,000)	(10,112,000)		
8/31/2007		6,644,000	(3,468,000)	(3,468,000)	(3,468,000)	-
9/13/2007	2,590,000		(6,058,000)	(6,058,000)		
9/14/2007	160,000		(6,218,000)	(6,218,000)		
9/17/2007	1,000,000		(7,218,000)	(7,218,000)		
9/18/2007	200,000		(7,418,000)	(7,418,000)		
9/25/2007	3,020,000		(10,438,000)	(10,438,000)		
9/27/2007	900,000		(11,338,000)	(11,338,000)		
9/28/2007	2,770,000		(14,108,000)	(14,108,000)		
9/30/2007		4,860,000	(9,248,000)	(9,248,000)	(9,248,000)	-
10/1/2007	220,000		(9,468,000)	(9,468,000)		
10/11/2007	1,520,000		(10,988,000)	(10,988,000)		
10/12/2007	760,000		(11,748,000)	(11,748,000)		
10/15/2007	380,000		(12,128,000)	(12,128,000)		
10/23/2007	990,000		(13,118,000)	(13,118,000)		
10/25/2007	2,810,000		(15,928,000)	(15,928,000)		
10/29/2007	50,000		(15,978,000)	(15,978,000)		
10/31/2007	620,000		(16,598,000)	(16,598,000)		
10/31/2007		9,442,000	(7,156,000)	(7,156,000)	(7,156,000)	-
11/8/2007	180,000		(7,336,000)	(7,336,000)		
11/13/2007	350,000		(7,686,000)	(7,686,000)		
11/19/2007	220,000		(7,906,000)	(7,906,000)		
11/26/2007	1,920,000		(9,826,000)	(9,826,000)		
11/28/2008	1,370,000		(11,196,000)	(11,196,000)		
11/30/2007		4,813,000	(6,383,000)	(6,383,000)	(6,383,000)	-
12/5/2007	10,000		(6,393,000)	(6,393,000)		
12/6/2007	250,000		(6,643,000)	(6,643,000)		
12/11/2007	1,030,000		(7,673,000)	(7,673,000)		
12/12/2007	240,000		(7,913,000)	(7,913,000)		
12/14/2008	420,000		(8,333,000)	(8,333,000)		
12/20/2007	590,000		(8,923,000)	(8,923,000)		
2/26/2007	2,230,000		(11,153,000)	(11,153,000)		
27/2007	1,570,000		(12,723,000)	(12,723,000)		
28/2007	1,110,000		(13,833,000)	(13,833,000)		
31/2007	610,000	3,321,000	(11,122,000)	(11,122,000)	(11,122,000)	-

JOURNAL ENTRY HEADER

BATCH TYPE (M/ M ACCT YEAR 2007 PERIOD 12
JOURNAL NUMBER
COMPANY 001 BATCH
REFERENCE 6 SOURCE JE
DESCRIPTION P & A AUTO ACCRUAL 0

JE DESCRIPTION
RECURRING JE
PRORATE & ACCRUAL

JE# 6
YR/PD 07/12

ACCOUNT NUMBER	AMOUNT DEBIT	AMOUNT CREDIT	DESCRIPTION			SUBLDG. NUMBER
114.2550.1	834.85		ITC Annual Amount	10,019.85		
115.2550.1	1,621.12		ITC Annual Amount	19,518.12		
121.2550.1	2,636.32		ITC Annual Amount	31,632.32		
123.2550.1	644.58		ITC Annual Amount	7,739.58		
114.4110.4		834.85	SCHED A			
115.4110.4		1,621.12				
121.4110.4		2,636.32				
123.4110.4		644.58				
991.2550.1	0.00		ITC Annual Amount	0.00		
993.2550.1		0.00	ITC Annual Amount	0.00		
991.4110.4		0.00	SCHED A			
993.4110.4	0.00					
100.4270.1	328,988.75		INTEREST ON LONG TERM DEBT SCHD A0			
100.2370.1		79,750.00	9.57% DUE 2018	Sched A1		NO CHG
100.2370.1		45,970.83	10.03% DUE 2018	Sched A1		NO CHG
100.2370.1		60,533.33	9.08% DUE 2022	Sched A1		NO CHG
100.2370.1		85,567.92	6.85% DUE 2031	Sched A1		NO CHG
100.2370.1		57,166.67	4.9% DUE 2031	Sched A1		NO CHG
100.1849.903	7,620.83		ORCOM MAINT FEES			Jan-07 / Dec-07
100.1650.41		7,620.83	SCHED A-2			
114.4020.598	630.35		UAI, INC.			Jan-07 / Dec-07
100.1650.4		630.35	SCHED C (ex-B)			
105.1849.9302	0.00		L.O.C ATTORNEY FEES			Nov-04 / June-07
100.1650.4		0.00	SCHED C			
105.1849.9302	0.00		L.O.C ATTORNEY FEES			Nov-04 / June-07
100.1650.4		0.00	SCHED C			
105.1849.9302	814.59		US BANK ADMIN FEES			July -07 / June - 08
100.1650.4		814.59	SCHED C (ex-G)			
100.1849.903	1,427.72		CREDITRON MAINT. AGREEMENT			April-07 / Mar-08
100.1650.41		1,427.72	SCHED C			
104.1849.9215	1,125.00		MONSTER.COM			Aug-07 / July-08
100.1650.4		1,125.00	SCHED C			
100.1849.935	0.00		INFOR GLOBAL SOLUTIONS			JAN 08 / DEC 08
100.1650.4		0.00	SCHED C (ex J)			
PAGE PAGE TOTALS	346,344.11	346,344.11				
1 OF 5 J.E. TOTALS	346,344.11	346,344.11				

PREPARED BY	10/07/08
APPROVED BY	
ENTERED BY	
CHECKED BY	
POSTED BY	

ACCOUNT NUMBER	AMOUNT DEBIT	AMOUNT CREDIT	DESCRIPTION	SUBLDG NUMBER
105.1849.9302	0.00		AMERICAN STOCK TRANSFER COMPAN	Apr-06 / Mar-07
100.1650.4		0.00	SCHED C	
100.1840.9302	3,602.09		To expense Annual Retainer of Directors	May-07 / Apr-08
991.4010.930	189.58		SCHED C (ex-M)	
100.1650.4		3,791.67		
100.1840.9302	3,333.75		To expense 630@5= 3,150 Treasury Shares	SCHED C (ex-N)
100.1650.4		3,333.75	to Board Members @ 12.70 per share	May-07 / Apr-08
121.4010.881	651.59		45%	
123.4010.881	796.39		55% SCHED C (ex-O)	
100.1650.4		1,447.98	Florida East Coast Railway	May 07/ Apr 08
100.1849.935	0.00		INSIGHT TECHNOLOGIES	July-06 / June 07
100.1650.4		0.00	SCHED C	
100.1849.935	0.00		ANNDIRECT SOFTWARE MAINTENANCI	Aug-05 / July-06
100.1650.4		0.00	SCHED C	
100.1849.935	0.00		US NETCOM CORP	Aug-05 / July-06
100.1650.4		0.00	SCHED C	
121.4010.881	19.47		45%	
123.4010.881	23.80		55%	
100.1650.4		43.27	Florida East Coast Railway	May 07/ Apr 08
			SCHED C (ex-R)	
100.1849.935	451.25		SOFTWARE MAINTENANCE	Oct 07- Sept 08
100.1650.4		451.25	SCHED C (ex-U)	
123.4010.9136	0.00 56%		THE COMPLETE PHONE BOOK	100514
993.4010.913	0.00 11%		SEPT 05 / AUG 06	100514
143.4160.53	0.00 8%			
123.4010.909	0.00 25%		SCHED C	471451
100.1650.4		0.00		
100.1849.935	0.00		SUNGARD RECOVERY SERVICES	01/06- 12/06
100.1650.4		0.00	SCHED C	
105.1849.9302	0.00		L.O.C ATTORNEY FEES	AUG-06 / SEPT 07
100.1650.4		0.00	SCHED C (ex-W)	
100.1849.935	0.00		SHOWCASE SOFTWARE MAINTENANCE	Oct-06 / Sept-07
100.1650.4		0.00	SCHED C (ex-X)	
100.1849.935	4,434.51		SSA GLOBAL SOFTWARE MAINTENANCI	Jan-07 / Dec-07
100.1650.4		4,434.51	SCHED C (ex-Y)	
100.1849.903	1,225.95		OPEX CORP SOFTWARE MAINTENANCE	Jan-07 / Dec-07
100.1650.4		1,225.95	SCHED C (ex-Z)	

PAGE	PAGE TOTALS	14,728.38	14,728.38	PREPARED BY	10/07/08
				APPROVED BY	
2 OF 5	J.E. TOTALS	361,072.49	361,072.49	ENTERED BY	
				CHECKED BY	
				POSTED BY	

ACCOUNT NUMBER	AMOUNT DEBIT	AMOUNT CREDIT	DESCRIPTION	SUBLDG. NUMBER
114.4010.904	4,231.00		UNCOLLECTIBLE EXPENSE	
115.4010.904	1,387.00		SCHED J	
121.4010.904	15,364.00			
123.4010.904	5,078.00			
141.4160.42	1,018.00			
143.4160.42	982.00			
945.4160.42	187.00			
946.4160.42	32.00			
114.1440.1		4,231.00		
115.1440.1		1,387.00		
121.1440.1		15,364.00		
123.1440.1		5,078.00		
121.1440.2		1,018.00		
123.1440.2		982.00		
115.1440.2		187.00		
996.1440.2		32.00		
991.4010.904	6,653.00		UNCOLLECTIBLES	
993.4010.904	2,761.00		SCHED J	
996.4010.904	1,093.00			
995.4010.904	3,903.00			
991.1440.1		6,653.00		
993.1440.1		2,761.00		
996.1440.1		1,093.00		
995.1440.1		3,903.00		
100.1840.9261	137,126.24		PENSION PLAN TRUST (FASB 87)	
100.2280.31		137,126.24		
100.1849.9263	16,666.67		POST RETIREMENT (FASB 106)	
100.2280.32		16,666.67		
100.4280.2	6,859.49		PRORATION OF DEBT EXP.	
100.1810.1		6,859.49	(See Attached)	SCHED B-2
100.4280.1	1,523.66		AMORTIZATION OF LOSS ON REACQUIRED DEBT	
100.1890.1		1,523.66	SCHED B-3	
100.1849.9233	8,333.33		OUTSIDE AUDIT FEES (EX-A)	
100.2420.3		8,333.33		
100.1860.1	8,000.00		OUTSIDE AUDIT FEES (EX-A)	36164
100.2420.3		8,000.00	Charged to Rate Case	
100.1849.9233	32,500.00		OUTSIDE AUDIT FEES (EX-B)	
100.2420.3		32,500.00		
100.1849.9233	9,791.66		OUTSIDE AUDIT FEES (EX-C)	
100.2420.3		9,791.66		
100.2420.3		1,395.83	IMPAIRMENT TESTING	
121.4010.9233	809.58		Fee Allocation 58.00%	
123.4010.9233	362.91		Fee Allocation 26.00%	
991.4010.9233	111.67		Fee Allocation 8.00%	
993.4010.9233	55.83		Fee Allocation 4.00%	
995.4010.9233	27.92		Fee Allocation 2.00%	
996.4010.9233	27.92		Fee Allocation 2.00%	
100.4310.2	31,970.72		INTEREST ON N/P	
100.2370.2		31,970.72		
123.4010.9161	4,091.54		AMORTIZE ATLANTIC	
123.1860.33		4,091.54	CONVERSION & PIPING COSTS	
			SCHEDULE I	
121.4010.9161	14,972.40		AMORTIZATION OF	014469
123.4010.9161	16,530.10		PIPING AND CONVERSION	014469
			SCHED N - N4	
121.1860.31		10,402.47	N1	000157
123.1860.31		13,965.86	N2	000157
121.1860.32		4,569.93	N3	000157
123.1860.32		2,564.24	N4	000157
PAGE 3 OF 5 — PAGE TOTALS	332,450.64	332,450.64	PREPARED BY	10/07/08
J.E. TOTALS	693,523.13	693,523.13	APPROVED BY	
			ENTERED BY	
			CHECKED BY	
			POSTED BY	

ACCOUNT NUMBER	AMOUNT DEBIT	AMOUNT CREDIT	DESCRIPTION	SUBLDG NUMBER
121.1860.4	0.02		WESTWARD EXPANSION	020347
121.1860.4	182.99		LA CHALET	020498
121.1860.4	3,805.03		THOR/VERSAILLES	020660
121.1860.4	964.65		MIZNER FALLS SUBDIV.	020695
121.1860.4	400.42		KENCO COMMUN	020734
121.1860.4	7.73		IBIS PARCEL V-TERRA LAGO	020769
121.1860.4	511.41		EQUESTRIAN CLUB	020849
121.1860.4	1,040.51		JUNO BEACH	020851
121.1860.4	1,647.20		VICTORIS FALLS	020861
121.1860.4	821.24		HAMILTON BAY	020865
121.1860.4	49.89		BLACK DIAMOND	020892
121.1860.4	246.00		DEERFIELD PH II	020974
121.1860.4	250.96		WYNDSONG ESTATES	020976
121.1860.4	148.06		DOWNTOWN GAS LT. DIST.	020999
121.1860.4	89.77		S.E. 6TH AVE	021007
121.1860.4	618.64		SR 441 PALMETTO PK	021025
121.1860.4	145.18		CEDAR CREEK SUBDIV.	021195
121.1860.4	385.11		EQUIS SUBDIV.	021212
121.1860.4	415.65		CASA BELLA SUBDIV.	021242
121.1860.4	138.71		TALAVERA SUBDIV	021344
121.1860.4	282.02		441 BELV TO OKEECHOBEE	021391
121.1860.4	384.21		WELLINGTON TOWN SQ.	021436
121.1860.4	264.19			22130
100.4190.6		12,799.59		
123.1860.4	694.69		DELTONA PH. 1	020001
123.1860.4	32.34		STONE GABLE	020092
123.1860.4	2,570.38		DELTONA PH II	020093
123.1860.4	165.11		DEBARY GOLF & COUNTRY CLUB	020098
123.1860.4	5.70		SPRINGVIEW UNIT 5	020193
123.1860.4	2,439.90		CONVERT DELTONA PHASE III	020289
123.1860.4	11.01		CRYSTAL COVE	020345
123.1860.4	2,524.31		VICTORIA PARK PH I	020561
123.1860.4	125.82		FAWN RIDGE SUB.	020591
123.1860.4	103.49		LAKE MARY H.S.	020798
123.1860.4	68.60		SPRINGVIEW UNIT 6	020881
123.1860.4	979.65		WINTER SPRINGS TOWN CT.	021031
123.1860.4	637.18		LAKES OF DELAND	021151
123.1860.4	939.97		RIVERSIDE AT DEBARY	021160
123.1860.4	1,131.32		ARBOR RIDGE	021315
123.1860.4	84.78		INLET SHORE ESTATE	021328
123.1860.4	64.47		DELTONA WOODS	021686
123.1860.4	270.10		BELLA FORESTA	021743
123.1860.4	5.99		Longwood Hills	021933
123.1860.4	327.42		Wellington Woods	22076
123.1860.4	231.84		Florida Days	22081
123.1860.4	1,922.66			22121
100.4190.6		15,336.73	Area Expansion Program--Schedule Q	
100.1240.1	20,834.19		Interest Income due to Water Sale	
100.4210.32		20,834.19	Schedule U	
100.2420.8		1,152.82	Fee for Unused L.O.C (B.O.A)	
105.1849.9215	1,152.82		Schedule L(b)	
100.2280.34		12,551.80	To expense the company match portion	
100.1840.9264	12,551.80		of the 401(k) plan	
100.2420.9		2,187.50	Annual Report Accrual	
100.1849.9302	2,187.50			
PAGE TOTALS	64,862.63	64,862.63	PREPARED BY	10/07/08
			APPROVED BY	
J.E.			ENTERED BY	
4 OF 5 TOTALS	758,385.76	758,385.76	CHECKED BY	
			POSTED BY	

ACCOUNT NUMBER	AMOUNT DEBIT	AMOUNT CREDIT	DESCRIPTION	SUBLDG. NUMBER
			Outside Legal Fees	
			SEC Legal Expense	
100.2420.31		1,500.00	Brian Cave - Retainer Accrual JE33	Dec-07
100.2420.31		2,698.75	Brian Cave	
100.2420.31		1,411.25	Brian Cave	
100.1849.9232	5,610.00		Brian Cave	
			General Liability	
100.2420.31		73,314.58	Akerman -Kera	
100.2420.31		199.50		
100.2420.31		28,890.79		
100.2420.31		120.00		
100.2420.31		19,049.49		
100.2420.31		3,224.44	Akerman JE33	
100.2420.31		55,828.12	Akerman JE33	
100.2420.31		2,517.40	Akerman JE33	
100.2280.201	183,144.32			
			Environmental	
100.2420.31		338.52	Akerman	
100.2530.31				
100.2530.31	338.52			3590
100.2420.31		6,368.20	Akerman -Sanford Gas	
100.2420.31		4,855.11	Akerman	
100.2420.31		3,289.40	Akerman JE33	
100.2530.31	14,512.71			3500
100.2420.31		1,705.00	Akerman -WPB MGP	
100.2420.31		4,716.46	Akerman	
100.2420.31		4,295.60	Akerman JE33	
100.2530.31	10,717.06			3760
			HR Legal Expense	
100.2420.31		690.00	Akerman Senterfitt, Attorneys	
100.2420.31		2,241.41	Akerman Senterfitt, Attorneys	
995.4010.9232	2,931.41			
100.2420.31		4,220.48	Jackson Lewis- LLP	Dec-07
100.2420.31		13.27	Jackson Lewis- LLP	
100.1849.9232	4,233.75		Jackson Lewis- LLP	
			Regulatory Expense	
100.2420.31		522.50	Messer	
121.4010.928	522.50			
100.2420.31		2,025.00	Messer -JE33	
100.1840.928	2,025.00			
100.2420.31		225.00	Messer	
114.4010.928	112.50			
115.4010.928	112.50			
100.2420.31		4,262.50	Messer -JE33	
114.4010.928	2,131.25			
115.4010.928	2,131.25			
100.2420.31		14,861.90	Messer	
100.2420.31		3,492.50		
100.2420.31		13,119.64	JE 33	
100.1860.1	31,474.04			36164
			Misc. Legal	
100.2420.31			Akerman Senterfitt, Attorneys	
100.2420.31		326.22	Akerman Senterfitt, Attorneys	
100.1849.9232	326.22			
100.2420.31		936.44	Akerman	
121.1080.379	936.44			
100.2420.31		2,224.00	Akerman- JE33	
100.2420.31		2,392.28	Akerman Senterfitt, Attorneys	
100.1860.1	4,616.28			34056

PAGE	PAGE TOTALS	265,875.75	265,875.75	PREPARED BY	10/07/08
5 OF 5	J.E. TOTALS	1,024,261.51	1,024,261.51	APPROVED BY	
				ENTERED BY	
				CHECKED BY	
				POSTED BY	

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

DECEMBER-06

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	12/01/06	1,664,000.00	x	1	=	1,664,000.00
	12/02/06	1,664,000.00	x	1	=	1,664,000.00
	12/03/06	1,664,000.00	x	1	=	1,664,000.00
	12/04/06	1,438,000.00	x	1	=	1,438,000.00
	12/05/06	973,000.00	x	1	=	973,000.00
	12/06/06	572,000.00	x	1	=	572,000.00
	12/07/06	1,072,000.00	x	1	=	1,072,000.00
	12/08/06	1,016,000.00	x	1	=	1,016,000.00
	12/09/06	1,016,000.00	x	1	=	1,016,000.00
	12/10/06	1,016,000.00	x	1	=	1,016,000.00
	12/11/06	1,116,000.00	x	1	=	1,116,000.00
	12/12/06	561,000.00	x	1	=	561,000.00
	12/13/06	1,291,000.00	x	1	=	1,291,000.00
	12/14/06	2,021,000.00	x	1	=	2,021,000.00
	12/15/06	1,694,000.00	x	1	=	1,694,000.00
	12/16/06	1,694,000.00	x	1	=	1,694,000.00
	12/17/06	1,694,000.00	x	1	=	1,694,000.00
	12/18/06	1,479,000.00	x	1	=	1,479,000.00
	12/19/06	1,321,000.00	x	1	=	1,321,000.00
	12/20/06	1,080,000.00	x	1	=	1,080,000.00
	12/21/06	1,650,000.00	x	1	=	1,650,000.00
	12/22/06	1,670,000.00	x	1	=	1,670,000.00
	12/23/06	1,670,000.00	x	1	=	1,670,000.00
	12/24/06	1,670,000.00	x	1	=	1,670,000.00
	12/25/06	1,670,000.00	x	1	=	1,670,000.00
	12/26/06	3,120,000.00	x	1	=	3,120,000.00
	12/27/06	3,990,000.00	x	1	=	3,990,000.00
	12/28/06	3,528,000.00	x	1	=	3,528,000.00
	12/29/06	3,466,000.00	x	1	=	3,466,000.00
	12/30/06	3,466,000.00	x	1	=	3,466,000.00
	12/31/06	3,466,000.00	x	1	=	3,466,000.00 ✓
Ending Notes Payable:						
		$55,412,000.00		**31**		**$55,412,000.00**
Average Balance:						$1,787,483.87 ✓

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	**November-06**	**6.25000%**	Last months rate
Ending Interest Rate:	**December-06**	**6.22188%**	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		**6.23594%** ✓	

Estimated Interest Bank of America **$9,598.50**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

JANUARY-07

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	01/01/07	3,466,000.00	x	1	=	3,466,000.00
	01/02/07	2,926,000.00	x	1	=	2,926,000.00
	01/03/07	4,186,000.00	x	1	=	4,186,000.00
	01/04/07	3,988,000.00	x	1	=	3,988,000.00
	01/05/07	3,826,000.00	x	1	=	3,826,000.00
	01/06/07	3,826,000.00	x	1	=	3,826,000.00
	01/07/07	3,826,000.00	x	1	=	3,826,000.00
	01/08/07	3,664,000.00	x	1	=	3,664,000.00
	01/09/07	3,183,000.00	x	1	=	3,183,000.00
	01/10/07	2,568,000.00	x	1	=	2,568,000.00
	01/11/07	2,506,000.00	x	1	=	2,506,000.00
	01/12/07	3,006,000.00	x	1	=	3,006,000.00
	01/13/07	3,006,000.00	x	1	=	3,006,000.00
	01/14/07	3,006,000.00	x	1	=	3,006,000.00
	01/15/07	3,006,000.00	x	1	=	3,006,000.00
	01/16/07	2,744,000.00	x	1	=	2,744,000.00
	01/17/07	2,334,000.00	x	1	=	2,334,000.00
	01/18/07	2,784,000.00	x	1	=	2,784,000.00
	01/19/07	3,694,000.00	x	1	=	3,694,000.00
	01/20/07	3,694,000.00	x	1	=	3,694,000.00
	01/21/07	3,694,000.00	x	1	=	3,694,000.00
	01/22/07	3,576,000.00	x	1	=	3,576,000.00
	01/23/07	3,307,000.00	x	1	=	3,307,000.00
	01/24/07	3,897,000.00	x	1	=	3,897,000.00
	01/25/07	6,127,000.00	x	1	=	6,127,000.00
	01/26/07	5,466,000.00	x	1	=	5,466,000.00
	01/27/07	5,466,000.00	x	1	=	5,466,000.00
	01/28/07	5,466,000.00	x	1	=	5,466,000.00
	01/29/07	5,257,000.00	x	1	=	5,257,000.00
	01/30/07	4,523,000.00	x	1	=	4,523,000.00
	01/31/07	3,964,000.00	x	1	=	3,964,000.00 ✓
Ending Notes Payable:		**$115,982,000.00**		**31**		**$115,982,000.00**

Average Balance: $3,741,354.84 ✓

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	**December-06**	**6.22188%**	*Last months rate*
Ending Interest Rate:	**January-07**	**6.22000%**	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		**6.22094%**	

Estimated Interest Bank of America **$20,042.14**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

FEBRUARY-07

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	02/01/07	4,074,000.00	x	1	=	4,074,000.00
	02/02/07	3,770,000.00	x	1	=	3,770,000.00
	02/03/07	3,770,000.00	x	1	=	3,770,000.00
	02/04/07	3,770,000.00	x	1	=	3,770,000.00
	02/05/07	3,322,000.00	x	1	=	3,322,000.00
	02/06/07	2,760,000.00	x	1	=	2,760,000.00
	02/07/07	2,154,000.00	x	1	=	2,154,000.00
	02/08/07	1,505,000.00	x	1	=	1,505,000.00
	02/09/07	1,496,000.00	x	1	=	1,496,000.00
	02/10/07	1,496,000.00	x	1	=	1,496,000.00
	02/11/07	1,496,000.00	x	1	=	1,496,000.00
	02/12/07	1,756,000.00	x	1	=	1,756,000.00
	02/13/07	1,028,000.00	x	1	=	1,028,000.00
	02/14/07	596,000.00	x	1	=	596,000.00
	02/15/07	936,000.00	x	1	=	936,000.00
	02/16/07	816,000.00	x	1	=	816,000.00
	02/17/07	816,000.00	x	1	=	816,000.00
	02/18/07	816,000.00	x	1	=	816,000.00
	02/19/07	816,000.00	x	1	=	816,000.00
	02/20/07	384,000.00	x	1	=	384,000.00
	02/21/07	0.00	x	1	=	0.00
	02/22/07	0.00	x	1	=	0.00
	02/23/07	0.00	x	1	=	0.00
	02/24/07	0.00	x	1	=	0.00
	02/25/07	0.00	x	1	=	0.00
	02/26/07	1,560,000.00	x	1	=	1,560,000.00
	02/27/07	2,940,000.00	x	1	=	2,940,000.00
	02/28/07	2,243,000.00	x	1	=	2,243,000.00
Ending Notes Payable:		$44,320,000.00		28		$44,320,000.00
Average Balance:						$1,582,857.14

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	January-07	6.22000%	Last months rate
Ending Interest Rate:	February-07	6.22000%	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		6.22000%	

Estimated Interest Bank of America **$7,657.51**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

MARCH-07

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	03/01/07	2,303,000.00	x	1	=	2,303,000.00
	03/02/07	1,774,000.00	x	1	=	1,774,000.00
	03/03/07	1,774,000.00	x	1	=	1,774,000.00
	03/04/07	1,774,000.00	x	1	=	1,774,000.00
	03/05/07	1,364,000.00	x	1	=	1,364,000.00
	03/06/07	660,000.00	x	1	=	660,000.00
	03/07/07	30,000.00	x	1	=	30,000.00
	03/08/07	0.00	x	1	=	0.00
	03/09/07	0.00	x	1	=	0.00
	03/10/07	0.00	x	1	=	0.00
	03/11/07	0.00	x	1	=	0.00
	03/12/07	0.00	x	1	=	0.00
	03/13/07	0.00	x	1	=	0.00
	03/14/07	0.00	x	1	=	0.00
	03/15/07	0.00	x	1	=	0.00
	03/16/07	0.00	x	1	=	0.00
	03/17/07	0.00	x	1	=	0.00
	03/18/07	0.00	x	1	=	0.00
	03/19/07	0.00	x	1	=	0.00
	03/20/07	0.00	x	1	=	0.00
	03/21/07	0.00	x	1	=	0.00
	03/22/07	0.00	x	1	=	0.00
	03/23/07	0.00	x	1	=	0.00
	03/24/07	0.00	x	1	=	0.00
	03/25/07	0.00	x	1	=	0.00
	03/26/07	540,000.00	x	1	=	540,000.00
	03/27/07	0.00	x	1	=	0.00
	03/28/07	10,000.00	x	1	=	10,000.00
	03/29/07	2,230,000.00	x	1	=	2,230,000.00
	03/30/07	2,215,000.00	x	1	=	2,215,000.00
	03/31/07	2,215,000.00	x	1	=	2,215,000.00
Ending Notes Payable:						
		$16,889,000.00		**31**		**$16,889,000.00**
Average Balance:						$544,806.45

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	***February-07***	**6.22000%**	Last months rate
Ending Interest Rate:	**March-07**	**6.22000%**	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		**6.22000%**	

Estimated Interest Bank of America **$2,918.04**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

APRIL-07

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	04/01/07	2,215,000.00	x	1	=	2,215,000.00
	04/02/07	2,555,000.00	x	1	=	2,555,000.00
	04/03/07	1,865,000.00	x	1	=	1,865,000.00
	04/04/07	1,294,000.00	x	1	=	1,294,000.00
	04/05/07	657,000.00	x	1	=	657,000.00
	04/06/07	45,000.00	x	1	=	45,000.00
	04/07/07	45,000.00	x	1	=	45,000.00
	04/08/07	45,000.00	x	1	=	45,000.00
	04/09/07	0.00	x	1	=	0.00
	04/10/07	0.00	x	1	=	0.00
	04/11/07	0.00	x	1	=	0.00
	04/12/07	0.00	x	1	=	0.00
	04/13/07	60,000.00	x	1	=	60,000.00
	04/14/07	60,000.00	x	1	=	60,000.00
	04/15/07	60,000.00	x	1	=	60,000.00
	04/16/07	0.00	x	1	=	0.00
	04/17/07	0.00	x	1	=	0.00
	04/18/07	0.00	x	1	=	0.00
	04/19/07	0.00	x	1	=	0.00
	04/20/07	0.00	x	1	=	0.00
	04/21/07	0.00	x	1	=	0.00
	04/22/07	0.00	x	1	=	0.00
	04/23/07	0.00	x	1	=	0.00
	04/24/07	0.00	x	1	=	0.00
	04/25/07	0.00	x	1	=	0.00
	04/26/07	920,000.00	x	1	=	920,000.00
	04/27/07	2,290,000.00	x	1	=	2,290,000.00
	04/28/07	2,290,000.00	x	1	=	2,290,000.00
	04/29/07	2,290,000.00	x	1	=	2,290,000.00
	04/30/07	3,120,000.00	x	1	=	3,120,000.00
Ending Notes Payable:		$19,811,000.00		30		$19,811,000.00
Average Balance:						$660,366.67

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	March-07	6.22000%	Last months rate
Ending Interest Rate:	April-07	6.22000%	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		6.22000%	

Estimated Interest Bank of America **$3,422.90**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

MAY-07

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	05/01/07	2,456,000.00	x	1	=	2,456,000.00
	05/02/07	2,005,000.00	x	1	=	2,005,000.00
	05/03/07	1,523,000.00	x	1	=	1,523,000.00
	05/04/07	1,139,000.00	x	1	=	1,139,000.00
	05/05/07	1,139,000.00	x	1	=	1,139,000.00
	05/06/07	1,139,000.00	x	1	=	1,139,000.00
	05/07/07	840,000.00	x	1	=	840,000.00
	05/08/07	277,000.00	x	1	=	277,000.00
	05/09/07	0.00	x	1	=	0.00
	05/10/07	0.00	x	1	=	0.00
	05/11/07	0.00	x	1	=	0.00
	05/12/07	0.00	x	1	=	0.00
	05/13/07	0.00	x	1	=	0.00
	05/14/07	0.00	x	1	=	0.00
	05/15/07	0.00	x	1	=	0.00
	05/16/07	0.00	x	1	=	0.00
	05/17/07	0.00	x	1	=	0.00
	05/18/07	0.00	x	1	=	0.00
	05/19/07	0.00	x	1	=	0.00
	05/20/07	0.00	x	1	=	0.00
	05/21/07	0.00	x	1	=	0.00
	05/22/07	0.00	x	1	=	0.00
	05/23/07	0.00	x	1	=	0.00
	05/24/07	490,000.00	x	1	=	490,000.00
	05/25/07	2,530,000.00	x	1	=	2,530,000.00
	05/26/07	2,530,000.00	x	1	=	2,530,000.00
	05/27/07	2,530,000.00	x	1	=	2,530,000.00
	05/28/07	2,530,000.00	x	1	=	2,530,000.00
	05/29/07	2,009,000.00	x	1	=	2,009,000.00
	05/30/07	0.00	x	1	=	0.00
	05/31/07	1,460,000.00	x	1	=	1,460,000.00
Ending Notes Payable:						
		$24,597,000.00		**31**		**$24,597,000.00**
Average Balance:						$793,451.61

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	***April-07***	**6.22000%**	Last months rate
Ending Interest Rate:	**May-07**	**6.22000%**	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		**6.22000%**	

Estimated Interest Bank of America **$4,249.82**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

JUNE-07

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	06/01/07	785,000.00	x	1	=	785,000.00
	06/02/07	785,000.00	x	1	=	785,000.00
	06/03/07	785,000.00	x	1	=	785,000.00
	06/04/07	356,000.00	x	1	=	356,000.00
	06/05/07	30,000.00	x	1	=	30,000.00
	06/06/07	0.00	x	1	=	0.00
	06/07/07	0.00	x	1	=	0.00
	06/08/07	0.00	x	1	=	0.00
	06/09/07	0.00	x	1	=	0.00
	06/10/07	0.00	x	1	=	0.00
	06/11/07	0.00	x	1	=	0.00
	06/12/07	0.00	x	1	=	0.00
	06/13/07	0.00	x	1	=	0.00
	06/14/07	0.00	x	1	=	0.00
	06/15/07	0.00	x	1	=	0.00
	06/16/07	0.00	x	1	=	0.00
	06/17/07	0.00	x	1	=	0.00
	06/18/07	0.00	x	1	=	0.00
	06/19/07	0.00	x	1	=	0.00
	06/20/07	0.00	x	1	=	0.00
	06/21/07	0.00	x	1	=	0.00
	06/22/07	0.00	x	1	=	0.00
	06/23/07	0.00	x	1	=	0.00
	06/24/07	0.00	x	1	=	0.00
	06/25/07	520,000.00	x	1	=	520,000.00
	06/26/07	2,070,000.00	x	1	=	2,070,000.00
	06/27/07	1,313,000.00	x	1	=	1,313,000.00
	06/28/07	1,333,000.00	x	1	=	1,333,000.00
	06/29/07	1,105,000.00	x	1	=	1,105,000.00
	06/30/07	1,105,000.00	x	1	=	1,105,000.00
Ending Notes Payable:		**$10,187,000.00**		**30**		**$10,187,000.00**
Average Balance:						$339,566.67

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	**May-07**	**6.22000%**	Last months rate
Ending Interest Rate:	**June-07**	**6.22000%**	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		**6.22000%**	

Estimated Interest Bank of America **$1,760.09**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

JULY-07

		Balance		Days		Adj. Balance
Bank of America						
Beginning Notes Payable:	07/01/07	1,105,000.00	x	1	=	1,105,000.00
	07/02/07	1,305,000.00	x	1	=	1,305,000.00
	07/03/07	995,000.00	x	1	=	995,000.00
	07/04/07	995,000.00	x	1	=	995,000.00
	07/05/07	1,145,000.00	x	1	=	1,145,000.00
	07/06/07	4,485,000.00	x	1	=	4,485,000.00
	07/07/07	4,485,000.00	x	1	=	4,485,000.00
	07/08/07	4,485,000.00	x	1	=	4,485,000.00
	07/09/07	4,401,000.00	x	1	=	4,401,000.00
	07/10/07	3,370,000.00	x	1	=	3,370,000.00
	07/11/07	2,887,000.00	x	1	=	2,887,000.00
	07/12/07	2,457,000.00	x	1	=	2,457,000.00
	07/13/07	2,847,000.00	x	1	=	2,847,000.00
	07/14/07	2,847,000.00	x	1	=	2,847,000.00
	07/15/07	2,847,000.00	x	1	=	2,847,000.00
	07/16/07	2,666,000.00	x	1	=	2,666,000.00
	07/17/07	2,846,000.00	x	1	=	2,846,000.00
	07/18/07	4,276,000.00	x	1	=	4,276,000.00
	07/19/07	6,306,000.00	x	1	=	6,306,000.00
	07/20/07	6,626,000.00	x	1	=	6,626,000.00
	07/21/07	6,626,000.00	x	1	=	6,626,000.00
	07/22/07	6,626,000.00	x	1	=	6,626,000.00
	07/23/07	6,408,000.00	x	1	=	6,408,000.00
	07/24/07	6,075,000.00	x	1	=	6,075,000.00
	07/25/07	7,015,000.00	x	1	=	7,015,000.00
	07/26/07	6,628,000.00	x	1	=	6,628,000.00
	07/27/07	6,233,000.00	x	1	=	6,233,000.00
	07/28/07	6,233,000.00	x	1	=	6,233,000.00
	07/29/07	6,233,000.00	x	1	=	6,233,000.00
	07/30/07	3,710,000.00	x	1	=	3,710,000.00
	07/31/07	3,552,000.00	x	1	=	3,552,000.00
Ending Notes Payable:						
		$128,715,000.00		**31**		**$128,715,000.00**
Average Balance:						$4,152,096.77

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	**June-07**	**6.22000%**	Last months rate
Ending Interest Rate:	**July-07**	**6.22000%**	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		**6.22000%**	

Estimated Interest Bank of America **$22,239.09**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

AUGUST-07

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	08/01/07	3,108,000.00	x	1	=	3,108,000.00
	08/02/07	3,091,000.00	x	1	=	3,091,000.00
	08/03/07	2,658,000.00	x	1	=	2,658,000.00
	08/04/07	2,658,000.00	x	1	=	2,658,000.00
	08/05/07	2,658,000.00	x	1	=	2,658,000.00
	08/06/07	2,798,000.00	x	1	=	2,798,000.00
	08/07/07	2,354,000.00	x	1	=	2,354,000.00
	08/08/07	1,906,000.00	x	1	=	1,906,000.00
	08/09/07	1,482,000.00	x	1	=	1,482,000.00
	08/10/07	1,952,000.00	x	1	=	1,952,000.00
	08/11/07	1,952,000.00	x	1	=	1,952,000.00
	08/12/07	1,952,000.00	x	1	=	1,952,000.00
	08/13/07	1,492,000.00	x	1	=	1,492,000.00
	08/14/07	1,006,000.00	x	1	=	1,006,000.00
	08/15/07	677,000.00	x	1	=	677,000.00
	08/16/07	4,767,000.00	x	1	=	4,767,000.00
	08/17/07	5,497,000.00	x	1	=	5,497,000.00
	08/18/07	5,497,000.00	x	1	=	5,497,000.00
	08/19/07	5,497,000.00	x	1	=	5,497,000.00
	08/20/07	5,367,000.00	x	1	=	5,367,000.00
	08/21/07	4,891,000.00	x	1	=	4,891,000.00
	08/22/07	4,542,000.00	x	1	=	4,542,000.00
	08/23/07	3,947,000.00	x	1	=	3,947,000.00
	08/24/07	3,581,000.00	x	1	=	3,581,000.00
	08/25/07	3,581,000.00	x	1	=	3,581,000.00
	08/26/07	3,581,000.00	x	1	=	3,581,000.00
	08/27/07	4,071,000.00	x	1	=	4,071,000.00
	08/28/07	3,509,000.00	x	1	=	3,509,000.00
	08/29/07	3,137,000.00	x	1	=	3,137,000.00
	08/30/07	3,777,000.00	x	1	=	3,777,000.00
	08/31/07	3,468,000.00	x	1	=	3,468,000.00
Ending Notes Payable:						
		$100,454,000.00		**31**		**$100,454,000.00**
Average Balance:						$3,240,451.61

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	**July-07**	**6.22000%**	Last months rate
Ending Interest Rate:	**August-07**	**6.66500%**	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		**6.44250%**	

Estimated Interest Bank of America **$17,977.08**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

SEPTEMBER-07

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	09/01/07	3,468,000.00	x	1	=	3,468,000.00
	09/02/07	3,468,000.00	x	1	=	3,468,000.00
	09/03/07	3,468,000.00	x	1	=	3,468,000.00
	09/04/07	3,236,000.00	x	1	=	3,236,000.00
	09/05/07	2,737,000.00	x	1	=	2,737,000.00
	09/06/07	2,279,000.00	x	1	=	2,279,000.00
	09/07/07	2,037,000.00	x	1	=	2,037,000.00
	09/08/07	2,037,000.00	x	1	=	2,037,000.00
	09/09/07	2,037,000.00	x	1	=	2,037,000.00
	09/10/07	1,548,000.00	x	1	=	1,548,000.00
	09/11/07	1,059,000.00	x	1	=	1,059,000.00
	09/12/07	419,000.00	x	1	=	419,000.00
	09/13/07	3,009,000.00	x	1	=	3,009,000.00
	09/14/07	3,169,000.00	x	1	=	3,169,000.00
	09/15/07	3,169,000.00	x	1	=	3,169,000.00
	09/16/07	3,169,000.00	x	1	=	3,169,000.00
	09/17/07	4,169,000.00	x	1	=	4,169,000.00
	09/18/07	4,369,000.00	x	1	=	4,369,000.00
	09/19/07	4,227,000.00	x	1	=	4,227,000.00
	09/20/07	3,872,000.00	x	1	=	3,872,000.00
	09/21/07	3,472,000.00	x	1	=	3,472,000.00
	09/22/07	3,472,000.00	x	1	=	3,472,000.00
	09/23/07	3,472,000.00	x	1	=	3,472,000.00
	09/24/07	3,157,000.00	x	1	=	3,157,000.00
	09/25/07	6,177,000.00	x	1	=	6,177,000.00
	09/26/07	5,578,000.00	x	1	=	5,578,000.00
	09/27/07	6,478,000.00	x	1	=	6,478,000.00
	09/28/07	9,248,000.00	x	1	=	9,248,000.00
	09/29/07	9,248,000.00	x	1	=	9,248,000.00
	09/30/07	9,248,000.00	x	1	=	9,248,000.00
Ending Notes Payable:		$116,496,000.00		30		$116,496,000.00
Average Balance:						$3,883,200.00

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	August-07	6.66500%	Last months rate
Ending Interest Rate:	September-07	6.02375%	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		6.34438%	

Estimated Interest Bank of America $20,530.40

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

OCTOBER-07

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	10/01/07	9,468,000.00	x	1	=	9,468,000.00
	10/02/07	8,883,000.00	x	1	=	8,883,000.00
	10/03/07	8,509,000.00	x	1	=	8,509,000.00
	10/04/07	5,996,000.00	x	1	=	5,996,000.00
	10/05/07	5,462,000.00	x	1	=	5,462,000.00
	10/06/07	5,462,000.00	x	1	=	5,462,000.00
	10/07/07	5,462,000.00	x	1	=	5,462,000.00
	10/08/07	5,462,000.00	x	1	=	5,462,000.00
	10/09/07	3,668,000.00	x	1	=	3,668,000.00
	10/10/07	3,163,000.00	x	1	=	3,163,000.00
	10/11/07	4,683,000.00	x	1	=	4,683,000.00
	10/12/07	5,443,000.00	x	1	=	5,443,000.00
	10/13/07	5,443,000.00	x	1	=	5,443,000.00
	10/14/07	5,443,000.00	x	1	=	5,443,000.00
	10/15/07	5,823,000.00	x	1	=	5,823,000.00
	10/16/07	5,796,000.00	x	1	=	5,796,000.00
	10/17/07	5,513,000.00	x	1	=	5,513,000.00
	10/18/07	5,238,000.00	x	1	=	5,238,000.00
	10/19/07	4,732,000.00	x	1	=	4,732,000.00
	10/20/07	4,732,000.00	x	1	=	4,732,000.00
	10/21/07	4,732,000.00	x	1	=	4,732,000.00
	10/22/07	4,044,000.00	x	1	=	4,044,000.00
	10/23/07	5,034,000.00	x	1	=	5,034,000.00
	10/24/07	4,581,000.00	x	1	=	4,581,000.00
	10/25/07	7,391,000.00	x	1	=	7,391,000.00
	10/26/07	7,012,000.00	x	1	=	7,012,000.00
	10/27/07	7,012,000.00	x	1	=	7,012,000.00
	10/28/07	7,012,000.00	x	1	=	7,012,000.00
	10/29/07	7,062,000.00	x	1	=	7,062,000.00
	10/30/07	6,536,000.00	x	1	=	6,536,000.00
	10/31/07	7,156,000.00	x	1	=	7,156,000.00
Ending Notes Payable:						
		$181,953,000.00		31		$181,953,000.00
Average Balance:						$5,869,451.61

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	September-07	6.02375%	Last months rate
Ending Interest Rate:	October-07	5.60625%	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		5.81500%	

Estimated Interest Bank of America **$29,390.46**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

NOVEMBER-07

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	11/01/07	6,874,000.00	x	1	=	6,874,000.00
	11/02/07	6,490,000.00	x	1	=	6,490,000.00
	11/03/07	6,490,000.00	x	1	=	6,490,000.00
	11/04/07	6,490,000.00	x	1	=	6,490,000.00
	11/05/07	6,082,000.00	x	1	=	6,082,000.00
	11/06/07	5,672,000.00	x	1	=	5,672,000.00
	11/07/07	5,224,000.00	x	1	=	5,224,000.00
	11/08/07	5,404,000.00	x	1	=	5,404,000.00
	11/09/07	5,107,000.00	x	1	=	5,107,000.00
	11/10/07	5,107,000.00	x	1	=	5,107,000.00
	11/11/07	5,107,000.00	x	1	=	5,107,000.00
	11/12/07	5,107,000.00	x	1	=	5,107,000.00
	11/13/07	5,457,000.00	x	1	=	5,457,000.00
	11/14/07	4,733,000.00	x	1	=	4,733,000.00
	11/15/07	4,504,000.00	x	1	=	4,504,000.00
	11/16/07	4,374,000.00	x	1	=	4,374,000.00
	11/17/07	4,374,000.00	x	1	=	4,374,000.00
	11/18/07	4,374,000.00	x	1	=	4,374,000.00
	11/19/07	4,594,000.00	x	1	=	4,594,000.00
	11/20/07	4,117,000.00	x	1	=	4,117,000.00
	11/21/07	4,001,000.00	x	1	=	4,001,000.00
	11/22/07	4,001,000.00	x	1	=	4,001,000.00
	11/23/07	3,878,000.00	x	1	=	3,878,000.00
	11/24/07	3,878,000.00	x	1	=	3,878,000.00
	11/25/07	3,878,000.00	x	1	=	3,878,000.00
	11/26/07	5,798,000.00	x	1	=	5,798,000.00
	11/27/07	5,460,000.00	x	1	=	5,460,000.00
	11/28/07	6,830,000.00	x	1	=	6,830,000.00
	11/29/07	6,467,000.00	x	1	=	6,467,000.00
	11/30/07	6,383,000.00	x	1	=	6,383,000.00
Ending Notes Payable:		$156,255,000.00		30		$156,255,000.00
Average Balance:						$5,208,500.00

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	October-07	5.60625%	Last months rate
Ending Interest Rate:	November-07	6.13625%	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		5.87125%	

Estimated Interest Bank of America $25,483.67

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

DECEMBER-07

		Balance		Days		Adj. Balance
Bank of America						
Beginning Notes Payable:	12/01/07	6,383,000.00	x	1	=	6,383,000.00
	12/02/07	6,383,000.00	x	1	=	6,383,000.00
	12/03/07	5,971,000.00	x	1	=	5,971,000.00
	12/04/07	5,419,000.00	x	1	=	5,419,000.00
	12/05/07	5,429,000.00	x	1	=	5,429,000.00
	12/06/07	5,679,000.00	x	1	=	5,679,000.00
	12/07/07	5,260,000.00	x	1	=	5,260,000.00
	12/08/07	5,260,000.00	x	1	=	5,260,000.00
	12/09/07	5,260,000.00	x	1	=	5,260,000.00
	12/10/07	5,153,000.00	x	1	=	5,153,000.00
	12/11/07	5,153,000.00	x	1	=	5,153,000.00
	12/12/07	6,423,000.00	x	1	=	6,423,000.00
	12/13/07	5,983,000.00	x	1	=	5,983,000.00
	12/14/07	6,403,000.00	x	1	=	6,403,000.00
	12/15/07	6,403,000.00	x	1	=	6,403,000.00
	12/16/07	6,403,000.00	x	1	=	6,403,000.00
	12/17/07	6,241,000.00	x	1	=	6,241,000.00
	12/18/07	6,021,000.00	x	1	=	6,021,000.00
	12/19/07	5,593,000.00	x	1	=	5,593,000.00
	12/20/07	6,183,000.00	x	1	=	6,183,000.00
	12/21/07	5,965,000.00	x	1	=	5,965,000.00
	12/22/07	5,965,000.00	x	1	=	5,965,000.00
	12/23/07	5,965,000.00	x	1	=	5,965,000.00
	12/24/07	5,602,000.00	x	1	=	5,602,000.00
	12/25/07	5,602,000.00	x	1	=	5,602,000.00
	12/26/07	7,832,000.00	x	1	=	7,832,000.00
	12/27/07	9,402,000.00	x	1	=	9,402,000.00
	12/28/07	10,512,000.00	x	1	=	10,512,000.00
	12/29/07	10,512,000.00	x	1	=	10,512,000.00
	12/30/07	10,512,000.00	x	1	=	10,512,000.00
	12/31/07	11,122,000.00	x	1	=	11,122,000.00
Ending Notes Payable:						
		$205,994,000.00		**31**		**$205,994,000.00**
Average Balance:						$6,644,967.74

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	**November-07**	**6.13625%**	*Last months rate*
Ending Interest Rate:	**December-07**	**5.50000%**	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		**5.81813%**	

Estimated Interest Bank of America **$33,291.63**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

JANUARY-08

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	01/01/08	11,122,000.00	x	1	=	11,122,000.00
	01/02/08	8,876,000.00	x	1	=	8,876,000.00
	01/03/08	8,936,000.00	x	1	=	8,936,000.00
	01/04/08	8,483,000.00	x	1	=	8,483,000.00
	01/05/08	8,483,000.00	x	1	=	8,483,000.00
	01/06/08	8,483,000.00	x	1	=	8,483,000.00
	01/07/08	8,154,000.00	x	1	=	8,154,000.00
	01/08/08	7,808,000.00	x	1	=	7,808,000.00
	01/09/08	7,226,000.00	x	1	=	7,226,000.00
	01/10/08	6,805,000.00	x	1	=	6,805,000.00
	01/11/08	6,845,000.00	x	1	=	6,845,000.00
	01/12/08	6,845,000.00	x	1	=	6,845,000.00
	01/13/08	6,845,000.00	x	1	=	6,845,000.00
	01/14/08	7,425,000.00	x	1	=	7,425,000.00
	01/15/08	6,768,000.00	x	1	=	6,768,000.00
	01/16/08	6,263,000.00	x	1	=	6,263,000.00
	01/17/08	6,943,000.00	x	1	=	6,943,000.00
	01/18/08	7,443,000.00	x	1	=	7,443,000.00
	01/19/08	7,443,000.00	x	1	=	7,443,000.00
	01/20/08	7,443,000.00	x	1	=	7,443,000.00
	01/21/08	7,443,000.00	x	1	=	7,443,000.00
	01/22/08	9,153,000.00	x	1	=	9,153,000.00
	01/23/08	8,539,000.00	x	1	=	8,539,000.00
	01/24/08	9,679,000.00	x	1	=	9,679,000.00
	01/25/08	11,289,000.00	x	1	=	11,289,000.00
	01/26/08	11,289,000.00	x	1	=	11,289,000.00
	01/27/08	11,289,000.00	x	1	=	11,289,000.00
	01/28/08	10,953,000.00	x	1	=	10,953,000.00
	01/29/08	10,063,000.00	x	1	=	10,063,000.00
	01/30/08	9,298,000.00	x	1	=	9,298,000.00
	01/31/08	9,230,000.00	x	1	=	9,230,000.00
Ending Notes Payable:						
		$262,864,000.00		31		$262,864,000.00
Average Balance:						$8,479,483.87

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	December-07	5.50000%	Last months rate
Ending Interest Rate:	January-08	4.08125%	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		4.79063%	

Estimated Interest Bank of America $34,980.08

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

FEBRUARY-08

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	02/01/08	8,874,000.00	x	1	=	8,874,000.00
	02/02/08	8,874,000.00	x	1	=	8,874,000.00
	02/03/08	8,874,000.00	x	1	=	8,874,000.00
	02/04/08	8,364,000.00	x	1	=	8,364,000.00
	02/05/08	7,754,000.00	x	1	=	7,754,000.00
	02/06/08	7,469,000.00	x	1	=	7,469,000.00
	02/07/08	7,094,000.00	x	1	=	7,094,000.00
	02/08/08	6,583,000.00	x	1	=	6,583,000.00
	02/09/08	6,583,000.00	x	1	=	6,583,000.00
	02/10/08	6,583,000.00	x	1	=	6,583,000.00
	02/11/08	6,575,000.00	x	1	=	6,575,000.00
	02/12/08	5,959,000.00	x	1	=	5,959,000.00
	02/13/08	5,345,000.00	x	1	=	5,345,000.00
	02/14/08	5,565,000.00	x	1	=	5,565,000.00
	02/15/08	5,200,000.00	x	1	=	5,200,000.00
	02/16/08	5,200,000.00	x	1	=	5,200,000.00
	02/17/08	5,200,000.00	x	1	=	5,200,000.00
	02/18/08	5,200,000.00	x	1	=	5,200,000.00
	02/19/08	6,780,000.00	x	1	=	6,780,000.00
	02/20/08	6,668,000.00	x	1	=	6,668,000.00
	02/21/08	5,979,000.00	x	1	=	5,979,000.00
	02/22/08	5,500,000.00	x	1	=	5,500,000.00
	02/23/08	5,500,000.00	x	1	=	5,500,000.00
	02/24/08	5,500,000.00	x	1	=	5,500,000.00
	02/25/08	8,369,000.00	x	1	=	8,369,000.00
	02/26/08	7,377,000.00	x	1	=	7,377,000.00
	02/27/08	6,311,000.00	x	1	=	6,311,000.00
	02/28/08	7,121,000.00	x	1	=	7,121,000.00
	02/29/08	6,614,000.00	x	1	=	6,614,000.00
Ending Notes Payable:		$193,015,000.00		29		$193,015,000.00
Average Balance:						$6,655,689.66

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	January-08	4.08125%	Last months rate
Ending Interest Rate:	February-08	3.98625%	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		4.03375%	

Estimated Interest Bank of America **$21,627.06**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

MARCH-08

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	03/01/08	6,614,000.00	x	1	=	6,614,000.00
	03/02/08	6,614,000.00	x	1	=	6,614,000.00
	03/03/08	8,334,000.00	x	1	=	8,334,000.00
	03/04/08	7,665,000.00	x	1	=	7,665,000.00
	03/05/08	7,075,000.00	x	1	=	7,075,000.00
	03/06/08	6,716,000.00	x	1	=	6,716,000.00
	03/07/08	6,086,000.00	x	1	=	6,086,000.00
	03/08/08	6,086,000.00	x	1	=	6,086,000.00
	03/09/08	6,086,000.00	x	1	=	6,086,000.00
	03/10/08	5,664,000.00	x	1	=	5,664,000.00
	03/11/08	5,493,000.00	x	1	=	5,493,000.00
	03/12/08	4,707,000.00	x	1	=	4,707,000.00
	03/13/08	5,007,000.00	x	1	=	5,007,000.00
	03/14/08	4,810,000.00	x	1	=	4,810,000.00
	03/15/08	4,810,000.00	x	1	=	4,810,000.00
	03/16/08	4,810,000.00	x	1	=	4,810,000.00
	03/17/08	4,840,000.00	x	1	=	4,840,000.00
	03/18/08	4,585,000.00	x	1	=	4,585,000.00
	03/19/08	3,956,000.00	x	1	=	3,956,000.00
	03/20/08	6,086,000.00	x	1	=	6,086,000.00
	03/21/08	7,296,000.00	x	1	=	7,296,000.00
	03/22/08	7,296,000.00	x	1	=	7,296,000.00
	03/23/08	7,296,000.00	x	1	=	7,296,000.00
	03/24/08	6,696,000.00	x	1	=	6,696,000.00
	03/25/08	9,486,000.00	x	1	=	9,486,000.00
	03/26/08	8,664,000.00	x	1	=	8,664,000.00
	03/27/08	9,554,000.00	x	1	=	9,554,000.00
	03/28/08	9,120,000.00	x	1	=	9,120,000.00
	03/29/08	9,120,000.00	x	1	=	9,120,000.00
	03/30/08	9,120,000.00	x	1	=	9,120,000.00
	03/31/08	9,680,000.00	x	1	=	9,680,000.00
Ending Notes Payable:						
		$209,372,000.00		31		$209,372,000.00
Average Balance:						$6,753,935.48

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	February-08	3.98625%	Last months rate
Ending Interest Rate:	March-08	3.60300%	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		3.79463%	

Estimated Interest Bank of America $22,069.12

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

APRIL-08

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	04/01/08	8,274,000.00	x	1	=	8,274,000.00
	04/02/08	7,679,000.00	x	1	=	7,679,000.00
	04/03/08	7,161,000.00	x	1	=	7,161,000.00
	04/04/08	6,421,000.00	x	1	=	6,421,000.00
	04/05/08	6,421,000.00	x	1	=	6,421,000.00
	04/06/08	6,421,000.00	x	1	=	6,421,000.00
	04/07/08	5,956,000.00	x	1	=	5,956,000.00
	04/08/08	5,084,000.00	x	1	=	5,084,000.00
	04/09/08	4,548,000.00	x	1	=	4,548,000.00
	04/10/08	4,648,000.00	x	1	=	4,648,000.00
	04/11/08	5,758,000.00	x	1	=	5,758,000.00
	04/12/08	5,758,000.00	x	1	=	5,758,000.00
	04/13/08	5,758,000.00	x	1	=	5,758,000.00
	04/14/08	6,988,000.00	x	1	=	6,988,000.00
	04/15/08	6,388,000.00	x	1	=	6,388,000.00
	04/16/08	6,066,000.00	x	1	=	6,066,000.00
	04/17/08	5,712,000.00	x	1	=	5,712,000.00
	04/18/08	5,952,000.00	x	1	=	5,952,000.00
	04/19/08	5,952,000.00	x	1	=	5,952,000.00
	04/20/08	5,952,000.00	x	1	=	5,952,000.00
	04/21/08	628,200.00	x	1	=	628,200.00
	04/22/08	6,108,000.00	x	1	=	6,108,000.00
	04/23/08	5,511,000.00	x	1	=	5,511,000.00
	04/24/08	5,372,000.00	x	1	=	5,372,000.00
	04/25/08	10,252,000.00	x	1	=	10,252,000.00
	04/26/08	10,252,000.00	x	1	=	10,252,000.00
	04/27/08	10,252,000.00	x	1	=	10,252,000.00
	04/28/08	9,400,000.00	x	1	=	9,400,000.00
	04/29/08	8,670,000.00	x	1	=	8,670,000.00
	04/30/08	8,181,000.00	x	1	=	8,181,000.00
Ending Notes Payable:		$197,523,200.00		30		$197,523,200.00
Average Balance:						$6,584,106.67

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	March-08	3.60300%	Last months rate
Ending Interest Rate:	April-08	3.70250%	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		3.65275%	

Estimated Interest Bank of America **$20,041.75**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

MAY-08

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	05/01/08	10,311,000.00	x	1	=	10,311,000.00
	05/02/08	9,611,000.00	x	1	=	9,611,000.00
	05/03/08	9,611,000.00	x	1	=	9,611,000.00
	05/04/08	9,611,000.00	x	1	=	9,611,000.00
	05/05/08	9,040,000.00	x	1	=	9,040,000.00
	05/06/08	8,480,000.00	x	1	=	8,480,000.00
	05/07/08	7,854,000.00	x	1	=	7,854,000.00
	05/08/08	8,174,000.00	x	1	=	8,174,000.00
	05/09/08	8,244,000.00	x	1	=	8,244,000.00
	05/10/08	8,244,000.00	x	1	=	8,244,000.00
	05/11/08	8,244,000.00	x	1	=	8,244,000.00
	05/12/08	7,766,000.00	x	1	=	7,766,000.00
	05/13/08	7,266,000.00	x	1	=	7,266,000.00
	05/14/08	7,140,000.00	x	1	=	7,140,000.00
	05/15/08	6,834,000.00	x	1	=	6,834,000.00
	05/16/08	8,224,000.00	x	1	=	8,224,000.00
	05/17/08	8,224,000.00	x	1	=	8,224,000.00
	05/18/08	8,224,000.00	x	1	=	8,224,000.00
	05/19/08	7,916,000.00	x	1	=	7,916,000.00
	05/20/08	8,296,000.00	x	1	=	8,296,000.00
	05/21/08	7,927,000.00	x	1	=	7,927,000.00
	05/22/08	8,297,000.00	x	1	=	8,297,000.00
	05/23/08	7,987,000.00	x	1	=	7,987,000.00
	05/24/08	7,987,000.00	x	1	=	7,987,000.00
	05/25/08	7,987,000.00	x	1	=	7,987,000.00
	05/26/08	7,987,000.00	x	1	=	7,987,000.00
	05/27/08	10,727,000.00	x	1	=	10,727,000.00
	05/28/08	10,094,000.00	x	1	=	10,094,000.00
	05/29/08	11,524,000.00	x	1	=	11,524,000.00
	05/30/08	10,803,000.00	x	1	=	10,803,000.00
	05/31/08	10,803,000.00	x	1	=	10,803,000.00
Ending Notes Payable:						
		$269,437,000.00		**31**		**$269,437,000.00**
Average Balance:						$8,691,516.13

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	**April-08**	**3.70250%**	Last months rate
Ending Interest Rate:	**May-08**	**3.35750%**	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		**3.53000%**	

Estimated Interest Bank of America **$26,419.79**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

JUNE-08

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	06/01/08	10,803,000.00	x	1	=	10,803,000.00
	06/02/08	10,559,000.00	x	1	=	10,559,000.00
	06/03/08	9,679,000.00	x	1	=	9,679,000.00
	06/04/08	8,880,000.00	x	1	=	8,880,000.00
	06/05/08	8,804,000.00	x	1	=	8,804,000.00
	06/06/08	9,244,000.00	x	1	=	9,244,000.00
	06/07/08	9,244,000.00	x	1	=	9,244,000.00
	06/08/08	9,244,000.00	x	1	=	9,244,000.00
	06/09/08	8,244,000.00	x	1	=	8,244,000.00
	06/10/08	7,399,000.00	x	1	=	7,399,000.00
	06/11/08	7,599,000.00	x	1	=	7,599,000.00
	06/12/08	7,043,000.00	x	1	=	7,043,000.00
	06/13/08	6,393,000.00	x	1	=	6,393,000.00
	06/14/08	6,393,000.00	x	1	=	6,393,000.00
	06/15/08	6,393,000.00	x	1	=	6,393,000.00
	06/16/08	8,263,000.00	x	1	=	8,263,000.00
	06/17/08	8,046,000.00	x	1	=	8,046,000.00
	06/18/08	7,640,000.00	x	1	=	7,640,000.00
	06/19/08	8,010,000.00	x	1	=	8,010,000.00
	06/20/08	7,904,000.00	x	1	=	7,904,000.00
	06/21/08	7,904,000.00	x	1	=	7,904,000.00
	06/22/08	7,904,000.00	x	1	=	7,904,000.00
	06/23/08	7,845,000.00	x	1	=	7,845,000.00
	06/24/08	7,157,000.00	x	1	=	7,157,000.00
	06/25/08	11,077,000.00	x	1	=	11,077,000.00
	06/26/08	12,947,000.00	x	1	=	12,947,000.00
	06/27/08	12,279,000.00	x	1	=	12,279,000.00
	06/28/08	12,279,000.00	x	1	=	12,279,000.00
	06/29/08	12,279,000.00	x	1	=	12,279,000.00
	06/30/08	12,529,000.00	x	1	=	12,529,000.00
Ending Notes Payable:		$269,984,000.00		30		$269,984,000.00
Average Balance:						$8,999,466.67

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	May-08	3.35750%	*Last months rate*
Ending Interest Rate:	June-08	3.36250%	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		3.36000%	

Estimated Interest Bank of America **$25,198.51**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

JULY-08

		Balance		Days		Adj. Balance
Bank of America						
Beginning Notes Payable:	07/01/08	11,864,000.00	x	1	=	11,864,000.00
	07/02/08	11,674,000.00	x	1	=	11,674,000.00
	07/03/08	11,626,000.00	x	1	=	11,626,000.00
	07/04/08	11,626,000.00	x	1	=	11,626,000.00
	07/05/08	11,626,000.00	x	1	=	11,626,000.00
	07/06/08	11,626,000.00	x	1	=	11,626,000.00
	07/07/08	11,385,000.00	x	1	=	11,385,000.00
	07/08/08	10,639,000.00	x	1	=	10,639,000.00
	07/09/08	9,755,000.00	x	1	=	9,755,000.00
	07/10/08	9,069,000.00	x	1	=	9,069,000.00
	07/11/08	7,530,000.00	x	1	=	7,530,000.00
	07/12/08	7,530,000.00	x	1	=	7,530,000.00
	07/13/08	7,530,000.00	x	1	=	7,530,000.00
	07/14/08	7,120,000.00	x	1	=	7,120,000.00
	07/15/08	6,985,000.00	x	1	=	6,985,000.00
	07/16/08	6,511,000.00	x	1	=	6,511,000.00
	07/17/08	8,671,000.00	x	1	=	8,671,000.00
	07/18/08	8,542,000.00	x	1	=	8,542,000.00
	07/19/08	8,542,000.00	x	1	=	8,542,000.00
	07/20/08	8,542,000.00	x	1	=	8,542,000.00
	07/21/08	8,742,000.00	x	1	=	8,742,000.00
	07/22/08	8,356,000.00	x	1	=	8,356,000.00
	07/23/08	7,793,000.00	x	1	=	7,793,000.00
	07/24/08	7,280,000.00	x	1	=	7,280,000.00
	07/25/08	11,270,000.00	x	1	=	11,270,000.00
	07/26/08	11,270,000.00	x	1	=	11,270,000.00
	07/27/08	11,270,000.00	x	1	=	11,270,000.00
	07/28/08	11,740,000.00	x	1	=	11,740,000.00
	07/29/08	11,182,000.00	x	1	=	11,182,000.00
	07/30/08	10,421,000.00	x	1	=	10,421,000.00
	07/31/08	10,388,000.00	x	1	=	10,388,000.00
Ending Notes Payable:						
		$298,105,000.00		**31**		**$298,105,000.00**
Average Balance:						$9,616,290.32

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	**June-08**	**3.36250%**	Last months rate
Ending Interest Rate:	**July-08**	**3.36125%**	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		**3.36188%**	

Estimated Interest Bank of America **$27,838.66**

SCHEDULE "L"

ACCRUED INTEREST ON NOTES PAYABLE
FLORIDA PUBLIC UTILITIES COMPANY - 100.2370.2

AUGUST-08

Bank of America		Balance		Days		Adj. Balance
Beginning Notes Payable:	08/01/08	10,294,000.00	x	1	=	10,294,000.00
	08/02/08	10,294,000.00	x	1	=	10,294,000.00
	08/03/08	10,294,000.00	x	1	=	10,294,000.00
	08/04/08	10,030,000.00	x	1	=	10,030,000.00
	08/05/08	9,284,000.00	x	1	=	9,284,000.00
	08/06/08	8,609,000.00	x	1	=	8,609,000.00
	08/07/08	8,049,000.00	x	1	=	8,049,000.00
	08/08/08	7,473,000.00	x	1	=	7,473,000.00
	08/09/08	7,473,000.00	x	1	=	7,473,000.00
	08/10/08	7,473,000.00	x	1	=	7,473,000.00
	08/11/08	7,038,000.00	x	1	=	7,038,000.00
	08/12/08	6,435,000.00	x	1	=	6,435,000.00
	08/13/08	5,780,000.00	x	1	=	5,780,000.00
	08/14/08	5,659,000.00	x	1	=	5,659,000.00
	08/15/08	5,354,000.00	x	1	=	5,354,000.00
	08/16/08	5,354,000.00	x	1	=	5,354,000.00
	08/17/08	5,354,000.00	x	1	=	5,354,000.00
	08/18/08	7,274,000.00	x	1	=	7,274,000.00
	08/19/08	7,165,000.00	x	1	=	7,165,000.00
	08/20/08	7,052,000.00	x	1	=	7,052,000.00
	08/21/08	6,813,000.00	x	1	=	6,813,000.00
	08/22/08	5,645,000.00	x	1	=	5,645,000.00
	08/23/08	5,645,000.00	x	1	=	5,645,000.00
	08/24/08	5,645,000.00	x	1	=	5,645,000.00
	08/25/08	9,065,000.00	x	1	=	9,065,000.00
	08/26/08	8,228,000.00	x	1	=	8,228,000.00
	08/27/08	11,178,000.00	x	1	=	11,178,000.00
	08/28/08	11,318,000.00	x	1	=	11,318,000.00
	08/29/08	10,924,000.00	x	1	=	10,924,000.00
	08/30/08	10,924,000.00	x	1	=	10,924,000.00
	08/31/08	10,924,000.00	x	1	=	10,924,000.00
Ending Notes Payable:						
		$248,047,000.00		31		$248,047,000.00
Average Balance:						$8,001,516.13

GET THE INFORMATION FROM JOURNAL ENTRY # 24.

Beginning Interest Rate:	July-08	3.36125%	Last months rate
Ending Interest Rate:	August-08	3.38563%	GET THE LIBOR FROM WALL STREET JOURNAL. ADD .9% TO
Average Interest Rate:		3.37344%	

Estimated Interest Bank of America **$23,243.66**

SCHEDULE "L"

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

DECEMBER-06

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	12/01/06	12,000,000.00	1,664,000.00	x	1	=	10,336,000.00
	12/02/06	12,000,000.00	1,664,000.00	x	1	=	10,336,000.00
	12/03/06	12,000,000.00	1,664,000.00	x	1	=	10,336,000.00
	12/04/06	12,000,000.00	1,438,000.00	x	1	=	10,562,000.00
	12/05/06	12,000,000.00	973,000.00	x	1	=	11,027,000.00
	12/06/06	12,000,000.00	572,000.00	x	1	=	11,428,000.00
	12/07/06	12,000,000.00	1,072,000.00	x	1	=	10,928,000.00
	12/08/06	12,000,000.00	1,016,000.00	x	1	=	10,984,000.00
	12/09/06	12,000,000.00	1,016,000.00	x	1	=	10,984,000.00
	12/10/06	12,000,000.00	1,016,000.00	x	1	=	10,984,000.00
	12/11/06	12,000,000.00	1,116,000.00	x	1	=	10,884,000.00
	12/12/06	12,000,000.00	561,000.00	x	1	=	11,439,000.00
	12/13/06	12,000,000.00	1,291,000.00	x	1	=	10,709,000.00
	12/14/06	12,000,000.00	2,021,000.00	x	1	=	9,979,000.00
	12/15/06	12,000,000.00	1,694,000.00	x	1	=	10,306,000.00
	12/16/06	12,000,000.00	1,694,000.00	x	1	=	10,306,000.00
	12/17/06	12,000,000.00	1,694,000.00	x	1	=	10,306,000.00
	12/18/06	12,000,000.00	1,479,000.00	x	1	=	10,521,000.00
	12/19/06	12,000,000.00	1,321,000.00	x	1	=	10,679,000.00
	12/20/06	12,000,000.00	1,080,000.00	x	1	=	10,920,000.00
	12/21/06	12,000,000.00	1,650,000.00	x	1	=	10,350,000.00
	12/22/06	12,000,000.00	1,670,000.00	x	1	=	10,330,000.00
	12/23/06	12,000,000.00	1,670,000.00	x	1	=	10,330,000.00
	12/24/06	12,000,000.00	1,670,000.00	x	1	=	10,330,000.00
	12/25/06	12,000,000.00	1,670,000.00	x	1	=	10,330,000.00
	12/26/06	12,000,000.00	3,120,000.00	x	1	=	8,880,000.00
	12/27/06	12,000,000.00	3,990,000.00	x	1	=	8,010,000.00
	12/28/06	12,000,000.00	3,528,000.00	x	1	=	8,472,000.00
	12/29/06	12,000,000.00	3,466,000.00	x	1	=	8,534,000.00
	12/30/06	12,000,000.00	3,466,000.00	x	1	=	8,534,000.00
	12/31/06	12,000,000.00	3,466,000.00	x	1	=	8,534,000.00
			$55,412,000.00		31		$316,588,000.00
Average Balance:							$10,212,516.13

Beginning Interest Rate:	November-06	0.25000%	Last months rate
Ending Interest Rate:	December-06	0.25000%	Unused Bank Fees Rate
Average Interest Rate:		0.25000%	

Estimated Interest Bank of America $2,198.53

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

JANUARY-07

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	01/01/07	12,000,000.00	3,466,000.00	x	1	=	8,534,000.00
	01/02/07	12,000,000.00	2,926,000.00	x	1	=	9,074,000.00
	01/03/07	12,000,000.00	4,186,000.00	x	1	=	7,814,000.00
	01/04/07	12,000,000.00	3,988,000.00	x	1	=	8,012,000.00
	01/05/07	12,000,000.00	3,826,000.00	x	1	=	8,174,000.00
	01/06/07	12,000,000.00	3,826,000.00	x	1	=	8,174,000.00
	01/07/07	12,000,000.00	3,826,000.00	x	1	=	8,174,000.00
	01/08/07	12,000,000.00	3,664,000.00	x	1	=	8,336,000.00
	01/09/07	12,000,000.00	3,183,000.00	x	1	=	8,817,000.00
	01/10/07	12,000,000.00	2,568,000.00	x	1	=	9,432,000.00
	01/11/07	12,000,000.00	2,506,000.00	x	1	=	9,494,000.00
	01/12/07	12,000,000.00	3,006,000.00	x	1	=	8,994,000.00
	01/13/07	12,000,000.00	3,006,000.00	x	1	=	8,994,000.00
	01/14/07	12,000,000.00	3,006,000.00	x	1	=	8,994,000.00
	01/15/07	12,000,000.00	3,006,000.00	x	1	=	8,994,000.00
	01/16/07	12,000,000.00	2,744,000.00	x	1	=	9,256,000.00
	01/17/07	12,000,000.00	2,334,000.00	x	1	=	9,666,000.00
	01/18/07	12,000,000.00	2,784,000.00	x	1	=	9,216,000.00
	01/19/07	12,000,000.00	3,694,000.00	x	1	=	8,306,000.00
	01/20/07	12,000,000.00	3,694,000.00	x	1	=	8,306,000.00
	01/21/07	12,000,000.00	3,694,000.00	x	1	=	8,306,000.00
	01/22/07	12,000,000.00	3,576,000.00	x	1	=	8,424,000.00
	01/23/07	12,000,000.00	3,307,000.00	x	1	=	8,693,000.00
	01/24/07	12,000,000.00	3,897,000.00	x	1	=	8,103,000.00
	01/25/07	12,000,000.00	6,127,000.00	x	1	=	5,873,000.00
	01/26/07	12,000,000.00	5,466,000.00	x	1	=	6,534,000.00
	01/27/07	12,000,000.00	5,466,000.00	x	1	=	6,534,000.00
	01/28/07	12,000,000.00	5,466,000.00	x	1	=	6,534,000.00
	01/29/07	12,000,000.00	5,257,000.00	x	1	=	6,743,000.00
	01/30/07	12,000,000.00	4,523,000.00	x	1	=	7,477,000.00
	01/31/07	12,000,000.00	3,964,000.00	x	1	=	8,036,000.00
			$115,982,000.00		31		$256,018,000.00
Average Balance:							$8,258,645.16

Beginning Interest Rate:	December-06	0.25000%	Last months rate
Ending Interest Rate:	January-07	0.25000%	Unused Bank Fees Rate
Average Interest Rate:		0.25000%	

Estimated Interest Bank of America $1,777.90

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

FEBRUARY-07

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	02/01/07	12,000,000.00	4,074,000.00	x	1	=	7,926,000.00
	02/02/07	12,000,000.00	3,770,000.00	x	1	=	8,230,000.00
	02/03/07	12,000,000.00	3,770,000.00	x	1	=	8,230,000.00
	02/04/07	12,000,000.00	3,770,000.00	x	1	=	8,230,000.00
	02/05/07	12,000,000.00	3,322,000.00	x	1	=	8,678,000.00
	02/06/07	12,000,000.00	2,760,000.00	x	1	=	9,240,000.00
	02/07/07	12,000,000.00	2,154,000.00	x	1	=	9,846,000.00
	02/08/07	12,000,000.00	1,505,000.00	x	1	=	10,495,000.00
	02/09/07	12,000,000.00	1,496,000.00	x	1	=	10,504,000.00
	02/10/07	12,000,000.00	1,496,000.00	x	1	=	10,504,000.00
	02/11/07	12,000,000.00	1,496,000.00	x	1	=	10,504,000.00
	02/12/07	12,000,000.00	1,756,000.00	x	1	=	10,244,000.00
	02/13/07	12,000,000.00	1,028,000.00	x	1	=	10,972,000.00
	02/14/07	12,000,000.00	596,000.00	x	1	=	11,404,000.00
	02/15/07	12,000,000.00	936,000.00	x	1	=	11,064,000.00
	02/16/07	12,000,000.00	816,000.00	x	1	=	11,184,000.00
	02/17/07	12,000,000.00	816,000.00	x	1	=	11,184,000.00
	02/18/07	12,000,000.00	816,000.00	x	1	=	11,184,000.00
	02/19/07	12,000,000.00	816,000.00	x	1	=	11,184,000.00
	02/20/07	12,000,000.00	384,000.00	x	1	=	11,616,000.00
	02/21/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	02/22/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	02/23/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	02/24/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	02/25/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	02/26/07	12,000,000.00	1,560,000.00	x	1	=	10,440,000.00
	02/27/07	12,000,000.00	2,940,000.00	x	1	=	9,060,000.00
	02/28/07	12,000,000.00	2,243,000.00	x	1	=	9,757,000.00
	01/00/00	12,000,000.00	0.00	x	0	=	12,000,000.00
	01/00/00	12,000,000.00	0.00	x	0	=	12,000,000.00
	01/00/00	12,000,000.00	0.00	x	0	=	12,000,000.00
			$44,320,000.00		**28**		**$327,680,000.00**
Average Balance:							$11,702,857.14

Beginning Interest Rate:	**January-07**	**0.25000%**	Last months rate
Ending Interest Rate:	**February-07**	**0.25000%**	Unused Bank Fees Rate
Average Interest Rate:		**0.25000%**	

Estimated Interest Bank of America **$2,275.56**

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

MARCH-07

Bank of America	Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
03/01/07	12,000,000.00	2,303,000.00	x	1	=	9,697,000.00
03/02/07	12,000,000.00	1,774,000.00	x	1	=	10,226,000.00
03/03/07	12,000,000.00	1,774,000.00	x	1	=	10,226,000.00
03/04/07	12,000,000.00	1,774,000.00	x	1	=	10,226,000.00
03/05/07	12,000,000.00	1,364,000.00	x	1	=	10,636,000.00
03/06/07	12,000,000.00	660,000.00	x	1	=	11,340,000.00
03/07/07	12,000,000.00	30,000.00	x	1	=	11,970,000.00
03/08/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/09/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/10/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/11/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/12/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/13/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/14/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/15/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/16/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/17/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/18/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/19/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/20/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/21/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/22/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/23/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/24/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/25/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/26/07	12,000,000.00	540,000.00	x	1	=	11,460,000.00
03/27/07	12,000,000.00	0.00	x	1	=	12,000,000.00
03/28/07	12,000,000.00	10,000.00	x	1	=	11,990,000.00
03/29/07	12,000,000.00	2,230,000.00	x	1	=	9,770,000.00
03/30/07	12,000,000.00	2,215,000.00	x	1	=	9,785,000.00
03/31/07	12,000,000.00	2,215,000.00	x	1	=	9,785,000.00
		$16,889,000.00		**31**		**$355,111,000.00**
Average Balance:						$11,455,193.55

Beginning Interest Rate:	**February-07**	**0.25000%**	Last months rate
Ending Interest Rate:	**March-07**	**0.25000%**	Unused Bank Fees Rate
Average Interest Rate:		**0.25000%**	

Estimated Interest Bank of America **$2,466.05**

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

APRIL-07

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	04/01/07	12,000,000.00	2,215,000.00	x	1	=	9,785,000.00
	04/02/07	12,000,000.00	2,555,000.00	x	1	=	9,445,000.00
	04/03/07	12,000,000.00	1,865,000.00	x	1	=	10,135,000.00
	04/04/07	12,000,000.00	1,294,000.00	x	1	=	10,706,000.00
	04/05/07	12,000,000.00	657,000.00	x	1	=	11,343,000.00
	04/06/07	12,000,000.00	45,000.00	x	1	=	11,955,000.00
	04/07/07	12,000,000.00	45,000.00	x	1	=	11,955,000.00
	04/08/07	12,000,000.00	45,000.00	x	1	=	11,955,000.00
	04/09/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	04/10/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	04/11/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	04/12/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	04/13/07	12,000,000.00	60,000.00	x	1	=	11,940,000.00
	04/14/07	12,000,000.00	60,000.00	x	1	=	11,940,000.00
	04/15/07	12,000,000.00	60,000.00	x	1	=	11,940,000.00
	04/16/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	04/17/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	04/18/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	04/19/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	04/20/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	04/21/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	04/22/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	04/23/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	04/24/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	04/25/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	04/26/07	12,000,000.00	920,000.00	x	1	=	11,080,000.00
	04/27/07	12,000,000.00	2,290,000.00	x	1	=	9,710,000.00
	04/28/07	12,000,000.00	2,290,000.00	x	1	=	9,710,000.00
	04/29/07	12,000,000.00	2,290,000.00	x	1	=	9,710,000.00
	04/30/07	12,000,000.00	3,120,000.00	x	1	=	8,880,000.00
	01/00/00	12,000,000.00	0.00	x	0	=	12,000,000.00
			$19,811,000.00		30		$352,189,000.00
Average Balance:							$11,739,633.33

Beginning Interest Rate:	March-07	0.25000%	Last months rate
Ending Interest Rate:	April-07	0.25000%	Unused Bank Fees Rate
Average Interest Rate:		0.25000%	

Estimated Interest Bank of America **$2,445.76**

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

MAY-07

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	05/01/07	12,000,000.00	2,456,000.00	x	1	=	9,544,000.00
	05/02/07	12,000,000.00	2,005,000.00	x	1	=	9,995,000.00
	05/03/07	12,000,000.00	1,523,000.00	x	1	=	10,477,000.00
	05/04/07	12,000,000.00	1,139,000.00	x	1	=	10,861,000.00
	05/05/07	12,000,000.00	1,139,000.00	x	1	=	10,861,000.00
	05/06/07	12,000,000.00	1,139,000.00	x	1	=	10,861,000.00
	05/07/07	12,000,000.00	840,000.00	x	1	=	11,160,000.00
	05/08/07	12,000,000.00	277,000.00	x	1	=	11,723,000.00
	05/09/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/10/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/11/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/12/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/13/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/14/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/15/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/16/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/17/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/18/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/19/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/20/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/21/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/22/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/23/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/24/07	12,000,000.00	490,000.00	x	1	=	11,510,000.00
	05/25/07	12,000,000.00	2,530,000.00	x	1	=	9,470,000.00
	05/26/07	12,000,000.00	2,530,000.00	x	1	=	9,470,000.00
	05/27/07	12,000,000.00	2,530,000.00	x	1	=	9,470,000.00
	05/28/07	12,000,000.00	2,530,000.00	x	1	=	9,470,000.00
	05/29/07	12,000,000.00	2,009,000.00	x	1	=	9,991,000.00
	05/30/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	05/31/07	12,000,000.00	1,460,000.00	x	1	=	10,540,000.00
			$24,597,000.00		**31**		**$347,403,000.00**
Average Balance:							$11,206,548.39

Beginning Interest Rate:	**April-07**	**0.25000%**	Last months rate
Ending Interest Rate:	**May-07**	**0.25000%**	Unused Bank Fees Rate
Average Interest Rate:		**0.25000%**	

Estimated Interest Bank of America **$2,412.52**

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

JUNE-07

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	06/01/07	12,000,000.00	785,000.00	x	1	=	11,215,000.00
	06/02/07	12,000,000.00	785,000.00	x	1	=	11,215,000.00
	06/03/07	12,000,000.00	785,000.00	x	1	=	11,215,000.00
	06/04/07	12,000,000.00	356,000.00	x	1	=	11,644,000.00
	06/05/07	12,000,000.00	30,000.00	x	1	=	11,970,000.00
	06/06/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/07/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/08/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/09/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/10/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/11/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/12/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/13/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/14/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/15/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/16/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/17/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/18/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/19/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/20/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/21/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/22/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/23/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/24/07	12,000,000.00	0.00	x	1	=	12,000,000.00
	06/25/07	12,000,000.00	520,000.00	x	1	=	11,480,000.00
	06/26/07	12,000,000.00	2,070,000.00	x	1	=	9,930,000.00
	06/27/07	12,000,000.00	1,313,000.00	x	1	=	10,687,000.00
	06/28/07	12,000,000.00	1,333,000.00	x	1	=	10,667,000.00
	06/29/07	12,000,000.00	1,105,000.00	x	1	=	10,895,000.00
	06/30/07	12,000,000.00	1,105,000.00	x	1	=	10,895,000.00
			$10,187,000.00		**30**		**$349,813,000.00**
Average Balance:							$11,660,433.33

Beginning Interest Rate:	**May-07**	**0.25000%**	Last months rate
Ending Interest Rate:	**June-07**	**0.25000%**	Unused Bank Fees Rate
Average Interest Rate:		**0.25000%**	

Estimated Interest Bank of America **$2,429.26**

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

JULY-07

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	07/01/07	12,000,000.00	1,105,000.00	x	1	=	10,895,000.00
	07/02/07	12,000,000.00	1,305,000.00	x	1	=	10,695,000.00
	07/03/07	12,000,000.00	995,000.00	x	1	=	11,005,000.00
	07/04/07	12,000,000.00	995,000.00	x	1	=	11,005,000.00
	07/05/07	12,000,000.00	1,145,000.00	x	1	=	10,855,000.00
	07/06/07	12,000,000.00	4,485,000.00	x	1	=	7,515,000.00
	07/07/07	12,000,000.00	4,485,000.00	x	1	=	7,515,000.00
	07/08/07	12,000,000.00	4,485,000.00	x	1	=	7,515,000.00
	07/09/07	12,000,000.00	4,401,000.00	x	1	=	7,599,000.00
	07/10/07	12,000,000.00	3,370,000.00	x	1	=	8,630,000.00
	07/11/07	12,000,000.00	2,887,000.00	x	1	=	9,113,000.00
	07/12/07	12,000,000.00	2,457,000.00	x	1	=	9,543,000.00
	07/13/07	12,000,000.00	2,847,000.00	x	1	=	9,153,000.00
	07/14/07	12,000,000.00	2,847,000.00	x	1	=	9,153,000.00
	07/15/07	12,000,000.00	2,847,000.00	x	1	=	9,153,000.00
	07/16/07	12,000,000.00	2,666,000.00	x	1	=	9,334,000.00
	07/17/07	12,000,000.00	2,846,000.00	x	1	=	9,154,000.00
	07/18/07	12,000,000.00	4,276,000.00	x	1	=	7,724,000.00
	07/19/07	12,000,000.00	6,306,000.00	x	1	=	5,694,000.00
	07/20/07	12,000,000.00	6,626,000.00	x	1	=	5,374,000.00
	07/21/07	12,000,000.00	6,626,000.00	x	1	=	5,374,000.00
	07/22/07	12,000,000.00	6,626,000.00	x	1	=	5,374,000.00
	07/23/07	12,000,000.00	6,408,000.00	x	1	=	5,592,000.00
	07/24/07	12,000,000.00	6,075,000.00	x	1	=	5,925,000.00
	07/25/07	12,000,000.00	7,015,000.00	x	1	=	4,985,000.00
	07/26/07	12,000,000.00	6,628,000.00	x	1	=	5,372,000.00
	07/27/07	12,000,000.00	6,233,000.00	x	1	=	5,767,000.00
	07/28/07	12,000,000.00	6,233,000.00	x	1	=	5,767,000.00
	07/29/07	12,000,000.00	6,233,000.00	x	1	=	5,767,000.00
	07/30/07	12,000,000.00	3,710,000.00	x	1	=	8,290,000.00
	07/31/07	12,000,001.00	3,552,000.00	x	1	=	8,448,001.00
			$128,715,000.00		**31**		**$243,285,001.00**
Average Balance:							$7,847,903.26

Beginning Interest Rate:	**June-07**	**0.25000%**	Last months rate
Ending Interest Rate:	**July-07**	**0.25000%**	Unused Bank Fees Rate
Average Interest Rate:		**0.25000%**	

Estimated Interest Bank of America **$1,689.48**

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

AUGUST-07

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	08/01/07	12,000,000.00	3,108,000.00	x	1	=	8,892,000.00
	08/02/07	12,000,000.00	3,091,000.00	x	1	=	8,909,000.00
	08/03/07	12,000,000.00	2,658,000.00	x	1	=	9,342,000.00
	08/04/07	12,000,000.00	2,658,000.00	x	1	=	9,342,000.00
	08/05/07	12,000,000.00	2,658,000.00	x	1	=	9,342,000.00
	08/06/07	12,000,000.00	2,798,000.00	x	1	=	9,202,000.00
	08/07/07	12,000,000.00	2,354,000.00	x	1	=	9,646,000.00
	08/08/07	12,000,000.00	1,906,000.00	x	1	=	10,094,000.00
	08/09/07	12,000,000.00	1,482,000.00	x	1	=	10,518,000.00
	08/10/07	12,000,000.00	1,952,000.00	x	1	=	10,048,000.00
	08/11/07	12,000,000.00	1,952,000.00	x	1	=	10,048,000.00
	08/12/07	12,000,000.00	1,952,000.00	x	1	=	10,048,000.00
	08/13/07	12,000,000.00	1,492,000.00	x	1	=	10,508,000.00
	08/14/07	12,000,000.00	1,006,000.00	x	1	=	10,994,000.00
	08/15/07	12,000,000.00	677,000.00	x	1	=	11,323,000.00
	08/16/07	12,000,000.00	4,767,000.00	x	1	=	7,233,000.00
	08/17/07	12,000,000.00	5,497,000.00	x	1	=	6,503,000.00
	08/18/07	12,000,000.00	5,497,000.00	x	1	=	6,503,000.00
	08/19/07	12,000,000.00	5,497,000.00	x	1	=	6,503,000.00
	08/20/07	12,000,000.00	5,367,000.00	x	1	=	6,633,000.00
	08/21/07	12,000,000.00	4,891,000.00	x	1	=	7,109,000.00
	08/22/07	12,000,000.00	4,542,000.00	x	1	=	7,458,000.00
	08/23/07	12,000,000.00	3,947,000.00	x	1	=	8,053,000.00
	08/24/07	12,000,000.00	3,581,000.00	x	1	=	8,419,000.00
	08/25/07	12,000,000.00	3,581,000.00	x	1	=	8,419,000.00
	08/26/07	12,000,000.00	3,581,000.00	x	1	=	8,419,000.00
	08/27/07	12,000,000.00	4,071,000.00	x	1	=	7,929,000.00
	08/28/07	12,000,000.00	3,509,000.00	x	1	=	8,491,000.00
	08/29/07	12,000,000.00	3,137,000.00	x	1	=	8,863,000.00
	08/30/07	12,000,000.00	3,777,000.00	x	1	=	8,223,000.00
	08/31/07	12,000,000.00	3,468,000.00	x	1	=	8,532,000.00
			$100,454,000.00		31		$271,546,000.00
Average Balance:							$8,759,548.39

Beginning Interest Rate:	July-07	0.25000%	Last months rate
Ending Interest Rate:	August-07	0.25000%	Unused Bank Fees Rate
Average Interest Rate:		0.25000%	

Estimated Interest Bank of America $1,885.74

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

SEPTEMBER-07

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	09/01/07	12,000,000.00	3,468,000.00	x	1	=	8,532,000.00
	09/02/07	12,000,000.00	3,468,000.00	x	1	=	8,532,000.00
	09/03/07	12,000,000.00	3,468,000.00	x	1	=	8,532,000.00
	09/04/07	12,000,000.00	3,236,000.00	x	1	=	8,764,000.00
	09/05/07	12,000,000.00	2,737,000.00	x	1	=	9,263,000.00
	09/06/07	12,000,000.00	2,279,000.00	x	1	=	9,721,000.00
	09/07/07	12,000,000.00	2,037,000.00	x	1	=	9,963,000.00
	09/08/07	12,000,000.00	2,037,000.00	x	1	=	9,963,000.00
	09/09/07	12,000,000.00	2,037,000.00	x	1	=	9,963,000.00
	09/10/07	12,000,000.00	1,548,000.00	x	1	=	10,452,000.00
	09/11/07	12,000,000.00	1,059,000.00	x	1	=	10,941,000.00
	09/12/07	12,000,000.00	419,000.00	x	1	=	11,581,000.00
	09/13/07	12,000,000.00	3,009,000.00	x	1	=	8,991,000.00
	09/14/07	12,000,000.00	3,169,000.00	x	1	=	8,831,000.00
	09/15/07	12,000,000.00	3,169,000.00	x	1	=	8,831,000.00
	09/16/07	12,000,000.00	3,169,000.00	x	1	=	8,831,000.00
	09/17/07	12,000,000.00	4,169,000.00	x	1	=	7,831,000.00
	09/18/07	12,000,000.00	4,369,000.00	x	1	=	7,631,000.00
	09/19/07	12,000,000.00	4,227,000.00	x	1	=	7,773,000.00
	09/20/07	12,000,000.00	3,872,000.00	x	1	=	8,128,000.00
	09/21/07	12,000,000.00	3,472,000.00	x	1	=	8,528,000.00
	09/22/07	12,000,000.00	3,472,000.00	x	1	=	8,528,000.00
	09/23/07	12,000,000.00	3,472,000.00	x	1	=	8,528,000.00
	09/24/07	12,000,000.00	3,157,000.00	x	1	=	8,843,000.00
	09/25/07	12,000,000.00	6,177,000.00	x	1	=	5,823,000.00
	09/26/07	12,000,000.00	5,578,000.00	x	1	=	6,422,000.00
	09/27/07	12,000,000.00	6,478,000.00	x	1	=	5,522,000.00
	09/28/07	12,000,000.00	9,248,000.00	x	1	=	2,752,000.00
	09/29/07	12,000,000.00	9,248,000.00	x	1	=	2,752,000.00
	09/30/07	12,000,000.00	9,248,000.00	x	1	=	2,752,000.00
			$116,496,000.00		**30**		**$243,504,000.00**
Average Balance:							$8,116,800.00

Beginning Interest Rate:	**August-07**	**0.25000%**	Last months rate
Ending Interest Rate:	**September-07**	**0.25000%**	Unused Bank Fees Rate
Average Interest Rate:		**0.25000%**	

Estimated Interest Bank of America **$1,691.00**

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

OCTOBER-07

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	10/01/07	12,000,000.00	9,468,000.00	x	1	=	2,532,000.00
	10/02/07	12,000,000.00	8,883,000.00	x	1	=	3,117,000.00
	10/03/07	12,000,000.00	8,509,000.00	x	1	=	3,491,000.00
	10/04/07	12,000,000.00	5,996,000.00	x	1	=	6,004,000.00
	10/05/07	12,000,000.00	5,462,000.00	x	1	=	6,538,000.00
	10/06/07	12,000,000.00	5,462,000.00	x	1	=	6,538,000.00
	10/07/07	12,000,000.00	5,462,000.00	x	1	=	6,538,000.00
	10/08/07	12,000,000.00	5,462,000.00	x	1	=	6,538,000.00
	10/09/07	12,000,000.00	3,668,000.00	x	1	=	8,332,000.00
	10/10/07	12,000,000.00	3,163,000.00	x	1	=	8,837,000.00
	10/11/07	12,000,000.00	4,683,000.00	x	1	=	7,317,000.00
	10/12/07	12,000,000.00	5,443,000.00	x	1	=	6,557,000.00
	10/13/07	12,000,000.00	5,443,000.00	x	1	=	6,557,000.00
	10/14/07	12,000,000.00	5,443,000.00	x	1	=	6,557,000.00
	10/15/07	12,000,000.00	5,823,000.00	x	1	=	6,177,000.00
	10/16/07	12,000,000.00	5,796,000.00	x	1	=	6,204,000.00
	10/17/07	12,000,000.00	5,513,000.00	x	1	=	6,487,000.00
	10/18/07	12,000,000.00	5,238,000.00	x	1	=	6,762,000.00
	10/19/07	12,000,000.00	4,732,000.00	x	1	=	7,268,000.00
	10/20/07	12,000,000.00	4,732,000.00	x	1	=	7,268,000.00
	10/21/07	12,000,000.00	4,732,000.00	x	1	=	7,268,000.00
	10/22/07	12,000,000.00	4,044,000.00	x	1	=	7,956,000.00
	10/23/07	12,000,000.00	5,034,000.00	x	1	=	6,966,000.00
	10/24/07	12,000,000.00	4,581,000.00	x	1	=	7,419,000.00
	10/25/07	12,000,000.00	7,391,000.00	x	1	=	4,609,000.00
	10/26/07	12,000,000.00	7,012,000.00	x	1	=	4,988,000.00
	10/27/07	12,000,000.00	7,012,000.00	x	1	=	4,988,000.00
	10/28/07	12,000,000.00	7,012,000.00	x	1	=	4,988,000.00
	10/29/07	12,000,000.00	7,062,000.00	x	1	=	4,938,000.00
	10/30/07	12,000,000.00	6,536,000.00	x	1	=	5,464,000.00
	10/31/07	12,000,000.00	7,156,000.00	x	1	=	4,844,000.00
			$181,953,000.00		31		$190,047,000.00

Average Balance: $6,130,548.39

Beginning Interest Rate:	September-07	0.25000%	Last months rate
Ending Interest Rate:	October-07	0.25000%	Unused Bank Fees Rate
Average Interest Rate:		0.25000%	

Estimated Interest Bank of America **$1,319.77**

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

NOVEMBER-07

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	11/01/07	12,000,000.00	6,874,000.00	x	1	=	5,126,000.00
	11/02/07	12,000,000.00	6,490,000.00	x	1	=	5,510,000.00
	11/03/07	12,000,000.00	6,490,000.00	x	1	=	5,510,000.00
	11/04/07	12,000,000.00	6,490,000.00	x	1	=	5,510,000.00
	11/05/07	12,000,000.00	6,082,000.00	x	1	=	5,918,000.00
	11/06/07	12,000,000.00	5,672,000.00	x	1	=	6,328,000.00
	11/07/07	12,000,000.00	5,224,000.00	x	1	=	6,776,000.00
	11/08/07	12,000,000.00	5,404,000.00	x	1	=	6,596,000.00
	11/09/07	12,000,000.00	5,107,000.00	x	1	=	6,893,000.00
	11/10/07	12,000,000.00	5,107,000.00	x	1	=	6,893,000.00
	11/11/07	12,000,000.00	5,107,000.00	x	1	=	6,893,000.00
	11/12/07	12,000,000.00	5,107,000.00	x	1	=	6,893,000.00
	11/13/07	12,000,000.00	5,457,000.00	x	1	=	6,543,000.00
	11/14/07	12,000,000.00	4,733,000.00	x	1	=	7,267,000.00
	11/15/07	12,000,000.00	4,504,000.00	x	1	=	7,496,000.00
	11/16/07	12,000,000.00	4,374,000.00	x	1	=	7,626,000.00
	11/17/07	12,000,000.00	4,374,000.00	x	1	=	7,626,000.00
	11/18/07	12,000,000.00	4,374,000.00	x	1	=	7,626,000.00
	11/19/07	12,000,000.00	4,594,000.00	x	1	=	7,406,000.00
	11/20/07	12,000,000.00	4,117,000.00	x	1	=	7,883,000.00
	11/21/07	12,000,000.00	4,001,000.00	x	1	=	7,999,000.00
	11/22/07	12,000,000.00	4,001,000.00	x	1	=	7,999,000.00
	11/23/07	12,000,000.00	3,878,000.00	x	1	=	8,122,000.00
	11/24/07	12,000,000.00	3,878,000.00	x	1	=	8,122,000.00
	11/25/07	12,000,000.00	3,878,000.00	x	1	=	8,122,000.00
	11/26/07	12,000,000.00	5,798,000.00	x	1	=	6,202,000.00
	11/27/07	12,000,000.00	5,460,000.00	x	1	=	6,540,000.00
	11/28/07	12,000,000.00	6,830,000.00	x	1	=	5,170,000.00
	11/29/07	12,000,000.00	6,467,000.00	x	1	=	5,533,000.00
	11/30/07	12,000,000.00	6,383,000.00	x	1	=	5,617,000.00
			$156,255,000.00		*30*		**$203,745,000.00**
Average Balance:							$6,791,500.00

Beginning Interest Rate:	**October-07**	**0.25000%**	Last months rate
Ending Interest Rate:	**November-07**	**0.25000%**	Unused Bank Fees Rate
Average Interest Rate:		**0.25000%**	

Estimated Interest Bank of America **$1,414.90**

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

DECEMBER-07

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	12/01/07	12,000,000.00	6,383,000.00	x	1	=	5,617,000.00
	12/02/07	12,000,000.00	6,383,000.00	x	1	=	5,617,000.00
	12/03/07	12,000,000.00	5,971,000.00	x	1	=	6,029,000.00
	12/04/07	12,000,000.00	5,419,000.00	x	1	=	6,581,000.00
	12/05/07	12,000,000.00	5,429,000.00	x	1	=	6,571,000.00
	12/06/07	12,000,000.00	5,679,000.00	x	1	=	6,321,000.00
	12/07/07	12,000,000.00	5,260,000.00	x	1	=	6,740,000.00
	12/08/07	12,000,000.00	5,260,000.00	x	1	=	6,740,000.00
	12/09/07	12,000,000.00	5,260,000.00	x	1	=	6,740,000.00
	12/10/07	12,000,000.00	5,153,000.00	x	1	=	6,847,000.00
	12/11/07	12,000,000.00	5,153,000.00	x	1	=	6,847,000.00
	12/12/07	12,000,000.00	6,423,000.00	x	1	=	5,577,000.00
	12/13/07	12,000,000.00	5,983,000.00	x	1	=	6,017,000.00
	12/14/07	12,000,000.00	6,403,000.00	x	1	=	5,597,000.00
	12/15/07	12,000,000.00	6,403,000.00	x	1	=	5,597,000.00
	12/16/07	12,000,000.00	6,403,000.00	x	1	=	5,597,000.00
	12/17/07	12,000,000.00	6,241,000.00	x	1	=	5,759,000.00
	12/18/07	12,000,000.00	6,021,000.00	x	1	=	5,979,000.00
	12/19/07	12,000,000.00	5,593,000.00	x	1	=	6,407,000.00
	12/20/07	12,000,000.00	6,183,000.00	x	1	=	5,817,000.00
	12/21/07	12,000,000.00	5,965,000.00	x	1	=	6,035,000.00
	12/22/07	12,000,000.00	5,965,000.00	x	1	=	6,035,000.00
	12/23/07	12,000,000.00	5,965,000.00	x	1	=	6,035,000.00
	12/24/07	12,000,000.00	5,602,000.00	x	1	=	6,398,000.00
	12/25/07	12,000,000.00	5,602,000.00	x	1	=	6,398,000.00
	12/26/07	12,000,000.00	7,832,000.00	x	1	=	4,168,000.00
	12/27/07	12,000,000.00	9,402,000.00	x	1	=	2,598,000.00
	12/28/07	12,000,000.00	10,512,000.00	x	1	=	1,488,000.00
	12/29/07	12,000,000.00	10,512,000.00	x	1	=	1,488,000.00
	12/30/07	12,000,000.00	10,512,000.00	x	1	=	1,488,000.00
	12/31/07	12,000,000.00	11,122,000.00	x	1	=	878,000.00
			$205,994,000.00		31		$166,006,000.00
Average Balance:							$5,355,032.26

Beginning Interest Rate:	November-07	0.25000%	Last months rate
Ending Interest Rate:	December-07	0.25000%	Unused Bank Fees Rate
Average Interest Rate:		0.25000%	

Estimated Interest Bank of America $1,152.82

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

JANUARY-08

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	01/01/08	12,000,000.00	11,122,000.00	x	1	=	878,000.00
	01/02/08	12,000,000.00	8,876,000.00	x	1	=	3,124,000.00
	01/03/08	12,000,000.00	8,936,000.00	x	1	=	3,064,000.00
	01/04/08	12,000,000.00	8,483,000.00	x	1	=	3,517,000.00
	01/05/08	12,000,000.00	8,483,000.00	x	1	=	3,517,000.00
	01/06/08	12,000,000.00	8,483,000.00	x	1	=	3,517,000.00
	01/07/08	12,000,000.00	8,154,000.00	x	1	=	3,846,000.00
	01/08/08	12,000,000.00	7,808,000.00	x	1	=	4,192,000.00
	01/09/08	12,000,000.00	7,226,000.00	x	1	=	4,774,000.00
	01/10/08	12,000,000.00	6,805,000.00	x	1	=	5,195,000.00
	01/11/08	12,000,000.00	6,845,000.00	x	1	=	5,155,000.00
	01/12/08	12,000,000.00	6,845,000.00	x	1	=	5,155,000.00
	01/13/08	12,000,000.00	6,845,000.00	x	1	=	5,155,000.00
	01/14/08	12,000,000.00	7,425,000.00	x	1	=	4,575,000.00
	01/15/08	12,000,000.00	6,768,000.00	x	1	=	5,232,000.00
	01/16/08	12,000,000.00	6,263,000.00	x	1	=	5,737,000.00
	01/17/08	12,000,000.00	6,943,000.00	x	1	=	5,057,000.00
	01/18/08	12,000,000.00	7,443,000.00	x	1	=	4,557,000.00
	01/19/08	12,000,000.00	7,443,000.00	x	1	=	4,557,000.00
	01/20/08	12,000,000.00	7,443,000.00	x	1	=	4,557,000.00
	01/21/08	12,000,000.00	7,443,000.00	x	1	=	4,557,000.00
	01/22/08	12,000,000.00	9,153,000.00	x	1	=	2,847,000.00
	01/23/08	12,000,000.00	8,539,000.00	x	1	=	3,461,000.00
	01/24/08	12,000,000.00	9,679,000.00	x	1	=	2,321,000.00
	01/25/08	12,000,000.00	11,289,000.00	x	1	=	711,000.00
	01/26/08	12,000,000.00	11,289,000.00	x	1	=	711,000.00
	01/27/08	12,000,000.00	11,289,000.00	x	1	=	711,000.00
	01/28/08	12,000,000.00	10,953,000.00	x	1	=	1,047,000.00
	01/29/08	12,000,000.00	10,063,000.00	x	1	=	1,937,000.00
	01/30/08	12,000,000.00	9,298,000.00	x	1	=	2,702,000.00
	01/31/08	12,000,000.00	9,230,000.00	x	1	=	2,770,000.00
			$262,864,000.00		31		$109,136,000.00
Average Balance:							$3,520,516.13

Beginning Interest Rate:	December-07	0.25000%	Last months rate
Ending Interest Rate:	January-08	0.25000%	Unused Bank Fees Rate
Average Interest Rate:		0.25000%	

Estimated Interest Bank of America $757.89

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

FEBRUARY-08

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	02/01/08	12,000,000.00	8,874,000.00	x	1	=	3,126,000.00
	02/02/08	12,000,000.00	8,874,000.00	x	1	=	3,126,000.00
	02/03/08	12,000,000.00	8,874,000.00	x	1	=	3,126,000.00
	02/04/08	12,000,000.00	8,364,000.00	x	1	=	3,636,000.00
	02/05/08	12,000,000.00	7,754,000.00	x	1	=	4,246,000.00
	02/06/08	12,000,000.00	7,469,000.00	x	1	=	4,531,000.00
	02/07/08	12,000,000.00	7,094,000.00	x	1	=	4,906,000.00
	02/08/08	12,000,000.00	6,583,000.00	x	1	=	5,417,000.00
	02/09/08	12,000,000.00	6,583,000.00	x	1	=	5,417,000.00
	02/10/08	12,000,000.00	6,583,000.00	x	1	=	5,417,000.00
	02/11/08	12,000,000.00	6,575,000.00	x	1	=	5,425,000.00
	02/12/08	12,000,000.00	5,959,000.00	x	1	=	6,041,000.00
	02/13/08	12,000,000.00	5,345,000.00	x	1	=	6,655,000.00
	02/14/08	12,000,000.00	5,565,000.00	x	1	=	6,435,000.00
	02/15/08	12,000,000.00	5,200,000.00	x	1	=	6,800,000.00
	02/16/08	12,000,000.00	5,200,000.00	x	1	=	6,800,000.00
	02/17/08	12,000,000.00	5,200,000.00	x	1	=	6,800,000.00
	02/18/08	12,000,000.00	5,200,000.00	x	1	=	6,800,000.00
	02/19/08	12,000,000.00	6,780,000.00	x	1	=	5,220,000.00
	02/20/08	12,000,000.00	6,668,000.00	x	1	=	5,332,000.00
	02/21/08	12,000,000.00	5,979,000.00	x	1	=	6,021,000.00
	02/22/08	12,000,000.00	5,500,000.00	x	1	=	6,500,000.00
	02/23/08	12,000,000.00	5,500,000.00	x	1	=	6,500,000.00
	02/24/08	12,000,000.00	5,500,000.00	x	1	=	6,500,000.00
	02/25/08	12,000,000.00	8,369,000.00	x	1	=	3,631,000.00
	02/26/08	12,000,000.00	7,377,000.00	x	1	=	4,623,000.00
	02/27/08	12,000,000.00	6,311,000.00	x	1	=	5,689,000.00
	02/28/08	12,000,000.00	7,121,000.00	x	1	=	4,879,000.00
	02/29/08	12,000,000.00	6,614,000.00	x	1	=	5,386,000.00
			$193,015,000.00		**29**		**$154,985,000.00**

Average Balance: $5,344,310.34

Beginning Interest Rate:	**January-08**	**0.25000%**	Last months rate
Ending Interest Rate:	**February-08**	**0.25000%**	Unused Bank Fees Rate
Average Interest Rate:		**0.25000%**	

Estimated Interest Bank of America **$1,076.28**

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

MARCH-08

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	03/01/08	12,000,000.00	6,614,000.00	x	1	=	5,386,000.00
	03/02/08	12,000,000.00	6,614,000.00	x	1	=	5,386,000.00
	03/03/08	12,000,000.00	8,334,000.00	x	1	=	3,666,000.00
	03/04/08	12,000,000.00	7,665,000.00	x	1	=	4,335,000.00
	03/05/08	12,000,000.00	7,075,000.00	x	1	=	4,925,000.00
	03/06/08	12,000,000.00	6,716,000.00	x	1	=	5,284,000.00
	03/07/08	12,000,000.00	6,086,000.00	x	1	=	5,914,000.00
	03/08/08	12,000,000.00	6,086,000.00	x	1	=	5,914,000.00
	03/09/08	12,000,000.00	6,086,000.00	x	1	=	5,914,000.00
	03/10/08	12,000,000.00	5,664,000.00	x	1	=	6,336,000.00
	03/11/08	12,000,000.00	5,493,000.00	x	1	=	6,507,000.00
	03/12/08	12,000,000.00	4,707,000.00	x	1	=	7,293,000.00
	03/13/08	12,000,000.00	5,007,000.00	x	1	=	6,993,000.00
	03/14/08	12,000,000.00	4,810,000.00	x	1	=	7,190,000.00
	03/15/08	12,000,000.00	4,810,000.00	x	1	=	7,190,000.00
	03/16/08	12,000,000.00	4,810,000.00	x	1	=	7,190,000.00
	03/17/08	12,000,000.00	4,840,000.00	x	1	=	7,160,000.00
	03/18/08	12,000,000.00	4,585,000.00	x	1	=	7,415,000.00
	03/19/08	12,000,000.00	3,956,000.00	x	1	=	8,044,000.00
	03/20/08	12,000,000.00	6,086,000.00	x	1	=	5,914,000.00
	03/21/08	12,000,000.00	7,296,000.00	x	1	=	4,704,000.00
	03/22/08	12,000,000.00	7,296,000.00	x	1	=	4,704,000.00
	03/23/08	12,000,000.00	7,296,000.00	x	1	=	4,704,000.00
	03/24/08	12,000,000.00	6,696,000.00	x	1	=	5,304,000.00
	03/25/08	12,000,000.00	9,486,000.00	x	1	=	2,514,000.00
	03/26/08	12,000,000.00	8,664,000.00	x	1	=	3,336,000.00
	03/27/08	12,000,000.00	9,554,000.00	x	1	=	2,446,000.00
	03/28/08	12,000,000.00	9,120,000.00	x	1	=	2,880,000.00
	03/29/08	12,000,000.00	9,120,000.00	x	1	=	2,880,000.00
	03/30/08	12,000,000.00	9,120,000.00	x	1	=	2,880,000.00
	03/31/08	12,000,000.00	9,680,000.00	x	1	=	2,320,000.00
			$209,372,000.00		**31**		**$162,628,000.00**
Average Balance:							$5,246,064.52

Beginning Interest Rate:	**February-08**	**0.25000%**	Last months rate
Ending Interest Rate:	**March-08**	**0.25000%**	Unused Bank Fees Rate
Average Interest Rate:		**0.25000%**	

Estimated Interest Bank of America **$1,129.36**

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

APRIL-08

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	04/01/08	15,000,000.00	8,274,000.00	x	1	=	6,726,000.00
	04/02/08	15,000,000.00	7,679,000.00	x	1	=	7,321,000.00
	04/03/08	15,000,000.00	7,161,000.00	x	1	=	7,839,000.00
	04/04/08	15,000,000.00	6,421,000.00	x	1	=	8,579,000.00
	04/05/08	15,000,000.00	6,421,000.00	x	1	=	8,579,000.00
	04/06/08	15,000,000.00	6,421,000.00	x	1	=	8,579,000.00
	04/07/08	15,000,000.00	5,956,000.00	x	1	=	9,044,000.00
	04/08/08	15,000,000.00	5,084,000.00	x	1	=	9,916,000.00
	04/09/08	15,000,000.00	4,548,000.00	x	1	=	10,452,000.00
	04/10/08	15,000,000.00	4,648,000.00	x	1	=	10,352,000.00
	04/11/08	15,000,000.00	5,758,000.00	x	1	=	9,242,000.00
	04/12/08	15,000,000.00	5,758,000.00	x	1	=	9,242,000.00
	04/13/08	15,000,000.00	5,758,000.00	x	1	=	9,242,000.00
	04/14/08	15,000,000.00	6,988,000.00	x	1	=	8,012,000.00
	04/15/08	15,000,000.00	6,388,000.00	x	1	=	8,612,000.00
	04/16/08	15,000,000.00	6,066,000.00	x	1	=	8,934,000.00
	04/17/08	15,000,000.00	5,712,000.00	x	1	=	9,288,000.00
	04/18/08	15,000,000.00	5,952,000.00	x	1	=	9,048,000.00
	04/19/08	15,000,000.00	5,952,000.00	x	1	=	9,048,000.00
	04/20/08	15,000,000.00	5,952,000.00	x	1	=	9,048,000.00
	04/21/08	15,000,000.00	628,200.00	x	1	=	14,371,800.00
	04/22/08	15,000,000.00	6,108,000.00	x	1	=	8,892,000.00
	04/23/08	15,000,000.00	5,511,000.00	x	1	=	9,489,000.00
	04/24/08	15,000,000.00	5,372,000.00	x	1	=	9,628,000.00
	04/25/08	15,000,000.00	10,252,000.00	x	1	=	4,748,000.00
	04/26/08	15,000,000.00	10,252,000.00	x	1	=	4,748,000.00
	04/27/08	15,000,000.00	10,252,000.00	x	1	=	4,748,000.00
	04/28/08	15,000,000.00	9,400,000.00	x	1	=	5,600,000.00
	04/29/08	15,000,000.00	8,670,000.00	x	1	=	6,330,000.00
	04/30/08	15,000,000.00	8,181,000.00	x	1	=	6,819,000.00
			$197,523,200.00		**30**		**$252,476,800.00**
Average Balance:							$8,415,893.33

Beginning Interest Rate:	**March-08**	**0.25000%**	Last months rate
Ending Interest Rate:	**April-08**	**0.25000%**	Unused Bank Fees Rate
Average Interest Rate:		**0.25000%**	

Estimated Interest Bank of America **$1,753.31**

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

MAY-08

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	05/01/08	15,000,000.00	10,311,000.00	x	1	=	4,689,000.00
	05/02/08	15,000,000.00	9,611,000.00	x	1	=	5,389,000.00
	05/03/08	15,000,000.00	9,611,000.00	x	1	=	5,389,000.00
	05/04/08	15,000,000.00	9,611,000.00	x	1	=	5,389,000.00
	05/05/08	15,000,000.00	9,040,000.00	x	1	=	5,960,000.00
	05/06/08	15,000,000.00	8,480,000.00	x	1	=	6,520,000.00
	05/07/08	15,000,000.00	7,854,000.00	x	1	=	7,146,000.00
	05/08/08	15,000,000.00	8,174,000.00	x	1	=	6,826,000.00
	05/09/08	15,000,000.00	8,244,000.00	x	1	=	6,756,000.00
	05/10/08	15,000,000.00	8,244,000.00	x	1	=	6,756,000.00
	05/11/08	15,000,000.00	8,244,000.00	x	1	=	6,756,000.00
	05/12/08	15,000,000.00	7,766,000.00	x	1	=	7,234,000.00
	05/13/08	15,000,000.00	7,266,000.00	x	1	=	7,734,000.00
	05/14/08	15,000,000.00	7,140,000.00	x	1	=	7,860,000.00
	05/15/08	15,000,000.00	6,834,000.00	x	1	=	8,166,000.00
	05/16/08	15,000,000.00	8,224,000.00	x	1	=	6,776,000.00
	05/17/08	15,000,000.00	8,224,000.00	x	1	=	6,776,000.00
	05/18/08	15,000,000.00	8,224,000.00	x	1	=	6,776,000.00
	05/19/08	15,000,000.00	7,916,000.00	x	1	=	7,084,000.00
	05/20/08	15,000,000.00	8,296,000.00	x	1	=	6,704,000.00
	05/21/08	15,000,000.00	7,927,000.00	x	1	=	7,073,000.00
	05/22/08	15,000,000.00	8,297,000.00	x	1	=	6,703,000.00
	05/23/08	15,000,000.00	7,987,000.00	x	1	=	7,013,000.00
	05/24/08	15,000,000.00	7,987,000.00	x	1	=	7,013,000.00
	05/25/08	15,000,000.00	7,987,000.00	x	1	=	7,013,000.00
	05/26/08	15,000,000.00	7,987,000.00	x	1	=	7,013,000.00
	05/27/08	15,000,000.00	10,727,000.00	x	1	=	4,273,000.00
	05/28/08	15,000,000.00	10,094,000.00	x	1	=	4,906,000.00
	05/29/08	15,000,000.00	11,524,000.00	x	1	=	3,476,000.00
	05/30/08	15,000,000.00	10,803,000.00	x	1	=	4,197,000.00
	05/31/08	12,000,000.00	10,803,000.00	x	1	=	1,197,000.00
			$269,437,000.00		31		$192,563,000.00
Average Balance:							$6,211,709.68

Beginning Interest Rate:	April-08	0.25000%	Last months rate
Ending Interest Rate:	May-08	0.25000%	Unused Bank Fees Rate
Average Interest Rate:		0.25000%	

Estimated Interest Bank of America $1,337.24

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

JUNE-08

Bank of America

	Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
06/01/08	15,000,000.00	10,803,000.00	x	1	=	4,197,000.00
06/02/08	15,000,000.00	10,559,000.00	x	1	=	4,441,000.00
06/03/08	15,000,000.00	9,679,000.00	x	1	=	5,321,000.00
06/04/08	15,000,000.00	8,880,000.00	x	1	=	6,120,000.00
06/05/08	15,000,000.00	8,804,000.00	x	1	=	6,196,000.00
06/06/08	15,000,000.00	9,244,000.00	x	1	=	5,756,000.00
06/07/08	15,000,000.00	9,244,000.00	x	1	=	5,756,000.00
06/08/08	15,000,000.00	9,244,000.00	x	1	=	5,756,000.00
06/09/08	15,000,000.00	8,244,000.00	x	1	=	6,756,000.00
06/10/08	15,000,000.00	7,399,000.00	x	1	=	7,601,000.00
06/11/08	15,000,000.00	7,599,000.00	x	1	=	7,401,000.00
06/12/08	15,000,000.00	7,043,000.00	x	1	=	7,957,000.00
06/13/08	15,000,000.00	6,393,000.00	x	1	=	8,607,000.00
06/14/08	15,000,000.00	6,393,000.00	x	1	=	8,607,000.00
06/15/08	15,000,000.00	6,393,000.00	x	1	=	8,607,000.00
06/16/08	15,000,000.00	8,263,000.00	x	1	=	6,737,000.00
06/17/08	15,000,000.00	8,046,000.00	x	1	=	6,954,000.00
06/18/08	15,000,000.00	7,640,000.00	x	1	=	7,360,000.00
06/19/08	15,000,000.00	8,010,000.00	x	1	=	6,990,000.00
06/20/08	15,000,000.00	7,904,000.00	x	1	=	7,096,000.00
06/21/08	15,000,000.00	7,904,000.00	x	1	=	7,096,000.00
06/22/08	15,000,000.00	7,904,000.00	x	1	=	7,096,000.00
06/23/08	15,000,000.00	7,845,000.00	x	1	=	7,155,000.00
06/24/08	15,000,000.00	7,157,000.00	x	1	=	7,843,000.00
06/25/08	15,000,000.00	11,077,000.00	x	1	=	3,923,000.00
06/26/08	15,000,000.00	12,947,000.00	x	1	=	2,053,000.00
06/27/08	15,000,000.00	12,279,000.00	x	1	=	2,721,000.00
06/28/08	15,000,000.00	12,279,000.00	x	1	=	2,721,000.00
06/29/08	15,000,000.00	12,279,000.00	x	1	=	2,721,000.00
06/30/08	15,000,000.00	12,529,000.00	x	1	=	2,471,000.00
		$269,984,000.00		30		$180,016,000.00

Average Balance: $6,000,533.33

Beginning Interest Rate:	May-08	0.25000%	Last months rate
Ending Interest Rate:	June-08	0.25000%	Unused Bank Fees Rate
Average Interest Rate:		0.25000%	

Estimated Interest Bank of America $1,250.11

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

JULY-08

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	07/01/08	15,000,000.00	11,864,000.00	x	1	=	3,136,000.00
	07/02/08	15,000,000.00	11,674,000.00	x	1	=	3,326,000.00
	07/03/08	15,000,000.00	11,626,000.00	x	1	=	3,374,000.00
	07/04/08	15,000,000.00	11,626,000.00	x	1	=	3,374,000.00
	07/05/08	15,000,000.00	11,626,000.00	x	1	=	3,374,000.00
	07/06/08	15,000,000.00	11,626,000.00	x	1	=	3,374,000.00
	07/07/08	15,000,000.00	11,385,000.00	x	1	=	3,615,000.00
	07/08/08	15,000,000.00	10,639,000.00	x	1	=	4,361,000.00
	07/09/08	15,000,000.00	9,755,000.00	x	1	=	5,245,000.00
	07/10/08	15,000,000.00	9,069,000.00	x	1	=	5,931,000.00
	07/11/08	15,000,000.00	7,530,000.00	x	1	=	7,470,000.00
	07/12/08	15,000,000.00	7,530,000.00	x	1	=	7,470,000.00
	07/13/08	15,000,000.00	7,530,000.00	x	1	=	7,470,000.00
	07/14/08	15,000,000.00	7,120,000.00	x	1	=	7,880,000.00
	07/15/08	15,000,000.00	6,985,000.00	x	1	=	8,015,000.00
	07/16/08	15,000,000.00	6,511,000.00	x	1	=	8,489,000.00
	07/17/08	15,000,000.00	8,671,000.00	x	1	=	6,329,000.00
	07/18/08	15,000,000.00	8,542,000.00	x	1	=	6,458,000.00
	07/19/08	15,000,000.00	8,542,000.00	x	1	=	6,458,000.00
	07/20/08	15,000,000.00	8,542,000.00	x	1	=	6,458,000.00
	07/21/08	15,000,000.00	8,742,000.00	x	1	=	6,258,000.00
	07/22/08	15,000,000.00	8,356,000.00	x	1	=	6,644,000.00
	07/23/08	15,000,000.00	7,793,000.00	x	1	=	7,207,000.00
	07/24/08	15,000,000.00	7,280,000.00	x	1	=	7,720,000.00
	07/25/08	15,000,000.00	11,270,000.00	x	1	=	3,730,000.00
	07/26/08	15,000,000.00	11,270,000.00	x	1	=	3,730,000.00
	07/27/08	15,000,000.00	11,270,000.00	x	1	=	3,730,000.00
	07/28/08	15,000,000.00	11,740,000.00	x	1	=	3,260,000.00
	07/29/08	15,000,000.00	11,182,000.00	x	1	=	3,818,000.00
	07/30/08	15,000,000.00	10,421,000.00	x	1	=	4,579,000.00
	07/31/08	12,000,000.00	10,388,000.00	x	1	=	1,612,000.00
			$298,105,000.00		**31**		**$163,895,000.00**
Average Balance:							$5,286,935.48

***Beginning* Interest Rate:**	**June-08**	**0.25000%**	Last months rate
Ending Interest Rate:	**July-08**	**0.25000%**	Unused Bank Fees Rate
Average Interest Rate:		**0.25000%**	

Estimated Interest Bank of America **$1,138.16**

SCHEDULE "L (b)

FEE FOR UNUSED L.O.C (BOA)
FLORIDA PUBLIC UTILITIES COMPANY - 100.2420.8

AUGUST-08

Bank of America		Total Availible L.O.C.	Outstanding Balance		Days		Unsed Bank Fee
	08/01/08	15,000,000.00	10,294,000.00	x	1	=	4,706,000.00
	08/02/08	15,000,000.00	10,294,000.00	x	1	=	4,706,000.00
	08/03/08	15,000,000.00	10,294,000.00	x	1	=	4,706,000.00
	08/04/08	15,000,000.00	10,030,000.00	x	1	=	4,970,000.00
	08/05/08	15,000,000.00	9,284,000.00	x	1	=	5,716,000.00
	08/06/08	15,000,000.00	8,609,000.00	x	1	=	6,391,000.00
	08/07/08	15,000,000.00	8,049,000.00	x	1	=	6,951,000.00
	08/08/08	15,000,000.00	7,473,000.00	x	1	=	7,527,000.00
	08/09/08	15,000,000.00	7,473,000.00	x	1	=	7,527,000.00
	08/10/08	15,000,000.00	7,473,000.00	x	1	=	7,527,000.00
	08/11/08	15,000,000.00	7,038,000.00	x	1	=	7,962,000.00
	08/12/08	15,000,000.00	6,435,000.00	x	1	=	8,565,000.00
	08/13/08	15,000,000.00	5,780,000.00	x	1	=	9,220,000.00
	08/14/08	15,000,000.00	5,659,000.00	x	1	=	9,341,000.00
	08/15/08	15,000,000.00	5,354,000.00	x	1	=	9,646,000.00
	08/16/08	15,000,000.00	5,354,000.00	x	1	=	9,646,000.00
	08/17/08	15,000,000.00	5,354,000.00	x	1	=	9,646,000.00
	08/18/08	15,000,000.00	7,274,000.00	x	1	=	7,726,000.00
	08/19/08	15,000,000.00	7,165,000.00	x	1	=	7,835,000.00
	08/20/08	15,000,000.00	7,052,000.00	x	1	=	7,948,000.00
	08/21/08	15,000,000.00	6,813,000.00	x	1	=	8,187,000.00
	08/22/08	15,000,000.00	5,645,000.00	x	1	=	9,355,000.00
	08/23/08	15,000,000.00	5,645,000.00	x	1	=	9,355,000.00
	08/24/08	15,000,000.00	5,645,000.00	x	1	=	9,355,000.00
	08/25/08	15,000,000.00	9,065,000.00	x	1	=	5,935,000.00
	08/26/08	15,000,000.00	8,228,000.00	x	1	=	6,772,000.00
	08/27/08	15,000,000.00	11,178,000.00	x	1	=	3,822,000.00
	08/28/08	15,000,000.00	11,318,000.00	x	1	=	3,682,000.00
	08/29/08	15,000,000.00	10,924,000.00	x	1	=	4,076,000.00
	08/30/08	15,000,000.00	10,924,000.00	x	1	=	4,076,000.00
	08/31/08	15,000,000.00	10,924,000.00	x	1	=	4,076,000.00
			$248,047,000.00		**31**		**$216,953,000.00**
Average Balance:							$6,998,483.87

Beginning Interest Rate:	**July-08**	***0.25000%***	*Last months rate*
Ending Interest Rate:	**August-08**	**0.25000%**	Unused Bank Fees Rate
Average Interest Rate:		***0.25000%***	

Estimated Interest Bank of America **$1,506.62**

SCHEDULE "L (b)

Florida Public Utilities
ST Debt Effective Cost
Projected Test Year 2009
Witnesses: Camfield, Cox

Effective Cost of Short Term Debt

	Nominal Rate	Effective Cost
Projected Fed Funds	2.98%	2.98%
LIBOR Margin	0.17%	0.17%
BOA Spread	0.80%	0.80%
BOA Projected Int Rate	3.95%	3.95%
BOA Fee on Unused Portion of LOC	0.25%	0.47%
BOA Fee on Total Available LOC	0.10%	0.29%
Cost of ST Debt	4.30%	4.71%

Total Int Exp & Fees	$ 425,682	=	4.71%
Average LOC Balance	$ 9,045,471		

		2008 DEC	2009 JAN	2009 FEB	2009 MAR	2009 APR	2009 MAY	2009 JUN	2009 JUL	2009 AUG	2009 SEP	2009 OCT	2009 NOV	2009 DEC		Effective Cost of ST Debt
Projected Credit Limit	[1]	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**	**26,000,000**		
LOC Ending Balance	[2]	19,324,000	18,724,000	17,224,000	16,224,000	17,424,000	19,424,000	19,424,000	5,924,000	6,924,000	7,024,000	8,724,000	11,324,000	11,524,000	Average Balance based month end 13,785,538 (1)	
Average Monthly LOC Balance	[3]		12,711,453	11,693,124	11,014,239	11,828,901	13,186,673	13,186,673	4,021,718	4,700,603	4,768,492	5,922,597	7,687,700	7,823,477	Average Balance based on monthly avg 9,045,471 (3)	
		Nominal Rate													Total Expense	
BOA Projected Int Rate	[4]	3.95%	$ 41,842	$ 38,490	$ 36,255	$ 38,937	$ 43,406	$ 43,406	$ 13,238	$ 15,473	$ 15,696	$ 19,495	$ 25,305	$ 25,752	$ 357,296	3.95%
BOA Fee on Unused Portion of LOC	[5]	0.25%	$ 2,768	$ 2,981	$ 3,122	$ 2,952	$ 2,669	$ 2,669	$ 4,579	$ 4,437	$ 4,423	$ 4,183	$ 3,815	$ 3,787	$ 42,386	0.47%
BOA Fee on Total Available LOC	[6]	0.10%						$ 26,000							$ 26,000	0.29%
			44,610	41,470	39,377	41,889	46,076	72,076	17,817	19,910	20,120	23,678	29,120	29,539	425,682	4.71% (2)

Notes:

[1] Available LOC $26M
[2] Projected Month-end LOC balance as per Cash Forecast.
[3] Average Monthly Balance.
[4] BOA Agreement calulates interest on the daily balance outstanding, which fluctuates significantly.
[5] BOA Agreement - 0.25% per annum of the average daily unused amount of the availability.
[6] BOA Agreement - 0.10% of the availability on June 30th.

COPY

LIST OF CLOSING DOCUMENTS

RENEWAL AND MODIFICATION

OF

$26,000,000

LINE OF CREDIT

FROM

BANK OF AMERICA, N.A.

TO

FLORIDA PUBLIC UTILITIES COMPANY

1. Second Amendment to Amended and Restated Loan Agreement.
2. Revolving Promissory Note.
3. Borrower's Certificate.
4. Out-of State Closing Affidavit.
5. Closing Statement/Funding Instruction Letter.

SECOND AMENDMENT TO AMENDED AND RESTATED LOAN AGREEMENT

This **SECOND AMENDMENT TO AMENDED AND RESTATED LOAN AGREEMENT** (this "**Amendment**") is dated as of March 21, 2008, is between **FLORIDA PUBLIC UTILITIES COMPANY**, a Florida corporation (the "**Company**") and **BANK OF AMERICA, N.A.**, a national banking association (the "**Lender**"), and amends that certain Amended and Restated Loan Agreement (as previously amended, the "**Original Agreement**"), dated October 29, 2004, between the Company and the Lender.

Section 1. Section 2.01(a) of the Original Agreement is amended to provide:

(a) Establishment of Line of Credit. On the Closing Date, and upon fulfillment of the applicable conditions set forth herein, the Lender shall establish in favor of the Company a revolving line of credit (the "**Revolving Line of Credit**") in the amount of the Availability. Subject to reduction as herein provided, the Availability is $26,000,000.00. The Company shall be entitled to borrow, repay and reborrow funds from the Lender in accordance with the terms hereof so long as the sum of (i) the total principal amount owed to the Lender under the Revolving Line of Credit plus (ii) the Outstanding Letter of Credit Amount (as defined in **Section 2.01(e)**) does not exceed the Availability. This indebtedness shall be evidenced by a Revolving Promissory Note (as amended, extended or renewed from time to time, the "**Promissory Note**") of even date herewith executed by the Company in favor of the Lender in the principal amount of up to $26,000,000. The Promissory Note shall bear interest at the rate set forth therein and shall be payable as set forth therein.

The Revolving Line of Credit shall terminate on July 1, 2010 (as such date may be extended, the "**Expiration Date**"). The Expiration Date will be considered renewed if and only if the Lender has sent to the Company a written notice of renewal (the "Renewal Notice"). If the Revolving Line of Credit is renewed, it will continue to be subject to all the terms and conditions set forth in this Loan Agreement except as modified by the Renewal Notice. If the Revolving Line of Credit is renewed, the term "Expiration Date" shall mean the date set forth in the Renewal Notice as the Expiration Date and the same process for renewal will apply to any subsequent renewal of the Revolving Line of Credit. A renewal fee may be charged at the Lender's option. The amount of any renewal fee will be specified in the Renewal Notice.

The Lender shall not in any event be required to make an Advance during the continuance of an Event of Default or if any change in the financial condition of the Company occurs which, in the Lender's discretion, is material and adverse.

At any time the Company may permanently reduce the Availability in increments of $1,000,000.00 by providing not less than 30 days' prior written notice to the Lender, requesting the decrease and specifying the effective date thereof (the date of the first such decrease being referred to herein as the "**Reduction Date**").

Section 2. The Company shall pay the Bank a facility fee in the amount of $35,874.00.

Section 3. The Company agrees to pay the fee of counsel to the Lender, Holland & Knight LLP, in the amount of $750.00, within 15 days after billing, and failing such payment authorize the Lender to debit such fee from any account of the Company maintained at the Lender.

Section 4. The Company acknowledges that the Original Agreement remains in full force and effect except as modified by or as described herein. The Company affirms all representations and warranties made by it in the Original Agreement as of the date hereof. The Company affirms the grant of the security interest made by it in the Security Agreement dated October 29, 2004. The Company affirms that the Tax Indemnity Agreement dated October 29, 2004 between the Company and the Lender remains in effect and encompasses the Loan and the Promissory Note as modified hereby.

Section 5. This Amendment may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Second Amendment to Amended and Restated Loan Agreement to be duly executed and delivered by their respective officers thereunto duly authorized as of the date first above written.

FLORIDA PUBLIC UTILITIES COMPANY

By: _____
Name: George M. Bachman
Title: CFO and Treasurer

witness

BANK OF AMERICA, N.A.

By: _____
Name: Steven J. Whittingslow
Title: Senior Vice President

witness

OUT OF STATE CLOSING AFFIDAVIT

FREEPORT, GRAND BAHAMA

On the 21st day of March, 2008, in Freeport Grand Bahama, George Bachman, Chief Financial Officer/Treasurer of Florida Public Utilities Company (the "Borrower") executed and delivered to Steven Whittingslow, a Senior Vice President of Bank of America, N.A. (the "Lender") a Renewal Revolving Promissory Note in the principal amount of $26,000,000 payable to the Lender and a Second Amendment to Amended and Restated Loan Agreement, both dated of even date herewith. The Borrower personally delivered such documents to the Lender, and the Lender accepted such documents in the State and County set forth above.

witness

witness

George Bachman

Steven Whittingslow

Renewal Revolving Promissory Note

Effective Date: March 21, 2008
Amount: $26,000,000.00

Maturity Date: July 1, 2010

Lender:	Borrower:
Bank of America, N.A. 9000 Southside Boulevard Building 100 FL9-100-03-15 Jacksonville, FL 32256-0793	Florida Public Utilities Company 401 South Dixie Highway West Palm Beach, FL 33401

FOR VALUE RECEIVED, Florida Public Utilities Company (the "Borrower") unconditionally promises to pay to the order of Bank of America, N.A. and its successors and assigns (the "Lender"), without setoff, in immediately available funds, at its offices indicated at the beginning of this Note, or at such other place as may be designated by Lender (the "Payment Office of Lender"), the principal amount of Twenty-Six Million Dollars ($26,000,000.00), or so much thereof as may be advanced from time to time, together with interest computed daily on the outstanding principal balance hereunder, at an annual interest rate, and in accordance with the payment schedule, indicated below.

1. **Rate. Variable Interest Rate.** The interest rate on this Note is a fluctuating rate of interest based upon "The Wall Street Journal LIBOR One Month Floating Rate." The Wall Street Journal LIBOR One Month Floating Rate is a fluctuating rate of interest equal to the one month London Interbank Offered Rate as published in the "Money Rates" section of The Wall Street Journal (or, if such source is not available, such alternate source as determined by the Lender) as adjusted from time to time in the Lender's sole discretion for reserve requirements, deposit insurance assessment rates and other regulatory costs (the "Index"). Any change in the Index, and thus, the interest rate on this Note, will take effect on the effective date as indicated in The Wall Street Journal (or any alternate source described herein). Interest will accrue on any day which is not a Business Day at the rate in effect on the immediately preceding Business Day. A Business Day is any day other than a Saturday or Sunday or day on which the Payment Office of Lender is lawfully closed.

The interest rate to be applied to the unpaid principal balance of this Note will be at a rate equal to the Index plus an additional percentage per annum (the "Spread"). The Spread will be 0.80% per annum.

Notwithstanding any provision of this Note, Lender does not intend to charge and Borrower shall not be required to pay any amount of interest or other charges in excess of the maximum permitted by the applicable law. Any payment in excess of such maximum shall be credited against the principal balance of this Note and any remaining excess shall be refunded to the Borrower.

2. **Accrual Method.** The interest rate on this Note shall be computed on a 360/actual basis; that is, by applying the ratio of the annual interest rate over a year of 360 days, multiplied by the

outstanding principal balance, multiplied by the actual number of days the principal balance is outstanding.

3. **Payment Schedule.** All payments received hereunder shall be applied first to the payment of any expense or charges payable hereunder or under any other Loan Documents executed in connection with this Note, then to interest due and payable, with the balance applied to principal, or in such other order as Lender shall determine at its option. Principal shall be paid in full in a single payment on July 1, 2010 (the "Maturity Date"). Interest on the principal amount outstanding hereunder shall be paid monthly, commencing on April 1, 2008, and continuing on the same day of each consecutive month thereafter, with a final payment of all unpaid interest at the stated maturity of this Note.

This Note may be renewed effective July 1, 2010 and thereafter if and only if the Lender has sent to the Borrower a written notice of renewal (the "Renewal Notice") effective as of the Maturity Date and the Borrower has accepted the same. If this Note is renewed, it will continue to be subject to all the terms and conditions set forth herein except as modified by the Renewal Notice. If this Note is renewed, the term "Maturity Date" shall mean the date set forth in the Renewal Notice as the Maturity Date, and all outstanding principal plus all accrued interest shall be paid on the Maturity Date. The same process for renewal will apply to any subsequent renewal of this Note. A renewal fee may be charged at Lender's option. The amount of the renewal fee will be specified in the Renewal Notice.

4. **Revolving Feature; Availability**. The Borrower may borrow, repay and reborrow under this Note from time to time up to Availability (as defined in the hereinafter described Loan Agreement), by requesting advances as provided in the Loan Agreement.

5. **Automatic Payment.** Borrower has elected to authorize Lender to effect payment of interest due under this Note by means of debiting Borrower's account number 5488080210. This authorization shall not affect the obligation of Borrower to pay such sums when due, without notice, if there are insufficient funds in such account to make such payment in full on the due date thereof, or if Lender fails to debit the account.

6. **Waivers, Consents and Covenants**. Borrower, any indorser or guarantor hereof, or any other party hereto (individually an "Obligor" and collectively "Obligors") and each of them, jointly and severally: (a) waive presentment, demand, protest, notice of demand, notice of intent to accelerate, notice of acceleration of maturity, notice of protest, notice of nonpayment, notice of dishonor, and any other notice otherwise required to be given under the law to any Obligor in connection with the delivery, acceptance, performance, default or enforcement of this Note, any indorsement or guaranty of this Note, or any other documents executed in connection with this Note including, but not limited to, the Amended and Restated Loan Agreement, dated October 29, 2004, between Lender and Borrower, as amended (as so amended, the "Loan Agreement") and the Related Documents described therein (the "Loan Documents"); (b) consent to all delays, extensions, renewals or other modifications of this Note or the Loan Documents, or waivers of any term hereof or of the Loan Documents, or release or discharge by Lender of any Obligor, or release, substitution or exchange of any security for the payment hereof, or the failure to act on the part of Lender, or any indulgence shown by Lender (without notice to or further assent from any Obligor), and agree that no such action, failure to act or failure to exercise any right or remedy by Lender shall in any way affect or

impair the obligations of any Obligor or be construed as a waiver by Lender of, or otherwise affect, any of Lender's rights under this Note, under any indorsement or guaranty of this Note or under any of the Loan Documents; and (c) agree to pay, on demand, all costs and expenses of collection or defense of this Note or of any indorsement or guaranty hereof and/or the enforcement or defense of Lender's rights with respect to, or the administration, supervision, preservation, or protection of, or realization upon, any property securing payment hereof, including, without limitation, reasonable attorney's and paralegal's fees, including fees related to any suit, mediation or arbitration proceeding, out of court payment agreement, trial, appeal, bankruptcy proceedings or other proceeding, in such amount as may be determined reasonable by any arbitrator or court, whichever is applicable.

7. **Indemnification**. Obligor agrees to promptly pay, indemnify and hold Lender harmless from all State and Federal taxes of any kind (except State and Federal taxes based on income received by Lender, which shall not be an obligation of Obligor) and other liabilities with respect to or resulting from the execution and/or delivery of this Note or any advances made pursuant to this Note. Obligor expressly consents to the deduction of any applicable taxes from each advance extended by Lender hereunder.

8. **Prepayments**. Prepayments may be made in whole or in part at any time.

9. **Delinquency Charge**. Borrower shall pay on demand of Lender, a delinquency charge in an amount not to exceed two percent (2%) of any payment that is more than fifteen days late.

10. **Events of Default**. It shall be an event of default hereunder if there shall be an Event of Default under the Loan Agreement.

11. **Remedies upon Default**. Whenever there is a default under this Note (a) the entire balance outstanding hereunder and all other obligations of any Obligor to Lender (however acquired or evidenced) shall, at the option of Lender, become immediately due and payable and any obligation of Lender to permit further borrowing under this Note shall immediately cease and terminate, and/or (b) to the extent permitted by law, the rate of interest on the unpaid principal shall be increased at Lender's discretion up to the maximum rate allowed by law (the "Default Rate"). The provisions herein for a Default Rate shall not be deemed to extend the time for any payment hereunder or to constitute a "grace period" giving any Obligor a right to cure any default. At Lender's option, any accrued and unpaid interest, fees or charges may, for purposes of computing and accruing interest on a daily basis after the due date of the Note or any installment thereof, be deemed to be a part of the principal balance, and interest shall accrue on a daily compounded basis after such date at the Default Rate until the entire outstanding balance of principal and interest is paid in full. Upon a default under this Note, Lender is hereby authorized at any time, at its option and without notice or demand, to set off and charge against any deposit accounts of any Obligor (as well as any money, instruments, securities, documents, chattel paper, credits, claims, demands, income and any other property, rights and interests of any Obligor), which at any time shall come into the possession or custody or under the control of Lender or any of its agents, affiliates or correspondents, any and all obligations due hereunder. Additionally, Lender shall have all rights and remedies available under each of the Loan Documents, as well as all rights and remedies available at law or in equity.

12. **Non-waiver**. The failure at any time of Lender to exercise any of its options or any other rights hereunder shall not constitute a waiver thereof, nor shall it be a bar to the exercise of any of its options or rights at a later date. All rights and remedies of Lender shall be cumulative and may be pursued singly, successively or together, at the option of Lender. The acceptance by Lender of any partial payment shall not constitute a waiver of any default or of any of Lender's rights under this Note. No waiver of any of its rights hereunder, and no modification or amendment of this Note, shall be deemed to be made by Lender unless the same shall be in writing, duly signed on behalf of Lender; each such waiver shall apply only with respect to the specific instance involved, and shall in no way impair the rights of Lender or the obligations of Obligors to Lender in any other respect at any other time.

13. **Applicable Law, Venue and Jurisdiction**. This Note and the rights and obligations of Borrower and Lender shall be governed by and interpreted in accordance with the law of the State of Florida. In any litigation in connection with or to enforce this Note or any indorsement or guaranty of this Note or any Loan Documents, Obligors, and each of them, irrevocably consent to and confer personal jurisdiction on the courts of the State of Florida or the United States located within the State of Florida and expressly waive any objections as to venue in any such courts. Nothing contained herein shall, however, prevent Lender from bringing any action or exercising any rights within any other state or jurisdiction or from obtaining personal jurisdiction by any other means available under applicable law.

14. **Partial Invalidity**. The unenforceability or invalidity of any provision of this Note shall not affect the enforceability or validity of any other provision herein and the invalidity or unenforceability of any provision of this Note or of the Loan Documents to any person or circumstance shall not affect the enforceability or validity of such provision as it may apply to other persons or circumstances.

15. **Binding Effect**. This Note shall be binding upon and inure to the benefit of Borrower, Obligors and Lender and their respective successors, assigns, heirs and personal representatives, provided, however, that no obligations of Borrower or Obligors hereunder can be assigned without prior written consent of Lender.

16. **Controlling Document**. To the extent that this Note conflicts with or is in any way incompatible with any other document related specifically to the loan evidenced by this Note, this Note shall control over any other such document, and if this Note does not address an issue, then each other such document shall control to the extent that it deals most specifically with an issue.

Borrower acknowledges having read and understood, and agrees to be bound by, all terms and conditions of this Note, including the variable interest rate provisions, and hereby executes this Note as of the date here above written. Borrower acknowledges receipt of a completed copy of this Note.

NOTICE OF FINAL AGREEMENT. THIS WRITTEN PROMISSORY NOTE REPRESENTS THE FINAL AGREEMENT BETWEEN THE PARTIES AND MAY NOT BE CONTRADICTED BY EVIDENCE OF PRIOR, CONTEMPORANEOUS, OR

SUBSEQUENT ORAL AGREEMENTS OF THE PARTIES. THERE ARE NO UNWRITTEN ORAL AGREEMENTS BETWEEN THE PARTIES.

EXECUTION DATE: March 21, 2008

FLORIDA PUBLIC UTILITIES COMPANY

By: _____
Name: George M. Bachman
Title: CFO and Treasurer

CERTIFICATE OF BORROWER

Bank of America, N.A.

Ladies and Gentlemen:

The undersigned hereby represents and warrants to you as follows:

1. The Resolution of the Board of Directors of Florida Public Utilities Company (the "Company") attached hereto as Exhibit A remains in full force and effect as in effect on the date hereof.

2. Neither the Articles of Incorporation nor Bylaws of the Company have been amended since October 29, 2004.

IN WITNESS WHEREOF, Florida Public Utilities Company has caused this certificate to be executed this 21st day of March, 2008.

FLORIDA PUBLIC UTILITIES COMPANY

Name: George M. Bachman
Its: Chief Financial Officer/Treasurer

RESOLUTION

Be it resolved by the Board of Directors of Florida Public Utilities Company that the line of credit with Bank of America, N.A. shall be increased from $20,000,000 to $26,000,000, the maturity date shall be extended to July 1, 2010 and the interest rate shall be decreased by 10 basis points. George Bachman shall sign all documents necessary to complete the transaction.

Adopted March 11, 2008.

[redacted]

Tel 561 833 2000
Fax 561 650 8399

Holland & Knight LLP
222 Lakeview Avenue, Suite 1000
P.O. Box 3208 (ZIP 33402-3208)
West Palm Beach, FL 33401
www.hklaw.com

Mark E. Raymond
561 650 8349
mark.raymond@hklaw.com

March 21, 2008

Florida Public Utilities Company

RE: Line of credit from Bank of America, N.A.

To professional services rendered and
costs disbursed as counsel to Bank of America, N.A. $750.00

CLOSING STATEMENT/FUNDING INSTRUCTION LETTER

Bank of America, N.A.
9000 Southside Boulevard
Building 100
Jacksonville, FL 32256

Re: Florida Public Utilities Company
$26,000,000 Line of Credit dated March 21, 2008

Ladies and Gentlemen:

You are hereby requested, authorized and directed to transfer the outstanding principal and interest on our promissory note, payable to you, dated August 25, 2006 to the above referenced line of credit.

You are authorized to debit our account with you in the amount of $35,874.00 to pay the fees due the Bank.

We agree to pay your legal fees in connection with the renewal of the line of credit in the amount of $750.00 to Holland & Knight LLP.

Dated as of March 21, 2008

FLORIDA PUBLIC UTILITIES COMPANY

By: _____
Name: George M. Bachman
Title: Chief Financial Officer/Treasurer

Florida Public Utilities
ST Debt Effective Cost
Projected Prior Year 2008
Witnesses: Camfield, Cox

Effective Cost of Short Term Debt

	Nominal Rate
Projected Fed Funds	2.26%
LIBOR Margin	0.17%
BOA Spread [8]	0.80%
BOA Projected Int Rate	3.23%
BOA Fee on Unused Portion of LOC	0.25%
BOA Fee on Total Available LOC	0.10%
Cost of ST Debt	3.58%

Total Int Exp & Fees	$ 329,064	= 3.93%
Average LOC Balance	$ 8,383,168	

		2007 DEC	2008 JAN	2008 FEB	2008 MAR	2008 APR	2008 MAY	2008 JUN	2008 JUL	2008 AUG	2008 SEP	2008 OCT	2008 NOV	2008 DEC		Effective Cost of ST Debt
Projected Credit Limit	[1]	**12,000,000**	**12,000,000**	**12,000,000**	**12,000,000**	**15,000,000**	**15,000,000**	**15,000,000**	**15,000,000**	**15,000,000**	**15,000,000**	**15,000,000**	**26,000,000**	**26,000,000**		
LOC Ending Balance	[2]	11,122,000	9,230,000	6,614,000	9,680,000	8,181,000	10,803,000	12,529,000	10,388,000	10,924,000	11,124,000	13,324,000	17,824,000	19,324,000	Average Balance based month end 11,620,538	
Average Monthly LOC Balance	[3]		8,479,484	6,655,690	6,753,935	6,584,107	7,334,000	8,505,757	7,052,263	7,416,146	7,551,923	9,045,471	12,100,456	13,118,784	Average Balance based on monthly avg 8,383,168	
		Nominal Rate													Total Expense	
BOA Projected Int Rate	[4]	3.23%	$ 39,075	$ 21,946	$ 20,059	$ 19,575	$ 19,741	$ 22,895	$ 18,982	$ 19,962	$ 20,327	$ 24,347	$ 32,570	$ 35,311	$ 294,791	3.52%
BOA Fee on Unused Portion of LOC	[5]	0.25%	$ 758	$ 1,076	$ 1,129	$ 1,753	$ 1,597	$ 1,353	$ 1,656	$ 1,580	$ 1,552	$ 1,241	$ 2,896	$ 2,684	$ 19,273	0.23%
BOA Fee on Total Available LOC	[6]	0.10%						$ 15,000							$ 15,000	0.18%
			39,833	23,022	21,188	21,328	21,338	39,248	20,638	21,542	21,879	25,588	35,466	37,995	329,064	3.93%

Notes:

[1] Available LOC can be increased to $26M with 30 days written notice.
[2] Projected Month-end LOC balance May - Dec 2008 as per Cash Forecast.
[3] Average Monthly Balance.
[4] BOA Agreement calulates interest on the daily balance outstanding, which fluctuates significantly.
[5] BOA Agreement - 0.25% per annum of the average daily unused amount of the availability.
[6] BOA Agreement - 0.10% of the availability on June 30th.
[7] Actuals - Jan - Apr 2008
[8] BOA spread reduced from 0.9% to 0.8% in March 2008

Fl. .a Public Utilities Company
10.1 - Notes Payable Bank of America
CREDIT ACTIVITY SHEET

Prepared By:_____
M Jaeger
Approved By:_____
M Napier

Period Ending: August 2008

	BOA		Propane Bond	114 Storm Res	Total Available
LOC:	15,000,000	Reserved:	250,000	1,000,000	13,750,000

DATE	DRAW	PAYDOWN	STATEMENT LOC BALANCE	BOA BALANCE	GL Balance	DIFFERENCE
Beginning Balance			(11,122,000)	(11,122,000)	(11,122,000)	
1/3/2008	60,000		(11,182,000)	(307,000)		
1/11/2008	40,000		(11,222,000)	(347,000)		
1/14/2008	580,000		(11,802,000)	(927,000)		
1/17/2008	680,000		(12,482,000)	(1,607,000)		
1/18/2008	500,000		(12,982,000)	(2,107,000)		
1/22/2008	1,710,000		(14,692,000)	(3,817,000)		
1/24/2008	1,140,000		(15,832,000)	(4,957,000)		
1/25/2008	1,610,000		(17,442,000)	(6,567,000)		
1/31/2008		8,212,000	(9,230,000)	1,645,000	(9,230,000)	-
2/14/2008	220,000		(9,450,000)	1,425,000		
2/19/2008	1,580,000		(11,030,000)	(155,000)		
2/25/2008	2,390,000		(13,420,000)	(2,545,000)		
2/28/2008	810,000		(14,230,000)	(3,355,000)		
2/29/2008		7,616,000	(6,614,000)	4,261,000	(6,614,000)	-
3/3/2008	1,720,000		(8,334,000)	2,541,000		
3/13/2008	300,000		(8,634,000)	2,241,000		
3/17/2008	30,000		(8,664,000)	2,211,000		
3/20/2008	2,130,000		(10,794,000)	81,000		
3/21/2008	1,210,000		(12,004,000)	(1,129,000)		
3/25/2008	2,790,000		(14,794,000)	(3,919,000)		
3/27/2008	890,000		(15,684,000)	(4,809,000)		
3/31/2008	560,000	6,564,000	(9,680,000)	1,195,000	(9,680,000)	-
4/10/2008	100,000		(9,780,000)	3,970,000		
4/11/2008	1,110,000		(10,890,000)	2,860,000		
4/14/2008	1,230,000		(12,120,000)	1,630,000		
4/18/2008	240,000		(12,360,000)	1,390,000		
4/21/2008	330,000		(12,690,000)	1,060,000		
4/25/2008	4,880,000		(17,570,000)	(3,820,000)		
4/30/2008		9,389,000	(8,181,000)	5,569,000	(8,181,000)	-
5/1/2008	2,130,000		(10,311,000)	3,439,000		
5/8/2008	320,000		(10,631,000)	3,119,000		
5/9/2008	70,000		(10,701,000)	3,049,000		
5/16/2008	1,390,000		(12,091,000)	1,659,000		
/20/2008	380,000		(12,471,000)	1,279,000		
/22/2008	370,000		(12,841,000)	909,000		
/27/2008	2,740,000		(15,581,000)	(1,831,000)		
9/2008	1,430,000		(17,011,000)	(3,261,000)		
1/2008		6,208,000	(10,803,000)	2,947,000	(10,803,000)	-
6/6/2008	440,000		(11,243,000)	2,507,000		
6/11/2008	200,000		(11,443,000)	2,307,000		
6/16/2008	1,870,000		(13,313,000)	437,000		
6/19/2008	370,000		(13,683,000)	67,000		
6/25/2008	3,920,000		(17,603,000)	(3,853,000)		
6/26/2008	1,870,000		(19,473,000)	(5,723,000)		
6/30/2008	250,000		(19,723,000)	(5,973,000)		
6/30/2008		7,194,000	(12,529,000)	1,221,000	(12,529,000)	-
7/17/2008	2,160,000		(14,689,000)	(939,000)		
7/21/2008	200,000		(14,889,000)	(1,139,000)		
7/25/2008	3,990,000		(18,879,000)	(5,129,000)		
7/28/2008	470,000		(19,349,000)	(5,599,000)		
7/31/2008		8,961,000	(10,388,000)	3,362,000	(10,388,000)	-
8/18/2008	1,920,000		(12,308,000)	1,442,000		
8/25/2008	3,420,000		(15,728,000)	(1,978,000)		
8/27/2008	2,950,000		(18,678,000)	(4,928,000)		
8/28/2008	140,000		(18,818,000)	(5,068,000)		
8/31/2008		7,894,000	(10,924,000)	2,826,000	(10,924,000)	-
						-
						-
						-
						-

Florida Public Utilities Company
100.2370.2 - Accrued Interest on Notes Payable
Period Ending : August 2008
Dr. / (Cr.)

Prepared By:_____
M Jaeger
Approved By:_____
M Napier

DATE	Payments Ref.	Description	Amount	Accruals Ref.	Description	Amount	Balance	G/L Balance	Difference
						BALANCE FORWARD	(31,970.72)	(31,970.72)	0.00
JANUARY	PL	Notes Payable	31,970.72	JE 6	Accrual	(39,075.17)	(39,075.17) (39,075.17)	(39,075.17)	0.00
FEBRUARY	PL	Notes Payable	39,075.17	JE 6	Accrual	(21,945.75)	(21,945.75) (21,945.75)	(21,945.75)	0.00
MARCH	PL	Notes Payable	21,945.75	JE 6	Accrual	(20,059.28)	(20,059.28) (20,059.28)	(20,059.28)	0.00
APRIL	PL	Notes Payable	20,059.28	JE 6	Accrual	(19,575.38)	(19,575.38) (19,575.38)	(19,575.38)	(0.00)
MAY	PL	Notes Payable	19,575.38	JE 6	Accrual	(26,501.15)	(26,501.15) (26,501.15)	(26,501.15)	(0.00)
JUNE	PL	Notes Payable	26,501.15	JE 6	Accrual	(23,147.78)	(23,147.78) (23,147.78)	(23,147.78)	(0.00)
JULY	PL	Notes Payable	23,147.78	JE 6	Accrual	(26,668.16)	(26,668.16) (26,668.16)	(26,668.16)	(0.00)
AUGUST	PL	Notes Payable	26,668.16	JE 6	Accrual	(21,913.54)	(21,913.54)	(21,913.54)	(0.00)
SEPTEBER									
OCTOBER									
NOVEMBER									
DECEMBER									
Totals			208,943.39			(198,886.21)		(198,886.21)	0.00

Cox Doreen

›m:	Bolden Maria
₂nt:	Tuesday, November 04, 2008 10:37 AM
To:	Cox Doreen
;c:	Bachman George
Subject:	RE: LOC Rate

Doreen,

The most current LOC interest rate charged on the October statement is 4.075%.

Thank you,

Maria

SUMMARY

...er No.	21-4445362
...e No.	
...tion(s)	0000000299
...ent Date:	10/26/08
...e Date:	11/01/08

Due	Past Due	This Period	Total Due
Interest	0.00	37,810.05	37,810.05
Total	0.00	37,810.05	37,810.05

Amount Enclosed
AUTO DEBIT

FLORIDA PUBLIC UTILITIES CO
ATTN: GEORGE BACHMAN
401 SOUTH DIXIE HIGHWAY
WEST PALM BEACH FL 33401

BANK OF AMERICA NA
P O BOX 660576
DALLAS TX 75266-0576

REDACTED

YOUR CHECKING ACCOUNT WILL BE DEBITED FOR THE TOTAL OF THIS INVOICE ON NOVEMBER 01, 2008.

MPORTANT INFORMATION

. late fee will be assessed in accordance with the terms of your note if full payment is not ıade promptly.

xcess payment amounts will be applied to your principal balance.

Or QUESTIONS PLEASE CALL: 1.888.400.9009

CTIVITY SINCE YOUR LAST STATEMENT

ORIDA PUBLIC UTILITIES CO	Customer No. 21-4445362	Invoice No. 3	Due Date 11/01/08	Total Due 37,810.05

OBLIGATION NO.	RATE	NOTE DATE	ORIG/RENEWAL AMOUNT	MATURITY
299	4.075	03/21/08	26,000,000.00	07/01/10

Date	Transaction Description	Activity	Balance
	Starting Balance		7,177,000.00
	Previous Interest Due	25,062.19	
09/24/08	Principal Payment	239,000.00-	6,938,000.00
09/25/08	Principal Advance	4,470,000.00	11,408,000.00
09/25/08	Rate Chg - 4.09688000		
09/26/08	Principal Advance	670,000.00	12,078,000.00
09/26/08	Rate Chg - 4.22875000		
09/29/08	Principal Payment	412,000.00-	11,666,000.00
09/29/08	Rate Chg - 4.50875000		
09/30/08	Principal Payment	533,000.00-	11,133,000.00
09/30/08	Rate Chg - 4.50375000		
10/01/08	Principal Advance	650,000.00	11,783,000.00
10/01/08	Interest Payment	25,062.19-	
10/01/08	Rate Chg - 4.52000000		
ADJUST	Prior Prin/Rate Actvty	3,560.54	
	Int 001 days @ 4.5200	1,479.43	
10/02/08	Principal Payment	655,000.00-	11,128,000.00
10/02/08	Rate Chg - 4.72625000		
	Int 001 days @ 4.7262	1,460.93	
10/03/08	Principal Payment	755,000.00-	10,373,000.00
10/03/08	Rate Chg - 4.80250000		
	Int 003 days @ 4.8025	4,151.36	
10/06/08	Principal Payment	573,000.00-	9,800,000.00
10/06/08	Rate Chg - 4.84500000		
	Int 001 days @ 4.8450	1,318.92	
10/07/08	Principal Payment	650,000.00-	9,150,000.00
10/07/08	Rate Chg - 4.91000000		
	Int 001 days @ 4.9100	1,247.96	
1 08	Principal Payment	486,000.00-	8,664,000.00
1 08	Rate Chg - 4.89250000		
	Int 001 days @ 4.8925	1,177.46	
10/09/08	Principal Payment	58,000.00-	8,606,000.00
10/09/08	Rate Chg - 4.94000000		
	Int 001 days @ 4.9400	1,180.93	
10/10/08	Principal Payment	668,000.00-	7,938,000.00
10/10/08	Rate Chg - 5.09375000		
	Int 004 days @ 5.0937	4,492.69	
10/14/08	Principal Payment	677,000.00-	7,261,000.00
10/14/08	Rate Chg - 5.31250000		
	Int 001 days @ 5.3125	1,071.50	
10/15/08	Principal Payment	810,000.00-	6,451,000.00
10/15/08	Rate Chg - 5.38750000		
	Int 001 days @ 5.3875	965.41	
10/16/08	Principal Payment	346,000.00-	6,105,000.00
10/16/08	Rate Chg - 5.26875000		
	Int 001 days @ 5.2687	893.50	
10/17/08	Principal Advance	1,940,000.00	8,045,000.00
10/17/08	Rate Chg - 5.15875000		
	Int 003 days @ 5.1587	3,458.51	
10/20/08	Principal Advance	900,000.00	8,945,000.00
10/20/08	Rate Chg - 5.07750000		
	Int 001 days @ 5.0775	1,261.62	
10/21/08	Principal Payment	390,000.00-	8,555,000.00
10/21/08	Rate Chg - 4.98125000		
	Int 001 days @ 4.9812	1,183.73	
10/22/08	Principal Payment	629,000.00-	7,926,000.00
10/22/08	Rate Chg - 4.55125000		
	Int 001 days @ 4.5512	1,002.04	
10/23/08	Principal Payment	204,000.00-	7,722,000.00
10/23/08	Rate Chg - 4.32750000		
	Int 001 days @ 4.3275	928.25	
10/24/08	Rate Chg - 4.07500000		
	Int 003 days @ 4.0750	2,622.26	
10/27/08	Rate Chg - 4.05875000		
	Int 005 days @ 4.0587	4,353.01	

CONTINUED NEXT COLUMN...

CONTINUED NEXT PAGE...

Bank of America

Loan Invoice

incorrect

	PAST DUE	THIS PERIOD	TOTAL DUE
TEREST	0.00	37,810.05	37,810.05
TAL	0.00	37,810.05	37,810.05

Customer No. 21-4445362
Invoice No. 0810167738

Commercial

LOC RATE - Monthly - 2008

Jan-08	5.796
Feb-08	4.276
Mar-08	4.017
Apr-08	3.695
May-08	3.204
Jun-08	3.281
Jul-08	3.261
Aug-08	3.271
Sep-08	3.976
Oct-08	4.575
Nov-08	
Dec-08	

Cox Doreen

ɔm:	Martin Cheryl
ɔent:	Monday, September 29, 2008 7:33 AM
ˈo:	Robert Camfield; Cox Doreen
ɔubject:	RE: Update

I would agree that for projections it is more appropriate to use the average daily balance and rate for ST. Cheryl

-----Original Message-----
From: Robert Camfield [mailto:rjcamfield@CAEnergy.com]
Sent: Sunday, September 28, 2008 10:02 PM
To: Cox Doreen; Martin Cheryl
Cc: Bachman George; Dan Hansen; Mike Welsh
Subject: Update

Dor,
Cheryl,

For 2006, the average daily balance of outstanding short term debt is substantially less than the month-end balances and, for this reason, we used the average daily balance for the interim filing. I observe a similar relationship between average daily and monthly balances for 2007. This experience leads me to suggest that we utililze average daily balances within the 13-month average capital structure for 2009, in lieu of month end balances.

Because books are closed by month, projections of revenues, expenses, internal cash, and balance sheets, are monthly - thus, only projections of monthly balances of S-T debt are developed. However, we can adjust forward looking (2009) month-end balances of S-T debt on a basis of the historical relationship between daily and monthly balances, and then make a simultaneous adjustment of opposite sign to common equity. These adjustments provide a better reflection of what's going on, and the implicit cost of capital.

Essentially, L-T debt and other capital items remain essentially unchanged over the course of the month, as we know. Moreover, the daily balances for assets, on average, are similar to month end balances. This means that balances of shareholder equity (retained earnings) is somewhat understated, and by similar magnitude to the overstatement of S-T debt. The proposed adjustment will provide a better reflection of the underlying capital balances, on average. The net result of this proposed adjustment would be to raise the cost of capital.

I've been rolling this around all day; let's discuss. Robert

Cox Doreen

ɔm:	Cox Doreen
ɔent:	Friday, October 31, 2008 10:26 AM
To:	'Robert Camfield'; 'Mike Welsh'
Cc:	Martin Cheryl
Subject:	ST Debt Margin
Attachments:	Capital.xls

Robert & Mike

Please find attached revised COC Schedules incorporating the re-negotiated spread on our LOC with BOA. The spread was lowered by 10 basis points from 0.90% to 0.80% in March 2008.

Please call if you have any questions.
Thanks

Doreen Cox
Financial Analyst
(561) 838-1797

Cox Doreen

:	'Robert Camfield'
Cc:	'Mike Welsh'; Martin Cheryl
Subject:	Short Term Debt

Robert
Please note that in March 2008 when we re-negotiated our LOC with BOA the LIBOR spread was lowered by 10 basis points from 0.90% to 0.80%, so we need to update our projected cost rates previously calculated. I will update the ST Debt cost rate schedule and re-send.
Thanks

Doreen Cox
Financial Analyst
(561) 838-1797

Cox Doreen

om:	Robert Camfield [rjcamfield@CAEnergy.com]
Sent:	Friday, July 18, 2008 7:39 AM
To:	Cox Doreen
Cc:	Bachman George; Martin Cheryl; Dan Hansen; Mike Welsh
Subject:	Update, Short-Term Debt

historical 1992 forward

Dor,

For FPU's NG rate case filing, I recommend a Fed Funds interest rate of 4.20% (4.1952%), and an interest rate spread between the U.S. 1-month LIBOR and Fed Funds of 0.20% (0.1998%).

Let's discuss the underlying approach at some point soon.

↓ time frames 1992 - June '08
LIBOR + target higher in

Robert

3m day T/Bill ST forwards

Inferred Fed Funds - 2011 (rates in effect)

Fed Fund Rates lower than history.

4.2
.2
.9
5.3 %

Use for 2009

Cox Doreen

.om:	Robert Camfield [rjcamfield@CAEnergy.com]
Sent:	Thursday, July 17, 2008 5:53 PM
To:	Cox Doreen
Cc:	Bachman George; Martin Cheryl; Dan Hansen; Mike Welsh
Subject:	Update, Short-Term Debt

Dor,

The Fed Funds interest rate, for purposes of FPU's NG rate case filing, is 4.20% (4.1952%). The interest rate spread between the U.S. 1-monthly LIBOR interest rates and Fed Funds rates is 0.20% (0.1988%).

Let's discuss at some point tomorrow.

Robert

Return on Common Equity

Company	Order No.	Issued	ROE
St. Joe's Natural Gas	PSC-08-0436-PAA-GU	July 8, 2008	11.00%
FPUC Electric	PSC-08-0327-FOF-EI	May 19, 2008	11.00%
Sebring Gas	PSC-04-1260-PAA-GU	December 20, 2004	11.50%
FPUC Gas	PSC-04-1110-PAA-GU	November 8, 2004	11.25%
Indiantown Gas	PSC-04-0565-PAA-GU	June 2, 2004	11.50%
FPUC Electric	PSC-04-0369-AS-EI	April 6, 2004	11.50%
Florida City Gas	PSC-04-0128-PAA-GU	February 9, 2004	11.25%
Peoples Gas	PSC-03-0038-FOF-GU	January 6, 2003	11.25%
Indiantown Gas	PSC-02-1666-PAA-GU	November 26, 2002	11.50%
St. Joe's Natural Gas	PSC-01-1274-PAA-GU	June 8, 2001	11.50%
Florida City Gas	PSC-01-0316-PAA-GU	February 5, 2001	11.50%
Chesapeake Gas	PSC-00-2263-FOF-GU	November 28, 2000	11.50%

Source: FPSC web-site

Projected Equity Issue	Jul-2009		
Price per Share	$ 11.00		
Projected Number of Shares	1,363,845		
Gross Proceeds		15,000,000	
Projected Issuance Costs	*2140*	(900,000)	
Net Proceeds		14,100,000	
Par Value	*2010*	2,045,767	$ 1.50
Premium on Common Stock	*2070*	12,954,233	

Equity	15,000,000
Debt	-
	15,000,000

Average Share Price (AMEX)	2008	Jan	$ 11.61
		Feb	$ 11.81
		Mar	$ 11.55
		Apr	$ 11.19
		May	$ 11.21
		Jun	$ 11.66
		Jul	$ 11.84
		Average	$ 11.55
		Discounted by 4.8%	$ 11.00

Cox Doreen

From: Sprouse,Kevin E [kevin.sprouse@edwardjones.com]
Sent: Wednesday, September 24, 2008 6:12 PM
To: Cox Doreen
Cc: Bachman George
Subject: RE: Issuance Costs

Doreen,

That is a reasonable estimate to use for planning purposes.

Best,

Kevin

If you are not the intended recipient of this message (including attachments), or if you have received this message in error, immediately notify us and delete it and any attachments. If you no longer wish to receive e-mail from Edward Jones, please send this request to messages@edwardjones.com. You must include the e-mail address that you wish not to receive e-mail communications. For important additional information related to this e-mail, visit www.edwardjones.com/US_email_disclosure

---

From: Cox Doreen [mailto:dorcox@fpuc.com]
Sent: Wednesday, September 24, 2008 1:54 PM
To: Sprouse,Kevin E
Cc: Bachman George
Subject: Issuance Costs

Kevin
Could you please review the attached and let me know if the estimate of $900,000 for issuance costs (inclusive of spread) on a projected spring 2009 equity offering of $15,000,000 is reasonable. The total cost to FPU of the spread, fees and other costs associated with the issue is being projected at 6%. Your opinion on the reasonability of the projection would be appreciated.
Thanks
Doreen

Florida Public Utilities Company
Projected Issuance Costs

Equity - Common Stock				
Amount of Common Financing	15,000,000	Gross Spread % (sales charge)	4.85%	1
Price per Share	11	Other Fees %	1.15%	2
Shares Issued	1,363,636	Net Proceeds	14,100,000	

1 Spread between what Investment Bankers' cost and the price offered to the public.
2 Other costs such as accounting, legal, printing and other costs associated with the issue.

Cox Doreen

From: Erdek Bonnie
Sent: Monday, July 21, 2008 3:09 PM
To: Cox Doreen
Subject: FW: FPU info

Hi Doreen.

Page down for the average stock price for years 2003 thru 2007 as furnished by AMEX.

Bonnie

From: Stampfl, Christina [mailto:Christina.Stampfl@amex.com]
Sent: Monday, July 21, 2008 2:21 PM
To: Erdek Bonnie
Subject: FW: FPU info

Hi Bonnie,

I am sending this from my colleague Christina's computer. I will confirm that you received.

Best regards,

Kristin

From: Ng, WaeMing
Sent: Monday, July 21, 2008 1:56 PM
To: Stampfl, Christina
Subject: FW: FPU

From: Dorfman, Paul
Sent: Monday, July 21, 2008 11:02 AM
To: Ng, WaeMing
Cc: Winter, Kristin
Subject: RE: FPU

thanks much!

Paul Dorfman
Vice President, Equities Business Development
American Stock Exchange
86 Trinity Place
New York, NY 10006
email: paul.dorfman@amex.com
Tel: 212-306-1418
Fax: 212-306-5548

From: Ng, WaeMing
Sent: Monday, July 21, 2008 10:44 AM
To: Dorfman, Paul
Subject: RE: FPU

Florida Public Utilities Co. Average Daily Price

	2003	2004	2005	2006	2007
FPU	10.30	12.06	13.59	13.58	12.25

From: Dorfman, Paul
Sent: Monday, July 21, 2008 10:25 AM
To: Ng, WaeMing
Cc: Winter, Kristin
Subject: FPU

Pls crank out the avg share price for each year from 2003 - 2007.

thanks much

-pmd

Paul Dorfman

Vice President, Equities Business Development

American Stock Exchange

86 Trinity Place

New York, NY 10006

email: paul.dorfman@amex.com

Tel: 212-306-1418

Fax: 212-306-5548

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COPY

Final OC
2004 rate case

Exhibit 27.21
Pg. 226

FLORIDA PUBLIC UTILITIES COMPANY
PTY 12/31/05
13 Month Average

ATTACHMENT 2

COMPANY POSITION

	FPUC PER BOOKS	PRO RATA	FPUC ADJUSTED	RATIO	COST RATE	WEIGHTED COST
ONG TERM DEBT	50,346,860	(24,654,534)	25,692,326	39.03%	8.04%	3.14%
HORT TERM DEBT	796,154	(389,871)	406,283	0.62%	5.98%	0.04%
REFERRED STOCK	600,000	(293,816)	306,184	0.47%	4.75%	0.02%
OMMON EQUITY	56,448,772	(27,642,601)	28,806,171	43.75%	11.50%	5.03%
USTOMER DEPOSITS	4,094,408		4,094,408	6.22%	6.28%	0.39%
EFERRED TAXES	6,253,275		6,253,275	9.50%	0.00%	0.00%
AX CREDIT - ZERO COST	0		0	0.00%	0.00%	0.00%
AX CREDIT – OVERALL	276,563		276,563	0.42%	9.81%	0.04%
OTAL	$118,816,032	($52,980,822)	$65,835,210	100.00%		8.66%

OMMISSION APPROVED

	CONSOLIDATED TOTAL COMPANY	FLO GAS	ADJUSTED PER BOOKS	COMM. SPECIFIC	PRO RATA	COMM. ADJUSTED	RATIO	COST RATE	WEIGHTED COST
ONG TERM DEBT	50,346,860		50,346,860		(28,476,024)	21,870,836	36.96%	8.04%	2.97%
HORT TERM DEBT	5,720,154		5,720,154		(3,235,301)	2,484,853	4.20%	4.03%	0.17%
REFERRED STOCK	600,000		600,000		(339,358)	260,642	0.44%	4.75%	0.02%
OMMON EQUITY	50,449,234	(2,248,022)	48,201,212		(27,262,453)	20,938,759	35.39%	11.25%	3.98%
USTOMER DEPOSITS	4,094,408		4,094,408			4,094,408	6.92%	6.28%	0.43%
EFERRED TAXES	6,253,275		6,253,275	2,992,338		9,245,613	15.63%	0.00%	0.00%
AX CREDIT - ZERO COST	0		0			0	0.00%	0.00%	0.00%
AX CREDIT - OVERALL	276,563		276,563			276,563	0.47%	9.28%	0.04%
OTAL	$117,740,494	($2,248,022)	$115,492,472	$2,992,338	($59,313,136)	$59,171,674	100%		7.62%

SCHEDULE 4

FLORIDA PUBLIC UTILITIES COMPANY
CONSOLIDATED GAS DIVISIONS
CAPITAL STRUCTURE
FPSC ADJUSTED BASIS
DECEMBER 2007

AVERAGE	SYSTEM PER BOOKS	ADJUSTMENT FOR FLO-GAS	RETAIL PER BOOKS	ADJUSTMENTS PRORATA	ADJUSTMENTS SPECIFIC	ADJUSTED RETAIL	RATIO (%)	LOW POINT COST RATE (%)	LOW POINT WEIGHTED COST (%)	MID POINT COST RATE (%)	MID POINT WEIGHTED COST (%)	HIGH POINT COST RATE (%)	HIGH POINT WEIGHTED COST (%)
LONG TERM DEBT	$24,717,431	281,287	$24,998,718	(1,306,228)		$23,692,490	39.15	8.00	3.13	8.00	3.13	8.00	3.13
SHORT TERM DEBT	2,199,151	25,571	2,224,722	(116,246)		2,108,476	3.48	4.14	0.14	4.14	0.14	4.14	0.14
PREFERRED STOCK	291,515	5,115	296,630	(15,499)		281,131	0.46	4.75	0.02	4.75	0.02	4.75	0.02
CUSTOMER DEPOSITS	5,627,676		5,627,676			5,627,676	9.30	6.59	0.61	6.59	0.61	6.59	0.61
COMMON EQUITY	23,934,943	(311,973)	23,622,970	(1,234,343)		22,388,627	36.99	10.25	3.79	11.25	4.16	12.25	4.53
DEFERRED INCOME TAXES	6,231,942		6,231,942			6,231,942	10.30						
TAX CREDITS-ZERO COST													
TAX CREDITS-WEIGHTED COST	190,499		190,499			190,499	0.32	8.85	0.03	9.32	0.03	9.78	0.03
TOTAL	$63,193,157		$63,193,157	($2,672,316)		$60,520,841	100.00		7.72		8.09		8.46

YEAR END	SYSTEM PER BOOKS	ADJUSTMENT FOR FLO-GAS	RETAIL PER BOOKS	ADJUSTMENTS PRORATA	ADJUSTMENTS SPECIFIC	ADJUSTED RETAIL	RATIO (%)	LOW POINT COST RATE (%)	LOW POINT WEIGHTED COST (%)	MID POINT COST RATE (%)	MID POINT WEIGHTED COST (%)	HIGH POINT COST RATE (%)	HIGH POINT WEIGHTED COST (%)
LONG TERM DEBT	$25,855,516	199,064	$26,054,580	(1,433,541)		$24,621,039	38.03	7.99	3.04	7.99	3.04	7.99	3.04
SHORT TERM DEBT	5,687,531	39,813	5,727,344	(315,123)		5,412,221	8.36	1.67	0.14	1.67	0.14	1.67	0.14
PREFERRED STOCK	307,127		307,127	(16,898)		290,229	0.45	4.75	0.02	4.75	0.02	4.75	0.02
CUSTOMER DEPOSITS	5,679,024		5,679,024			5,679,024	8.77	6.35	0.56	6.35	0.56	6.35	0.56
COMMON EQUITY	25,025,137	(238,877)	24,786,260	(1,363,758)		23,422,502	36.18	10.25	3.71	11.25	4.07	12.25	4.43
DEFERRED INCOME TAXES	5,141,855		5,141,855			5,141,855	7.94						
TAX CREDITS-ZERO COST													
TAX CREDITS-WEIGHTED COST	170,813		170,813			170,813	0.27	8.33	0.02	8.76	0.02	9.20	0.02
TOTAL	$67,867,003		$67,867,003	($3,129,320)		$64,737,683	100.00		7.49		7.85		8.21

	A	B	C	D	E	F	G	H	I	J	K	L
52	LT DEBT	50,535,952 ✓	48.88%		8.00	3.91			8.00	3.91		
53	PREF STK	600,000 ✓	0.58%		4.75	0.03			4.75	0.03		
54	ST DEBT	4,500,154 ✓	4.35%		4.14	0.18			4.14	0.18		
55	COM EQTY	47,746,971	46.19%		10.25	4.73			10.50	4.85		
56												
57		103,383,077	100.00%			8.85				8.97		
58	COM EQTY	47,746,971	46.19%		11.25	5.20			11.50	5.31		
59						9.32				9.43		
60	COM EQTY	47,746,971	46.19%		12.25	5.66			12.50	5.77		
61						9.78				9.89		
62												
63				RATIO	GAS	GAS			ELECTRIC	ELECTRIC		

Other Investments 14,933

OCI Propane 54,279

47,816,183

Summation 47,746,971.00+
other Inv 14,933.00+
OCI - Hedges 54,279.00+
003
COC 47,816,183.00

	A	B	C	D	E	F	G	H	I	J	K	L
1												
2						DATE:	DECEMBER 2006					
3												
4												
5			MARIANNA	FERNANDINA		WPB	SANFORD					
6	PURCHASED POWER/GAS COSTS:		14,702,473	15,903,960		24,299,267	13,820,034		68,725,734			
7	MONTHLY PURCH POWER/GAS COSTS:		1,259,359	1,151,723		2,909,942	1,146,149		6,467,173			
8	RATE INCREASE:											
9												
10												
11												
12												
13	***INPUT AREA 5A***	**TOTAL CONS. COMPANY**		**COST RATE**			**ADJUSTMENTS**					
14												
15		13 MONTH AVG	YEAR END	13 MONTH AVG	YEAR END		13 MTH AVG	YEAR END				
16	07/17/08											
17	L T DEBT	50,443,237	50,493,540	8.02	8.01							
18	S T DEBT	3,309,077	3,466,000	3.28	3.13							
19	PREF STK	600,000	600,000	4.75	4.75				Pref. Stock Rates from Pref Stock worksheet			
20	COM EQTY+FLOGAS	47,447,409	47,557,358									
21	COM EQTY-FLOGAS	44,934,529	45,170,832									
22	***AVERAGE***		**ELEC CONSOL**		**GAS CONSOL.**							
23	CUSTOMER DEPOSITS		2,136,661		5,277,158				Customer Deposits from 'Capital Adj'worksheet.			
24	DEFERRED INCOME TAXES		4,813,710		6,889,503				Deferred Taxes from 'Capital Adj' worksheet.			
25	TAX CREDITS-ZERO COST		1,461		0				I.T.C. from 'Capital Adj.' worksheet.			
26	TAX CREDITS-WEIGHTED COST		139,658		231,503				I.T.C. from 'Capital Adj.' worksheet.			
27	RATE BASE		38,434,741		61,054,452				Rate Base from Schedule 2 page 1.			
28	ADJUSTED RATE BASE		38,418,889		58,029,461							
29	***YEAR END***		**MONTH: DECEMBER 2006**									
30	CUSTOMER DEPOSITS		2,322,227		5,491,600				Customer Deposits from 'Capital Adj'worksheet.			
31	DEFERRED INCOME TAXES		5,137,868		6,806,954				Deferred Taxes from 'Capital Adj' worksheet.			
32	TAX CREDITS-ZERO COST		1,450		0				I.T.C. from 'Capital Adj.' worksheet.			
33	TAX CREDITS-WEIGHTED COST		123,511		210,185				I.T.C. from 'Capital Adj.' worksheet.			
34	RATE BASE		38,449,528		61,043,969				Rate Base from Schedule 3 page 1.			
35	ADJUSTED RATE BASE		38,453,989		58,235,189							
36	:::											

	A	B	C	D	E	F	G	H	I	J	K	L
37	INPUT AREA 5			TOTAL COMPANY CONSOLIDATED								
38				RATIO	GAS	GAS			ELECTRIC	ELECTRIC		
39	AVERAGE	AMOUNT	RATIO	FLOGAS	CONSOL.	FLOGAS	ADJUST	RATIO	CONSOL	FLOGAS	ADJUST	RATIO
40	LONG TERM DEBT	50,443,237	49.55%	50.81%	24,109,191	24,722,260	(1,536,998)	49.55%	15,530,581	15,925,506	(8,054)	49.55%
41	SHORT TERM DEBT	3,309,077	3.25%	3.33%	1,581,329	1,620,254	(100,732)	3.25%	1,018,656	1,043,730	(528)	3.25%
42	PREFERRED STOCK	600,000	0.59%	0.60%	287,072	291,938	(18,150)	0.59%	184,925	188,060	(95)	0.59%
43												
44	COMMON EQUITY	47,447,409	46.61%		22,678,696			46.61%	14,609,089			46.61%
45	COMMON EQTY-FLOGAS	44,934,529		45.26%		22,021,836	(1,369,111)			14,185,955	(7,175)	
46	CUSTOMER DEPOSITS				5,277,158	5,277,158			2,136,661	2,136,661		
47	DEFERRED INCOME TAXES				6,889,503	6,889,503			4,813,710	4,813,710		
48	TAX CREDITS-ZERO COST				0	0			1,461	1,461		
49	TAX CREDITS-WEIGHTED COST				231,503	231,503			139,658	139,658		
50		101,799,723	100.00%	100.00%	61,054,452	61,054,452	(3,024,991)	100.00%	38,434,741	38,434,741	(15,852)	100.00%
51												
52	LT DEBT	50,443,237	50.81%		8.02	4.07			8.02	4.07		
53	PREF STK	600,000	0.60%		4.75	0.03			4.75	0.03		
54	ST DEBT	3,309,077	3.33%		3.28	0.11			3.28	0.11		
55	COM EQTY	44,934,529	45.26%		10.25	4.64			10.50	4.75		
56												
57		99,286,843	100.00%			8.85				8.96		
58	COM EQTY	44,934,529	45.26%		11.25	5.09			11.50	5.20		
59						9.30				9.41		
60	COM EQTY	44,934,529	45.26%		12.25	5.54			12.50	5.66		
61						9.75				9.87		
62												

FLORIDA PUBLIC UTILITIES COMPANY
CONSOLIDATED GAS DIVISIONS
CAPITAL STRUCTURE
FPSC ADJUSTED BASIS
DECEMBER 2006

SCHEDULE 4

AVERAGE	SYSTEM PER BOOKS	ADJUSTMENT FOR FLO-GAS	RETAIL PER BOOKS	ADJUSTMENTS PRORATA	ADJUSTMENTS SPECIFIC	ADJUSTED RETAIL	RATIO (%)	LOW POINT COST RATE (%)	LOW POINT WEIGHTED COST (%)	MID POINT COST RATE (%)	MID POINT WEIGHTED COST (%)	HIGH POINT COST RATE (%)	HIGH POINT WEIGHTED COST (%)
LONG TERM DEBT	$24,109,191	613,069	$24,722,260	(1,536,998)		$23,185,262	39.95	8.02	3.20	8.02	3.20	8.02	3.20
SHORT TERM DEBT	1,581,329	38,925	1,620,254	(100,732)		1,519,522	2.62	3.28	0.09	3.28	0.09	3.28	0.09
PREFERRED STOCK	287,072	4,866	291,938	(18,150)		273,788	0.47	4.75	0.02	4.75	0.02	4.75	0.02
CUSTOMER DEPOSITS	5,277,158		5,277,158			5,277,158	9.09	6.61	0.60	6.61	0.60	6.61	0.60
COMMON EQUITY	22,678,696	(656,860)	22,021,836	(1,369,111)		20,652,725	35.59	10.25	3.65	11.25	4.00	12.25	4.36
DEFERRED INCOME TAXES	6,889,503		6,889,503			6,889,503	11.87						
TAX CREDITS-ZERO COST													
TAX CREDITS-WEIGHTED COST	231,503		231,503			231,503	0.41	8.85	0.04	9.30	0.04	9.75	0.04
TOTAL	$61,054,452		$61,054,452	($3,024,991)		$58,029,461	100.00		7.60		7.95		8.31

YEAR END	SYSTEM PER BOOKS	ADJUSTMENT FOR FLO-GAS	RETAIL PER BOOKS	ADJUSTMENTS PRORATA	ADJUSTMENTS SPECIFIC	ADJUSTED RETAIL	RATIO (%)	LOW POINT COST RATE (%)	LOW POINT WEIGHTED COST (%)	MID POINT COST RATE (%)	MID POINT WEIGHTED COST (%)	HIGH POINT COST RATE (%)	HIGH POINT WEIGHTED COST (%)
LONG TERM DEBT	$24,000,671	572,716	$24,573,387	(1,422,085)		$23,151,302	39.75	8.01	3.18	8.01	3.18	8.01	3.18
SHORT TERM DEBT	1,645,344	43,682	1,689,026	(97,746)		1,591,280	2.73	3.13	0.09	3.13	0.09	3.13	0.09
PREFERRED STOCK	286,358	4,853	291,211	(16,853)		274,358	0.47	4.75	0.02	4.75	0.02	4.75	0.02
CUSTOMER DEPOSITS	5,491,600		5,491,600			5,491,600	9.43	5.79	0.55	5.79	0.55	5.79	0.55
COMMON EQUITY	22,602,857	(621,251)	21,981,606	(1,272,096)		20,709,510	35.56	10.25	3.64	11.25	4.00	12.25	4.36
DEFERRED INCOME TAXES	6,806,954		6,806,954			6,806,954	11.69						
TAX CREDITS-ZERO COST													
TAX CREDITS-WEIGHTED COST	210,185		210,185			210,185	0.37	8.84	0.03	9.30	0.03	9.75	0.04
TOTAL	$61,043,969		$61,043,969	($2,808,780)		$58,235,189	100.00		7.51		7.87		8.24

FLORIDA PUBLIC UTILITIES COMPANY
AND FLO-GAS CORPORATION
13 MONTH COST OF CAPITAL
12 2006

REPORT GROUP NAME: ROR
REPORT NAME: CAPITAL
DATE: 3/21/2007
USER: YOUNG
COST OF CAPITAL

FLORIDA PUBLIC	12 MTHS AGO	11 MTHS AGO	10 MTHS AGO	9 MTHS AGO	8 MTHS AGO	7 MTHS AGO	6 MTHS AGO	5 MTHS AGO	4 MTHS AGO	3 MTHS AGO	2 MTHS AGO	1 MTH AG			
123 INV IN ASSOC CO	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	revised by Curtis D. Young on 3/21/2007
1240.1 OTHER INVEST	111	111	111	111	110	110	110	111	110	110	110	110	14,934	1,251	
181 UNAMORT DEBT	2,107,065	2,098,681	2,090,297	2,081,914	2,073,530	2,065,146	2,056,763	2,048,379	2,039,995	2,031,611	2,023,228	2,014,844	2,006,460	2,056,763	
190 ACCUM DEF TAXES	3,877,356	3,883,722	3,922,674	3,952,831	3,989,302	4,018,096	4,036,417	4,067,376	4,086,257	4,101,082	4,108,574	4,085,240	4,473,150	4,046,314	
190 AC DE TAX ENVIRO	(1,954,243)	(1,955,494)	(1,956,443)	(1,957,814)	(1,963,330)	(1,969,108)	(1,969,478)	(1,973,080)	(1,985,463)	(1,989,315)	(1,989,400)	(1,989,427)	(2,006,902)	(1,973,807)	
201 COMMON STOCK	9,229,514	9,235,244	9,235,244	9,235,244	9,239,942	9,239,942	9,239,942	9,245,312	9,245,312	9,245,312	9,250,472	9,250,472	9,250,472	9,241,725	
204 PREFERRED STOCK	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	
207 PREM ON COMM STK	5,373,461	5,419,874	5,419,874	5,419,874	5,460,089	5,460,089	5,460,089	5,500,364	5,500,364	5,500,364	5,542,986	5,542,986	5,542,986	5,472,569	
213 DISC ON CAP STK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
211 MISC PAID IN CAP	1,052,761	965,642	965,642	985,274	985,274	972,268	971,910	891,616	891,616	919,988	919,988	919,988	938,906	952,375	
216 RETAINED EARNING	31,396,084	32,168,208	32,877,175	32,570,836	32,988,370	33,194,984	32,653,972	32,945,093	33,139,894	32,544,236	32,743,777	33,176,512	32,826,619	32,709,674	
214 CAPITAL STK EXP	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	
217 TREASURY STOCK	3,349,121	3,127,001	3,127,001	3,127,001	3,127,001	3,074,018	3,074,018	2,841,531	2,841,531	2,841,531	2,841,531	2,841,531	2,841,531	3,004,181	
219 COMPREHENSIVE IN	0	0	0	0	0	0	0	0	0	0	0	0	103,245	7,942	
221 1ST MORTG BONDS	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	
224 DEBENTURES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
231 NOTES PAYABLE	9,558,000	10,662,000	7,266,000	3,443,000	1,101,000	582,000	1,437,000	761,000	130,000	1,687,000	916,000	2,009,000	3,466,000	3,309,077	
235 CUSTOMER DEPOSIT	7,453,496	7,429,396	7,490,353	7,579,320	7,633,478	7,650,020	7,653,706	7,758,994	7,760,707	7,782,528	7,808,694	7,868,203	8,024,474	7,684,105	
255 INVEST TAX CRED	410,110	403,862	397,614	391,366	385,118	378,870	372,622	366,374	360,126	353,878	347,630	341,382	335,146	372,623	
282 ACCUM DEF TAXES*	20,269,855	19,728,501	19,082,269	18,974,514	18,838,768	18,820,456	19,497,811	19,449,874	19,252,835	18,495,733	18,315,426	18,252,256	18,032,064	19,000,797	
282 DEF TAX-UNDERREC	1,703,789	1,301,935	776,963	585,968	586,001	687,126	754,584	704,039	715,193	664,649	614,104	638,920	642,599	798,298	
CURRENT BONDS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3% INV TAX CRED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FLO-GAS CORP															
123 INV IN ASSOC CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
190 ACCUM DEF TAXES	88,090	90,329	92,863	90,872	91,549	91,437	92,194	92,226	93,981	90,912	93,276	93,930	183,576	98,864	
201 COMMON STOCK	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	
216 RETAINED EARNING	2,229,013	2,379,946	2,570,762	2,650,315	2,704,584	2,674,624	2,654,986	2,602,121	2,535,153	2,446,880	2,408,093	2,424,438	2,386,526	2,512,880	
235 CUSTOMER DEPOSIT	614,064	629,543	639,868	646,386	654,636	653,210	662,711	666,346	672,106	673,271	680,814	704,512	718,150	662,740	
255 INV TAX CREDIT	418	383	348	313	278	243	208	173	138	103	68	33	0	209	
282 ACCUM DEF TAXES	3,320,454	3,321,326	3,322,428	3,323,312	3,323,796	3,324,278	3,389,316	3,389,434	3,389,369	3,803,496	3,811,628	3,824,030	3,872,324	3,493,476	
3% INV TAX CRED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CONSOLIDATED															
LONG TERM DEBT	50,392,935	50,401,319	50,409,703	50,418,086	50,426,470	50,434,854	50,443,237	50,451,621	50,460,005	50,468,389	50,476,772	50,485,156	50,493,540	50,443,237	
SHORT TERM DEBT	9,558,000	10,662,000	7,266,000	3,443,000	1,101,000	582,000	1,437,000	761,000	130,000	1,687,000	916,000	2,009,000	3,466,000	3,309,077	
PREFERRED STOCK	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	
CUSTOMER DEPOSITS	8,067,561	8,058,939	8,130,221	8,225,706	8,288,114	8,303,230	8,316,417	8,425,340	8,432,813	8,455,798	8,489,508	8,572,716	8,742,624	8,346,845	
COMMON EQUITY	45,503,160	46,613,362	47,513,145	47,305,991	47,822,707	48,039,338	47,478,331	47,914,423	48,042,257	47,386,698	47,595,233	48,044,313	47,557,358	47,447,409	
COMMON EQ EXCL FLO	43,274,147	44,233,416	44,942,383	44,655,676	45,118,123	45,364,714	44,823,345	45,312,302	45,507,104	44,939,818	45,187,140	45,619,675	45,170,832	44,934,529	
DEFERRED INC TAXES*	19,875,317	19,729,335	19,566,640	19,625,969	19,459,042	19,317,183	19,973,410	19,948,747	19,732,236	19,431,901	19,300,500	19,247,623	18,611,965	19,524,605	
TAX CREDITS-ZERO CST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TAX CREDITS-WEIGHTED	410,529	404,246	397,963	391,680	385,397	379,114	372,831	366,548	360,265	353,982	347,699	341,416	335,146	372,832	
TOTAL	134,407,502	136,469,201	133,883,671	130,010,432	128,082,730	127,655,718	128,621,226	128,467,679	127,757,576	128,383,768	127,725,712	129,300,224	129,806,633	130,044,005	
TOTAL LTD,STD,EQUITY	106,054,095	108,276,681	105,788,847	101,767,077	99,950,177	99,656,192	99,958,568	99,727,044	99,232,262	100,142,087	99,588,005	101,138,469	102,116,898	101,799,723	
*excl environ tax in	accts. 2830.	**9 & 1900.	**9 and unde	rrec accts.2	830.111 & 22	1									

Exhibit 27.21
Pg. 232

7/17/2008 ^ CP

FLORIDA PUBLIC UTILITIES COMPANY
AND FLO-GAS CORPORATION
13 MONTH COST OF CAPITAL
12 2005

REPORT GROUP NAME: ROR
REPORT NAME: CAPITAL
DATE: 2/12/2006
USER: YOUNG
COST OF CAPITAL

FLORIDA PUBLIC	12 MTHS AGO	11 MTHS AGO	10 MTHS AGO	9 MTHS AGO	8 MTHS AGO	7 MTHS AGO	6 MTHS AGO	5 MTHS AGO	4 MTHS AGO	3 MTHS AGO	2 MTHS AGO	1 MTH AG			
123 INV IN ASSOC CO	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	revised by Curtis D. Young on 2/13/2006
1240.1 OTHER INVEST	111	111	110	111	111	111	111	111	111	111	111	111	111	111	
181 UNAMORT DEBT	2,207,670	2,199,286	2,190,902	2,182,519	2,174,135	2,165,751	2,157,367	2,148,984	2,140,600	2,132,216	2,123,832	2,115,449	2,107,065	2,157,367	
190 ACCUM DEF TAXES	2,460,212	2,493,220	2,521,529	2,524,725	2,791,404	2,793,093	2,932,651	2,944,076	2,939,079	3,794,457	3,841,160	3,862,181	3,877,356	3,059,626	
190 AC DE TAX ENVIRO	(1,919,833)	(1,920,132)	(1,920,638)	(1,921,197)	(1,921,882)	(1,922,614)	(1,932,308)	(1,933,151)	(1,935,497)	(1,937,927)	(1,938,970)	(1,945,258)	(1,954,243)	(1,931,050)	
201 COMMON STOCK	6,539,035	6,542,963	6,542,963	6,542,963	6,546,608	6,546,608	6,546,608	9,825,104	9,825,104	9,825,104	9,829,726	9,829,726	9,829,726	8,059,403	
204 PREFERRED STOCK	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	
207 PREM ON COMM STK	7,870,878	7,916,318	7,916,318	7,916,318	7,958,357	7,958,357	7,958,357	4,728,513	4,728,513	4,728,513	4,773,250	4,773,250	4,773,250	6,461,553	
213 DISC ON CAP STK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
211 MISC PAID IN CAP	1,593,145	1,632,092	1,632,092	1,640,000	1,640,000	1,650,692	1,664,632	1,705,128	1,705,128	1,738,926	1,738,926	1,738,926	1,744,228	1,678,763	
216 RETAINED EARNING	30,017,597	30,893,892	31,578,144	31,479,281	31,883,708	32,215,024	31,613,589	31,893,200	32,093,269	31,372,799	31,536,254	31,813,687	31,396,084	31,522,041	
214 CAPITAL STK EXP	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	
217 TREASURY STOCK	4,210,700	4,126,900	4,126,900	4,126,900	4,126,900	4,113,564	4,113,564	4,040,588	4,040,588	4,040,588	4,040,588	4,040,588	4,040,588	4,091,458	
221 1ST MORTG BONDS	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	
224 DEBENTURES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
231 NOTES PAYABLE	5,825,000	5,714,000	5,295,000	1,553,000	825,000	1,586,000	2,306,000	1,282,000	409,000	765,000	444,000	5,115,000	9,558,000	3,129,000	
235 CUSTOMER DEPOSIT	6,329,898	6,365,954	6,503,647	6,521,258	6,537,156	6,511,878	6,708,473	6,773,877	7,530,166	7,818,678	7,470,197	7,452,290	7,453,496	6,921,305	
255 INVEST TAX CRED	489,289	483,012	476,735	470,458	464,181	457,904	451,627	445,350	439,073	432,796	426,519	420,242	410,110	451,330	
282 ACCUM DEF TAXES*	19,553,119	19,409,375	19,208,686	19,174,520	19,059,206	19,085,519	18,976,210	18,867,428	19,043,265	19,975,275	19,893,437	20,382,871	20,269,855	19,453,751	
282 DEF TAX-UNDERREC	633,357	638,498	585,717	631,559	578,780	679,610	699,244	648,501	673,936	621,156	568,377	1,146,979	1,703,789	754,577	
CURRENT BONDS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3% INV TAX CRED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FLO-GAS CORP															
123 INV IN ASSOC CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
190 ACCUM DEF TAXES	186,111	188,433	187,175	189,362	73,137	94,975	94,144	94,638	90,372	88,215	93,685	97,312	88,090	120,435	
201 COMMON STOCK	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	
216 RETAINED EARNING	1,831,084	1,963,329	2,062,376	2,120,851	2,194,373	2,248,157	2,216,811	2,194,444	2,117,571	2,092,208	2,069,793	2,117,030	2,229,013	2,112,080	
235 CUSTOMER DEPOSIT	560,958	563,407	564,927	564,862	566,452	567,606	569,856	577,919	580,582	582,702	588,522	603,087	614,064	577,303	
255 INV TAX CREDIT	1,901	1,777	1,653	1,529	1,405	1,281	1,157	1,033	909	785	661	537	418	1,157	
282 ACCUM DEF TAXES	2,870,783	2,878,720	2,886,522	2,893,884	2,900,422	2,929,357	2,936,284	2,943,022	2,949,637	3,063,450	3,069,690	3,075,788	3,320,454	2,978,308	
3% INV TAX CRED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CONSOLIDATED															
LONG TERM DEBT	50,292,330	50,300,714	50,309,098	50,317,481	50,325,865	50,334,249	50,342,633	50,351,016	50,359,400	50,367,784	50,376,168	50,384,551	50,392,935	50,342,633	
SHORT TERM DEBT	5,825,000	5,714,000	5,295,000	1,553,000	825,000	1,586,000	2,306,000	1,282,000	409,000	765,000	444,000	5,115,000	9,558,000	3,129,000	
PREFERRED STOCK	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	
CUSTOMER DEPOSITS	6,890,855	6,929,360	7,068,574	7,086,120	7,103,608	7,079,484	7,278,329	7,351,797	8,110,748	8,401,381	8,058,719	8,055,377	8,067,561	7,498,609	
COMMON EQUITY	43,212,486	44,393,142	45,176,442	45,143,961	45,667,593	46,076,722	45,457,881	45,877,249	46,000,445	45,288,412	45,478,810	45,803,479	45,503,160	45,313,829	
COMMON EQ EXCL FLO	41,381,402	42,429,814	43,114,067	43,023,110	43,473,221	43,828,565	43,241,070	43,682,805	43,882,874	43,196,203	43,409,016	43,686,449	43,274,147	43,201,749	
DEFERRED INC TAXES*	21,064,054	20,888,075	20,721,424	20,643,954	20,438,188	20,369,811	20,118,762	20,056,385	20,225,011	20,472,823	20,398,874	20,297,444	19,875,317	20,428,471	
TAX CREDITS-ZERO CST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TAX CREDITS-WEIGHTED	491,189	484,788	478,387	471,986	465,585	459,184	452,783	446,382	439,981	433,580	427,179	420,778	410,529	452,487	
TOTAL	128,375,915	129,310,080	129,648,925	125,816,503	125,425,840	126,505,451	126,556,388	125,964,830	126,144,585	126,328,979	125,783,750	130,676,630	134,407,502	127,765,029	
TOTAL LTD,STD,EQUITY	99,929,816	101,007,856	101,380,540	97,614,443	97,418,459	98,596,971	98,706,514	98,110,266	97,368,845	97,021,196	96,898,977	101,903,030	106,054,095	99,385,462	
*excl environ tax in	accts. 2830.	**9 & 1900.	**9 and unde	rrec accts.2	830.111 & 22	1									

Cox Doreen

From: Cox Doreen
Sent: Friday, July 18, 2008 1:26 PM
To: Erdek Bonnie
Subject: Stock.xls
Attachments: Stock.xls

Bonnie:
The data on the attached schedule is needed for our Natural Gas Rate Case – would you be able to provide me with the Price per Share data for our DRIP, ESPP and BOD COMP for 2004 – 2007?
Thanks
Doreen

Date	Open	High	Low	Close	Volume	Adj Close
7/1/2008	11.96	12.00	11.62	11.83	14,100	11.83
6/2/2008	12.07	12.25	11.15	11.90	14,700	11.90
5/1/2008	11.00	12.14	10.75	12.00	10,100	11.88
4/1/2008	11.20	11.90	10.34	11.10	3,000	10.99
3/3/2008	11.94	12.35	10.78	11.21	3,900	11.10
2/1/2008	11.63	12.30	11.25	11.95	5,400	11.72
1/2/2008	11.80	12.30	10.75	11.61	18,100	11.38
12/3/2007	11.52	12.83	11.40	11.75	10,200	11.52
11/1/2007	11.91	12.10	11.24	11.79	39,100	11.45
10/1/2007	11.90	12.10	11.60	12.02	17,800	11.67
9/4/2007	11.77	12.06	11.15	12.00	2,700	11.65
8/1/2007	12.10	12.20	11.75	11.90	5,000	11.45
7/2/2007	12.30	12.49	12.00	12.15	2,200	11.69
6/1/2007	12.40	12.65	11.01	12.40	5,700	11.93
5/1/2007	12.90	12.90	12.00	12.40	6,800	11.82
4/2/2007	12.30	12.91	12.20	12.80	6,700	12.20
3/1/2007	12.95	13.22	12.20	12.40	9,200	11.82
2/1/2007	12.20	13.15	12.20	12.75	10,200	12.05
1/3/2007	13.30	13.50	11.90	12.30	3,000	11.62
12/1/2006	13.45	13.67	13.10	13.25	2,500	12.52
11/1/2006	13.88	14.00	13.40	13.50	1,800	12.65
10/2/2006	13.90	14.05	13.30	13.88	2,200	13.01
9/1/2006	13.05	14.42	13.00	13.80	2,500	12.93
8/1/2006	13.60	13.65	12.68	13.15	4,500	12.22
7/3/2006	12.64	14.12	12.61	13.40	2,900	12.46
6/1/2006	13.24	13.47	11.86	12.59	6,400	11.70
5/1/2006	13.80	13.97	12.80	13.24	3,400	12.20
4/3/2006	14.15	14.40	13.65	13.75	1,900	12.67
3/1/2006	14.32	14.50	13.95	14.15	4,000	13.04
2/1/2006	13.73	14.40	13.50	14.14	3,200	12.93
1/3/2006	13.70	14.00	13.25	13.70	5,200	12.53
12/1/2005	14.20	14.55	13.60	13.65	2,900	12.49
11/1/2005	14.54	14.54	13.75	14.15	2,800	12.85
10/3/2005	15.99	16.44	13.46	14.53	4,500	13.19
9/1/2005	16.45	16.69	15.50	15.88	4,700	14.42
8/1/2005	15.05	16.84	14.80	16.35	7,700	14.75
7/1/2005	19.01	22.99	14.50	14.99	17,600	13.53
6/1/2005	17.70	19.01	17.60	19.01	3,400	11.44
5/2/2005	18.21	18.87	17.55	17.70	3,000	10.56
4/1/2005	18.74	18.85	17.17	18.18	2,100	10.85
3/1/2005	18.66	20.24	18.63	18.80	3,900	11.22
2/1/2005	17.65	18.79	17.20	18.66	3,800	11.05
1/3/2005	19.25	19.28	17.20	17.55	5,900	10.39
12/1/2004	18.32	19.15	17.60	19.15	4,300	11.34
11/1/2004	17.20	19.24	16.85	18.44	3,700	10.83
10/1/2004	17.07	18.00	17.07	17.20	1,800	10.10

9/1/2004	17.19	17.61	17.00	17.15	2,300	10.07
8/2/2004	16.60	17.15	15.90	17.10	5,000	9.96
7/1/2004	17.99	18.25	16.30	16.70	6,500	9.72
6/1/2004	19.20	19.24	17.55	18.09	7,600	10.53
5/3/2004	20.13	20.13	18.61	19.00	2,100	10.98
4/1/2004	20.40	22.40	20.10	20.25	5,100	11.70
3/1/2004	18.15	20.50	18.03	20.50	9,300	11.84
2/2/2004	16.49	19.35	16.35	18.20	5,900	10.43
1/2/2004	15.85	16.63	15.49	16.39	2,900	9.39

Historical Prices

Get **Historical Prices** for: GO

SET DATE RANGE

Start Date: Jan 1 2004 Eg. Jan 1, 2003

End Date: Jul 18 2008

- Daily
- Weekly
- Monthly
- Dividends Only

Get Prices

First | Prev | Next | Last

PRICES

Date	Open	High	Low	Close	Avg Vol	Adj Close*
Jul-08	11.96	12.00	11.62	11.83	14,100	11.83
18-Jun-08			$ 0.118 Dividend			
Jun-08	12.07	12.25	11.15	11.90	14,700	11.90
May-08	11.00	12.14	10.75	12.00	10,100	11.88
Apr-08	11.20	11.90	10.34	11.10	3,000	10.99
18-Mar-08			$ 0.113 Dividend			
Mar-08	11.94	12.35	10.78	11.21	3,900	11.10
Feb-08	11.63	12.30	11.25	11.95	5,400	11.72
Jan-08	11.80	12.30	10.75	11.61	18,100	11.38
12-Dec-07			$ 0.113 Dividend			
Dec-07	11.52	12.83	11.40	11.75	10,200	11.52
Nov-07	11.91	12.10	11.24	11.79	39,100	11.45
Oct-07	11.90	12.10	11.60	12.02	17,800	11.67
5-Sep-07			$ 0.113 Dividend			
Sep-07	11.77	12.06	11.15	12.00	2,700	11.65
Aug-07	12.10	12.20	11.75	11.90	5,000	11.45
Jul-07	12.30	12.49	12.00	12.15	2,200	11.69
22-Jun-07			$ 0.113 Dividend			
Jun-07	12.40	12.65	11.01	12.40	5,700	11.93
May-07	12.90	12.90	12.00	12.40	6,800	11.82
Apr-07	12.30	12.91	12.20	12.80	6,700	12.20
14-Mar-07			$ 0.108 Dividend			
Mar-07	12.95	13.22	12.20	12.40	9,200	11.82
Feb-07	12.20	13.15	12.20	12.75	10,200	12.05
Jan-07	13.30	13.50	11.90	12.30	3,000	11.62
13-Dec-06			$ 0.108 Dividend			
Dec-06	13.45	13.67	13.10	13.25	2,500	12.52
Nov-06	13.88	14.00	13.40	13.50	1,800	12.65
Oct-06	13.90	14.05	13.30	13.88	2,200	13.01
6-Sep-06			$ 0.108 Dividend			
Sep-06	13.05	14.42	13.00	13.80	2,500	12.93
Aug-06	13.60	13.65	12.68	13.15	4,500	12.22
Jul-06	12.64	14.12	12.61	13.40	2,900	12.46

21-Jun-06			$ 0.108 Dividend			
Jun-06	13.24	13.47	11.86	12.59	6,400	11.70
May-06	13.80	13.97	12.80	13.24	3,400	12.20
Apr-06	14.15	14.40	13.65	13.75	1,900	12.67
15-Mar-06			$ 0.103 Dividend			
Mar-06	14.32	14.50	13.95	14.15	4,000	13.04
Feb-06	13.73	14.40	13.50	14.14	3,200	12.93
Jan-06	13.70	14.00	13.25	13.70	5,200	12.53
14-Dec-05			$ 0.103 Dividend			
Dec-05	14.20	14.55	13.60	13.65	2,900	12.49
Nov-05	14.54	14.54	13.75	14.15	2,800	12.85
Oct-05	15.99	16.44	13.46	14.53	4,500	13.19
7-Sep-05			$ 0.103 Dividend			
Sep-05	16.45	16.69	15.50	15.88	4,700	14.42
Aug-05	15.05	16.84	14.80	16.35	7,700	14.75
26-Jul-05			3 : 2 Stock Split			
Jul-05	19.01	22.99	14.50	14.99	17,600	13.53
22-Jun-05			$ 0.10333 Dividend			
Jun-05	17.70	19.01	17.60	19.01	3,400	11.44
May-05	18.21	18.87	17.55	17.70	3,000	10.56
Apr-05	18.74	18.85	17.17	18.18	2,100	10.85
9-Mar-05			$ 0.10 Dividend			
Mar-05	18.66	20.24	18.63	18.80	3,900	11.22
Feb-05	17.65	18.79	17.20	18.66	3,800	11.05
Jan-05	19.25	19.28	17.20	17.55	5,900	10.39
15-Dec-04			$ 0.10 Dividend			
Dec-04	18.32	19.15	17.60	19.15	4,300	11.34
Nov-04	17.20	19.24	16.85	18.44	3,700	10.83
Oct-04	17.07	18.00	17.07	17.20	1,800	10.10
8-Sep-04			$ 0.10 Dividend			
Sep-04	17.19	17.61	17.00	17.15	2,300	10.07
Aug-04	16.60	17.15	15.90	17.10	5,000	9.96
Jul-04	17.99	18.25	16.30	16.70	6,500	9.72
9-Jun-04			$ 0.10 Dividend			
Jun-04	19.20	19.24	17.55	18.09	7,600	10.53
May-04	20.13	20.13	18.61	19.00	2,100	10.98
Apr-04	20.40	22.40	20.10	20.25	5,100	11.70
10-Mar-04			$ 0.09867 Dividend			
Mar-04	18.15	20.50	18.03	20.50	9,300	11.84
Feb-04	16.49	19.35	16.35	18.20	5,900	10.43
Jan-04	15.85	16.63	15.49	16.39	2,900	9.39

* Close price adjusted for dividends and splits.

		<<<<<<<<<ACTUALS >>>>>>>>>												
		Dec-2006	Jan-2007	Feb-2007	Mar-2007	Apr-2007	May-2007	Jun-2007	Jul-2007	Aug-2007	Sep-2007	Oct-2007	Nov-2007	Dec-2007
Shares Outstanding		6,166,648	6,166,648	6,170,578	6,170,578	6,170,578	6,174,667	6,174,667	6,174,667	6,178,867	6,178,867	6,178,867	6,182,983	6,182,983
DRIP	2010.1		3,930			4,089			4,200			4,116		
Total Shares Outstanding		**6,166,648**	**6,170,578**	**6,170,578**	**6,170,578**	**6,174,667**	**6,174,667**	**6,174,667**	**6,178,867**	**6,178,867**	**6,178,867**	**6,182,983**	**6,182,983**	**6,182,983**
Treasury Shares	2170.1	160,349	160,349	145,839	145,839	145,839	145,839	142,689	142,689	129,223	129,223	129,223	129,223	129,223
Employee Stock Purchase Plan	2010.1		14,510						13,466					
BOD Stock Compensation	2010.1						3,150							
		160,349	**145,839**	**145,839**	**145,839**	**145,839**	**142,689**	**142,689**	**129,223**	**129,223**	**129,223**	**129,223**	**129,223**	**129,223**
Net Shares Outstanding Excl Treasury		**6,006,299**	**6,024,739**	**6,024,739**	**6,024,739**	**6,028,828**	**6,031,978**	**6,031,978**	**6,049,644**	**6,049,644**	**6,049,644**	**6,053,760**	**6,053,760**	**6,053,760**
Total Shares Outstanding	$1.50	$ 9,249,972	$ 9,255,867	$ 9,255,867	$ 9,255,867	$ 9,262,001	$ 9,262,001	$ 9,262,001	$ 9,268,301	$ 9,268,301	$ 9,268,301	$ 9,274,475	$ 9,274,475	$ 9,274,475
GL		9,250,472	9,256,367	9,256,367	9,256,367	9,262,500	9,262,500	9,262,500	9,268,800	9,268,800	9,268,800	9,274,974	9,274,974	9,274,974
Difference to GL		$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500
Cash Flow Projections		6,006,299	6,024,739	6,024,739	6,024,739	6,028,828	6,031,978	6,031,978	6,049,644	6,049,644	6,049,644	6,053,760	6,053,760	6,053,760
		0	0	0	0	0	0	0	0	0	0	0	0	0

		Dec-2007	Jan-2008	Feb-2008	Mar-2008	Apr-2008	May-2008	Jun-2008	Jul-2008	Aug-2008	Sep-2008	Oct-2008	Nov-2008	Dec-2008
Shares Outstanding		6,182,983	6,182,983	6,187,175	6,187,175	6,187,175	6,191,279	6,191,279	6,191,279	6,195,384	6,195,384	6,195,384	6,199,489	6,199,489
DRIP	2010.1		4,192			4,104			4,105			4,105		
Total Shares Outstanding		**6,182,983**	**6,187,175**	**6,187,175**	**6,187,175**	**6,191,279**	**6,191,279**	**6,191,279**	**6,195,384**	**6,195,384**	**6,195,384**	**6,199,489**	**6,199,489**	**6,199,489**
Treasury Shares	2170.1	129,223	129,223	115,610	115,610	115,610	115,610	111,445	111,445	97,350	97,350	97,350	97,350	97,350
Employee Stock Purchase Plan	2010.1		13,613						14,095					
BOD Stock Compensation	2010.1						4,165							
		129,223	**115,610**	**115,610**	**115,610**	**115,610**	**111,445**	**111,445**	**97,350**	**97,350**	**97,350**	**97,350**	**97,350**	**97,350**
Net Shares Outstanding Excl Treasury		**6,053,760**	**6,071,565**	**6,071,565**	**6,071,565**	**6,075,669**	**6,079,834**	**6,079,834**	**6,098,034**	**6,098,034**	**6,098,034**	**6,102,139**	**6,102,139**	**6,102,139**
Total Shares Outstanding	$1.50	$ 9,274,475	$ 9,280,763	$ 9,280,763	$ 9,280,763	$ 9,286,919	$ 9,286,919	$ 9,286,919	$ 9,293,076	$ 9,293,076	$ 9,293,076	$ 9,299,234	$ 9,299,234	$ 9,299,234
GL		9,274,974	9,281,263	9,281,263	9,281,263	9,287,419								
Difference to GL		$ 500	$ 500	$ 500	$ 500	$ 500								
Cash Flow Projections		6,053,760	6,071,565	6,071,565	6,071,565	6,075,669	6,079,834	6,079,834	6,098,034	6,098,034	6,098,034	6,102,139	6,102,139	6,102,139
		0	0	0	0	0	0	0	0	0	0	(0)	(0)	(0)

Exhibit 27.21
Pg. 240

		Dec-2008	Jan-2009	Feb-2009	Mar-2009	Apr-2009	May-2009	Jun-2009	Jul-2009	Aug-2009	Sep-2009	Oct-2009	Nov-2009	Dec-2009
Shares Outstanding		6,199,489	6,199,489	6,203,681	6,203,681	6,203,681	6,207,785	6,207,785	7,571,630	7,575,737	7,575,737	7,575,737	7,579,842	7,579,842
DRIP	2010.1		4,192 ✓			4,104 ✓			4,107 ✓			4,105 ✓		
Total Shares Outstanding		**6,199,489**	**6,203,681**	**6,203,681**	**6,203,681**	**6,207,785**	**6,207,785**	**6,207,785**	**7,575,737**	**7,575,737**	**7,575,737**	**7,579,842**	**7,579,842**	**7,579,842**
Treasury Shares	2170.1	97,350	97,350	83,571	83,571	83,571	83,571	79,406	79,406 ✓	65,543	65,543	65,543	65,543	65,543
Employee Stock Purchase Plan	2010.1		13,780 ✓						13,863 ✓					
BOD Stock Compensation	2010.1						4,165 ✓							
		97,350	**83,571**	**83,571**	**83,571**	**83,571**	**79,406**	**79,406**	**65,543**	**65,543**	**65,543**	**65,543**	**65,543**	**65,543**
Net Shares Outstanding Excl Treasury		**6,102,139**	**6,120,111**	**6,120,111**	**6,120,111**	**6,124,215**	**6,128,380**	**6,128,380**	**7,510,194**	**7,510,194**	**7,510,194**	**7,514,299**	**7,514,299**	**7,514,299**
Shares @ par value	$ 1.50	$ 9,299,234	$ 9,305,522	$ 9,305,522	$ 9,305,522	$ 9,311,678	$ 9,311,678	$ 9,311,678	$ 11,363,605	$ 11,363,605	$ 11,363,605	$ 11,369,762	$ 11,369,762	$ 11,369,762
Cash Flow Projections		6,102,139	6,120,110	6,120,110	6,120,110	6,124,215	6,128,380	6,128,380	7,510,195	7,510,195	7,510,195	7,514,300	7,514,300	7,514,300
		(0)	1	1	1	(0)	(0)	(0)	(1)	(1)	(1)	(1)	(1)	(1)

FPU PROJECTED DIVIDEND PAYMENTS

Stock Split 3:2 July 2005 1.5

	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER		AVERAGE	
Dte - Pmt		17-Jan			14-Apr			17-Jul			14-Oct					
2003																
Avg Shares	5,822,211	5,842,294	5,842,294	5,842,294	5,847,067	5,850,055	5,850,055	5,868,424	5,868,424	5,868,424	5,874,417	5,874,417	5,874,420		5,848,315	5,858,549
															jan & dec	12 mth
2004																
Projected	5,874,420	5,893,161	5,893,161	5,893,161	5,896,984	5,896,984	5,899,552	5,915,293	5,915,293	5,920,485	5,924,856	5,924,856	5,924,856		5,899,638	5,908,220
Qtrly Div'd		0.0983			0.0983			0.1000			0.1000					
Div'd $		577,651			579,494			589,955			592,048			2,339,149		
2005	5,924,856	5,940,756	5,940,756	5,940,756	5,944,401	5,946,345	5,946,345	5,960,601	5,960,601	5,960,601	5,963,682	5,963,682	5,963,682		5,944,269	5,952,684
		0.1000			0.1000			0.1033			0.1033					
		592,486			594,076			614,257			615,730			2,416,549		
2006	5,963,682	5,980,037	5,980,037	5,980,037	5,983,169	5,986,159	5,986,159	6,002,859	6,002,859	6,002,859	6,006,299	6,006,299	6,006,299		5,984,991	5,993,589
		0.1033			0.1033			0.1075			0.1075					
		616,048			617,738			643,512			645,307			2,522,606		
2007	6,006,299	6,024,739	6,024,739	6,024,739	6,028,828	6,031,978	6,031,978	6,049,644	6,049,644	6,049,644	6,053,760	6,053,760	6,053,760		6,030,030	6,039,767
		0.1075			0.1075			0.1122			0.1125					
		645,677			647,660			678,598			681,049			2,652,984		
2008	6,053,760	6,071,565	6,071,565	6,071,565	6,075,669	6,079,834	6,079,834	6,098,034	6,098,034	6,098,034	6,102,139	6,102,139	6,102,139		6,077,950	6,087,546
		0.1125			0.1125			0.1175			0.1175					
		681,049			683,051			714,380			716,519			2,795,000		
2009	6,102,139	6,120,110	6,120,110	6,120,110	6,124,215	6,128,380	6,128,380	7,510,195	7,510,195	7,510,195	7,514,300	7,514,300	7,514,300		6,808,219	6,817,899
		0.1175			0.1175			0.1194			0.1194					
		717,001			719,113			731,729			896,717			3,064,560		
2010	7,514,300	7,532,270	7,532,270	7,532,270	7,536,375	7,540,540	7,540,540	7,558,511	7,558,511	7,558,511	7,562,616	7,566,721	7,566,721		7,540,510	7,548,821
		0.1194			0.1194			0.1230			0.1230					
		897,207			899,353			927,351			929,561			3,653,472		
2011	7,566,721	7,584,691	7,584,691	7,584,691	7,588,796	7,592,961	7,592,961	7,610,932	7,610,932	7,610,932	7,615,037	7,615,037	7,615,037		7,590,879	7,600,558
		0.1230			0.1267			0.1267			0.1267					
		930,570			960,764			961,812			964,088			3,817,234		
2012	7,615,037	7,633,007	7,633,007	7,633,007	7,637,112	7,641,277	7,641,277	7,659,248	7,659,248	7,659,248	7,663,353	7,663,353	7,663,353		7,639,195	7,648,874
		0.1267			0.1305			0.1305			0.1305					
		964,608			995,891			996,970			999,314			3,956,783		

FLORIDA PUBLIC UTILITIES

Common Shares Outstanding
(as of the 15th of the month)
Year- 2007 FOR COMPARATIVE PURPOSES

PC Note: Run "UP" macro to prepare the upload share JE.

MONTH PERIOD	DRIP (2010)	EMPLOYEE STOCK Purchase Plan* (2010)	Additional shares due to Stock Split 2010	BD OF DIR STOCK Compensation* (2010)	TREAS. SHARES (2170)	ADJUSTMENT OF O/S SHARES TO A.S.T. (2010)	B/S TOTAL SHARES O/S CURR MTH	LESS: FLO GAS O/S 900.1230	SHARES AFTER ELIMIN.	TREASURY SHARES O/S (2170.1)	NET O/S (EXC.I/C & TREASURY)	I/S -MTH AVERAGE NET O/S (EXC.I/C & TREASURY)	I/S -YTD AVERAGE SHARES YTD	I/S -12 M AVERAGE SHARES 12 MONTHS
DEC (prior yr)														
Balance as of 15th														
After 15th:							**6,166,648**	0	6,166,648	**160,349**	6,006,299	6,006,299		
JAN														
Before 16th:	3,930	14,510												
After 15th:							**6,170,578**	0	6,170,578	**145,839**	6,024,739	6,024,739	6,024,739	5,997,314
FEB														
Before 16th:														
After 15th:							**6,170,578**	0	6,170,578	**145,839**	6,024,739	6,024,739	6,024,739	6,001,039
MAR														
Before 16th:														
After 15th:							**6,170,578**	0	6,170,578	**145,839**	6,024,739	6,024,739	6,024,739	6,004,764
APR														
Before 16th:	4,089													
After 15th:							**6,174,667**	0	6,174,667	**145,839**	6,028,828	6,028,828	6,025,761	6,008,569
MAY														
Before 16th:				3,150										
After 15th:							**6,174,667**	0	6,174,667	**142,689**	6,031,978	6,031,978	6,027,004	6,012,388
JUN														
Before 16th:														
After 15th:							**6,174,667**	0	6,174,667	**142,689**	6,031,978	6,031,978	6,027,833	6,016,206
JUL														
Before 16th:	4,200	13,466												
After 15th:							**6,178,867**	0	6,178,867	**129,223**	6,049,644	6,049,644	6,030,949	6,020,105
AUG														
Before 16th:														
After 15th:							**6,178,867**	0	6,178,867	**129,223**	6,049,644	6,049,644	6,033,286	6,024,003
SEP														
Before 16th:														
After 15th:							**6,178,867**	0	6,178,867	**129,223**	6,049,644	6,049,644	6,035,103	6,027,902
OCT														
Before 16th:	4,116													
After 15th:							**6,182,983**	0	6,182,983	**129,223**	6,053,760	6,053,760	6,036,969	6,031,857
NOV														
Before 16th:														
After 15th:							**6,182,983**	0	6,182,983	**129,223**	6,053,760	6,053,760	6,038,495	6,035,812
DEC														
Before 16th:														
After 15th:							**6,182,983**	0	6,182,983	**129,223**	6,053,760	6,053,760	6,039,767	6,039,767

Actual Y/E O/S- use on Y/E balance sheet.

*G Fractional Adjustment for 2002

FLORIDA PUBLIC UTILITIES

Common Shares Outstanding

(as of the 15th of the month)

Year- 2008 FOR COMPARATIVE PURPOSES

PC Note: Run "UP" macro to prepare the upload share JE.

MONTH PERIOD	DRIP (2010)	EMPLOYEE STOCK Purchase Plan* (2010)	Additional shares due to Stock Split 2010	BD OF DIR STOCK Compensation* (2010)	TREAS. SHARES (2170)	ADJUSTMENT OF O/S SHARES TO A.S.T. (2010)	B/S TOTAL SHARES O/S CURR MTH	LESS: FLO GAS O/S 900.1230	SHARES AFTER ELIMIN.	TREASURY SHARES O/S (2170.1)	NET O/S (EXC.I/C & TREASURY)	I/S -MTH AVERAGE NET O/S (EXC.I/C & TREASURY)	I/S -YTD AVERAGE SHARES YTD	I/S -12 M AVERAGE SHARES 12 MONTHS
DEC (prior yr)														
Balance as of 15th														
After 15th:							6,182,983	0	6,182,983	129,223	6,053,760	6,053,760		
JAN														
Before 16th:	4,192	13,613												
After 15th:							6,187,175	0	6,187,175	115,610	6,071,565	6,071,565	6,071,565	6,043,669
FEB														
Before 16th:														
After 15th:							6,187,175	0	6,187,175	115,610	6,071,565	6,071,565	6,071,565	6,047,572
MAR														
Before 16th:														
After 15th:							6,187,175	0	6,187,175	115,610	6,071,565	6,071,565	6,071,565	6,051,474
APR														
Before 16th:	4,104													
After 15th:							6,191,279	0	6,191,279	115,610	6,075,669	6,075,669	6,072,591	6,055,377
MAY														
Before 16th:				4,165										
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,074,039	6,059,365
JUN														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,075,005	6,063,353
JUL														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,075,695	6,065,869
AUG														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,076,212	6,068,385
SEP														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,076,614	6,070,901
OCT														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,076,936	6,073,074
NOV														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,077,200	6,075,246
DEC														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,077,419	6,077,419

Actual Y/E O/S- use on Y/E balance sheet.

*G Fractional Adjustment for 2002

FLORIDA PUBLIC UTILITIES
Common Shares Outstanding
(as of the 15th of the month)
Year- 2008 FOR COMPARATIVE PURPOSES

J18 J5

COPY

PC Note: Run "UP" macro to prepare the upload share JE.

MONTH PERIOD	DRIP (2010)	EMPLOYEE STOCK Purchase Plan* (2010)	Additional shares due to Stock Split 2010	BD OF DIR STOCK Compensation* (2010)	TREAS. SHARES (2170)	ADJUSTMENT OF O/S SHARES TO A.S.T. (2010)	B/S TOTAL SHARES O/S CURR MTH	LESS: FLO GAS O/S 900.1230	SHARES AFTER ELIMIN.	TREASURY SHARES O/S (2170.1)	NET O/S (EXC.I/C & TREASURY)	I/S -MTH AVERAGE NET O/S (EXC.I/C & TREASURY)	I/S -YTD AVERAGE SHARES YTD	I/S -12 M AVERAGE SHARES 12 MONTHS
DEC (prior yr)														
Balance as of 15th														
After 15th:							6,182,983	0	6,182,983	129,223	6,053,760	6,053,760		
JAN														
Before 16th:	4,192	13,613												
After 15th:							6,187,175	0	6,187,175	115,610	6,071,565	6,071,565	6,071,565	6,043,669
FEB														
Before 16th:														
After 15th:							6,187,175	0	6,187,175	115,610	6,071,565	6,071,565	6,071,565	6,047,572
MAR														
Before 16th:														
After 15th:							6,187,175	0	6,187,175	115,610	6,071,565	6,071,565	6,071,565	6,051,474
APR														
Before 16th:	4,104													
After 15th:							6,191,279	0	6,191,279	115,610	6,075,669	6,075,669	6,072,591	6,055,377
MAY														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,074,039	6,059,365
JUN														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,075,005	6,063,353
JUL														
Before 16th:	4,105	14,095												
After 15th:							6,195,384	0	6,195,384	97,350	6,098,034	6,098,034	6,078,295	6,067,386
AUG														
Before 16th:														
After 15th:							6,195,384	0	6,195,384	97,350	6,098,034	6,098,034	6,080,762	6,071,418
SEP														
Before 16th:														
After 15th:							6,195,384	0	6,195,384	97,350	6,098,034	6,098,034	6,082,681	6,075,451
OCT														
Before 16th:														
After 15th:							195,384	0	6,195,384	97,350	6,098,034	6,098,034	6,084,216	6,079,140
NOV														
Before 16th:														
After 15th:							195,384	0	6,195,384	97,350	6,098,034	6,098,034	6,085,472	6,082,830
DEC														
Before 16th:														
After 15th:							195,384	0	6,195,384	97,350	6,098,034	6,098,034	6,086,519	6,086,519
Actual Y/E O/S- use on '														
*G Fractional Adjust														

6,098,034.0000+
6,079,834.0000+
6,079,834.0000+
6,075,669.0000+
6,071,565.0000+
6,071,565.0000+
6,071,565.0000+
6,053,760.0000+
6,053,760.0000+
6,053,760.0000+
6,049,644.0000+
6,049,644.0000+
012
72,808,634.0000*

5G total

6,098,034.0000+
6,078,295.0000+
6,067,386.0000+
003
18,243,715.0000*

72,808,634.0÷
12.0=
6,067,386.1667*
0.*

Avg Shares

FLORIDA PUBLIC UTILITIES

Common Shares Outstanding

(as of the 15th of the month)

Year- 2004 FOR COMPARATIVE PURPOSES

Revised after 3 for 2 Stock Split July 7, 2005

*-Issued from Flo-gas shares.

PC Note: Run "UP" macro to prepare the upload share JE.

MONTH PERIOD	DRIP (2010)	EMPLOYEE STOCK Purchase Plan (2010)	Additional shares due to Stock Split 2010	BD OF DIR STOCK Compensation* (2010)	TREAS. SHARES (2170)	ADJUSTMENT OF O/S SHARES TO A.S.T. (2010)	B/S TOTAL SHARES O/S CURR MTH	LESS: FLO GAS O/S 900.1230	SHARES AFTER ELIMIN.	TREASURY SHARES O/S (2170.1)	NET O/S (EXC.I/C & TREASURY)	I/S -MTH AVERAGE NET O/S (EXC.I/C & TREASURY)	I/S -YTD AVERAGE SHARES YTD	I/S -12 M AVERAGE SHARES 12 MONTHS
DEC (prior yr)														
Balance as of 15th														
After 15th:							6,097,480	0	6,097,480	223,062	5,874,418	5,874,418		
JAN														
Before 16th:	5,582 ✓	8,773 ✓		4,387 ✓										
After 15th:							6,107,449	0	6,107,449	214,289	5,893,160	5,893,160 ✓	5,893,160	5,862,788
FEB														
Before 16th:														
After 15th:							6,107,449	0	6,107,449	214,289	5,893,160	5,893,160	5,893,160	5,867,027
MAR														
Before 16th:														
After 15th:							6,107,449	0	6,107,449	214,289	5,893,160	5,893,160	5,893,160	5,871,266
APR														
Before 16th:	3,824 ✓													
After 15th:							6,111,273	0	6,111,273	214,289	5,896,984	5,896,984	5,894,116	5,875,425
MAY														
Before 16th:														
After 15th:				856 ✓	1,712 ✓		6,111,273	0	6,111,273	214,289	5,896,984	5,896,984	5,894,689	5,879,336
JUN														
Before 16th:														
After 15th:							6,112,129	0	6,112,129	212,577	5,899,552	5,899,552	5,895,500	5,883,461
JUL														
Before 16th:	4,737 ✓	7,336 ✓		3,668 ✓										
After 15th:							6,120,534	0	6,120,534	205,241	5,915,293	5,915,293	5,898,327	5,887,366
AUG														
Before 16th:														
After 15th:							6,120,534	0	6,120,534	205,241	5,915,293	5,915,293	5,900,448	5,891,272
SEP														
Before 16th:						5,192								
After 15th:							6,125,726	0	6,125,726	205,241	5,920,485	5,920,485	5,902,674	5,895,610
OCT														
Before 16th:	4,371													
After 15th:							6,130,097	0	6,130,097	205,241	5,924,856	5,924,856	5,904,892	5,899,813
NOV														
Before 16th:														
After 15th:							6,130,097	0	6,130,097	205,241	5,924,856	5,924,856	5,906,707	5,904,016
DEC														
Before 16th:														
After 15th:							6,130,097	0	6,130,097	205,241	5,924,856	5,924,856	5,908,220	5,908,220

Actual Y/E O/S- use on Y/E balance sheet.

*G Fractional Adjustment for 2002

***September-2004 Adjusted shares by 3,461 due to a miscalculation of outstanding shares. as a result of the stock split. Reconciled shares to American Stock Transfer's outstanding shares figure.**

FLORIDA PUBLIC UTILITIES

Common Shares Outstanding

(as of the 15th of the month)

Year- 2005 FOR COMPARATIVE PURPOSES

Revised after 3 for 2 Stock Split July 7, 2005

*-Issued from Flo-gas shares.

PC Note: Run "UP" macro to prepare the upload share JE.

MONTH PERIOD	DRIP (2010)	EMPLOYEE STOCK Purchase Plan* (2010)	Additional shares due to Stock Split 2010	BD OF DIR STOCK Compensation* (2010)	TREAS. SHARES (2170)	ADJUSTMENT OF O/S SHARES TO A.S.T. (2010)	B/S TOTAL SHARES O/S CURR MTH	LESS: FLO GAS O/S 900.1230	SHARES AFTER ELIMIN.	TREASURY SHARES O/S (2170.1)	NET O/S (EXC.I/C & TREASURY)	I/S -MTH AVERAGE NET O/S (EXC.I/C & TREASURY)	I/S -YTD AVERAGE SHARES YTD	I/S -12 M AVERAGE SHARES 12 MONTHS
DEC (prior yr)														
Balance as of 15th														
After 15th:							**6,130,097**	0	6,130,097	**205,241**	5,924,856	5,924,856		
JAN														
Before 16th:	3,928	7,981	3,991											
After 15th:							**6,138,016**	0	6,138,016	**197,260**	5,940,756	5,940,756	5,940,756	5,912,186
FEB														
Before 16th:														
After 15th:							**6,138,016**	0	6,138,016	**197,260**	5,940,756	5,940,756	5,940,756	5,916,152
MAR														
Before 16th:														
After 15th:							**6,138,016**	0	6,138,016	**197,260**	5,940,756	5,940,756	5,940,756	5,920,119
APR														
Before 16th:	3,645													
After 15th:							**6,141,661**	0	6,141,661	**197,260**	5,944,401	5,944,401	5,941,667	5,924,070
MAY														
Before 16th:			648	1,296										
After 15th:							**6,142,309**	0	6,142,309	**195,964**	5,946,345	5,946,345	5,942,602	5,928,183
JUN														
Before 16th:														
After 15th:							**6,142,309**	0	6,142,309	**195,964**	5,946,345	5,946,345	5,943,226	5,932,083
JUL														
Before 16th:	3,801	6,970	3,485											
After 15th:							**6,149,595**	0	6,149,595	**188,994**	5,960,601	5,960,601	5,945,708	5,935,858
AUG														
Before 16th:														
After 15th:							**6,149,595**	0	6,149,595	**188,994**	5,960,601	5,960,601	5,947,570	5,939,634
SEP														
Before 16th:														
After 15th:							**6,149,595**	0	6,149,595	**188,994**	5,960,601	5,960,601	5,949,018	5,942,977
OCT														
Before 16th:	3,081													
After 15th:							**6,152,676**	0	6,152,676	**188,994**	5,963,682	5,963,682	5,950,484	5,946,213
NOV														
Before 16th:														
After 15th:							**6,152,676**	0	6,152,676	**188,994**	5,963,682	5,963,682	5,951,684	5,949,448
DEC														
Before 16th:														
After 15th:							**6,152,676**	0	6,152,676	**188,994**	5,963,682	5,963,682	5,952,684	5,952,684

Actual Y/E O/S- use on Y/E balance sheet.

*G Fractional Adjustment for 2002

FLORIDA PUBLIC UTILITIES

Common Shares Outstanding

(as of the 15th of the month)

Year- 2006 FOR COMPARATIVE PURPOSES

PC Note: Run "UP" macro to prepare the upload share JE.

MONTH PERIOD	DRIP (2010)	EMPLOYEE STOCK Purchase Plan* (2010)	Additional shares due to Stock Split 2010	BD OF DIR STOCK Compensation* (2010)	TREAS. SHARES (2170)	ADJUSTMENT OF O/S SHARES TO A.S.T. (2010)	B/S TOTAL SHARES O/S CURR MTH	LESS: FLO GAS O/S 900.1230	SHARES AFTER ELIMIN.	TREASURY SHARES O/S (2170.1)	NET O/S (EXC.I/C & TREASURY)	I/S -MTH AVERAGE NET O/S (EXC.I/C & TREASURY)	I/S -YTD AVERAGE SHARES YTD	I/S -12 M AVERAGE SHARES 12 MONTHS
DEC (prior yr)														
Balance as of 15th														
After 15th:							6,152,676	0	6,152,676	188,994	5,963,682	5,963,682		
JAN														
Before 16th:	3,820	12,535												
After 15th:							6,156,496	0	6,156,496	176,459	5,980,037	5,980,037	5,980,037	5,955,957
FEB														
Before 16th:														
After 15th:							6,156,496	0	6,156,496	176,459	5,980,037	5,980,037	5,980,037	5,959,230
MAR														
Before 16th:														
After 15th:							6,156,496	0	6,156,496	176,459	5,980,037	5,980,037	5,980,037	5,962,504
APR														
Before 16th:	3,132													
After 15th:							6,159,628	0	6,159,628	176,459	5,983,169	5,983,169	5,980,820	5,965,734
MAY														
Before 16th:				2,990										
After 15th:							6,159,628	0	6,159,628	173,469	5,986,159	5,986,159	5,981,887	5,969,052
JUN														
Before 16th:														
After 15th:							6,159,628	0	6,159,628	173,469	5,986,159	5,986,159	5,982,599	5,972,370
JUL														
Before 16th:	3,580	13,120												
After 15th:							6,163,208	0	6,163,208	160,349	6,002,859	6,002,859	5,985,494	5,975,892
AUG														
Before 16th:														
After 15th:							6,163,208	0	6,163,208	160,349	6,002,859	6,002,859	5,987,664	5,979,413
SEP														
Before 16th:														
After 15th:							6,163,208	0	6,163,208	160,349	6,002,859	6,002,859	5,989,353	5,982,935
OCT														
Before 16th:	3,440													
After 15th:							6,166,648	0	6,166,648	160,349	6,006,299	6,006,299	5,991,047	5,986,486
NOV														
Before 16th:														
After 15th:							6,166,648	0	6,166,648	160,349	6,006,299	6,006,299	5,992,434	5,990,038
DEC														
Before 16th:														
After 15th:							6,166,648	0	6,166,648	160,349	6,006,299	6,006,299	5,993,589	5,993,589

Actual Y/E O/S- use on Y/E balance sheet.

*G Fractional Adjustment for 2002

FLORIDA PUBLIC UTILITIES

Common Shares Outstanding
(as of the 15th of the month)
Year- 2007 FOR COMPARATIVE PURPOSES

PC Note: Run "UP" macro to prepare the upload share JE.

MONTH PERIOD	DRIP (2010)	EMPLOYEE STOCK Purchase Plan* (2010)	Additional shares due to Stock Split 2010	BD OF DIR STOCK Compensation* (2010)	TREAS. SHARES (2170)	ADJUSTMENT OF O/S SHARES TO A.S.T. (2010)	B/S TOTAL SHARES O/S CURR MTH	LESS: FLO GAS O/S 900.1230	SHARES AFTER ELIMIN.	TREASURY SHARES O/S (2170.1)	NET O/S (EXC.I/C & TREASURY)	I/S -MTH AVERAGE NET O/S (EXC.I/C & TREASURY)	I/S -YTD AVERAGE SHARES YTD	I/S -12 M AVERAGE SHARES 12 MONTHS
DEC (prior yr)														
Balance as of 15th														
After 15th:							6,166,648	0	6,166,648	160,349	6,006,299	6,006,299		
JAN														
Before 16th:	3,930	14,510												
After 15th:							6,170,578	0	6,170,578	145,839	6,024,739	6,024,739	6,024,739	5,997,314
FEB														
Before 16th:														
After 15th:							6,170,578	0	6,170,578	145,839	6,024,739	6,024,739	6,024,739	6,001,039
MAR														
Before 16th:														
After 15th:							6,170,578	0	6,170,578	145,839	6,024,739	6,024,739	6,024,739	6,004,764
APR														
Before 16th:	4,089													
After 15th:							6,174,667	0	6,174,667	145,839	6,028,828	6,028,828	6,025,761	6,008,569
MAY														
Before 16th:				3,150										
After 15th:							6,174,667	0	6,174,667	142,689	6,031,978	6,031,978	6,027,004	6,012,388
JUN														
Before 16th:														
After 15th:							6,174,667	0	6,174,667	142,689	6,031,978	6,031,978	6,027,833	6,016,206
JUL														
Before 16th:	4,200	13,466												
After 15th:							6,178,867	0	6,178,867	129,223	6,049,644	6,049,644	6,030,949	6,020,105
AUG														
Before 16th:														
After 15th:							6,178,867	0	6,178,867	129,223	6,049,644	6,049,644	6,033,286	6,024,003
SEP														
Before 16th:														
After 15th:							6,178,867	0	6,178,867	129,223	6,049,644	6,049,644	6,035,103	6,027,902
OCT														
Before 16th:	4,116													
After 15th:							6,182,983	0	6,182,983	129,223	6,053,760	6,053,760	6,036,969	6,031,857
NOV														
Before 16th:														
After 15th:							6,182,983	0	6,182,983	129,223	6,053,760	6,053,760	6,038,495	6,035,812
DEC														
Before 16th:														
After 15th:							6,182,983	0	6,182,983	129,223	6,053,760	6,053,760	6,039,767	6,039,767

Actual Y/E O/S- use on Y/E balance sheet.

*G Fractional Adjustment for 2002

FLORIDA PUBLIC UTILITIES

Common Shares Outstanding
(as of the 15th of the month)
Year- 2008 FOR COMPARATIVE PURPOSES

PC Note: Run "UP" macro to prepare the upload share JE.

MONTH PERIOD	DRIP (2010)	EMPLOYEE STOCK Purchase Plan* (2010)	Additional shares due to Stock Split 2010	BD OF DIR STOCK Compensation* (2010)	TREAS. SHARES (2170)	ADJUSTMENT OF O/S SHARES TO A.S.T. (2010)	B/S TOTAL SHARES O/S CURR MTH	LESS: FLO GAS O/S 900.1230	SHARES AFTER ELIMIN.	TREASURY SHARES O/S (2170.1)	NET O/S (EXC.I/C & TREASURY)	I/S -MTH AVERAGE NET O/S (EXC.I/C & TREASURY)	I/S -YTD AVERAGE SHARES YTD	I/S -12 M AVERAGE SHARES 12 MONTHS
DEC (prior yr)														
Balance as of 15th														
After 15th:							6,182,983	0	6,182,983	129,223	6,053,760	6,053,760		
JAN														
Before 16th:	4,192	13,613												
After 15th:							6,187,175	0	6,187,175	115,610	6,071,565	6,071,565	6,071,565	6,043,669
FEB														
Before 16th:														
After 15th:							6,187,175	0	6,187,175	115,610	6,071,565	6,071,565	6,071,565	6,047,572
MAR														
Before 16th:														
After 15th:							6,187,175	0	6,187,175	115,610	6,071,565	6,071,565	6,071,565	6,051,474
APR														
Before 16th:	4,104													
After 15th:							6,191,279	0	6,191,279	115,610	6,075,669	6,075,669	6,072,591	6,055,377
MAY														
Before 16th:				4,165										
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,074,039	6,059,365
JUN														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,075,005	6,063,353
JUL														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,075,695	6,065,869
AUG														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,076,212	6,068,385
SEP														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,076,614	6,070,901
OCT														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,076,936	6,073,074
NOV														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,077,200	6,075,246
DEC														
Before 16th:														
After 15th:							6,191,279	0	6,191,279	111,445	6,079,834	6,079,834	6,077,419	6,077,419

Actual Y/E O/S- use on Y/E balance sheet.
*G Fractional Adjustment for 2002

Surveillance Report 2007

	A	B	C	D	E	F	G	H	I	J	K	L
37	INPUT AREA 5			TOTAL COMPANY CONSOLIDATED								
38				RATIO	GAS	GAS			ELECTRIC	ELECTRIC		
39	AVERAGE	AMOUNT	RATIO	FLOGAS	CONSOL.	FLOGAS	ADJUST	RATIO	CONSOL	FLOGAS	ADJUST	RATIO
40	LONG TERM DEBT	50,535,952	48.33%	48.88%	24,717,431	24,998,718	(1,306,228)	48.33%	14,996,398	15,167,059	(8,576)	48.33%
41	SHORT TERM DEBT	4,500,154	4.30%	4.35%	2,199,151	2,224,722	(116,246)	4.30%	1,334,254	1,349,769	(763)	4.30%
42	PREFERRED STOCK	600,000	0.57%	0.58%	291,515	296,630	(15,499)	0.57%	176,866	179,969	(102)	0.57%
43												
44	COMMON EQUITY	48,921,898	46.80%		23,934,943			46.80%	14,521,653			46.80%
45	COMMON EQTY-FLOGAS	47,746,971		46.18%		23,622,970	(1,234,343)			14,332,374	(8,104)	
46	CUSTOMER DEPOSITS				5,627,676	5,627,676			2,680,914	2,680,914		
47	DEFERRED INCOME TAXES				6,231,942	6,231,942			4,914,643	4,914,643		
48	TAX CREDITS-ZERO COST				0	0			1,439	1,439		
49	TAX CREDITS-WEIGHTED COST				190,499	190,499			108,750	108,750		
50		104,558,004	100.00%	99.99%	63,193,157	(9) 63,193,157	(2,672,316)	100.00%	38,734,917	38,734,917	(17,545)	100.00%
51												
52	LT DEBT	50,535,952	48.88%		8.00	3.91			8.00	3.91		
53	PREF STK	600,000	0.58%		4.75	0.03			4.75	0.03		
54	ST DEBT	4,500,154	4.35%		4.14	0.18			4.14	0.18		
55	COM EQTY	47,746,971	46.19%		10.25	4.73			10.50	4.85		
56												
57		103,383,077	100.00%			8.85				8.97		
58	COM EQTY	47,746,971	46.19%		11.25	5.20			11.50	5.31		
59						9.32				9.43		
60	COM EQTY	47,746,971	46.19%		12.25	5.66			12.50	5.77		
61						9.78				9.89		
62												

Florida Public Utilities
13 MONTH COST OF CAPITAL
December 2006 - December 2007

REPORT GROUP NAME: ROR
REPORT NAME: CAPITAL
DATE: 2/29/2008

Line	Ref	Florida Public Utilities:	Notes	Acct #	Dec-2006	Jan-2007	Feb-2007	Mar-2007	Apr-2007	May-2007	Jun-2007	Jul-2007	Aug-2007	Sep-2007	Oct-2007	Nov-2007	Dec-2007	13 mth AVERAGE
					<<<<<<<<<ACTUALS >>>>>>>>>													
16	16	INV IN ASSOC CO		1230	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
17	17																	
18	18	UNAMORT DEBT		1810 & 1890	2,008,460	1,998,076	1,989,693	1,981,309	1,972,925	1,964,542	1,959,572	1,951,190	1,942,807	1,934,087	1,925,704	1,917,320	1,908,937	1,957,894
19	19	ACCUM DEF TAXES	Gas only	1900	3,112,665	3,140,608	3,163,203	3,182,671	3,199,753	3,221,762	3,266,250	3,314,159	3,332,315	3,332,788	3,370,372	3,373,184	3,378,384	3,262,332
20	20	AC DE TAX ENVIRO	Gas only	1900.**9	(2,052,991)	(2,081,738)	(2,092,446)	(2,114,651)	(2,129,135)	(2,154,977)	(2,194,531)	(2,167,269)	(2,199,718)	(2,205,069)	(2,226,410)	(2,234,558)	(2,249,050)	(2,161,751)
21	21	COMMON STOCK		2010	9,250,472	9,256,367	9,256,367	9,256,367	9,262,501	9,262,501	9,262,501	9,268,801	9,268,801	9,268,801	9,274,975	9,274,975	9,274,975	9,264,492
22	22	PREFERRED STOCK		2040	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000
23	23	PREM ON COMM STK		2070	5,542,966	5,569,111	5,569,111	5,569,111	5,633,681	5,633,681	5,633,681	5,679,461	5,679,461	5,679,461	5,722,679	5,722,679	5,722,679	5,647,522
24	24	DISC ON CAP STK		2130	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	25	MISC PAID IN CAP		2110	938,906	837,046	837,046	848,840	848,840	833,024	845,867	758,877	758,877	773,363	773,363	773,363	781,403	816,063
26	26	RETAINED EARNING		2160	32,826,819	33,447,261	33,965,988	35,651,316	35,925,472	36,077,430	35,295,436	35,439,832	35,578,174	34,964,435	35,125,616	35,418,831	34,972,913	34,976,256
27	27	CAPITAL STK EXP		2140	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441	428,441
28	28	TREASURY STOCK		2170	2,841,531	2,584,414	2,584,414	2,584,414	2,584,414	2,526,593	2,526,593	2,289,976	2,289,976	2,289,976	2,289,976	2,289,976	2,289,976	2,459,710
29	29	1ST MORTG BONDS		2210	52,500,000	52,500,000	52,500,000	52,500,000	52,500,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,490,000	52,493,846
30	30	DEBENTURES		2240	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	31	NOTES PAYABLE		2310	3,466,000	3,964,000	2,243,000	2,215,000	3,120,000	1,460,000	1,105,000	3,552,000	3,466,000	9,246,000	7,156,000	6,363,000	11,122,000	4,500,154
32	32	CUSTOMER DEPOSIT	Gas only	2350.1	5,491,600	5,559,619	5,604,513	5,642,261	5,652,617	5,631,942	5,607,066	5,646,460	5,649,535	5,654,542	5,663,446	5,677,146	5,679,024	5,627,576
33	33	INVEST TAX CRED	Gas only		210,185	206,904	203,623	200,342	197,061	193,780	190,499	187,218	183,937	180,656	177,375	174,094	170,813	190,499
34	34	ACCUM DEF TAXES*	Gas only	2820 & 2821 & 2830	10,122,510	9,948,346	9,829,092	9,720,347	9,617,777	9,533,188	9,535,557	9,446,597	9,447,643	9,475,978	9,459,314	9,402,066	8,614,977	9,550,283
35	35	DEF TAX-UNDERREC	Gas only	2830.111 & 221	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	36	CURRENT BONDS			-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	37	3% INV TAX CRED	Gas only		-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	38																	
39	39	FLO-GAS CORP																
40	40																	
41	41	INV IN ASSOC CO		1230	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	42	ACCUM DEF TAXES	Zeroed	1900	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	43	COMMON STOCK		2010	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
44	44	RETAINED EARNING		2160	2,386,528	2,472,443	2,598,924	705,053	765,096	775,864	784,225	789,291	773,126	784,154	791,079	798,675	849,603	1,174,928
45	45	COMPREHENSIVE IN		2190	103,245	103,245	103,245	79,108	79,108	79,108	53,461	53,461	53,461	28,569	28,569	28,569	(87,528)	54,279
46	46	CUSTOMER DEPOSIT	Zeroed	2350	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	47	INV TAX CREDIT	Zeroed	2550	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	48	ACCUM DEF TAXES	Zeroed	2820	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	49	3% INV TAX CRED	Zeroed		-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	50																	
51	51	CONSOLIDATED																
52	52			Line Reference														
53	53	LONG TERM DEBT		L30+L31-L16	50,493,540	50,501,924	50,510,307	50,518,691	50,527,075	50,525,456	50,530,428	50,536,810	50,547,193	50,555,813	50,564,296	50,572,680	50,581,063	50,535,952
54	54	SHORT TERM DEBT		L32	3,466,000	3,964,000	2,243,000	2,215,000	3,120,000	1,460,000	1,105,000	3,552,000	3,466,000	9,246,000	7,156,000	6,363,000	11,122,000	4,500,154
55	55	PREFERRED STOCK		L22	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000
56	56	CUSTOMER DEPOSITS	Gas only	L28	5,491,600	5,559,619	5,604,513	5,642,261	5,652,617	5,631,942	5,607,066	5,646,460	5,649,535	5,654,542	5,663,446	5,677,146	5,679,024	5,627,576
57	57	COMMON EQUITY		L16+L21+L23+L24+L26-L27-L28-L29-L42+L44+L45-L45	47,572,252	48,466,127	49,131,336	48,958,727	49,343,827	49,546,358	48,812,217	49,164,384	49,267,561	48,723,228	48,940,728	49,241,538	48,970,664	48,936,831
58	58	COMMON EQ EXCL FLO		=L21+L23+L24+L26+L28-L27-L28-L29	45,288,010	46,116,929	46,635,657	46,332,782	46,657,639	46,849,802	46,081,454	46,428,554	46,567,896	47,967,843	48,178,219	48,471,431	48,033,553	47,816,182
59	59	DEFERRED INC TAXES*	Gas only	L13+L19+L20-L23-L24-L25	9,072,636	8,899,476	8,756,337	8,652,527	8,547,159	8,466,404	8,411,838	8,319,727	8,315,046	8,348,259	8,315,352	8,263,460	7,485,643	8,449,682
60	60	TAX CREDITS-ZERO CST	Gas only	L34-L48	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	61	TAX CREDITS-WEIGHTED	Gas only	L34-L36-L47-L48	210,185	206,904	203,623	200,342	197,061	193,780	190,499	187,218	183,937	180,656	177,375	174,094	170,813	190,499
62	62	TOTAL INCLUDING FLO-GAS EQUITY			116,906,253	118,206,050	117,051,116	116,787,547	117,987,536	116,423,942	115,257,069	118,008,586	118,051,272	123,310,599	121,417,196	120,911,917	124,609,227	118,840,794
63	63	TOTAL EXCLUDING FLO-GAS EQUITY			114,622,971	115,838,852	114,555,437	116,161,602	117,361,658	115,727,186	114,526,305	117,272,768	117,331,608	122,555,913	120,654,888	120,141,811	123,672,896	117,720,145
64	64	TOTAL LTD,STD,EQUITY			102,131,831	103,552,051	102,484,843	102,292,416	103,590,702	102,131,816	101,047,645	103,855,194	103,902,754	109,127,142	107,261,025	106,797,217	111,273,747	104,572,937
65	65	TOTAL LTD,STD,EQUITY EXCL FLO-GAS			99,849,550	101,182,853	99,988,964	101,666,473	102,994,714	101,435,060	100,316,881	103,119,364	103,183,089	108,371,556	106,498,515	106,027,111	110,336,616	103,452,288

Exhibit 27.21
Pg. 252

FLORIDA PUBLIC UTILITIES COMPANY
AND FLO-GAS CORPORATION
13 MONTH COST OF CAPITAL
12 2007

REPORT GROUP NAME: ROR
REPORT NAME: CAPITAL
DATE: 2/29/2008
USER: YOUNG
COST OF CAPITAL

FLORIDA PUBLIC	12 MTHS AGO	11 MTHS AGO	10 MTHS AGO	9 MTHS AGO	8 MTHS AGO	7 MTHS AGO	6 MTHS AGO	5 MTHS AGO	4 MTHS AGO	3 MTHS AGO	2 MTHS AGO	1 MTH AGO	12 2007	13 MONTH AVERAGE	
123 INV IN ASSOC CO	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	
1240.1 OTHER INVEST	14933.59	14933.45	14933.06	14933.27	14932.65	14932.86	14933.15	14932.78	14933.01	14933.08	14933.27	14932.83	14933.02	14932.85	revised by Malena Bolden on 03/03/08
181 UNAMORT DEBT	2006460.19	1998076.46	1989692.73	1981309	1972925.27	1964541.54	1959572.41	1951190.15	1942806.91	1934086.9	1925703.66	1917320.42	1908937.27	1957894.07	
190 ACCUM DEF TAXES	4473150	4509432	4529993	4245313	4264202	4290020	4367205	4398385	4419747	4443392	4496152	4498075	4493908	4417613.38	
190 AC DE TAX ENVIRO	-2006902.34	-2011234.12	-2011234.12	-2025335.88	-2025335.88	-2039526.06	-2039526.06	-2050625.21	-2050625.21	-2050625.21	-2057347.45	-2057347.45	-2067724.61	-2037953.05	
201 COMMON STOCK	9250472	9256367	9256367	9256367	9262500.5	9262500.5	9262500.5	9268800.5	9268800.5	9268800.5	9274974.5	9274974.5	9274974.5	9264492.27	
204 PREFERRED STOCK	600000	600000	600000	600000	600000	600000	600000	600000	600000	600000	600000	600000	600000	600000	
207 PREM ON COMM STK	5542985.56	5589111.08	5589111.08	5589111.08	5633681.18	5633681.18	5633681.18	5679461.18	5679461.18	5679461.18	5722679.18	5722679.18	5722679.18	5647521.8	
213 DISC ON CAP STK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
211 MISC PAID IN CAP	938905.84	837045.64	837045.64	848840.31	848840.31	833024.16	845867.27	758876.91	758876.91	773362.95	773362.95	773362.95	781403.1	816062.69	
216 RETAINED EARNING	32826618.99	33447260.66	33965987.92	35651318.3	35925471.83	36077429.74	35296438.34	35439831.8	35579174.02	34964434.77	35125618.21	35418830.98	34972912.52	34976256.01	
214 CAPITAL STK EXP	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	428440.76	
217 TREASURY STOCK	2841531.38	2584414.18	2584414.18	2584414.18	2584414.18	2528593.03	2528593.03	2289975.51	2289975.51	2289975.51	2289975.51	2289975.51	2289975.51	2459709.79	
219 COMPREHENSIVE IN	103245	103245	103245	79108	79108	79108	53461	53461	53461	28569	28569	28569	-87528	54278.54	
221 1ST MORTG BONDS	52500000	52500000	52500000	52500000	52500000	52490000	52490000	52490000	52490000	52490000	52490000	52490000	52490000	52493846.15	
224 DEBENTURES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
231 NOTES PAYABLE	3466000	3964000	2243000	2215000	3120000	1460000	1105000	3552000	3468000	9248000	7156000	6383000	11122000	4500153.85	
235 CUSTOMER DEPOSIT	8024473.96	8050644.21	8156254.52	8483971.82	8685605.49	8690872.82	8671724.36	8692891.85	8677811.89	8698379.27	8743911.52	8691942.63	8685536.64	8534924.69	
255 INVEST TAX CRED	335145.65	329402.65	323659.65	317916.65	312173.65	306430.65	300687.65	294944.65	289201.65	283458.65	277715.65	271972.65	266235.78	300688.12	
282 ACCUM DEF TAXES*	18032064.07	17877148.07	17685995.07	17474762.07	17336808.07	17274344.07	17319852.07	17115955.07	17054924.07	16965897.07	16852193.07	16699459.07	17152563.07	17295535.76	
282 DEF TAX-UNDERREC	642599	676370	672093	622371	570527	640696	712111	658562	620580	567030	513479	459930	406380	597132.92	
CURRENT BONDS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3% INV TAX CRED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FLO-GAS CORP															
123 INV IN ASSOC CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
190 ACCUM DEF TAXES	183576	181910	183909	82714	83985	85697	80560	79366	82384	86701	85895	84332	62142	104859.31	
201 COMMON STOCK	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	
216 RETAINED EARNING	2386526.38	2472442.6	2598923.87	705053.05	765096.14	775864.19	784224.66	789290.79	773125.59	784154.36	791078.83	798675.3	849602.87	1174927.59	
235 CUSTOMER DEPOSIT	718150.15	730526.04	736985.15	741060.15	749336.15	752487.89	752507.89	758737.73	774608.73	778290.73	789237.73	793772.87	804803.02	760038.79	
255 INV TAX CREDIT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
282 ACCUM DEF TAXES	3872323.93	3879049.93	3890066.93	3811346.93	3820250.93	3830094.93	3854368.93	3863902.93	3873376.93	3900330.93	3910295.93	3920210.93	3908826.93	3871880.55	
3% INV TAX CRED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CONSOLIDATED															
LONG TERM DEBT	50,493,540	50,501,924	50,510,307	50,518,691	50,527,075	50,525,458	50,530,426	50,538,810	50,547,193	50,555,913	50,564,296	50,572,680	50,581,063	50,535,952	
SHORT TERM DEBT	3,466,000	3,964,000	2,243,000	2,215,000	3,120,000	1,460,000	1,105,000	3,552,000	3,468,000	9,248,000	7,156,000	6,383,000	11,122,000	4,500,154	
PREFERRED STOCK	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	
CUSTOMER DEPOSITS	8,742,624	8,781,170	8,893,240	9,225,032	9,434,942	9,443,361	9,424,232	9,451,630	9,452,421	9,476,670	9,533,149	9,485,716	9,490,340	9,294,963	
COMMON EQUITY	47,557,358	48,471,194	49,116,403	48,943,794	49,328,694	49,531,425	48,797,284	49,149,451	49,272,628	48,708,295	48,925,795	49,226,605	48,955,751	48,921,898	
COMMON EQ EXCL FLO	45,170,832	45,998,751	46,517,479	48,238,740	48,563,598	48,755,561	48,013,059	48,360,160	48,499,502	47,924,141	48,134,716	48,427,930	48,106,148	47,746,971	
DEFERRED INC TAXES*	18,611,965	18,399,720	18,201,301	18,361,047	18,263,681	18,127,552	18,053,871	17,894,170	17,856,215	17,819,730	17,724,310	17,634,680	18,166,685	18,085,764	
TAX CREDITS-ZERO CST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TAX CREDITS-WEIGHTED	335,146	329,403	323,660	317,917	312,174	306,431	300,688	294,945	289,202	283,459	277,716	271,973	266,236	300,688	
TOTAL	129,806,633	131,047,410	129,887,910	130,181,480	131,586,565	129,994,227	128,811,503	131,481,005	131,485,658	136,692,067	134,781,267	134,174,653	139,182,074	132,239,420	-
TOTAL LTD,STD,EQUITY	102,116,898	103,537,117	102,469,710	102,277,485	103,575,769	102,116,884	101,032,712	103,840,261	103,887,821	109,112,209	107,246,091	106,782,284	111,258,814	104,558,004	

*excl environ tax in accts. 2830. **9 & 1900. **9 and unde rrec accts.2 830.111 & 22 1

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7/21/2008 ^ CP

Exhibit 27.21
Pg. 253

FLORIDA PUBLIC UTILITIES COMPANY
CONSOLIDATED GAS DIVISION
EARNINGS SURVEILLANCE REPORT SUMMARY
DECEMBER 2007

SCHEDULE 1

	(1) ACTUAL PER BOOKS	(2) FPSC ADJUSTMENTS	(3) FPSC ADJUSTED	(4) PRO FORMA ADJUSTMENTS	(5) PRO FORMA ADJUSTED
I. AVERAGE RATE OF RETURN (JURISDICTIONAL)					
NET OPERATING INCOME	$3,902,177	80,848	$3,983,025	$0	$3,983,025
AVERAGE RATE BASE	(9) $63,193,157	(2,672,316)	$60,520,841	3,316,088	$63,836,929
AVERAGE RATE OF RETURN	6.17%		6.58%		6.24%
II. YEAR END RATE BASE (JURISDICTIONAL)	$67,867,003	(3,129,320)	$64,737,683	1,545,470	$66,283,153

III. REQUIRED RATES OF RETURN AVERAGE CAPITAL STRUCTURE (FPSC ADJUSTED BASIS)	
LOW	7.72%
MIDPOINT	8.09%
HIGH	8.46%

IV. EARNED RETURN ON EQUITY (FPSC ADJUSTED BASIS)	
A. INCLUDING FLEX RATE REVENUES	7.16%
B. EXCLUDING FLEX RATE REVENUES	7.16%

I am aware that Section 837.06, Florida Statutes, provides:

Whoever knowingly makes a false statement in writing with the intent to mislead a public servant in the performance of his official duty shall be guilty of a misdemeanor of the second degree, punishable as provided in s. 775.082, s. 775.083, or s. 775.084.

Cheryl M. Martin, Controller
(Name & Title)

(Signature)

(Date)

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Account File	8,951,491.93
Acct Balance File	
Gas	5,010,766.73
Other -job	205,322.60
Electric	2,549,650.12
Sewer	.00
Garbage	.00
Propane	1,402,500.65
Overpmt	856,918.89CR
Contracts	540,513.39
Water	.00
Labor	24,682.03
Lights	74,975.30
	.00
Total ==>	8,951,491.93

	Elec Add'l Deposit Res	6% Interest
Electric	73,465.00	2,768.72
Total ==>	73,465.00	2,768.72

	Electric Deposit Res	6% Interest
Electric	628,597.76	21,449.67
Total ==>	628,597.76	21,449.67

	Electric Deposit Comm	6% Interest
Electric	291,235.65	8,918.87
Total ==>	291,235.65	8,918.87

	FB Elec Add'l Deposit 6%-Comm	6% Interest
Electric	53,745.00	1,572.10
Total ==>	53,745.00	1,572.10

	FB Elec Add'l Deposit 7% Comm	7% Interest
Electric	3,000.00	156.48
Total ==>	3,000.00	156.48

	FB Elec Add'l Deposit 6%-Res	6% Interest
Electric	18,790.00	849.53
Total ==>	18,790.00	849.53

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

	FB Elec Deposit 6% Res	6% Interest
Overpmt	115.00CR	.00
Electric	172,785.12	7,713.89
Total ==>	172,670.12	7,713.89

	FB Elec Deposit 7% Comm	7% Interest
Electric	132,791.48	6,558.31
Total ==>	132,791.48	6,558.31

	FB Elec Dep 6% Comm	6% Interest
Electric	321,768.22	15,922.32
Total ==>	321,768.22	15,922.32

	FB Propane Dep	
Propane	7,020.00	.00
Total ==>	7,020.00	.00

	Gas Add'l Deposit 6%-Comm		6% Interest	
Gas	352,532.85	✓	16,851.69	✓
Total ==>	352,532.85		16,851.69	

	Gas Add'l Deposit 6%-Res		6% Interest	
Gas	26,900.30	✓	1,220.12	✓
Total ==>	26,900.30		1,220.12	

	Gas Add'l Deposit 7% Comm		7% Interest	
Gas	40,560.00	✓	2,304.78	✓
Total ==>	40,560.00		2,304.78	

	Gas Deposit 6% Res		6% Interest	
Gas	1,497,021.78	✓	53,305.42	✓
Total ==>	1,497,021.78		53,305.42	

	Gas Deposit 7% Comm		7% Interest	
Gas	604,513.08	✓	33,819.11	✓
Total ==>	604,513.08		33,819.11	

	Gas Deposit 6% Comm		6% Interest	
Gas	2,905,330.61	✓	122,443.14	✓

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Total ==>	2,905,330.61		122,443.14
	Mar Elec Add'l Deposit 6%Comm	6% Interest	
Electric	6,650.00		342.79
Total ==>	6,650.00		342.79
	Mar Elec Add'l Deposit 6%-Res	6% Interest	
Electric	715.00		31.98
Total ==>	715.00		31.98
	Mar Elec Add'l Deposit 7% Comm	7% Interest	
Electric	300.00		13.40
Total ==>	300.00		13.40
	Mar Elec Deposit 6% Res	6% Interest	
Electric	177,762.52		7,995.76
Total ==>	177,762.52		7,995.76
	Mar Elec Deposit 7% Comm	7% Interest	
Electric	121,788.81		6,001.95
Total ==>	121,788.81		6,001.95
	Mar Elec Deposit 6% Comm	6% Interest	
Electric	190,888.00		9,569.92
Total ==>	190,888.00		9,569.92
	Propane Add'l Deposit 0%		
Propane	2,844.00		.00
Total ==>	2,844.00		.00
	No Interest Propane Dep		
Gas	75.00		.00
Propane	481,787.92		.00
Total ==>	481,862.92		.00
	Propane Add'l Deposit 1%		
Propane	75.00		.57
Total ==>	75.00		.57
	Propane Dep 1%	1% Interest-Propane	
Gas	40.00CR		.00

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Propane	212,832.31	1,623.04
Total ==>	212,792.31	1,623.04

	Bad Debts
Write Off to Bad Debt	2,828,442.96
Bad Debt Payment	269,583.24CR
Bad Debt Adjustment	14,617.87CR
Bad Debt Transfer	43,143.24CR
Total Bad Debts	2,501,098.61

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Account File	10,243,191.01
Acct Balance File	
Gas	5,744,102.93
Other -job	212,091.86
Electric	2,893,482.02
Sewer	.00
Garbage	.00
Propane	1,585,514.59
Overpmt	760,280.43CR
Contracts	463,410.04
Water	.00
Labor	34,149.72
Lights	70,720.28
	.00
Total ==>	10,243,191.01

	Elec Add'l Deposit Res	6% Interest
Electric	74,785.00	3,101.93
Total ==>	74,785.00	3,101.93

	Electric Deposit Res	6% Interest
Electric	636,697.46	23,722.13
Total ==>	636,697.46	23,722.13

	Electric Deposit Comm	6% Interest
Electric	428,450.65	10,177.25
Total ==>	428,450.65	10,177.25

	FB Elec Add'l Deposit 6%-Comm	6% Interest
Electric	49,280.00	1,814.51
Total ==>	49,280.00	1,814.51

	FB Elec Add'l Deposit 7% Comm	7% Interest
Electric	3,000.00	173.16
Total ==>	3,000.00	173.16

	FB Elec Add'l Deposit 6%-Res	6% Interest
Electric	18,790.00	941.37
Total ==>	18,790.00	941.37

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

	FB Elec Deposit 6% Res	6% Interest
Overpmt	115.00CR	.00
Electric	170,020.12	8,402.76
Total ==>	169,905.12	8,402.76

	FB Elec Deposit 7% Comm	7% Interest
Electric	132,791.48	7,256.65
Total ==>	132,791.48	7,256.65

	FB Elec Dep 6% Comm	6% Interest
Electric	321,243.22	17,518.88
Total ==>	321,243.22	17,518.88

	FB Propane Dep	
Propane	6,915.00	.00
Total ==>	6,915.00	.00

	Gas Add'l Deposit 6%-Comm		6% Interest	
Gas	352,457.85	✓	18,621.61	✓
Total ==>	352,457.85		18,621.61	

	Gas Add'l Deposit 6%-Res		6% Interest	
Gas	26,685.30	✓	1,338.59	✓
Total ==>	26,685.30		1,338.59	

	Gas Add'l Deposit 7% Comm		7% Interest	
Gas	40,560.00	✓	2,511.44	✓
Total ==>	40,560.00		2,511.44	

	Gas Deposit 6% Res		6% Interest	
Gas	1,514,497.97	✓	58,477.39	✓
Total ==>	1,514,497.97		58,477.39	

	Gas Deposit 7% Comm		7% Interest	
Gas	601,048.08	✓	36,753.30	✓
Total ==>	601,048.08		36,753.30	

	Gas Deposit 6% Comm		6% Interest	
Gas	2,956,269.11	✓	135,232.85	✓

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Total ==>	2,956,269.11		135,232.85
	Mar Elec Add'l Deposit 6%Comm	6% Interest	
Electric	6,650.00		379.33
Total ==>	6,650.00		379.33
	Mar Elec Add'l Deposit 6%-Res	6% Interest	
Electric	715.00		35.39
Total ==>	715.00		35.39
	Mar Elec Add'l Deposit 7% Comm	7% Interest	
Electric	300.00		14.83
Total ==>	300.00		14.83
	Mar Elec Deposit 6% Res	6% Interest	
Electric	175,942.52		8,758.63
Total ==>	175,942.52		8,758.63
	Mar Elec Deposit 7% Comm	7% Interest	
Electric	121,788.81		6,641.42
Total ==>	121,788.81		6,641.42
	Mar Elec Deposit 6% Comm	6% Interest	
Electric	182,688.00		9,293.56
Total ==>	182,688.00		9,293.56
	Propane Add'l Deposit 0%		
Propane	2,844.00		.00
Total ==>	2,844.00		.00
	No Interest Propane Dep		
Gas	75.00		.00
Propane	498,070.92		.00
Total ==>	498,145.92		.00
	Propane Add'l Deposit 1%		
Propane	75.00		.63
Total ==>	75.00		.63
	Propane Dep 1%	1% Interest-Propane	
Gas	40.00CR		.00

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Propane	210,292.31	1,771.17
Total ==>	210,252.31	1,771.17

	Bad Debts
Write Off to Bad Debt	2,877,580.68
Bad Debt Payment	276,804.14CR
Bad Debt Adjustment	14,617.87CR
Bad Debt Transfer	43,627.13CR
Total Bad Debts	2,542,531.54

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Account File	11,103,402.43
Acct Balance File	
Gas	6,343,295.99
Other -job	175,463.44
Electric	3,276,625.19
Sewer	.00
Garbage	.00
Propane	1,571,346.35
Overpmt	790,817.61CR
Contracts	436,952.67
Water	.00
Labor	29,042.01
Lights	61,494.39
	.00
Total ==>	11,103,402.43

	Elec Add'l Deposit Res	6% Interest
Electric	74,640.00	3,438.73
Total ==>	74,640.00	3,438.73

	Electric Deposit Res	6% Interest
Electric	637,326.46	25,828.19
Total ==>	637,326.46	25,828.19

	Electric Deposit Comm	6% Interest
Electric	435,078.00	12,113.48
Total ==>	435,078.00	12,113.48

	FB Elec Add'l Deposit 6%-Comm	6% Interest
Electric	49,140.00	2,063.65
Total ==>	49,140.00	2,063.65

	FB Elec Add'l Deposit 7% Comm	7% Interest
Electric	3,000.00	190.42
Total ==>	3,000.00	190.42

	FB Elec Add'l Deposit 6%-Res	6% Interest
Electric	18,305.00	1,010.55
Total ==>	18,305.00	1,010.55

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

	FB Elec Deposit 6% Res		6% Interest	
Overpmt	115.00CR			.00
Electric	167,440.12			9,101.87
Total ==>	167,325.12			9,101.87

	FB Elec Deposit 7% Comm		7% Interest	
Electric	132,491.48			7,959.54
Total ==>	132,491.48			7,959.54

	FB Elec Dep 6% Comm		6% Interest	
Electric	320,388.22			19,100.04
Total ==>	320,388.22			19,100.04

	FB Propane Dep			
Propane	6,820.00			.00
Total ==>	6,820.00			.00

	Gas Add'l Deposit 6%-Comm		6% Interest	
Gas	352,367.85	✓		20,454.58 ✓
Total ==>	352,367.85			20,454.58

	Gas Add'l Deposit 6%-Res		6% Interest	
Gas	26,610.30	✓		1,466.19 ✓
Total ==>	26,610.30			1,466.19

	Gas Add'l Deposit 7% Comm		7% Interest	
Gas	39,260.00	✓		2,642.69 ✓
Total ==>	39,260.00			2,642.69

	Gas Deposit 6% Res		6% Interest	
Gas	1,494,181.98			62,786.15 ✓
Total ==>	1,494,181.98	✓		62,786.15

	Gas Deposit 7% Comm		7% Interest	
Gas	593,123.08	✓		39,502.92 ✓
Total ==>	593,123.08			39,502.92

	Gas Deposit 6% Comm		6% Interest	
Gas	3,053,994.11	✓		148,509.39 ✓

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Total ==>	3,053,994.11	148,509.39
	Mar Elec Add'l Deposit 6%Comm	6% Interest
Electric	6,650.00	417.15
Total ==>	6,650.00	417.15
	Mar Elec Add'l Deposit 6%-Res	6% Interest
Electric	715.00	38.92
Total ==>	715.00	38.92
	Mar Elec Add'l Deposit 7% Comm	7% Interest
Electric	300.00	16.31
Total ==>	300.00	16.31
	Mar Elec Deposit 6% Res	6% Interest
Electric	174,292.52	9,545.93
Total ==>	174,292.52	9,545.93
	Mar Elec Deposit 7% Comm	7% Interest
Electric	121,438.81	7,281.22
Total ==>	121,438.81	7,281.22
	Mar Elec Deposit 6% Comm	6% Interest
Electric	179,788.00	10,964.20
Total ==>	179,788.00	10,964.20
	Propane Add'l Deposit 0%	
Propane	2,784.00	.00
Total ==>	2,784.00	.00
	No Interest Propane Dep	
Gas	75.00	.00
Propane	513,055.92	100.00CR
Total ==>	513,130.92	100.00CR
	Propane Add'l Deposit 1%	
Propane	75.00	.69
Total ==>	75.00	.69
	Propane Dep 1%	1% Interest-Propane
Gas	40.00CR	.00

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Propane	206,842.31	1,909.01
Total ==>	206,802.31	1,909.01

	Bad Debts
Write Off to Bad Debt	2,921,027.65
Bad Debt Payment	280,025.30CR
Bad Debt Adjustment	14,617.87CR
Bad Debt Transfer	45,141.12CR
Total Bad Debts	2,581,243.36

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Account File	10,891,156.77
Acct Balance File	
Gas	6,090,306.17
Other -job	131,947.23
Electric	3,206,146.49
Sewer	.00
Garbage	.00
Propane	1,664,511.22
Overpmt	680,937.41CR
Contracts	391,630.83
Water	.00
Labor	22,767.41
Lights	64,784.83
	.00
Total ==>	10,891,156.77

	Elec Add'l Deposit Res	6% Interest
Electric	80,259.00	3,688.23
Total ==>	80,259.00	3,688.23

	Electric Deposit Res	6% Interest
Electric	647,897.46	26,679.03
Total ==>	647,897.46	26,679.03

	Electric Deposit Comm	6% Interest
Electric	430,241.00	13,628.06
Total ==>	430,241.00	13,628.06

	FB Elec Add'l Deposit 6%-Comm	6% Interest
Electric	48,835.00	2,328.82
Total ==>	48,835.00	2,328.82

	FB Elec Add'l Deposit 7% Comm	7% Interest
Electric	3,000.00	209.98
Total ==>	3,000.00	209.98

	FB Elec Add'l Deposit 6%-Res	6% Interest
Electric	26,735.00	1,069.96
Total ==>	26,735.00	1,069.96

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

	FB Elec Deposit 6% Res	6% Interest	
Overpmt	115.00CR		.00
Electric	165,845.12		9,634.19
Total ==>	165,730.12		9,634.19

	FB Elec Deposit 7% Comm	7% Interest	
Electric	132,291.48		8,388.66
Total ==>	132,291.48		8,388.66

	FB Elec Dep 6% Comm	6% Interest	
Electric	320,288.22		20,386.31
Total ==>	320,288.22		20,386.31

	FB Propane Dep		
Propane	6,920.00		.00
Total ==>	6,920.00		.00

	Gas Add'l Deposit 6%-Comm	6% Interest	
Gas	351,642.85 ✓		20,262.18 ✓
Total ==>	351,642.85		20,262.18

	Gas Add'l Deposit 6%-Res	6% Interest	
Gas	26,255.30 ✓		1,558.07 ✓
Total ==>	26,255.30		1,558.07

	Gas Add'l Deposit 7% Comm	7% Interest	
Gas	39,260.00 ✓		2,867.09 ✓
Total ==>	39,260.00		2,867.09

	Gas Deposit 6% Res	6% Interest	
Gas	1,502,940.50 ✓		60,160.23 ✓
Total ==>	1,502,940.50		60,160.23

	Gas Deposit 7% Comm	7% Interest	
Gas	589,098.08 ✓		38,096.14 ✓
Total ==>	589,098.08		38,096.14

	Gas Deposit 6% Comm	6% Interest	
Gas	3,095,234.11 ✓		148,207.08 ✓

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

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Total ==>	3,095,234.11	148,207.08
	Mar Elec Add'l Deposit 6%Comm	6% Interest
Electric	6,650.00	452.96
Total ==>	6,650.00	452.96
	Mar Elec Add'l Deposit 6%-Res	6% Interest
Electric	715.00	42.91
Total ==>	715.00	42.91
	Mar Elec Add'l Deposit 7% Comm	7% Interest
Electric	300.00	18.03
Total ==>	300.00	18.03
	Mar Elec Deposit 6% Res	6% Interest
Electric	171,937.52	9,443.19
Total ==>	171,937.52	9,443.19
	Mar Elec Deposit 7% Comm	7% Interest
Electric	121,163.81	7,236.43
Total ==>	121,163.81	7,236.43
	Mar Elec Deposit 6% Comm	6% Interest
Electric	179,588.00	8,325.64
Total ==>	179,588.00	8,325.64
	Propane Add'l Deposit 0%	
Propane	2,784.00	.00
Total ==>	2,784.00	.00
	No Interest Propane Dep	
Gas	75.00	.00
Propane	521,420.92	100.00CR
Total ==>	521,495.92	100.00CR
	Propane Add'l Deposit 1%	
Propane	75.00	.76
Total ==>	75.00	.76
	Propane Dep 1%	1% Interest-Propane
Gas	40.00CR	.00

FLORIDA PUBLIC UTILITIES - FPUFILES Y7R3M0

Print A/R Balancing Report

Propane	205,932.31	1,756.30
Total ==>	205,892.31	1,756.30

	Bad Debts
Write Off to Bad Debt	3,021,166.44
Bad Debt Payment	286,568.90CR
Bad Debt Adjustment	14,617.87CR
Bad Debt Transfer	45,560.23CR
Total Bad Debts	2,674,419.44

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Account File	10,198,176.01
Acct Balance File	
Gas	5,723,607.47
Other -job	115,993.86
Electric	3,055,209.06
Sewer	.00
Garbage	.00
Propane	1,629,603.12
Overpmt	791,846.84CR
Contracts	374,636.17
Water	.00
Labor	20,745.15
Lights	70,228.02
	.00
Total ==>	10,198,176.01

	Elec Add'l Deposit Res	6% Interest
Electric	164,625.00	359.08
Total ==>	164,625.00	359.08

	Electric Deposit Res	6% Interest
Electric	873,772.46	2,973.93
Total ==>	873,772.46	2,973.93

	Electric Deposit Comm	6% Interest
Electric	433,642.00	1,934.40
Total ==>	433,642.00	1,934.40

	FB Elec Add'l Deposit 6%-Comm	6% Interest
Electric	47,901.00	334.31
Total ==>	47,901.00	334.31

	FB Elec Add'l Deposit 7% Comm	7% Interest
Electric	3,000.00	15.53
Total ==>	3,000.00	15.53

	FB Elec Add'l Deposit 6%-Res	6% Interest
Electric	29,550.00	102.47
Total ==>	29,550.00	102.47

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

	FB Elec Deposit 6% Res		6% Interest	
Overpmt	115.00CR			.00
Electric	162,695.12			732.49
Total ==>	162,580.12			732.49

	FB Elec Deposit 7% Comm		7% Interest	
Electric	131,091.48			637.62
Total ==>	131,091.48			637.62

	FB Elec Dep 6% Comm		6% Interest	
Electric	319,378.22			2,533.90
Total ==>	319,378.22			2,533.90

	FB Propane Dep			
Propane	5,620.00			.00
Total ==>	5,620.00			.00

	Gas Add'l Deposit 6%-Comm		6% Interest	
Gas	349,617.85	✓		2,394.53 ✓
Total ==>	349,617.85			2,394.53

	Gas Add'l Deposit 6%-Res		6% Interest	
Gas	25,600.30	✓		116.52 ✓
Total ==>	25,600.30			116.52

	Gas Add'l Deposit 7% Comm		7% Interest	
Gas	39,260.00	✓		535.28 ✓
Total ==>	39,260.00			535.28

	Gas Deposit 6% Res		6% Interest	
Gas	1,516,945.50	✓		6,677.75 ✓
Total ==>	1,516,945.50			6,677.75

	Gas Deposit 7% Comm		7% Interest	
Gas	587,548.08	✓		8,722.05 ✓
Total ==>	587,548.08			8,722.05

	Gas Deposit 6% Comm		6% Interest	
Gas	3,123,207.11	✓		17,556.67 ✓

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Total ==>	3,123,207.11	17,556.67
	Mar Elec Add'l Deposit 6%Comm	6% Interest
Electric	6,650.00	34.04
Total ==>	6,650.00	34.04
	Mar Elec Add'l Deposit 6%-Res	6% Interest
Electric	715.00	3.17
Total ==>	715.00	3.17
	Mar Elec Add'l Deposit 7% Comm	7% Interest
Electric	300.00	1.33
Total ==>	300.00	1.33
	Mar Elec Deposit 6% Res	6% Interest
Electric	169,695.46	815.69
Total ==>	169,695.46	815.69
	Mar Elec Deposit 7% Comm	7% Interest
Electric	119,933.81	588.84
Total ==>	119,933.81	588.84
	Mar Elec Deposit 6% Comm	6% Interest
Electric	179,288.00	1,153.66
Total ==>	179,288.00	1,153.66
	Propane Add'l Deposit 0%	
Propane	2,784.00	.00
Total ==>	2,784.00	.00
	No Interest Propane Dep	
Gas	75.00	.00
Propane	527,925.92	.00
Total ==>	528,000.92	.00
	Propane Add'l Deposit 1%	
Propane	75.00	.06
Total ==>	75.00	.06
	Propane Dep 1%	1% Interest-Propane
Gas	40.00CR	.00

FLORIDA PUBLIC UTILITIES - FPUFILES Y7R3M0

Print A/R Balancing Report

Propane	204,702.31	183.58
Total ==>	204,662.31	183.58

	Bad Debts
Write Off to Bad Debt	3,050,854.17
Bad Debt Payment	290,589.42CR
Bad Debt Adjustment	14,885.90CR
Bad Debt Transfer	45,715.04CR
Total Bad Debts	2,699,663.81

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Account File	9,649,587.80
Acct Balance File	
Gas	5,333,664.31
Other -job	116,649.05
Electric	3,060,411.11
Sewer	.00
Garbage	.00
Propane	1,518,984.46
Overpmt	822,531.84CR
Contracts	355,592.72
Water	.00
Labor	16,751.53
Lights	70,066.46
	.00
Total ==>	9,649,587.80

	Elec Add'l Deposit Res	6% Interest	
Electric	195,469.00		1,037.34
Total ==>	195,469.00		1,037.34

	Electric Deposit Res	6% Interest	
Electric	996,998.46		6,566.30
Total ==>	996,998.46		6,566.30

	Electric Deposit Comm	6% Interest	
Electric	442,146.00		3,902.28
Total ==>	442,146.00		3,902.28

	FB Elec Add'l Deposit 6%-Comm	6% Interest	
Electric	47,831.00		479.18
Total ==>	47,831.00		479.18

	FB Elec Add'l Deposit 7% Comm	7% Interest	
Electric	3,000.00		31.64
Total ==>	3,000.00		31.64

	FB Elec Add'l Deposit 6%-Res	6% Interest	
Electric	33,645.00		239.06
Total ==>	33,645.00		239.06

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

	FB Elec Deposit 6% Res		6% Interest
Overpmt	115.00CR		.00
Electric	161,330.12		1,462.27
Total ==>	161,215.12		1,462.27

	FB Elec Deposit 7% Comm		7% Interest
Electric	131,091.48		1,307.36
Total ==>	131,091.48		1,307.36

	FB Elec Dep 6% Comm		6% Interest
Electric	314,338.22		4,041.42
Total ==>	314,338.22		4,041.42

	FB Propane Dep		
Propane	5,830.00		.00
Total ==>	5,830.00		.00

	Gas Add'l Deposit 6%-Comm		6% Interest	
Gas	348,082.85	✓		4,089.85 ✓
Total ==>	348,082.85			4,089.85

	Gas Add'l Deposit 6%-Res		6% Interest	
Gas	25,380.30	✓		230.44 ✓
Total ==>	25,380.30			230.44

	Gas Add'l Deposit 7% Comm		7% Interest	
Gas	45,910.00	✓		738.42 ✓
Total ==>	45,910.00			738.42

	Gas Deposit 6% Res		6% Interest	
Gas	1,497,966.50	✓		13,129.66 ✓
Total ==>	1,497,966.50			13,129.66

	Gas Deposit 7% Comm		7% Interest	
Gas	585,073.08	✓		11,638.73 ✓
Total ==>	585,073.08			11,638.73

	Gas Deposit 6% Comm		6% Interest	
Gas	3,152,622.11	✓		31,899.63 ✓

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Total ==>	3,152,622.11	31,899.63
	Mar Elec Add'l Deposit 6%Comm	6% Interest
Electric	6,650.00	69.32
Total ==>	6,650.00	69.32
	Mar Elec Add'l Deposit 6%-Res	6% Interest
Electric	715.00	6.47
Total ==>	715.00	6.47
	Mar Elec Add'l Deposit 7% Comm	7% Interest
Electric	300.00	2.71
Total ==>	300.00	2.71
	Mar Elec Deposit 6% Res	6% Interest
Electric	168,330.46	1,589.05
Total ==>	168,330.46	1,589.05
	Mar Elec Deposit 7% Comm	7% Interest
Electric	119,618.81	1,195.70
Total ==>	119,618.81	1,195.70
	Mar Elec Deposit 6% Comm	6% Interest
Electric	178,288.00	2,079.00
Total ==>	178,288.00	2,079.00
	Propane Add'l Deposit 0%	
Propane	2,334.00	.00
Total ==>	2,334.00	.00
	No Interest Propane Dep	
Gas	75.00	.00
Propane	537,101.92	.00
Total ==>	537,176.92	.00
	Propane Add'l Deposit 1%	
Propane	75.00	.12
Total ==>	75.00	.12
	Propane Dep 1%	1% Interest-Propane
Gas	40.00CR	.00

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Propane	204,042.31	341.24
Total ==>	204,002.31	341.24

	Bad Debts
Write Off to Bad Debt	3,095,363.76
Bad Debt Payment	293,610.12CR
Bad Debt Adjustment	16,235.90CR
Bad Debt Transfer	45,877.89CR
Total Bad Debts	2,739,639.85

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Account File	8,216,617.71
Acct Balance File	
Gas	4,308,995.85
Other -job	89,726.77
Electric	2,891,486.07
Sewer	.00
Garbage	.00
Propane	1,292,571.04
Overpmt	761,142.64CR
Contracts	315,678.58
Water	.00
Labor	11,627.20
Lights	67,674.84
	.00
Total ==>	8,216,617.71

	Elec Add'l Deposit Res	6% Interest
Electric	190,187.00	1,979.09
Total ==>	190,187.00	1,979.09

	Electric Deposit Res	6% Interest
Electric	986,638.39	11,093.09
Total ==>	986,638.39	11,093.09

	Electric Deposit Comm	6% Interest
Electric	456,023.00	6,149.87
Total ==>	456,023.00	6,149.87

	FB Elec Add'l Deposit 6%-Comm	6% Interest
Electric	47,711.00	729.00
Total ==>	47,711.00	729.00

	FB Elec Add'l Deposit 7% Comm	7% Interest
Electric	3,000.00	49.48
Total ==>	3,000.00	49.48

	FB Elec Add'l Deposit 6%-Res	6% Interest
Electric	35,200.00	398.78
Total ==>	35,200.00	398.78

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

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	FB Elec Deposit 6% Res	6% Interest
Overpmt	115.00CR	.00
Electric	160,355.12	2,259.69
Total ==>	160,240.12	2,259.69

	FB Elec Deposit 7% Comm	7% Interest
Electric	130,791.48	2,044.13
Total ==>	130,791.48	2,044.13

	FB Elec Dep 6% Comm	6% Interest
Electric	313,688.22	5,760.01
Total ==>	313,688.22	5,760.01

	FB Propane Dep	
Propane	6,900.00	.00
Total ==>	6,900.00	.00

	Gas Add'l Deposit 6%-Comm	6% Interest
Gas	347,057.85	5,995.73
Total ==>	347,057.85	5,995.73

	Gas Add'l Deposit 6%-Res	6% Interest
Gas	24,920.30	353.81
Total ==>	24,920.30	353.81

	Gas Add'l Deposit 7% Comm	7% Interest
Gas	45,910.00	985.78
Total ==>	45,910.00	985.78

	Gas Deposit 6% Res	6% Interest
Gas	1,483,186.50	19,931.00
Total ==>	1,483,186.50	19,931.00

	Gas Deposit 7% Comm	7% Interest
Gas	582,123.08	14,863.87
Total ==>	582,123.08	14,863.87

	Gas Deposit 6% Comm	6% Interest
Gas	3,148,662.11	47,702.16

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

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Total ==>	3,148,662.11	47,702.16
	Mar Elec Add'l Deposit 6%Comm	6% Interest
Electric	6,650.00	107.54
Total ==>	6,650.00	107.54
	Mar Elec Add'l Deposit 6%-Res	6% Interest
Electric	715.00	10.10
Total ==>	715.00	10.10
	Mar Elec Add'l Deposit 7% Comm	7% Interest
Electric	300.00	4.24
Total ==>	300.00	4.24
	Mar Elec Deposit 6% Res	6% Interest
Electric	165,542.46	2,416.10
Total ==>	165,542.46	2,416.10
	Mar Elec Deposit 7% Comm	7% Interest
Electric	119,568.81	1,870.19
Total ==>	119,568.81	1,870.19
	Mar Elec Deposit 6% Comm	6% Interest
Electric	178,048.00	3,106.11
Total ==>	178,048.00	3,106.11
	Propane Add'l Deposit 0%	
Propane	2,334.00	.00
Total ==>	2,334.00	.00
	No Interest Propane Dep	
Gas	75.00	.00
Propane	541,553.66	.00
Total ==>	541,628.66	.00
	Propane Add'l Deposit 1%	
Propane	75.00	.18
Total ==>	75.00	.18
	Propane Dep 1%	1% Interest-Propane
Gas	40.00CR	.00

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Propane			
Total ==>	201,672.31		
	201,632.31		501.86
			501.86

	Bad Debts
Write Off to Bad Debt	3,128,791.04
Bad Debt Payment	296,964.59CR
Bad Debt Adjustment	16,235.90CR
Bad Debt Transfer	46,790.40CR
Total Bad Debts	2,768,800.15

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Account File	8,654,717.26
Acct Balance File	
Gas	4,362,225.22
Other -job	99,202.65
Electric	3,231,201.94
Sewer	.00
Garbage	.00
Propane	1,345,777.78
Overpmt	804,870.16CR
Contracts	340,612.07
Water	.00
Labor	11,211.18
Lights	69,356.58
	.00
Total ==>	8,654,717.26

	Elec Add'l Deposit Res	6% Interest
Electric	188,765.00	2,926.31
Total ==>	188,765.00	2,926.31

	Electric Deposit Res	6% Interest
Electric	993,675.35	15,710.96
Total ==>	993,675.35	15,710.96

	Electric Deposit Comm	6% Interest
Electric	463,303.00	8,487.51
Total ==>	463,303.00	8,487.51

	FB Elec Add'l Deposit 6%-Comm	6% Interest
Electric	47,451.00	974.90
Total ==>	47,451.00	974.90

	FB Elec Add'l Deposit 7% Comm	7% Interest
Electric	3,000.00	67.32
Total ==>	3,000.00	67.32

	FB Elec Add'l Deposit 6%-Res	6% Interest
Electric	35,890.00	570.54
Total ==>	35,890.00	570.54

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

	FB Elec Deposit 6% Res	6% Interest	
Overpmt	115.00CR		.00
Electric	158,804.59		3,033.33
Total ==>	158,689.59		3,033.33

	FB Elec Deposit 7% Comm	7% Interest	
Electric	130,791.48		2,783.62
Total ==>	130,791.48		2,783.62

	FB Elec Dep 6% Comm	6% Interest	
Electric	317,463.22		7,498.24
Total ==>	317,463.22		7,498.24

	FB Propane Dep		
Propane	10,955.00		.00
Total ==>	10,955.00		.00

	Gas Add'l Deposit 6%-Comm	6% Interest	
Gas	345,722.85		7,836.04
Total ==>	345,722.85		7,836.04

	Gas Add'l Deposit 6%-Res	6% Interest	
Gas	25,412.30		471.25
Total ==>	25,412.30		471.25

	Gas Add'l Deposit 7% Comm	7% Interest	
Gas	45,980.00		1,229.29
Total ==>	45,980.00		1,229.29

	Gas Deposit 6% Res	6% Interest	
Gas	1,461,700.23		26,136.37
Total ==>	1,461,700.23		26,136.37

	Gas Deposit 7% Comm	7% Interest	
Gas	580,473.08		18,085.52
Total ==>	580,473.08		18,085.52

	Gas Deposit 6% Comm	6% Interest	
Gas	3,149,217.11		63,164.08

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Total ==>	3,149,217.11	63,164.08
	Mar Elec Add'l Deposit 6%Comm	6% Interest
Electric	6,650.00	145.76
Total ==>	6,650.00	145.76
	Mar Elec Add'l Deposit 6%-Res	6% Interest
Electric	715.00	13.73
Total ==>	715.00	13.73
	Mar Elec Add'l Deposit 7% Comm	7% Interest
Electric	300.00	5.77
Total ==>	300.00	5.77
	Mar Elec Deposit 6% Res	6% Interest
Electric	163,207.46	3,224.34
Total ==>	163,207.46	3,224.34
	Mar Elec Deposit 7% Comm	7% Interest
Electric	118,868.81	2,528.89
Total ==>	118,868.81	2,528.89
	Mar Elec Deposit 6% Comm	6% Interest
Electric	178,048.00	4,131.20
Total ==>	178,048.00	4,131.20
	Propane Add'l Deposit 0%	
Propane	2,334.00	.00
Total ==>	2,334.00	.00
	No Interest Propane Dep	
Gas	75.00	.00
Propane	540,328.66	.00
Total ==>	540,403.66	.00
	Propane Add'l Deposit 1%	
Propane	75.00	.24
Total ==>	75.00	.24
	Propane Dep 1%	1% Interest-Propane
Gas	40.00CR	.00

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Propane	198,862.31	624.87
Total ==>	198,822.31	624.87

	Bad Debts
Write Off to Bad Debt	3,160,465.81
Bad Debt Payment	300,804.60CR
Bad Debt Adjustment	16,235.90CR
Bad Debt Transfer	47,407.27CR
Total Bad Debts	2,796,018.04

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Account File	8,688,189.17
Acct Balance File	
Gas	4,013,012.61
Other -job	91,899.62
Electric	3,839,225.22
Sewer	.00
Garbage	.00
Propane	1,251,664.85
Overpmt	879,939.00CR
Contracts	298,000.28
Water	.00
Labor	11,961.70
Lights	62,363.89
	.00
Total ==>	8,688,189.17

	Elec Add'l Deposit Res	6% Interest
Electric	184,115.00	3,760.81
Total ==>	184,115.00	3,760.81

	Electric Deposit Res	6% Interest
Electric	987,190.07	19,845.96
Total ==>	987,190.07	19,845.96

	Electric Deposit Comm	6% Interest
Electric	468,723.00	10,745.56
Total ==>	468,723.00	10,745.56

	FB Elec Add'l Deposit 6%-Comm	6% Interest
Electric	47,451.00	1,217.35
Total ==>	47,451.00	1,217.35

	FB Elec Add'l Deposit 7% Comm	7% Interest
Electric	3,000.00	84.58
Total ==>	3,000.00	84.58

	FB Elec Add'l Deposit 6%-Res	6% Interest
Electric	35,520.00	737.49
Total ==>	35,520.00	737.49

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

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	FB Elec Deposit 6% Res		6% Interest
Overpmt	115.00CR		.00
Electric	157,796.97		3,766.15
Total ==>	157,681.97		3,766.15

	FB Elec Deposit 7% Comm		7% Interest
Electric	128,291.48		3,439.86
Total ==>	128,291.48		3,439.86

	FB Elec Dep 6% Comm		6% Interest
Electric	317,688.22		9,191.54
Total ==>	317,688.22		9,191.54

	FB Propane Dep		
Propane	10,880.00		.00
Total ==>	10,880.00		.00

	Gas Add'l Deposit 6%-Comm		6% Interest
Gas	345,722.85		9,665.09
Total ==>	345,722.85	✓	9,665.09 ✓

	Gas Add'l Deposit 6%-Res		6% Interest
Gas	24,514.30		571.29
Total ==>	24,514.30 ✓		571.29 ✓

	Gas Add'l Deposit 7% Comm		7% Interest
Gas	45,980.00		1,468.33
Total ==>	45,980.00 ✓		1,468.33 ✓

	Gas Deposit 6% Res		6% Interest
Gas	1,460,481.23		31,908.90
Total ==>	1,460,481.23 ✓		31,908.90 ✓

	Gas Deposit 7% Comm		7% Interest
Gas	575,353.08		21,095.94
Total ==>	575,353.08 ✓		21,095.94 ✓

	Gas Deposit 6% Comm		6% Interest
Gas	3,194,326.11	✓	78,219.50 ✓

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

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Total ==>	3,194,326.11	78,219.50
	Mar Elec Add'l Deposit 6%Comm	6% Interest
Electric	6,650.00	182.76
Total ==>	6,650.00	182.76
	Mar Elec Add'l Deposit 6%-Res	6% Interest
Electric	715.00	17.26
Total ==>	715.00	17.26
	Mar Elec Add'l Deposit 7% Comm	7% Interest
Electric	300.00	7.34
Total ==>	300.00	7.34
	Mar Elec Deposit 6% Res	6% Interest
Electric	160,722.46	3,980.06
Total ==>	160,722.46	3,980.06
	Mar Elec Deposit 7% Comm	7% Interest
Electric	118,468.81	3,169.87
Total ==>	118,468.81	3,169.87
	Mar Elec Deposit 6% Comm	6% Interest
Electric	176,648.00	5,088.19
Total ==>	176,648.00	5,088.19
	Propane Add'l Deposit 0%	
Propane	2,364.00	.00
Total ==>	2,364.00	.00
	No Interest Propane Dep	
Gas	75.00	.00
Propane	547,053.50	.00
Total ==>	547,128.50	.00
	Propane Add'l Deposit 1%	
Propane	75.00	.30
Total ==>	75.00	.30
	Propane Dep 1%	1% Interest-Propane
Gas	40.00CR	.00

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Propane	196,912.31	773.99
Total ==>	196,872.31	773.99

	Bad Debts
Write Off to Bad Debt	3,215,984.64
Bad Debt Payment	305,287.13CR
Bad Debt Adjustment	16,235.90CR
Bad Debt Transfer	47,595.12CR
Total Bad Debts	2,846,866.49

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Account File	8,819,128.75
Acct Balance file	
Gas	3,776,659.94
Other -job	95,091.70
Electric	4,185,998.52
Sewer	.00
Garbage	.00
Propane	1,298,282.15
Overpmt	911,704.18CR
Contracts	287,794.03
Water	.00
Labor	14,338.44
Lights	72,668.15
	.00
Total ==>	8,819,128.75

	Elec Add'l Deposit Res	6% Interest
Electric	183,244.00	4,743.89
Total ==>	183,244.00	4,743.89

	Electric Deposit Res	6% Interest
Electric	989,277.29	24,394.44
Total ==>	989,277.29	24,394.44

	Electric Deposit Comm	6% Interest
Electric	468,574.00	13,152.05
Total ==>	468,574.00	13,152.05

	FB Elec Add'l Deposit 6%-Comm	6% Interest
Electric	50,896.00	1,488.49
Total ==>	50,896.00	1,488.49

	FB Elec Add'l Deposit 7% Comm	7% Interest
Electric	3,000.00	103.57
Total ==>	3,000.00	103.57

	FB Elec Add'l Deposit 6%-Res	6% Interest
Electric	38,843.00	926.34
Total ==>	38,843.00	926.34

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

	FB Elec Deposit 6% Res	6% Interest
Overpmt	115.00CR	.00
Electric	157,581.97	4,565.90
Total ==>	157,466.97	4,565.90

	FB Elec Deposit 7% Comm	7% Interest
Electric	128,236.48	4,215.53
Total ==>	128,236.48	4,215.53

	FB Elec Dep 6% Comm	6% Interest
Electric	316,268.22	11,058.93
Total ==>	316,268.22	11,058.93

	FB Propane Dep	
Propane	10,745.00	.00
Total ==>	10,745.00	.00

	Gas Add'l Deposit 6%-Comm	6% Interest
Gas	340,302.85	11,509.53
Total ==>	340,302.85	11,509.53

	Gas Add'l Deposit 6%-Res	6% Interest
Gas	24,029.30	696.28
Total ==>	24,029.30	696.28

	Gas Add'l Deposit 7% Comm	7% Interest
Gas	45,980.00	1,734.15
Total ==>	45,980.00	1,734.15

	Gas Deposit 6% Res	6% Interest
Gas	1,451,963.23	38,108.63
Total ==>	1,451,963.23	38,108.63

	Gas Deposit 7% Comm	7% Interest
Gas	569,878.08	24,403.91
Total ==>	569,878.08	24,403.91

	Gas Deposit 6% Comm	6% Interest
Gas	3,217,299.79	94,750.80

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Total ==>	3,217,299.79	94,750.80
	Mar Elec Add'l Deposit 6%Comm	6% Interest
Electric	6,650.00	223.43
Total ==>	6,650.00	223.43
	Mar Elec Add'l Deposit 6%-Res	6% Interest
Electric	715.00	21.14
Total ==>	715.00	21.14
	Mar Elec Add'l Deposit 7% Comm	7% Interest
Electric	300.00	9.05
Total ==>	300.00	9.05
	Mar Elec Deposit 6% Res	6% Interest
Electric	159,967.46	4,836.73
Total ==>	159,967.46	4,836.73
	Mar Elec Deposit 7% Comm	7% Interest
Electric	118,068.81	3,870.69
Total ==>	118,068.81	3,870.69
	Mar Elec Deposit 6% Comm	6% Interest
Electric	176,648.00	6,171.85
Total ==>	176,648.00	6,171.85
	Propane Add'l Deposit 0%	
Propane	2,444.00	.00
Total ==>	2,444.00	.00
	No Interest Propane Dep	
Gas	75.00	.00
Propane	565,769.50	.00
Total ==>	565,844.50	.00
	Propane Add'l Deposit 1%	
Propane	75.00	.37
Total ==>	75.00	.37
	Propane Dep 1%	1% Interest-Propane
Gas	40.00CR	.00

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Propane	195,622.31	947.01
Total ==>	195,582.31	947.01

	Bad Debts
Write Off to Bad Debt	3,242,552.19
Bad Debt Payment	313,716.14CR
Bad Debt Adjustment	16,456.90CR
Bad Debt Transfer	47,902.86CR
Total Bad Debts	2,864,476.29

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Account File	7,267,276.00
Acct Balance File	
Gas	3,239,060.24
Other -job	91,248.17
Electric	3,741,427.27
Sewer	.00
Garbage	.00
Propane	848,319.92
Overpmt	932,086.97CR
Contracts	204,601.31
Water	.00
Labor	9,101.16
Lights	65,604.90
	.00
Total ==>	7,267,276.00

	Elec Add'l Deposit Res	6% Interest
Electric	180,783.00	5,547.77
Total ==>	180,783.00	5,547.77

	Electric Deposit Res	6% Interest
Electric	987,775.29	28,136.15
Total ==>	987,775.29	28,136.15

	Electric Deposit Comm	6% Interest
Electric	474,540.00	15,302.93
Total ==>	474,540.00	15,302.93

	FB Elec Add'l Deposit 6%-Comm	6% Interest
Electric	51,631.00	1,738.38
Total ==>	51,631.00	1,738.38

	FB Elec Add'l Deposit 7% Comm	7% Interest
Electric	3,000.00	120.25
Total ==>	3,000.00	120.25

	FB Elec Add'l Deposit 6%-Res	6% Interest
Electric	42,628.00	1,100.26
Total ==>	42,628.00	1,100.26

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

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	FB Elec Deposit 6% Res	6% Interest
Overpmt	115.00CR	.00
Electric	159,901.97	5,230.86
Total ==>	159,786.97	5,230.86

	FB Elec Deposit 7% Comm	7% Interest
Electric	128,236.48	4,899.28
Total ==>	128,236.48	4,899.28

	FB Elec Dep 6% Comm	6% Interest
Electric	314,588.02	12,661.46
Total ==>	314,588.02	12,661.46

	FB Propane Dep	
Propane	6,455.00	.00
Total ==>	6,455.00	.00

	Gas Add'l Deposit 6%-Comm	6% Interest
Gas	339,377.85	13,217.25
Total ==>	339,377.85	13,217.25

	Gas Add'l Deposit 6%-Res	6% Interest
Gas	22,144.30	740.78
Total ==>	22,144.30	740.78

	Gas Add'l Deposit 7% Comm	7% Interest
Gas	45,980.00	1,967.75
Total ==>	45,980.00	1,967.75

	Gas Deposit 6% Res	6% Interest
Gas	1,444,948.23	43,245.00
Total ==>	1,444,948.23	43,245.00

	Gas Deposit 7% Comm	7% Interest
Gas	569,178.08	27,293.66
Total ==>	569,178.08	27,293.66

	Gas Deposit 6% Comm	6% Interest
Gas	3,225,916.79	109,169.42

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Total ==>		3,225,916.79	109,169.42
	Mar Elec Add'l Deposit 6%Comm	6% Interest	
Electric		6,650.00	259.18
Total ==>		6,650.00	259.18
	Mar Elec Add'l Deposit 6%-Res	6% Interest	
Electric		715.00	24.55
Total ==>		715.00	24.55
	Mar Elec Add'l Deposit 7% Comm	7% Interest	
Electric		300.00	10.56
Total ==>		300.00	10.56
	Mar Elec Deposit 6% Res	6% Interest	
Electric		157,705.99	5,526.92
Total ==>		157,705.99	5,526.92
	Mar Elec Deposit 7% Comm	7% Interest	
Electric		116,868.81	4,455.49
Total ==>		116,868.81	4,455.49
	Mar Elec Deposit 6% Comm	6% Interest	
Electric		176,548.00	7,088.13
Total ==>		176,548.00	7,088.13
	Propane Add'l Deposit 0%		
Propane		2,444.00	.00
Total ==>		2,444.00	.00
	No Interest Propane Dep		
Gas		75.00	.00
Propane		569,652.50	.00
Total ==>		569,727.50	.00
	Propane Add'l Deposit 1%		
Propane		75.00	.43
Total ==>		75.00	.43
	Propane Dep 1%	1% Interest-Propane	
Gas		40.00CR	.00

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Propane	190,897.31	1,074.49
Total ==>	190,857.31	1,074.49

	Bad Debts
Write Off to Bad Debt	3,297,707.37
Bad Debt Payment	318,189.14CR
Bad Debt Adjustment	16,456.90CR
Bad Debt Transfer	46,539.63CR
Total Bad Debts	2,916,521.70

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Account File	8,579,812.10
Acct Balance File	
Gas	3,721,507.95
Other -job	93,178.02
Electric	4,186,261.52
Sewer	.00
Garbage	.00
Propane	1,298,207.69
Overpmt	949,225.77CR
Contracts	146,574.61
Water	.00
Labor	11,288.95
Lights	72,019.13
	.00
Total ==>	8,579,812.10

	Elec Add'l Deposit Res	6% Interest
Electric	178,255.00	6,380.48
Total ==>	178,255.00	6,380.48

	Electric Deposit Res	6% Interest
Electric	985,285.62	32,026.91
Total ==>	985,285.62	32,026.91

	Electric Deposit Comm	6% Interest
Electric	504,992.00	17,627.51
Total ==>	504,992.00	17,627.51

	FB Elec Add'l Deposit 6%-Comm	6% Interest
Electric	50,581.00	1,969.03
Total ==>	50,581.00	1,969.03

	FB Elec Add'l Deposit 7% Comm	7% Interest
Electric	3,000.00	138.09
Total ==>	3,000.00	138.09

	FB Elec Add'l Deposit 6%-Res	6% Interest
Electric	44,688.00	1,305.69
Total ==>	44,688.00	1,305.69

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

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	FB Elec Deposit 6% Res		6% Interest	
Overpmt	115.00CR			.00
Electric	160,981.97			5,982.07
Total ==>	160,866.97			5,982.07

	FB Elec Deposit 7% Comm		7% Interest	
Electric	127,936.48			5,616.75
Total ==>	127,936.48			5,616.75

	FB Elec Dep 6% Comm		6% Interest	
Electric	314,602.02			14,385.44
Total ==>	314,602.02			14,385.44

	FB Propane Dep			
Propane	5,925.00			.00
Total ==>	5,925.00			.00

	Gas Add'l Deposit 6%-Comm		6% Interest	
Gas	339,137.85	✓		15,069.66 ✓
Total ==>	339,137.85			15,069.66

	Gas Add'l Deposit 6%-Res		6% Interest	
Gas	21,875.30	✓		852.48 ✓
Total ==>	21,875.30			852.48

	Gas Add'l Deposit 7% Comm		7% Interest	
Gas	45,945.00			2,217.95 ✓
Total ==>	45,945.00	✓		2,217.95

	Gas Deposit 6% Res		6% Interest	
Gas	1,449,972.23			48,797.69 ✓
Total ==>	1,449,972.23	✓		48,797.69

	Gas Deposit 7% Comm		7% Interest	
Gas	567,478.08	✓		30,417.19 ✓
Total ==>	567,478.08			30,417.19

	Gas Deposit 6% Comm		6% Interest	
Gas	3,238,955.65	✓		125,164.48 ✓

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

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Total ==>	3,238,955.65	125,164.48
	Mar Elec Add'l Deposit 6%Comm	6% Interest
Electric	6,650.00	297.40
Total ==>	6,650.00	297.40
	Mar Elec Add'l Deposit 6%-Res	6% Interest
Electric	715.00	28.18
Total ==>	715.00	28.18
	Mar Elec Add'l Deposit 7% Comm	7% Interest
Electric	300.00	12.17
Total ==>	300.00	12.17
	Mar Elec Deposit 6% Res	6% Interest
Electric	154,930.20	6,229.64
Total ==>	154,930.20	6,229.64
	Mar Elec Deposit 7% Comm	7% Interest
Electric	116,658.81	5,111.55
Total ==>	116,658.81	5,111.55
	Mar Elec Deposit 6% Comm	6% Interest
Electric	176,548.00	8,071.47
Total ==>	176,548.00	8,071.47
	Propane Add'l Deposit 0%	
Propane	2,509.00	.00
Total ==>	2,509.00	.00
	No Interest Propane Dep	
Gas	75.00	.00
Propane	591,237.50	.00
Total ==>	591,312.50	.00
	Propane Add'l Deposit 1%	
Propane	75.00	.49
Total ==>	75.00	.49
	Propane Dep 1%	1% Interest-Propane
Gas	40.00CR	.00

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Print A/R Balancing Report

Propane	189,538.31	1,223.72
Total ==>	189,498.31	1,223.72

	Bad Debts
Write Off to Bad Debt	3,351,828.44
Bad Debt Payment	322,560.84CR
Bad Debt Adjustment	16,686.90CR
Bad Debt Transfer	47,565.75CR
Total Bad Debts	2,965,014.95

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Account File	7,591,786.14
Acct Balance File	
Gas	4,171,146.91
Other -job	84,987.93
Electric	3,108,884.61
Sewer	.00
Garbage	.00
Propane	981,864.62
Overpmt	934,868.90CR
Contracts	107,009.70
Water	.00
Labor	14,447.64
Lights	58,313.63
	.00
Total ==>	7,591,786.14

	Elec Add'l Deposit Res	6% Interest	
Electric	176,092.00		7,197.19
Total ==>	176,092.00		7,197.19

	Electric Deposit Res	6% Interest	
Electric	987,485.51		36,219.41
Total ==>	987,485.51		36,219.41

	Electric Deposit Comm	6% Interest	
Electric	486,105.00		20,007.24
Total ==>	486,105.00		20,007.24

	FB Elec Add'l Deposit 6%-Comm	6% Interest	
Electric	51,696.00		2,236.92
Total ==>	51,696.00		2,236.92

	FB Elec Add'l Deposit 7% Comm	7% Interest	
Electric	3,000.00		155.93
Total ==>	3,000.00		155.93

	FB Elec Add'l Deposit 6%-Res	6% Interest	
Electric	49,333.00		1,523.60
Total ==>	49,333.00		1,523.60

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

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	FB Elec Deposit 6% Res	6% Interest
Overpmt	115.00CR	.00
Electric	159,421.97	6,708.82
Total ==>	159,306.97	6,708.82

	FB Elec Deposit 7% Comm	7% Interest
Electric	127,936.48	6,349.64
Total ==>	127,936.48	6,349.64

	FB Elec Dep 6% Comm	6% Interest
Electric	313,707.02	16,113.50
Total ==>	313,707.02	16,113.50

	FB Propane Dep	
Propane	6,060.00	.00
Total ==>	6,060.00	.00

	Gas Add'l Deposit 6%-Comm	6% Interest
Gas	334,687.85	16,732.35
Total ==>	334,687.85	16,732.35

	Gas Add'l Deposit 6%-Res	6% Interest
Gas	20,169.30	894.73
Total ==>	20,169.30	894.73

	Gas Add'l Deposit 7% Comm	7% Interest
Gas	45,345.00	2,442.80
Total ==>	45,345.00	2,442.80

	Gas Deposit 6% Res	6% Interest
Gas	1,457,769.23	54,528.71
Total ==>	1,457,769.23	54,528.71

	Gas Deposit 7% Comm	7% Interest
Gas	562,178.08	33,342.21
Total ==>	562,178.08	33,342.21

	Gas Deposit 6% Comm	6% Interest
Gas	3,241,062.65	141,114.92

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

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Total ==>	3,241,062.65		141,114.92
	Mar Elec Add'l Deposit 6%Comm	6% Interest	
Electric	6,650.00		336.47
Total ==>	6,650.00		336.47
	Mar Elec Add'l Deposit 6%-Res	6% Interest	
Electric	715.00		31.81
Total ==>	715.00		31.81
	Mar Elec Add'l Deposit 7% Comm	7% Interest	
Electric	300.00		13.78
Total ==>	300.00		13.78
	Mar Elec Deposit 6% Res	6% Interest	
Electric	153,445.20		6,962.53
Total ==>	153,445.20		6,962.53
	Mar Elec Deposit 7% Comm	7% Interest	
Electric	115,258.81		5,704.10
Total ==>	115,258.81		5,704.10
	Mar Elec Deposit 6% Comm	6% Interest	
Electric	176,048.00		9,032.11
Total ==>	176,048.00		9,032.11
	Propane Add'l Deposit 0%		
Propane	2,509.00		.00
Total ==>	2,509.00		.00
	No Interest Propane Dep		
Gas	75.00		.00
Propane	589,251.47		.00
Total ==>	589,326.47		.00
	Propane Add'l Deposit 1%		
Propane	75.00		.55
Total ==>	75.00		.55
	Propane Dep 1%	1% Interest-Propane	
Gas	40.00CR		.00

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Propane	187,703.31	1,364.17
Total ==>	187,663.31	1,364.17

	Bad Debts
Write Off to Bad Debt	3,414,954.56
Bad Debt Payment	331,378.05CR
Bad Debt Adjustment	17,972.80CR
Bad Debt Transfer	47,898.19CR
Total Bad Debts	3,017,705.52

Dec '07

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Account File	9,491,742.86
Acct Balance File	
Gas	4,937,136.02
Other -job	105,243.96
Electric	3,327,371.20
Sewer	.00
Garbage	.00
Propane	1,837,405.50
Overpmt	931,038.47CR
Contracts	133,959.05
Water	.00
Labor	14,263.71
Lights	67,401.89
	.00
Total ==>	9,491,742.86

	Elec Add'l Deposit Res	6% Interest
Electric	174,615.00	8,028.84
Total ==>	174,615.00	8,028.84

	Electric Deposit Res	6% Interest
Electric	986,832.51	40,227.79
Total ==>	986,832.51	40,227.79

	Electric Deposit Comm	6% Interest
Electric	489,495.00	22,348.14
Total ==>	489,495.00	22,348.14

	FB Elec Add'l Deposit 6%-Comm	6% Interest
Electric	51,696.00	2,509.77
Total ==>	51,696.00	2,509.77

	FB Elec Add'l Deposit 7% Comm	7% Interest
Electric	3,000.00	173.77
Total ==>	3,000.00	173.77

	FB Elec Add'l Deposit 6%-Res	6% Interest
Electric	49,753.00	1,738.50
Total ==>	49,753.00	1,738.50

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

	FB Elec Deposit 6% Res		6% Interest	
Overpmt	115.00CR			.00
Electric	160,346.97			7,453.34
Total ==>	160,231.97			7,453.34

	FB Elec Deposit 7% Comm		7% Interest	
Electric	127,936.48			7,082.47
Total ==>	127,936.48			7,082.47

	FB Elec Dep 6% Comm		6% Interest	
Electric	311,682.02			17,751.32
Total ==>	311,682.02			17,751.32

	FB Propane Dep			
Propane	5,925.00			.00
Total ==>	5,925.00			.00

	Gas Add'l Deposit 6%-Comm		6% Interest	
Gas	332,837.85			18,484.57 ✓
Total ==>	332,837.85	✓		18,484.57

	Gas Add'l Deposit 6%-Res		6% Interest	
Gas	20,809.30			1,017.77
Total ==>	20,809.30	✓		1,017.77 ✓

	Gas Add'l Deposit 7% Comm		7% Interest	
Gas	45,345.00			2,691.32 ✓
Total ==>	45,345.00	✓		2,691.32

	Gas Deposit 6% Res		6% Interest	
Gas	1,460,179.70			59,511.88 ✓
Total ==>	1,460,179.70	✓		59,511.88

	Gas Deposit 7% Comm		7% Interest	
Gas	558,978.08			36,319.04 ✓
Total ==>	558,978.08	✓		36,319.04

	Gas Deposit 6% Comm		6% Interest	
Gas	3,260,812.48	✓		157,278.06 ✓

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

Print A/R Balancing Report

Total ==>	3,260,812.48	157,278.06
	Mar Elec Add'l Deposit 6%Comm	6% Interest
Electric	6,650.00	375.67
Total ==>	6,650.00	375.67
	Mar Elec Add'l Deposit 6%-Res	6% Interest
Electric	715.00	35.44
Total ==>	715.00	35.44
	Mar Elec Add'l Deposit 7% Comm	7% Interest
Electric	300.00	15.39
Total ==>	300.00	15.39
	Mar Elec Deposit 6% Res	6% Interest
Electric	151,865.20	7,672.87
Total ==>	151,865.20	7,672.87
	Mar Elec Deposit 7% Comm	7% Interest
Electric	114,483.81	6,316.58
Total ==>	114,483.81	6,316.58
	Mar Elec Deposit 6% Comm	6% Interest
Electric	173,248.00	9,851.74
Total ==>	173,248.00	9,851.74
	Propane Add'l Deposit 0%	
Propane	2,509.00	.00
Total ==>	2,509.00	.00
	No Interest Propane Dep	
Gas	75.00	.00
Propane	608,930.47	.00
Total ==>	609,005.47	.00
	Propane Add'l Deposit 1%	
Propane	75.00	.61
Total ==>	75.00	.61
	Propane Dep 1%	1% Interest-Propane
Gas	40.00CR	.00

FLORIDA PUBLIC UTILITIES - FPUFILES V7R3M0

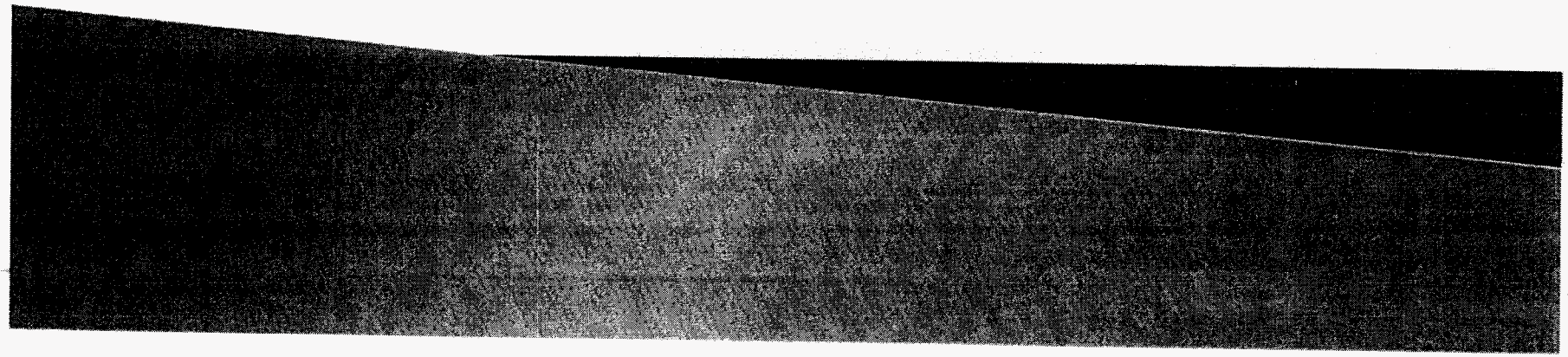
Print A/R Balancing Report

Propane	187,075.31	1,512.12
Total ==>	187,035.31	1,512.12

	Bad Debts
Write Off to Bad Debt	3,482,943.56
Bad Debt Payment	335,998.81CR
Bad Debt Adjustment	11,103.64CR
Bad Debt Transfer	48,767.91CR
Total Bad Debts	3,087,073.20

Financing Projections & Debt Covenants

Presented to the Board of Directors
June 10, 2008



CASH FLOW PROJECTIONS
Presented to the Board of Directors
June 10, 2008
Dollars in thousands

	2008	2009	2010	2011	2012
Major Cash Inflows					
Net Cash from Operations *	13,100	13,200	14,100	14,000	14,000
Proceeds from Water Sale	300	300	5,800	-	-
	13,400	13,500	19,900	14,000	14,000
Major Cash Outflows:					
Dividends net of stock proceeds	2,300	2,500	2,800	2,900	3,000
Normal Construction Expenditure **	13,800	13,300	13,700	14,100	14,500
Purchase of Land & Buildings	-	1,000	4,000	-	-
Other major Items:					
LT Debt Sinking Fund	1,400	1,400	1,400	1,400	1,400
Environmental ***	5,200	400	200	-	-
Pension Contributions	300	400	2,600	2,600	2,700
Total Cash Outflows	23,000	19,000	24,700	21,000	21,600
Cash Requirements	**9,600**	**5,500**	**4,800**	**7,000**	**7,600**
Projected Financing:					
Change in Line of Credit	9,600	(16,900)	4,800	7,000	7,600
Debt Financing (Net)	-	14,900	-		
Equity Offering (Net)	-	7,500	-	-	-
Total Projected Financing	**9,600**	**5,500**	**4,800**	**7,000**	**7,600**
LOC Balance	20,530	3,700	8,400	15,400	22,400

* Gas Rate Case 2009

** Includes Cost of Removal

*** Net of Environmental Investment Proceeds

DEBT COVENANTS

June 2008

	LENDER	REQUIREMENT	2008	2009	2010	2011	2012
CAPITALIZATION RATIO	AMBAC	= > 35%	39%	39%	40%	41%	42%
FIXED CHARGE COVERAGE	BOA	>= 1.25	2.69	2.84	2.98	2.75	2.70
TOTAL LIABILITIES TO TANGIBLE NET WORTH	BOA	<4.00	3.55	3.32	3.32	3.36	3.39
FIXED CHARGE COVERAGE	JEA	>=1.50	2.69	2.84	2.98	2.75	2.70
TOTAL LIABILITIES TO TANGIBLE NET WORTH	JEA	<3.75	3.55	3.32	3.32	3.36	3.39
TOTAL DEBT TO TOTAL CAPITAL	Gulf Power	<.60	0.57	0.55	0.55	0.52	0.55
INTEREST COVERAGE (Annual not 6 Qtr Avg)	Gulf Power	>2.5	3.39	3.62	3.80	3.42	3.30

FLORIDA PUBLIC UTILITIES COMPANY
SPECIAL DIRECTORS' MEETING
TUESDAY, JUNE 10, 2008, 9:00 AM

Directors: Ellen Terry Benoit
John T. English
Richard C. Hitchins [Telephonically]
Dennis S. Hudson III
Paul L. Maddock Jr.
Troy W. Maschmeyer Jr.

Being all the members of the Board.

John T. English, Chairman, President and Chief Executive Officer called the meeting to order and presided.

Also present are George M. Bachman, Treasurer, CFO and Corporate Secretary, Charles L. Stein, Senior Vice President and COO and Bonnie L. Erdek, Assistant Corporate Secretary.

Bonnie L. Erdek, Assistant Corporate Secretary, keeps the records.

The Board was informed that there had been sent previously to each director for their information, a copy of the minutes of the last two meetings of the Board of Directors held on May 2 and May 21, 2008. The directors thereupon approved the minutes of both meetings as recorded.

There was then submitted to each director for consideration and discussion, a review of the consolidated financial results of the Company for the four months ended March 31, 2008, including other information concerning the business and affairs of the Company.

The Chairman stated in was next in order to ratify filing of the Articles of Amendment with the Secretary of State of the State of Florida increasing the authorized common shares from 6,000,000 to 10,000,000. After consideration and upon motion duly made and seconded, the following resolutions were unanimously adopted:

> **WHEREAS,** the Board of Directors authorized the amendment of Section III of the Company's Certificate of Reincorporation to increase the number of authorized shares of common stock, $1.50 par value per share, from 6,000,000 shares to 10,000,000 shares, and such amendment was approved and adopted by the shareholders of the Company on May 25, 2004;

WHEREAS, subsequent to such approval and adoption, the Board of Directors authorized the new issuance of shares of common stock in connection with the 2005 stock split effectuated in the form of a stock dividend which caused the number of issued shares to exceed 6,000,000;

WHEREAS, thereafter, the Board of Directors authorized new issuances of common stock in connection with the Company's Dividend Reinvestment Plan;

WHEREAS, on May 23, 2008, Articles of Amendment evidencing the increase in authorized common shares from 6,000,000 to 10,000,000 were signed by the Company's Chief Executive Officer and filed with the Secretary of State of the State of Florida (a copy of which shall be attached to the minutes of this meeting);

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors does hereby ratify the filing of the Articles of Amendment on May 23, 2008, and all original issuances of shares of common stock on and after July 25, 2005 through the date hereof.

The President then stated that, since this was the first meeting of the Board of Directors following the Annual Meeting of Stockholders, it was in order to elect officers to serve for the ensuing year. Thereupon, the following individuals were nominated and, on motion duly made and seconded, it was unanimously

RESOLVED, that the following individuals be and hereby are elected, effective June 1, 2008, to the offices of this Company set opposite their respective names:

John T. English	Chairman, President and Chief Executive Officer
Charles L. Stein	Sr Vice President and Chief Operating Officer
George M. Bachman	Chief Financial Officer, Treasurer and Secretary

each to serve until the next annual election of officers or until his successor shall have been elected and qualified.

There was next submitted to the meeting, a statement as of March 31, 2008, of earnings available for dividends on common stock. After due consideration of the financial condition of the Company, upon motion duly made and seconded, the following resolutions were unanimously adopted:

RESOLVED, that there is hereby declared, out of retained earnings of the Company available for dividends, a dividend of $1.1875 per share on the outstanding 4-3/4% cumulative preferred stock, payable July 1, 2008, to the holders of record of such preferred stock at the close of business on June 20, 2008.

RESOLVED, that there is hereby declared, out of retained earnings of the Company available for dividends, a dividend of $0.1175 per share on the outstanding common stock, payable July 1, 2008, to the holders of record of such

common stock at the close of business on June 20, 2008.

The President then stated that it was in order to receive the report of Richard C. Hitchins, the Audit Committee's Chairman concerning the review of the first quarter's financial statements with representatives of BDO Seidman.

The President then stated that it would be in order for non-management directors to meet in their regularly scheduled session without Company management present.

Company management having returned to the meeting, there followed a general discussion of the business and affairs of the Company after which it was, on motion duly made and seconded, unanimously

RESOLVED, to adjourn.

A true record.

Attest:

Assistant Corporate Secretary

u:board/fpucminp.june08

LIST OF CLOSING DOCUMENTS

RENEWAL AND MODIFICATION

OF

$26,000,000

LINE OF CREDIT

FROM

BANK OF AMERICA, N.A.

TO

FLORIDA PUBLIC UTILITIES COMPANY

COPY

1. Second Amendment to Amended and Restated Loan Agreement.
2. Revolving Promissory Note.
3. Borrower's Certificate.
4. Out-of State Closing Affidavit.
5. Closing Statement/Funding Instruction Letter.

SECOND AMENDMENT TO AMENDED AND RESTATED LOAN AGREEMENT

This **SECOND AMENDMENT TO AMENDED AND RESTATED LOAN AGREEMENT** (this "**Amendment**") is dated as of March 21, 2008, is between ***FLORIDA PUBLIC UTILITIES COMPANY***, a Florida corporation (the "**Company**") and **BANK OF AMERICA, N.A.**, a national banking association (the "**Lender**"), and amends that certain Amended and Restated Loan Agreement (as previously amended, the "**Original Agreement**"), dated October 29, 2004, between the Company and the Lender.

Section 1. Section 2.01(a) of the Original Agreement is amended to provide:

(a) Establishment of Line of Credit. On the Closing Date, and upon fulfillment of the applicable conditions set forth herein, the Lender shall establish in favor of the Company a revolving line of credit (the "**Revolving Line of Credit**") in the amount of the Availability. Subject to reduction as herein provided, the Availability is $26,000,000.00. The Company shall be entitled to borrow, repay and reborrow funds from the Lender in accordance with the terms hereof so long as the sum of (i) the total principal amount owed to the Lender under the Revolving Line of Credit plus (ii) the Outstanding Letter of Credit Amount (as defined in **Section 2.01(e)**) does not exceed the Availability. This indebtedness shall be evidenced by a Revolving Promissory Note (as amended, extended or renewed from time to time, the "**Promissory Note**") of even date herewith executed by the Company in favor of the Lender in the principal amount of up to $26,000,000. The Promissory Note shall bear interest at the rate set forth therein and shall be payable as set forth therein.

The Revolving Line of Credit shall terminate on July 1, 2010 (as such date may be extended, the "**Expiration Date**"). The Expiration Date will be considered renewed if and only if the Lender has sent to the Company a written notice of renewal (the "Renewal Notice"). If the Revolving Line of Credit is renewed, it will continue to be subject to all the terms and conditions set forth in this Loan Agreement except as modified by the Renewal Notice. If the Revolving Line of Credit is renewed, the term "Expiration Date" shall mean the date set forth in the Renewal Notice as the Expiration Date and the same process for renewal will apply to any subsequent renewal of the Revolving Line of Credit. A renewal fee may be charged at the Lender's option. The amount of any renewal fee will be specified in the Renewal Notice.

The Lender shall not in any event be required to make an Advance during the continuance of an Event of Default or if any change in the financial condition of the Company occurs which, in the Lender's discretion, is material and adverse.

At any time the Company may permanently reduce the Availability in increments of $1,000,000.00 by providing not less than 30 days' prior written notice to the Lender, requesting the decrease and specifying the effective date thereof (the date of the first such decrease being referred to herein as the "**Reduction Date**").

Section 2. The Company shall pay the Bank a facility fee in the amount of $35,874.00.

Section 3. The Company agrees to pay the fee of counsel to the Lender, Holland & Knight LLP, in the amount of $750.00, within 15 days after billing, and failing such payment authorize the Lender to debit such fee from any account of the Company maintained at the Lender.

Section 4. The Company acknowledges that the Original Agreement remains in full force and effect except as modified by or as described herein. The Company affirms all representations and warranties made by it in the Original Agreement as of the date hereof. The Company affirms the grant of the security interest made by it in the Security Agreement dated October 29, 2004. The Company affirms that the Tax Indemnity Agreement dated October 29, 2004 between the Company and the Lender remains in effect and encompasses the Loan and the Promissory Note as modified hereby.

Section 5. This Amendment may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Second Amendment to Amended and Restated Loan Agreement to be duly executed and delivered by their respective officers thereunto duly authorized as of the date first above written.

FLORIDA PUBLIC UTILITIES COMPANY

By: _____
Name: George M. Bachman
Title: CFO and Treasurer

witness

BANK OF AMERICA, N.A.

By: _____
Name: Steven J. Whittingslow
Title: Senior Vice President

witness

Renewal Revolving Promissory Note

Effective Date: March 21, 2008
Amount: $26,000,000.00 Maturity Date: July 1, 2010

Lender:	Borrower:
Bank of America, N.A. 9000 Southside Boulevard Building 100 FL9-100-03-15 Jacksonville, FL 32256-0793	Florida Public Utilities Company 401 South Dixie Highway West Palm Beach, FL 33401

FOR VALUE RECEIVED, Florida Public Utilities Company (the "Borrower") unconditionally promises to pay to the order of Bank of America, N.A. and its successors and assigns (the "Lender"), without setoff, in immediately available funds, at its offices indicated at the beginning of this Note, or at such other place as may be designated by Lender (the "Payment Office of Lender"), the principal amount of Twenty-Six Million Dollars ($26,000,000.00), or so much thereof as may be advanced from time to time, together with interest computed daily on the outstanding principal balance hereunder, at an annual interest rate, and in accordance with the payment schedule, indicated below.

1. **Rate. Variable Interest Rate.** The interest rate on this Note is a fluctuating rate of interest based upon "The Wall Street Journal LIBOR One Month Floating Rate." The Wall Street Journal LIBOR One Month Floating Rate is a fluctuating rate of interest equal to the one month London Interbank Offered Rate as published in the "Money Rates" section of The Wall Street Journal (or, if such source is not available, such alternate source as determined by the Lender) as adjusted from time to time in the Lender's sole discretion for reserve requirements, deposit insurance assessment rates and other regulatory costs (the "Index"). Any change in the Index, and thus, the interest rate on this Note, will take effect on the effective date as indicated in The Wall Street Journal (or any alternate source described herein). Interest will accrue on any day which is not a Business Day at the rate in effect on the immediately preceding Business Day. A Business Day is any day other than a Saturday or Sunday or day on which the Payment Office of Lender is lawfully closed.

The interest rate to be applied to the unpaid principal balance of this Note will be at a rate equal to the Index plus an additional percentage per annum (the "Spread"). The Spread will be 0.80% per annum.

Notwithstanding any provision of this Note, Lender does not intend to charge and Borrower shall not be required to pay any amount of interest or other charges in excess of the maximum permitted by the applicable law. Any payment in excess of such maximum shall be credited against the principal balance of this Note and any remaining excess shall be refunded to the Borrower.

2. **Accrual Method.** The interest rate on this Note shall be computed on a 360/actual basis; that is, by applying the ratio of the annual interest rate over a year of 360 days, multiplied by the

outstanding principal balance, multiplied by the actual number of days the principal balance is outstanding.

3. **Payment Schedule.** All payments received hereunder shall be applied first to the payment of any expense or charges payable hereunder or under any other Loan Documents executed in connection with this Note, then to interest due and payable, with the balance applied to principal, or in such other order as Lender shall determine at its option. Principal shall be paid in full in a single payment on July 1, 2010 (the "Maturity Date"). Interest on the principal amount outstanding hereunder shall be paid monthly, commencing on April 1, 2008, and continuing on the same day of each consecutive month thereafter, with a final payment of all unpaid interest at the stated maturity of this Note.

This Note may be renewed effective July 1, 2010 and thereafter if and only if the Lender has sent to the Borrower a written notice of renewal (the "Renewal Notice") effective as of the Maturity Date and the Borrower has accepted the same. If this Note is renewed, it will continue to be subject to all the terms and conditions set forth herein except as modified by the Renewal Notice. If this Note is renewed, the term "Maturity Date" shall mean the date set forth in the Renewal Notice as the Maturity Date, and all outstanding principal plus all accrued interest shall be paid on the Maturity Date. The same process for renewal will apply to any subsequent renewal of this Note. A renewal fee may be charged at Lender's option. The amount of the renewal fee will be specified in the Renewal Notice.

4. **Revolving Feature; Availability.** The Borrower may borrow, repay and reborrow under this Note from time to time up to Availability (as defined in the hereinafter described Loan Agreement), by requesting advances as provided in the Loan Agreement.

5. **Automatic Payment.** Borrower has elected to authorize Lender to effect payment of interest due under this Note by means of debiting Borrower's account number 5488080210. This authorization shall not affect the obligation of Borrower to pay such sums when due, without notice, if there are insufficient funds in such account to make such payment in full on the due date thereof, or if Lender fails to debit the account.

6. **Waivers, Consents and Covenants.** Borrower, any indorser or guarantor hereof, or any other party hereto (individually an "Obligor" and collectively "Obligors") and each of them, jointly and severally: (a) waive presentment, demand, protest, notice of demand, notice of intent to accelerate, notice of acceleration of maturity, notice of protest, notice of nonpayment, notice of dishonor, and any other notice otherwise required to be given under the law to any Obligor in connection with the delivery, acceptance, performance, default or enforcement of this Note, any indorsement or guaranty of this Note, or any other documents executed in connection with this Note including, but not limited to, the Amended and Restated Loan Agreement, dated October 29, 2004, between Lender and Borrower, as amended (as so amended, the "Loan Agreement") and the Related Documents described therein (the "Loan Documents"); (b) consent to all delays, extensions, renewals or other modifications of this Note or the Loan Documents, or waivers of any term hereof or of the Loan Documents, or release or discharge by Lender of any Obligor, or release, substitution or exchange of any security for the payment hereof, or the failure to act on the part of Lender, or any indulgence shown by Lender (without notice to or further assent from any Obligor), and agree that no such action, failure to act or failure to exercise any right or remedy by Lender shall in any way affect or

impair the obligations of any Obligor or be construed as a waiver by Lender of, or otherwise affect, any of Lender's rights under this Note, under any indorsement or guaranty of this Note or under any of the Loan Documents; and (c) agree to pay, on demand, all costs and expenses of collection or defense of this Note or of any indorsement or guaranty hereof and/or the enforcement or defense of Lender's rights with respect to, or the administration, supervision, preservation, or protection of, or realization upon, any property securing payment hereof, including, without limitation, reasonable attorney's and paralegal's fees, including fees related to any suit, mediation or arbitration proceeding, out of court payment agreement, trial, appeal, bankruptcy proceedings or other proceeding, in such amount as may be determined reasonable by any arbitrator or court, whichever is applicable.

7. **Indemnification.** Obligor agrees to promptly pay, indemnify and hold Lender harmless from all State and Federal taxes of any kind (except State and Federal taxes based on income received by Lender, which shall not be an obligation of Obligor) and other liabilities with respect to or resulting from the execution and/or delivery of this Note or any advances made pursuant to this Note. Obligor expressly consents to the deduction of any applicable taxes from each advance extended by Lender hereunder.

8. **Prepayments.** Prepayments may be made in whole or in part at any time.

9. **Delinquency Charge.** Borrower shall pay on demand of Lender, a delinquency charge in an amount not to exceed two percent (2%) of any payment that is more than fifteen days late.

10. **Events of Default.** It shall be an event of default hereunder if there shall be an Event of Default under the Loan Agreement.

11. **Remedies upon Default.** Whenever there is a default under this Note (a) the entire balance outstanding hereunder and all other obligations of any Obligor to Lender (however acquired or evidenced) shall, at the option of Lender, become immediately due and payable and any obligation of Lender to permit further borrowing under this Note shall immediately cease and terminate, and/or (b) to the extent permitted by law, the rate of interest on the unpaid principal shall be increased at Lender's discretion up to the maximum rate allowed by law (the "Default Rate"). The provisions herein for a Default Rate shall not be deemed to extend the time for any payment hereunder or to constitute a "grace period" giving any Obligor a right to cure any default. At Lender's option, any accrued and unpaid interest, fees or charges may, for purposes of computing and accruing interest on a daily basis after the due date of the Note or any installment thereof, be deemed to be a part of the principal balance, and interest shall accrue on a daily compounded basis after such date at the Default Rate until the entire outstanding balance of principal and interest is paid in full. Upon a default under this Note, Lender is hereby authorized at any time, at its option and without notice or demand, to set off and charge against any deposit accounts of any Obligor (as well as any money, instruments, securities, documents, chattel paper, credits, claims, demands, income and any other property, rights and interests of any Obligor), which at any time shall come into the possession or custody or under the control of Lender or any of its agents, affiliates or correspondents, any and all obligations due hereunder. Additionally, Lender shall have all rights and remedies available under each of the Loan Documents, as well as all rights and remedies available at law or in equity.

12. **Non-waiver.** The failure at any time of Lender to exercise any of its options or any other rights hereunder shall not constitute a waiver thereof, nor shall it be a bar to the exercise of any of its options or rights at a later date. All rights and remedies of Lender shall be cumulative and may be pursued singly, successively or together, at the option of Lender. The acceptance by Lender of any partial payment shall not constitute a waiver of any default or of any of Lender's rights under this Note. No waiver of any of its rights hereunder, and no modification or amendment of this Note, shall be deemed to be made by Lender unless the same shall be in writing, duly signed on behalf of Lender; each such waiver shall apply only with respect to the specific instance involved, and shall in no way impair the rights of Lender or the obligations of Obligors to Lender in any other respect at any other time.

13. **Applicable Law, Venue and Jurisdiction.** This Note and the rights and obligations of Borrower and Lender shall be governed by and interpreted in accordance with the law of the State of Florida. In any litigation in connection with or to enforce this Note or any indorsement or guaranty of this Note or any Loan Documents, Obligors, and each of them, irrevocably consent to and confer personal jurisdiction on the courts of the State of Florida or the United States located within the State of Florida and expressly waive any objections as to venue in any such courts. Nothing contained herein shall, however, prevent Lender from bringing any action or exercising any rights within any other state or jurisdiction or from obtaining personal jurisdiction by any other means available under applicable law.

14. **Partial Invalidity.** The unenforceability or invalidity of any provision of this Note shall not affect the enforceability or validity of any other provision herein and the invalidity or unenforceability of any provision of this Note or of the Loan Documents to any person or circumstance shall not affect the enforceability or validity of such provision as it may apply to other persons or circumstances.

15. **Binding Effect.** This Note shall be binding upon and inure to the benefit of Borrower, Obligors and Lender and their respective successors, assigns, heirs and personal representatives, provided, however, that no obligations of Borrower or Obligors hereunder can be assigned without prior written consent of Lender.

16. **Controlling Document.** To the extent that this Note conflicts with or is in any way incompatible with any other document related specifically to the loan evidenced by this Note, this Note shall control over any other such document, and if this Note does not address an issue, then each other such document shall control to the extent that it deals most specifically with an issue.

Borrower acknowledges having read and understood, and agrees to be bound by, all terms and conditions of this Note, including the variable interest rate provisions, and hereby executes this Note as of the date here above written. Borrower acknowledges receipt of a completed copy of this Note.

NOTICE OF FINAL AGREEMENT. THIS WRITTEN PROMISSORY NOTE REPRESENTS THE FINAL AGREEMENT BETWEEN THE PARTIES AND MAY NOT BE CONTRADICTED BY EVIDENCE OF PRIOR, CONTEMPORANEOUS, OR

SUBSEQUENT ORAL AGREEMENTS OF THE PARTIES. THERE ARE NO UNWRITTEN ORAL AGREEMENTS BETWEEN THE PARTIES.

EXECUTION DATE: March 21, 2008

FLORIDA PUBLIC UTILITIES COMPANY

By: _____
Name: George M. Bachman
Title: CFO and Treasurer

CERTIFICATE OF BORROWER

Bank of America, N.A.

Ladies and Gentlemen:

The undersigned hereby represents and warrants to you as follows:

1. The Resolution of the Board of Directors of Florida Public Utilities Company (the "Company") attached hereto as Exhibit A remains in full force and effect as in effect on the date hereof.

2. Neither the Articles of Incorporation nor Bylaws of the Company have been amended since October 29, 2004.

IN WITNESS WHEREOF, Florida Public Utilities Company has caused this certificate to be executed this 21st day of March, 2008.

FLORIDA PUBLIC UTILITIES COMPANY

Name: George M. Bachman
Its: Chief Financial Officer/Treasurer

RESOLUTION

Be it resolved by the Board of Directors of Florida Public Utilities Company that the line of credit with Bank of America, N.A. shall be increased from $20,000,000 to $26,000,000, the maturity date shall be extended to July 1, 2010 and the interest rate shall be decreased by 10 basis points. George Bachman shall sign all documents necessary to complete the transaction.

Adopted March 11, 2008.

OUT OF STATE CLOSING AFFIDAVIT

FREEPORT, GRAND BAHAMA

On the 21st day of March, 2008, in Freeport Grand Bahama, George Bachman, Chief Financial Officer/Treasurer of Florida Public Utilities Company (the "Borrower") executed and delivered to Steven Whittingslow, a Senior Vice President of Bank of America, N.A. (the "Lender") a Renewal Revolving Promissory Note in the principal amount of $26,000,000 payable to the Lender and a Second Amendment to Amended and Restated Loan Agreement, both dated of even date herewith. The Borrower personally delivered such documents to the Lender, and the Lender accepted such documents in the State and County set forth above.

George Bachman

Steven Whittingslow

witness

witness

CLOSING STATEMENT/FUNDING INSTRUCTION LETTER

Bank of America, N.A.
9000 Southside Boulevard
Building 100
Jacksonville, FL 32256

Re: Florida Public Utilities Company
$26,000,000 Line of Credit dated March 21, 2008

Ladies and Gentlemen:

You are hereby requested, authorized and directed to transfer the outstanding principal and interest on our promissory note, payable to you, dated August 25, 2006 to the above referenced line of credit.

You are authorized to debit our account with you in the amount of $35,874.00 to pay the fees due the Bank.

We agree to pay your legal fees in connection with the renewal of the line of credit in the amount of $750.00 to Holland & Knight LLP.

Dated as of March 21, 2008

FLORIDA PUBLIC UTILITIES COMPANY

By: _____
Name: George M. Bachman
Title: Chief Financial Officer/Treasurer

[redacted]

Tel 561 833 2000
Fax 561 650 8399

Holland & Knight LLP
222 Lakeview Avenue, Suite 1000
P.O. Box 3208 (ZIP 33402-3208)
West Palm Beach, FL 33401
www.hklaw.com

Mark E. Raymond
561 650 8349
mark.raymond@hklaw.com

March 21, 2008

Florida Public Utilities Company

RE: Line of credit from Bank of America, N.A.

To professional services rendered and
costs disbursed as counsel to Bank of America, N.A. $750.00

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 30.1

A theory of optimal capital structure

James H. Scott, Jr.

Assistant Professor
Graduate School of Business
Columbia University

This paper presents a multiperiod model of firm valuation derived under the assumptions that bankruptcy is possible and that secondary markets for assets are imperfect. Given the assumption that the probability of bankruptcy is zero, the model is formally identical to that proposed by Modigliani and Miller. Under plausible conditions the model implies a unique optimal capital structure. Comparative statics analysis is used to obtain a number of testable hypotheses which specify the parameters on which optimal financial policy depends. Implications for the debt policy of the regulated firm are also considered.

1. Introduction

■ This paper presents a multiperiod model of firm valuation which captures the costs of bankruptcy and implies the existence of a unique optimal capital structure. The interest of financial economists in this topic was stimulated by the 1958 publication of a path breaking article by Modigliani and Miller. Their work presented a logically consistent proof that, given unfettered arbitrage opportunities, no possibility that firms could go bankrupt, and no corporate taxes, the total market value of the firm is unaffected by the amount of debt that it issues. A number of later authors have obtained the same result under different and often more general assumptions.[1]

The proof brought clarity, precision, and controversy to theoretical inquiries concerning the optimal debt policy of corporations. The controversy was heightened by the fact that under the assumption that the corporate tax rate is positive and that interest payments are deductible from taxable income, the Modigliani-Miller analysis implies that an optimal capital structure consists entirely of debt. This implication of their analysis generated a good deal of comment, since an infinite debt-equity ratio is inconsistent with both common sense and established practice. Indeed even Modigliani and Miller did not advocate the exclusion of equity financing and argued that a number

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James H. Scott, Jr., received the B.A. from Rice University (1967) and the M.S. and Ph.D. from Carnegie-Mellon (1970 and 1975, respectively). His research centers on firm valuation, corporate finance, and capital market theory.

A number of people have offered useful suggestions on earlier drafts of this paper. In particular I would like to thank J. Walter Elliot, David Glenn, Nils Hakansson, Miles Livingston, a referee, the editor, and especially Robert E. Lucas, Jr. and Richard Roll, who both served on my thesis committee. Remaining errors are my responsibility.

[1] See Fama and Miller (1972), Hirshleifer (1966), and Stiglitz (1969, 1974). A fuller discussion of the effects of taxation on capital structure where there is no possibility of bankruptcy can be found in Stiglitz (1973).

of considerations outside of their model render such a policy unsuitable.

Recently the topic of optimal capital structure and the Modigliani-Miller paradigm in particular have gained increased importance in the study of the regulated firm, as such firms have been encouraged to increase their levels of debt.[2] Theoretically the Modigliani-Miller analysis implies that regulators can pass the resulting tax savings on to consumers by lowering the maximum price they allow a regulated firm to charge. However, the use of this theory in such a manner can be dangerous because it fails to consider the detrimental effects increased debt can have upon a firm. What is required is a more powerful theory that accounts for the costs as well as the benefits of debt within a useful framework.

By weakening the assumptions required by Modigliani and Miller, a number of authors have been able to show that the total market value of the firm is affected by changes in its level of debt apart from the tax effect. Modigliani and Miller (1958) demonstrated that higher levels of debt can increase the value of the firm if corporations can borrow at a lower rate of interest than can investors. Baumol and Malkiel (1967) have argued that capital structure will not be irrelevant if investors incur transactions costs when engaging in arbitrage activities. Rubinstein (1973) has shown that if security markets are partially segmented, i.e., "if the sets containing both investors and available securities in each market are disjoint," (p. 749) and if debt is traded in a separate market where traders are more risk averse than are investors in the firm's equity, then increases in the level of debt can lower the total value of the firm. Similarly, Stiglitz (1972) demonstrated that if debt is traded in a separate market in which investors are more pessimistic about the firm than its equity holders, then a sufficiently large increase in debt can lower the total value of the firm.[3] Finally and perhaps more plausibly, if there are costs associated with bankruptcy and reorganization, Baxter (1967), Bierman and Thomas (1972), Kraus and Litzenberger (1973), and Robichek and Myers (1966) have argued that debt policy is not irrelevant and that an internal optimal capital structure can exist.

Collectively, these studies indicate progress in the theory of cor-

[2] See Davis and Sparrow (1972), who argue that the assumptions upon which the Modigliani-Miller analysis rests underlie virtually all of the financial models used in regulatory hearings.

[3] Stiglitz (1972) does not explicitly cast his analysis within the framework of a partially segmented market although that appears to be what he has assumed. As Rubinstein (1973, footnote 2) points out, Stiglitz' assumption of no short selling is crucial to his argument. In Stiglitz' Section 3, if short selling were permitted, the bondholders would enter the equity market. Although he does not recognize it, Stiglitz also implicitly assumes that equity holders cannot buy the firm's debt, for it they can, it is easy to show that, given the investment decision, capital structure is irrelevant. However, under the assumption of partially segmented markets, his conclusion that capital structure matters is correct.

In a reply to a recent comment by Richard Stapleton, Stiglitz (1975) has reacted to the observations in the above paragraph. He argues that even in the absence of partial segmentation, results similar to those in his original article can be obtained. Nevertheless, for the specific model set forth in his 1972 article, the argument presented above remains relevant. In particular, the "equilibrium" prices in equations (4) and (6) of that article are not stable; at those prices all equity holders would want to sell their equity and buy risky debt. As far as equity holders are concerned, the risky debt has a higher expected return than does the equity. Given partial segmentation, the prices will be stable.

porate capital structure. However, the models set forth to date have been too complex or insufficiently concrete to answer the practical questions of managers or regulators. In addition, Stiglitz (1974, p. 866) has recently called for a better understanding of the implications of assumptions which imply the existence of an optimal capital structure, so that sharper empirical tests can be conducted.[4]

This paper attempts to lay some of the foundations for a theoretical framework which is complex enough to yield an optimal capital structure, yet simple enough to provide testable hypotheses for empirical researchers, as well as useful insights for managers and regulators. Debt is valuable within this framework primarily because interest payments are tax deductible. It is detrimental to the extent that increases in the level of debt increase the probability that the firm will incur bankruptcy costs.

In the next section the models of equity, debt, and firm valuation which lie at the heart of the analysis are presented. What distinguishes these models from others which have incorporated bankruptcy costs is the fact that the formulas presented here are explicitly multiperiod, but still relatively simple. They incorporate a multiperiod definition of bankruptcy which surmounts the difficulties raised by Stiglitz (1972, pp. 459–462, and 1974, pp. 856–857), and, because they are mathematically tractible, they can be used to analyze a number of important, but neglected, theoretical issues.

In the third section the capital structure properties of the model are derived. Not only is it shown that an optimal capital structure can exist, but conditions which guarantee the existence of a unique internal optimal level of debt are set forth. Throughout the model is compared with that set forth by Modigliani and Miller. In Section 4 a comparative statics analysis is used to determine how shifts in various external parameters affect the optimal level of debt. Section 5 relates the paper's findings to the regulated firm and in particular to the recent proposal made by Leland (1974). A short summary concludes the paper.

2. Valuation formulas

■ It is assumed that the securities market consists of a large number of buyers, sellers, and issuers of financial instruments, none of whom is large enough for his transactions to have an appreciable impact on current prices. Securities are completely divisible and there are no brokerage charges, transfer taxes, or flotation costs. All traders have equal and costless access to all relevant information. In addition, and partially as a consequence of the preceding, they share the same subjective probability distribution of future events (i.e., they possess homogeneous expectations). The default free rate of interest equals ρ and the term structure of interest rates is flat. The personal tax rate of investors is assumed equal to zero, and investors are assumed to be indifferent to risk, i.e., they maximize expected future wealth.

Firms issue only debt and equity, both of which have limited

[4] Empirical studies by Schwartz and Aronson (1967) and by Scott (1972) have shown that there are often striking cross industry differences in capital structure. None of the theories mentioned above appear to be capable of explaining these differences. In fact, many of the models are built upon assumptions so weak that they yield few, if any, testable hypotheses.

liability. Corporate profits are taxed at a constant rate, t, and the interest payments on the debt, R, are deductible for corporate tax purposes. As long as they do not go bankrupt, firms can exist indefinitely. In each period earnings before interest and taxes but after depreciation ($EBIT$) will be represented by the random variable X which is assumed to have a temporally independent, identical (subjective) probability distribution in all future periods as long as the firm remains solvent. Upon bankruptcy the assets are sold and the earnings cease. The range of X is such that it may be possible for the firm to go bankrupt even if it has no debt, e.g., the firm may lose an expensive law suit. Once financial policy has been determined, investors expect that the current financial policy of the firm (as measured by R) will not be altered.[5]

The market value of the firm, V, will be derived by developing the market value of its equity, V_e, and of its debt, V_d, and then summing the two ($V=V_e+V_d$). However, in order to develop either, it is necessary to specify the protective covenants included in the bond indenture, which are similar to the "me first" rules proposed by Fama and Miller (1972, pp. 151–152).

(1) Interest payments must be made at the end of each period.

(2) Changes in financial or investment policy which would decrease the value of existing debt are not permitted without adequate compensation to debtholders.

(3) Failure to comply with provision 1 or 2 results in firm bankruptcy.

(4) Upon bankruptcy the claims of the bondholders equal the par value of their debt plus interest currently due.

If the firm is declared bankrupt, its assets are sold and the proceeds are distributed to its creditors according to their order of priority. Bankruptcy costs are introduced by the assumption that the productive assets of the firm are sold in imperfect secondary markets.[6] This implies that the liquidation value of the firm's assets, lA, is always less than the market value of a well-managed nonbankrupt firm, V.

□ **The market value of equity.** Under the assumption of a frictionless capital market peopled by risk neutral investors, there will be equilibrium only if all securities are expected to earn the same rate of return. Therefore, the equilibrium market value of the common stock equals its expected end of period value to current stockholders discounted at the default-free rate of interest. This value can arise from three different sources. If the firm does not go bankrupt, then stockholders (1) may receive dividends and (2) their stock will have a value based on its expected dividends in subsequent period. If the firm does go bankrupt, then the equity holders share in (3) the liquidating value of

[5] Given that future earnings are identically and independently distributed and that the capital stock and risk free rate of interest remain constant, this assumption is reasonable. If the current capital structure is perceived as optimal, then unless perceptions change, the same capital structure will be viewed as optimal in future periods as well.

[6] See Karlin (1962) and Nichols (1970) for discussions of asset sales in such markets.

the assets, if there is any value left after the firm's creditors have been satisfied.

If at the end of next period X equals or exceeds contractual interest payments, R, then dividends equaling current earnings, $(1-t)(X\times R)$, could be paid stockholders. Since the assumption that the distribution of X is the same in all future periods implies that the firm's investment decision is fixed and since there is no informational content to dividend policy, whether next period's dividends actually equal after tax profits or whether the firm engages in share repurchase will not affect the current value of equity.[7]

In addition to receiving the dividend, stockholders still own their original equity. Since, ρ, t, R, and the distribution of X remain fixed over time, if V_e represents the current expected dividend value of equity, then the value next period of expected dividends payable in succeeding periods will also equal V_e. In sum, if at the end of the first period $X\geq R$, the total value of equity owners' holdings will equal current earnings plus the value of expected future earnings, $(1-t)(X-R) + V_e$.

On the other hand if X is less than R, then stockholders must raise enough money to pay the interest or the firm will go bankrupt. Basically they have three ways to avoid bankruptcy: they can sell additional equity, sell additional debt, or sell assets. If they choose to sell equity, they must sell an amount equal to their after tax losses, $(1-t)(X-R)$.[8] The proceeds from the sale of stock are used to pay the firm's creditors, after which the total market value of the equity again equals V_e, the present value of expected future earnings. However, because new equity was sold, the wealth of the original stockholders is less than V_e and equals $V_e + (1-t)(X-R)$, the current loss plus the present value of future earnings.

Since there are no flotation costs, it is possible to argue that it is always optimal to cover losses by the sale of equity.[9] For example, assume that the firm has an optimal level of debt and (as will be shown later) that the sale of more debt would decrease the total value of the firm. Since the sale of additional debt would decrease the value of the existing debt, stockholders would also have to compensate the existing bondholders in accordance with provision two of the bond indenture. Thus, stockholders would have to sell enough new debt not only to cover the interest payments, but also to obtain funds to compensate bondholders. This alternative costs more than the sale of equity, since the sale of equity does not alter the current value of the firm's debt.

Similarly, if it is assumed that the firm follows an optimal investment policy, and given that secondary markets for assets are imper-

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[7] See Miller and Modigliani (1961).

[8] This formulation implies that the government pays the firm a rebate of $-t(X-R)$ which is used to pay the bondholders, i.e., it is always possible for the firm to use its tax loss carry overs immediately. The above argument implicitly assumes that the tax rebate is received before the interest must be paid. However, the formulation still holds if the tax rebate is received shortly after the interest payment. Since all investors recognize that the rebate is forthcoming, it will be reflected in the value of the equity, and hence additional equity in the amount of $-t(X-R)$ can be sold. Again the wealth of original stockholders will equal $V_e + (1-t)(X-R)$.

[9] Strictly interpreted, the assumptions that R and the distribution of X are fixed eliminate the possibility of a sale of debt or assets so that the only way stockholders can avoid bankruptcy is by a sale of equity.

fect, the proceeds from a sale of assets will bring less than the assets are worth in the firm. Since provisions two and three of the bond indenture stipulate that stockholders must compensate bondholders for any resulting decrease in the value of the outstanding bonds, it follows that the sale of assets will cost stockholders more than the sale of equity.

There is a limit on how much equity can be sold to meet losses. If *EBIT* is so low that stockholder wealth, $(1-t)(X-R) + V_e$, is negative, then it is impossible to sell enough new equity to pay the firm's debts. Stockholders are prohibited from selling assets or additional debt, for to do so would violate covenant 2 of the bond indenture. Since the claims of creditors exceed the resources of the firm, it is declared bankrupt and stockholders, who are protected by limited liability, receive nothing.[10]

If Y_e denotes the value next period of the equity held by current stockholders, the above discussion can be summarized as follows

$$Y_e = \begin{cases} 0 & \text{if } X \le R - V_e/(1-t) \\ V_e + (1-t)(X-R) & \text{if } X > R - V_e/(1-t). \end{cases}$$

Since investors are indifferent to risk, in equilibrium the total market value of the equity is equal to the expected value of Y_e discounted by the default-free rate of interest, ρ. Let $f[\cdot]$ be the continuous, differentiable probability density function of X and let E represent the expectations operator, then since V_e represents the total value of the equity (minus current net earnings) of the solvent firm in any period,

$$V_e = \frac{E[Y_e]}{1+\rho}$$

$$V_e = \frac{(1-F)V_e + (1-t)E_b[X-R]}{1+\rho}$$

$$V_e = \frac{(1-t)E_b[X-R]}{\rho + F}, \tag{1}$$

where $F = \int_{-\infty}^{b} f(X)dX$,

$E_b[X-R] = \int_b^{\infty}(X-R)f[X]dX$,

and the limit of integration, $b \equiv R - V_e/(1-t)$. In general, the following notation will be used:

$$E_a^b[g[X]] \equiv \int_a^b g[X]f[X]dX.$$

The absence of subscript (superscript) implies that the limit of integration is $-\infty(\infty)$. In what follows, F written with or without its argument, e.g., $F[b]$, will always represent the probability of bankruptcy.

The numerator on the right-hand side of (1) is the expected per period earnings available to holders of equity. The first term in the denominator is the default-free rate of interest and is properly viewed as a discount rate for what is possibly a perpetual stream of div-

[10] Upon bankruptcy, the stockholders' portion of the liquidating proceeds equals $lA + X - V_d - R$ (assuming V_d equals the par value of the debt). Since $V > lA$ and $R > 0$, this term is negative, so stockholders are protected by limited liability and receive nothing. If $lA > V$, then stockholders might receive a liquidation payment. However, in this case the firm is acting suboptimally and should have liquidated before the low *EBIT* was realized.

idends. The second term is the probability of bankruptcy, i.e., the chance that the equity will become completely worthless. F is not a risk premium in the sense that risk averting investors require an expected rate of return in excess of ρ because of the possibility of bankruptcy. Investors have been assumed indifferent to risk and, as equation (1) implies, expect only to earn ρ per period. F can be considered a default premium since, given a positive probability of bankruptcy, its inclusion is required so that the expected return will equal ρ.

Because (1) represents a multiperiod valuation formula which explicitly recognizes the possibility of bankruptcy, it is more complex than traditional equity valuation formulas. As Stiglitz (1974, p. 856) has recognized, when a firm has insufficient current earnings to meet its debt payments, it can resort to the capital market. In this model it will sell additional equity so that the probability of bankruptcy depends on the value of the equity of the going concern. As a result, V_e appears in the limits of integration on the right-hand side of (1), and thus the equation defines V_e only implicitly.

If X is normally distributed with mean $\bar{X}$ and variance σ^2, the numerator of the formula can be expressed more simply so that (1) becomes,

$$V_e = \frac{(1 - t)[(\bar{X} - R)(1 - F) + \sigma f[b]]}{\rho + F}$$

If $\bar{X} = 100$, $R = 20$, $t = 0.5$, $\sigma = 400$, and $\rho = 0.1$, then $b = -2.24$ and $V_e = 408$. If bankruptcy were ignored as in traditional theory, then $V_e = 40/0.1 = 400$. Equation (1) gives a higher valuation because unlike the traditional theory, it explicitly recognizes that stockholders are protected by limited liability and can lose no more than their initial investment.

□ **The market value of debt.** Upon bankruptcy a firm's assets are sold and the proceeds are distributed to its creditors. In the U.S. there are three major classes of creditors: secured, priority, and unsecured. Secured creditors (e.g., mortgage bondholders) are paid first out of the proceeds from the assets in which they hold a secured interest. If these proceeds exceed the amount owed the secured creditors, then they are paid in full and the excess is returned to the estate of the bankrupt. If the proceeds are insufficient, then the secured creditors receive the total amount of the proceeds and become unsecured creditors for the balance due them.

Priority creditors are paid next and must be paid in full before unsecured creditors can receive any of the liquidation proceeds. Priority claims include the administration costs of the bankruptcy process, taxes due the Internal Revenue Service, and certain wages due employees. Unlike secured and unsecured claimants, priority creditors are not security holders of the firm. Because order of priority upon bankruptcy is valuable, the firm can increase the total market value of its securities by issuing secured as opposed to unsecured debt.[11] For this reason two formulas will be developed for the total

[11] For example, one of the hazards of running a business is that a disgruntled customer, supplier, or other individual may file suit against the business and win legal damages. Secured debt is more valuable than unsecured debt since, should the firm lose a lawsuit and be forced into bankruptcy, the firm's secured bondholders will receive all

market value of the firm's debt, one if all of the firm's debt is fully secured, a second if all of the firm's assets have been pledged as security and additional, unsecured, debt has been issued as well.

Upon bankruptcy the claims of the firm's bondholders equal $V_d + R$. If $lA > V_d + R$, then it is assumed that the debt is fully secured, in which case the value of the bonds at the end of the period will equal $V_d + R$ regardless of whether the firm goes bankrupt or not. For simplicity, it is assumed that the interest payments on the debt are set so that the bonds sell at par. Given that either secured or unsecured bonds are issued at par, they will continue to sell at par as long as the firm remains solvent, since ρ, t, lA, R, and the distribution of X remain fixed over time. Thus, in the case of fully secured debt,

$$V_d = \frac{R + V_d}{1 + \rho}$$

$$V_d = \frac{R}{\rho}.$$

If the firm issues additional debt, it will reach a point where it no longer has enough assets to secure the debt fully. Beyond that point (i.e., when $R + V_d > lA$) some of the debt will be unsecured. If Y_d (a random variable) represents the end of period value of the debt, then[12]

$$Y_d = \begin{cases} R + V_d & \text{if } X > R - V_e/(1 - t) \\ lA & \text{otherwise} \end{cases}$$

and in equilibrium,

$$V_d = \frac{E[Y_d]}{1 + \rho} = \frac{(R + V_d)(1 - F) + lAF}{1 + \rho}$$

$$V_d = \frac{R(1 - F) + lAF}{\rho + F}. \tag{2}$$

The first term in the numerator of the bond valuation formula (2) is the expected coupon payment. The second term is the expected proceeds payable upon bankruptcy; if the firm had enough assets to secure the debt fully, then this term would be $(V_d + R)F$ and $V_d = R/\rho$ as before. The first term in the denominator is the appropriate discount rate for the expected payments to bondholders. The second, F, is a default premium[13] and represents the probability that

of its assets if they have been pledged as collateral for the loan. If only unsecured debt had been issued, bondholders must share the proceeds from the sale of the assets with the victor in the lawsuit. Stockholders benefit from the sale of secured versus unsecured debt because they receive more dollars per dollar of promised interest payment when the debt is secured. For a fuller discussion of the effect of secured debt on the market value of the firm see Scott (1975b).

[12] This formulation is correct if any tax rebates are lost upon bankruptcy. It is also appropriate if a tax rebate, $t(R-X)$, is paid to the bankrupt estate under the assumptions that (1) it is not possible to promise a tax rebate as security to bondholders and (2) the rebate is exhausted by the priority creditors. Furthermore, in the unlikely event that $R>V_e/(1-t)$, then bankruptcy is possible even when $X>0$. The analysis presented here tacitly assumes that in this case a positive X is used up in administrative costs upon bankruptcy. Note that since the debt sells at par and all relevant variables are constant over time, it is not necessary to specify whether the debt is single period or multiperiod since the formulas are the same in either case.

[13] Usually, however, a default premium is defined only in terms of a bond's market price and its promised payments, i.e., normally terms like lA do not enter the definition.

the bond will fail to make its promised payments.[14] Note that as long as $V_d + R > lA$ and $F > 0$, the "yield to maturity," R/V_d, on the debt will exceed the default-free rate of interest.

If X is normally distributed as in the previous example with $\bar{X} = 100$ and $\sigma = 400$, and if $\rho = 0.1$, and $R = 20$, then $F = 0.0125$. If $lA = 175$, then formula (2) implies $V_d = 195$. Had there been no probability of bankruptcy, the value of the debt would have been 20/0.1 or 200.

It is relatively easy to use this framework to derive valuation formulas for different classes of debt. For example, assume that the value of the debt represented by equation (2) consists of two types of debt, the senior of which, V_d^s, is fully secured, the other V_d^u, being completely unsecured. The formula for the secured debt is the same as that for a default: free security, i.e., $V_d^s = R^s/\rho$. Since it is fully secured while the other is completely unsecured, upon bankruptcy, all of the firm's assets will be delivered to the secured creditors or $V_d^s + R^s = lA$. This implies that $V_d^u = (1 - F)R^u/(\rho + F)$, where[15] $R = R^s + R^u$. Upon bankruptcy, the claims of the unsecured bondholders (who will receive nothing) equal $V_d + R - lA$. This latter quantity is important within the context of the firm's optimal structure, which will be discussed below.

The market value of the firm. If the firm has issued a relatively small amount of debt so that all of it is fully secured, then the total value of the firm is given by

$$V = V_d + V_e = \frac{R}{\rho} + \frac{(1 - t)E_b[X - R]}{\rho + F}. \tag{3}$$

If the firm has issued so much debt that part of it is unsecured (i.e., if $V_d + R > lA$), then

$$V = V_d + V_e = \frac{(1 - t)E_b[X] + tR(1 - F) + lAF}{\rho + F}. \tag{4}$$

Equations (3) and (4) can be viewed as generalizations of the firm valuation formula derived by Modigliani and Miller,[16] which assumed that the probability of bankruptcy is zero. If that is the case, then both (3) and (4) become

$$V = \frac{(1 - t)\bar{X}}{\rho} + tV_d, \tag{5}$$

which, given risk neutrality, is equivalent to the Modigliani-Miller formula.

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[14] It is possible to modify the above derivation along the lines followed in Scott (1975a) under the assumption that investors are the risk averse and maximize the expected value of their quadratic utility functions, that the term structure is flat, and that the market price of risk is constant over time. In that case, a third term depending on the bond's covariance with the market can appear in the denominator. Such a term represents a true risk premium. The formula for equity can be modified as well.

[15] For the numerical example considered above, $R^s = 15.9$, $V_d^s = 159.1$; $R^u = 4.1$, $V_d^u = 36$. In order for this unsecured debt to sell at par, the coupon must be set so that $R^u = \text{Par}\ (\rho+F)/(1-F)$. For the example, $R^u/\text{Par} = 0.113$, while $R^s/\text{Par} = 0.10$.

[16] Modigliani and Miller (1963), equation (3). As shown in note 14, (3) and (4) can be generalized to a setting where investors are risk averse and maximize expected (quadratic) utility. Given $F = 0$ these generalized formulas are equivalent to the model derived by Hamada (1969), which is itself an extension of the Modigliani-Miller model.

3. The optimal mix of debt and equity

■ The purpose of this section is to find that level of contractual coupon payments which will maximize the total value of the firm's debt plus its equity. Since there are two firm valuation formulas, equation (3) for $0 \leq R \leq lA\rho/(1+\rho)$, and (4) for higher levels of R, both must be examined. To determine whether it is optimal for R to be fixed in the first range, the following derivative of (3) can be evaluated:[17]

$$\frac{\partial V}{\partial R} = \frac{1}{\rho} - \frac{(1-t)(1-F)}{\rho + F} \tag{6}$$

$$\frac{\partial V}{\partial R} = \frac{1}{\rho + F}\left[t(1-F) + \left(\frac{1+\rho}{\rho}\right)F\right] > 0. \tag{7}$$

Since (7) is strictly positive, it is always optimal to increase debt as long as the debt is fully secured, i.e., if $R < lA\rho/(1+\rho)$. The first term within the brackets of (7) is the expected per period tax saving resulting from a unit increase in interest payments. Dividing this term by $\rho + F$ yields the present value of such savings. The second term within the brackets when divided by $\rho + F$ represents the increase in the value of the firm which results from the issuance of $\$1/\rho$ worth of fully secured debt.[18]

Since V is a continuous function of R, it would be optimal to issue at least some unsecured debt if $\partial V/\partial R > 0$ at $R = lA\rho/(1+\rho)$. However, because the derivative does not exist at that point, $\partial V/\partial R$ must be evaluated as R approaches $lA\rho/(1+\rho)$ from above. It is shown in Appendix 1 that the derivative of (4) is given by the following formula

$$\frac{\partial V}{\partial R} = \frac{1}{\rho + F}\left[t(1-F) - (V_d + R - lA)\left(\frac{1+\rho}{\rho + F}\right)f\right], \tag{8}$$

where $f = f[b]$.

As R approaches $lA\rho/(1+\rho)$, $V_d = R/\rho$ and $V_d + R - lA = 0$, so that $\partial V/\partial R > 0$ if $t > 0$.[19] This implies that if $t > 0$, it is optimal for a firm that has exhausted its secured debt capacity to issue at least some amount of unsecured debt. In fact the result implies that even if a firm has no assets with any collateral value ($lA = 0$), the firm should issue some positive amount of unsecured debt as long as $t > 0$. If $t = 0$, then equations (7) and (8) imply that the optimal level of debt is given by $V_d + R = lA$, or equivalently $V_d = lA/(1+\rho)$.

If the tax rate is positive and an internal optimal capital structure exists, then $\partial V/\partial R$ as given by equation (8) will equal zero at that R which maximizes V. To interpret this condition note that the first term within the brackets equals the tax rate multiplied by the probability that the firm does not go bankrupt in a given period. Holding the probability of bankruptcy constant, the term represents the marginal

[17] The derivation of $\partial V_e/\partial R$ is somewhat complex and can be found in Appendix 1.

[18] By changing the order of priority upon bankruptcy, the issuance of fully secured debt increases the total value of the firm in this framework more than it does in the no bankruptcy model of Modigliani and Miller (equation (5)). If $t = .05$ and $\rho = 0.1$, then a $1 increase in R will raise the value of the Modigliani-Miller firm by $5. However, by using (7), if $F = 0.01$, such an increase will raise V by $5.50. See also note 11.

[19] It can also be shown that $\partial^2 V/\partial R^2$ is positive for $R < lA\rho/(1+\rho)$ and that its right-hand limit is negative at $R = lA\rho/(1+\rho)$.

increase in expected per period tax savings resulting from a \$1 increase in contractual interest payments. Dividing $t(1 - F)$ by $\rho + F$ gives the present value of those expected tax savings.

The second term within the brackets captures the effect of the concomitant increase in the probability of bankruptcy on the total value of the firm. The first part, $V_d + R - lA$, represents the bankruptcy costs to the firm's security holders due to a unit increase in R, while $(1 + \rho)f/(\rho + F)$ is the change in the probability of bankruptcy resulting from a \$1 increase in r. That $V_d + R - lA$ represents the cost of bankruptcy to the firm's security holders follows from the fact that upon bankruptcy stockholders and secured creditors lose nothing, while unsecured creditors lose everything. Secured creditors are protected since they receive lA, which equals the nonbankruptcy value of their debt plus accrued interest. While it is true that after bankruptcy the value of current equity is worthless, stockholders do not lose because of the bankruptcy process *per se*. They had already lost everything because the firm's earnings were so disastrously low. In fact bankruptcy occurs precisely because the outstanding equity is worthless; it does not cause it to become worthless.

On the other hand, at the end of each period the value of the unsecured debt is $V_d + R - lA$ as long as the firm continues in operation. However, upon bankruptcy its value falls to zero, i.e., unsecured creditors lose $V_d + R - lA$. Viewing the payments to security holders as a function of X, that function is continuous at the level of X where the firm goes bankrupt for both secured creditors and stockholders, while it is discontinuous for unsecured creditors.

Next it will be shown that under plausible conditions the model presented here has a unique optimal capital structure. Rewriting (8) and setting it equal to zero, one obtains

$$\frac{\partial V}{\partial R} = \frac{1 - F}{\rho + F}\left[t - (V - V_e + R - lA)\left(\frac{1 + \rho}{\rho + F}\right)\left(\frac{f}{1 - F}\right)\right] = 0. \quad (9)$$

At a point where $\partial V/\partial R = 0$,

$$\frac{\partial^2 V}{\partial R^2} = \frac{1 - F}{\rho + F}\left\{\left(\frac{\partial V_e}{\partial R} - 1\right)\left(\frac{1 + \rho}{\rho + F}\right)\left(\frac{f}{1 - F}\right)\right.$$

$$\left. + (V_d + R - lA)\left(\frac{1 + \rho}{\rho + F}\right)\left[\frac{(1 + \rho)f^2}{(\rho + F)^2(1 - F)} - \frac{\partial f/(1 - F)}{\partial R}\right]\right\}. \quad (10)$$

Since

$$\frac{\partial V_e}{\partial R} - 1 = -\left(\frac{1 + \rho}{\rho + F}\right) + \frac{t(1 - F)}{\rho + F}$$

and, since at $\partial V/\partial R = 0$

$$\left(\frac{1 + \rho}{\rho + F}\right)\frac{f}{1 - F}(V_d + R - lA) = t,$$

it follows that

$$\frac{\partial^2 V}{\partial R^2} = \frac{1 - F}{\rho + F}\left\{-(V_d + R - lA)\left(\frac{1 + \rho}{\rho + F}\right)\frac{\partial f/(1 - F)}{\partial R}\right.$$

$$\left. - \frac{2f(1 + \rho)}{(\rho + F)^2}\left[\frac{1 + \rho}{2(1 - F)} - t\right]\right\}. \quad (11)$$

Since

$$\frac{\partial f/(1-F)}{\partial R} = \frac{\partial f/(1-F)}{\partial b}\frac{\partial b}{\partial R}$$

$$= \frac{\partial f/(1-F)}{\partial b}\left(\frac{1+\rho}{\rho+F}\right),$$

(11) will be negative and the second-order conditions for a local maximum will be satisfied if the following two (sufficient) conditions hold whenever $\partial V/\partial R = 0$, i.e., if

$$\frac{\partial f(z)/1-F(z)}{\partial z} = \frac{f'[z](1-F[z]) + f[z]^2}{(1-F[z])^2} \geq 0, \tag{12}$$

where $f'[z] = df[z]/dz$, and if

$$t < \frac{1+\rho}{2(1-F)}. \tag{13}$$

Condition (12) holds throughout their range for the uniform and, more realistically, the normal distributions.[20] Condition (13) will always hold if the tax rate is less than 0.5. If when $\partial V/\partial R = 0$, $F = 0.05$ and $\rho = 0.1$, then (13) requires $t < 0.58$. If these conditions do not hold, then V may have several local maxima.[21]

Given (12), Appendix 2 shows that $\partial V/\partial R < 0$ for R sufficiently large. Since $\partial V/\partial R$ is positive in the neighborhood of $R = \rho lA/(1+\rho)$ and is continuous on the interval $(\rho lA/(1+\rho),\infty)$, it follows that $\partial V/\partial R = 0$ at some point, say R^*, within the interval. Conditions (12) and (13) imply that V must be a local maximum at R^*, so that V has a unique internal maximum and is a strictly quasi-concave function of R.[22]

Table 1 contains a numerical example under the assumptions used previously. Given the same assumptions Table 2 presents equity, debt, and total firm values using the Modigliani-Miller valuation equations. Graphs of the various formulas are presented in Figure 1. While the firm valuation formula presented here reaches an internal maximum at $R = 50$, the value of the Modigliani-Miller firm rises throughout. This difference arises because while the Modigliani-Miller analysis recognizes the tax deductibility of interest payments, it fails to capture the fact that an increase in the level of debt also increases the probability of incurring the costs of bankruptcy. As a result, the Modigliani-Miller analysis vastly overstates the value of debt at high levels of R.[23]

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[20] It may not hold for some distributions within the range where they are falling, e.g., for $z > 0$, (12) does not hold for $f[z] = 1/2(|z| + 1)^{-2}$, which is defined on the entire real line. However (12) does hold for the exponential distribution which falls throughout. For the normal density $f'[z] = zf[z]$, so (12) implies $f[z] \geq z(1 - F[z])$. That this latter inequality holds strictly can be proven by squaring both sides and transforming to polar coordinates.

[21] If one is willing to make a stronger assumption about the distribution of X, then weaker but still sufficient conditions on t are derivable. For example, if

$$\frac{1-F}{f}\frac{\partial f/(1-F)}{\partial z} = f, \text{ then } t < \frac{1+\rho}{(2-\rho-F)(1-F)}.$$

A still more restrictive condition of f is $f' \geq 0$, in which case (11) will be negative if

$$t < \frac{1+\rho}{2(1-F) - (\rho+F)}.$$

[22] A function $q[z]$ is strictly quasi-concave if $g[\lambda z + (1 - \lambda)z'] > \min [g[z],g[z']]$.

[23] Nevertheless, it is interesting that a slightly different valuation equation suggested by the Modigliani-Miller analysis comes very close to the total firm values in Table 1 when R is less than or equal to its optimal value. If V_d is taken to the market

TABLE 1

NUMERICAL EXAMPLE: VALUATION EQUATIONS (3) AND (4)

R	V_e	V_d	V	V_d/V_e	F	"COST" OF DEBT (R/V_d)	"COST" OF EQUITY $(\rho+F)/(1-F)$
0	501	0	501	0	0.001	0.10	0.10
10	454	100	554	0.22	0.006	0.10	0.11
20	409	195	604	0.48	0.012	0.10	0.11
30	367	272	639	0.74	0.022	0.11	0.12
40	329	329	658	1.0	0.036	0.12	0.14
50	304	375	679	1.2	0.050	0.13	0.16
60	267	391	658	1.5	0.076	0.15	0.19
70	243	405	648	1.7	0.099	0.17	0.22
80	221	410	631	1.9	0.124	0.20	0.26
90	204	412	616	2.0	0.149	0.22	0.29
100	188	413	601	2.2	0.174	0.24	0.33

ASSUMPTIONS: X IS DISTRIBUTED NORMALLY WITH $\bar{X} = 100$; $\sigma = 400$; $\rho = 0.1$; $t = 0.5$; $\mathcal{L}A = 175$.

TABLE 2

NUMERICAL EXAMPLE: VALUATION EQUATION (5) (MODIGLIANI–MILLER)

R	V_e	V_d	V	V_d/V_e
0	500	0	500	0
10	450	100	550	0.22
20	400	200	600	0.50
30	350	300	650	0.86
40	300	400	700	1.3
50	250	500	750	2.0
60	200	600	800	3.0
70	150	700	850	4.7
80	100	800	900	8.0
90	50	900	950	18.0
100	0	1000	1000	∞

ASSUMPTIONS: $\bar{X} = 100$; $\rho = 0.1$; $t = 0.5$.

This overvaluation of debt is slightly offset by the fact that the Modigliani-Miller formulation undervalues equity. Bankruptcy is actually beneficial to stockholders because it provides them with the protection of limited liability. This protection becomes more valuable the greater probability that earnings will be low enough to force bankruptcy.

The last two columns of Table 1 relate to conventionally used methods of determining the cost or rate of return on different instruments issued by the firm. Since the debt in Table 1 is assumed to be selling at par, yield to maturity is simply R/V_d. Yield to maturity rises with increases in R even though the expected return required by investors remains equal to ρ.

If an estimate of the cost of equity is obtained by using past data, then an overestimate is likely to be obtained here as well. If the firm

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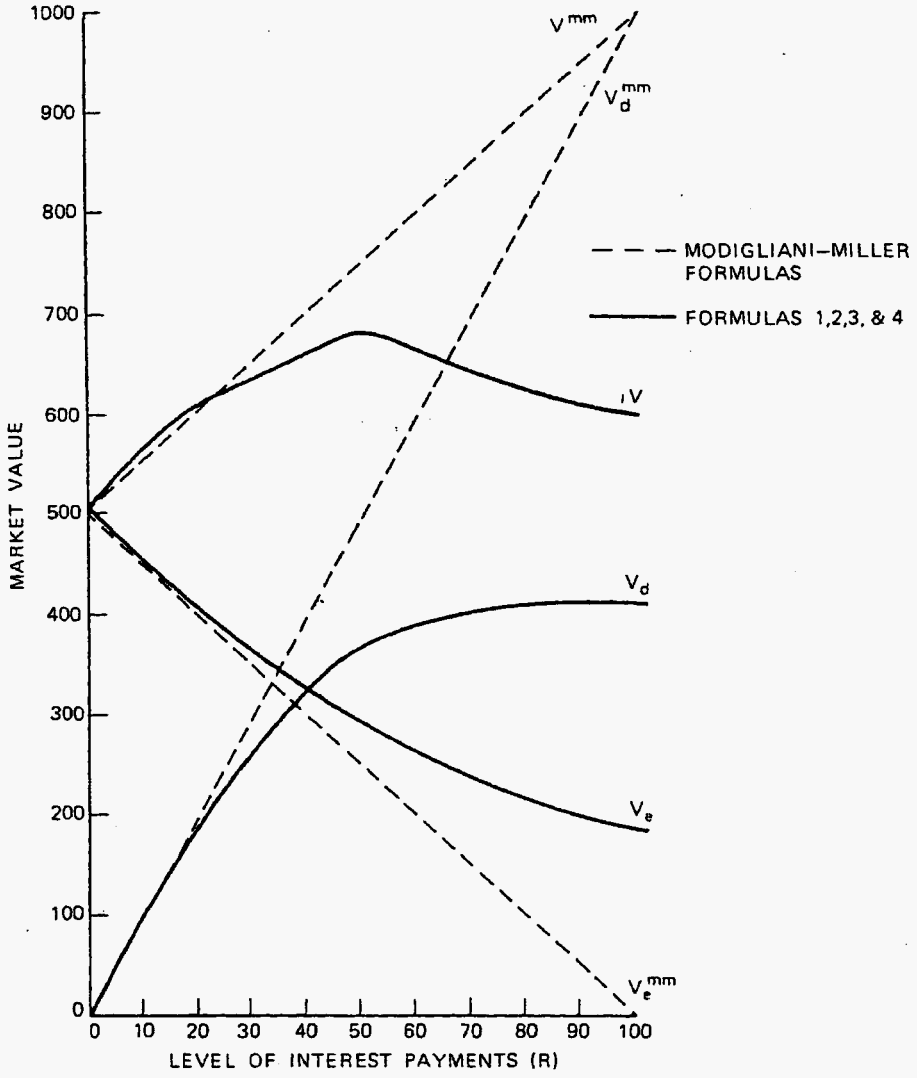
value of debt as given by the analysis of this paper rather than the Modigliani-Miller value of debt (R/ρ), then the following approximation

$$V \cong V_{eo} + tV_d,$$

where V_{eo} is the market value of the all equity firm, is within 1 percent of the market value of the firm given in Table 1 for $R \leq 50$.

FIGURE 1

MARKET VALUE OF SECURITIES AS A FUNCTION OF THE LEVEL OF INTEREST PAYMENTS



has not gone bankrupt, then an average of past increments in stockholder wealth will have the following conditional expectation, $(1-t)E_b[X-R]/(1-F)$. Dividing this by the value of equity, one obtains $(\rho+F)/(1-F)$ as an estimate of the cost of equity, even though its true cost is ρ.[24]

□ **Comparative statics analysis.** Because of the complexity of modeling bankruptcy and optimal capital structure within a multiperiod

[24] This suggests a possible explanation for the well-known empirical finding that *ex post* rates of return on common stocks are positively related to the variance of their rate of return. This finding is in conflict with the implications of the capital asset pricing model. See Jensen (1972), for a review of this literature. The empirical studies generally eliminate bankrupt firms from the data base or drop them from the sample before the firms go bankrupt. As a result, the formula for the cost of equity presented above is appropriate. It is probably true that in most cases F is positively related to the variance of X. Given that this variance is positively related to the variance of the investors' rate of return on equity, a positive relationship between the mean and variance of *ex post* rates of return is not surprising.

framework it is not possible to derive closed form solutions for R^*, nevertheless, it is possible to conduct comparative statics analysis. Differentiating the first-order conditions for a maximum, $\partial V/\partial R$, with respect to R and some exogenous parameter, say δ, yields

$$\frac{\partial^2 V}{\partial R^2}\,\partial R + \frac{\partial^2 V}{\partial R \partial \delta}\,\partial \delta = 0.$$

Since (12) and (13) imply that $\partial^2 V/\partial R^2$ is negative, $\partial R/\partial \delta$ has the same sign as $\partial^2 V/\partial R \partial \delta$.

The effects of changes in the liquidating value of the firm's assets and in the tax rate are easy to determine:

$$\frac{\partial^2 V}{\partial R \partial lA} = \frac{(1+\rho)f}{(\rho+F)^3} > 0. \tag{14}$$

Equation (14) implies that an increase in lA increases R^*. This occurs because an increase in lA decreases the cost of going bankrupt. Next for the tax rate, note that

$$\frac{\partial^2 V}{\partial R \partial t} = \frac{1-F}{\rho+F} > 0. \tag{15}$$

An increase in t increases the tax savings which result from higher levels of debt and thus raises R.*

It can also be shown that a proportional increase in both X and lA increases R^* proportionally, i.e., big firms differ from small firms only in terms of scale.[25] This follows from the implicit assumption that there are no economies of scale in financing.

Shifts solely in the distribution of X lead to ambiguous effects on R^*. Consider, for example, a simple shift in the mean of X which leaves the shape of the distribution unchanged. If X' represents the shifted variable, then $X' = X + \alpha$, where α is the shift parameter. If Y represents the payments per period to security holders, given the exhaustion of the secured debt capacity, then

$$Y = \begin{cases} lA & \text{if} \quad X \le R - \alpha - V_e/(1-t) \\ V + X + \alpha - t(X+\alpha-R) & \text{if} \quad X > R - \alpha - V_e/(1-t) \end{cases}$$

and

$$V = \frac{(1-t)E_b[X+\alpha] + tR(1-F) + lAF}{\rho + F},$$

where $b = R - \alpha - V_e/(1-t)$ and $F = [b]$. It can be shown that

$$\frac{\partial V}{\partial \alpha} = \frac{1-F}{\rho+F} - \frac{\partial V}{\partial R} > 0$$

and

$$\frac{\partial^2 V}{\partial R \partial \alpha} = \frac{\partial (1-F)/(\rho+F)}{\partial R} - \frac{\partial^2 V}{\partial R^2}. \tag{16}$$

Since the first term on the right-hand side of (16) is negative, the positivity of $\partial R/\partial \alpha$ (as conventional wisdom dictates) requires conditions stronger than (12) and (13), the conditions which guarantee the existence of a unique optimal capital structure. However, for the numerical example shown in Table 1, it can be shown that a small increase in α increases the optimal level of interest payments.

Other shifts in the distribution of X can be analyzed in a similar

[25] A proof of this statement can be found in Scott (1975a).

manner. If $X' = \lambda X$, then an increase in λ increases both the mean and variance of *EBIT* and can be shown to have an ambiguous effect on R^*.[26] If $X' = \delta(X-\bar{X}) + \bar{X}$, an increase in δ increases the variance of *EBIT*. Conventional wisdom indicates that such an increase should reduce R^*, however, it can be shown[27] that the result is ambiguous. Finally, the effect of changes in the risk-free rate of interest can be analyzed. While an increase in ρ reduces V, the effect on R^* is again ambiguous.[28]

□ **Reorganization.** In this section it is assumed that a firm need not go bankrupt but can be reorganized. Reorganization will be more profitable than bankruptcy as long as the value of the reorganized firm (assumed to be V) less the implicit and explicit costs of reorganization, C, exceeds the value of the firm upon bankruptcy, i.e., as long as $V-C > lA$.

For simplicity assume that the computation of taxes is unaltered by reorganization and that any unsecured debt is subordinated in the sense that upon reorganization the holders of the unsecured debt receive max $[0, V+(1-t)X+tR-(C+lA)]$. In this and other frameworks it is relatively easy to show that a firm should exhaust its secured debt capacity. Assuming that is the case and that lA of the firm's assets are available to secure debt, the end of period wealth of the firm's security holders can be represented as follows:

$$Y = \begin{cases} V + (1-t)X + tR & \text{if } X > R - V_e/(1-t), \\ V + (1-t)X + tR - C & \text{if } R - V_e/(1-t) \\ & \quad \geq X \geq (C+lA-tR-V)/(1-t), \\ lA & \text{otherwise.} \end{cases}$$

Thus in equilibrium,

$$V = \frac{(1-t)E_a[X] + tR(1-F[a]) + lAF[a] - C(F[b] - F[a])}{\rho + F[a]}, \quad (17)$$

where $a = (C+lA-tR-V)/(1-t)$, $F[b]$ is the probability of reorganization, and $F[a]$ is the probability that unsecured bondholders will receive nothing.

Equation (17) can be analyzed in the same manner used to investigate (4). Just as the costs of bankruptcy were important in that framework, the cost of reorganization plays a major role in the present case. At one extreme, if reorganization is costless ($C=0$) and the tax rate is positive, then the optimal level of R is infinite. Given that second-order conditions hold, as C increases, the optimal level of R falls until it reaches that level which would be optimal if reorganization were impossible and only bankruptcy occurred. It is interesting that under current assumptions this point is reached while it is still optimal for the firm to reorganize rather than to go bankrupt. In other

[26] See Scott (1975a). For the numerical example in Table 1 $\partial R^*/\partial\lambda > 0$.

[27] See Scott (1975a). For the numerical example $\partial R^*/\partial\delta < 0$.

[28] See Scott (1975a). For the numerical example $\partial R^*/\partial\rho > 0$.

Preliminary empirical evidence in Scott (1975a) is consistent with the comparative statics propositions of the theory. Aggregated industry data from U.S. corporate tax returns suggest a strong positive relationship between the amount of debt a firm carries and the value of its assets. On the other hand, the coefficients reflecting the effect of the mean and variability of *EBIT* were statistically insignificant and of changing sign. These results are similar to those of Chudson (1945, p. 103), who reports "evidence of the existence of a relationship between long-term debt and fixed capital assets."

words the analysis of the previous sections can be strictly correct even though firms reorganize rather than declare bankruptcy.

In order to see this, note that (17) is valid only if it is possible for the firm's security holders (or more precisely, its unsecured bondholders) to gain as a result of reorganization, i.e., only if

$$R - V_e/(1-t) \geq (C + lA - tR - V)/(1-t)$$
$$V_d + R - lA \geq C.$$

If the above inequality does not hold then (4) is the appropriate valuation formula, yet the firm will still be reorganized as long as $C < V - lA$.[29]

□ **A note on debt policy for the regulated firm.** The above analysis concerns unregulated firms, but it can be used to provide some insights useful for the regulatory process. Leland (1974) has recently argued that optimal regulation results if output price is set so that the financial value of the firm equals its real asset value, or in the terminology used here, so that $V = A$. The strength of Leland's argument derives from the fact that it rests on a model of production and stock market equilibrium under uncertainty. It differs from the model presented here in that it is based on assumptions which imply that capital structure is irrelevant. Although the analysis in this paper is not well adapted to deal precisely with questions of social optimality, it does suggest some plausible conjectures relating to Leland's proposal and regulatory debt policy in general.

Because capital structure is irrelevant in Leland's model, V is uniquely determined once output price (and thus the distribution of X) is fixed, as long as the firm pursues optimal investment and operating policies. On the other hand in models where there are corporate taxes as well as chance of incurring bankruptcy costs, V is not fixed when output price is set, even if the firm follows optimal investment and operating policies. In general, and certainly in the model presented here, V is a function of R as well.

One possible escape from this indeterminacy would set output price such that $V = A$ only if the firm followed an optimal debt policy as well. However, this raises an additional problem. The more debt a company carries, the greater is the probability that it will incur bankruptcy costs. Should a competitive firm fail, its stockholders and creditors can be expected to bear the bulk of these costs. Accordingly, their decision to incur debt will reflect these costs. The firm's customers will not suffer from the loss of the opportunity to buy the firm's output, since the firm's competitors will be able to meet the demand.

On the other hand, if a regulated monopoly fails, customers have few alternatives, if at all. This implies that there may be additional social costs of bankruptcy if there is a disruption of service to customers, or if public funds must be spent to prevent such a disruption. In addition, the intricacies of the bankruptcy process are likely to require additional attention by the regulatory authority, and thereby increase the costs of regulation. These additional bankruptcy costs of the regulated firm are not borne by the firm's security holders, since

[29] If upon reorganization unsecured bondholders were to receive $V - C - lA$, then (4) would hold only when bankruptcy was preferable to reorganization.

$$\frac{\partial q}{\partial R} = -(1-t)\left(R - \frac{V_e}{1-t}\right) f[b]\frac{\partial b}{\partial R} + t(1-F) - tRf[b]\frac{\partial b}{\partial R}$$

$$+ lAF[b]\frac{\partial b}{\partial R} = t(1-F) + (V_e - R + lA)f[b]\left(1 - \frac{1}{1-t}\frac{\partial V_e}{\partial R}\right).$$

Using (A4)

$$\frac{\partial q}{\partial R} = t(1-F) + (V_2 - R + lA)f[b]\left(\frac{1+\rho}{\rho + F}\right) \qquad \text{(A5)}$$

Since $\partial p/\partial R$ is given by (A3), substituting (A3), (A5), and the redefined q/p into the right-hand side of (A1) yields

$$\frac{\partial V}{\partial R} = \frac{1}{\rho + F}\left\{t(1-F) + (V_e - R + 1A)f[b]\left(\frac{1+\rho}{\rho + F}\right) - Vf[b]\left(\frac{1+\rho}{\rho + F}\right)\right\}.$$

Now $V = V_e + V_d$, so

$$\frac{\partial V}{\partial R} = \frac{1}{\rho + F}\left[t(1-F) - (V_d + R - lA)f[b]\left(\frac{1+\rho}{\rho + F}\right)\right]. \qquad (8)$$

Appendix 2

■ This appendix shows that $\partial V/\partial R < 0$ for R sufficiently large. There are two cases to be considered, one if the distribution of X is such that the domain of feasible X is bounded from above, another if it is not. First assume that X is bounded and represent the highest level of X with positive probability as X_{max}. Let $R' \equiv X_{max}$, then at R' equation (8) becomes

$$\frac{\partial V}{\partial R} = \frac{-f(R')}{1+\rho}\left(R' - \frac{\rho lA}{1+\rho}\right),$$

which is negative if $R' > \rho lA/(1+\rho)$, which is reasonable to assume. (If $X_{max} < \rho lA/(1+\rho)$, then it is *always* optimal to disband the firm and invest the proceeds at the risk-free rate of interest.)

If X is not bounded from above, then $\partial V/\partial R$ will be negative for finite R if and only if (from equation (8)).

$$(V_d + R - lA)\left(\frac{1+\rho}{\rho + F}\right)\left(\frac{f}{1-F}\right) > t. \qquad \text{(A6)}$$

Since $f/(1-F) > 0$ and nondecreasing by condition (12), there exists some k such that $f/(1-F) \geq k$ for all $R \geq R'$ (where $R' = M < \infty$). Using this information plus the fact that $F < 1$ and $V_d + R - lA = \frac{(1+\rho)R - \rho lA}{\rho + F}$, inequality (A6) will always hold if

$$\left(R - \frac{\rho lA}{1+\rho}\right)k > t$$

$$R > \frac{\rho lA}{1+\rho} + \frac{t}{k}.$$

Therefore, a finite $R \geq R'$ can be found to satisfy the above inequality. This proves that $\partial V/\partial R < 0$ for some R sufficiently large.

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Exhibit 30.2

THE DYNAMICS OF CAPITAL STRUCTURE

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ABSTRACT

The common approach in empirical capital structure research has been to study the determinants of optimal leverage by studying the association between observed leverage and a set of explanatory variables. This approach has two major shortcomings. First, the *observed* leverage need not necessarily be the *optimal* leverage. Second, the empirical analyses, being effectively non-dynamic, are unable to shed any light on the nature of dynamic capital structure adjustment by firms. In this paper, we use a dynamic adjustment model, and panel data methodology on a sample of UK and US firms to specifically establish the determinants of a time-varying *optimal* capital structure. In addition, the model allows for the possibility that at any point in time firms' observed leverage may not be optimal, and that firms differ in their speed of adjustment towards the optimal capital structure, which itself may be changing over time for the same firm. We also attempt to identify factors determining the speed of adjustment. We find that firms typically have capital structures that are not at the target, and that they adjust very slowly towards the target.

JEL Classification Numbers: C23, C51, G32.
Keywords: Capital structure, dynamic adjustment, optimal leverage, firms, panel data.

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1. INTRODUCTION

Capital structure is arguably one of the most signific finance theory. This is reflected not only in the formal recogni in recent years but also in the attention that it has cont researchers for over four decades now. Although the majorit structure are in agreement about explaining the variation in fir empirical research has been handicapped by the unobser variables.

By using panel data methodology we aim to rectify o common to most previous related studies. To be precise, the the does not propose to explain the *observed* difference in debt difference in the *optimal* debt-equity ratios across firms. Firms t leverage should have lower *optimal* debt levels than firms with costs. Of course, lack of correlation between a firm's costs c *observed* debt level at any given point in time does not nece theories, in so far as the observed debt level is not the optimal o existing empirical research uses observed leverage ratios as pro levels (see, for example, Titman and Wessels, 1988, or Rajan a One factor that renders this issue problematic is the existence of a fixed flotation costs). Firms may not find it cost effective to fine t from year to year even if they are aware of the sub-optimality of th

By distinguishing between the observed debt ratios an implied optimal levels, this paper attempts to empirically ' 'erm affect the optimal debt levels. In so doing, we are also able apt capital structure adjustments, i.e. if firms do indeed move towards (or away from them), and the speed with which they do that. The study is a sample of 122 U.K. firms observed during 1990-1996, observed during 1989-1996. The data is suitable for analysis of firm both the level and adjustment in capital structure.

It should be mentioned that we are not the first to recognize employing a dynamic approach to study capital structure. Fisch Zechner (1989) attempt to do this to the extent that they study determine the range of capital structures (difference between the minimum debt ratios over the entire 34-quarter sample period) of a f studying the temporal behavior of capital structure, the emphasis in identify the characteristics of firms that display wider swings structures. Closer in spirit to our paper is Jalilvand and Harris (1984 characterize a firm's financial behavior as partial adjustments to lor targets. However, their paper differs from ours in two key respects. Fir in their paper is on the interaction between different financial deci (long-term debt, short-term debt, liquidity, equity, and dividends), a long-run financial targets that firms partially adjust towards, exogenously. We, on the other hand, simultaneously endogenize the adj and the target. Rajbhandary (1997) also uses a dynamic adjustment

context of Indian firm data.

In order to compare the results with the previous literature we use a standard set of explanatory variables. Both book and market values are used to measure leverage. The results are with few exceptions independent of which value is used. Using market values for leverage we find that tangibility of assets, size of the firm, and expected growth as measured by the ratio of the market to book value of a firm affect optimal leverage positively, while profitability and the variability of operating profits influence it negatively. The result about expected growth is contrary to the evidence provided in some earlier studies, but we argue that our evidence can be consistent with theory. By incorporating the dynamics of capital structure adjustment simultaneously with the optimal capital structure, we are able to capture effects which earlier studies could not. The results also provide evidence that firms' observed leverage is frequently different from their target leverage, and that the speed of adjustment being generally low is lower for bigger firms. These findings highlights the importance of using a dynamic model for studying capital structures, and suggests that errors from not doing so can be large with serious implications for the properties of the results.

The organization of the paper is as follows: Section 2 discusses the basis of our model of capital structure adjustment dynamics, Section 3 provides a description of the dependent and independent variables used, Section 4 discusses estimation procedures, the data and the empirical results. Section 5 concludes.

2. CAPITAL STRUCTURE ADJUSTMENT DYNAMICS

The principal idea in the theory of capital structure is that in the presence of corporate taxes, firms can increase value by leveraging, because debt interest being tax deductible leads to increased cash flow from interest tax shields. However, there are costs involved as well in increasing leverage, and it is a trade-off between costs and benefits of leverage that can imply an interior optimal debt level for a firm. The value corresponding to this optimal debt level is the maximum value of the firm given a level of operating cash flows. And the value of firms that are not at their optimal leverage level will be less than the maximum possible; with a slight abuse of terminology, we will refer to these firms as suboptimal firms.

Let the optimal leverage ratio (debt to total capital) L_{it}^{*}, for firm i, at time t,

$$(1) \qquad L_{it}^{*} = F(Y_{it}, D_i, D_t)$$

be a function of a vector of firm and time variant variables determining the optimal leverage (Y_{it}), and D_i and D_t are firm-specific and time-specific effects represented by firm and time dummy (or time trend) variables.[1] Thus the optimal leverage is

[1] In a different adaptation, Kumbhakar, Heshmati and Hjalmarsson (1997) used a similar model to test labor-use efficiency in the Swedish banking industry.

allowed to vary across firms and over time. Since factors that determine a firm's optimal leverage may change over time, it is likely that the optimal debt ratio may move over time even for the same firm. This in our view captures the dynamic nature of the capital structure problem, which has hitherto been overlooked in the literature. By taking averages over time, most papers employing time series do not make use of this important source of information.

Under ideal conditions, the observed leverage of firm i at time t (L_{it}), should not be different from the optimal leverage, i.e. $L_{it} = L_{it}^{*}$. In a dynamic setting, this implies that the change in actual leverage from the previous to the current period should be exactly equal to the change required for the firm to be at optimal at time t, i.e. $L_{it} - L_{it-1} = L_{it}^{*} - L_{it-1}$. However, if adjustments are costly, then firms may not find it optimal to adjust fully, or they would only adjust partially. This can be represented as,

$$(2) \qquad L_{it} - L_{it-1} = \delta_{it} \, (L_{it}^{*} - L_{it-1})$$

where δ_{it}, is the adjustment parameter. The above equation states that the extent to which the desired adjustment (from its debt ratio at *t-1* to its target debt ratio at *t*) depends on its adjustment parameter δ_{it}. If δ_{it}=1, then the entire adjustment is made within one period and the firm at time t is at its target leverage. Since δ_{it} can vary across firms as well as over time for the same firm, only if δ_{it}=1 for all t shall a firm consistently be at its target leverage. If δ_{it}<1, then the adjustment from year *t-1* to t falls short of the adjustment required to attain the target. If on the other hand, δ_{it}>1, the firm over-adjusts in the sense that it makes more adjustment than is necessary and is still not at the optimal. Note that since δ_{it} represents the degree of adjustment per period, it can also be viewed as the speed of adjustment, with a higher δ_{it} denoting a higher speed of adjustment.

The speed of adjustment δ_{it} may itself be a function *f(.)* of some underlying variables affecting adjustment costs:

$$(3) \qquad \delta_{it} = f(Z_{it}, D_i, D_t)$$

where Z_{it} is a vector of variables which may also include the optimal leverage and previous year's actual leverage. Like the target leverage, the speed of adjustment is also allowed to vary across firms and over time.

A general feature of this type of adjustment model is that it does not take into account the target leverage beyond time t, i.e. the effect of a long run steady optimal leverage is ignored. In our formulation the target leverage, being the optimal leverage in each period, may shift from period to period. It is assumed that future shifts in variables affecting optimal leverage cannot be forecast. In other words, changes in factors affecting the target leverage are unanticipated. This assumption is reasonable if the firms in the sample did not go through any major structural shifts during the

estimation period. In general, firms are away from the target in each intermediate period, and the above specification captures this aspect.

The "optimality ratio" (L_{it}^{*} / L_{it}) measures the degree of optimality of leverage of a firm and takes on a value of 1 if at time t the firm is at its optimal leverage. However, since the optimal leverage itself may shift over time, at any time a value of 1 for this ratio does not have any implications for its future optimality unless the optimal leverage is firm-specific but time-invariant. However, the current and past level of optimal leverage contains useful information that can be used to predict future behavior of leverage, if, for example, a major structural change is anticipated.[2]

It should be noted that although we acknowledge that at any point in time, firms may be away from the optimal capital structure, our specification (equation 2) still represents optimal behavior by the firm. To be precise, it represents an equilibrium relationship given an adjustment cost. If observed leverage is simply regressed on determinants of optimal capital structure alone, then the inferred relationship suffers from three main sources of error. First, to the extent that an included variable also affects the adjustment cost, its coefficient will be an aggregation of its effects on the optimal leverage and on the adjustment cost, with the level of aggregation depending on how far the observed leverage is from the target. Second, since the theoretical literature deals mostly with determinants of optimal leverage under zero adjustment costs, factors affecting the latter are typically not explicitly included in the set of explanatory variables. Since the observed leverage depends on these omitted factors as well, any correlation between the latter and the included variables will influence the results. Finally, even if variables relating to both optimal capital structure and adjustment costs are included in the set of explanatory variables, simply regressing observed leverage on these variables will still suffer from misspecification if a model for dynamic adjustment is not employed.

Now, equation (2) can be rewritten as,

$$(4) \qquad L_{it} = (1 - \delta_{it}) L_{it-1} + \delta_{it} L_{it}^{*}$$

We assume the following general functional relationship for L_{it}^{*}:

$$(5) \qquad L_{it}^{*} = \alpha_0 + \sum_j \alpha_j Y_{jit} + \sum_s \alpha_s D_s + \sum_t \alpha_t D_t$$

and the following for δ_{it}:

$$(6) \qquad \delta_{it} = \beta_0 + \sum_k \beta_k Z_{kit} + \sum_s \beta_s D_s + \sum_t \beta_t D_t$$

where to conserve degrees of freedom the firm-specific effects (D_i) are replaced by

[2] Since optimal leverage cannot be negative, the optimality ratio is restricted to be non-negative.

industrial sector dummy (D_s) variables. Our specification of L_{it}^{*} and δ_{it} use the values of the respective determinant factors also at time *t*. Since ours is an adjustment model, this requires that firms be able to observe the values of these factors at the beginning of time *t*. This assumption can be best justified when we consider that the alternative would be to use lagged values of *Y* and *Z*. That would, in effect, introduce a different type of error by ignoring management's information about values of these variables within the current period.

3. DEPENDENT AND INDEPENDENT VARIABLES

Having specified the functional forms in the previous section, we will now discuss the variables that are used as measures of leverage and variables that determine the optimal capital structure and the speed of adjustment.

3.1 Measures of Leverage

A common stock-based measure of leverage is the ratio of market value of debt to market value of assets of the firm. Although this is the measure of leverage that goes into the computation of the weighted average cost of capital of a firm, when the objective is to find the determinants of optimal leverage, this is not the obvious choice. The optimal level of debt is a trade-off between the costs and benefits of borrowing. The primary benefit of borrowing is the increase in firm value caused by interest tax shields. Once the debt has been issued, changes in market value of that debt do not directly affect the interest tax shield cash savings. Moreover, in the event of bankruptcy the relevant measure of debt holders' liability is the book value of debt rather than its market value. The main cost of borrowing is the expected cost of financial distress in the event of bankruptcy. In the latter situation, the assumption of going concern is no longer valid, and the value of a distressed firm is closer to its book value.

In light of these points, an argument has been made in the literature in favor of the use of book values rather than market values in measuring leverage. Indeed, previous papers (see Titman and Wessels 1988, Rajan and Zingales 1995) use both book and market value measures of leverage. Moreover, survey studies (see, for example, Stonehill et al, 1973) provide evidence that managers think in terms of book values rather than market values. Perhaps the strongest reason for using book values is the relative ease and accuracy with which they can be measured. On the other hand, proponents of market value measure argue that it is the market value that ultimately determines the real value of a firm, and in support they cite example of firms with negative book values of equity but positive market values, the latter being essentially the reflection of expected future cash flows from the assets of the firm, while the former denoting the loss-making history of the firm.

In sum, this is still an unresolved issue, and maintaining the tradition, in this paper, we use both a book value measure of leverage (BV) defined as the ratio of book value of debt to the sum of book values of debt and equity, and a market value of

leverage (MV) defined as the ratio of book value of debt to the sum of book value of debt and market value of equity.

Other possible measures of leverage include flow-based measures such as interest coverage ratio. Although that is a rough indicator of the risk that the firm may not be able to meet its interest payments, for our purposes, we believe it is not a relevant measure of financial leverage.

3.2 Determinants of Optimal Leverage

Our set of explanatory variables consists of those that have commonly been documented in the literature to affect firm leverage.

1. Income variability (VARO): It has been commonly argued in the literature that greater the volatility of earnings, the higher is the probability of bankruptcy arising from default on payment of interest. Since operating income represents the income available for interest payment and is independent of the effect of leverage, we use the variance of operating income per dollar of asset. We expect that higher the value of this variable, the lower will be the optimal leverage.

2. Tangibility (TANG): It is easier for the lender to establish the value of tangible than intangible assets because typically there is more asymmetric information about the value of the latter. Moreover, it is highly likely that in the face of probable bankruptcy, intangible assets like goodwill will rapidly disappear, thus diminishing the net worth of a firm and further accelerating its bankruptcy probability. Hence, one could argue that firms with a greater percentage of their total assets composed of tangible assets will have a higher capacity for raising debt. Titman and Wessels (1988) use the collateral value of assets for similar but not identical reasons, with tangibility of assets as one of the measures of collateral. We use the variable fixed assets divided by total assets as a measure of tangibility, and expect to observe a positive relationship between this variable and a firm's optimal debt ratio.[3] TANG can be viewed as the tangibility of assets on the balance sheet, while other intangibles are captured by the expected growth variable below.

3. Expected growth (GROW): Rajan and Zingales (1995) argue that due to the Myers and Majluf (1984) underinvestment problem, "firms expecting high future growth should use a greater amount of equity finance," thus suggesting a negative relationship between expected growth and leverage. Titman and Wessels (1988) also suggest a similar relationship but for the reason that firms with greater growth opportunity have more flexibility to invest suboptimally and thus expropriate wealth from bondholders to shareholders. For the purposes here we used (a) the percentage change in total assets from the previous to the current year, and (b) the

[4] Evidence of positive relationship between fixed assets and leverage can be found in Long and Malitz (1985), and Opler and Titman (1995).

ratio of market value of the firm to the book value of the firm (GROW), as alternative measures of growth opportunities. While the former measures actual growth in the firm's size, the latter is a measure of a firms' future growth opportunities created by intangible assets like managerial skill and competence of different kind within a firm. To conserve space only results based on the second definition of expected growth are reported. It is also more commonly used in the literature as a proxy for a firm's so called q-value.

4. Size (SIZE): Titman and Wessels (1988) argue that direct bankruptcy costs being fixed they constitute a smaller portion of firm value as the latter increases. Moreover, a larger firm is more diversified and faces a lower probability of bankruptcy. Both these arguments suggest that larger firm size should lead to higher optimal debt capacity. However, Rajan and Zingales (1995) add that since there is less asymmetric information about larger firms, the latter may have less incentive to raise debt, the latter being less sensitive to firm quality and hence less susceptible to the effects of asymmetric information. The latter suggests a negative relationship between size and optimal leverage. We use the logarithm of total assets to test the effect of firm size on the optimal debt level.

5. Profitability (PROF): According to Myers and Majluf (1984) firms should prefer internal to external financing, and the more profitable the firm the greater the availability of internal capital. Hence, there should be a negative relationship between profitability and leverage. However, in the presence of asymmetric information profitable firms may signal quality by leveraging up (Jensen, 1986). If this is true, then there will be a positive relationship between optimal leverage and profitability. We use the ratio of net income to total assets as a measure of profitability.

6. Non-debt tax shields (NDTS): As stated in Modigliani and Miller (1958), the main incentive for borrowing is to take advantage of interest tax shields. This is only true if the firm has enough taxable income to justify debt. The presence of other non-debt tax shields like depreciation and amortization reduces this incentive. Using the ratio of depreciation to total assets to measure the existence of non-debt tax shields we expect to observe a negative relationship between this variable and optimal leverage.

7. Uniqueness (UNIQ): The more unique a firm's assets, the thinner is the market for those assets and the lower the expected value recoverable by the lender in the event of bankruptcy. Following Titman and Wessels (1988) we use the ratio of research and development to sales to measure uniqueness and expect that higher this measure lower will be the optimal leverage for a firm.

8. Industry classification (SIC): In order to control for any industry-specific effects (see Bradley, Jarrell, and Kim, 1984) that may not be captured by the variables above, we also include industry dummies for the first digit of the main SIC code

of each firm.

3.3 Adjustment costs and the Speed of Adjustment

The speed of adjustment (δ_{it}) towards the optimal capital structure depends on a set of variables which may or may not include those that affect the optimal debt level. However, in the case of speed of adjustment the focus is more on the costs of shifting from one capital structure to another rather than on the costs associated with leverage levels.

If fixed costs (like legal fees and to some extent, investment bank fees) constitute a major portion of the total costs of changing capital structure, sub-optimal firms will undertake to alter their capital structure only if they are sufficiently far away from the optimal capital structure. Then the likelihood of adjustment should be a positive function of the absolute difference between optimal leverage in time *t* and observed leverage at the end of previous period *t-1*. In our model we incorporate this distance variable (DIST) as $|L_{it}^{*} - L_{it-1}|$.

If the fixed costs of adjustment are prohibitively high, then most adjustment may occur without transactions in external capital markets. Instead dividend policy can be used with the objective of changing leverage. In this case the costs of adjustment are expected to be increasing in the distance from optimal leverage, because there are costs associated with dividend policy deviating from the firm's optimal policy. These costs would increase with the magnitude of the deviation from the desired dividend policy. In summary the relationship between speed of adjustment and distance from optimal leverage may be either negative, indicating that firms adjust leverage in external capital markets when deviations are sufficiently large, or negative indicating that leverage is adjusted "internally". In the latter case, we expect adjustment to be slow and stretched out over several years.

A second variable that is expected to influence the speed of adjustment is the size of the firm. If indeed changing capital structure involves substantial fixed costs, these costs will be proportionally small for larger firms, and hence, larger firms should adjust to changes in capital structure more readily. Moreover, larger firms may find it easier to access capital both equity or debt possibly due to more information being available about them. Therefore, we expect to find firm size and speed of adjustment to be positively related.

A growing firm may find it easier to change its capital structure by altering the composition of the new capital it raises. A no-growth firm can only change its capital structure by issuing equity to buy back debt or vice versa. Under asymmetric information each of the actions may be viewed as a signal by the market and such pure capital structure changes may be accompanied by a drop in firm value as a result of unintended negative signaling. A growing firm, on the other hand, can change its capital structure by choosing the source and composition of the new financing accordingly. Even under asymmetric information, this is less likely to be accompanied by a value drop, due to the positive effect of the growth opportunity. For instance, following the arguments in Myers and Majluf (1984), in order to decrease leverage a growing firm can use its internal slack and thus avoid the negative signal of paying

back debt. Hence, we would expect firms with growth opportunities to adjust faster towards the optimal capital structure than no-growth firms. Further, the greater the growth opportunity, the greater is the probability that the firm will require external financing. And, if indeed part of the costs of raising external capital is fixed, then the per dollar cost of raising extra funds will be lower for high-growth firms. Based on this argument, the higher the growth opportunity, the more readily should the firm adjust towards the optimal capital structure. Therefore, we expect a positive relationship between expected growth and adjustment speed.

In addition to the three variables mentioned above, some economy-wide factors that could affect the speed of change would be factors like interest rates, money supply, general economic condition, etc. In our list of variables, we include a set of time-dummy variables to capture these effects which are common across firms during each year. Further, following the argument for their inclusion in the determinants of optimal capital structure, we also include industry dummies to control for the effect of industry-specific factors on a firm's speed of adjustment. Ideally it would be desirable instead of group-specific dummies to include firm-specific dummies to capture fixed unobservable firm heterogeneity effects. The later would have resulted in an over-parameterization of the model.

4. DATA, ESTIMATION PROCEDURES, AND EMPIRICAL RESULTS

4.1 Data and Estimation Procedure

The data used in this study relates to UK and US firms obtained from the EXTEL Financial Company Research database. For the US data, starting from an initial sample of 600 firms and retaining only firms with at least four years of complete data we ended up with an balanced panel of 426 firms. The sample period for this data is 1989-1996. For the UK data, every tenth firm was selected from an initial sample of over 2000 firms. From this smaller sample only firms with at least four years of complete data and non-missing observation on key variables were retained. As a result, the final sample consists of an unbalanced panel of 122 firms. For these firms, the yearly data is from 1990 to 1996. A summary statistics of the variables is given in Table 1. Since the Extel database is more complete for the UK, it is possible that the mean size is smaller and the variation in size is larger across UK firms than across US firms. Table 1 shows that this is the case.

Since the model is non-linear in parameters we use a nonlinear procedure to estimate the following capital structure adjustment model,

$$(7) \qquad L_{it} = (1-\delta_{it})\, L_{it-1} + \delta_{it}\, L_{it}^{*} + e_{it}$$

where e_{it} is the statistical noise assumed to have mean zero and constant variance appended to equation (4), and L_{it}^{*} and δ_{it} are specified as in (5) and (6), where

Y_1: income variability (VARO)
Y_2: tangibility (TANG)
Y_3: expected growth (GROW)
Y_4: size (SIZE)
Y_5: profitability (PROF)
Y_6: non-debt tax shields (NDTS)
Y_7: uniqueness (UNIQ)
Z_1: absolute difference from target debt ratio (DIST)
Z_2: growth (GROW)
Z_3: size (SIZE)
D_t: time dummy (199x)
D_s: main industry code dummy (SICx).

For comparative purpose, we also present the results for the following simple static model. Similar models have been employed frequently in other empirical capital structure papers.

$$(8) \qquad L_{it} = \alpha_0 + \sum_j \alpha_j Y_{jit} + \sum_t \alpha_t D_t + e_{it}$$

When we look at the matrix of correlation coefficients between the dependent and independent variables, we find that most cross-correlation terms are fairly small, thus giving no cause for concern about problem of multicollinearity among variables. A point to note is the high degree of correlation between the book and market measures of leverage (UK=0.97%, US=0.84%). The regression results using book and market value measures of leverage for the UK data are reported in Tables 2. The corresponding results for the US data are in Tables 3.

More general functional forms incorporating squares and interactions of the explanatory variables were rejected by Chow test at the 5% levels of significance. The time trend and time dummy models are not nested. The decision regarding application of a time dummy model was based on the fact that we have a short time series and a time dummy model is more flexible than a time trend model. The former allows for the time effects to switch from positive to negative and back to positive effects, while in the time trend model the time effect is constant over time (see Kumbhakar, Heshmati and Hjalmarsson (1999) for alternative models of firm-specific rate of technical change). Various hypotheses regarding the dynamic versus static model specifications and various degrees of flexibility of the adjustment speed was tested using likelihood ratio test. The test results indicate the dynamic model as the preferred model specification of capital structure. The test results show that the adjustment parameter unlike in traditional dynamic models is not constant. The preferred model specification with flexible adjustment parameter should in addition to variables determining the speed of adjustment incorporate unobservable time and industry effects.

4.2 Optimal Leverage

Coefficients and their standard errors for the static (equation 8) and the dynamic (equation 7) models are presented in Table 2 for the UK and in Table 3 for the USA. Results are presented in both tables for regressions on book and market value measures of leverage. Variable names preceded with the letter α refers to the use of the variable to explain optimal leverage, while variable names preceded with a β refers to the use of the variable to explain adjustment speed.

The dynamic model is flexible and when estimating firm-specific optimal leverage a number of observations are negative. In these cases the negative values of estimated optimal leverage are replaced by zero in each iteration prior to the calculation of distance between the optimal leverage in period *t* and observed leverage at the end of period *t-1*.

According to the static reference model book and market value leverage is decreasing in income variability (VARO) and profitability (PROF) in both countries. Leverage is increasing in tangibility (TANG) in the UK but surprisingly decreasing in the USA. The growth variable (GROW) is insignificant for the UK and positive significant for the USA. The result for SIZE is also surprising for the USA. It has a negative relation with leverage, while the coefficient for size i the UK is positive and significant, as expected. Non-debt shields affect leverage negatively in the UK but positively in the USA. The results for book and market values are similar within both countries. Surprisingly, we have unexpected signs for TANG, GROW, SIZE and NDTS in the static model for the USA. Time dummies are often significant in this model for the UK in particular.

The difference between the results for this model and the dynamic model are not negligible. First, the explanatory value increases dramatically when costly adjustment of leverage is accounted for in the model. The sources of this increase are discussed below. With respect to signs and significance of the variables the major changes for the UK are that VARO, TANG and time dummies lose significance, while the coefficient for size becomes greater. For the USA, the coefficient for VARO becomes smaller, TANG and PROF lose significance, while the positive coefficient for GROW becomes greater. Time dummies gain significance for the USA.

Regarding the parameter estimates of the dynamic equation for the optimal leverage, we find that the coefficients for income variability (as measured by the variance of operating income divided by total assets) is negative (line α_{VARO}) as expected except for UK book values. This is consistent with theory in that the more variable a firm's operating income, the greater the risk that it will be unable to cover its interest payments, thus implying a lower optimal level of debt. For the UK this variable is not significant in the dynamic model.

The coefficients for tangibility (α_{TANG}) are negative for the UK but positive for the USA. These coefficients are not significant.

The size variable (α_{SIZE}) has positive coefficients as expected for the UK but negative coefficients for the USA. The positive sign is consistent with the theoretical argument that bankruptcy costs being fixed, constitute a smaller percentage of firm

value as the latter increases; hence the ability for larger firms to borrow more.

Profitability (α_{PROF}) is highly significant in explaining the optimal capital structure of firms in the UK and the effect is negative, i.e., firms with higher profitability have lower target debt-equity ratios. For firms in the USA profitability has small insignificant effects on leverage.

The expected growth variable (α_{GROW}) is significant in the dynamic model for the USA. For UK the variable is less important both in terms of coefficient-size and significance. The strong results for this variable in the dynamic model for the USA is surprising. The result indicates that capital markets in the USA are more willing to supply debt to prospective growth opportunities than markets and banks in the UK.

The coefficients for non-debt tax shields (α_{NDTS}) and uniqueness (α_{UNIQ})[4] are mostly insignificant.

4.3 Speed of Adjustment

When we look at the equations for the speed of adjustment, we find that for both UK and US market values, the coefficients for expected growth (β_{GROW}) are negative and significant, i.e. firms with higher growth opportunity adjust slower towards the optimal capital structure. This result does not lend support to our hypothesis that a growing firm may find it easier to change its capital structure by altering the composition of the new capital it raises. The coefficients for size (β_{SIZE}) are positive and significant. The coefficients for the variable distance (β_{DIST}) are also mostly insignificant except for UK market value leverage. In this case the coefficient is negative indicating that it is less costly to adjust by relatively small amounts. It is possible that such small adjustment can be accomplished as part of firms normal operations, while larger adjustment requires new issues of securities.

Tables 4 and 5 report the mean and the median values of the adjustment speed, and optimality ratios for UK and US respectively. The optimality ratio is the ratio between the target and the actual leverage (L_{it}^{*} / L_{it}). The A-panels show the adjustment speed and the ratios year by year. The adjustment speed is generally quite low. In the UK adjustment speed is slow even when firms are far away from optimal leverage. In the USA, the adjustment of book value leverage is faster, and firms are closer to optimal leverage most years.

The B-panels show adjustment and optimality ratios for firms in different size groups. The smaller firms seem to adjust slightly faster towards their book-value targets than to larger firms. We also see that the optimality ratio is frequently different

[4] As pointed out in Rajan and Zingales (1995) we also recognize that our measure of uniqueness has some major shortcomings. For instance, actual R&D expenditures may be capitalized by the firm and the R&D expenses figures from the income statement may be a mixture of amortization of prior period expenditures and actual current period expenses. Further, since R&D expenses are necessarily non-negative, using R&D to proxy uniqueness assumes that all firms with no R&D expenses have the same level of uniqueness. Banerjee and Wihlborg (1999) used real options theory to argue that a better indicator of uniqueness is asset-specificity as measured by the variance of Tobin's q.

from the target in the UK. The dispersion in the UK is substantial, and the high mean ratios indicate that there are some outliers that are strongly under-levered. In terms of market values small UK firms seem over-levered judging by median ratios, while in book values there is no such pattern. For the US firms in all size groups are close to optimal leverage in both book and market values. Finally, panel C making industry distinctions indicates that there are substantial differences in adjustment speed across industries in both countries. Except in industry 7 the adjustment speed is higher in the USA than in the UK.

4.4 The Contribution of Adjustment to Explaining Leverage

Tables 2 and 3 show that the explanatory value of the dynamic model is dramatically higher than that of the static model. It may be of interest which factors in the dynamic model account for this increase in R-squares. We tested one formulation of the dynamic model wherein only the constant term, β_0, was included. Thereafter the three variables DIST, GROW and SIZE where added. The two sets of time and industry dummies were added one by one. For both the UK and the USA almost all the increase in explanatory value is accounted for by the lag dependent variable the coefficient of which is the constant in the adjustment equation. Allowing time variation and variation across firms by including the three additional variables had almost no effect on adjusted R-squares. Allowing time and industry dummies had similarly only small effects. However, joint significance tests indicate that all sets of variable should be included in the specification.

Looking at the factor that caused changes in the significance of the coefficients in the dynamic model, most changes occurred when the constant adjustment term was added to the model.

5. SUMMARY AND CONCLUSIONS

In this paper, we used a dynamic model on panel data to capture capital structure adjustments over time. In our opinion, this is superior to prior capital structure studies in two ways. First, we specifically accommodate the possibility that firms may not be at their optimal capital structures at any given point in time. In so doing, we are able to identify the determinants of *optimal* capital structure rather than observed capital structure, the latter being the approach taken in the literature. Second, we also estimate the speed at which firms adjust towards their target capital structure, and identify determinants of the speed of adjustment.

For the purpose of comparison, we estimate both static and dynamic leverage models based on the book and market value measures of leverage. The time effects in the models are best represented by a set of time dummy variables. The fit of the dynamic model in terms of R^2 is improved substantially compared to the static model. This improvement occurs as soon as dynamic adjustment is allowed even if constant across firms and time. The effects of various factors determining the optimal leverage are in general as expected in the UK. In the USA, expected growth has a strong positive effect on leverage in the dynamic model in particular. This result indicates

that debt is available to finance growth to a much greater extent in the USA than in the UK.

Looking at the speed of adjustment we find deviation from optimal leverage has a negative effect on adjustment speed in the UK. In this country capital structures deviate substantially from targets and they adjust only slowly. In the US, where leverage is closer to target in most industries and adjustment is faster, expected growth has surprisingly a negative effect in adjustment speed.

Since firms in the UK typically have capital structures that are not at the target, and they adjust very slowly, it seems that the costs of deviating from optimal leverage are not generally large enough to motivate costly external capital market transactions. Instead leverage is slowly changed by means of, for example, dividend policy. In the USA on the other hand, firms seem to stay on target. Adjustment seems less costly.

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Table 1. Summary Statistics of the capital structure data sets.

Variable	Definition	Mean	Std Dev	Minimum	Maximum
A. UK Data 1990-1996 (N=122, 5<=T<=7, NT=450):					
Dependent variables:					
RATIO1	Book value (D/D+BVE ratio)	0.168	0.138	0.000	0.724
RATIO2	Market value (D/D+MVE ratio)	0.143	0.140	0.000	0.727
Independent variables:					
VARO	Variance of operating income	0.041	0.044	0.005	0.323
TANG	Tangibility	0.377	0.213	0.012	0.960
GROW	Growth	0.024	0.052	0.001	0.839
SIZE	Size	11.356	1.927	5.974	15.768
PROF	Profitability	0.044	0.108	-0.949	0.421
NDTS	Non-debt tax shield	0.040	0.039	0.000	0.577
UNIQ	Uniqueness	0.012	0.034	0.000	0.348
B. US Data 1989-1996 (N=426, T=8, NT=3408):					
Dependent variables:					
RATIO1	Book value (D/D+BVE ratio)	0.258	0.157	0.000	2.913
RATIO2	Market value (D/D+MVE ratio)	0.395	0.176	0.000	0.912
Independent variables:					
VARO	Variance of operating income	0.025	0.022	0.000	0.156
TANG	Tangibility	0.009	0.066	0.000	0.928
GROW	Growth	0.414	0.257	0.000	2.000
SIZE	Size	21.842	1.465	0.000	25.786
PROF	Profitability	0.047	0.057	-0.525	0.442
NDTS	Non-debt tax shield	0.048	0.031	0.000	0.931
UNIQ	Uniqueness	0.013	0.035	0.000	0.510

Table 2. Parameter estimates of the capital structure model of UK firms (NT=450).

	Static Models				Dynamic Models			
Dep. Variable	Book Value		Market Value		Book Value		Market Value	
Parameter	Estimate	Std err	Estimate	Std err	Estimate	Std err	Estimate	Std err
A. Optimal Leverage:								
α_0	0.0833	0.0719	0.1068	0.0722	-1.1103b	0.4346	-0.0115	0.1427
α_{VARO}	-0.2143	0.1566	-0.3226b	0.1574	0.2118	0.4716	-0.0098	0.2785
α_{TANG}	0.2474a	0.0372	0.2371a	0.0374	-0.0078	0.1045	-0.0661	0.0918
α_{GROW}	-0.0386	0.1146	-0.1691	0.1152	0.0741	0.0819	-0.6000	0.4477
α_{SIZE}	0.0090a	0.0035	0.0079b	0.0035	0.0379a	0.0099	0.0185b	0.0083
α_{PROF}	-0.3669a	0.0574	-0.4235a	0.0577	-0.6754a	0.1570	-0.6359a	0.1270
α_{NDTS}	-0.5305a	0.1858	-0.4926a	0.1869	0.2990	0.6655	-0.2511	0.5210
α_{UNIQ}	-0.0416	0.1837	-0.2086	0.1847	-0.4883	0.6341	0.1215	0.5749
α_{1991}	-0.0734	0.0464	-0.0713	0.0467	.	.	.	.
α_{1992}	-0.0789c	0.0451	-0.1016b	0.0454	0.0979	0.1169	-0.0095	0.0535
α_{1993}	-0.0858c	0.0451	-0.1150b	0.0454	-0.0069	0.1103	-0.0701	0.0498
α_{1994}	-0.0955b	0.0453	-0.1237a	0.0455	-0.0017	0.1100	-0.0825c	0.0505
α_{1995}	-0.0904b	0.0455	-0.1194a	0.0458	0.0346	0.1135	-0.0595	0.0543
α_{1996}	-0.0879c	0.0472	-0.1311a	0.0474	0.0595	0.1154	-0.0443	0.0642
α_{SIC2}	0.0632b	0.0309	0.0409	0.0311	0.9339b	0.4032	-0.0073	0.0645
α_{SIC3}	0.0001	0.0314	0.0089	0.0316	0.7861b	0.3644	0.0156	0.0679
α_{SIC4}	0.0225	0.0280	0.0284	0.0301	0.7951b	0.3629	0.0611	0.0610
α_{SIC5}	-0.0305	0.0401	-0.0163	0.0403	0.6913c	0.3757	-0.0571	0.1122
α_{SIC6}	0.0611c	0.0309	0.0703b	0.0311	0.8427b	0.3658	0.0823	0.0618
α_{SIC7}	-0.0189	0.0584	-0.0567	0.0587	0.7804b	0.3574	0.0531	0.0543
α_{SIC8}	0.0107	0.0317	0.0269	0.0318	0.9654b	0.3796	0.0114	0.0761
α_{SIC9}	0.0325	0.0309	0.0207	0.0310	0.9367b	0.3820	0.0989	0.0654
B. Adjustment Speed:								
β_0	.	.	.	.	0.1701	0.1596	0.1979	0.2769
β_{DIST}	.	.	.	.	-0.0931	0.4313	-8.6808a	2.5458
β_{GROW}	.	.	.	.	4.9191a	1.8092	-0.2808b	0.1283
β_{SIZE}	.	.	.	.	-0.0073	0.0111	0.0428c	0.0227
β_{1992}	.	.	.	.	-0.1061	0.0868	-0.4504a	0.1630
β_{1993}	.	.	.	.	-0.1291	0.0886	-0.3865b	0.1605
β_{1994}	.	.	.	.	-0.1455c	0.0902	-0.4426a	0.1613
β_{1995}	.	.	.	.	-0.2320b	0.1035	-0.6377a	0.1664
β_{1996}	.	.	.	.	-0.1277	0.0982	-0.6285b	0.1807
β_{SIC2}	.	.	.	.	0.0428	0.0662	-0.1777c	0.1060
β_{SIC3}	.	.	.	.	0.2876a	0.0816	0.1741c	0.1076
β_{SIC4}	.	.	.	.	0.2329a	0.0664	0.0928	0.1090
β_{SIC5}	.	.	.	.	0.1661	0.2140	-0.0338	0.2402
β_{SIC6}	.	.	.	.	0.2394a	0.0570	0.1608c	0.0889
β_{SIC7}	.	.	.	.	2.2923	1.9628	1.5627	1.0977
β_{SIC8}	.	.	.	.	-0.0447	0.0495	-0.0089	0.0909
β_{SIC9}	.	.	.	.	0.1025	0.0763	0.0127	0.1020
R^2 adjusted	0.2605	.	0.2768	.	0.7729	.	0.8014	.
RMSE	0.1188	.	0.1195	.	0.0651	.	0.0609	.

Note: Significant at less than 1% (a), 1%-5% (b) and 5%-10% (c) levels of significance.

Table 3. Parameter estimates of the capital structure model of US firms (NT=3408).

	Static Models				Dynamic Models			
Dep. Variable	Book Value		Market Value		Book Value		Market Value	
Parameter	Estimate	std err	Estimate	std err	Estimate	std err	Estimate	Std err
A. Optimal Leverage:								
α_0	0.3749a	0.0250	0.7122a	0.0361	0.3481a	0.0330	0.8782a	0.0753
α_{VARO}	-0.6219a	0.0796	-1.1068a	0.1146	-0.2291b	0.1074	-0.3498c	0.2147
α_{TANG}	-0.0091	0.0247	-0.0594c	0.0355	0.0264	0.0308	0.0475	0.0619
α_{GROW}	0.4670a	0.0068	0.3867a	0.0097	0.6541a	0.0114	0.9405a	0.0264
α_{SIZE}	-0.0122a	0.0011	-0.0182a	0.0016	-0.0154a	0.0015	-0.0387a	0.0035
α_{PROF}	-0.2026a	0.0322	-0.2519a	0.0464	-0.0386	0.0401	0.1299	0.0833
α_{NDTS}	0.1506a	0.0517	0.2644a	0.0745	0.1668b	0.0717	0.2278	0.1462
α_{UNIQ}	0.0397	0.0499	0.0181	0.0719	0.0928	0.0676	0.2594b	0.1293
α_{1990}	0.0037	0.0062	0.0037	0.0089	.	.	.	.
α_{1991}	0.0061	0.0062	0.0017	0.0089	-0.0040	0.0126	-0.0031	0.0171
α_{1992}	-0.0006	0.0063	0.0005	0.0090	-0.0046	0.0073	-0.0017	0.0145
α_{1993}	-0.0099	0.0063	-0.0177b	0.0090	-0.0179b	0.0088	-0.0538a	0.0163
α_{1994}	-0.0082	0.0062	-0.0180b	0.0089	-0.0122	0.0085	-0.0305b	0.0155
α_{1995}	-0.0003	0.0062	-0.0043	0.0090	-0.0007	0.0082	0.0158	0.0150
α_{1996}	0.0003	0.0062	-0.0019	0.0089	-0.0049	0.0088	-0.0032	0.0163
α_{SIC2}	-0.0450a	0.0058	-0.0716a	0.0083	-0.0140c	0.0084	0.0024	0.0157
α_{SIC3}	-0.0402a	0.0050	-0.0747a	0.0072	-0.0273a	0.0067	-0.0179	0.0155
α_{SIC4}	-0.0072	0.0058	-0.0057	0.0084	0.0017	0.0060	0.0261b	0.0128
α_{SIC5}	-0.0436a	0.0166	-0.1079a	0.0239	-0.0166	0.0182	-0.0372	0.0232
α_{SIC6}	-0.0119b	0.0606	-0.0206b	0.0087	0.0022	0.0076	0.0590a	0.0175
α_{SIC7}	-0.0129c	0.0069	-0.0643a	0.0099	-0.0182	0.0131	-0.0362	0.0361
α_{SIC8}	-0.0803a	0.0074	-0.1496a	0.0106	-0.0547a	0.0143	-0.0833a	0.0210
α_{SIC9}	-0.0175b	0.0081	-0.0202c	0.0117	-0.0079	0.0093	0.0068	0.0210
B. Adjustment Speed:								
β_0	.	.	.	.	0.8837a	0.1540	0.2465a	0.0552
β_{DIST}	.	.	.	.	0.0039	0.0159	-0.0009	0.0024
β_{GROW}	.	.	.	.	-0.2551a	0.0212	-0.1792a	0.0113
β_{SIZE}	.	.	.	.	-0.0074	0.0075	0.0052b	0.0024
β_{1991}	.	.	.	.	-0.2288a	0.0459	-0.0459b	0.0225
β_{1992}	.	.	.	.	0.4607a	0.0424	0.0597a	0.0222
β_{1993}	.	.	.	.	0.0408	0.0459	-0.0085	0.0222
β_{1994}	.	.	.	.	0.0666	0.0449	0.0086	0.0216
β_{1995}	.	.	.	.	0.1315a	0.0457	0.0393c	0.0221
β_{1996}	.	.	.	.	0.0210	0.0465	-0.0225	0.0228
β_{SIC2}	.	.	.	.	-0.2704a	0.0496	-0.0260	0.0258
β_{SIC3}	.	.	.	.	-0.2351a	0.0549	-0.0917a	0.0270
β_{SIC4}	.	.	.	.	0.1048c	0.0629	0.1336a	0.0337
β_{SIC5}	.	.	.	.	-0.0266	0.1835	0.3017a	0.1125
β_{SIC6}	.	.	.	.	-0.1354b	0.0566	-0.0519b	0.0261
β_{SIC7}	.	.	.	.	0.5587a	0.0482	-0.1565a	0.0301
β_{SIC8}	.	.	.	.	-0.4127a	0.0556	-0.0407	0.0299
β_{SIC9}	.	.	.	.	-0.0569	0.0898	-0.0055	0.0450
R^2 adjusted	0.6698	.	0.4594	.	0.8332	.	0.8732	.
RMSE	0.0901	.	0.1297	.	0.0648	.	0.0630	.

Note: Significant at less than 1% (a), 1%-5% (b) and 5%-10% (c) levels of significance.

Table 4. Mean and median adjustm pee

	Mean Value			
	Adjustment speed		Optimality	
	Book	Market	Book	Ma
A: By year of observation:				
1991	0.247	0.646	0.695	0
1992	0.178	0.219	1.256	0.
1993	0.231	0.312	0.842	0.
1994	0.213	0.263	0.947	0.
1995	0.136	0.109	1.144	0.
1996	0.250	0.132	1.418	1.
B. By firm size:				
Very small	0.226	0.176	0.857	0.(
Small	0.238	0.238	0.938	0.(
Medium	0.181	0.242	1.096	0.(
Large	0.215	0.263	1.311	1.0
Very large	0.150	0.210	1.074	0.7
C. By type of industry:				
SIC1	0.026	0.181	0.000	0.3(
SIC2	0.064	0.099	1.347	0.5(
SIC3	0.337	0.303	0.866	0.8(
SIC4	0.255	0.264	0.651	0.72
SIC5	0.163	0.156	0.69'	0.74
SIC6	0.263	0.300	1.13	1.02
SIC7	0.990	0.990	0.944	0.93
SIC8	0.063	0.136	2.172	0.73
SIC9	0.153	0.135	0.993	0.69
Sample	0.201	0.226	1.512	1.291

Table 5. Mean and median adjustment speed (δ_{it}) and optimality ratio (L^*_{it} / L_{it}), US data.

	Mean Value				Median Value			
	Adjustment speed		Optimality ratio		Adjustment speed		Optimality ratio	
	Book	Market	Book	Market	Book	Market	Book	Market
A. By year of observation:								
1990	0.464	0.259	1.032	1.069	0.446	0.258	1.045	0.997
1991	0.242	0.215	1.003	1.060	0.217	0.213	1.020	0.992
1992	0.882	0.320	1.027	1.072	0.908	0.317	1.014	1.024
1993	0.506	0.251	1.016	0.995	0.489	0.250	0.997	0.942
1994	0.531	0.269	1.035	1.057	0.516	0.269	1.029	0.966
1995	0.595	0.299	1.048	1.136	0.576	0.299	1.049	1.085
1996	0.485	0.239	1.027	1.076	0.464	0.236	1.026	1.016
B. By firm size:								
Very small	0.545	0.253	0.987	1.091	0.530	0.254	0.977	0.931
Small	0.542	0.282	1.054	1.059	0.511	0.262	1.028	0.989
Medium	0.550	0.277	1.048	1.065	0.558	0.265	1.056	1.032
Large	0.524	0.266	1.013	1.048	0.494	0.259	1.030	1.024
Very large	0.486	0.245	1.034	1.072	0.461	0.247	0.996	1.034
C. By type of industry:								
SIC1	0.663	0.279	0.997	1.002	0.643	0.275	1.017	1.015
SIC2	0.415	0.265	1.130	1.180	0.404	0.273	1.034	1.024
SIC3	0.461	0.206	1.008	1.057	0.441	0.207	0.977	0.975
SIC4	0.767	0.429	1.001	0.997	0.768	0.427	1.032	0.982
SIC5	0.668	0.607	1.017	1.005	0.667	0.605	1.182	1.086
SIC6	0.542	0.239	1.038	1.149	0.531	0.244	1.070	0.917
SIC7	0.308	0.115	1.005	1.106	0.276	0.115	1.003	1.023
SIC8	0.303	0.260	1.100	1.119	0.289	0.264	1.152	1.028
SIC9	0.639	0.290	0.997	1.002	0.627	0.268	0.966	0.962
Sample	0.529	0.265	1.080	1.156	0.511	0.258	0.992	1.013

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FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 30.3

Optimal capital structure in agency relationships

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and
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We analyze the optimal design of capital structure in agency relationships. When a risk-averse principal controls the agent's capital structure, she awards a larger equity stake to outsiders the smaller the agent's productivity. When she controls both the timing and the terms of the agent's financing, the principal shifts to equityholders all risk associated with stochastic production and with the agent's unknown productivity. When the principal dictates only the terms of financing, only the former risk is borne by equityholders. When the principal is sufficiently averse to risk, she affords the agent no choice among incentive schemes.

1. Introduction

■ Nearly four decades ago, Modigliani and Miller (1958) specified conditions under which a firm's value would be invariant to its capital structure. Since that time, many authors have explained why, more generally, a firm's capital structure might affect its market value (see Harris and Raviv (1991) for an excellent survey). Moral hazard concerns and information asymmetries have played a central role in these explanations. For instance, Jensen and Meckling (1976) noted that by issuing debt rather than equity, a firm can help limit moral hazard on the part of its managers. Ross (1977) showed how a firm can signal its superior prospects to investors by issuing debt rather than equity.[1] Myers and Majluf (1984) explained how equity can be undervalued by the market when the firm has private information about its future returns.

Most of these studies can be viewed as investigations in which a single entity designs its capital structure to maximize its well-being, taking into account the reactions of investors or competitors.[2] In contrast, the purpose of the present study is to examine

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[1] In Ross's (1977) model, superior prospects imply a reduced likelihood of particularly low returns and thus limited chances of bankruptcy even when debt is issued.

[2] Brander and Lewis (1986), for example, show how a firm can choose its capital structure strategically so as to influence competitors. In their model, greater leverage raises the profitability of a more aggressive output strategy, which, in turn, can induce competitors to reduce their output. Spiegel and Spulber (1994) explain how, by issuing more debt, a regulated firm can induce its regulator to set a higher price for the firm's product, in order to avoid financial distress. See Dasgupta and Nanda (1993) for a related analysis.

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the role of capital structure in agency relationships. In particular, we examine the capital structure that a risk-averse principal (e.g., a regulator) will instruct her agent (e.g., a regulated firm) to adopt when capital must be secured from a risk-neutral financier (e.g., a credit market). The formal agency literature has tended not to model the agent's capital structure, presuming instead that all necessary financial resources are supplied by either the agent or the principal.[3] We find that outside financing can be valuable, even when internal funds are available.

The presumed risk preferences are important in our analysis. Risk aversion for the principal is natural in situations where the project in question constitutes a large portion of her portfolio and where diversification is difficult or costly. Such situations are common both in regulatory settings and in procurement settings. In regulatory settings, the charges a regulated utility levies on a(n industrial) customer can represent a significant portion of the customer's overall budget. Furthermore, it is often prohibitively costly for the typical customer to diversify away all risk associated with variations in utility charges. Thus, when the regulator acts to maximize the utility of the representative customer, it can be appropriate to model the regulator as a risk-averse principal. There are also many procurement settings in which the principal (the procurer) cannot diversify away all project-specific risks. This is typically the case, for example, when a family purchases a custom home from a building contractor, or when a small business enterprise contracts for information services from a communications company.[4] In contrast, risk neutrality for the agent and the financier is natural when they can diversify away project-specific risk. The project in question may be just one of many independent projects undertaken by the agent, for example, and the financier's ready access to capital markets may provide effective diversification opportunities.

Our model incorporates both private information and moral hazard. The agent is privately informed about his productive capabilities at the start of his relationship with the principal. The agent also subsequently supplies an unobservable level of effort which, along with his productivity, influences the success or failure of his project. To limit the agent's incentive to understate his productivity, it is best to limit his reward for success when he claims to have low productivity. But when the agent's reward for success is limited, the risk-averse principal's payoff will have to vary substantially with the agent's performance unless a third party is available to take an equity stake in the agent's project. This is precisely the role for the financier in our model. The financier is induced to take a larger equity stake in the agent's project the lower the agent's productivity, in order to best limit the agent's rents from his private information while simultaneously limiting the risk from stochastic production that the principal is forced to bear.[5] In this instance, our model predicts the same inverse relationship between productivity and the extent of equity financing predicted in the signalling literature (e.g., Ross, 1977). However, the reason for the inverse relationship is quite different in our model.

Our model also predicts an inverse relationship between the extent of the principal's aversion to risk and the choice among incentive schemes she will afford the agent. When the principal is sufficiently averse to risk, she will not allow the agent any choice,

[3] The relevant literature is reviewed briefly at the end of this section.

[4] Even the federal government may be averse to variations in procurement costs if the budget available for a specific project is fixed by appropriations constraints.

[5] It is because financing with internal funds precludes this role for the financier that the principal prefers external financing, even when internal financing is possible. Thus, the "pecking order" for financing arrangements in our model differs from that in Myers (1984) and Myers and Majluf (1984).

because to do so would subject the principal to too much risk.[6] Thus, in contrast to most of the normative agency literature,[7] our model suggests a reason why the principal may offer only a limited number of options to the agent whose operations she oversees. In practice, an extensive choice among optional incentive plans appears to be the exception, rather than the rule.

These predictions arise from our model in the restricted-control setting, where the principal can dictate the agent's capital structure but cannot require the financier to commit to financing arrangements before observing the terms of the agent's incentive scheme. These conditions are particularly likely to prevail in regulatory settings and other government procurement settings where procedural requirements dictate that key details of the project in question—including the terms of compensation for the supplier—be specified before the project is authorized, and thus before financing is secured. We also consider two additional settings. In the no-control setting, the principal is unable to dictate the agent's capital structure, perhaps due to legal restrictions or difficulties in monitoring financial transactions, for example. In this setting, the agent provides the financier with no equity stake in his project. Offering an equity stake only serves to signal low productivity to the financier and simultaneously to reduce the surplus available for the agent and financier. Because distinct capital structures emerge in the no-control and restricted-control settings, it is clear that the agent's capital structure does matter, and that the principal is strictly better off when she can control the agent's capital structure.

In the unrestricted-control setting, the principal is better off still because she can both control the agent's capital structure and require the financier to commit to financing arrangements before the agent's incentive scheme is determined. In this benchmark setting, where the principal is particularly omnipotent, she can implement the set of incentive schemes that best limits the agent's rents and still avoid all the risk associated with both stochastic production and the agent's unobserved productivity.

Our analysis of these three settings follows the description of the central elements of our model in Section 2. The no-control setting is analyzed in Section 3, followed by an investigation of the unrestricted-control setting in Section 4. In Section 5 we study the restricted-control setting and report conclusions and extensions in Section 6. Sketches of the proofs of key findings are in the Appendix.[8]

Before proceeding, we briefly contrast our analysis with related work in the literature. Braverman and Stiglitz (1982) analyze the interaction between incentives and financing arrangements in a sharecropping setting. The authors examine a general equilibrium model in which a risk-neutral landlord controls the access of a risk-averse tenant farmer to the capital market (see Stiglitz and Weiss (1981) for a related analysis). Among the many differences between this analysis and ours are the structure of risk preferences and the private information available to the agent.

Hart and Moore (1994) examine how an agent's threat to withdraw his human capital from a project limits feasible financial arrangements in a dynamic agency model. There is no information asymmetry in their model, and the principal serves as the

[6] We also specify conditions under which the financier's equity stake in the single-incentive scheme offered to the agent increases as the agent's expected productivity increases systematically. The increased equity stake raises the financier's expected returns, thereby permitting a reduction in the fixed (debt) payment from the agent to the financier, which in turn allows the principal to reduce her payments to the agent. This direct relationship between equity and expected productivity differs from the aforementioned inverse relationship between equity and productivity in the signalling literature.

[7] Sappington (1991) presents a nontechnical overview of portions of this literature. For more detailed overviews of the incentive-regulation literature, see Baron (1989), Besanko and Sappington (1987), Caillaud et al. (1988), Laffont and Tirole (1993), and Sappington and Stiglitz (1987).

[8] More detailed proofs are available upon request from the authors.

financier. These features and the deterministic production technology the authors presume differentiate their model from ours.

Kale and Noe (1992) examine the interaction between regulation and financing arrangements. In their model, however, equity financing is assumed, there is no moral hazard problem, and a particular regulatory policy is taken as given. The drawbacks to this policy are demonstrated, and an alternative policy is suggested. This approach differs from our focus on the design of optimal policy. Spiegel and Spulber (1993) also investigate the capital structure of regulated firms. In their model, the regulated firm has private information about its capabilities. The firm selects its capital structure, recognizing that its choice may convey information to the capital market and the regulator. (See Gertner, Gibbons, and Scharfstein (1988) for another model in which an informed party signals private information to two audiences simultaneously.) The timing in our model differs from that in Spiegel and Spulber's model, as does our normative focus.

2. Elements of the model

■ There are three actors in the model: the (risk-averse) principal, the (risk-neutral) agent, and the (risk-neutral) financier. The principal contracts with the agent to undertake a project, and the financier supplies the funding for the project. The project is known to require an up-front investment of I dollars. A successful project generates value V^H for the principal, and a project that is ultimately unsuccessful generates the smaller value V^L.

The success of a project is influenced by the agent's productivity ($\theta \in \{\theta_1, \ldots, \theta_N\}$) and the effort ($e \in [0, \infty)$) he supplies. $p(\theta, e) \in [0, 1]$ will denote the probability that the project is successful when the agent with productivity θ supplies effort e. Higher effort increases the likelihood of success at a decreasing rate (i.e., $p_e(\theta, e) > 0$ and $p_{ee}(\theta, e) < 0$ $\forall e, \theta$). Higher productivity increases both the likelihood of success and the marginal returns from effort (i.e., $p(\theta_j, e)$ and $p_e(\theta_j, e)$ both increase with θ_j). The agent's effort is sufficiently valuable relative to its costs that the principal always finds it optimal to induce a strictly positive but finite level of effort from the agent.[9] In addition, the expected benefits of the project are assumed to sufficiently outweigh its costs, even for the lowest productivity realization (θ_1), so that the project is always undertaken in equilibrium.[10]

The agent knows his productivity from the outset, and chooses his effort level to maximize his expected net returns. The agent's effort supply and his productivity cannot be observed by the principal or the financier. Initially, the principal and financier take $\phi_j \in (0, 1)$ to be the probability that the agent's productivity is θ_j, for $j = 1, \ldots, N$.

To motivate the agent to supply effort, he must be promised a higher net payoff when his project succeeds than when it fails. The agent's net payoff is the difference between the payment he receives from the principal and the payment he makes to the financier. T_i^k will denote the transfer payment from the principal to the agent when gross value V^k is realized under incentive scheme i. Payments from the agent to the financier are of two types, which we shall refer to as debt and equity payments. D_i will denote the debt payment the agent makes to the financier under incentive scheme i. The agent always makes this payment, regardless of the success or failure of the project. Thus we assume the agent always has the resources required to meet his debt

[9] This assumption will be satisfied, for example, if $p_e(\theta, 0) = \infty$ and $p_e(\theta, \infty) = 0$ for all $\theta \in \{\theta_1, \ldots, \theta_N\}$.

[10] We also assume throughout that the relevant problems of the principal are strictly concave with unique maxima, so that our focus on necessary conditions is appropriate.

obligations.[11] $E_i \in [0, 1]$ will denote the fraction of the agent's net financial payoff ($T - D$) that the agent must give to the financier under incentive scheme i. We shall refer to E_i as the financier's equity stake in the agent's project under incentive scheme i. $E_i[T_i^k - D_i]$ will denote the equity payment from the agent to the financier when V^k is realized under incentive scheme i.[12] In the restricted-control and the unrestricted-control settings, where the principal can dictate the agent's capital structure, incentive scheme i is the quadruple $\{T_i^L, T_i^H, D_i, E_i\}$. In the no-control setting, where the principal cannot dictate D and E, incentive scheme i is simply the pair $\{T_i^L, T_i^H\}$.

The agent's incremental reward for success under incentive scheme i, $\Delta_i \equiv [1 - E_i][T_i^H - T_i^L] > 0$, will be called the power of incentive scheme i. Without loss of generality, larger indexes will refer to incentive schemes with higher power. Thus, for $j > l$, $\Delta_j \geq \Delta_l$. The higher the power of the incentive scheme under which he operates, the more effort the agent will supply. An increase in the power of an incentive scheme is also presumed to increase the agent's expected net returns by a greater amount the higher his productivity, as stated in Assumption 1. This assumption is maintained throughout the ensuing analysis.

Assumption 1. $H_j(\theta_k) - H_j(\theta_k) > H_j(\theta_i) - H_l(\theta_i)$ for $\Delta_j > \Delta_l > 0$ and $\theta_k > \theta_i$, where $H_r(\theta_s) \equiv \max_e\{p(\theta_s, e)\Delta_r - e\}$.

In every setting we consider, the principal moves first, designing a set of $n \geq 1$ distinct incentive schemes from which the agent can make a binding choice.[13] We shall denote by Θ_i the set of productivity realizations for which the agent will select the ith incentive scheme. $S_i \equiv \{j \mid \theta_j \in \Theta_i\}$ will index these productivity realizations. If $n = N$, so that the agent's equilibrium choice of incentive scheme is different for every realization of his productivity, the solution to the principal's problem will be called a separating solution. It will be called a pooling solution if $n = 1$ so that the agent always selects the same incentive scheme, regardless of his productivity. Intermediate cases with $1 < n < N$ will be called partial pooling solutions.

$U(V - T)$ will denote the principal's utility function. Since the principal is risk averse, $U(\cdot)$ is a strictly increasing, strictly concave function. $\overline{\pi}^A \geq 0$ will represent the agent's opportunity profit level. $\overline{\pi}_F \geq 0$ will denote the financier's opportunity profit level.

There are two types of risk in the settings we analyze. Productivity risk arises because the agent's productivity is initially unknown. Performance risk is present because the success of the project is uncertain even when the agent's productivity and effort level are known. The principal may be able to shift some of these risks to the financier and the agent. Her ability to do so, to motivate the agent to labor diligently, and to limit the rents the agent commands from his private productivity information depends on the principal's ability to control both the timing and the nature of the financial arrangements between the agent and the financier.

3. No control

■ Consider first the no-control setting, in which the principal cannot dictate the terms of the agent's financial dealings with the financier. Regulated settings where this assumption may reasonably approximate reality include the states of Alaska, Iowa, and

[11] Some thoughts on the case in which limited liability and bankruptcy constraints bind are offered in the concluding section.

[12] All of our main qualitative conclusions continue to hold if equity is modelled simply as any feasible payment from the agent to the financier, rather than expressed as a fraction of the agent's net financial payoff.

[13] We assume without loss of generality that the principal offers only incentive schemes that are selected by the agent with strictly positive probability in equilibrium.

Texas, where the state public service commissions cannot require the regulated utilities under their jurisdiction to obtain their permission before issuing securities.[14] More generally, outside of the regulatory arena, historical custom, legal restrictions, or difficulties in monitoring subcontracting relationships can provide latitude for the agent in choosing his capital structure.

We model the no-control setting as a five-stage game. In the first stage the principal offers the agent a menu of incentive schemes. This menu is observed publicly by all parties. Each incentive scheme specifies only the payments the principal will make to the agent according to the ultimate success or failure of his project. In the second stage the agent chooses one incentive scheme from the menu. The agent's choice is observed publicly. In the third stage the agent offers the financier a contract. This contract stipulates how the agent will compensate the financier for the I dollars he supplies to the agent. In stage four the financier either accepts or rejects the contract proposed by the agent. The game ends if the contract is rejected. If the contract is accepted, the agent picks a level of effort to supply in the fifth and final stage. Payments are made once the outcome of the project is observed publicly.[15]

Our formal analysis of the no-control setting begins with the third stage of the game, after the agent has selected an incentive scheme. At this stage, the strategy of the agent with productivity θ_j, $s_j^A = (D_j, E_j)$, is the contract he offers to the financier (taking as given the incentive scheme he has selected). The financier's strategy, $s^F(\cdot) = (A, R)$, is to accept (A) or reject (R) the contract proposed by the agent. We characterize the perfect Bayesian equilibria of this game, where each of the two parties chooses his strategy to maximize his expected net payoff given his beliefs and the other's strategy. Beliefs are derived from equilibrium strategies and observed actions using Bayes' rule whenever possible (see, for example, Fudenberg and Tirole, 1991). We also confine attention to equilibria that satisfy the Cho–Kreps (1987) intuitive refinement.[16]

To characterize formally the equilibria in the no-control setting, the following notation is helpful. First, denote by $s^F(D, E)$ the dependence of the financier's accept/reject decision on the contract (D, E) offered by the agent. Second, let M_j denote the set of financial contracts that generate an expected net return for the financier that is at least as great as his opportunity profit level, given the $\{T^H, T^L\}$ incentive scheme selected by the agent and assuming that the agent's productivity is θ_j. Formally,

$$M_j \equiv \{(D, E) \mid D + E[p(\theta_j, e_j)[T^H - D] + [1 - p(\theta_j, e_j)][T^L - D]] \geq I + \overline{\pi}^F\},$$

where $e_j = \text{argmax}_e\{[1 - E][p(\theta_j, e)[T^H - D] + [1 - p(\theta_j, e)][T^L - D]] - e\}$. Also let M_j' denote the complement of M_j in $\mathbf{R}^2$. Note that any contract that promises the financier $I + \overline{\pi}^F$ in expectation when the agent's productivity is θ_j will promise at least this expected return for higher productivity realizations. Therefore, $M_j \subseteq M_{j+1}$ for all $j = 1, \ldots, N - 1$. In particular, if a contract $(D, E) \in M_1$, then the (D, E) contract will assure the financier an expected return of at least $I + \overline{\pi}^F$ for all possible realizations of the agent's productivity.

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[14] See NARUC (1992). Furthermore, court rulings in some states (e.g., Delaware, Michigan, and Oklahoma) have limited the ability of regulatory commissions to question the reasonableness of projects for which securities are issued. See Howe (1982).

[15] In all three settings we analyze, no collusion or side payments among actors are permitted.

[16] Thus, if a contract other than the equilibrium contract is offered, the financier infers that the agent's productivity must be such that the agent's expected payoff will be higher if the financier accepts the contract than if the equilibrium contract is offered and accepted.

Proposition 1. There is a unique perfect Bayesian equilibrium which satisfies the Cho–Kreps (1987) intuitive criterion in the no-control setting. At this equilibrium,

$s_j^A = (I + \overline{\pi}^F, 0)\ \forall j = 1, \ldots, N$; $s^F(I + \overline{\pi}^F, 0) = A$; $s^F(D, E) = A$ if $(D, E) \in M_1$; and $s^F(D, E) = R$ if $(D, E) \in M_1'$.

The central conclusion of Proposition 1 is that the agent will never offer the financier an equity stake in his project. The reason for this conclusion is the following. Among all contracts that provide an equilibrium expected return for the financier in excess of his opportunity profit, the one preferred by the agent involves no equity financing. (See Lemma A1 in the Appendix.) Equity serves only to reduce the agent's effort, which limits the total surplus the agent and financier have to share. Since the "debt contract" ($D = I + \overline{\pi}^F$, $E = 0$) is optimal for the agent among those contracts that are profitable for the financier, if the agent ever offers a different contract, i.e., one that includes equity for the financier, the agent's productivity must be sufficiently low so that the contract is not profitable for the financier. Recognizing this, the financier will reject any contract other than the debt contract or some other contract in M_1 that guarantees him an expected return of at least $I + \overline{\Pi}^F$ for any value of the agent's productivity. Consequently, only the debt contract is offered in equilibrium.

4. Unrestricted control

■ Consider, now, the other extreme in which the principal can control the agent's financial arrangements with the financier. Also suppose the principal can require the financier to decide whether to accept or reject the ultimate terms of his financial arrangements with the agent before the agent chooses an incentive scheme. This unrestricted-control setting can be viewed as one in which the project in question is a routine one where all parties are well informed in advance about all relevant influences (so complete contracts are readily written), where *ex ante* competition among potential financiers is particularly intense, and where legal mandates or reputation concerns prevent the financier from breaching a contract after new information arrives. After the financier has agreed to finance the agent's project in this unrestricted-control setting, the agent selects an incentive scheme $\{T_i^H, T_i^L, D_i, E_i\}$ from the menu offered by the principal. The agent then chooses his effort level, e, to maximize his expected net returns. After the success or failure of the project has been observed, payments are made as promised.

The principal's problem [UC] in this unrestricted-control setting is the following:[17]

$$\max_{T_i^L, T_i^H, D_i, E_i, n} \sum_{i=1}^{n} \sum_{j \in S_i} \{\phi_j [p(\theta_j, e_{i,j}) U(V^H - T_i^H) + [1 - p(\theta_j, e_{i,j})] U(V^L - T_i^L)]\} \qquad (1)$$

subject to

$$\pi_i(\theta_j) \geq \overline{\pi}^A \qquad \forall j \in S_i, \quad \forall i = 1, \ldots, n, \qquad (2)$$

$$\pi_i(\theta_j) \geq \pi_k(\theta_j) \qquad \forall j \in S_i, \quad \forall i, k = 1, \ldots, n, \qquad (3)$$

and

$$\sum_{i=1}^{n} \sum_{j \in S_i} \{\phi_j E_i [p(\theta_j, e_{i,j}) T_i^H + [1 - p(\theta_j, e_{i,j})] T_i^L] + [1 - E_i] D_i\} \geq I + \overline{\pi}^F, \qquad (4)$$

[17] The revelation principle (e.g., Myerson, 1979) ensures that this formulation is without loss of generality.

where

$$\pi_i(\theta_j) = [1 - E_i]\{p(\theta_j, e_{i,j})T_i^H + [1 - p(\theta_j, e_{i,j})]T_i^L - D_i\} - e_{i,j} \tag{5}$$

and

$$e_{i,j} = \underset{e}{\text{argmax}}\{[1 - E_i][p(\theta_i, e)T_i^H + [1 - p(\theta_j, e)]T_i^L - D_i] - e\}. \tag{6}$$

The objective function in [UC], (1), reflects the principal's desire to maximize her expected utility, where her payoff is the difference between the value generated (V) and her transfer payment (T) to the agent. The agent's participation constraint, (2), states that if the agent chooses incentive scheme i ($i = 1, \ldots, n$) in equilibrium when his productivity is θ_j, then he must earn an expected profit (as defined in (5) and (6)) that is at least as great as his opportunity profit, $\overline{\pi}^A$. The incentive-compatibility constraints, (3), ensure that the agent with productivity θ_j who chooses incentive scheme i in equilibrium cannot increase his expected profit by choosing any other incentive scheme. The financier's participation constraint, (4), ensures that he anticipates at least his opportunity profit level when he agrees to finance the agent's project.[18]

The key features of the principal's preferred policy in this unrestricted control setting are summarized in Proposition 2.

Proposition 2. At the solution to [UC]:

(i) $\pi_1(\theta_1) = \overline{\pi}^A$;

(ii) incentive schemes of higher power are selected when the agent's realized productivity is higher, so if $k \in S_h$ and $j \in S_i$, where $h > i$, then $k > j$;

(iii) $\pi_i(\theta_i) = \pi_{i-1}(\theta_i) \qquad \forall i = 2, \ldots, n$, where $\underline{i} \equiv \min\{k \mid k \in S_i\}$;

(iv) $T_i^H - T_i^L = V^H - V^L \qquad \forall i = 1, \ldots, n;$ and

(v) $T_i^L = T_k^L \qquad \forall i, k = 1, \ldots, n.$

Furthermore, if

(a) $\sum_{k=j+1}^{N} \phi_k/\phi_j$ is nonincreasing in j and strictly decreasing for some j,

(b) $\theta_j - \theta_{j-1} = \theta_{j+1} - \theta_j \qquad \forall j = 2, \ldots, N-1,$ and

(c) $p(\theta, e) = \theta^\alpha e^\beta$, where $\alpha > 0$, $\beta > 0$, and $\alpha + \beta < 1$, then

(vi) $n = N$ and $E_N = 0$.

[18] The financier's accept/reject strategy can be modelled in this way because he initially shares the principal's beliefs about the agent's productivity, and because the project is always undertaken in equilibrium. Note that inequality (4) only guarantees the financier his opportunity profit level in expectation. Therefore, although the financier may ultimately anticipate less than his opportunity profit level after observing the agent's choice of incentive scheme, he cannot, at that time, renege on the financing terms to which he initially agreed.

Property (i) of Proposition 2 reflects the standard conclusion that the agent earns no rents when his productivity is minimal. Property (ii) explains that the higher the agent's productivity, the more likely success is in equilibrium and thus the more willing the agent is to accept performance risk. Therefore, the power (Δ_i) of the incentive scheme the agent selects increases with his productivity. Property (iii) reports that, as the power of the incentive scheme increases, the agent's net reward for failure ($T^L - D$) declines so as to leave the agent indifferent between his equilibrium choice of an incentive scheme and the choice he would make if his productivity were incrementally smaller.[19] This structuring of incentive schemes is standard, and it serves to best limit the agent's rents.

Properties (iv) and (v) reveal the gains that accrue to the principal when she can require the financier to make a binding participation commitment before any information about the agent's productivity is revealed through the agent's choice of an incentive scheme. The principal perfectly insures herself against all performance risk (property (iv)) and all productivity risk (property (v)). In essence, the principal sells to the financier the right to contract with the agent in return for a fixed payment equal to the difference between the total expected surplus and the sum of the agent's expected returns and the financier's opportunity profit level. Together, properties (ii) and (iv) of Proposition 2 imply that the financier's equity stake in the agent's project decreases as the agent's productivity increases.

After purchasing the principal's interest in the project, the financier effectively becomes a risk-neutral principal facing a risk-neutral agent who has private information about both his capabilities and his effort supply. Aside from differences in the stochastic relationship between effort supply and performance, the essential contracting frictions here are analogous to those examined in Laffont and Tirole (1986), for example.[20] This fact explains the standard conclusions cited in properties (i)–(iii) of Proposition 2. By imposing some additional structure on the stochastic relationship between effort and performance, conditions sufficient for the solution to [UC] to be separating are readily derived. Condition (a) in Proposition 2 is the familiar hazard rate assumption. (See, for example, Baron and Myerson (1982) or Laffont and Tirole (1986).) Condition (b) simply normalizes the measurement of productivity by assuming the difference between all adjacent productivity realizations to be identical. Condition (c) imposes decreasing returns from productivity and effort. When separation is optimal, the agent with maximal productivity issues no equity, and so bears the full financial implications of his actions (i.e., $\Delta_N = V^H - V^L$). Thus, property (vi) reflects the standard conclusion in adverse-selection settings that the activities of the most productive type need not be distorted to limit information rents.

5. Restricted control

■ The benchmark unrestricted-control setting of Section 4 can be viewed as a setting in which complete contracts can be written costlessly before the financier can infer any information about the agent's productivity from his actions. Such contracts often are difficult, if not impossible, to write at an early stage. In many regulatory and government procurement settings, for example, the details of the project in question—including the key terms of the ultimate compensation arrangement for the supplier—are in

[19] Thus, using the common vernacular, the agent's incentive-compatibility constraints are "downward binding."

[20] The model on which Laffont and Tirole (1986) focus their analysis presumes a deterministic relationship between effort supply and observed performance, so their model effectively examines a pure adverse-selection problem. The authors also extend their analysis to the case in which the production relationship admits additive noise.

the public domain before the project is approved, and thus before financing is secured. In such settings, even when the principal can control the ultimate terms of financing for the agent's project,[21] she cannot force the financier to commit to these terms before the agent's incentive scheme is determined.[22] The purpose of this section is to analyze the principal's optimal strategy in such a setting, which we call the restricted-control setting. The timing in this setting is the same as in the restricted-control setting, except that the financier decides whether to accept the financial arrangements dictated by the principal after (rather than before) the agent selects his preferred incentive scheme.

Formally, the principal's restricted-control problem, [RC], is to maximize (1), subject to (2), (3), (5), (6), and

$$\sum_{k=1}^{N} b_{ki}\{E_i[p(\theta_k, e_{i,k})T_i^H + [1 - p(\theta_k, e_{i,k})]T_i^L] + [1 - E_i]D_i\} \geq I + \overline{\pi}^F$$

$$\forall i = 1, \ldots, n, \tag{7}$$

where $b_{ki} \in [0, 1]$ is the financier's updated assessment of the probability that the agent's productivity is θ_k after the agent selects the ith incentive scheme.[23] Inequality (7) represents the financier's participation constraints. The constraints require that the financier's expected return be at least as great as his opportunity profit level under each incentive scheme ($i = 1, \ldots, n$) selected by the agent in equilibrium.

Proposition 3 describes some of the key properties of the principal's optimal policy in this restricted control setting.

Proposition 3. At the solution to [RC], properties (i)–(iv) of Proposition 2 hold. Furthermore,

(v) T_i^L is decreasing in i,

(vi) E_i is decreasing in i, and

(vii) $\sum_{k=1}^{N} b_{ki}\{E_i[p(\theta_k, e_{i,k})T_i^H + [1 - p(\theta_k, e_{i,k})]T_i^L] + [1 - E_i]D_i\} = I + \overline{\pi}^F$ $\forall i = 1, \ldots, n$.

Proposition 3 reveals the benefits and costs to the principal of the financier's equity stake in the agent's project. Equity is costly because, by awarding a portion of the incremental gains from success to the financier, equity reduces the agent's effort supply and thus the expected total surplus. Equity is valuable because it helps limit the rents the agent commands from his private productivity information. To see how, note that the principal instructs the agent to award a larger equity stake to the financier the lower is the agent's reported productivity (property (vi) of Proposition 3). In doing so, the principal makes it less attractive for the agent to understate his productivity. Higher equity stakes for the financier reduce the agent's private financial gains from success,

[21] NARUC (1992) lists over 40 states (including California, Florida, and New York, for example) in which regulated public utility firms must obtain the approval of their state public service commission before issuing securities. Thus, these are regulatory settings in which the principal (the regulator) has control over the agent's (the utility's) financial interactions with the financier (the credit market). Taggart (1985) and Brigham, Gapenski, and Aberwald (1987) present additional evidence of regulatory control over the capital structure of regulated firms.

[22] Another setting consistent with the timing in our restricted-control setting is one in which the financier is legally entitled to renege on a contract he has signed if new information arises that materially affects his beliefs about the profitability of the contract. See Boot, Thakor, and Udell (1991) for a discussion of when banks can renegotiate lending agreements.

[23] $b_{ki} = \phi_k / \Sigma_{j \in S_i} \phi_j$ if $k \in S_i$. $b_{ki} = 0$ if $k \notin Si$.

thereby differentially disadvantaging the agent with higher productivity, for whom success is more likely. By limiting the gains from understating productivity in this manner, the principal reduces the rents required to induce the agent to truthfully report higher productivity realizations.[24]

The financier plays a key role here. He absorbs all the performance risk associated with the incentive schemes (described in Proposition 3) that best limit the agent's rents from his private productivity information. The agent's choice of an incentive scheme is affected by the incremental reward for success he is promised, but not by the identity of the party that delivers the promised reward, and therefore bears the associated performance risk. Consequently, the risk-averse principal optimally transfers all performance risk to the risk-neutral financier. She does so without affording the financier any rents, because higher equity payments are readily offset by lower debt payments (as indicated in property (vii) of Proposition 3). Of course, when the agent's choice of incentive scheme varies with his productivity, the principal must absorb some productivity risk. This risk takes the form of a lower minimal payment to the agent (T^L) the higher the power of the incentive scheme selected by the agent (and thus the higher his productivity, as reported in property (v)).

Three implications of Proposition 3 warrant emphasis. First, while an inverse relationship between productivity and equity financing analogous to that identified in the signalling literature (e.g., Ross, 1977) is observed in our restricted-control setting, the reason for this relationship is different. In Ross's model, for example, equity financing by an informed agent is rationally interpreted in equilibrium as a signal that low returns are likely, because equity limits the agent's risk of bankruptcy when low returns are realized. Here, equity financing is mandated by an uninformed principal to avoid performance risk while reducing the power of incentive schemes in order to limit the agent's rents. Second, Proposition 3 reveals that the principal is better off when she can dictate the financial arrangements between the agent and the financier. The "debt contract" that arises in the no-control setting (recall Proposition 1) is a component of a feasible solution to [RC]. However, Proposition 3 reveals that the principal chooses not to implement this debt contract for all productivity realizations in the restricted-control setting. Therefore, the principal must be better off when she can dictate financing arrangements, and in this sense, capital structure matters. It matters because equity enables the principal to simultaneously limit both the risk she faces and the agent's information rents. Third, Proposition 3 implies that even if the agent had the financial resources to fund the project himself, the principal would prefer that the agent secure the requisite funds from the financier on the terms dictated by the principal.[25] These terms will include equity payments to the financier, which play a key role in limiting the agent's rents.

It remains to determine the extent to which the incentive scheme chosen by the agent varies with his productivity. This variation depends on the extent of the principal's aversion to risk. To calibrate this aversion most simply, it is useful to assume that the principal's utility function exhibits constant relative risk aversion. Thus, $U(W) = W^r/r$ for $r \leq 1$ and $r \neq 0$. Smaller values of r represent greater aversion to risk. Proposition 4 reports that when the principal's aversion to risk is sufficiently slight (i.e., when r is sufficiently close to one), she will implement a separating solution in the restricted-control setting under the conditions where a separating solution is optimal in the full-control setting. In contrast, when the principal is sufficiently averse to risk (i.e., when

[24] These same considerations underlie the inverse relationship between productivity and equity that arises in the unrestricted-control setting. (Recall properties (i)–(v) in Proposition 2.)

[25] Similarly, the principal prefers not to supply the financing herself. Of course, these conclusions presume that the opportunity cost of funds for the principal and the agent is not too small relative to $\bar{\pi}^f$.

r is sufficiently small), she will always implement a pooling solution in the restricted-control setting. The assumption of constant relative risk aversion is convenient, but not necessary, for these conclusions to hold.

Proposition 4. Suppose $U(W) = W^r/r$ for $r \leq 1$ and $r \neq 0$. Then if conditions (a)–(c) in Proposition 2 hold, condition (vi) of Proposition 2 will hold at the (separating) solution to [RC] for r sufficiently close to one. In contrast, for r sufficiently small, the solution to [RC] will be a pooling solution. At this pooling solution, the expected value of the financier's equity stake in the agent's project is maximized.

Under conditions (a)–(c) in Proposition 2, the agent's information rents are best limited by inducing him to choose a different incentive scheme for every realization of his productivity parameter. The principal bears some productivity risk when such separation is induced in the restricted-control setting. However, the costs of this risk are small relative to the benefits of reduced information rents when the principal's aversion to risk is sufficiently slight.

As the principal becomes more risk averse, it becomes more onerous for her to take on productivity risk, and so she is more likely to induce the agent to select the same incentive scheme for different productivity realizations. Doing so provides the benefit of reduced variation in the principal's payoff according to the agent's productivity, but at the expense of greater information rents for the agent. There is an additional benefit to (partial or complete) pooling in the restricted-control setting. When the financier can't infer the agent's productivity from his choice of an incentive scheme, the principal need only guarantee net payments of $\overline{\pi}^F$ to the financier in expectation rather than for each productivity realization. In this sense, the financier's participation constraints (7) are relaxed when pooling is introduced.[26] The corresponding gains that accrue to the principal when the agent's productivity is (partially) concealed from the financier via pooling (or partial pooling) will be called the concealment effect.[27] The concealment effect, coupled with the reduced productivity risk that pooling provides, will lead the principal to implement a pooling solution in the restricted-control setting when she is sufficiently averse to risk.[28]

The power of the agent's incentive scheme at a pooling solution to [RC] is determined by the following consideration. Since the principal avoids all performance and productivity risk at a pooling solution, she can be viewed as selling the project to the agent for a fixed fee. The principal will want to maximize this fee. If no equity were issued, the largest fee the principal could secure from the agent while ensuring his participation would be given by the expected surplus the agent generates when his productivity is minimal, less the fixed payment ($D = I + \overline{\pi}^F$) he must make to the financier. In contrast, when equity is issued, the fee the principal can extract from the

[26] Note that at a pooling solution to [RC], the financier's participation constraint is a single constraint, with expectations taken over all possible productivity realizations. In contrast, at a separating solution to [RC], there are N participation constraints for the financier that must be satisfied, one for each productivity realization.

[27] Our concealment effect should not be confused with the concealment set analyzed by Laffont and Tirole (1986). Their concealment set is defined by the agent's ability to adjust his effort level in order to conceal from the principal any misrepresentation of his innate ability. (In the setting they analyze, the sum of the agent's ability and effort is observable to the principal.) In contrast, the concealment effect arises in our model when the principal intentionally conceals productivity information from the financier by limiting the agent's choice among incentive schemes.

[28] It should be emphasized that pooling does not arise here to ensure the monotonicity of the identifi solution, as in Baron and Myerson (1982) and Guesnerie and Laffont (1984), for example. Nor does it occur because of sorting considerations due to risk aversion on the part of the agent, as in Matthews (1983) and Matthews and Moore (1987). Furthermore, the pooling here is not due to the presence of countervailing incentives, as in Lewis and Sappington (1989) and Spiegel and Spulber (1993), for example. Pooling arises here because of the principal's desire to avoid productivity risk and because of the concealment effect.

agent is larger. It is larger because the agent's fixed payment (D) to the financier can be reduced by the expected value of the equity awarded to the financier. This expected value is calculated over all possible productivity realizations, not simply the minimal realization, θ_1. When the agent's expected payments to the financier are reduced, he is willing to pay a higher fixed fee to the principal. Of course, there is a limit to the equity stake that will be awarded to the financier. The limit arises because the agent's effort declines as the financier's equity stake increases, which in turn reduces the expected value of the financier's equity stake.

When the agent's expected productivity becomes systematically higher, the expected value of the financier's equity stake increases as the stake increases, so long as the resulting induced reduction in the agent's effort is not more pronounced for higher productivity realizations than for lower productivity realizations, as ensured by Assumption 2.

Assumption 2. $p_{eee}(\theta_j, e) \leq 0$, $p_e(\theta_j, e)$ is nondecreasing in θ_j, and $p_{ee}(\theta_j, e)$ is nonincreasing in θ_j for all θ_j and for all $e > 0$.

A systematic increase in the agent's expected productivity can be represented formally as a shift from one distribution (B) toward another distribution (A) in which higher productivity realizations are more likely in the sense of first-order stochastic dominance. Let $\Phi_j^l \equiv \sum_{k=1}^{j} \phi_k^l$ for $l = A, B$, where $\Phi_j^A \leq \Phi_j^B$ for all $j = 1, \ldots, N$, with strict inequality for some j. Now define $\Phi_j^w \equiv w\Phi_j^A + [1 - w]\Phi_j^B$ for all $j = 1, \ldots, N$, where $w \in (0, 1)$. In this setting, an increase in w represents a systematic increase in the likelihood of high productivity realizations.

Proposition 5. Suppose Assumption 2 holds and [RC] is strictly concave in E. Then $dE/dw > 0$ at a pooling solution to [RC].

Proposition 5 suggests an empirical regularity different from that implied by the signalling literature. In that literature, high productivity is associated with less equity financing. Here, when the risk-averse principal induces a pooling solution to avoid productivity risk, higher expected productivity for the agent can accompany an increase in the financier's equity stake, because increased dilution can increase the total expected value of the financier's equity stake.[29]

6. Conclusions and extensions

■ We have examined the optimal design of capital structure in a simple agency model, explaining the dual role the financier plays in limiting the agent's information rents while reducing the risk the principal must bear. We have shown that the principal is strictly better off when she can dictate the agent's capital structure. Hence, the value of the agency relationship does vary with the agent's capital structure in our model, in contrast to the classic model of Modigliani and Miller (1958). Some of the qualitative predictions of our model are consistent with those in the signalling literature (e.g., the inverse relationship between the agent's productivity and the extent of equity financing),[30] but the reasons underlying the predictions were shown to differ across models. We also found that pronounced risk aversion can lead the principal to impose a single incentive scheme on the agent, denying him the rich choice among incentive schemes that is commonly recommended in the agency literature.

[29] Care is required in comparing the present finding with the corresponding findings in the finance literature because we are examining changes in the share of the agent's net worth that accrue to the financier, not the value of this share.

[30] Recall, though, the direct relationship identified in Proposition 5 between the agent's expected productivity and the equity stake awarded to the financier.

Because our model is highly stylized, it could usefully be extended in a variety of directions. For instance, alternative information asymmetries might be admitted, perhaps reflecting privileged information about the agent's productivity that the financier has or can acquire. The effects of bankruptcy constraints might also be explored in detail. Preliminary research (Lewis and Sappington, 1994) reveals that bankruptcy constraints can lead to more pooling and the substitution of equity for debt. More pooling arises because bankruptcy constraints limit the principal's ability to link high rewards for success with severe penalties for failure, thereby restricting the principal's ability to profitably reward the agent differentially according to his realized productivity. Equity is substituted for debt as the agent's upside potential for reward is optimally restricted to offset the less severe downside threat he faces for failure. A third extension of our model might admit more sophisticated treatments of the "agent." Since the agent in our model is often a firm in realistic settings, the separation between ownership and management should be modelled explicitly. This separation could admit additional meaningful roles for debt and equity, since only the latter generally provides voting rights on matters of policy within the firm.[31]

Appendix

■ Proofs for Propositions 1–5 follow. The following lemma is central to the proof of Proposition 1.

Lemma A1. Among all contracts $(D, E) \in M_j$, $(I + \overline{\pi}^F, 0)$ is the one that (uniquely) maximizes the agent's expected net return.

Proof. Consider the problem for an agent with productivity θ_j who has chosen the (T^H, T^L) incentive scheme. The agent seeks to choose (D, E) and, subsequently, e to maximize his expected net returns, subject to the restriction $(D, E) \in M_j$. The agent's choice of (D, E) in this setting is determined by the solution to the following problem:

$$\max_{D,E}[1 - E]\{p(\theta_j, \hat{e}_j)T^H + [1 - p(\theta_j, \hat{e}_j)]T^L - D\} - \hat{e}_j$$

subject to $$D + E\{p(\theta_j, \hat{e}_j)T^H + [1 - p(\theta_j, \hat{e}_j)]T^L - D\} \geq I + \overline{\pi}^F,$$

where $\hat{e}_j \equiv \operatorname{argmax}_e\{[1 - E][p(\theta_j, e)T^H + [1 - p(\theta_j, e)]T^L - D] - e\}$. Letting λ denote the Lagrange multiplier associated with the constraint in this problem, the necessary conditions for a solution include

$$[1 - E][-1 + \lambda] = 0 \tag{A1}$$

and

$$[p(\theta_j, \hat{e}_j)T^H + [1 - p(\theta_j, \hat{e}_j)]T^L - D][-1 + \lambda] + \lambda p_e(\theta_j, \hat{e}_j)E[T^H - T^L]\frac{d\hat{e}_j}{dE} \leq 0. \tag{A2}$$

Since $\hat{e}_j > 0$ requires $E < 1$, (A1) implies $\lambda = 1$. Therefore, since $d\hat{e}_j/dE < 0$, the expression in inequality (A2) is strictly negative if $E > 0$. But this expression must be zero if $E > 0$, from the complementary slackness condition associated with (A2). Therefore, $E = 0$, and so $D = I + \overline{\pi}^F$. Consequently, $(I + \overline{\pi}^F, 0)$ is the solution to the agent's problem. *Q.E.D.*

Proof of Proposition 1. We begin by verifying that the prescribed strategies constitute best responses. First, note that under his proposed equilibrium strategy, the financier will accept only contracts that guarantee his opportunity profit level for all productivity realizations (i.e., $(D, E) \in M_1$). Lemma A1 ensures that, given this restriction, the contract that maximizes the agent's expected net returns is the identified contract, regardless of the agent's productivity. Therefore, $s^A(\cdot)$ is a best response to $s^F(\cdot)$.

Second, under the agent's proposed equilibrium strategy, the financier is ensured of his opportunity profit in expectation, regardless of the agent's productivity. Therefore, the financier (weakly) prefers to accept rather than reject the contract proposed by the agent. The same is true of any $(D, E) \in M_1$. In addition, for any contract $(D, E) \in M_1'$, it follows from the definition of M_1 that there is a nonempty set of productivity realizations, J, such that if the agent's productivity is in J, the financier's expected return

[31] See Laffont and Tirole (1991) for an interesting analysis of a setting in which both a regulator and an owner exercise control over the manager of a firm.

under the proposed contract will be strictly less than $\overline{\pi}^F$. Furthermore, only if the agent's productivity is in J will the agent propose the contract $(D, E) \in M_1'$. From Lemma A1, a contract other than $(I + \overline{\pi}^F, 0)$ will be proposed only if the agent anticipates an expected net return below $\overline{\pi}^F$ for the financier, were he to accept the contract. Therefore, by the intuitive criterion (Cho and Kreps, 1987), the financier presumes that if the agent proposes a contract $(D, E) \in M_1'$, the agent's productivity is in J, and rejects the contract.

It remains to demonstrate the uniqueness of the proposed equilibrium. We need to examine two cases. First, suppose the financier has degenerate beliefs about the agent's productivity in the second stage of the game. If, for some productivity realization, the agent offered a contract different from $(I + \overline{\pi}^F, 0)$ and it was accepted by the financier, then, from Lemma A1, the agent could have earned a higher expected return by offering the $(I + \overline{\pi}^F, 0)$ contract. Similarly, if the agent offered a different contract and the financier rejected it, the agent could have increased his expected return by offering the $(I + \overline{\pi}^F, 0)$ contract.

Second, suppose the financier's beliefs about the agent's productivity are nondegenerate, and the agent offers the same contract $(D, E) \neq (I + \overline{\pi}^F, 0)$, for a set of two or more productivity realizations, denoted K. If the contract is rejected by the financier, then by Lemma A1, the agent could have increased his expected earnings for all productivity realizations in K by offering the $(I + \overline{\pi}^F, 0)$ contract. If the contract is accepted by the financier, then his net expected return must be at least $\overline{\pi}^F$, given that the agent's productivity is in K. Consequently, the financier's expected return must be strictly greater than $\overline{\pi}^F$ when the agent's productivity is the largest element of K. Therefore the agent can increase his expected return for this productivity realization by offering the contract $(I + \overline{\pi}^F, 0)$, so the presumed pooling with a contract other than $(I + \overline{\pi}^F, 0)$ will never arise. *Q.E.D.*

Proof of Proposition 2. It can be shown that at the solution to [UC], only the adjacent downward incentive-compatibility constraints bind, and the agent's participation constraint binds only for θ_1. Therefore, for the case of $n = N$, the relevant Lagrangian function associated with [UC] is

$$\begin{aligned}
\mathcal{L}^u = &\sum_{i=1}^{n} \phi_i\{p(\theta_i, e_i)U(V^H - T_i^H) + [1 - p(\theta_i, e_i)]U(V^L - T_i^L)\} \\
&+ \lambda_1\{[1 - E_1]\{p(\theta_1, e_1)T_1^H + [1 - p(\theta_1, e_1)]T_1^L - D_1\} - e_1 - \overline{\pi}^A\} \\
&+ \sum_{i=2}^{N} \lambda_{i,i-1}\{[1 - E_i]\{p(\theta_i, e_i)T_i^H + [1 - p(\theta_i, e_i)]T_i^L - D_i\} - e_i \\
&\qquad - \{[1 - E_{i-1}]\{p(\theta_i, e_{i-1,i})T_{i-1}^H + [1 - p(\theta_i, e_{i-1,i})]T_{i-1}^L - D_{i-1}\} - e_{i-1,i}\}\} \\
&+ \gamma\left\{\sum_{i=1}^{N} \phi_i[D_i + E_i\{p(\theta_i, e_i)[T_i^H - D_i] + [1 - p(\theta_i, e_i)][T_i^L - D_i]\}] - I - \overline{\pi}^F\right\},
\end{aligned}$$

where $e_i \equiv e_{i,i}$ and $e_{i,j}$ is defined in equation (6).

Manipulation of the conditions necessary to maximize this function constitute the proof of properties (i)–(v) of the proposition for the case of $n = N$. The proof for the case where $n < N$ is analogous.

The proof of property (vi) proceeds by allowing for N distinct incentive schemes and showing that N distinct schemes are indeed optimal when conditions (a)–(c) hold. Notice that since

$$\frac{de_i}{dE_i} = \frac{p_e(\theta_i, e_i)}{p_{ee}(\theta_i, e_i)[1 - E_i]}$$

from equation (6), and since $\partial\mathcal{L}^u/\partial e_i = \gamma\phi_i p_e(\theta_i, e_i)E_i[V^H - V^L]$ from the envelope theorem and property (iv) of the proposition, an interior optimum with respect to E_i requires

$$\sum_{k=i+1}^{n} \phi_k[p(\theta_{i+1}, e_{i,i+1}) - p(\theta_i, e_i)] + \phi_i E_i \frac{[p_e(e_i, \theta_i)]^2}{p_{ee}(e_i, \theta_i)[1 - E_i]} = 0 \qquad \forall i = 1, \ldots, N, \tag{A3}$$

where $\sum_{k=N+1}^{N} \phi_j = 0$. Since $E_i/[1 - E_i]$ is strictly increasing in E_i, property (vi) of the proposition follows from (A3) provided

$$G_j \equiv \frac{\sum_{k=j+1}^{N} \phi_k}{\phi_j} \frac{p_{ee}(\theta_j, e_j)}{[p_e(\theta_j, e_j)]^2}[p(\theta_{j+1}, e_{jj+1}) - p(\theta_j, e_j)]$$

is strictly increasing in j, for all $j = 1, \ldots, N - 1$. Conditions (a)–(c) are readily shown to ensure this. *Q.E.D.*

Proof of Proposition 3. The relevant Lagrangian function associated with [RC] can be shown to be

$$\begin{aligned}\mathcal{L}^R = &\sum_{i=1}^{n}\sum_{j\in S_i}\phi_j\{p(\theta_j, e_{i,j})U(V^H - T_i^H) + [1 - p(\theta_j, e_{i,j})]U(V^L - T_i^L)\}\\ &+ \lambda_1\{[1 - E_1][p(\theta_1, e_{1,1})T_1^H + [1 - p(\theta_1, e_{1,1})]T_1^L - D_1] - e_1 - \overline{\pi}^A\}\\ &+ \sum_{i=2}^{n}\lambda_{i,i-1}\{[1 - E_i][p(\theta_{\underline{i}}, e_{i,\underline{i}})T_i^H + [1 - p(\theta_{\underline{i}}, e_{i,\underline{i}})]T_i^L - D_i] - e_{i,\underline{i}}\\ &- [[1 - E_{i-1}][p(\theta_{\underline{i}}, e_{i-1,\underline{i}})T_{i-1}^H + [1 - p(\theta_{\underline{i}}, e_{i-1,\underline{i}})]T_{i-1}^L - D_{i-1}] - e_{i-1,\underline{i}}]\}\\ &+ \sum_{i=1}^{n}\gamma_i\left\{\sum_{k=1}^{N} b_{ki}\{D_i + E_i[p(\theta_k, e_{i,k})T_i^H + [1 - p(\theta_k, e_{i,k})]T_i^L - D_i]\} - I - \overline{\pi}^F\right\}.\end{aligned} \tag{A4}$$

Manipulation of the conditions necessary to maximize this function constitute the proof of properties (i)–(iv), (vi), and (vii) of the proposition. To prove property (v), consider the case of a separating solution, so $n = N$ and $S_i = i$. From equation (5),

$$\begin{aligned}\pi_i(\theta_i) &= [1 - E_i]\{T_i^L - D_i + p(\theta_i, e_i)[V^H - V^L]\} - e_i\\ &= T_i^L + p(\theta_i, e_i)[V^H - V^L] - e_i - I - \overline{\pi}^F.\end{aligned} \tag{A5}$$

The first equality in (A5) employs property (iv) of the proposition; the second employs property (vii). Rearranging (A5) to solve for T_i^L, deriving the analogous expression for T_{i+1}^L, and then employing property (iii) of the proposition provides the following:

$$\begin{aligned}T_{i+1}^L - T_i^L &= [1 - E_i][p(\theta_{i+1}, e_{i,i+1}) - p(\theta_i, e_i)][V^H - V^L] - [e_{i,i+1} - e_i]\\ &\quad - \{[p(\theta_{i+1}, e_{i+1}) - p(\theta_i, e_i)][V^H - V^L] - [e_{i+1} - e_i]\}\\ &< [1 - E_i][p(\theta_{i+1}, e_{i,i+1}) - p(\theta_i, e_i)][V^H - V^L] - [e_{i,i+1} - e_i]\\ &\quad - \{[p(\theta_{i+1}, e_{i,i+1}) - p(\theta_i, e_i)][V^H - V^L] - [e_{i,i+1} - e_i]\}\\ &= -E_i[p(\theta_{i+1}, e_{i,i+1}) - p(\theta_i, e_i)][V^H - V^L] \le 0 \qquad \forall i = 1, \ldots, n-1.\end{aligned} \tag{A6}$$

The inequality in (A6) holds because $E_i > E_{i+1} \ge 0$. The second equality follows from cancelling terms. The proof for the case where $n < N$ is analogous. *Q.E.D.*

The following lemma is employed in the proof of Proposition 4.

Lemma A2. If the principal were risk neutral and if conditions (a)–(c) of Proposition 2 were satisfied, then the solution to [RC] would be a separating solution.

The proof is similar to that of Proposition 2.

Proof of Proposition 4. Let $\tilde{T}^L(r)$ denote the payment from the principal to the agent when V^L is realized under the pooling solution to [RC] most preferred by the principal with utility function $U(W) = (1/r)W^r$, where $r \le 1$ and $r \ne 0$. Also let $T_j^L(r)$ denote the corresponding payment from the principal to the agent when $\theta = \theta_j$ and V^L is realized under the partial-pooling or separating policy that, among all feasible partial-pooling or separating solutions to [RC], is the policy most preferred by the principal with utility function $U(W) = (1/r)W^r$. Also define $\tilde{W}^L(r) = V^L - \tilde{T}^L(r)$ and $W_j^L(r) = V^L - T_j^L(r)$. Property (v) of Proposition 3 ensures that for all relevant r, $W_j^L(r) < \tilde{W}^L(r)$ and $W_j^L(r) > \tilde{W}^L(r)$ for j sufficiently large.

Define $\underline{D} \equiv \max_j(W_j^L(r)/\tilde{W}^L(r)) < 1$. Also define $\overline{D} \equiv \max_j(W_j^L(r)/\tilde{W}^L(r)) > 1$. Now observe that

$$\begin{aligned}\sum_{j=1}^{N}\phi_j[U(\tilde{W}^L(r)) - U(W_j^L(r))] &= [U(\tilde{W}^L(r)) - U(W_1^L(r))]\left[\phi_1 + \sum_{j=2}^{N}\phi_j\left[\frac{U(\tilde{W}^L(r)) - U(W_j^L(r))}{U(\tilde{W}^L(r)) - U(W_1^L(r))}\right]\right]\\ &= \frac{[\tilde{W}^L(r)]^r}{r}\left[1 - \left(\frac{W_1^L(r)}{\tilde{W}^L(r)}\right)^r\right]\left[\phi_1 + \sum_{j=2}^{N}\phi_j\left(\frac{1 - [W_j^L(r)/\tilde{W}^L(r)]^r}{1 - [W_1^L(r)/\tilde{W}^L(r)]^r}\right)\right]\\ &\ge \frac{[\tilde{W}^L(r)]^r}{r}\left[1 - \left(\frac{W_1^L(r)}{\tilde{W}^L(r)}\right)^r\right]\left[\phi_1 + \sum_{j=2}^{N}\phi_j\left(\frac{1 - \overline{D}^r}{1 - \underline{D}^r}\right)\right].\end{aligned} \tag{A7}$$

Since $(1 - \overline{D}_r)/(1 - \underline{D}_r) \to 0$ for r sufficiently small, the lattermost expression in (A7) will be strictly positive for r sufficiently small. Therefore (A7) ensures that the solution to [RC] will be a pooling solution when r is sufficiently small.

The fact that the optimal equity stake for the financier in the pooling solution maximizes the expected value of this stake follows immediately from the arguments that follow the statement of Proposition 4 in the text.

Now consider the case where $r \to 1$, so the principal becomes risk neutral. Let $\hat{T}_j^L(r)$ denote the payment from the principal to the agent when $\theta = \theta_j$ and V^L is realized under the separating solution to [RC] most preferred by the principal with utility function $U(W) = (1/r)W^r$. Similarly, let $\hat{\hat{T}}_j^L(r)$ denote the payment from the principal to the agent when $\theta = \theta_j$ and V^L is realized under the pooling or partial-pooling solution to [RC] most preferred by the principal with utility function $U(W) = (1/r)W^r$. Also define $\hat{W}_j^L(r) = V^L - \hat{T}_j^L(r)$ and $\hat{\hat{W}}_j^L(r) = V^L - \hat{\hat{T}}_j^L(r)$.

Lemma A2 ensures there exists a $z > 0$ such that

$$\sum_{j=1}^{N} \phi_j \hat{W}_j^L(1) - \sum_{j=1}^{N} \phi_j \hat{\bar{W}}_j^L(1) = z. \tag{A8}$$

Furthermore, for any feasible solution to [RC] that provides net payoff $\bar{W}_j^L$ to the principal when $\theta = \theta_j$ and V^L is realized, it is apparent that for r sufficiently close to one,

$$\left| \sum_{j=1}^{N} \phi_j \bar{W}_j^L - \sum_{j=1}^{N} \phi_j \frac{(\bar{W}_j^L)^r}{r} \right| < \frac{z}{2}. \tag{A9}$$

Therefore, for r sufficiently close to one,

$$\begin{aligned} \sum_{j=1}^{N} \phi_j \frac{(\hat{W}_j^L(r))^r}{r} &\geq \sum_{j=1}^{N} \phi_j \frac{(\hat{W}_j^L(1))^r}{r} > \sum_{j=1}^{N} \phi_j \hat{W}_j^L(1) - \frac{z}{2} \\ &= \sum_{j=1}^{N} \phi_j \hat{\bar{W}}_j^L(1) + \frac{z}{2} \geq \sum_{j=1}^{N} \phi_j \hat{\bar{W}}_j^L(r) + \frac{z}{2} \\ &> \sum_{j=1}^{N} \phi_j \frac{(\hat{\bar{W}}_j^L(r))^r}{r}. \end{aligned} \tag{A10}$$

The first weak inequality in (A10) follows from the definition of $\hat{W}_j^L(r)$. (A9) ensures that the first strict inequality in (A10) holds. The equality in (A10) follows from (A8). The second weak inequality in (A10) follows from the definition of $\hat{\bar{W}}_j^L(\cdot)$. (A9) ensures that the last inequality in (A10) holds. (A10) ensures that the solution to [RC] will be a separating solution when r is sufficiently close to one. *Q.E.D.*

Proof of Proposition 5. It is not difficult to verify that the necessary conditions for a pooling solution to [RC] include

$$Q(w, E) \equiv \sum_{j=1}^{N} \phi_j^w p(\theta_j, e_j) + E \sum_{j=1}^{N} \phi_j^w p_e(\theta_j, e_j) \frac{de_j}{dE} - p(\theta_1, e_1) = 0, \tag{A11}$$

where

$$[1 - E] p_e(\theta_j, e_j)[V^H - V^L] - 1 = 0 \quad \text{and} \quad \phi_j^w = w\phi_j^A + [1 - w]\phi_j^B. \tag{A12}$$

Since the principal's problem is strictly concave in E, it follows from (A11) that $(dE/dw) \stackrel{S}{=} Q_w(w, E)$. Hence, we need to show $Q_w(w, E) > 0$ at the pooling solution to [RC]. From (A11),

$$\begin{aligned} Q_w(w, E) &= \sum_{j=1}^{N} \left\{ p(\theta_j, e_j) + p_e(\theta_j, e_j) E \frac{de_j}{dE} \right\} \frac{d\phi_j^w}{dw} \\ &= \sum_{j=1}^{N} \left\{ p(\theta_j, e_j) - \frac{E}{[1 - E]} \frac{[p_e(\theta_j, e_j)]^2}{|p_{ee}(\theta_j, e_j)|} \right\} [\phi_j^A - \phi_j^B]. \end{aligned} \tag{A13}$$

The second equality in (A13) follows from (A12). $p(\theta_j, e_j)$ is increasing in j because $p(\theta_j, e)$ and $p_e(\theta_j, e)$ are

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FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 30.4

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Corporate Income Taxes, Valuation, and the Problem of Optimal Capital Structure

This paper is concerned mainly with the effects of corporate income taxes on the relationship between capital structure and valuation. If the interest tax savings cease once a firm has gone bankrupt, it is apparent that the issue of additional debt will have two effects on the value of the firm: on one hand, it will increase the tax savings to be enjoyed so long as the firm survives; on the other hand, it will reduce the probability of the firm's survival for any given period. Depending on which of these conflicting influences prevails, the value of the firm may increase or decrease as additional debt is issued. The option pricing framework is used to relate the value of a levered firm to the value of an unlevered firm, the amount of debt, and the time to maturity of the debt.

I

Most aspects of the theory of capital structure and valuation in perfect capital markets with no corporate income tax have by now been investigated.[1] Somewhat less attention, however, has been directed to the effects of the corporate income tax on the relationship between capital structure and valuation,[2] although it is the corporate income tax which lends most of the interest to the optimal capital structure problem and although the conclusions reached by Modigliani and Miller (1963) were much more tentative when corporate income taxes were introduced.

Analysis of the effects of the corporate income tax is of interest not only because corporate income taxes do in fact exist but because the analysis appears to lead to the conclusion that an optimal capital structure will consist almost entirely of debt. This conclusion leads to inconsistency between the premise that managements act so as to maximize the wealth of stockholders and the empirical observation that most firms eschew highly levered capital structures. Modigliani and Miller themselves attribute this discrepancy be-

* The authors are grateful to Robert Hamada for helpful comments.

1. Durand (1952), Modigliani and Miller (1958), Solomon (1963), Stiglitz (1969, 1972), Smith (1972), and Milne (1975).

2. See, however, Hamada (1969), Kraus and Litzenberger (1973), and Rubinstein (1973).

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tween the predictions of their model and the observed reality to the effects of the personal income tax, which may make retained earnings a cheaper source of finance than debt, and to "the need for preserving flexibility," which is "not fully comprehended within the framework of static equilibrium models, either our own or those of the traditional variety" (1963, p. 443). Subsequent writers have attempted to explain the low levels of leverage observed by resort to "bankruptcy costs" (Robichek and Myers 1965; Kraus and Litzenberger 1973), though the nature and empirical significance of these costs has received scant attention (however, see Baxter 1967; Warner 1975), suggesting that they may perhaps be no more than a convenient hypothesis to reconcile the theory with the data. Finally, observed capital structures may be explained by the hypothesis that managements are more interested in their own job security and other agency costs, and hence in the avoidance of bankruptcy, than they are in the maximization of the wealth of stockholders (Donaldson 1963; Jensen and Meckling 1976).

This paper is concerned mainly with relaxing the assumption that the tax savings due to debt issuance constitute a "sure stream." Modigliani and Miller themselves acknowledge that "some uncertainty attaches even to the tax savings, though, of course, it is of a different kind and order from that attaching to the stream generated by the assets" (1963, n. 5). They attribute this uncertainty to two causes: first, the possibility of future changes in the tax rate and, second, the possibility that at some future date the firm may have no taxable income against which the interest payments on the debt may be offset.

In this paper we consider the latter possibility, noting in particular that once a firm has gone bankrupt the interest tax savings will cease. Once this possibility is acknowledged, it is apparent that the issue of additional debt will have two effects on the value of the firm: on one hand, it will increase the tax savings to be enjoyed so long as the firm survives; on the other hand, it will reduce the probability of the firm's survival for any given period. Depending on which of these conflicting influences prevails, the value of the firm may increase or decrease as additional debt be issued. It seems reasonable to suppose a priori that, as additional debt is issued from a small base, the survival probabilities of the firm will not be substantially affected, so that the former influence will outweigh the latter and the value of the firm will increase, but that at high initial levels of debt further increments of debt may so affect the survival probabilities that the value of the firm will actually decrease. If such is the case, then an optimal capital structure may exist even without the existence of bankruptcy costs.

The analysis of this paper rests on the Modigliani-Miller (1958) risk-class assumption and compares the value of the levered firm with an otherwise-identical unlevered firm. By assuming that the levered and unlevered firms are identical in all respects save their capital structures, we are neglecting the possibility that the managers of the

levered firms will be induced to alter their investment decisions by the structure of the firm's liabilities. This may occur first because managers are concerned to avoid bankruptcy and its attendant costs and second because in making investment decisions they take account of redistribution effects between bondholders and stockholders.[3] Following Modigliani and Miller, we take as given the existence of an unlevered firm and do not enquire why such a firm should exist if there is any advantage to the issue of debt. The value of the levered firm is assumed to be a function of the value of the unlevered firm, the amount of debt outstanding, and the time to maturity of the debt. This specification, together with the assumption that the value of the unlevered firm follows a Gauss-Wiener process, enables us to derive a differential equation relating the values of the unlevered firm and the levered firm. This differential equation is identical with that derived by Black and Scholes (1973) and Merton (1973) for the option-pricing problem. Specification of appropriate boundary conditions then permits a solution of the differential equation, yielding the value of the unlevered firm in terms of the value of the levered firm, the par value of the outstanding debt (and the interest rate on the debt), and the maturity of the debt. Since the methodology employed is sufficiently flexible to allow for bankruptcy costs also, without significant additional complications, and since many authors have regarded these as important, they are included in the model formulation and in one of the numerical examples which follow.

II

It is assumed that the market value of a levered firm, V, may be written solely as a function of the value of an otherwise identical unlevered firm, U, which belongs to the same risk class and has the same earnings and investment policy; the face value of the debt outstanding, B, and the coupon rate on the debt, i; and time, t, which enters the valuation expression because the debt is assumed to have a finite maturity, T. Thus the value of the levered firm may be written as

$$V \equiv V(U,B,i,t). \tag{1}$$

Simple equilibrium considerations dictate that the ratio V/U must be a function solely of the leverage ratio[4] B/U, i, and t, so that (1) may be written as

$$V = UV(1,B/U,i,t). \tag{2}$$

3. Note that the firm-value-maximizing investment policies will be dependent on capital structure to the extent that bankruptcy costs are significant. For a detailed discussion of the distinction between firm-value-maximizing investment decisions and equity-value-maximizing decisions, see Galai and Masulis (1976).

4. This follows from the basic homogeneity property that two levered firms with the same leverage ratio have twice the value of one.

Equation (2) will prove useful when we wish to examine the relationship between V and the leverage ratio for a given value of U. We shall actually solve (1) for different values of U and a fixed value of B. Equation (2) then permits us to derive from that solution V in terms of B for a given value of U.

Since we shall be considering the relationship between V and U for fixed values of B and i, it will be convenient to write (1) as

$$V \equiv V(U,t). \tag{3}$$

In between dividend payments which are assumed to occur at discrete intervals, the value of the unlevered firm is assumed to follow the Gauss-Wiener process[5]

$$\frac{dU}{U} = \mu\, dt + \sigma\, dz, \tag{4}$$

where dz is a Gauss-Wiener process and $E[dz] = 0$, $E(dz)^2 = dt$.

Then, assuming that trading takes place continuously, it can be shown that arbitrage considerations imply that the value of the levered firm between dividend dates must follow the differential equation

$$\tfrac{1}{2}\sigma^2 U^2 V_{uu} + rUV_u + V_t - Vr = 0, \tag{5}$$

where r is the known, constant, risk-free rate of interest and subscripts denote partial derivatives. Equation (5) is derived by forming a zero net investment portfolio consisting of investments in the levered firm, the unlevered firm, and the risk-free asset such that the return on this portfolio must be nonstochastic; its return must therefore be zero.

We consider next the boundary conditions which must be satisfied by the differential equation.

First, at the maturity of the debt, T, we have

$$\begin{aligned} V(U,T) &= U \text{ for } U \geq B, \\ &= U\text{-}C(U), \text{ for } U < B, \end{aligned} \tag{6}$$

where $C(U)$ is the bankruptcy costs that will be incurred if a firm whose unlevered value is U files for bankruptcy. To consider first the case in which $U \geq B$ so that bankruptcy at maturity is avoided, the value of the levered firm is equal to the value of the unlevered firm. This is because we are considering the effect on firm value of a single issue of debt, so that when that debt matures, if bankruptcy is avoided, levered and unlevered firms are in all respects identical and must therefore command the same market value. No loss of generality is involved in this assumption, since the date at which the levered firm reverts to being an

5. This stochastic process has been frequently employed in models of this kind (Black and Scholes 1973; Merton 1973); it implies that the value of U at any future instant follows the lognormal distribution.

unlevered firm may be made as distant as desired.[6] If $U < B$, the levered firm must file for bankruptcy, in which case costs $C(U)$ are incurred which serve to reduce the value of the levered firm below that of the corresponding unlevered firm.

Since the assets of the levered and unlevered firms are at all times identical, we assume that they both pay identical constant dividends,[7] D. Then at a dividend date the following boundary condition holds:

$$V(U,t^-) = V(U\text{-}D,t^+) + D, \tag{7}$$

where t^- and t^+ denote the instants before and after the dividend, respectively. Equation (7) expresses the cum-dividend value of the levered firm as the sum of its ex-dividend value and the value of the dividend paid. Note that the dividend payment causes the value of the unlevered firm to fall by the amount D.

The dividend may be made a function of the firm's economic fortunes by making it a function of U and t. Moreover, a negative value of D may be introduced to represent the issue of additional stock. In the interests of simplicity, we assign a fixed value to D.

In addition to paying dividends, the levered firm must also make periodic coupon payments, iB. Each coupon payment will reduce the value of the firm's assets by $iB(1\text{-}\tau)$ after giving effect to the concomitant tax savings, where τ is the corporate tax rate. Since the assets of the levered firm are by assumption identical with those of the unlevered firm which makes no such coupon payments, it is necessary to assume that the assets of the levered firm are restored by the issue of stock in the amount $iB(1\text{-}\tau)$. Then at a coupon payment date, t,

$$\begin{aligned} V(U,t^-) &= V(U,t^+) + iB - (1\text{-}\tau)iB, \\ &= V(U,t^+) + \tau iB. \end{aligned} \tag{8}$$

Equation (8) is derived by expressing the precoupon value of the levered firm as the sum of its postcoupon value and the coupon received, less the value of the stock sold to make the coupon payment $(1\text{-}\tau)iB$.

To simplify subsequent numerical examples, it is assumed that dividend and coupon payments are made on the same day, so that, if (7) and (8) are combined, the joint effects of coupon and dividend payments are represented by the boundary condition

$$V(U,t^-) = V(U\text{-}D,t^+) + D + \tau iB. \tag{9}$$

The remaining boundary condition relates to the conditions under which the firm becomes bankrupt and the value of the firm when it becomes bankrupt. The value of a bankrupt levered firm is equal to the

6. This point will be illustrated later in conjunction with figs. 5 and 6.

7. We could have assumed equivalently that the levered firm retired a corresponding amount of debt and equity as long as the ratio B/U was maintained.

value of an identical unlevered firm less the costs of bankruptcy, since the assets of the levered firm, to be taken over by the creditors, are by definition identical with those of the unlevered firm before allowance is made for the costs of bankruptcy.

It is assumed that the firm will become bankrupt if, on a coupon date, the value of its assets (i.e., the corresponding value of an unlevered firm) is less than some critical value. The lowest conceivable critical value is $(1-\tau)iB$, the net interest obligation; a more reasonable one, and the one adopted here, is the par value of the outstanding bonds, B, so that the firm is assumed to become bankrupt when its value falls to the par value of its outstanding bonds.

Then, if we combine this condition with (9), the value of the firm on a coupon/dividend date is given by

$$\begin{aligned} V(U,t^-) &= V(U-D,t^+) + D + \tau iB \text{ for } U \geq B, \\ &= U-C(U) \qquad\qquad \text{for } U < B. \end{aligned} \tag{10}$$

In summary, the value of the levered firm is given by the solution to the differential equation (5), subject to the boundary conditions (6) and (10). One further boundary condition is required for the solution algorithm: This is

$$\lim_{U\to\infty} V_u = 1. \tag{11}$$

Equation (11) follows from the consideration that, as the value of a levered firm becomes indefinitely large for a given level of debt commitments, the probability of default becomes arbitrarily small, so that the tax savings become essentially riskless, and the formula analysis of Modigliani and Miller (1963) applies, which implies (11).

Although there exists no closed-form solution to the differential equation subject to the foregoing boundary conditions, a solution may be readily obtained by the use of numerical methods (Brennan and Schwartz 1977). The following section presents the results of such numerical analysis.

III

The data for the basic example, given in table 1, relate to a 25-year bond issue by a firm which pays no dividends and would issue no stock if it were not debt financed.[8] The differential equation was solved for a given level of B ($200), yielding V as a function of U. Equation (2) was then used to derive the ratio V/U as a function of the ratio B/U, and in figure 1 V/U is plotted as a function of the leverage ratio B/V. As is evident from this figure the conjecture is borne out that the possibility

8. To avoid confounding the effect of investment policy and financing policy, it will be recalled that we assumed that the levered firm issues sufficient stock to offset its net interest payment; see eq. (8).

TABLE 1 **Parameters for Basic Example**

Debt maturity (T)	25 years
Debt par value (B)	$200
Debt coupon rate (i)	.07/year
Risk-free interest rate (r)	.06/year
Corporate tax rate (τ)	.50
Unlevered-firm variance rate (σ^2)	.05/year
Aggregate annual dividend (D)	$0
Bankruptcy cost (as fraction of firm value at bankruptcy) (BC)	.00

of a bankruptcy, with the resulting uncertainty of tax savings, is sufficient to lead to an optimal capital structure even in the absence of bankruptcy costs. For the given parameters, the optimal leverage ratio, B/V, is 54%, and at the optimum the value of the levered firm exceeds that of the unlevered firm by 23%—the maximum leverage premium.[9]

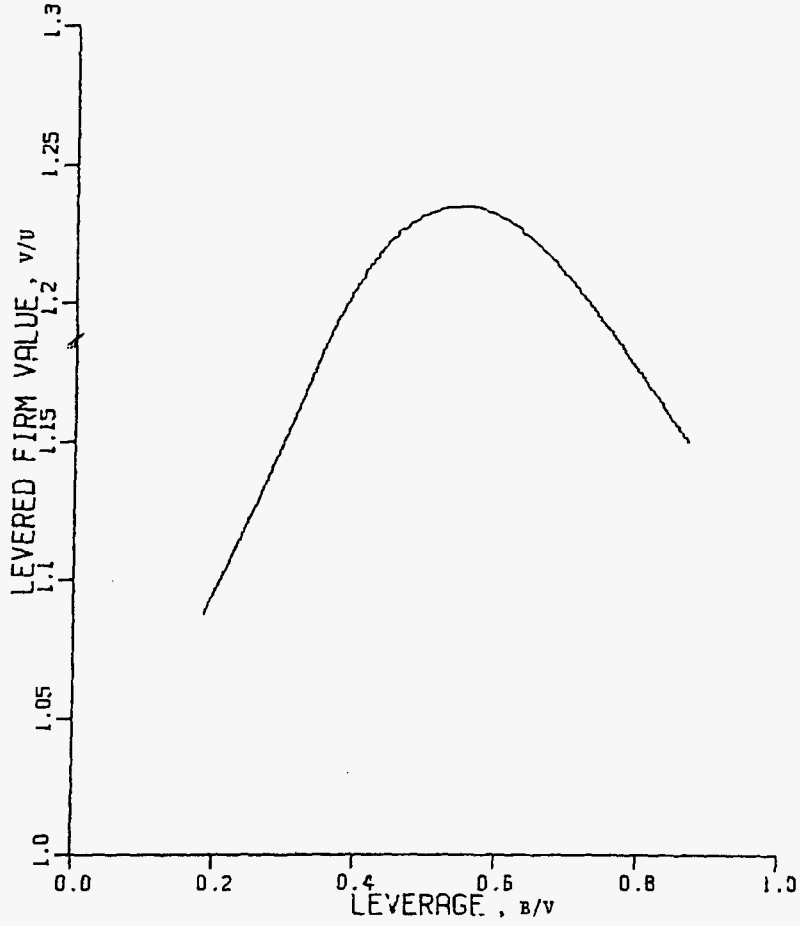

FIG. 1.—Firm value as a function of leverage: basic example

9. Care should be taken in interpreting this leverage ratio, which is the ratio of the book value of a 7% bond to the market value of the firm. It is likely that this ratio understates the true market-value leverage ratio for low values of the ratio and overstates it for high values of the ratio, since the relationship between the bond's market and book values will depend on the risk of the bond and hence on the leverage ratio.

Figure 2 illustrates the effect of business risk on the value of levered firm and the optimal leverage ratio. Different levels of busi risk are represented by different variance rates for the unlevered f As would be expected, the more risky the firm (the higher the varia rate), the less the advantage of debt and the lower the optimal leve ratio, because of the higher probability of bankruptcy for a gi leverage ratio. Thus for a variance rate of 0.02 the optimal lever ratio is 60% and the maximum leverage premium is 30%, while fc variance rate of 0.08 these figures drop to 51% and 22%, respective

In figure 3 the relationship between value and leverage is shown different payout policies. This figure should not be construed as in cating that dividend policy matters in the Modigliani-Miller sense (M ler and Modigliani 1961), for in this model dividends are not offset stock issues while investment remains constant: rather, the differe dividends represent different investment policies, so that a bigger d idend corresponds to a reduction in the exogenously determined as growth rate. Not surprisingly, the reduced asset growth rate, li

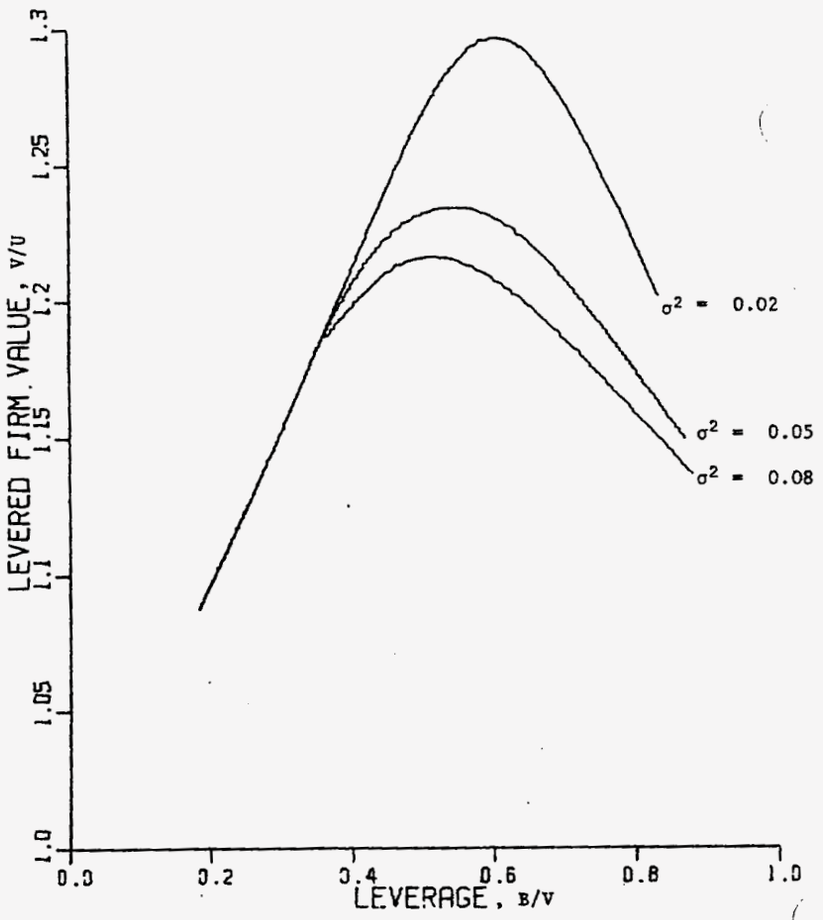

FIG. 2.—Business risk, firm value, and leverage

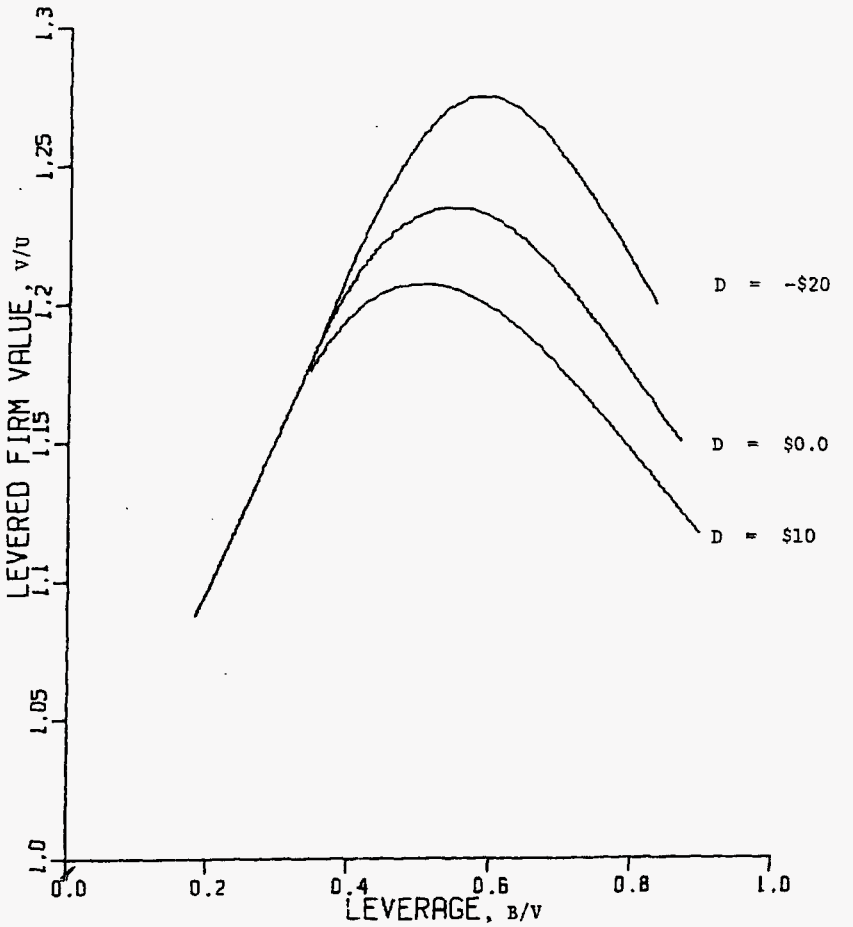

FIG. 3.—Payout policy, firm value, and leverage

increased business risk, raises the probability of bankruptcy for a given leverage ratio, so that the greater the dividend, the less the advantage of debt and the lower the optimal leverage ratio. The negative dividend of $20 represents an annual stock issue of $20 (10% of the par value of the debt); this exogenous infusion of funds enhances the security of the debt and reduces the probability of bankruptcy. For $D = -\$20$ the optimal leverage ratio is 59% and the maximum leverage premium is 27%, while for $D = \$10$ the corresponding figures are 50% and 21%. Clearly an important determinant of the value of a levered firm and of its optimal capital structure is its investment policy (stock issues less dividends): the lower this net investment, the lower the value of the firm and the optimal leverage ratio.

In figure 4, the influence of proportional bankruptcy costs is depicted; the differential bankruptcy costs are assumed to be proportional to the value of the unlevered firm at the time of bankruptcy. The additional influence of bankruptcy costs over and above the tax effect is perhaps surprisingly small at the optimum. Even with a

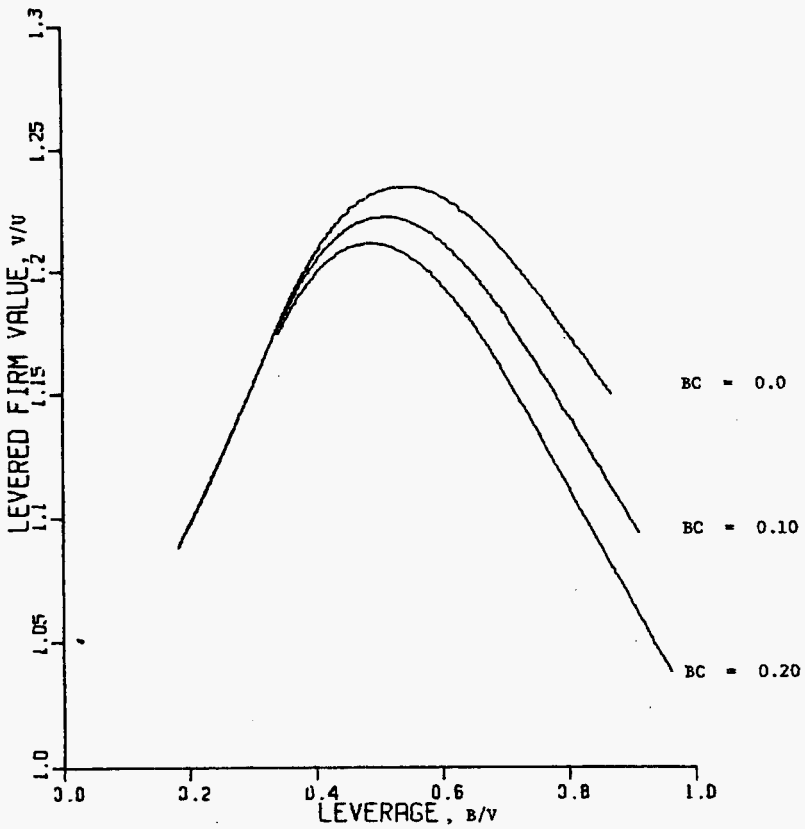

FIG. 4.—Bankruptcy cost ratio, firm value, and leverage

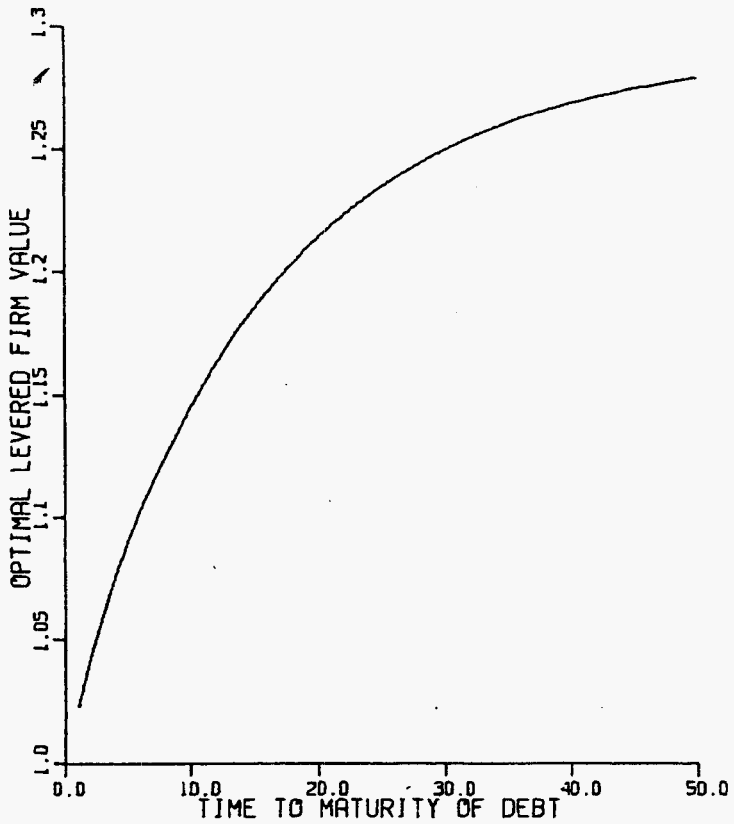

FIG. 5.—Optimal levered-firm value and time to maturity of debt

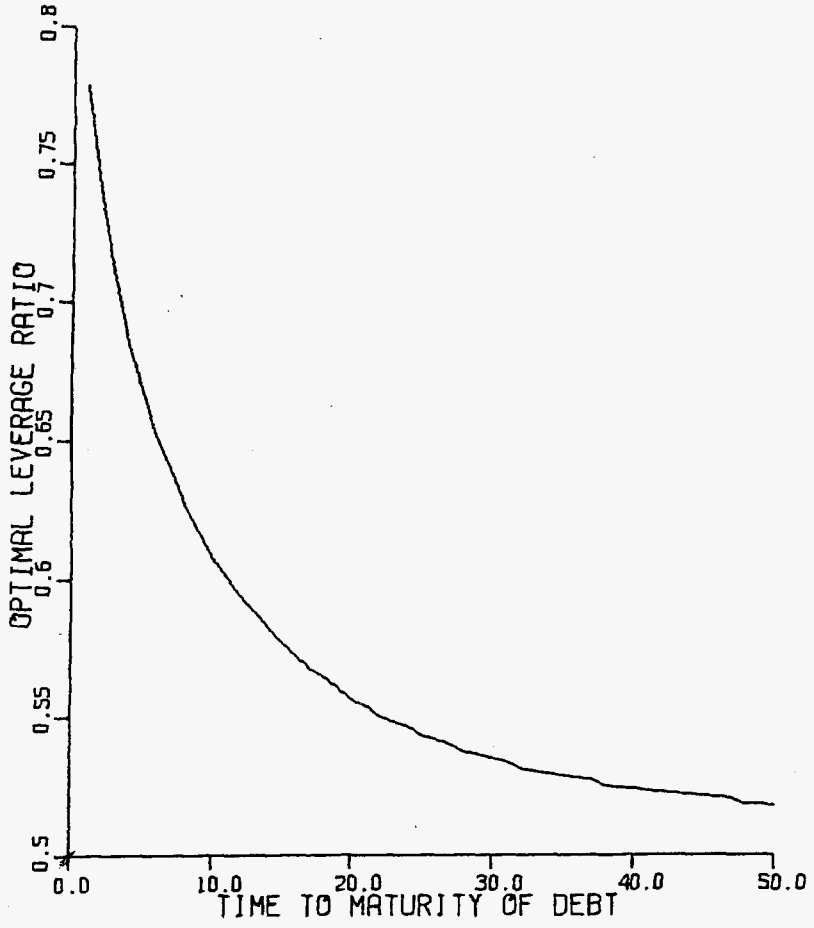

FIG. 6.—Optimal leverage ratio and time to maturity of debt

differential bankruptcy cost ratio (*BC*) of 20%, the optimal leverage ratio only falls from 54% to 49%, while the maximum leverage premium falls from 23% to 21%.

Finally, figures 5 and 6 show the effect of the maturity of the debt on the optimal value of the levered firm and the optimal leverage ratio, respectively, for the basic example. As the maturity of the debt increases, the corresponding maximum leverage premium tends asymptotically to 28% and the optimal leverage ratio to 52%. We see that, by making the date at which the levered firm reverts to being an unlevered firm distant enough, we can obtain results which approximate the permanent (infinite maturity) debt case considered by Modigliani and Miller.

Note that, due to the terminal boundary condition (6), the optimal leverage ratio and firm value depend on the maturity of the debt. This is because we are considering the incremental effects of a single debt issue. In reality, short-term debt may be rolled over, and, in the

absence of transactions costs, it will be optimal to issue and redeem debt continuously, for in this way bankruptcy may be avoided while the tax savings are still enjoyed.

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An Implication of the Modigliani-Miller Capital St Theorems on the Relation between Equity and Debt[1]

Ruben D. Cohen[2,3]

Abstract

We illustrate here the effects of the Modigliani-Miller theorems on capital structuring, emphasising especially on the relationship between equity and debt. This is carried out numerically via a simplified financial statement, which takes us through the methodology that leads to the ROE, WACC and firm's value, all plotted against leverage.

Introduction

The Modigliani and Miller (M&M) theorems on capital structuring have, inarguably, laid down the foundations for modern corporate finance. There are several principles that underlie these theorems and two of these, which are most relevant to this paper, may, very simply, be reiterated as follows:

1. In the absence of taxes, there are no benefits, in terms of value creation, to increasing leverage.
2. In the presence of taxes, such benefits, by way of interest tax shield, do accrue when leverage is introduced and/or increased.

An outcome of the above, whose proof can be found in almost any academic finance text [see, for instance, chapter 16 of Ross *et al* (1998) or chapter 18 of Brealey and Myers (1996)], is that the value added to a firm by taking on a debt of, let us say, D, is

$$\Delta V = DT \qquad (1a)$$

where ΔV is the incremental value added and T is the tax rate. It, thus, follows that the value, V_L, of the levered firm becomes:

$$V_L = V_u + DT \qquad (1b)$$

where V_u is the value of the unlevered firm. Simply stated, therefore, the value of the levered firm is that of its unlevered counterpart, plus the present value of the interest tax shield, which is DT.

We will now implement the above to illustrate how debt and equity are coupled to each other when a firm decides to take on debt to buy back its

[1] June, 2001. http://rdcohen.50megs.com/MMabstract.htm
I am grateful to Professors Narayan Naik and Michel Habib, of the London Business School, for their helpful comments. I express these views as an individual, not as a representative of companies with which I am connected.
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shares - or alternatively, when it issues shares to pay down debt. The approach used here will be simplistic and numerical in nature, with intent to illustrate how a firm's financial statement [income statement and balance sheet] is affected when the amount of debt changes. For the sake of simplicity, and for the time being, it shall be assumed that the cost of debt remains constant throughout – i.e. the firm experiences no default risk as it raises its leverage. Including these effects is quite trivial, however, but it shall not be pursued at this point. An accompanying paper, instead, focuses on it (Cohen, 2001).

Analysis

We plan to investigate here the evolution of a simple firm, which initially has all its assets backed by equity[4]. The firm then issues debt to buy back shares and, in the process, its value will rise, owing to debt-related tax benefits. We shall consider three scenarios, whereby:

1. The firm has an initial asset base [value] of *100* and no debt [*Scenario I*]. The equity, *E*, of this firm is, therefore, *100* and should, thus, represent the unlevered firm's value, V_u. We further assume that this firm has an "expected" *EBIT*[5], of *20* and pays tax and interest at constant rates of *40%* and *5%*, respectively. Subsequently, this firm will have a financial statement similar to that shown in Figure 1.
2. In *Scenario II*, the firm takes on a debt, *D*, of *50* to buy back some of its shares. One of M&M's outcomes, which is Equation 1, states that the firm's value should increase by *DT*. According to our numbers, this equates to *20*, which when added to the asset base, raises it from *100* to *120*. It also follows that the firm must pay an interest of *2.5* [= *50* x *5%*].

   The consequence of the above is a financial statement that resembles the one shown in Figure 2. It is important to note here that the capacity to buy back shares is only *30*, as the remaining *20* of the debt of *50* must be added to the asset base in the form of new investments, cash, etc.[6]
3. In *Scenario III*, the firm takes on additional debt of *30* on top of the *50* in *Scenario II*. The total debt of *80* will thus create a tax-benefit-related value of *32* over the initial base case of *100* in *Scenario I*. As shown in Figure 3, therefore, the firm's value will total *132*, with a debt of *80* and a balancing equity of *52*. The firm will also have to pay interest of *4* [= *5%* x *80*].

Discussion

Let us now move on and discuss the consequences of debt on the financial statement, as well as on a pair of relevant ratios, namely the return on [or cost of][7] equity, *ROE*, and the weighted average

[4] For the time being, and for simplicity, we assume that the market and book equities are one and the same. In reality, however, the two are different and should be treated differently. This argument will be left out of this note, as it is out of its scope.

[5] The "expected" *EBIT* is that which reproduces the stock's total rate of return. It, thus, incorporates, along with the net profits, interest paid and taxes, the beta of the stock, the risk-free rate, as well as the market's risk premium. See Cohen (2001) for the analytical formulation.

[6] The increase in a firm's value due to interest tax shield is not goodwill. In fact, goodwill plays no part in M&M's theorem.

[7] Under the idealised assumptions stated in Footnotes 4 and 5, the cost of equity becomes equivalent to the return on equity.

cost of capital, *WACC*. Traditionally, these are defined as:

$$WACC \equiv \frac{expected\ EBIT \times [1 - tax\ rate]}{debt + equity} \quad (2a)$$

and

$$ROE \equiv \frac{expected\ profit}{equity} = \frac{[expected\ EBIT - interest] \times [1 - tax\ rate]}{equity} \quad (2b)$$

For convenience, we have collated the results of the 3 scenarios in Table 1 and produced Figures 4 and 5, which, respectively, portray *E versus D*, as well as *WACC* and *ROE* against leverage, *D/E*.

Looking at Figure 4, we observe that equity, *E*, falls linearly with debt, *D*. This, of course, is due to share buyback. However, we also note that the relation between the two is

$$E + 0.6D = 100 \quad (3)$$

which, more generally, formulates into:

$$E + (1 - T)D = constant \quad (4)$$

where the *constant* is the unlevered firm's value, V_u, as introduced in Equation 1b. Also, plots of *WACC* and *ROE*, both of which are presented in Figure 5, appear to behave as theory dictates, with *ROE* rising in a straight-line fashion and *WACC* falling non-linearly with *D/E*.

General Remarks

We now ask "why bother with all this?" The reason is that credit analysis and optimisation of capital structure constitute a major segment in many banking activities. These activities cover, to name just a few, corporate finance, investment, financial analysis and plain, general research. Nevertheless, it is noted that in a large number of these studies, the capital, i.e. the sum, $E + D$, is taken as constant.

In reference to Equation 4, however, we observe that this translates into the special case of no taxes - *i.e.* let $T = 0$ in Equation 4 and we recover $E + D = constant$. M&M's Proposition I, never the less, states that with no taxes, there are no debt-related tax benefits, and with no such benefits [assuming everything else remains constant] there is no optimal capital structure. With no optimal capital structure, therefore, one could only conclude that the whole notion [based on the contention that $E + D = constant$] of trying to locate the optimal capital structure becomes self-contradictory and, thus, meaningless!

And last, but not least, what would happen, in the mathematical sense, if $E + D = constant$ were to be used instead of Equation 4? Ignoring the details, which are out of the scope of this work, each and every *WACC versus D/E* point that is derived in this way will lie on a different *WACC* curve.

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	D	E	D/E	ROE	WACC
Scenario I	0	100	0.00	12.0%	12.0%
Scenario II	50	70	0.71	15.0%	10.0%
Scenario III	80	52	1.54	18.5%	9.1%

Table 1 – The results of the three different scenarios depicted in Figures 1-3.

Income Statement	
Expected EBIT	***20***
Interest (at 5%)	0
EBT	***20***
Tax (at 40%)	8
Expected profit	***12***
Balance Sheet	
Assets	***100***
Debt	0
Equity	100
Total Debt & Equity	***100***
Relevant Ratios	
D/E	***0.00***
ROE	***12.0%***
WACC	***12.0%***

Figure 1 – *Scenario I*'s financial statement, where the firm has no debt.

Income Statement	
Expected EBIT	***20***
Interest (at 5%)	2.5
EBT	***17.5***
Tax (at 40%)	7
Expected profit	***10.5***
Balance Sheet	
Assets	***120***
Debt	50
Equity	70
Total Debt & Equity	***120***
Relevant Ratios	
D/E	***0.71***
ROE	***15.0%***
WACC	***10.0%***

Figure 2 – *Scenario II*'s statement, where the firm takes on a debt of *50* to buy back shares.

Income Statement	
Expected EBIT	***20***
Interest (at 5%)	4
EBT	***16***
Tax (at 40%)	6.4
Expected profit	***9.6***
Balance Sheet	
Assets	***132***
Debt	80
Equity	52
Total Debt & Equity	***132***
Relevant Ratios	
D/E	***1.54***
ROE	***18.5%***
WACC	***9.1%***

Figure 3 – *Scenario III*'s statement, where the firm takes on more debt to buy back shares.

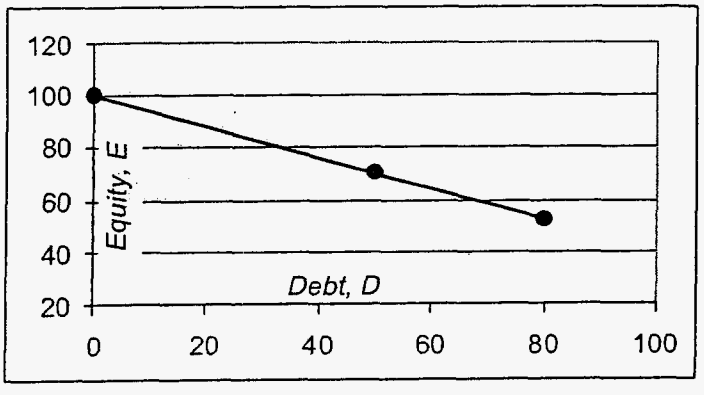

Figure 4 – The relationship between debt and equity. The numbers are taken from Figures 1-3

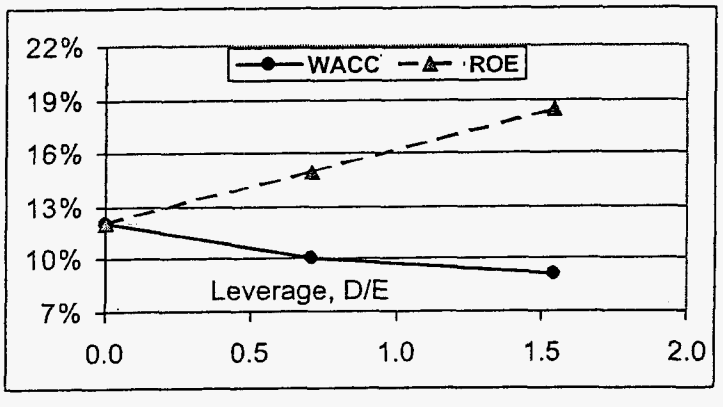

Figure 5 – The behaviour of *WACC* and *ROE* plotted against leverage, *D/E*.

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OPTIMAL CAPITAL STRUCTURE: PROBLEMS WITH THE HARVARD AND DAMODARAN APPROACHES

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OPTIMAL CAPITAL STRUCTURE: PROBLEMS WITH THE HARVARD AND DAMODARAN APPROACHES

Abstract

In this paper we will present an analysis of the optimal capital structure using two examples: one proposed by the Harvard Business School and the other proposed by Damodaran.

First, we highlight certain inconsistencies in the debt and equity costs assumed by the Harvard Business School note from a number of viewpoints. We calculate the incremental cost of debt implied in Harvard's note and we find also inconsistencies: surprisingly, the last two debt increments have a cost of 14.75% and 18.5%, while the required return to equity in the unlevered company is 12%. With respect to the cost of debt, the inconsistency is not the cost of debt (the bank can charge whatever interest it likes) but in assuming that the debt's cost is the same as its required return (or that the debt's value equals its nominal value). We also calculate the required return to incremental equity cash flow implied in Harvard's note and we find that the required return first falls, then increases, and then falls again. The required incremental return should fall as the leverage decreases. The probability of bankruptcy almost doubles beyond the optimal capital structure. The difference between the required return to equity and the required return to debt decreases for debt levels above the optimal capital structure. It is also shown that assuming no leverage costs there is no optimal structure (the company's value increases with the debt ratio) and the difference between required return to equity and the required return to debt is constant.

Damodaran (1994) offers a similar approach to that of the Harvard Business School note, but applies it to a real company (Boeing in 1990) and assumes a constant cash flow growth. One problem with Damodaran's results is that the value of the firm (D+E) for debt ratios above 70% is less than the value of debt, which implies a negative value for equity. We calculate the incremental cost of debt implied in Damodaran's example. It can be seen that increasing debt to take the debt ratio from 30% to 40% implies contracting that debt at 21.5%, which is an enormous figure. Stranger still is the finding that the next debt increment (which has a higher risk) is cheaper: it costs 19%. An additional error in Damodaran's calculations is that he calculates the WACC using book values in the weighting, instead of market values. It is also shown that if it is assumed that the debt's market value is the same as its book value, then the capital structure that minimizes the WACC also maximizes the share price. However, without this assumption, the minimum value of the WACC may not occur at the same point as the maximum share price.

JEL Classification: G12, G31, M21

OPTIMAL CAPITAL STRUCTURE: PROBLEMS WITH THE HARVARD AND DAMODARAN APPROACHES

Generally speaking, the optimal capital structure is considered to be that which minimizes the value of the weighted average cost of capital, WACC, and, consequently, maximizes the value of the firm, D+E[1]. We will see that if it is assumed that the debt's market value is the same as its book value, then the capital structure that minimizes the WACC also maximizes the share price. However, without this assumption, the minimum value of the WACC may not be the same as the maximum share price.

We will see that for an optimal structure to exist, it is necessary to assume that the firm's total value (debt + equity + present value of taxes) decreases with leverage. This may happen for two reasons: because the expected FCF decreases with debt level, or because the assets' risk (the FCF's risk and the likelihood of bankruptcy) increases with leverage[2] (or because of a combination of both).

In this paper we will present an analysis of the optimal structure using two examples: one proposed by the Harvard Business School and the other proposed by Damodaran.

1. Optimal structure according to a Harvard Business School technical note[3]

This note analyzes the relationships between the goal of maximizing each share's price and the objective of achieving an optimal capital structure, understanding this to be that which maximizes the firm's value (debt plus equity) and minimizes the weighted average cost of capital (WACC).

The note is based on Table 1, which illustrates a very simple example. A Company has invested 500,000 dollars in plant, machinery and working capital. The investment

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1 It is meaningless to say that the optimal structure is that which maximizes the value of the firm (D+E). This value can be increased simply by asking the bank to increase the cost of debt because D+E = Vu + DVTS. Vu is constant and DVTS increases with higher interest payments.

2 This increase in the assets' risk may be due to their increased volatility or to the increased likelihood of bankruptcy.

3 This section discusses the technical note "Note on the Theory of Optimal Capital Structure", which was included in the book *Case Problems in Finance*, by Fruham et al. (1992). Irwin, 10th edition. This note is analyzed and criticized in the next section.

generates annual earnings before tax and interest (EBIT) amounting to 120,000 dollars to perpetuity. Annual depreciation is equal to new investments and the company distributes all its earnings as dividends. As the tax rate on profit is 50%, the free cash flow is 60,000 dollars to perpetuity.

Table 1. Optimal structure according to a Harvard Business School technical note

	Book value debt ratio (leverage)	0%	10%	20%	30%	40%	50%
2	EBIT, earnings before interest and taxes	120,000	120,000	120,000	120,000	120,000	120,000
3	Interest	0	4,125	8,750	14,625	22,000	31,250
4	Profit before taxes (PBT)	120,000	115,875	111,250	105,375	98,000	88,750
5	Taxes (50%)	60,000	57,938	55,625	52,688	49,000	44,375
6	Profit after taxes (PAT)	60,000	57,938	55,625	52,688	49,000	44,375
7	Dividends = ECF	60,000	57,938	55,625	52,688	49,000	44,375
8	Interest + dividends (3)+(7)	60,000	62,063	64,375	67,313	71,000	75,625
9	**Cost of debt: Kd**	**8.00%**	**8.25%**	**8.75%**	**9.75%**	**11.00%**	**12.50%**
10	**Required return on equity: Ke**	**12.00%**	**12.50%**	**13.00%**	**13.50%**	**14.50%**	**16.00%**
11	Market value of debt D. (3)/(9)	0	50,000	100,000	150,000	200,000	250,000
12	Market value of equity E. (7)/(10)	500,000	463,500	427,885	390,278	337,931	277,344
13	Market value of the firm. (11)+(12)	500,000	513,500	527,885	540,278	537,931	527,344
14	Book value of debt, Dbv	0	50,000	100,000	150,000	200,000	250,000
15	Book value of equity, Ebv	500,000	450,000	400,000	350,000	300,000	250,000
16	Book value of the firm	500,000	500,000	500,000	500,000	500,000	500,000
17	Return on assets ROA = EBIT(1–T)/(16)	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
18	Return on equity = (6)/(15)	12.00%	12.88%	13.91%	15.05%	16.33%	17.75%
19	Number of shares outstanding, NA	5,000	4,513	4,053	3,612	3,141	2,630
20	Price per share, P (12)/(19)	100	102,7	105,5769	**108,06**	107,5862	105,4688
21	Earnings per share, EPS. (6)/(19)	12	12.8375	13.725	14.5875	15.6	16.875
22	Price-earnings ratio, PER (20)/(21)	8.333333	8	7.692308	7.407407	6.896552	6.25
23	Book value debt ratio (14)/(16)	0%	10%	20%	30%	40%	50%
24	Market value debt ratio (11)/(13)	0.00%	9.74%	18.94%	27.76%	37.18%	47.41%
25	Weighted average cost of capital (WACC)	12.00%	11.68%	11.37%	**11.11%**	11.15%	11.38%
26	Free cash flow, FCF = EBIT (1-T)	60,000	60,000	60,000	60,000	60,000	60,000
27	Market value of the firm (26)/(25)	500,000	513,500	527,885	**540,278**	537,931	527,344

The company wants to select its capital structure from among the debt ratios shown in line 1 of Table 1.

Influence of leverage on payments to debt and equity. Lines 1-8 of Table 1 show the impact of the leverage on the company's income statement. In this example, the leverage does not influence the company's profit flows (EBIT) or its free cash flow (line 26). As debt is added to the capital structure, interest payments increase and profits (dividends) fall. Total payments to instrument holders (interest plus dividends) increase with the leverage. This increase arises from the discounted value of the tax shield.

Cost of funds. Lines 9 and 10 of Table 1 show the required return on debt and the required return on equity, that is, the return demanded by investors in order to purchase

the company's debt and equity. As the leverage is increased, both debt and equity are exposed to a higher risk. The risk includes both the possibility of bankruptcy and a higher variability in the annual return. As the level of debt increases, investors demand a higher return in return for accepting the increased risk. The required return (lines 9 and 10) is the key assumption in the analysis of the optimal capital structure. The cost of debt is Kd (line 9), and the company's required return on equity is Ke (line 10). One important point to make is that the cost of debt may be information provided by banks or financial markets, but the required return on equity is an estimate.

Market value of debt and equity. In a perpetuity, the debt's market value (line 11) is equal to the annual interest payments, divided by the required return on debt (I/Kd). Likewise, equity's market value (line 12) is equal to the dividends divided by the required return to equity (Div/Ke). The market value of the company as a whole (line 13) is the sum of the market value of its debt and its equity. In the example, as debt is added to the capital structure, the company's market value (line 13) first increases and then decreases. The highest value for the company, 540,278 dollars, is attained with 150,000 dollars of debt.

Company return versus investor return. Lines 14 to 16 of Table 1 give the book value of debt and equity. It is assumed that the debt's book value is the same as its market value. Lines 17 and 18 show the company's ROA and ROE. The ROA is not affected by leverage and is always 12%. Without any debt, ROA = ROE, but when debt is added, the ROE moves above the ROA, according to the formula[4]:

$$ROE = ROA + [Dbv / Ebv] [ROA - Kd (1 - T)]$$

Dbv and Ebv represent the book value of debt and equity, respectively.

The ROE represents the return on equity's book value; however, the shareholders do not obtain this return, because their return depends on the market value. The shareholder return has very little bearing with the ROE.

Earnings per share and price-earnings ratios. Lines 19 and 20 show the number of shares outstanding and the price per share. The calculations are based on the assumption that, initially, the company has no debt and, in order to attain a certain level of leverage, the company issues debt and buys shares with the proceeds of the debt issue. The following sequence of events is assumed: 1) the company announces its intention to modify its long-term capital structure and issues debt; 2) its share price changes to reflect the company's new value, and 3) the company repurchases shares at the new price. The share price is obtained from the following equation: $P = (E+D)/5{,}000$[5].

Lines 21 and 22 of Table 1 show the earnings per share (EPS) and the PER. Logically, the higher the debt is (and the smaller the number of shares), the higher the EPS is and, therefore, the lower the debt is, the lower the PER is.

Lines 23 and 24 show the debt ratio calculated using book values and market values.

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[4] The reader can deduce this expression from the following formulas, which correspond to the definition of ROA, ROE and PAT: ROA = NOPAT / (Dbv+Ebv) ROE = PAT / Ebv PAT = NOPAT-Kd Dbv(1-T)

[5] This equation is obtained from NAxP = E and from NA = 5,000 - D/P. NA is the number of shares after repurchase.

The weighted average cost of capital. Line 25 shows the average cost of capital (WACC) using the market value debt ratio.

Line 26 shows the company's free cash flow, which is 60,000 dollars.

Line 27 shows the company's value, calculated by discounting the free cash flow at the WACC. Logically, it is the same as that calculated in line 13.

Implications. The most important results obtained from Table 1 are to be found in lines 13, 20 and 25. The company's optimal capital structure is that which *simultaneously*:

a) Maximizes the company's value (13),

b) Maximizes the share price (20), and

c) Minimizes the company's weighted average cost of capital (WACC)[6] (25).

Using the data given in Table 1, the optimal capital structure is attained with $150,000 of debt. Figure 1 shows how the company's optimal capital structure is determined: the company's value is highest and the WACC is lowest with $150,000 of debt (debt ratio = 30%). Figure 2 shows that the share price is also highest with $150,000 of debt (debt ratio = 30%).

Figure 1. Value of the company and WACC at different debt ratios

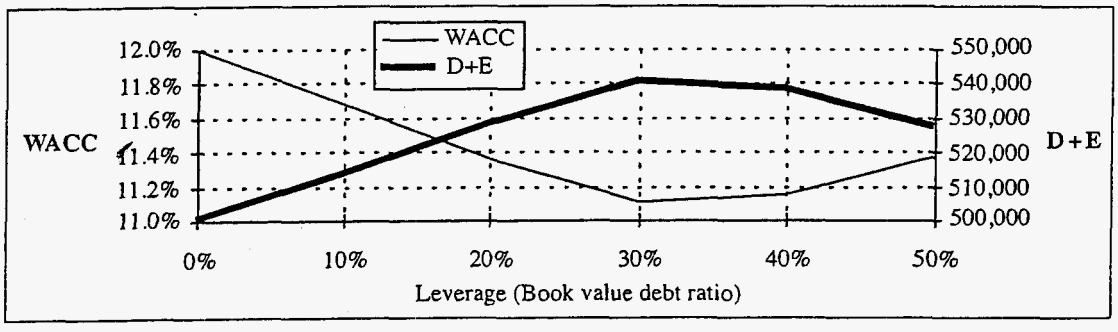
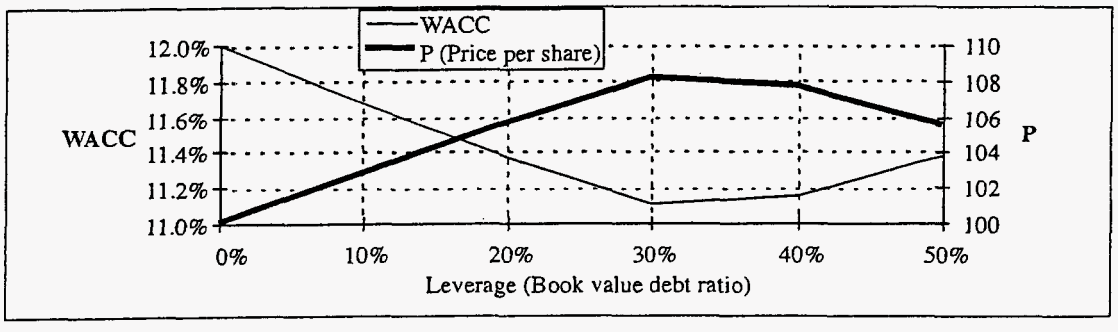


Figure 2. Price per share and WACC at different debt ratios



6 Because we are maximizing (D+E) in all three cases.

2. Critical analysis of the Harvard Business School technical note

The existence of an optimal structure with a debt ratio of 30% depends on debt and equity costs (lines 9 and 10) assumed by the note's author. The reader can see, for example, that with a graph in which Ke grows linearly with the debt ratio, the company's value increases at higher debt ratios. Likewise, if Ke were to be less than 14.4% (instead of 14.5%) for a debt level of $200,000, the optimal structure would be located at D= $200,000.

In this section, we will highlight certain inconsistencies in debt and equity costs (lines 9 and 10) assumed by the note's author from a number of viewpoints.

With respect to the cost of debt, the inconsistency is not the cost of debt (the bank can charge whatever interest it likes) but in assuming that the debt's cost is the same as its required return (or that the debt's value equals its nominal value).

2.1. Present value of the cash flows generated by the company and required return to assets

The sum of debt cash flow, equity cash flow and taxes at different debt levels is shown in line 2 of Table 2.

The tax risk in a perpetuity is the same as the equity risk[7]. Consequently, the discount rate that must be used to calculate the taxes' present value is Ke, as shown in line 28.

Table 2. Value of the cash flows generated by the company and required return to assets

	Book value of debt, D	0	50,000	100,000	150,000	200,000	250,000
5	Taxes	60,000	57,938	55,625	52,688	49,000	44,375
3	Debt cash flow (interest)	0	4,125	8,750	14,625	22,000	31,250
7	Equity cash flow (dividends)	60,000	57,938	55,625	52,688	49,000	44,375
2	Sum = cash flow generated by the firm = EBIT	120,000	120,000	120,000	120,000	120,000	120,000
28	Value of taxes. GOV = (5) / Ke	500,000	463,500	427,885	390,278	337,931	277,344
29	**D + E + GOV = (11) + (12) + (28)**	**1,000,000**	**977,000**	**955,769**	**930,556**	**875,862**	**804,688**
30	**Kassets = (2) / (29)**	**12.00%**	**12.28%**	**12.56%**	**12.90%**	**13.70%**	**14.91%**
31	*Δ Kassets*		*0.28%*	*0.27%*	*0.34%*	*0.81%*	*1.21%*

The company's total value (line 29) decreases with the leverage. There are only two explanations for this:

1. The cash flows generated by the company decrease with the leverage. In this case, this is not so, because it is assumed that the EBIT is $120,000/year, irrespective of debt.

2. The company's risk (and that of its assets) increases with the leverage. This causes this company's value to decrease with the leverage, as we shall see in the

[7] See chapter 17 of Fernández (2001 forthcoming), *Valuation and Shareholder Value Creation.*

following section. One explanation for this is that the providers of capital (shareholders, banks and capital markets) perceive a higher risk (more volatile with a higher likelihood of bankruptcy) in the company as a whole the more debt it includes in its capital structure.

The required return to assets (line 30) increases with the leverage[8], and increases much more when it goes above $150,000 (optimal structure). This sharp increase is the reason why an optimal structure exists.

2.2. Leverage costs

The expression *adjusted present value*, APV, by which the value of the levered company (D+E) is the sum of the value of the unleveraged firm (Vu) plus the discounted value of the tax shield (DT because our firm is a perpetuity) less the cost of leverage, is:

D+E = Vu + DT – Cost of leverage

As we know that Vu = 500,000 (line 16), we can find the value of the cost of leverage (line 32 of Table 3). Note that cost of leverage increases sharply when debt is increased from 150,000 to 200,000. The optimal structure appears just before the increase in the tax shield (line 34) becomes less than the cost of leverage (line 33).

Table 3. Cost of leverage

	Book value of debt, D	0	50,000	100,000	150,000	200,000	250,000
32	Cost of leverage	0	11,500	22,115	34,722	62,069	97,656
33	Δ Cost of leverage		11,500	10,615	12,607	**27,347**	**35,587**
34	Δ (DT)		25,000	25,000	25,000	**25,000**	**25,000**

2.3. Incremental cost of debt

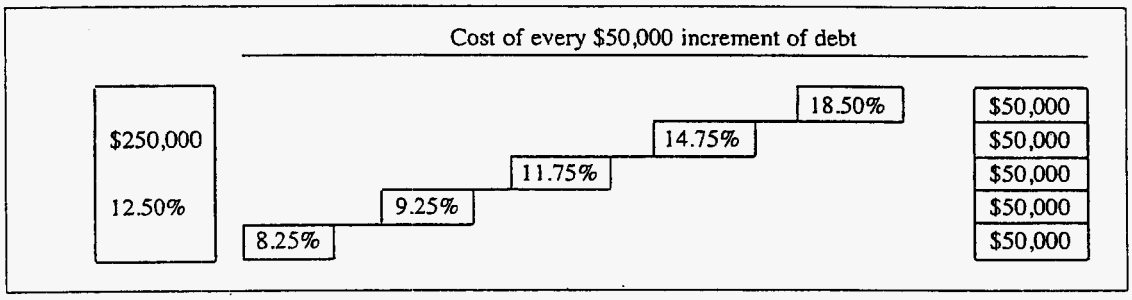
In this section, we will analyze the incremental cost of debt. Table 4 and Figure 3 show this analysis. It will be readily seen that the fact that $100,000 of debt have a cost of 8.75% means that the first $50,000 have a cost of 8.25% and the next $50,000 have a cost of 9.25%. It is a little surprising that the last two $50,000 increments have a cost of 14.75% and 18.5%, particularly considering that the required return to equity in the unlevered company is 12%.

Table 4. Incremental cost of debt

	Book value of debt, D	0	50,000	100,000	150,000	200,000	250,000
35	First 50,000		8.25%	8.25%	8.25%	8.25%	8.25%
36	Next 50,000			9.25%	9.25%	9.25%	9.25%
37	Next 50,000				11.75%	11.75%	11.75%
38	Next 50,000					14.75%	**14.75%**
39	Next 50,000						**18.50%**
40	Average		8.25%	8.75%	9.75%	11.00%	12.50%

[8] The required return to equity can also be obtained from the formula Kassets = [EKe + DKd (1-T)] / [E + D (1-T)]

Figure 3. Composition of the $250,000 of debt, which has an overall cost of 12.5%



2.4. Required return to incremental equity cash flow

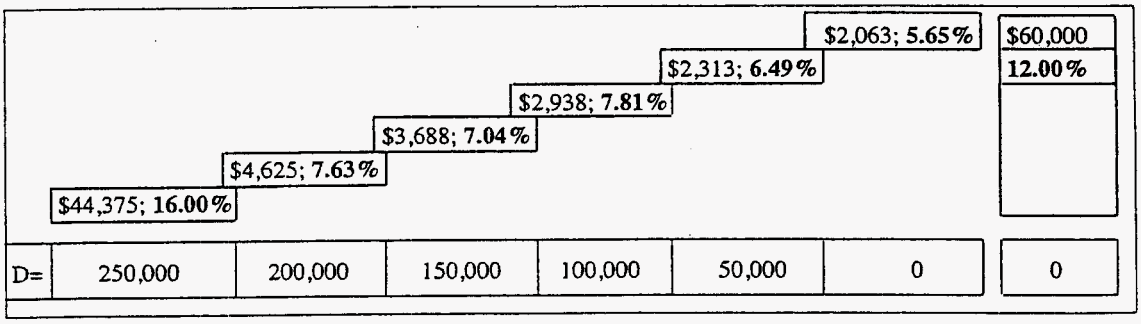
When the debt level is decreased, dividends increase and the shares' value grows. The required return to incremental equity cash flow is calculated in Table 5 and Figure 4 by performing an analysis similar to that performed with debt. The required return to incremental equity cash flow is calculated as follows. ED is the shares' value when the company has a debt D. With this debt level, the dividends are Div. When the debt level is decreased, dividends increase to (Div + ΔDiv) and the shares' value increases from E_D to E_{D-} . Ke^{INC} is the required return to the additional equity. The following equation must be met:

$$Ke^{INC} = \Delta Div / (E_{D-} - E_D)$$

Table 5. Required return to incremental equity cash flow

	Book value of debt, D	0	50,000	100,000	150,000	200,000	250,000
10	Ke	12.00%	12.50%	13.00%	13.50%	14.50%	16.00
	Required return to incremental equity cash flow (from right to left):						
41	Incremental equity cash flow (ΔDiv)	2,063	2,313	2,938	3,688	4,625	
42	Required return to incremental equity cash flow	5.65%	6.49%	7.81%	7.04%	7.63%	

Figure 4. Required return to the incremental equity cash flow when the debt level is decreased



Note that the required incremental return first falls from 7.63% to 7.04%, then increases to 7.81% and then falls again. The increase from 7.04% to 7.81% is an error because the required incremental return should decrease as the leverage decreases.

2.5. Difference between Ke and Kd

Table 7 shows that the difference between Ke and Kd decreases for debt levels above 100,000 dollars.

Table 7. Difference between Ke and Kd

	Book value of debt, D	0	50,000	100,000	150,000	200,000	250,000
43	Ke - Kd	4.00%	4.25%	4.25%	3.75%	3.50%	3.50%
44	Ke - Kd (1-T)	8.000%	8.375%	8.625%	8.625%	9.000%	9.750%

2.6. Price per share for different debt levels

Table 8 shows the price per share if the company's leverage goes from the debt-free situation to the desired level of leverage: it is the same as the price per share (line 20) of Table 1. Line 45 of Table 8 shows the price per share if the company's leverage is increased stepwise: first, $50,000 of debt are added, then another $50,000 and so on.

Table 8. Price per share for each step of debt level

	Book value of debt, D	0	50,000	100,000	150,000	200,000	250,000
20	Price per share leveraging the firm from D=0 until final leverage		102.70	105.58	**108.06**	107.59	105.47
45	Price per share leveraging the firm in steps of $50,000 each		102.70	108.62	**113.38**	106.20	97.77

2.7. Adding the possibility of bankruptcy to the model

This model allocates a probability to the likelihood that the company will go bankrupt and there will be no more dividend or interest payments. In the extreme case that the bondholders recover none of their investment, the value of the interest payments they will receive is:

$I_{t+1} = I_t$ with a probability $p_c = 1 - p_q$

$0 = D_{t+1}$ with a probability p_q

In this case, the debt's value at t=0 is:

$D_0 = I\,(1 - p_q) / (Kd + p_q)$. Kd is the required return on debt without leverage costs

Isolating the probability of bankruptcy, we obtain:

$p_q = (I - D_0 Kd)/ (I + D_0)$

From the shareholders' viewpoint, the value of the dividends they will receive is:

$Div_{t+1} =$ Div_t with a probability $p_c = 1 - p_q$

$0 = E_{t+1}$ with a probability p_q

In this case, the shares' value at t=0 is:

$E_0 = Div\ (1 - p_q) / (Ke + p_q)$. Ke is the required return to equity without leverage costs.

Isolating the probability of bankruptcy, we obtain:

$p_q = (Div - E_0 Ke)/ (Div + E_0)$

Table 8b. Probability of bankruptcy of debt and equity

	Book value of debt, D	0	50,000	100,000	150,000	200,000	250,000
46	Pq (debt)	0.000%	0.045%	0.307%	0.980%	1.820%	2.810%
47	Pq (shares)	0.000%	0.266%	0.517%	0.727%	1.328%	2.294%
	Kd if Pq = 0	*8.00%*	*8.20%*	*8.42%*	*8.67%*	*8.98%*	*9.34%*
	Ke if Pq = 0	*12.00%*	*12.20%*	*12.42%*	*12.67%*	*12.98%*	*13.34%*

Table 8b shows that the required returns to debt and equity assume that the probability of bankruptcy of debt exceeds that of the equity at debt levels greater than 150,000, which is absurd.

Upon performing a similar analysis with the entire company (debt, equity and taxes), the annual expected cash flow for all three is constant, irrespective of the leverage, and is equal to $120,000 (see Table 2). Table 3 shows these flows' present value. The addition of the probability of bankruptcy (a total bankruptcy in which neither the bondholders nor the shareholders nor the State can recover anything) would mean that the expected value of the cash flow for the next period would be:

$120,000 with a probability $p_c = 1 - p_q$

$0 = E_{t+1} + D_{t+1} + GOV_{t+1}$ with a probability p_q

For each level of leverage,

$E_0 + D_0 + GOV_0 = 120{,}000\ (1 - p_q) / (Ku + p_q)$

The probability of total bankruptcy gives:

Debt	0	50,000	100,000	150,000	200,000	250,000
D+E+GOV	1,000,000	976,992	955,770	930,548	875,862	804,688
Equity cash flow, taxes and debt cash flow	120,000	120,000	120,000	120,000	120,000	120,000
Pq (firm) if Ku=12%	**0.00%**	**0.25%**	**0.49%**	**0.79%**	**1.50%**	**2.53%**

It can be seen that the probability of bankruptcy almost doubles when debt level is increased from $150,000 to $200,000.

2.8. Ke and Kd if there are no leverage costs

If we assume that Ku = 12% (the assets' risk does not change with these debt levels and, therefore, there are no leverage costs), line 9' of Table 9 shows the Kd that is obtained after applying the following formula[9]:

$$Kd = R_F + \frac{D\,(1 = T\,(Ku - R_F)}{E + D\,(1 - T)}$$

Table 9. Valuation without leverage costs

	Book value debt level (leverage)	0%	10%	20%	30%	40%	50%
9	**Cost of debt: r**	**8.00%**	**8.25%**	**8.75%**	**9.75%**	**11.00%**	**12.50%**
9'	**Required return on debt: Kd**	**8.00%**	**8.20%**	**8.42%**	**8.67%**	**8.98%**	**9.34%**
10	**Required return on equity: Ke**	**12.00%**	**12.20%**	**12.42%**	**12.67%**	**12.98%**	**13.34%**
11	Market value of debt, D. (3)/(9')	0	50,298	103,970	168,600	244,990	334,635
12	Market value of equity, E. (7)/(10)	500,000	474,851	448,015	415,700	377,505	332,683
13	Market value of the firm. (11)+(12)	500,000	525,149	551,985	584,300	622,495	667,317
19	Number of shares outstanding, NA	5,000	4,524	4,088	3,674	3,268	2,855
20	Price per share, P (12)/(19)	100	104.970	109.603	113.140	115.501	116.537
24	Market value debt level (leverage). (11)/(13)	0.00%	9.58%	18.84%	28.85%	39.36%	50.15%
25	Weighted average cost of capital (WACC)	12.00%	11.43%	10.87%	10.27%	9.64%	8.99%
28	Value of taxes. GOV = (5) / Ke	500,000	474,851	448,015	415,700	377,505	332,683
29	D + E + GOV = (11) + (12) + (28)	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000

In all cases, r > Kd, which is why the debt's value is greater than its nominal value. Similarly, line 10 shows the Ke obtained after applying the following equation:

$$Ke = Ku + Kd - R_F$$

[9] The reader can verify the deduction of this and the following equations in chapter 17 of Fernández (2001 forthcoming), *Valuation and Shareholder Value Creation.*

Note that in this case:

- There is no optimal structure. The company's value (line 13) increases with the debt ratio
- Debt's value is substantially higher than the nominal value
- The difference between Ke and Kd is constant and equal to 4%

2.9. Ke and Kd with leverage costs

Table 10 assumes the existence of leverage costs, shown by the use of the reduced formula for the leveraged beta, which is equivalent to using formula [23.31] for the required return to equity:

$$Ke = Ku + (D/E)\,(Ku - R_F)$$

This is equivalent to assuming that the required return to assets increases with the leverage (line 30).

Table 10. Valuation with leverage costs

1	**Book value debt level (leverage)**	**0%**	**10%**	**20%**	**30%**	**40%**	**50%**
9	**Cost of debt: r**	**8.00%**	**8.25%**	**8.75%**	**9.75%**	**11.00%**	**12.50%**
9'	**Required return on debt: Kd**	**8.00%**	**8.22%**	**8.48%**	**8.86%**	**9.41%**	**10.27%**
10	**Required return on equity: Ke**	**12.00%**	**12.43%**	**12.96%**	**13.72%**	**14.83%**	**16.54%**
11	Market value of debt, D. (3)/(9')	0	50,210	103,174	165,074	233,685	304,337
12	Market value of equity, E. (7)/(10)	500,000	466,076	429,150	384,038	330,438	268,346
13	Market value of the firm. (11)+(12)	500,000	516,286	532,324	549,112	564,123	572,683
19	Number of shares outstanding, NA	5,000	4,516	4,055	3,596	3,115	2,588
20	Price per share, P (12)/(19)	100	103.21515	105.83007	**106.80758**	106.08768	103.66923
21	Earnings per share (EPS). (6)/(19)	12	12.8306	13.7173	14.6533	15.7315	17.1432
22	Price-earnings ratio, PER	8.33333	8.04446	7.71506	7.28898	6.74364	6.04724
24	Market value debt level (leverage). (11)/(13)	0.00%	9.73%	19.38%	30.06%	41.42%	53.14%
25	Weighted average cost of capital (WACC)	12.00%	11.62%	11.27%	10.93%	10.64%	10.48%
28	Value of taxes. GOV = (5) / Ke	500,000	466,076	429,150	384,038	330,438	268,346
29	D + E + GOV = (11) + (12) + (28)	**1,000,000**	**982,362**	**961,475**	**933,150**	**894,562**	**841,029**
30	**Kassets = (2) / (29)**	**12.00%**	**12.22%**	**12.48%**	**12.86%**	**13.41%**	**14.27%**
31	*Δ Kassets*		*0.22%*	*0.27%*	*0.38%*	*0.55%*	*0.85%*
32	Cost of leverage	0	8,819	19,263	33,425	52,719	79,486
33	Δ Cost of leverage		8,819	10,444	14,163	19,294	26,766
34	Δ (DT)		25,105	26,482	30,950	34,305	35,326
	Required return to incremental equity cash flow (from right to left):						
41	Incremental equity cash flow (DDiv)	2,063	2,313	2,938	3,688	4,625	
42	Required return to incremental equity cash flow	*6.08%*	*6.26%*	*6.51%*	*6.88%*	*7.45%*	
43	Ke - Kd	**4.00%**	**4.22%**	**4.48%**	**4.86%**	**5.41%**	**6.27%**
44	Ke - Kd (1-T)	**8.00%**	**8.32%**	**8.72%**	**9.29%**	**10.12%**	**11.40%**
45	Price per share. Incremental repurchase	0	103.215	108.581	**108.818**	103.985	95.006
46	Pq (debt)	0,000%	0.013%	0.060%	0.170%	0.397%	0.843%
47	Pq (shares)	0,000%	0.204%	0.483%	0.919%	1.610%	2.744%

Kd is calculated using the formula:

$$Kd = R_F + [D\ (1\text{-}T)\ (Kassets - R_F)] / [E + D\ (1\text{-}T)]$$

In this case, as the leverage is increased, the WACC decreases and the company's value increases. The maximum price per share occurs at N = $150,000.

Note that lines 31, 33, 34, 42, 43, 46 and 47 no longer have the inconsistencies identified in previous sections.

2.10. Influence of growth on the optimal structure

If a perpetual growth g is applied to the data in Table 1 and it is assumed that the first year's investment in net fixed assets and WCR (working capital requirements) is $500,000 x g (all $500,000 of the initial outlay is invested in WCR and fixed assets), for any growth level the optimal structure continues to be a debt level of $150,000.

3. Boeing's optimal capital structure according to Damodaran

Damodaran[10] offers a similar approach to that of the Harvard Business School example analyzed, but applies it to a real company (Boeing in 1990) and assumes a constant cash flow growth of 8.86%.

Damodaran's calculations are summarized in Table 11. According to him, Boeing's optimal structure[11] is attained with a debt ratio of 30% (the debt ratio is calculated from the equity's book value). One problem with Table 11 is that the value of the firm (D+E) for debt ratios above 70% is less than the value of debt, which implies a negative value for equity. Of course, this does not make any sense.

Table 11. Optimal capital structure for Boeing (million dollars). March 1990

Leverage (book value)	Value of the firm	Value of debt	Value of equity	Cost of debt (After Tax)	Cost of debt	Incremental debt	Cost of incremental debt
10%	17,683	1,646	16,037	6.40%	9.70%	1,646	**9.70%**
20%	18,968	3,292	15,676	6.93%	10.50%	1,646	**11.30%**
30%	**19,772**	4,938	14,834	7.59%	11.50%	1,646	**13.50%**
40%	18,327	6,584	11,743	9.24%	14.00%	1,646	**21.50%**
50%	17,657	8,230	9,427	9.90%	15.00%	1,646	**19.00%**
60%	14,257	9,876	4,381	11.72%	16.50%	1,646	**24.00%**
70%	10,880	11,522	**-642**	13.90%	18.00%	1,646	**27.00%**
80%	9,769	13,168	**-3,399**	14.42%	18.00%	1,646	**18.00%**
90%	8,864	14,814	**-5,950**	14.81%	18.00%	1,646	**18.00%**

Source: *Damodaran on valuation*, pp. 159.

[10] See Damodaran (1994), *Damodaran on valuation*. pp. 157-164 and 167-169.

[11] In March 1990, the book value of Boeing's debt stood at $277 million and the market value of its equity was $16.182 billion. Consequently, the company's value, according to Damodaran, was $16.459 billion (0.277+16.182).

The last column of Table 11 shows the cost of the assumed debt increments. It can be seen that increasing the debt by $1.646 billion to take the debt ratio from 30% to 40% implies contracting that debt at 21.5%, which is an enormous figure. Stranger still is the finding that the next debt increment (which has a higher risk) is cheaper: it costs 19%.

Table 12 shows the forecast income statements and cash flows for Boeing with different leverages.

Table 12. Optimal capital structure for Boeing. Capital structure, income statements and cash flows according to Damodaran (million dollars). March 1990

	D/(D+E) book value	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%
2	(D/E)book value	0%	11%	25%	43%	67%	100%	150%	233%	400%	900%
3	Debt (D)	0	1,646	3,292	4,938	6,584	8,230	9,876	11,522	13,168	14,814
4	Kd	9.7%	9.7%	10.5%	11.5%	14.0%	15.0%	16.5%	18.0%	18.0%	18.0%
5	Taxes	34%	34%	34%	34%	34%	34%	28.96%	22.76%	19.91%	17.70%
6	Beta unleveraged	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
	Income statement of year 0										
7	Margin	2,063	2,063	2,063	2,063	2,063	2,063	2,063	2,063	2,063	2,063
8	Depreciation	675	675	675	675	675	675	675	675	675	675
9	Interest**	0	160	346	568	922	1,235	1,630	2,074	2,370	2,667
10	Profit before taxes	1,388	1,228	1,042	820	466	154	–242	–686	–982	–1,279
11	Taxes (34%)	472	418	354	279	159	52	–82	–233	–334	435
12	**Profit after taxes**	**916**	**811**	**688**	**541**	**308**	**101**	**–159**	**–453**	**–648**	**844**
13	+ depreciation	675	675	675	675	675	675	675	675	675	675
14	– investment in fixed assets	800	800	800	800	800	800	800	800	800	800
15	– investment in working capital	0	0	0	0	0	0	0	0	0	0
16	+ increase of debt	0	146	292	438	583	729	875	1,021	1,167	1,313
17	**Equity cash flow, ECF**	**791**	**832**	**855**	**854**	**766**	**705**	**591**	**443**	**393**	**344**
18	**Free cash flow, FCF**	**791**	**791**	**791**	**791**	**791**	**791**	**791**	**791**	**791**	**791**
19	g (growth)	8.86%	8.86%	8.86%	8.86%	8.86%	8.86%	8.86%	8.86%	8.86%	8.86%

Source: *Damodaran on valuation*, pp. 167-169.

Table 13. Optimal capital structure for Boeing. Valuation according to Damodaran. Data in million dollars. March of 1990

	D/(D+E) book value	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%
20	Leveraged beta	0.94	1.0089	1.0951	1.2059	1.3536	1.5604	1.9417	2.6341	3.9514	7.9026
21	Market risk premium	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
22	R_F	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
23	**Ke' (calculated with book value)**	**14.17%**	**14.55%**	**15.02%**	**15.63%**	**16.44%**	**17.58%**	**19.68%**	**23.49%**	**30.73%**	**52.46%**
24	**WACCbv**	**14.17%**	**13.73%**	**13.40%**	**13.22%**	**13.56%**	**13.74%**	**14.90%**	**16.78%**	**17.68%**	**18.58%**
25	(D+E) = NPV (FCF;WACC)	16,218	17,667	18,950	19,753	18,312	17,643	14,247	10,875	9,764	8,861
26	**–D = E1**	**16,218**	**16,021**	**15,658**	**14,815**	**11,728**	**9,413**	**4,371**	**–647**	**–3,404**	**–5,953**
27	**E2 = NPV (ECF; Ke)**	**16,218**	**15,911**	**15,095**	**13,724**	**10,995**	**8,805**	**5,942**	**3,298**	**1,958**	**858**

Source: *Damodaran on valuation*, pp. 167-169.

Table 13 contains the valuation of the cash flows and is the origin of the numbers in Table 4. Another error in Table 13 is that lines 26 and 27 are only the same for the unlevered company. Why is this so? Basically, for two reasons:

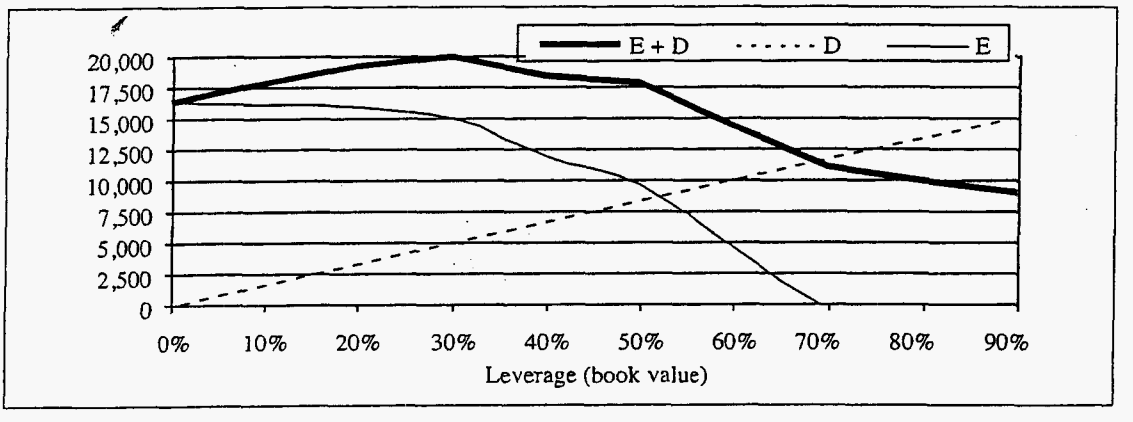
1. Damodaran calculates the WACC using book values in the weighting, instead of market values.

2. Damodaran calculates the interest to be paid in year 0 (line 9 of Table 12) by multiplying the debt in year 0 (line 3) by the cost of debt (line 4). In order to obtain a correct valuation, the interest for year 0 should be calculated by multiplying the debt in the previous year (year -1) by the cost of debt. This affects equity cash flow.

We leave the reader to verify that when these two adjustments are made, lines 26 and 27 of Table 13 match. The main lines that change are the following:

	D/(D+E) book value	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%
9	Interest**	0.0	146.7	317.5	521.7	846.7	1,134.0	1,496.9	1,905.2	2,177.3	2,449.5
16	+ Increase of debt	0.0	134.0	267.9	401.9	535.9	669.8	803.8	937.8	1,071.7	1,205.7
17	Equity cash flow, ECF	791.1	828.2	849.4	848.7	768.1	712.5	601.4	413.3	314.6	207.1

Figure 5. Boeing according to Damodaran. Value of the firm (D+E), debt and equity, for different debt ratios



Key concepts

Optimal capital structure, required return to incremental equity cash flow, incremental cost of debt, required return on debt (Kd), required return to equity (Ke), adjusted present value (APV), return on assets (ROA), return on equity (ROE), weighted average cost of capital (WACC), free cash flow (FCF).

References

Damodaran, Aswath (1994), *Damodaran on Valuation*, John Wiley and Sons, New York.

Fernández, P. (2001 forthcoming), *Valuation and Shareholder Value Creation*.

Fruhan, W. E.; W. C. Kester; S. P. Mason; T. R. Piper; and R. S. Ruback (1992), "Note on the Theory of Optimal Capital Structure", in the book *Case Problems in Finance*, Irwin, 10th edition.

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 31.1

Return on Common Equity

Company	Order No.	Issued	ROE
St. Joe's Natural Gas	PSC-08-0436-PAA-GU	July 8, 2008	11.00%
FPUC Electric	PSC-08-0327-FOF-EI	May 19, 2008	11.00%
Sebring Gas	PSC-04-1260-PAA-GU	December 20, 2004	11.50%
FPUC Gas	PSC-04-1110-PAA-GU	November 8, 2004	11.25%
Indiantown Gas	PSC-04-0565-PAA-GU	June 2, 2004	11.50%
FPUC Electric	PSC-04-0369-AS-EI	April 6, 2004	11.50%
Florida City Gas	PSC-04-0128-PAA-GU	February 9, 2004	11.25%
Peoples Gas	PSC-03-0038-FOF-GU	January 6, 2003	11.25%
Indiantown Gas	PSC-02-1666-PAA-GU	November 26, 2002	11.50%
St. Joe's Natural Gas	PSC-01-1274-PAA-GU	June 8, 2001	11.50%
Florida City Gas	PSC-01-0316-PAA-GU	February 5, 2001	11.50%
Chesapeake Gas	PSC-00-2263-FOF-GU	November 28, 2000	11.50%

Source: FPSC web-site

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 33.1

FLORIDA PUBLIC UTILITIES

AMBAC ASSURANCE CAPITALIZATIO N RATIO WORKSHEET

December 2008

CAPITALIZATION RATIO	$	$	
CONSOLIDATED INDEBTEDNESS			
i Indebtedness for Borrowed Money / Deferred Purchase Price of Property (other than trade payables incurred in the ordinary course of business)			
ii Notes, Bonds, Debentures & Other Instruments	62,076,000		A1
iii Obligations for Conditional Sale or Title Retention Agreements	-		
iv Amounts available to be drawn under all Letters of Credit	2,253,000		A2
v Liabilities secured by any lien on any Property	-		
vi Liabilities in respect of any obligation (contingent or otherwise) to purchase, redeem, retire, acquire or make any other payment in respect of any shares of equity securities, or any option, warrant or other right to acquire any shares of equity securities.	-		
vii Monetary obligations under capital leases	-		
viii Any guarantee obligation in respect of Indebtedness of others.	-	64,329,000	
CONSOLIDATED INDEBTEDNESS			
CONSOLIDATED NET WORTH			
i Stockholders' Equity	48,479,000		A3
ii Preferred Stock	600,000	49,079,000	A4
CONSOLIDATED NET WORTH			
CONSOLIDATED TOTAL CAPITALIZATION		113,408,000	
CAPITALIZATION RATIO			
CONSOLIDATED NET WORTH		49,079,000	
CONSOLIDATED TOTAL CAPITALIZATION		113,408,000	
REQUIRED PERCENTAGE OF CONSOLIDATED TOTAL CAPITALIZATION	=> 35%		43%

PREPARED BY:	Doreen Cox	2/17/2009
CHECKED BY:	April Lundgren	2/18/2009
APPROVED BY:	George Bachman	2/19/2009

FLORIDA PUBLIC UTILITIES
BANK OF AMERICA LOC COVENANT CALCULATION WORKSHEET
IN THOUSANDS

	12 Months Ending Dec-2008	
FIXED CHARGE COVERAGE		[B]
Revenue	168,548	B1
Gross Profit	51,227	B2
Net Income after Taxes	3,453	B3
Add: Interest Expense	4,816	B4
Dep'n & Amort Expense	8,912	B5
Lease / Rent Expense	-	
Plus / (Minus) the change in the value of any Interest Rate Protection Agreement	-	
	17,181	
Divide by:		
Current Maturities of LTD	1,409	B6
Current Maturities of Capital Leases	-	
Interest Expense	4,816	B4
Lease / Rent Expense	-	
	6,225	
FIXED CHARGE COVERAGE RATIO	2.76	
BOA REQUIREMENT >= 1.25		

TOTAL LIABILITIES TO TANGIBLE NET WORTH [C]

Total Liabilities	159,877	C1
Divide by:		
Total Net Worth	49,079	C2
Less: Intangibles	6,463	C3
Equals: Tangible Net Worth (per GAAP)	42,616	
TOTAL LIAB / TANGIBLE NET WORTH RATIO	3.75	
BOA REQUIREMENT:		
AFTER 12/31/2004 <4.00		

PREPARED BY:	Doreen Cox	2/17/2009
CHECKED BY:	April Lundgren	2/18/2009
APPROVED BY:	George Bachman	2/19/2009

[A]

FLORIDA PUBLIC UTILITIES
AMBAC ASSURANCE CAPITALIZATIO N RATIO WORKSHEET

September 2008

CAPITALIZATION RATIO	$	$	
CONSOLIDATED INDEBTEDNESS			
i Indebtedness for Borrowed Money / Deferred Purchase Price of Property (other than trade payables incurred in the ordinary course of business)			
ii Notes, Bonds, Debentures & Other Instruments	60,517,000		A1
iii Obligations for Conditional Sale or Title Retention Agreements	-		
iv Amounts available to be drawn under all Letters of Credit	3,867,000		A2
v Liabilities secured by any lien on any Property	-		
vi Liabilities in respect of any obligation (contingent or otherwise) to purchase, redeem, retire, acquire or make any other payment in respect of any shares of equity securities, or any option, warrant or other right to acquire any shares of equity securities.	-		
vii Monetary obligations under capital leases	-		
viii Any guarantee obligation in respect of Indebtedness of others.	-	64,384,000	
CONSOLIDATED INDEBTEDNESS			
CONSOLIDATED NET WORTH			
i Stockholders' Equity	49,871,000		A3
ii Preferred Stock	600,000	50,471,000	A4
CONSOLIDATED NET WORTH			
CONSOLIDATED TOTAL CAPITALIZATION		114,855,000	

CAPITALIZATION RATIO

CONSOLIDATED NET WORTH	50,471,000
CONSOLIDATED TOTAL CAPITALIZATION	114,855,000

REQUIRED PERCENTAGE OF CONSOLIDATED TOTAL CAPITALIZATION => 35% **44%**

PREPARED BY:	Doreen Cox	10/31/2008
CHECKED BY:	Cheryl Martin	11/3/2008
APPROVED BY:	George Bachman	11/6/2008

FLORIDA PUBLIC UTILITIES
BANK OF AMERICA LOC COVENANT CALCULATION WORKSHEET
IN THOUSANDS

	12 Months Ending Sep-2008	
FIXED CHARGE COVERAGE		[B]
Revenue	162,161	B1
Gross Profit	50,052	B2
Net Income after Taxes	3,229	B3
Add: Interest Expense	4,868	B4
Dep'n & Amort Expense	8,806	B5
Lease / Rent Expense	-	
Plus / (Minus) the change in the value of any Interest Rate Protection Agreement	-	
	16,903	
Divide by:		
Current Maturities of LTD	1,409	B6
Current Maturities of Capital Leases	-	
Interest Expense	4,868	B4
Lease / Rent Expense	-	
	6,277	
FIXED CHARGE COVERAGE RATIO	2.69	
BOA REQUIREMENT >= 1.25		

TOTAL LIABILITIES TO TANGIBLE NET WORTH [C]

Total Liabilities	145,670	C1
Divide by:		
Total Net Worth	50,471	C2
Less: Intangibles	6,558	C3
Equals: Tangible Net Worth (per GAAP)	43,913	
TOTAL LIAB / TANGIBLE NET WORTH RATIO	3.32	
BOA REQUIREMENT:		
AFTER 12/31/2004 <4.00		

PREPARED BY:	Doreen Cox	10/31/2008
CHECKED BY:	Cheryl Martin	11/3/2008
APPROVED BY:	George Bachman	11/6/2008

FLORIDA PUBLIC UTILITIES
BANK OF AMERICA LOC COVENANT CALCULATION WORKSHEET
IN THOUSANDS

	12 Months Ending Jun-2008	
FIXED CHARGE COVERAGE		[B]
Revenue	151,868	B1
Gross Profit	49,252	B2
Net Income after Taxes	3,149	B3
Add: Interest Expense	4,865	B4
Dep'n & Amort Expense	8,642	B5
Lease / Rent Expense	-	
Plus / (Minus) the change in the value of any Interest Rate Protection Agreement	-	
	16,656	
Divide by:		
Current Maturities of LTD	1,409	B6
Current Maturities of Capital Leases	-	
Interest Expense	4,865	B4
Lease / Rent Expense	-	
	6,274	
FIXED CHARGE COVERAGE RATIO	2.65	
BOA REQUIREMENT >= 1.25		

TOTAL LIABILITIES TO TANGIBLE NET WORTH [C]

Total Liabilities	144,663	C1
Divide by:		
Total Net Worth	50,526	C2
Less: Intangibles	6,658	C3
Equals: Tangible Net Worth (per GAAP)	43,868	
TOTAL LIAB / TANGIBLE NET WORTH RATIO	3.30	
BOA REQUIREMENT:		
AFTER 12/31/2004 <4.00		

PREPARED BY:	Doreen Cox	8/7/2008
CHECKED BY:	April Lundgren	8/8/2008
APPROVED BY:	Cheryl Martin	8/8/2008

[A]

FLORIDA PUBLIC UTILITIES
AMBAC ASSURANCE CAPITALIZATIO N RATIO WORKSHEET

March 2008

CAPITALIZATION RATIO	$	$	
CONSOLIDATED INDEBTEDNESS			
i Indebtedness for Borrowed Money / Deferred Purchase Price of Property (other than trade payables incurred in the ordinary course of business)			
ii Notes, Bonds, Debentures & Other Instruments	60,472,000		A1
iii Obligations for Conditional Sale or Title Retention Agreements	-		
iv Amounts available to be drawn under all Letters of Credit	2,320,000		A2
v Liabilities secured by any lien on any Property	-		
vi Liabilities in respect of any obligation (contingent or otherwise) to purchase, redeem, retire, acquire or make any other payment in respect of any shares of equity securities, or any option, warrant or other right to acquire any shares of equity securities.	-		
vii Monetary obligations under capital leases	-		
viii Any guarantee obligation in respect of Indebtedness of others.	-	62,792,000	
CONSOLIDATED INDEBTEDNESS			
CONSOLIDATED NET WORTH			
i Stockholders' Equity	50,435,000		A3
ii Preferred Stock	600,000	51,035,000	A4
CONSOLIDATED NET WORTH			
CONSOLIDATED TOTAL CAPITALIZATION		113,827,000	
CAPITALIZATION RATIO			
CONSOLIDATED NET WORTH		51,035,000	
CONSOLIDATED TOTAL CAPITALIZATION		113,827,000	
REQUIRED PERCENTAGE OF CONSOLIDATED TOTAL CAPITALIZATION	**=>35%**	**45%**	

PREPARED BY: Doreen Cox 5/5/2008

CHECKED BY: April Lundgren

APPROVED BY: George Bachman 5/7/2008

FLORIDA PUBLIC UTILITIES
BANK OF AMERICA LOC COVENANT CALCULATION WORKSHEET
IN THOUSANDS

	12 Months Ending Mar-2008	
FIXED CHARGE COVERAGE		[B]
Revenue	142,960	B1
Gross Profit	48,996	B2
Net Income after Taxes	3,478	B3
Add: Interest Expense	4,886	B4
Dep'n & Amort Expense	8,466	B5
Lease / Rent Expense	-	
Plus / (Minus) the change in the value of any Interest Rate Protection Agreement	-	
EBITDAR	16,830	
Divide by:		
Current Maturities of LTD	1,409	B6
Current Maturities of Capital Leases	-	
Interest Expense	4,886	B4
Lease / Rent Expense	-	
	6,295	
FIXED CHARGE COVERAGE RATIO	2.67	
BOA REQUIREMENT >= 1.25		

TOTAL LIABILITIES TO TANGIBLE NET WORTH [C]

Total Liabilities	144,993	C1
Divide by:		
Total Net Worth	51,035	C2
Less: Intangibles	6,751	C3
Equals: Tangible Net Worth (per GAAP)	44,284	
TOTAL LIAB / TANGIBLE NET WORTH RATIO	3.27	
BOA REQUIREMENT:		
AFTER 12/31/2004 <4.00		

PREPARED BY:	Doreen Cox	5/5/2008
CHECKED BY:	April Lundgren	5/5/2008
APPROVED BY:	George Bachman	5/7/2008

SUMMARY OF COVENANT RATIOS

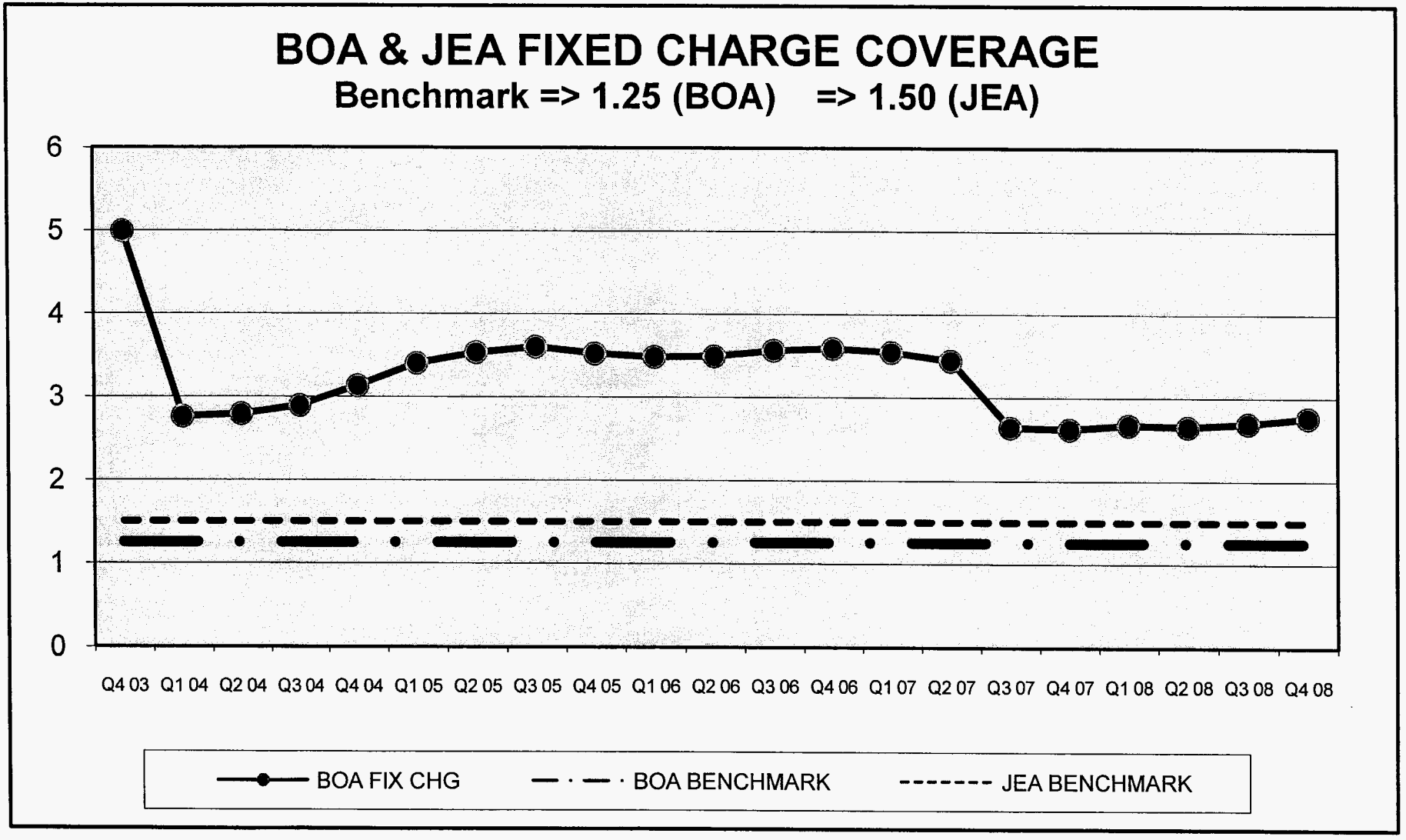
		Q4 03 2003	Q1 04 2004	Q2 04 2004	Q3 04 2004	Q4 04 2004	Q1 05 2005	Q2 05 2005	Q3 05 2005	Q4 05 2005	Q1 06 2006	Q2 06 2006	Q3 06 2006	Q4 06 2006	Q1 07 2007	Q2 07 2007	Q3 07 2007	Q4 07 2007	Q1 08 2008	Q2 08 2008	Q3 08 2008	Q4 08 2008
AMBAC Capitalization Ratio	= > 35%	39%	40%	40%	40%	40%	41%	42%	42%	42%	43%	43%	43%	43%	44%	44%	44%	44%	45%	44%	44%	43%
BOA Fixed Charge Coverage	>= 1.25	4.99	2.76	2.79	2.89	3.13	3.40	3.53	3.60	3.52	3.48	3.49	3.56	3.58	3.54	3.44	2.64	2.62	2.67	2.65	2.69	2.76
BOA Total Liabilities to Tangible Net Worth																						
12/31/2003	<4.50	3.07																				
12/31/2004	<4.25		3.25	3.31	3.32	3.31																
AFTER 12/31/2004	<4.00						3.07	3.01	3.13	3.45	3.15	3.07	3.14	3.21	3.14	3.13	3.31	3.34	3.27	3.30	3.32	3.75

	Q4 03	Q1 04	Q2 04	Q3 04	Q4 04	Q1 05	Q2 05	Q3 05	Q4 05	Q1 06	Q2 06	Q3 06	Q4 06	Q1 07	Q2 07	Q3 07	Q4 07	Q1 08	Q2 08	Q3 08	Q4 08
AMBAC CAP	**39%**	**40%**	**40%**	**40%**	**40%**	**41%**	**42%**	**42%**	**42%**	**43%**	**43%**	**43%**	**43%**	**44%**	**44%**	**44%**	**44%**	**45%**	**44%**	**44%**	**43%**
BENCHMARK	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%

	Q4 03	Q1 04	Q2 04	Q3 04	Q4 04	Q1 05	Q2 05	Q3 05	Q4 05	Q1 06	Q2 06	Q3 06	Q4 06	Q1 07	Q2 07	Q3 07	Q4 07	Q1 08	Q2 08	Q3 08	Q4 08
BOA FIX CHG	**4.99**	**2.76**	**2.79**	**2.89**	**3.13**	**3.40**	**3.53**	**3.60**	**3.52**	**3.48**	**3.49**	**3.56**	**3.58**	**3.54**	**3.44**	**2.64**	**2.62**	**2.67**	**2.65**	**2.69**	**2.76**
BOA BENCHMARK	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
JEA BENCHMARK	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50

	Q4 03	Q1 04	Q2 04	Q3 04	Q4 04	Q1 05	Q2 05	Q3 05	Q4 05	Q1 06	Q2 06	Q3 06	Q4 06	Q1 07	Q2 07	Q3 07	Q4 07	Q1 08	Q2 08	Q3 08	Q4 08
BOA TOTAL LIAB	**3.07**	**3.25**	**3.31**	**3.32**	**3.31**	**3.07**	**3.01**	**3.13**	**3.45**	**3.15**	**3.07**	**3.14**	**3.21**	**3.14**	**3.13**	**3.31**	**3.34**	**3.27**	**3.30**	**3.32**	**3.75**
BOA BENCHMARK	4.50	4.25	4.25	4.25	4.25	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
JEA BENCHMARK	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75

FPUC – Natural Gas
Docket No. 080366-GU
FPSC – Data Request No.1
Exhibit 34.1


BOA & JEA FIXED CHARGE COVERAGE
Benchmark => 1.25 (BOA) => 1.50 (JEA)
6
5
4
3
2
1
0
Q4 03 Q1 04 Q2 04 Q3 04 Q4 04 Q1 05 Q2 05 Q3 05 Q4 05 Q1 06 Q2 06 Q3 06 Q4 06 Q1 07 Q2 07 Q3 07 Q4 07 Q1 08 Q2 08 Q3 08 Q4 08
BOA FIX CHG
BOA BENCHMARK
JEA BENCHMARK

FLORIDA PUBLIC UTILITIES
BANK OF AMERICA LOC COVENANT CALCULATION WORKSHEET
IN THOUSANDS

	12 Months Ending Dec-2008	
FIXED CHARGE COVERAGE		[B]
Revenue	168,548	B1
Gross Profit	51,227	B2
Net Income after Taxes	3,453	B3
Add: Interest Expense	4,816	B4
Dep'n & Amort Expense	8,912	B5
Lease / Rent Expense	-	
Plus / (Minus) the change in the value of any Interest Rate Protection Agreement	-	
	17,181	
Divide by:		
Current Maturities of LTD	1,409	B6
Current Maturities of Capital Leases	-	
Interest Expense	4,816	B4
Lease / Rent Expense	-	
	6,225	
FIXED CHARGE COVERAGE RATIO	2.76	
BOA REQUIREMENT >= 1.25		

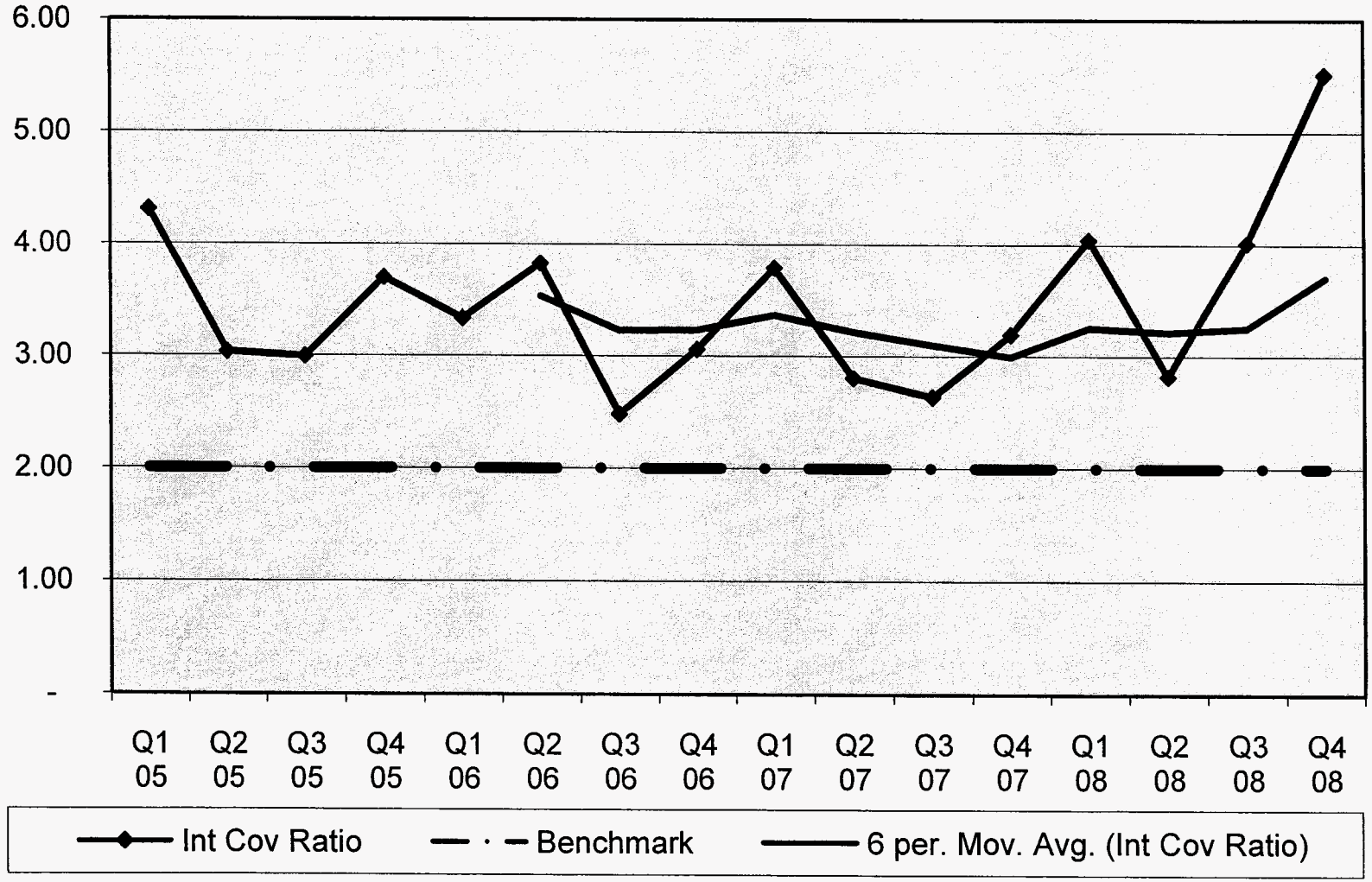
TOTAL LIABILITIES TO TANGIBLE NET WORTH [C]

Total Liabilities	159,877	C1
Divide by:		
Total Net Worth	49,079	C2
Less: Intangibles	6,463	C3
Equals: Tangible Net Worth (per GAAP)	42,616	
TOTAL LIAB / TANGIBLE NET WORTH RATIO	3.75	
BOA REQUIREMENT:		
AFTER 12/31/2004 <4.00		

PREPARED BY:	Doreen Cox	2/17/2009
CHECKED BY:	April Lundgren	2/18/2009
APPROVED BY:	George Bachman	2/19/2009

GULF POWER INTEREST COVERAGE

(Benchmark 6 Qtr Avg >= 2.0)



[D]

FLORIDA PUBLIC UTILITIES
Gulf Power Company Requirement
Funds from Operations Interest Coverage Ratio
in Thousands

	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008		6 QTR AVERAGE
Net Income from Continuing Operations	355	738	1,950	81	436	986	D1	**758**
+ Depreciation & Amortization	2,025	2,158	2,253	2,206	2,189	2,264	D2	**2,183**
+ Deferred Income Taxes	(405)	(96)	(483)	(115)	1,028	2,096	D3	**338**
+ Gross Interest Expense incurred before subtracting capitalized interest and interest income	1,209	1,278	1,223	1,195	1,213	1,185	D4	**1,217**
	3,184	4,078	4,943	3,367	4,866	6,531		**4,495**
Divided by:								
Gross Interest Expense incurred before subtracting capitalized interest and interest income	1,209	1,278	1,223	1,195	1,213	1,185		**1,217**
Minimum Allowed 2.0 : 1	2.63	3.19	4.04	2.82	4.01	5.51		**3.69**

PREPARED BY: **DC** 2/17/2009
CHECKED BY: **AL** 2/18/2009
APPROVED BY: **GB** 2/19/2009

FLORIDA PUBLIC UTILITIES
FORM OF COMPLIANCE CERTIFICATE

March 11, 2009
Vice President, Southern Wholesale Energy
Southern Company Services, Inc.
600 18th Street North
Birmingham, AL 35203
Facsimile (205) 257-2163

RE: Requirements Service Agreement dated as of December 28, 2006 among Gulf Power and Florida Public Utilities Company (as the same may be amended, modified, extended or restated from time to time, the "Agreement")

Pursuant to the terms of the Agreement, I, **George M. Bachman**, Chief Financial Officer of Florida Public Utilities Company, hereby certify that, as of the fiscal quarter ending December 31, 2008 the statements and calculations below are accurate and complete in all respects (all capitalized terms used below shall have meanings set forth in the Agreement):

1. **Funds from Operations Interest Coverage Ratio**	$	in thousands
a. Net Income from Continuing Operations	$	758
b. Depreciation and Amortization	$	2,183
c. Deferred Income Taxes	$	338
d. Gross Interest Expense incurred before subtracting capitalized interest and interest income	$	1,217
e. Ratio of (Net Income from Continuing Operations + Depreciation and Amortization + Deferred Income Taxes + Gross Interest Expense incurred before subtracting capitalized interest and interest income) / Gross Interest Expense incurred before subtracting capitalized interest and interest income)	**3.69** :	**1**

Minimum required: 2.0 : 1, as tested quarterly as of the end of each quarter averaged over the six (6) consecutive quarters then ending.

2. **Total Debt to Total Capital Ratio**	$	in thousands
a. Long Term Debt	$	48,663
b. Current Maturities	$	1,409
c. Commercial Paper	$	-
d. Other Short Term Borrowings	$	11,077
e. Shareholder's Equity (Including Preferred)	$	49,997
f. Minority Interest	$	-
g. Ratio of (Long Term Debt + Current Maturities + Commercial Paper + Other Short Term Borrowings) / (Long Term Debt + Current Maturities + Commercial Paper + Other Short Term Borrowings + Shareholder's Equity Including Preferred + Minority Interest)	**0.55** :	**1**

Maximum allowed: 0.65 : 1, as tested quarterly as of the end of each quarter averaged over the six (6) consecutive quarters then ending.

3. FPU has met the Required Ratios and no Event of Default exists with respect to 1 & 2 above except as indicated on a separate page attached hereto, together with an explanation of the action taken or proposed to be taken by _____ with respect thereto.

By: _____
Signature

George M. Bachman
Print Name

cc.
Vice President, Chief Financial Officer and Comptroller
Gulf Power Company
1 Energy Place
Pensacola, FL 32520

Facsimile (850) 444-6744

FLORIDA PUBLIC UTILITIES
BANK OF AMERICA LOC COVENANT CALCULATION WORKSHEET
IN THOUSANDS

	12 Months Ending Sep-2008	
FIXED CHARGE COVERAGE		[B]
Revenue	162,161	B1
Gross Profit	50,052	B2
Net Income after Taxes	3,229	B3
Add: Interest Expense	4,868	B4
Dep'n & Amort Expense	8,806	B5
Lease / Rent Expense	-	
Plus / (Minus) the change in the value of any Interest Rate Protection Agreement	-	
	16,903	
Divide by:		
Current Maturities of LTD	1,409	B6
Current Maturities of Capital Leases	-	
Interest Expense	4,868	B4
Lease / Rent Expense	-	
	6,277	
FIXED CHARGE COVERAGE RATIO	2.69	
BOA REQUIREMENT >= 1.25		

TOTAL LIABILITIES TO TANGIBLE NET WORTH [C]

Total Liabilities	145,670	C1
Divide by:		
Total Net Worth	50,471	C2
Less: Intangibles	6,558	C3
Equals: Tangible Net Worth (per GAAP)	43,913	
TOTAL LIAB / TANGIBLE NET WORTH RATIO	3.32	
BOA REQUIREMENT:		
AFTER 12/31/2004 <4.00		

PREPARED BY:	Doreen Cox	10/31/2008
CHECKED BY:	Cheryl Martin	11/3/2008
APPROVED BY:	George Bachman	11/6/2008

FLORIDA PUBLIC UTILITIES
FORM OF COMPLIANCE CERTIFICATE

March 11, 2009
Vice President, Southern Wholesale Energy
Southern Company Services, Inc.
600 18th Street North
Birmingham, AL 35203
Facsimile (205) 257-2163

RE: Requirements Service Agreement dated as of December 28, 2006 among Gulf Power and Florida Public Utilities Company (as the same may be amended, modified, extended or restated from time to time, the "Agreement")

Pursuant to the terms of the Agreement, I, **George M. Bachman**, Chief Financial Officer of Florida Public Utilities Company, hereby certify that, as of the fiscal quarter ending September 30, 2008 the statements and calculations below are accurate and complete in all respects (all capitalized terms used below shall have meanings set forth in the Agreement):

1. **Funds from Operations Interest Coverage Ratio**		$	in thousands
a.	Net Income from Continuing Operations	$	662
b.	Depreciation and Amortization	$	2,144
c.	Deferred Income Taxes	$	(53)
d.	Gross Interest Expense incurred before subtracting capitalized interest and interest income	$	1,222
e.	Ratio of (Net Income from Continuing Operations + Depreciation and Amortization + Deferred Income Taxes + Gross Interest Expense incurred before subtracting capitalized interest and interest income) / Gross Interest Expense incurred before subtracting capitalized interest and interest income)		3.25 : 1

Minimum required: 2.0 : 1, as tested quarterly as of the end of each quarter averaged over the six (6) consecutive quarters then ending.

2. **Total Debt to Total Capital Ratio**		$	in thousands
a.	Long Term Debt	$	49,131
b.	Current Maturities	$	1,174
c.	Commercial Paper	$	-
d.	Other Short Term Borrowings	$	9,136
e.	Shareholder's Equity (Including Preferred)	$	50,052
f.	Minority Interest	$	-
g.	Ratio of (Long Term Debt + Current Maturities + Commercial Paper + Other Short Term Borrowings) / (Long Term Debt + Current Maturities + Commercial Paper + Other Short Term Borrowings + Shareholder's Equity Including Preferred + Minority Interest)		0.54 : 1

Maximum allowed: 0.65 : 1, as tested quarterly as of the end of each quarter averaged over the six (6) consecutive quarters then ending.

3. FPU has met the Required Ratios and no Event of Default exists with respect to 1 & 2 above except as indicated on a separate page attached hereto, together with an explanation of the action taken or proposed to be taken by _____ with respect thereto.

By: _____
Signature

George M. Bachman
Print Name

cc.
Vice President, Chief Financial Officer and Comptroller
Gulf Power Company
1 Energy Place
Pensacola, FL 32520

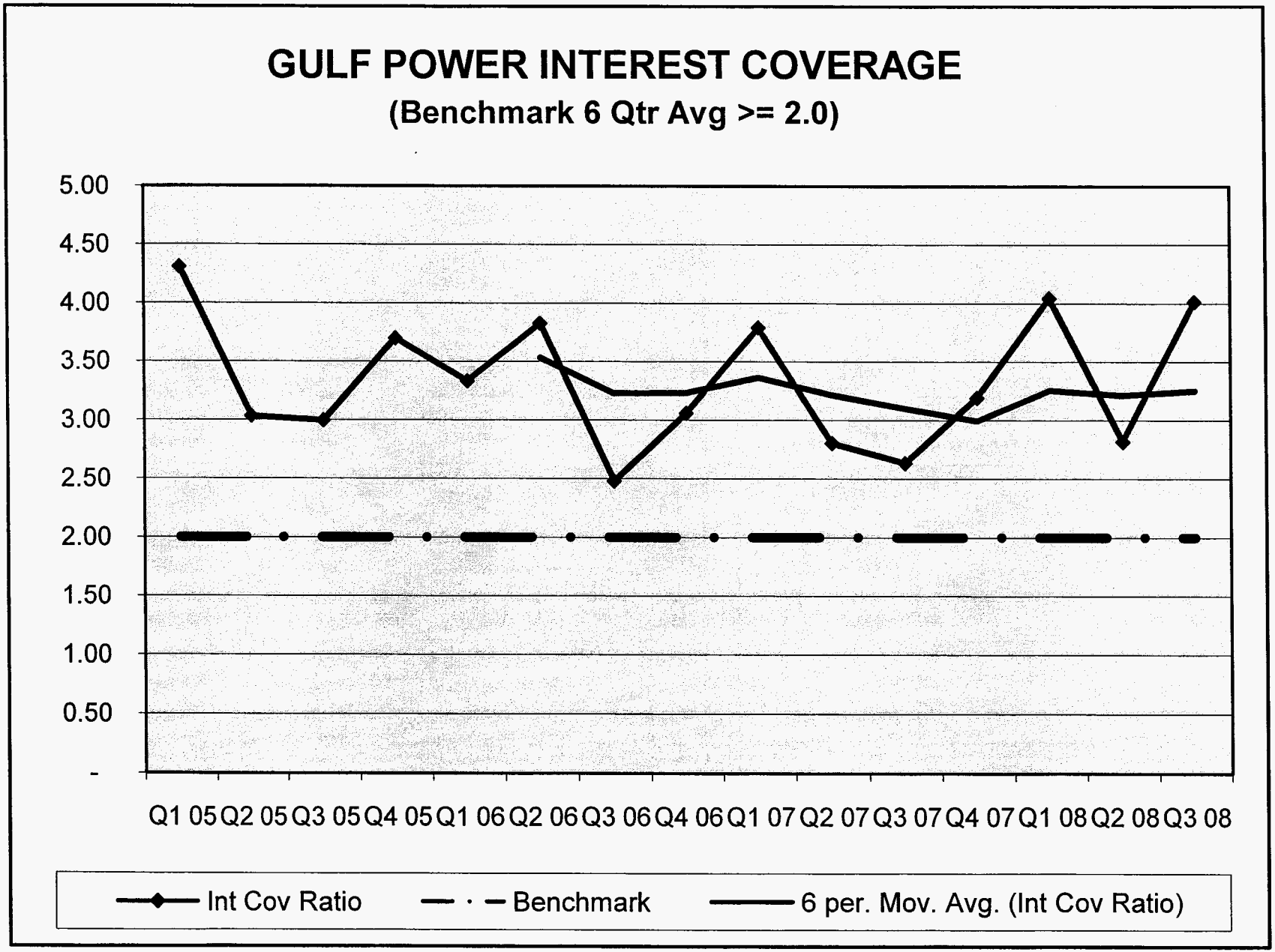
Facsimile (850) 444-6744

[D]

FLORIDA PUBLIC UTILITIES
Gulf Power Company Requirement
Funds from Operations Interest Coverage Ratio
in Thousands

	Q2 2007	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008		6 QTR AVERAGE
Net Income from Continuing Operations	410	355	738	1,950	81	436	D1	**662**
+ Depreciation & Amortization	2,031	2,025	2,158	2,253	2,206	2,189	D2	**2,144**
+ Deferred Income Taxes	(247)	(405)	(96)	(483)	(115)	1,028	D3	**(53)**
+ Gross Interest Expense incurred before subtracting capitalized interest and interest income	1,216	1,209	1,278	1,223	1,195	1,213	D4	**1,222**
	3,410	3,184	4,078	4,943	3,367	4,866		**3,975**
Divided by:								
Gross Interest Expense incurred before subtracting capitalized interest and interest income	1,216	1,209	1,278	1,223	1,195	1,213		**1,222**
Minimum Allowed 2.0 : 1	2.80	2.63	3.19	4.04	2.82	4.01		**3.25**

Doreen Cox 10/29/2008
April Lundgren
George Bachman


GULF POWER INTEREST COVERAGE
(Benchmark 6 Qtr Avg >= 2.0)
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
-
Q1 05 Q2 05 Q3 05 Q4 05 Q1 06 Q2 06 Q3 06 Q4 06 Q1 07 Q2 07 Q3 07 Q4 07 Q1 08 Q2 08 Q3 08
Int Cov Ratio
Benchmark
6 per. Mov. Avg. (Int Cov Ratio)

FLORIDA PUBLIC UTILITIES
BANK OF AMERICA LOC COVENANT CALCULATION WORKSHEET
IN THOUSANDS

	12 Months Ending Sep-2008
FIXED CHARGE COVERAGE	
Revenue	162,161
Gross Profit	50,052
Net Income after Taxes	3,229
Add: Interest Expense	4,868
Dep'n & Amort Expense	8,806
Lease / Rent Expense	-
Plus / (Minus) the change in the value of any Interest Rate Protection Agreement	-
	16,903
Divide by:	
Current Maturities of LTD	1,409
Current Maturities of Capital Leases	-
Interest Expense	4,868
Lease / Rent Expense	-
	6,277
FIXED CHARGE COVERAGE RATIO	2.69
BOA REQUIREMENT >= 1.25	
TOTAL LIABILITIES TO TANGIBLE NET WORTH	
Total Liabilities	145,670
Divide by:	
Total Net Worth	50,471
Less: Intangibles	6,558
Equals: Tangible Net Worth (per GAAP)	43,913
TOTAL LIAB / TANGIBLE NET WORTH RATIO	3.32
BOA REQUIREMENT:	
AFTER 12/31/2004 <4.00	

FLORIDA PUBLIC UTILITIES
BANK OF AMERICA LOC COVENANT CALCULATION WORKSHEET
IN THOUSANDS

	12 Months Ending Jun-2008	
FIXED CHARGE COVERAGE		[B]
Revenue	151,868	B1
Gross Profit	49,252	B2
Net Income after Taxes	3,149	B3
Add: Interest Expense	4,865	B4
Dep'n & Amort Expense	8,642	B5
Lease / Rent Expense	-	
Plus / (Minus) the change in the value of any Interest Rate Protection Agreement	-	
EBITDAR	16,656	
Divide by:		
Current Maturities of LTD	1,409	B6
Current Maturities of Capital Leases	-	
Interest Expense	4,865	B4
Lease / Rent Expense	-	
	6,274	
FIXED CHARGE COVERAGE RATIO	2.65	
BOA REQUIREMENT >= 1.25		

TOTAL LIABILITIES TO TANGIBLE NET WORTH		[C]
Total Liabilities	144,663	C1
Divide by:		
Total Net Worth	50,526	C2
Less: Intangibles	6,658	C3
Equals: Tangible Net Worth (per GAAP)	43,868	
TOTAL LIAB / TANGIBLE NET WORTH RATIO	3.30	
BOA REQUIREMENT:		
AFTER 12/31/2004 <4.00		

FLORIDA PUBLIC UTILITIES
FORM OF COMPLIANCE CERTIFICATE

March 11, 2009
Vice President, Southern Wholesale Energy
Southern Company Services, Inc.
600 18th Street North
Birmingham, AL 35203
Facsimile (205) 257-2163

RE: Requirements Service Agreement dated as of December 28, 2006 among Gulf Power and Florida Public Utilities Company (as the same may be amended, modified, extended or restated from time to time, the "Agreement")

Pursuant to the terms of the Agreement, I, George M. Bachman, Chief Financial Officer of Florida Public Utilities Company, hereby certify that, as of the fiscal quarter ending June 30, 2008, the statements and calculations below are accurate and complete in all respects (all capitalized terms used below shall have meanings set forth in the Agreement):

1. **Funds from Operations Interest Coverage Ratio**		$	in thousands
a.	Net Income from Continuing Operations	$	889
b.	Depreciation and Amortization	$	2,124
c.	Deferred Income Taxes	$	(327)
d.	Gross Interest Expense incurred before subtracting capitalized interest and interest income	$	1,215
e.	Ratio of (Net Income from Continuing Operations + Depreciation and Amortization + Deferred Income Taxes + Gross Interest Expense incurred before subtracting capitalized interest and interest income) / Gross Interest Expense incurred before subtracting capitalized interest and interest income)	**3.21** :	1

Minimum required: 2.0 : 1, as tested quarterly as of the end of each quarter averaged over the six (6) consecutive quarters then ending.

2. **Total Debt to Total Capital Ratio**		$	in thousands
a.	Long Term Debt	$	49,589
b.	Current Maturities	$	939
c.	Commercial Paper	$	-
d.	Other Short Term Borrowings	$	7,650
e.	Shareholder's Equity (Including Preferred)	$	49,900
f.	Minority Interest	$	-
g.	Ratio of (Long Term Debt + Current Maturities + Commercial Paper + Other Short Term Borrowings) / (Long Term Debt + Current Maturities + Commercial Paper + Other Short Term Borrowings + Shareholder's Equity Including Preferred + Minority Interest)	**0.54** :	1

Maximum allowed: 0.65 : 1, as tested quarterly as of the end of each quarter averaged over the six (6) consecutive quarters then ending.

3. FPU has met the Required Ratios and no Event of Default exists with respect to 1 & 2 above except as indicated on a separate page attached hereto, together with an explanation of the action taken or proposed to be taken by _____ with respect thereto.

By: _____
Signature

George M. Bachman
Print Name

cc.
Vice President, Chief Financial Officer and Comptroller
Gulf Power Company
1 Energy Place
Pensacola, FL 32520

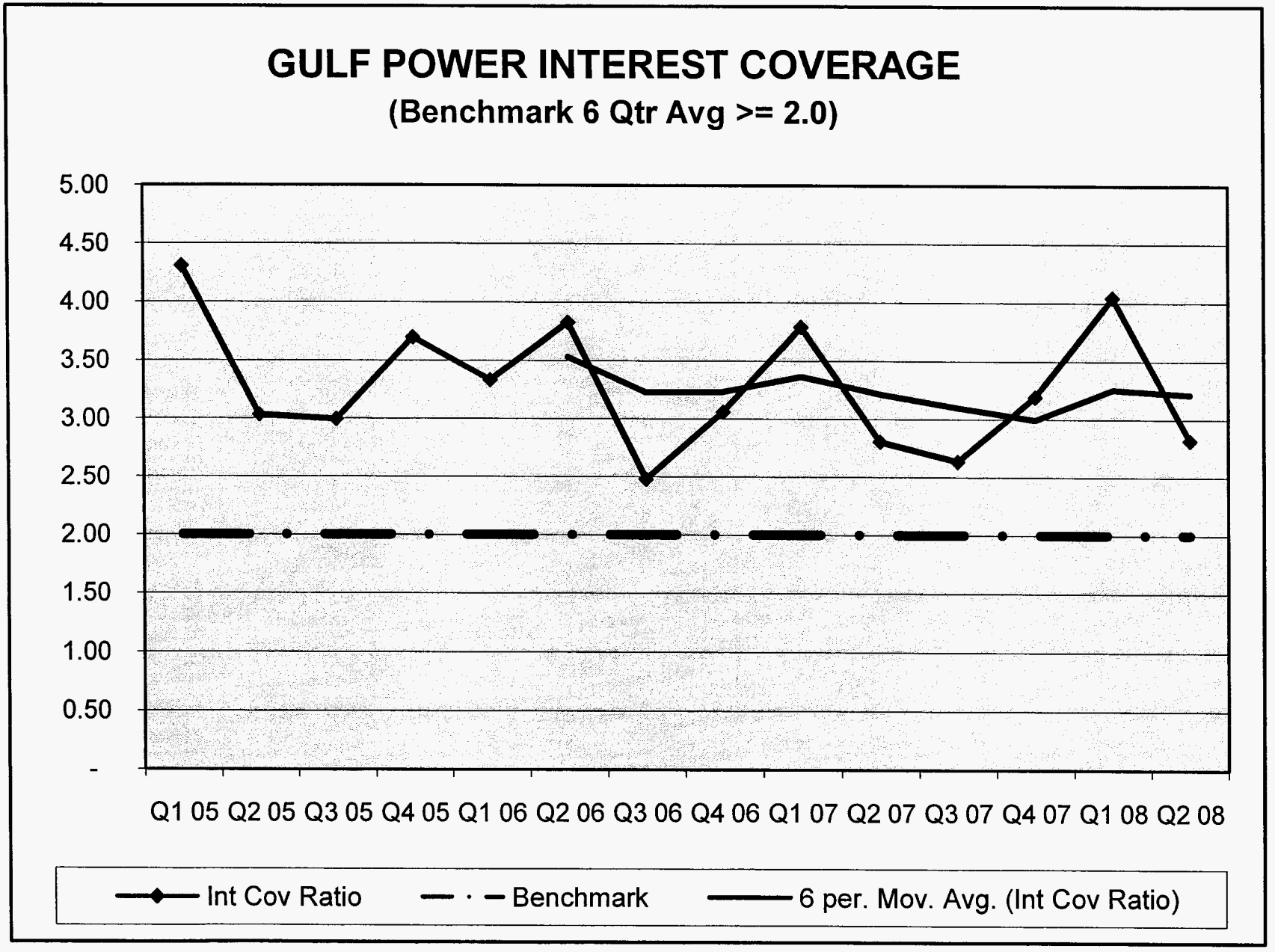
Facsimile (850) 444-6744

[D]

FLORIDA PUBLIC UTILITIES
Gulf Power Company Requirement
Funds from Operations Interest Coverage Ratio
in Thousands

	Q1 2007	Q2 2007	Q3 2007	Q4 2007	Q1 2008	Q2 2008		6 QTR AVERAGE
Net Income from Continuing Operations	1,798	410	355	738	1,950	81	D1	**889**
+ Depreciation & Amortization	2,072	2,031	2,025	2,158	2,253	2,206	D2	**2,124**
+ Deferred Income Taxes	(616)	(247)	(405)	(96)	(483)	(115)	D3	**(327)**
+ Gross Interest Expense incurred before subtracting capitalized interest and interest income	1,167	1,216	1,209	1,278	1,223	1,195	D4	**1,215**
	4,421	3,410	3,184	4,078	4,943	3,367		**3,900**
Divided by:								
Gross Interest Expense incurred before subtracting capitalized interest and interest income	1,167	1,216	1,209	1,278	1,223	1,195		**1,215**
Minimum Allowed 2.0 : 1	3.79	2.80	2.63	3.19	4.04	2.82		**3.21**

Doreen Cox	8/7/2008
April Lundgren	8/8/2008
Cheryl Martin	8/8/2008


GULF POWER INTEREST COVERAGE
(Benchmark 6 Qtr Avg >= 2.0)
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
-
Q1 05 Q2 05 Q3 05 Q4 05 Q1 06 Q2 06 Q3 06 Q4 06 Q1 07 Q2 07 Q3 07 Q4 07 Q1 08 Q2 08
Int Cov Ratio
Benchmark
6 per. Mov. Avg. (Int Cov Ratio)

FLORIDA PUBLIC UTILITIES
BANK OF AMERICA LOC COVENANT CALCULATION WORKSHEET
IN THOUSANDS

	12 Months Ending Mar-2008
FIXED CHARGE COVERAGE	
Revenue	142,960
Gross Profit	48,996
Net Income after Taxes	3,478
Add: Interest Expense	4,886
Dep'n & Amort Expense	8,466
Lease / Rent Expense	-
Plus / (Minus) the change in the value of any Interest Rate Protection Agreement	-
EBITDAR	16,830
Divide by:	
Current Maturities of LTD	1,409
Current Maturities of Capital Leases	-
Interest Expense	4,886
Lease / Rent Expense	-
	6,295
FIXED CHARGE COVERAGE RATIO	2.67
BOA REQUIREMENT >= 1.25	
TOTAL LIABILITIES TO TANGIBLE NET WORTH	
Total Liabilities	144,993
Divide by:	
Total Net Worth	51,035
Less: Intangibles	6,751
Equals: Tangible Net Worth (per GAAP)	44,284
TOTAL LIAB / TANGIBLE NET WORTH RATIO	3.27
BOA REQUIREMENT:	
AFTER 12/31/2004 <4.00	

FLORIDA PUBLIC UTILITIES
FORM OF COMPLIANCE CERTIFICATE

March 11, 2009
Vice President, Southern Wholesale Energy
Southern Company Services, Inc.
600 18th Street North
Birmingham, AL 35203
Facsimile (205) 257-2163

RE: Requirements Service Agreement dated as of December 28, 2006 among Gulf Power and Florida Public Utilities Company (as the same may be amended, modified, extended or restated from time to time, the "Agreement")

Pursuant to the terms of the Agreement, I, **George M. Bachman**, Chief Financial Officer of Florida Public Utilities Company, hereby certify that, as of the fiscal quarter ending March 31, 2008 the statements and calculations below are accurate and complete in all respects (all capitalized terms used below shall have meanings set forth in the Agreement):

1. **Funds from Operations Interest Coverage Ratio**		$	in thousands
a.	Net Income from Continuing Operations	$	1,021
b.	Depreciation and Amortization	$	2,077
c.	Deferred Income Taxes	$	(383)
d.	Gross Interest Expense incurred before subtracting capitalized interest and interest income	$	1,205
e.	Ratio of (Net Income from Continuing Operations + Depreciation and Amortization + Deferred Income Taxes + Gross Interest Expense incurred before subtracting capitalized interest and interest income) / Gross Interest Expense incurred before subtracting capitalized interest and interest income)	3.25	: 1

Minimum required: 2.0 : 1, as tested quarterly as of the end of each quarter averaged over the six (6) consecutive quarters then ending.

2. **Total Debt to Total Capital Ratio**		$	in thousands
a.	Long Term Debt	$	50,041
b.	Current Maturities	$	705
c.	Commercial Paper	$	-
d.	Other Short Term Borrowings	$	6,139
e.	Shareholder's Equity (Including Preferred)	$	49,508
f.	Minority Interest	$	-
g.	Ratio of (Long Term Debt + Current Maturities + Commercial Paper + Other Short Term Borrowings) / (Long Term Debt + Current Maturities + Commercial Paper + Other Short Term Borrowings + Shareholder's Equity Including Preferred + Minority Interest)	0.53	: 1

Maximum allowed: 0.65 : 1, as tested quarterly as of the end of each quarter averaged over the six (6) consecutive quarters then ending.

3. FPU has met the Required Ratios and no Event of Default exists with respect to 2 above except as indicated on a separate page attached hereto, together with an explanation of the action taken or proposed to be taken by _____ with respect thereto.

By: _____
Signature

George M. Bachman
Print Name

cc.
Vice President, Chief Financial Officer and Comptroller
Gulf Power Company
1 Energy Place
Pensacola, FL 32520

Facsimile (850) 444-6744

[D]

FLORIDA PUBLIC UTILITIES
Gulf Power Company Requirement
Funds from Operations Interest Coverage Ratio
in Thousands

	Q4 2006 [1]	Q1 2007	Q2 2007	Q3 2007	Q4 2007	Q1 2008		6 QTR AVERAGE
Net Income from Continuing Operations	875	1,798	410	355	738	1,950	D1	**1,021**
+ Depreciation & Amortization	1,924	2,072	2,031	2,025	2,158	2,253	D2	**2,077**
+ Deferred Income Taxes	(453)	(616)	(247)	(405)	(96)	(483)	D3	**(383)**
+ Gross Interest Expense incurred before subtracting capitalized interest and interest income	1,139	1,167	1,216	1,209	1,278	1,223	D4	**1,205**
	3,485	4,421	3,410	3,184	4,078	4,943		**3,920**
Divided by:								
Gross Interest Expense incurred before subtracting capitalized interest and interest income	1,139	1,167	1,216	1,209	1,278	1,223		**1,205**
Minimum Allowed 2.0 : 1	3.06	3.79	2.80	2.63	3.19	4.04		**3.25**

1. Q3 & Q4 2006 reflect Pension Expense adjustment due to actuarial change in valuation methodology

PREPARED BY:	Doreen Cox	5/27/2008
CHECKED BY:	Nadira Bhatia	
APPROVED BY:	George Bachman	

FPUC-Natural Gas
Docket No. 080366-GU
FPSC – Data Request No. 1
Exhibit 40.1

NET OPERATING INCOME ADJUSTMENTS

Adjustment (1) FUEL [Lundgren]

This adjustment is to eliminate in total the fuel projections as filed on MFR G-2 (C-30).

Adjustment (2) CONS [Lundgren]

This adjustment is to eliminate in total the conservation projections as filed on MFR G-2 (C-30).

Adjustment (3) OVER & UNDER [Lundgren]

The individual components of this adjustment are listed on MFR G-6. For the work papers for each adjustment listed on G-6, see **exhibits 40.2 – 40.37**

Adjustment (4) OTHER (2009 only) [Mesite]

These adjustments are to adjust depreciation expense and amortization expense for the effects of the proposed increase in the Bare Steel and Tubing Replacement Program; and depreciation expense for the effects of the proposed adjustment to plant for unrecoverable AEP Contributions. Discussions for both of these proposed adjustments are contained in pages 31 – 36, with computational details in Exhibits JVM-3 through JVM-4, of the Direct Testimony and Exhibits of James V. Mesite, Jr. in the MFR. **Exhibit 40.38** contains a summary of these NOI adjustments.

Please see **Exhibit 40.40** for the Rate Base effects of these issues.

Adjustment (5) AEP [Lundgren]

This adjustment is to eliminate in total the AEP projections as filed on MFR G-2 (C-30).

Adjustment (7) NON-UTILITY [Mesite]

This adjustment is to reflect the increase in NOI for the elimination of non-utility depreciation associated with non-utility plant. The computation of estimated non-regulated depreciation to be eliminated is based on the previous year's actual depreciation accruals. For the MFR actual 2007 data was used for the 2008 estimate. Since 2007 was the most currently available data, the same estimates were also used for the 2009 estimates. Please see **Exhibits 40.39.**

Q. Is the $20,000 included for the travel and training related to the addition of a Compliance Accountant and increase in the number of internal audits appropriate?

A. Yes. The Company audits the inventory and cash of each division on an annual basis. However, we also need to perform additional audits based on related Section 404 controls in Sarbanes Oxley, and other operational audits depending on the risk assessment and the need to improve efficiencies or to test controls. The estimated cost for each year would be between $1,000 and $2,000 per year per audit depending on location. We estimate that we would need an additional four to six audits per year beyond our current levels. Although our locations are all within the state of Florida, all trips to divisions require overnight stays at hotels and either car or air travel, depending on location and time constraints. Meals and other travel related expenses are also included. A breakdown is as follows (two people conducting a material and supplies inventory in Marianna):

Hotel ($85 per room, X 2 rooms X 4 nights) =	$ 680
Meals ($36 per person, X 2 people, X 5 days) =	$ 360
Transportation (481.63 miles X $0.585 per mile) =	$ 565
Misc. Travel related costs (per company policy) =	$ 90
Total =	$1,695
Increase for 5 trips ($1,695 x 5) =	$8,475

In addition to inventory and audit related trips to the Company's divisions, the Compliance Accountant will be required to attend on average one training seminar every two months (or 6 per year) to stay current with new guidance, requirements, and regulations as set forth by governing authorities. The estimated cost for a local seminar is $2,000 per course, based on historical expense. For six courses the estimated cost would be $12,000. The

total cost for trips to divisions ($8,475) and training courses ($12,000) would be $20,475, or approximately $20,000. Fifty-one percent of this expense is allocated to natural gas based on payroll, or $10,200.

FLORIDA PUBLIC UTILITIES

Procedure No.: HR- 24
Effective Date: 8/8/08
Revision No. 7
Approved by: WCB

TRAVEL AND EXPENSE REIMBURSEMENT

Any reasonable and necessary travel expenses actually incurred by an employee in the performance of his duty with the Company will be reimbursed.

If an employee is required to use his own personal car in the performance of such duty, he or she will be reimbursed at the rate per mile in effect at the time of use as established by the IRS.

FPU is not responsible for any penalty imposed by public authorities upon employees for violation of traffic laws.

The purpose of this procedure is to establish guidelines for employees who are traveling on company related business.

I. TRAVEL AUTHORIZATION

Any employee traveling to attend meetings, schools, seminars and to represent the Company at business-related functions outside of the normally assigned territory requires authorization by their respective Division or Department Director prior to attending, or committing to attend, any such activity, to include:

1. Functions, which require an overnight stay and travel, will be by company vehicle if assigned.
2. Normally scheduled training sessions as part of an employee's job advancement program.
3. Meetings related to company approved positions held within industry associations.
4. Trips involving travel between divisions.
5. Meetings within Florida with government regulatory agencies.

Any travel that extends beyond the guidelines listed above requires travel authorization form approval.

II. EXPENSE REIMBURSEMENT

Expense reports are utilized to reimburse employees for all necessary and reasonable expenses incurred by employees on behalf of the Company when representing the Company or while attending Company sponsored meetings, schools or seminars.

Expense reports are normally filed either immediately following the occurrence of a reimbursable function or at a minimum, monthly. Separate occurrence expense reports are used by employees who normally do not experience multiple reimbursable events throughout a monthly period or when the expenses involved are of such an amount that the employee would be financially disadvantaged. Separate event expense reports should be filed within four (4) working days following occurrence of the expense. Expense reports filed on a monthly basis should be filed within four (4) working days of the month in which the expenses were incurred.

Reasonable cash advances are available to traveling employees when approved by their supervisors. Cash advances, advance travel arrangements and deposits on advance hotel accommodations are charged to the requesting employee's personal account and reconciled on their required expense report filing.

A. Transportation

1. Air Travel

When traveling on behalf of the Company on commercial air carriers, employees are expected to fly coach class and will endeavor to obtain the most reasonable fare available. At times it is cost-effective for employees to begin a trip earlier or return later than required. In these cases, and when the traveling employee volunteers to do so, the additional hotel, meal and reasonable incidental expenses will be reimbursed by the Company. These additional expenses shall not exceed the difference in airline travel prices.

Earned frequent flyer miles will remain with the employee for their personal use. In no event shall the granting, or lack, of frequent flyer miles influence the selection of the airline or flight schedule. An employee is permitted to upgrade to business or first-class status by using personal frequent flyer miles should they desire to do so.

Whenever possible and so long as it does not disrupt the Company's operations or increase the company's expense, an employee may reasonably extend the length of any trip for personal reasons.

2. Rental Automobiles

Employees needing ground transportation in conjunction with a Company-sponsored trip may need to utilize a rental automobile. Whenever possible, rental automobile arrangements shall be made simultaneously with other travel and hotel accommodation arrangements. Rental automobiles shall be limited to the cost of a mid-size sedan unless four or more employees are traveling in a group in which case the cost of a full-size sedan may be utilized.

When executing agreements for rental automobiles, all insurance provided by the rental agency shall be waived as the Company and its insurance will cover any claims. Likewise, the employee will endeavor to return the automobile with a full fuel tank to avoid the refueling surcharges imposed by the rental agency. Employees who extend a trip for personal reasons and who need a rental automobile in conjunction with the business portion of that trip shall be personally financially responsible for any damages or liabilities resulting from the use of that automobile outside of the business portion of the trip.

Employees are expected to utilize commercially available ground transportation in lieu of rental automobiles when such transportation is convenient and more economical.

1. Receipts for car rental and fuel expenses should be submitted with expense reports and will be reimbursed according to Company policy.

2. Any fines incurred while operating a rental car on behalf of the Company are the responsibility of the driver. If an employee is involved in an accident, the Human Resources Department should be notified immediately.

Only Company employees should drive rental automobiles. Individuals, not employed by the Company who travel with Company employees will need the authorization of the General Manager/Department Director or Director of Human Resources to drive a rental automobile. This authorization must be

received prior to the automobile being rented. If approved, the individuals, not employed by the Company, must be added as an authorized additional driver on the rental agreement.

3. Personal Automobiles

1. Employees will be reimbursed for the use of their personal car at the current Internal Revenue Service rate for mileage reimbursement (currently set at 58.5 cents per mile for 2008), based upon actual odometer readings for the distance traveled in the performance of their assigned Company work. Employees will not be paid for travel between their homes and their usual places of employment. Employees who routinely use their vehicles for business and are reimbursed for their business miles must complete a mileage log. The mileage log (Attachment HR-24A) must be attached to every expense report submitted for mileage reimbursement. The log should indicate the business miles driven for business appointments or trips and should include the description of the appointment and the city in which the meeting was held. The personal miles should be reflected on the log as soon as the employee starts to drive for personal matters such as lunches, etc. (Note: Marketing Representatives have a monthly cap of 750 miles that will be reimbursed. If travel for training, meetings, or other approved company activities outside of the employee's division is required, the reimbursable miles will not be counted under the mileage cap).

   For employees who use their autos as part of their duties, the employee is responsible for purchasing and maintaining insurance on their auto. Liability insurance as well as physical damage insurance must be on the policy (along with comprehensive & collision if the employee wants their vehicle covered by insurance). Liability insurance is mandatory with limits of not less than $300,000 Combined Single Limit and Physical damage limits of not less than $100,000.

   Employees are expected to notify individual insurers as regards to the utilization of personal vehicles in the course and scope of performing work assignments. In the event of a claim, the employee's personal vehicle insurance shall be the first to pay the claim until the employee's insurance is exhausted. After exhausting such policy or policies, the Company's general liability or property damage insurance shall process the balance of the claim. The employee's insurance is primary for all automobile claims arising from the utilization of personal vehicles for Company business.

2. Company insurance coverage protects the Company, the owner and the driver of the vehicle for general liability exposure to the extent of the Company policy and is in excess of an individual's personal automobile policy for situations within course and scope of Company business.

3. Any fines incurred while operating your personal vehicle on behalf of the Company are the responsibility of the driver. If an employee is involved in an accident, the employee shall immediately notify local police and/or 911, the employee's supervisor, the employee's insurance carrier, and the Safety department, as well as car rental agencies or the owner of the car if it is a borrowed vehicle as needed.

Seat Belt Use: It is the policy of FPUC that any employee traveling on company business; whether it be with personal, rental, or company vehicles; must wear their seat belts. Florida State law mandates seat belt use. Any employee injured in a vehicular accident could have their Workers Compensation benefits reduced for failing to wear a seat belt.

B. Overnight Accommodations

Standard rooms will be utilized whenever possible for employee lodging. Employees will not be required to share a sleeping room with another employee unless the employees choose to do so.

Room extras, such as fees for movies, fees for in-room snacks, etc. are not reimbursable expenses but reasonable bellhop (limited to $1.00 per bag), maid service (limited to $2.00 per day) and laundry service (stays in excess of a week) are reimbursable.

3 • x
5 • =K
15 • *+

C. Meals

Meals will be provided for employees who are not within their territory during the normal time of meals. Employees will have the choice of a per diem allowance for a meal or actual cost of meal (all receipts required). Receipts shall include the name of business establishment, date, itemized list of the meals and drinks, which were ordered (if possible) and total amount of expenditure. Reimbursable tips are limited to a maximum of 20%.

The per diem will be $36.00 per day, and will be pro rated for the following meals: breakfast, $7.00; lunch, $11.00; dinner, $18.00. A reduction from the per diem is required for any meal available to the employee at a meeting, seminar, other business entertainment or hotel. If a meal is purchased outside of one that has been provided by a meeting, seminar or hotel, receipts for that meal reimbursement are required.

The Company will not reimburse the employee for any alcoholic beverages purchased.

D. Long Distance Calls

Employees without a Company furnished cellular phone will have a per diem allowance of $5.00 for personal long distance calls for each night the employee is away from their home.

5 • x
5 • =K
25 • *+

E. Entertainment

It is Company policy to reimburse an employee's expense incurred in the normal course of business to entertain non-employee and employees in the furtherance of the Company's interest. Expenses should be reasonable and should be limited to meals and/or beverages. This may include reasonable purchases of alcoholic beverages when non-company employees are being entertained. Alcoholic beverage purchases will not be reimbursed when only Company employees are involved. Whenever possible, the number of employees involved in a reimbursable entertainment function should be limited to two or one more than the number of non-employees in attendance. Employees entertaining employees, except when entertainment occurs outside of Company service areas in conjunction with an industry meeting, seminar or training school or when employees are staying overnight in a division of the Company other than their normally assigned division, should be limited. Expenses for entertainment should be governed by an employee's good judgment.

F. Miscellaneous

Expenses for necessary miscellaneous items such as parking, ground transportation, local telephone usage, membership dues, etc. are reimbursable providing they are in conjunction with a Company-sponsored trip, approved organization membership or maintenance of Company-provided vehicle.

The company will only reimburse ordinary normal business expenses. The company does not reimburse for items such as medicine, toiletries, and clothing. If an expense is determined by management to be unreasonable, or to be outside of a normal business expenditures, it will not be reimbursed. When in doubt if an expense can be reimbursed, request a decision from the respective General Manager or Department Director.

travelocity

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Your Flight to Tallahassee, FL (TLH)
Departing: Sun, Nov 2 - **Returning:** Fri, Nov 7 | 2 Adults
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Flights + 5 Nights Hotel Save with TotalTrip℠ from $656

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"Total" for e-tickets incl. taxes & fees. Add'l fees for paper ticket.

	Delta Air Lines	US Airways	United	AirTran Airways	Northwest Airlines
1-Stops Only 28 flights	$504 Total $553	$560 Total $606	$645 Total $691	--- 0 flights	--- 0 flights
All 43 Flights displayed below	$504 Total $553	$560 Total $606	$645 Total $691	$731 Total $785	$1,523 Total $1,577

Featured Package: Flights + 5 Nights Hotel from $656

Select Departing Flight for Sun, Nov 2

43 flight options: 1 - 25 | 26 - 43

Airline	Departure Time	Arrival Time	Total Travel Time	Roundtrip Price (includes taxes and fees)	
Delta Air Lines Flight 1762 / Flight 5303 operated by Atlantic Southeast View Seats	6:00am West Palm Beach, FL (PBI)	9:39am Tallahassee, FL (TLH)	3hrs 39min - 1 Stop Change planes in Atlanta, GA (ATL)	$504 per person Total $553 Select	$656 per person This Flight + 5 Nights Hotel Select
Delta Air Lines Flight 718 / 1463 View Seats	2:30pm West Palm Beach, FL (PBI)	9:08pm Tallahassee, FL (TLH)	6hrs 38min - 1 Stop Change planes in Atlanta, GA (ATL)	$504 per person Total $553 Select	Bag Fees May Apply more
Delta Air Lines Flight 1278 / 1463 View Seats	4:30pm West Palm Beach, FL (PBI)	9:08pm Tallahassee, FL (TLH)	4hrs 38min - 1 Stop Change planes in Atlanta, GA (ATL)	$504 per person Total $553 Select	Bag Fees May Apply more
Delta Air Lines Flight 1528 / 1463 View Seats	5:20pm West Palm Beach, FL (PBI)	9:08pm Tallahassee, FL (TLH)	3hrs 48min - 1 Stop Change planes in Atlanta, GA (ATL)	$504 per person Total $553 Select	Bag Fees May Apply more
Delta Air Lines Flight 1086 / Flight 5977 operated by Shuttle America View Seats	12:10pm West Palm Beach, FL (PBI)	5:55pm Tallahassee, FL (TLH)	5hrs 45min - 1 Stop Change planes in Atlanta, GA (ATL)	$534 per person Total $583 1 seat left at this price Select	Bag Fees May Apply more
US Airways Flight 1576 / Flight 2383 operated by US AIRWAYS EXPRESS - PSA AIRLINES View Seats	8:35am West Palm Beach, FL (PBI)	4:09pm Tallahassee, FL (TLH)	7hrs 34min - 1 Stop Change planes in Charlotte, NC (CLT)	$560 per person Total $606 Select	Bag Fees May Apply more
US Airways Flight 1298 / Flight 2383 operated by US AIRWAYS EXPRESS - PSA AIRLINES View Seats	10:15am West Palm Beach, FL (PBI)	4:09pm Tallahassee, FL (TLH)	5hrs 54min - 1 Stop Change planes in Charlotte, NC (CLT)	$560 per person Total $606 Select	Bag Fees May Apply more
US Airways Flight 1868 / Flight 2277 operated by US AIRWAYS EXPRESS - PSA AIRLINES	1:30pm West Palm Beach, FL (PBI)	7:30pm Tallahassee, FL (TLH)	6hrs - 1 Stop Change planes in Charlotte, NC (CLT)	$560 per person Total $606	Bag Fees May Apply more

Exhibit 40.2
Pg. 9 of 19

MAPQUEST. *Sorry! When printing directly from the browser your directions or map may not print correctly. For best results, try clicking the Printer-Friendly button.*

START 401 S Dixie Hwy
West Palm Beach, FL 33401-5807

END 2825 Pennsylvania Ave
Marianna, FL 32448-4004

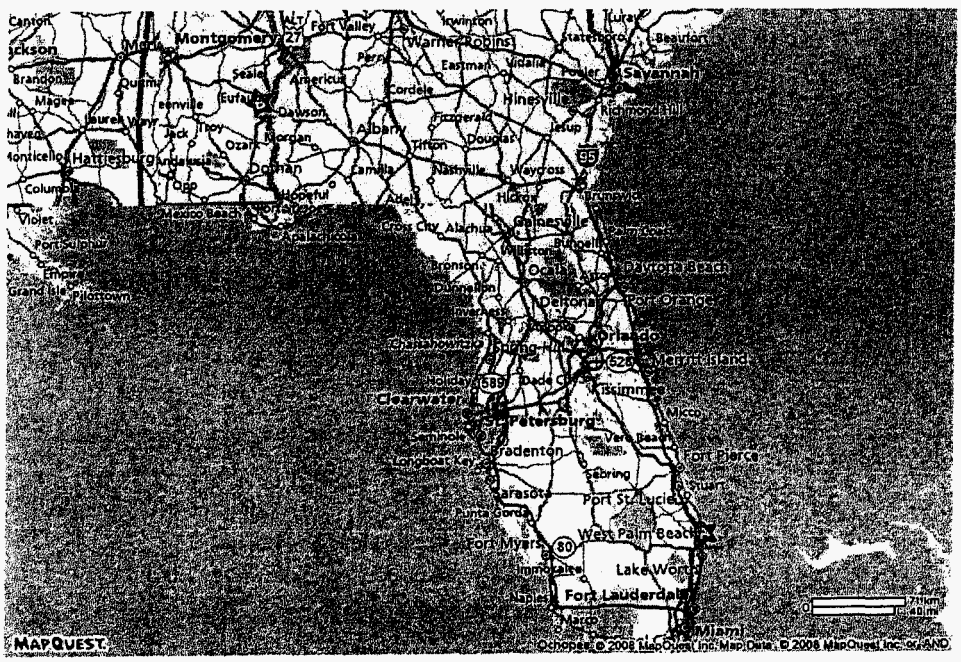
Total Estimated Time: 7 hours 10 minutes
Total Estimated Distance: 481.63 miles

▼ Directions from A to B:

START	1: Start out going SOUTH on S DIXIE HWY/US-1 S/FL-5 S/FL-805 S toward GARDENIA ST.	0.3 mi
WEST 704	2: Turn RIGHT onto LAKEVIEW AVE/OKEECHOBEE BLVD/FL-704 W. Continue to follow OKEECHOBEE BLVD/FL-704 W.	1.1 mi
NORTH 95	3: *Merge onto* I-95 N toward DAYTONA BEACH.	17.3 mi
WEST 704	4: Merge onto FL-706 W/W INDIANTOWN RD via EXIT 87B toward OKEECHOBEE.	0.9 mi
	5: Merge onto FLORIDA'S TURNPIKE N toward ORLANDO (Portions toll).	193.3 mi
NORTH 75	6: *Merge onto* I-75 N.	107.2 mi
WEST 10	7: Merge onto I-10 W via EXIT 435 toward TALLAHASSEE.	159.9 mi
EAST 276	8: Merge onto FL-276 E/CR-167 N via EXIT 136 toward MARIANNA.	1.5 mi
	9: Turn SLIGHT LEFT onto PENN AVE/FL-276.	0.2 mi
END	10: End at 2825 Pennsylvania Ave Marianna, FL 32448-4004	

Estimated Time: 7 hours 10 minutes Estimated Distance: 481.63 miles

Total Estimated Time: 7 hours 10 minutes Total Estimated Distance: 481.63 miles



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              481•63=K    Miles
281•75355*+               Reimbursement
                          (one-way)

281•75355x
              2•=K        (return trip)
563•5071*+                Round-Trip
                          Reimbursement
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Hotel Name Contains:

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- *Tallahassee*

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61 Hotels: 1-25 | 26-50 | 51-61

Sort By: Travelocity Picks Price Ratings Hotel Name City Name

1 Holiday Inn Express Mariana

Photos Map

Tallahassee: Marianna
Marianna, FL
★★★☆☆ Travelocity Rating
1 Review

The Holiday Inn Express Mariana is located 7 miles from downtown Marianna, and approximately 50 miles from the Dothan, Alabama Airport, 60 miles from the Panama City, Florida Airport and 70 miles from the Tallahassee, Florida Airport.
Hotel details | Amenities | All room options

Compare up to 4 ☐ Compare now

GOOD BUY From:
$81
avg. per night
Standard Room - Advance Purchase Rate

2 Quality Inn Marianna

Photos Map

Tallahassee: Marianna
Marianna, FL
★★☆☆☆ Travelocity Rating
1 Review

The Quality Inn is located approximately 11 miles from Lake Seminole and 32 miles from Dothan Airport.
Hotel details | Amenities | All room options

Compare up to 4 ☐ Compare now

GOOD BUY From:
$69
avg. per night
Standard Room with 2 Double Beds Smoking

3 Fairfield Inn and Suites by Marriott Marianna

GOOD BUY From:

Photos Map

Tallahassee: Marianna
Marianna, FL

Travelocity Rating

Write a Review

Hotel details | Amenities | All room options

$89
avg. per night
Quality Guest Room with 1 King Bed

Compare now

4 Comfort Inn and Suites Marianna

Photos Map

Tallahassee: Marianna
MARIANNA, FL

Travelocity Rating

2 Reviews

The Comfort Inn and Suites hotel is perfect for business and leisure travelers and is situated near area attractions and a variety of restaurants.
Hotel details | Amenities | All room options

Compare up to 4

Compare now

GOOD BUY From:
$90
avg. per night
Standard Room with 2 Queen Beds
Non Smoking

5 Days Inn Tallahassee South

No Photo Available

Map

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

3 Reviews

The Days Inn Tallahassee South offers affordable accommodations approximately 11 miles from Tallahassee Regional Airport and about three miles from the State Capitol.
Hotel details | Amenities | All room options

Compare up to 4

Compare now

GOOD BUY From:
$50
avg. per night
Standard Room with 2 Double Beds
Smoking, Buy Now - Non-refundable

6 Holiday Inn Select Downtown

Photos Map

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

9 Reviews

This property, a landmark in downtown Tallahassee, is located eight miles from Tallahassee Regional Airport.
Hotel details | Amenities | All room options

Compare up to 4

Compare now

GOOD BUY From:
$78
avg. per night
Standard Room - Advance Purchase Rate

7 Holiday Inn Capitol East

Photos Map

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

5 Reviews

The Holiday Inn Capitol East is located across the road from

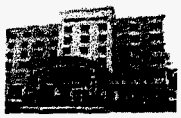
GOOD BUY From:
$90
avg. per night
Standard Room - Advance Purchase Rate

Governor Square Mall and 12 miles from the Tallahassee Regional Airport.
Hotel details | Amenities | All room options

Compare now

Race to Savings

8 Holiday Inn Hotel Suites North I 10



Photos Map

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

15 Reviews

The Holiday Inn Hotel Suites is located approximately eight miles from the Tallahassee Regional Airport and four miles from downtown.
Hotel details | Amenities | All room options

From:
$140
avg. per night
Standard Room with 1 King Bed Non Smoking

Compare up to 4

Compare now

9 Days Inn Tallahassee Northwest

Photos Map

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

2 Reviews

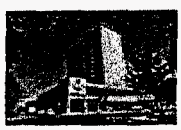
The Days Inn Tallahassee Northwest was fully renovated in 2007 and is a full service hotel which consists of 130 guest rooms.
Hotel details | Amenities | All room options

From:
$38
avg. per night
Standard Room with 1 Double Bed Non Smoking, Buy Now - Non-refundable

Compare up to 4

Compare now

10 Doubletree Hotel Tallahassee



Photos Map

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

8 Reviews

This Doubletree Hotel in Tallahassee is located in the city's center, less than one mile from the Florida State Capitol, and is six miles from Tallahassee Regional Airport.
Hotel details | Amenities | All room options

From:
$144
avg. per night
1 King Bed Non Smoking Non Refundable

Compare up to 4

Compare now

11 Wingate by Wyndham Tallahassee FL

Photos Map

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

3 Reviews

The Wingate by Wyndham Tallahassee offers affordable accommodations approximately three miles from Tallahassee Regional Airport.
Hotel details | Amenities | All room options

From:
$117
avg. per night
Standard Room with 1 King Bed Smoking - Non Refundable

Compare

Race to Savings

Compare now

12 Quality Inn and Suites Tallahassee

Photos Map

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

7 Reviews

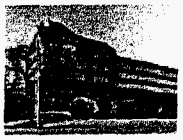
This Quality Inn is located two miles from downtown Tallahassee, and is approximately eight miles from Tallahassee Regional Airport.
Hotel details | Amenities | All room options

Compare up to 4

Compare now

From:
$100
avg. per night
Standard Room with 2 Double Beds
Non Smoking

13 Ramada Inn and Conference Center



Photos Map

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

2 Reviews

This hotel is located on Interstate 10, approximately 11 miles from Tallahassee Regional Airport.
Hotel details | Amenities | All room options

Compare up to 4

Compare now

From:
$75
avg. per night
Standard with 2 Double Beds
Smoking

14 Courtyard by Marriott Tallahassee Capitol

Photos Map

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

2 Reviews

Explore the charms of the South and stay at the Courtyard Tallahassee Capital. The property is approximately 12 miles from the Tallahassee airport, ten miles from Maclay Gardens, six miles from Tallahassee Mall, two miles from Florida A&M and FSU.
Hotel details | Amenities | All room options

Compare up to 4

Compare now

From:
$169
avg. per night
Quality Guest Room 1 King Bed

15 Howard Johnson Express Tallahassee Monroe St

No Photo Available

Map

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

5 Reviews

The Howard Johnson Express Inn Tallahassee offers budget-friendly accommodations approximately 11 miles from Tallahassee Regional Airport.
Hotel details | Amenities | All room options

Compare up to 4

Compare now

From:
~~$59~~ **$50**
avg. per night
Upgraded Room with 2 Double Beds
Smoking
Stay Two, Save 15% Off Best Available Rate

16 La Quinta Inn Tallahassee South

Photos Map

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

9 Reviews

La Quinta Inn Tallahassee South is approximately three miles from Florida State University and 12 miles from Tallahassee Regional Airport.
Hotel details | Amenities | All room options

Compare up to 4 Compare now

GOOD BUY From:

$52
avg. per night
Standard Room w/2 Double Beds - Continental Breakfast - High Speed Internet

17 Jameson Inn Thomasville

Photos Map

Tallahassee
Thomasville, GA

Travelocity Rating

3 Reviews

At Jameson Inn, guests experience the conveniences of a contemporary hotel with the charm of a country inn.
Hotel details | Amenities | All room options

Compare up to 4 Compare now

GOOD BUY From:

~~$75~~ **$71**
avg. per night
Two Double Beds
Save 5%

18 Quality Inn Tallahassee

Photos Map

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

9 Reviews

This Quality Inn is located approximately one mile from Tallahassee Mall and nine miles from Tallahassee Municipal Airport.
Hotel details | Amenities | All room options

Compare up to 4 Compare now

GOOD BUY From:

$60
avg. per night
Standard Room with 1 King Bed Non Smoking

19 Studioplus Tallahassee Killearn

Photos Map

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

Write a Review

StudioPLUS Tallahassee-Killearn is designed specifically for people who need more than just a room while away from home.
Hotel details | Amenities | All room options

Compare up to 4 Compare now

GOOD BUY From:

$70
avg. per night
Studio with 1 Queen Bed Non Smoking

20 Super 8 Tallahasee FL

Compare

GOOD BUY From:

$51

avg. per night
Standard Room with 1 Double Bed
Smoking

Tallahassee: Tallahassee
TALLAHASSEE, FL

Travelocity Rating | 5 Reviews

Photos Map

The Super 8 Motel in Tallahassee is near Interstate 10, just seven miles from Tallahassee Regional Airport.
Hotel details | Amenities | All room options

Compare now

SALE Race to Savings

21 Comfort Suites Tallahassee

GOOD BUY From:

$89
avg. per night
Standard Room with 1 King Bed Non Smoking

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating | 5 Reviews

Photos Map

This Comfort Suites is located approximately three miles from Killearn Center and eight miles from Tallahassee Municipal Airport.
Hotel details | Amenities | All room options

Compare up to 4

Compare now

22 Sleep Inn Tallahassee

GOOD BUY From:

$70
avg. per night
Standard Room with 1 Queen Bed
Non Smoking

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating | 10 Reviews

Photos Map

This Sleep Inn is situated in the Big Bend area, approximately five miles from Tallahassee Regional Airport and 12 miles from the Lafayette Vineyard.
Hotel details | Amenities | All room options

Compare up to 4

Compare now

23 Country Inn and Suites Tallahassee East

GOOD BUY From:

$80
avg. per night
Guest Room with 1 King Bed Non Smoking

Tallahassee: Tallahassee
Tallahassee, FL

Hotel Not Rated Write a Review

Photos Map

Brand new hotel featuring complimentary breakfast, free wired and wireless internet, pool, fitness center, executive and studio suites. All rooms have microwaves, fridge, hair-dryers, iron and ironing boards, coffee makers and 32 inches LCD TVs.
Hotel details | Amenities | All room options

Compare up to 4

Compare now

24 Suburban Extended Stay Tallahassee

GOOD BUY From:

$60
avg. per night
Standard Room with 1 Queen Bed

Non Smoking

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating | 4 Reviews

Photos Map

Compare up to 4

Compare now

Extended Stay Tallahassee is located in a quiet section of Tallahassee and is within walking distance to most major restaurants, family activities, and a short drive to many attractions.
Hotel details | Amenities | All room options

25 Staybridge Suites Tallahassee I-10 East

Tallahassee: Tallahassee
Tallahassee, FL

Travelocity Rating

2 Reviews

Photos Map

The Staybridge Suites Tallahassee is located in the tranquil setting of the Summit East business park and approximately 18 miles south-west of the Tallahassee Regional Airport.
Hotel details | Amenities | All room options

Compare up to 4

Compare now

Good buy From:

$127
avg. per night
Standard Room - Advance Purchase Rate

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81 • +
69 • +
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78 • +
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51 • +
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60 • +
127 • +

61 Hotels: 1-25 | 26-50 | 51-61

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START 2185 Highway 71
Marianna, FL 32448-2540

END 2825 Pennsylvania Ave
Marianna, FL 32448-4004

Hampton Inn to Operations

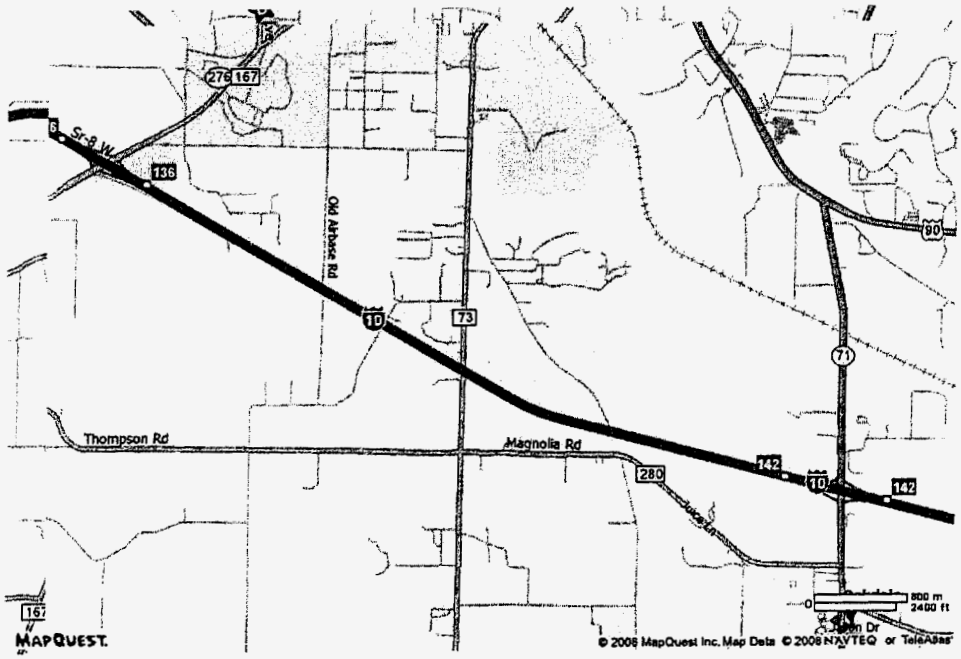
Total Estimated Time: 10 minutes
Total Estimated Distance: 8.03 miles

▼ Directions from A to B:

START	1: Start out going NORTH on FL-71 N toward JASON DR.	1.0 mi
MERGE TO	2: Merge onto I-10 W via the ramp on the LEFT toward PENSACOLA.	5.3 mi
EXIT 276	3: Merge onto FL-276 E/CR-167 N via EXIT 136 toward MARIANNA.	1.5 mi
5	4: Turn SLIGHT LEFT onto PENN AVE/FL-276.	0.2 mi
END	5: End at 2825 Pennsylvania Ave Marianna, FL 32448-4004	

Estimated Time: 10 minutes Estimated Distance: 8.03 miles

Total Estimated Time: 10 minutes Total Estimated Distance: 8.03 miles



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	80•*+
Add'l mileage	50•+
Tips	15•+
Phone	25•+
003	
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	80•×
	0•585=K
	46•8*+

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(plus trips to restaurant)

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- Social Gatherings
- Hilton HHonors
- Things to Do
- Hotel eDirectory
- My Favorite Hotels

Search Results

Change Your Search

Location

City:
Marianna

Search Within:
25 mi km

State/Province:
Florida

Country:
United States

Brand

- Conrad Hotels & Resorts
- Doubletree
- Embassy Suites Hotels
- Hampton Hotels
- Hilton Garden Inn
- Hilton Hotels
- Homewood Suites by Hilton
- Waldorf=Astoria Collection
- All Hilton Family Hotels

Dates
(optional)

Check-in
2 Nov 2008

Check-out
7 Nov 2008

Flexible Travel Dates?

Search Again

More Search Options

Search Results

Print Help

The following location matched your request.

Sort by: Brand Show: All Hotels Go

View Hotels on a Map >

Select up to 4 hotels
Compare Selected Hotels

Hampton Hotels

Hampton Inn Marianna

Compare Hotel

2185 Highway 71 South
Marianna, Florida, USA, 32448
1-850-526-1006
5.23 miles from city center

Available

From **95.00**
USD / night

Add to Favorite Hotels

View Rates

Clear Selected Hotels

Compare Selected Hotels

Select up to 4 hotels

- About Hampton
- Privacy Policy (updated July 2007)
- Site Usage Agreement

TRAVEL REQUEST AUTHORIZATION

Date Submitted: **October 5th** Division: **South Florida**

Requesting Employee: **April Lundgren** Department: **Corporate Accounting**

Destination: **Orlando, Florida**

Reason: **Aqcuire advanced SEC reporting skills and indepth knowledge of Form 10-K preparation**

Benefits: **Keep abreast of recent filing requirements and ensure regulatory comliance**

Departure Date: **12/02/2007** Time: **16:00** Return Date: **12/07/2007** Time: **20:00**

Accommodations Required *(Check all that apply)*:

Traveling:	☑ Alone	☐ With other employee(s) # ____
Airline Reservation:	☐ Yes	☑ No
Hotel Reservation:	☑ Yes	☐ No
Rental Auto Reservation:	☐ Yes	☑ No

Other:

Is pertinent information attached?	☑ Yes	☐ No
Will additional information be provided?	☐ Yes	☑ No
Can departure or return date be expanded to obtain lowest air fare?	☑ Yes	☐ No
Will non-employee(s) be traveling with you?	☐ Yes	☑ No
Frequent Flyer number on record?	☐ Yes	☑ No
Subject matter reportable to Human Resources Department?	☐ Yes	☐ No

Approvals:

Supervisor/Department Head: **Cheryl Martin** Date **10/5/2007**

Treasurer or Vice President: _____ Date _____

Comments: Est. **$3,856** for both courses and hotel; or **$1,652** for SEC training/hotel only; or **$2,355** for 10-K training/hotel

Budgeted $: _____

Estimated $: _____

President: _____ Date _____

Please submit in duplicate and attach meeting, seminar, etc. information/schedule. Original copy will be returned after which reservations and accommodations, if approved, shall be completed. When advanced registration fee is required, please attach request for check or purchase order to the request form.

Q. Why is the Company seeking recovery of costs relating to a tax consultant?

A. The Company has experienced increased demands relating to tax work. Multiple ongoing IRS audits, increased complications within the Company's tax return, new FIN 48 requirements and ongoing special tax projects have caused a need for a tax consultant. The Company will continue to face these complexities and requirements in future years and will therefore require the resources to meet these demands. These costs will be recurring.

Q. Is $78,000 an appropriate projection for this service?

A. The Company has included $78,000 in our projections to recover the cost of a tax consultant. This cost is based on our current cost of $75 per hour for one-half of a year (1040 hours). Because this cost was not incurred in 2007, the Company has added the entire amount as an adjustment to project 2009. These costs have been reviewed for reasonableness and are expected to be incurred annually. 51% (or $39,780) of this expense is allocated to natural gas based on adjusted gross profit.

75 • ×
1 , 040 • =
78 , 000 • *+

0 • *

IFG Project Resourcing, LLC
490 Sawgrass Corporate Parkway
ıite D-201
ɔunrise, FL 33325

(954)861-3955
donaldness@ifgpr.com

ProjectResourcing
INTERNATIONAL FINANCIAL GROUP

Invoice

DATE	INVOICE #
10/02/2008	4203

TERMS
Due on receipt

BILL TO

Cheryl Martin
Florida Public Utilities
401 S. Dixie Highway
West Palm Beach, FL 33401

TAX ID#
83-0385037

Week	Consultant/s Name/s	Hours	Bill Rate/s	Total
09/26/2008	Professional Services provided by Tom Smitha	41	127.50	5,227.50
09/26/2008	Professional Services provided by Keith Harris	42	75.00	3,150.00

Please make check payable to
IFG Project Resourcing, LLC.
Invoices are due upon receipt.

TOTAL $8,377.50

From: Wilson Audra
Sent: Tuesday, October 21, 2008 1:09 PM
To: Lundgren April
Cc: Smitha Tom; Martin Cheryl
Subject: RE: Purchase of land for SF ops facility

Hello April,

Based upon the information you provided to me, I estimate a property tax rate of 2.31% for the construction of the new SF Operations Building located in Lake Park.

Analysis:

Cost of Building	$4,938,500
2008 Taxes Levied on Land	$62,695
2008 Assessed Value of Land	$2,709,403

$62,695 / $2,709,403 = .0231 = 2.31%

2.31% * $4,938,500 = $114,079

Thank you,

Audra N. Wilson

From: Lundgren April
Sent: Tuesday, October 21, 2008 12:49 PM
To: Smitha Tom; Wilson Audra
Subject: Purchase of land for SF ops facility

Here you go!

Thank you,
April Lundgren
Sr. SEC Accountant
Florida Public Utilities Company
561.838.1788

4,744,000.+
194,500.+
002
4,938,500.*+

14. Emergency Generator: ☒ Yes ☐ No

15. Municipality: Town of Lake Park

16. Construction Budget Amount: $4,744,000.00 plus $194,500 in design fees

17. Construction Type: TBD, incorporating Green Building Technology

18. Lot size: 6.22 acres

17. Include civil drawings: ☒ Yes ☐ No

18. Include landscaping: ☒ Yes ☐ No

19. Project Specifics/Conditions:

a. Re-zoning not included

b. Assumed positive drainage out fall

c. AGC Document No. 415 (construction contract) to be finalized upon completion of working drawings. (See Exhibit B for sample contract).

d. Concrete parking utilized for construction budget

H. General terms and conditions:

a. PERFORMANCE: Ahrens shall perform the work in an expeditious and diligent manner. The standard of care for all professional and related services performed or furnished by Ahrens under this Agreement will be the care and skill ordinarily used by members of Ahrens' profession practicing under similar conditions at the same time and in the same locality. The parties to this Agreement agree that Ahrens has no control over certain aspects of the work, including but not limited to, the timely submittal of data or information to be furnished by others for Ahrens' use, the review and approval process of governmental, jurisdictional, or utility agencies and entities. Ahrens

OWNER_____
AHRENS_____

Property Appraiser's Public Access System

Home

Property Information

Location Address: WATER TOWER RD

Municipality: LAKE PARK

Parcel Control Number: 36-43-42-20-26-001-0000

Subdivision: SCHUMACHER AT WATER TOWER RD

Official Records Book: 21913 Page: 360 Sale Date: Jul-2007

Legal Description: SCHUMACHER AT WATER TOWER RD TR A K/A FUTURE DEV

View Map | Calculate Portability | Proposed Tax Notice | Reverse Side

Owner Information

Name: FLORIDA PUBLIC UTILITIES COMPANY

Mailing Address: 401 S DIXIE HWY
WEST PALM BEACH FL 33401 5807

All Owners

Sales Information

Sales Date	Book/Page	Price	Sale Type	Owner
Jul-2007	21913/0360	$3,443,125	WARRANTY DEED	FLORIDA PUBLIC UTILITIES COMPANY
Aug-2006	20717/1364	$3,719,276	WARRANTY DEED	WATERTOWER BUSINESS PARK LLC
Oct-2002	14315/1202	$1,207,000	WARRANTY DEED	STUART ENTERPRISES INC

All Sales

Exemptions

Exemption Information Unavailable.

Appraisals

Tax Year:	2008	2007	2006
Improvement Value:	$0	$0	$0
Land Value:	$2,709,430	$1,896,601	$1,490,187
Total Market Value:	$2,709,430	$1,896,601	$1,490,187

Property Information
Number of Units: 0
Acres: 6.22

Use Code: 4000 Description: VACANT INDUSTRIAL

Assessed and Taxable Values

Tax Year:	2008	2007	2006
Assessed Value:	$2,709,430	$1,896,601	$1,490,187
Exemption Amount:	$0	$0	$0
Taxable Value:	$2,709,430	$1,896,601	$1,490,187

Structure Detail

Tax Values

Tax Year:	2008	2007	2006
Ad Valorem:	$62,696	$41,826	$35,727
Non Ad Valorem:	$7,175	$4,885	$4,637
Total Tax:	$69,871	$46,711	$40,364

Tax Collector WebSite

Tax Calculator | Details

NOTE: Lower the top and bottom margins to 0.25 on File->Page Setup menu option in the browser to print the detail on one page.

Q. Why has the Company added an over and above adjustment of $8,855 for Infinium software maintenance?

A. Historically, the Infinium software maintenance fees have increased at a rate of 8% which is higher than the normal inflation rate. We have included known actual changes in our projections and used the actual historical increase and projected this same increase for 2009. Fifty-four percent (or $4,782) of this expense is allocated to natural gas based on allocated common plant.

Infinium Software Historical Costs

	Expense	% Inc
2007	57,471.17	0.080
2006	53,214.06	0.080
2005	49,272.27	0.085
2004	45,408.28	

forward faster

Billing Office	Invoice No	Invoice Date	Due Date
0001	P - 8818	11/14/06	12/31/06

Invoice

Bill to: Florida Public Utilities Co.
401 S Dixie Hwy
WEST PALM BEACH, FL 33401
USA

Attn: Michelle Napier

Deliver to: Florida Public Utilities Co.
401 S Dixie Hwy
WEST PALM BEACH, FL 33401
USA

Attn: Michelle Napier

Customer No	Tax Reg No.	Customer PO No.	Currency	Contract Information
38269			USD	Renewal Maintenance 1/1/07 - 12/31/07

	DELIVERABLE	QTY	UNIT PRICE	TOTAL
1	Infinium Application Manager Extended	1.00	8,497.22	8,497.22
1	Infinium Fixed Assets	1.00	11,048.14	11,048.14
1	Infinium General Ledger	1.00	17,673.29	17,673.29
1	Infinium Payables Ledger	1.00	12,747.59	12,747.59

REDACTED

100,1650.4

RECEIVED
DEC 0 1 2006

Tax State FL 3,247.82

Remit to:
Wire Transfer To:
JPMorgan Chase
60603 Chicago
United States
Account #
ABA #

Checks Payable to:
SSA Global
36549 Eagle Way
Chicago, IL 60678- 1365

Net	Tax Rate	Tax	Total
49,966.24	0.00	3,247.82	53,214.06

PaymentTerms: Net 30
Special Instructions: For credit control, please contact Lynne Karbin on 312- 258- 6540 or email Lynne.Karbin@ssaglobal.com.

Global
500 West Madison
Suite 2200
Chicago, IL 60661
Tel. +1 312 258 6000
Fax. +1 312 474 7500
FEIN #: 84- 1542338

Invoice Total USD 53,214.06

forward faster

Corporate Headquarters
500 West Madison, Suite 2200
Chicago, IL 60661

Telephone: 312-258-6000
Facsimile: 312-258-6371

BILL TO: Florida Public Utilities Co.
Attn: Michell Napier
401 South Dixie Hwy
West Palm Beach, FL 33401

SHIP TO:

DATE: 11/17/2005 INVOICE #: P4818-STX

CUSTOMER NUMBER	P.O. NUMBER	ORDER DATE	ORDER	Terms	
038269	NA	1/1/2006	RENEWAL	NET 45	SE

QTY	U/M		UNIT PRICE	TOTAL
12	M	AM/X/400	655.65	$7,867.80
12	M	FA/400	852.48	$10,229.76
12	M	GL/400	1,363.68	$16,364.16
12	M	PL/400	983.61	$11,803.32
		Term: 1/1/06 - 12/31/06		
1	U	Sales Tax	3,007.23	$3,007.23

REDACTED

ENTERED
NOV 2

SUBTOTAL $49,272.27

PAYMENT OPTIONS

1. WIRE TRANSFER
SSA GLOBAL
JPMorgan Chase
Chicago, IL 60603
ABA No. 0:
Account No.

2. CHECKS PAYABLE TO:
SSA GLOBAL
36549 Eagle Way
Chicago, IL 60678-1365

Please reference invoice & client numbers on all checks & correspondence

FEIN# **84-1542338**

Address Inquiries to: ssaglobal.nacontracts@ssaglobal.com, Subject: Infinium

5 / 1

SSA global™
forward faster

Corporate Headquarters
500 West Madison, Suite 1600
Chicago, IL 60661

Telephone: 312-258-6000
Facsimile: 312-258-6371

BILL TO: Florida Public Utilities Co.
Attn: Michell Napier
401 South Dixie Hwy
West Palm Beach, FL 33401

SHIP TO:

DATE: 11/1/2004 INVOICE #: P16075-01

CUSTOMER NUMBER	P.O. NUMBER	ORDER DATE	ORDER	Terms	
050201	NA	11/1/2004	RENEWAL	1/1/2005	
QTY	**U/M**			**UNIT PRICE**	**TOTAL**
12	M	AM/X/400		607.08	$7,285
12	M	FA/400		789.33	$9,472
12	M	GL/400		1,262.67	$15,152
12	M	PL/400		910.75	$10,929
		Term: 1/1/05 - 12/31/05			
1	U	Sales Tax		2,570.28	2,570.28

100.1650.4

ENTERED
DEC 28 2004

REDACTED

SUBTOTAL **$45,408.28**

PAYMENT OPTIONS

1. WIRE TRANSFER
SSA GLOBAL
BankOne
Chicago, IL 60670
ABA N
Account No.

2. CHECKS PAYABLE TO:
SSA GLOBAL
36549 Eagle Way
Chicago, IL 60678-1365

Please reference invoice & client numbers on all checks & correspondence

FEIN# **84-1542338**

Address Inquiries to: Lynne Karbin 312/416-6709 or lynne.karbin@ssaglobal.com

Q. Explain the $14,751 adjustment for SSA Global report writer and budget maintenance.

A. The Company has historically utilized Excel templates to prepare the budget. Due to the complex calculations, linked files, and integrated components of our budget, we are quickly exceeding the capabilities of this application. We have researched various applications designed to meet our budget and forecasting needs and have included in our 2009 projections a budget and report writer application from SSA Global. We have revised the application quote received from the vendor in our projection to account for inflation.

The Company has included $7,966 (or 54% of $14,751) in 2009 for recovery of maintenance on this software application. The allocation percentage of 54% to natural gas is based on allocated common plant. Although we will not incur the maintenance fees until years 2010 and beyond, we will incur approximately the same cost in 2009 as training expense. Because we will be incurring maintenance fees on an annual basis going forward, it is appropriate to seek recovery of these costs.

SSA Global Report Writer and Budget Application

	2003 Pricing	2004 Projection	2005 Projection	2006 Projection	2007 Projection	2008 Projection	2009 Projection	3/4 in 2009	1/4 in 2010
Software	60,000	62,100	64,274	66,523	68,851	71,261	73,755	55,316	18,439
Installation	62,000	64,170	66,416	68,741	71,146	73,637	76,214	57,160	19,053
Seats - Financial Manager	33,000	34,155	35,350	36,588	37,868	39,194	40,565	30,424	10,141
Seats - Report Manager	2,400	2,484	2,571	2,661	2,754	2,850	2,950	2,213	738
	157,400	162,909	168,611	174,512	180,620	186,942	193,485	145,114	48,371
Annual maintenance	12,000	12,420	12,855	13,305	13,770	14,252	14,751	14,751	15,267

SSA Global Profile

Name and version of your budgeting and reporting application:

SSAG Financial Manager powered by Cognos – Budgeting, Financial Statements

SSAG Report Manager powered by Cognos – Ad Hoc Reporting

Describe your company in terms of its background, vision, and mission. Please include years in business, employee count, and any information you feel should be considered in our purchase decision.

SSA Global Technologies, Inc., with over 3,500 employees, is a leading provider of extended enterprise resource planning (ERP) solutions for manufacturing, services, and public organizations worldwide. In addition to core ERP applications, SSA GT offers a full range of practical integrated extended solutions including corporate performance management, customer relationship management (CRM), supply chain management and supplier relationship management.

SSA Global has a growth strategy to acquire market share, and to develop customer share by satisfying the critical software solutions and services requirements of the company's growing client base of 13,000 active customers worldwide. The company's execution on that business strategy has resulted in a 220 percent increase in revenue, with operating profit exceeding 20 percent over the past two fiscal years, from July 31, 2001 to July 31, 2003.

Describe your company's customer support policy and structure.

SSA Global offers in-depth Professional Services assistance during the implementation phase and comprehensive customer support during the production phase. There is a Support Hot Line available 24 hours a day, 7 days a week, as well as on line help via the One Point Support web site

Describe any strategic partnerships existing between your company and others.

SSA Global's vast network of global, regional, and local partners offers products and services including systems integration, hardware, extended solution software, business information and application hosting. We speak our customers' language and we understand how they work ... wherever in the world they may conduct business. We have attached a spreadsheet listing our Alliance partners in electronic format with our response.

Our global partnerships include:

- **Service Alliances — with organizations whose capabilities strengthen our own offerings ... whether enhancing service in a key market, providing a new technology or process, or extending coverage to new geographies.**

- **Software Alliances — that add value to SSA Global's solutions through vendors who are leaders in their own business niches. Our flexible technical foundation allows seamless integration with the partner solutions that add critical industry and business process functionality to our extended ERP offerings. Cognos for Corporate Performance Management and RecruiterNet for Applicant Tracking are two great examples of Software Alliances SSAG has formed.**

- **Technology Alliances — that provide technology and hardware platforms, operating systems, and network or database solutions upon which our solutions run. Our alliances also extend to the channel partners of these technology companies to deliver a complete technology infrastructure and related services to our customers.**

- **Channel Network — Extending our reach and expanding our localized resources and expertise. The SSA Global Certified Affiliate Network represents business opportunities on a worldwide scale.**

Is your company publicly held?

SSA Global has filed a registration statement with the Securities and Exchange Commission for a proposed initial public offering (IPO). SSA Global is currently in a quiet period.

Please understand that SSAG is in a quiet period and we can make no further comment at this time. All available details are in the announcement that is posted on the SSA Global home page and with the Securities and Exchange Commission. The S-1 can be found at www.sec.gov and should be reviewed for any additional information that you may require.

What is your worldwide installed base for these applications?

SSA Global is COGNOS' leading OEM partner with over 1,500 accounts globally utilizing the SSAG Corporate Performance Management Suite of solutions powered by COGNOS.

Customer References

Please list three of your customers whom we may contact as references for your products and services. ABC Stores

Caesars
Colin Services
Key Energy

Please include contact information.

Our customers have requested that any reference calls be arranged through the appropriate sources within SSAG. Please contact Roger Fallows at 972 781 6569 to set up desired reference calls.

1.0 Technical Environment

Please indicate the name of your product(s) and if the application(s) can provide solutions for the following criteria:

Product Name:

SSAG Financial Manager Powered by Cognos and SSAG Report Manager Powered by Cognos

Reporting and Budgeting Application		YES
1.1	Interface with iSeries DB2 applications	YES
1.2	Excel, Web or Windows based report creation and maintenance	YES
1.3	Versatile report components Mix budget, actual, statistical and calculated fields Report on both account balance and transaction type	YES
1.4	Drill to transactional detail	YES
1.5	Versatile time periods	YES
1.6	Permits user defined groups for accounts	YES
Budgeting Application		
1.7	Versatile forecast and allocation methods	YES
1.8	What if Scenario	YES
1.9	Top down allocation of costs	YES
1.10	Version and security controls	YES
1.11	Budget by account	YES
1.12	Budget by transaction type within an account	YES
1.13	Mix budget, actual, statistical and calculated fields	YES

2.0 Time to Implementation

2.1	How many person days are typically required to implement this application to fully operational status?	A "typical" implementation involves between 25 to 35 days of installation, implementation support, training, and report writing guidance; depending on the complexity of the reporting

	requirements.
2.2 Is this application designed to be installed and configured by the user?	SSA Global will perform the installation and assist in the configuration
2.3 How many days of consulting support is recommended for this application?	20 – 25 days including both Financial and general reporting
2.4 How many days of training is recommended for the administrators?	1 day.
How many days of training is recommended for the support analysts?	Included
How many days of training is recommended for the managers?	Included
How many days of training is recommended for the end users?	4 for Financial Reporting , 2-3 for general reporting.

3.0 Service and Support

3.1 Does periodic maintenance include updates and upgrades to this application?	YES
3.2 Does your company offer internet-based product support?	YES
3.3 Does this application include hardcopy documentation?	YES
3.4 Does this application include online documentation?	YES
3.5 What training is offered for this application?	SSAG provides either Onsite or regional training for the proposed applications. We have quoted regional training in the Services quote for costs purposes.

Pricing Estimate

Application

SSAG Financial Manager	**Starter Kit Includes:**	**$35,000**
	1 Finance Administrator & 5 User Licenses	
	5 User Licenses (Additional)	**$16,500**
SSAG Report Manager:	**1 Administrator License**	**$ 1,330**
	10 User Licenses (10x $800)	**$ 8,000**

SSAG Integration Bundle : ($30,000 value) **$ N/C**

Total Software Price: **$59,630**

Price per Seat:

SSAG Financial Manager	**$3,300 per User (minimum of 10 users per purchase)**
SSAG Report Manager	**$ 800 per User**

Periodic Maintenance & Support Fee: **$11,926.00** **(20% of List Price)**

Professional Services estimate **$62,000.00**

Q. Why is an adjustment for Annual Report and Stock Exchange fees appropriate?

A. The cost for producing the 2007 annual report was significantly less than a typical annual report due to the paper weight and the type of cover. The adjustment for the stock exchange fees is the difference between historical cost and the future cost estimate provided by the vendor. The portion of the cost increase for 2009 that has been allocated to natural gas is $4,408.

FLORIDA PUBLIC UTILITIES COMPANY
CONSOLIDATED NATURAL GAS DIVISION
RECAP OF MISC GENERAL EXPENSES (9302) 2007 - 2009

DESCRIPTION	ACTUAL 2007	PROJECTED 2009	2009 BASIS	RATE
ANNUAL CASH RETAINER - DIRECTORS	26,701	28,877	INFLATIONARY	1.0815
ANNUAL STOCK RETAINER - DIRECTORS	24,797	26,818	INFLATIONARY	1.0815
MEETINGS - DIRECTORS	24,480	26,475	INFLATIONARY	1.0815
ANNUAL STOCKHOLDER MEETING	5,063	5,476	INFLATIONARY	1.0815
ANNUAL REPORT	5,039	9,347	NOTE 1	
PRESS RELEASES - MARKET WIRE,INC	1,691	1,829	INFLATIONARY	1.0815
STOCK TRANSFER AGENT	12,389	13,399	INFLATIONARY	1.0815
AMER. STOCK EXCHANGE LISTING	9,690	14,025	NOTE 2	
BANKING FEES	4,600	4,975	INFLATIONARY	1.0815
ASSOC. GAS DISTR. OF FLORIDA	3,045	3,293	INFLATIONARY	1.0815
MISCELLANEOUS	5,933	6,417	INFLATIONARY	1.0815
TOTAL	123,428	140,930		

NOTE 1: EXPENSES ESTIMATED AT $18328 X 51%

NOTE 2: FEE ESTIMATED AT $27,500 X 51%

••0••

9,347• +
5,039• −
14,025• +
9,690• −
8,643• ◊

8,643• x
0•51 =
4,407•93 +

Troy Darryl

From: Napier Michelle
Sent: Tuesday, October 07, 2008 5:34 PM
To: Troy Darryl
Subject: FW: Annual Report

Darryl,
Here is what Laura stated for annual report.

Michelle Napier
General Accounting Manager
561-838-1712

From: Scotten Laura
Sent: Tuesday, October 07, 2008 4:09 PM
To: Napier Michelle
Cc: Jaeger Melanie
Subject: RE: Annual Report

Michelle,
I'd estimate $16,000.00 to produce the 2008 annual report.

From: Napier Michelle
Sent: Tuesday, October 07, 2008 3:53 PM
To: Scotten Laura
Cc: Jaeger Melanie
Subject: Annual Report

Laura,
I would like to verify with you the estimated fee for the 2008 Annual report. At this time we are accruing $12,000 for the Annual Report. Do you agree with this amount or will it be different? Please let me know so that we can true-up the accrual this month, if necessary. Thanks.

Michelle Napier
General Accounting Manager
561-838-1712

BOOKED

2007 REPORT	16,446 *		
2008 EST	17,839	.0527 %	2008
2009 EST	18,328	.0274 %	2009

* ACTUAL COST
BOOKED WMS!
8207 TEG
x 51%
4185 ALLOCATED
854 DIRECT
5039

ANNUAL REPORT

2007

T-D	2187.50 x 12 =	26,250
JUNE	(18,043.34)	(18,043)
		8,207
		x 51%
		4185 M&E
		+ 854 DIRECT
2007	ACTUAL EXPENSE	5039

	ACTUAL	COSTS	2006	REPORT	* 6,956
	ACTUAL	COSTS	2007	REPORT	** 16,946
INFLATION	EST	COSTS	2008	REPORT	17,839
INFLATION	EST	COSTS	2009	REPORT	18,328 +

Florida Public Utilities Company
100.2420.9
MISC. CURRENT & ACCRUED LIABILITY
Period Ending: Dec-07

Prepared By: AW 2/4/08

Approved By: MW 2/8/08

DATE	ENTRY TYPE	DESCRIPTION	2006 ANNUAL REPORT AMOUNT	2007 Annual Report	2007 PAYMENTS	ACCOUNT BALANCE	G/L BALANCE	DIFFERENCE
BALANCE FWD.			(25,000.00)			(25,000.00)	(25,000.00)	0.00
January	JE 6	Annual Report		(2,187.50)		(27,187.50)	(27,187.50)	0.00
February	JE 6	Annual Report		(2,187.50)		(29,375.00)	(29,375.00)	0.00
March	JE 6	Annual Report		(2,187.50)		(31,562.50)	(31,562.50)	0.00
April	PL	Annual Report printout of Proxy by street name	25.00	(2,187.50)		(33,725.00)	(33,725.00)	0.00
May	JE 6	Annual Report		(2,187.50)		(35,912.50)	(35,912.50)	0.00
June	JE 6	Annual Report and 2006 true-up	6,931.66 18,043.34	(2,187.50)		(13,125.00)	(13,125.00)	0.00
July	JE 6	Annual Report		(2,187.50)		(15,312.50)	(15,312.50)	0.00
August	JE 6	Annual Report		(2,187.50)		(17,500.00)	(17,500.00)	0.00
September	JE 6	Annual Report		(2,187.50)		(19,687.50)	(19,687.50)	0.00
October	JE 6	Annual Report		(2,187.50)		(21,875.00)	(21,875.00)	0.00
November	JE 6	Annual Report		(2,187.50)		(24,062.50)	(24,062.50)	0.00
December	JE 6	Annual Report		(2,187.50)		(26,250.00)	(26,250.00)	0.00
YTD TOTALS			0.00	(26,250.00)	0.00	(26,250.00)	(26,250.00)	0.00

FLORIDA PUBLIC UTILITIES COMPANY

FLO-GAS CORPORATION

JOURNAL ENTRY HEADER

JE# 6

JE DESCRIPTION: *(TYPE BELOW)*

YR/PD 07/06

ACCT YEAR 2007 PERIOD 6

m 47776 BATCH NUMBER 31080

001 SOURCE JE

6 AUTO ACCRUAL ? [0/1]

DESCRIPTION: P&A

True-up Annual report expenses for 2006; Estimated at 25,000 cost only 6931.66

ACCOUNT NUMBER	AMOUNT DEBIT	AMOUNT CREDIT	DESCRIPTION	SUBLDG. NUMBER
100.2420.9	18,043.34			
100.1849.9302		18,043.34		

10-4-08

Florida Public Utilities Company
100.2420.9
MISC. CURRENT & ACCRUED LIABILITY
Period Ending: Aug-08

Prepared By: M Jaeger

Approved By: MSL 10/3/08

DATE	ENTRY TYPE	DESCRIPTION	2007 ANNUAL REPORT AMOUNT	2008 Annual Report	2008 PAYMENTS	ACCOUNT BALANCE	G/L BALANCE	DIFFERENCE
BALANCE FWD.			(26,250.00)			(26,250.00)	(26,250.00)	0.00
January	JE 6	Annual Report		(1,000.00)		(27,250.00)	(27,250.00)	0.00
February	JE 6	Annual Report		(1,000.00)		(28,250.00)	(28,250.00)	0.00
March	JE 6	Annual Report		(1,000.00)		(29,250.00)	(29,250.00)	0.00
April	PL	Annual Report and 2007 Annual Report Covers	846.90	(1,000.00)		(29,403.10)	(29,403.10)	0.00
May	JE 6	Annual Report		(1,000.00)		(30,403.10)	(30,403.10)	0.00
June	JE 6	Annual Report		(1,000.00)		(31,403.10)	(31,403.10)	0.00
July	JE 6	Annual Report		(1,000.00)		(32,403.10)	(32,403.10)	0.00
August	JE 6	Annual Report Accrual and 2007 Annual Report	16,099.17	(1,000.00)		(17,303.93)	(8,000.00)	(9,303.93)
August	JE 6	2007 True Up	9,303.93			(8,000.00)	(8,000.00)	0.00
September								
October								
November								
December								
YTD TOTALS			0.00	(8,000.00)	0.00	(8,000.00)	(8,000.00)	0.00

LAURA EST. * 16,000 FOR 2008 ANNUAL REPORT

Exhibit 40.7
Pg. 7 of 13

Select option, press Enter.
Account . : 001.0.0.2420.9 MISC CURRENT & ACCRUED LI

ANNUAL REPORT

	Period End	Starting Balance	Posted Activity	Ending Balance
_	JAN 1/31/2008	26,250.00-	1,000.00-	27,250.00-
_	FEB 2/29/2008	27,250.00-	1,000.00-	28,250.00-
_	MAR 3/31/2008	28,250.00-	1,000.00-	29,250.00-
_	APR 4/30/2008	29,250.00-	153.10-	29,403.10-
_	MAY 5/31/2008	29,403.10-	1,000.00-	30,403.10-
_	JUN 6/30/2008	30,403.10-	1,000.00-	31,403.10-
_	JUL 7/31/2008	31,403.10-	1,000.00-	32,403.10-
_	AUG 8/31/2008	32,403.10-	24,403.10	8,000.00-
_	SEP 9/30/2008	8,000.00-	.00	8,000.00-
_	OCT 10/31/2008	8,000.00-	.00	8,000.00-
_	NOV 11/30/2008	8,000.00-	.00	8,000.00-
_	DEC 12/31/2008	8,000.00-	.00	8,000.00-
_	ADJ 12/31/2008	8,000.00-	.00	8,000.00-

F2=Function keys F3=Exit F5=Refresh F6=More info. F24=More keys

10/01/2008 16:13:55 Interactive Trial Balance GLGIT
Journals

elect journal to display account transactions.

ccount . : 001.0.0.2420.9 MISC CURRENT & ACCRUED LI
eriod . . . . . : 2008 8 AUG 8/31/2008 Monetary USD
rt balance . . : 32,403.10- Posted activity . 24,403.10
balance . . . : 8,000.00- Unposted activity .00

Journal	Date	Reference	Source	N/A	Amount
51594	9/15/2008	6	JE		16,099.17
51595	9/15/2008	6	JE		9,303.93
51624	9/18/2008	6	JE		1,000.00-

Bottom

2=Function keys F3=Exit F5=Fold/unfold F24=More keys

AMER. STOCK EXC. FE

Troy Darryl

From: Erdek Bonnie
Sent: Wednesday, October 08, 2008 1:41 PM
To: Troy Darryl
Subject: FW: Amex Fee Schedule: Florida Public Utilities Co - ISR1008804

Darryl: The attached fee structure shows the minimum fee for AMEX is now $27,500. Thanks,

Bonnie

From: Steve Pettibone [mailto:stevep@ar-dept.com]
Sent: Thursday, February 21, 2008 10:11 AM
To: Erdek Bonnie
Subject: Amex Fee Schedule: Florida Public Utilities Co - ISR1008804

Hi Bonnie,

Very nice speaking with you this morning. I have included a copy of the Listing Fee Schedule, reflecting the new billing structure for the Annual Fees for you review. Please contact me with any questions or concerns.

Kind regards,

Steve Pettibone| Options, Equities, ETF - Trans Fees & Issuer| AMEX Accounts Receivable Department | P: (941) 363-5398 | F: (941) 363-5280 |
PRIVILEGED/CONFIDENTIAL INFORMATION may be contained in this message and/or any file attached hereto. If you are not the addressee indicated in this message (or responsible for its delivery of the message to such person), you may not copy or deliver this message to anyone. In such case, you should destroy this message, and notify us immediately. If you or your employer does not consent to Internet E-mail messages of this kind, please advise us immediately. Opinions, conclusions and other information expressed in this message are not given or endorsed by this firm or any of its employees unless otherwise indicated by an authorized representative of this firm independent of this message.

Sec. 141. ANNUAL FEES
Stock Issues

Shares Outstanding	Fee
50,000,000 shares or less	$27,500
50,000,001 to 75,000,000 shares	$32,500
In excess of 75,000,000 shares	$34,000

Issues Listed Under Section 106 and Section 107 of the Company Guide; Rule 1000A-AEMI (Index Fund Shares); Rule 1200-AEMI (Trust Issued Receipts); Rule 1200A-AEMI (Commodity-Based Trust Shares); Rule 1200B-AEMI (Currency Trust Shares); Rule 1400 (Paired Trust Shares); Rule 1500-AEMI (Partnership Units); Rule 1600 (Trust Units); and Closed-End Funds

Shares or Units Outstanding	Fee
5,000,000 shares (units) or less	$15,000
5,000,001 to 10,000,000 shares (units)	17,500
10,000,001 to 25,000,000 shares (units)	20,000
25,000,001 to 50,000,000 shares (units)	22,500
50,000,001 to 100,000,000 shares (units)	30,000
100,000,001 or greater	50,000

The Board of Governors or its designee may, in its discretion, defer, waive or rebate all or any part of the applicable annual listing fee specified above for Stock Issues.

The annual fee is payable in January of each year and is based on the total number of all classes of shares (excluding treasury shares) and warrants according to information available on Exchange records as of December 31 of the preceding year. (The above fee schedule also applies to issuers whose securities are admitted to unlisted trading privileges.)

In the calendar year in which an issuer first lists, the annual fee will be prorated to reflect only that portion of the year during which the security has been admitted to dealings and will be payable within 30 days of the date the issuer receives the invoice, based on the total number of outstanding shares of all classes of stock at the time of original listing.

Index Fund Shares, Trust Issued Receipts, Commodity Based Trust Shares, Currency Trust Shares, Partnership Units, Paired Trust Shares and Trust Units—The annual fee for issues listed under Rule 1000A-AEMI (Index Fund Shares), Rule 1200-AEMI (Trust Issued Receipts), Rule 1200A-AEMI (Commodity-Based Trust Shares), Rule 1200B-AEMI (Currency Trust Shares), Rule 1400 (Paired Trust Shares), Rule 1500-AEMI (Partnership Units) and Rule 1600(Trust Units) is based upon the number of shares of a series of Index Fund Shares, Trust Issued Receipts, Commodity-Based Trust Shares, Currency Trust Shares, Paired Trust Shares, Partnership Units or Trust Units outstanding at the end of each calendar year. For multiple series of Index Fund Shares issued by an open-end management investment company, for multiple series of Trust Issued Receipts and/or Commodity-Based Trust Shares, for multiple series of Currency Trust Shares, for multiple series of Paired Trust Shares, for multiple series of Partnership Units or for multiple series of Trust Units, the annual listing fee is based on the aggregate number of shares in all series outstanding at the end of each calendar year. Annual listing fees are applied to each product class of a particular issuer separately. Therefore, for a particular issuer, the aggregate number of shares in all series outstanding at the end of each calendar year for each of Index Fund Shares,

Trust Issued Receipts, Commodity-Based Trust Shares, Currency Trust Shares, Paired Trust Shares, Trust Units and Closed-End Funds are separately calculated.

Closed-End Funds—The annual fee for a Closed-End Fund listed under Section 101 of the Company Guide is based upon the number of shares outstanding of such Fund at the end of each calendar year. For multiple Closed-End Funds of the same sponsor, the annual listing fee is based on the aggregate number of shares outstanding of all such Funds at the end of each calendar year. Annual listing fees are applied to each product class of a particular issuer separately. Therefore, for a particular issuer, the aggregate number of shares in all series outstanding at the end of each calendar year for each of Index Fund Shares, Trust Issued Receipts, Commodity-Based Trust Shares, Currency Trust Shares, Paired Trust Shares, Trust Units and Closed-End Funds are separately calculated.

Bond Issues—There is an annual fee of $5,000 for listed bonds and debentures of companies whose equity securities are not listed on the Exchange. The annual fee is payable in January of each year. In the calendar year in which a company lists, the annual fee will be prorated to reflect only that portion of the year during which the security was admitted to dealings. The Board of Governors or its designee may, in its discretion, defer, waive or rebate all or any part of the annual listing fee applicable to bonds.

Late Fee—The Exchange will assess a late fee of $2,500 for failure to remit annual fees within 60 days of the invoice date (this fee does not apply to trust issued receipts, index fund shares, or debt issues).

NOTE: In all cases, if after payment in full of the annual fee for any year, all of the issuer's securities are removed from listing and registration, the Exchange will not reimburse that part of the annual fee applicable to the portion of the year remaining after the date of suspension from dealings.

Amended.

November 15, 2001 (Amex-2001-58).

February 6, 2002 (Amex-2001-100).

August 1, 2003 (Amex-2003-41).

January 9, 2004 (Amex-2003-103).

August 26, 2004 (Amex-2004-070).

January 19, 2005 (Amex-2004-038).

January 5, 2006 (Amex 2005-128).

March 7, 2006 (Amex-2005-124).

March 31, 2006 (Amex-2005-127).

April 26, 2006 (Amex-2006-33).

May 9, 2006 (Amex-2005-125).

June 6, 2006 (Amex-2006-20).

November 29, 2006 (Amex-2006-82).

January 12, 2007 (Amex-2007-03).

November 15, 2007 (Amex-2007-108).

December 3, 2007 (Amex-2006-96).

December 28, 2007 (Amex-2007-116).

FLORIDA PUBLIC UTILITIES COMPANY

Job Description

Job Title: Marketing Administrator **Reports To:** Marketing Manager

Department: Marketing/Sales

Position Summary: Provides sales and administrative support to the Field Sales Representative (FSR) team. Primary responsibilities include but are not limited to: answer inquiries of potential customers; qualify the needs of the customer; provide basic program information; determine which FSR territory a prospective customer falls into; compile the information necessary to prepare the FSR for site visits. Act as a sales liaison between Operations and the FSR team. Administrative duties are related to the creation of service orders, completion of the commission payment cycle and merchandising activities by entering data into Orcom and commission tracking spreadsheets.

Duties and Responsibilities:

- Qualifies inquiries obtained from call and walk-in customers; promotes Company sales and retention programs, services, conservation programs, products and the use of natural and propane gas.
- Utilizes Company records, data and system maps to determine what energy source (natural or propane gas) are most readily available to a potential customer.
- Compiles information pertinent to customers past, current, or desired use of gas and or gas utilization equipment. Determines the level of interest in the Company's products such as appliance service, merchandise or installation programs. Provides information to the appropriate FSR. Assists when necessary in the new account folder set-up process.
- Supports FSR's by assisting with the coordination of site visits, communicates information relating to Company marketing and sales programs, natural gas rates and common propane rates, customary installation and service charges. Explains the nature and scope of Company services.
- Obtains service order numbers and provides detailed written instructions for gas service, fuel line, appliance installation, etc on Sales Contracts. Assists FSR with customer account research, transactions and at times data entry into the Orcom system.
- Responsible for filing and maintaining records of all closed sales files in the centralized marketing file repository.
- Solicits prospective clients to convince them to use the Company's natural and propane gas products by promoting the lifestyle and comfort that gas products provide.
- Provides merchandise and jobbing sales assistance to walk-in customers whenever necessary.
- Provides assistance as requested for special projects.
- Maintains stock of literature for different types of gas utilization equipment (i.e., brochures on Firelogs, Water Heaters, etc) and FPUC programs for customer use.
- Maintains the merchandise display area – coordinates with Atchley's and Operations for replacement floor merchandise. Ensures prices are marked on displayed merchandise and any literature is made available.
- Assists Customer Service with phone calls – answering customer billing questions and taking service orders when asked by the CSM (when Customer Service is overwhelmed).

SKILLS REQUIRED:

- Proficient with computer software systems such as MS Excel, Word and Windows applications.
- Strong organizational skills; ability to communicate effectively (verbal and in written form)
- Strong skills in interpersonal communication, problem solving, and attention to detail.
- Ability to work with people and departments outside area of responsibility.

FLORIDA PUBLIC UTILITIES COMPANY

JOB DESCRIPTION

CENTRAL FLORIDA

Position: *Marketing Representative*

Accountable to: *Marketing Manager*

Responsibilities: *Responsible to the Marketing Manager on all sales of gas and merchandise. The responsibilities of a Marketing Representative shall include but not limited to the following.*

1 *Promoting good customer and public relations.*

2 *Selling and coordinating the installation of LP and Natural gas appliances, including piping and venting.*

3 *Selling and promoting the use of LP and Natural gas to residential, commercial and industrial customers.*

4 *Maintaining general knowledge of the LP and Natural gas industries and their products.*

5 *Being knowledgeable of all applicable Federal, State and local regulations and codes relating to LP and Natural gas service and appliance installation.*

6 *Being knowledgeable of the location of existing mains, new mains & service installation requirements.*

7 *Being knowledgeable relating to main and service line piping and materials.*

8 *Being knowledgeable of all applicable company accounts, account numbers, rates and codes relating to installation of LP and Natural gas service and appliances.*

9 *Fully executing all applicable company forms and paperwork as well as the proper use of company procedures required to install LP or Natural gas service and appliances.*

10 *Securing all required preliminary funding, including deposits and installation charges necessary to initiate LP or Natural gas service or the delivery of merchandise.*

11 Contacting new and existing residential and commercial establishments in order to solicit or retain their business.

12 Maintaining contact with merchandise vendors and suppliers and the maintenance of current product catalogues and pricing data.

13 Maintaining an adequate merchandise inventory and its proper display on the sales floor.

14 Follow-up on all sales, including solving customer problems and the collection of merchandise account arrearage.

15 Completion and submittal of a daily work results log.

16 Completing special assignments and performing other duties as required.

FLORIDA PUBLIC UTILITIES COMPANY

JOB DESCRIPTION

CENTRAL FLORIDA DIVISON

Position: Gas Utility Worker "C"

Accountable to: Operation Supervisors

Responsibilities: Responsible to the Operation Supervisor to perform such duties that include but are not limited to the following:

1. Promoting good customer and public relations.
2. Assisting in the installation, removal, repair and maintenance of mains, services, fuel lines, propane tanks, meters, regulator/gate station piping.
3. Delivering and assisting in the installation, servicing and repair of gas appliances.
4. Making compression, heat fused, mechanical, threaded and other type joints.
5. Assisting in the installation of cathodic protection devises (coatings, wrapping, anodes, test stations, etc.)
6. Operating and maintaining automotive equipment, such as passenger vehicles, crew trucks, dump trucks, etc. manner including performing minor repairs.
7. Towing air compressors, backhoe trailers, trencher trailers and other types of equipment.
8. Assisting in the pressure testing of mains, services and fuel lines.
9. Operating and maintaining air compressors, pneumatic/hydraulic equipment, portable generators, pumps, drills, trenchers and other such equipment.
10. Assisting in utilization and analysis of results from electronic instruments such as pipe locators, CGI's insulphone and cathodic protection instruments.
11. Utilizing telephone and mobile radio to transmit and receive information.

12. Assisting in setting up work area protection and performing work assignments in a manner, which properly safeguards the public, employees, and properly of others and the Company.

13. Reading interpreting, taking and recording as-built measurements from various maps and records.

14. Assisting in the maintenance and cleaning of bulk plants, distribution buildings and yard including unloading rail cars.

15. Training by performing various operations under the direction of more skilled personnel.

16. Performing Turn On/Turn Off calls and reading residential and commercial gas meters.

17. Completing any reports and forms in connection with the performance of their duties.

18. Performing similar or less skilled work as required.

19. Special assignments within capability as required.

20. Performing work assignments in accordance with Governmental Agencies regulations and Company procedures, policies and standards.

FLORIDA PUBLIC UTILITIES COMPANY

JOB DESCRIPTION

CENTRAL FLORIDA DIVISION

Position: Service Technician "A"

Accountable to: Operation Supervisors

Responsibilities: Responsible to the Operation Supervisor to perform all the duties of a Gas Utility Worker "B" and in addition perform such duties that include but are not limited to the following:

1. Promoting good customer and public relations.

2. Investigating and providing service as required to efficiently manager all trouble calls such as no gas, no heat, low pressure, fumes, gas leaks, etc.

3. Investigating and providing service as required for all residential and commercial gas equipment including gas air conditioners.

4. Directing, participating in and assuming responsibility for completion of routine work assigned to him and employees in similar or lower classifications.

5. Training of lower classification employees, working in crew, in proper procedures, methods and policies involved in completing work assigned to them.

6. Completing all reports and forms in connection with the performance of duties.

7. Performing similar or less skilled work as required.

8. Special assignments within capability as required.

Florida Public Utilities Company
Job Description

Job Title: Automated Mapping & Facilities Maintenance Administrator (AM/FM Administrator)

Department: Division Management

Duties and Responsibilities:

- Responsible to the General Manager for day-to-day support of the AM/FM system, customization and troubleshooting in the SQL Server databases, setting up user groups & permissions, setting up new computers and upgrading computers as new software products are released
- Promoting good customer & public relations
- Monitor the function of each database
- Maintain & monitor Microsoft SQL Server functionality (replication)
- Creation and modification of system tables & functions
- Creation of custom work order headers
- Creating & modifying Excel spreadsheets for reporting purposes
- Publishing, subscribing and modifying publications
- Monitor and maintain current software licensing
- Monitor client merge jobs, server jobs and server disk space
- Other responsibilities as outlined in the "uaAdmin" manual
- Completing special assignments and performing other duties as required by the General Manager

Skill Requirements:

- Experience with Microsoft SQL Server is required and familiarity GPS interfaces are preferred.
- CADD experience is preferred

Education:

- Must have minimum of AA Degree or better from and accredited school with major course work in Computer Science & Information Technology.

FLORIDA PUBLIC UTILITIES COMPANY
Job Description

Job Title: Administrative Assistant **Reports To**: General Manager

Department: Division Management

Duties and Responsibilities:

- Review and analyze data and formulate conclusions and recommendations
- Prepare agenda, meeting minutes and other correspondence for the Division
- Disseminate budget variance and exception reports; obtain responses and remit to Corporate Accounting
- Accumulate and reconcile Credit Card purchases; print memo and payables statements
- Conduct research of customer accounts to answer Florida Public Service Commission complaints
- Maintain records, prepare and distribute information to employees regarding Employee Benefits
- Formulate and maintain a division calendar to ensure timeliness of Employee Performance Appraisals and Merit/Annual Salary Adjustments
- Complete and review new hire packages prior to forwarding to Human Resources
- Maintain and distribute Certificates of Insurance; apply for, post and maintain City, County, and State Licenses.
- Maintain vendor lists
- Track audit matrix reports to ensure accurate and timely recording and reporting
- Assist with special projects as assigned by the General Manager
- Answer internal and external calls for the General Manager
- Other administrative duties as necessary and assigned

Skill Requirements:

- Proficient with computer programs including Microsoft Word, Excel, Windows, and Powerpoint
    - Requires proficiency in spreadsheet setup and design
    - Must be able to type a minimum of 60wpm and be proficient with a 10 key calculator.
- Strong interpersonal, communication (written and oral), organization, and problem solving skills
- Ability to meet deadlines and stay on schedule
- Strong analytical skills

EDUCATION

High School Diploma required; AA Degree preferred

FLORIDA PUBLIC UTILITIES COMPANY

JOB DESCRIPTION

CENTRAL FLORIDA DIVISION

Position: Operations Supervisor

Accountable to: Operations Manager

Responsibilities: Responsible to the Operations Manager for dispatching of the workload in an efficient manner and to maintain, distribute and account for warehouse inventory and in addition perform other such duties that include but are not limited to the following:

1. Promoting good customer and public relations.
2. Performing personnel evaluations.
3. Directing and supervising the operation and maintenance of the Warehouse including recapping and approving stock slips.
4. Maintaining radio contact, log and file and coordinating the workforce to expedite the workload.
5. Assisting Marketing Department in ordering and maintaining adequate merchandise levels.
6. Preparing, processing and maintaining a file of inventory control tags and merchandise warranty claim forms as required.
7. Verifying compliance with Federal, State and Local codes and regulations.
8. Supervising cathodic protection, leak survey, odorization, pressure regulation, line location, critical/system valve programs, etc. to ensure compliance with DOT and FPSC regulations.
9. Inputting information in the ORCOM CIS system as required.
10. Responding to and resolving customer complaints.
11. Recommending hiring, promoting, demoting, discipline, and discharge of assigned personnel.

12. Assisting in the preparation and control of the division's O&M and Capital budgets.

13. Reviewing and approving records and reports as required.

14. Conducting and/or scheduling safety and training sessions.

15. Training and instructing personnel on Company policies, procedures, standards, safety rules and in the performance of job duties.

16. Rotating on a regular basis as "on-call" supervisor after regular scheduled hours.

17. Promoting good bargaining unit/labor relations.

18. Completing all reports as required.

19. Completing special assignments and performing other duties as required.

20. Performing work assignments in accordance with governmental agencies regulations and Company procedures, policies and standards.

FLORIDA PUBLIC UTILITIES COMPANY
JOB DESCRIPTION

JOB TITLE: Administrative Assistant REPORTS TO: Corporate Services Director & Corporate Safety Manager

DEPARTMENT: Corporate Services NUMBER OF PEOPLE SUPERVISED: 0

JOB SUMMARY: Major responsibilities include administrative assistance to the Corporate Services areas which include the Safety, Fleet Management and Energy Logistics Department. The majority of the work done by this position will be for the Director and the Safety Manager. Tasks include assembling and distributing reports, managing small scale project files, tracking regulatory issues, setting appointments and receiving visitors, assisting in preparing and processing forms and reports, and general office duties such as filing, copying, scanning and faxing. This position also assists by providing research support and presentation preparation for the department. This position may be required to administer testing or screening of staff. Due to the nature of many projects and reporting requirements this position requires complete confidentiality.

DUTIES AND RESPONSIBILITIES:

- Pleasant demeanor
- Must be able to maintain confidential information as such
- Must contribute consistently to a positive work environment
- Interfaces with all levels of Company staff and outside persons on administrative tasks
- Provide assistance with tracking, documentation and information retrieval
- Provides support for problem resolution
- Provides support services for projects and orders
- Ensures proper flow and approvals of paperwork
- Assist with regulatory tracking (keeps control logs and ensures timely completion)
- Types, copies, scans and distributes reports, procedures, training programs and training aids
- Suggest improvements to company procedures to enhance the efficiency of administrative duties.
- Organizes, prepares and maintains files
- Assists with obtaining bids, agreements, insurance certificates and processing related documents
- Analyzes and resolves problems
- Assists accounting with data requests, statistical reports and other special projects.
- Assists with requests for data
- Will be trained in and will conduct screening and introductory training sessions
- Assisting, on an as needed basis, all departments reporting to the Corporate Services Director
- Assisting, on an as needed basis, the Company's other Administrative Assistances
- Performing other tasks and assignments of a similar nature as requested

EDUCATION:

- A High School Diploma is required.
- An Associates Degree or higher is preferred.

EXPERIENCE:

- One to three years of clerical and or administrative assistance experience desired.
- Research experience is beneficial

SKILLS REQUIRED:

- High level of initiative / self motivated / diligent in following orders
- Detailed oriented
- Strong organizational skills and ability to handle multiple tasks effectively
- Proficient with office equipment, computers and MS Office (Word, Excel, PowerPoint, Access, etc.)
- Outstanding attitude and interpersonal skills
- Good written and verbal communication skills

The above information on this position description indicates the general nature and level of work performed by the employee within the classification. It is not designed to contain a complete inventory of all of the duties, responsibilities and qualifications required of an employee assigned to this position.

FLORIDA PUBLIC UTILITIES COMPANY
JOB DESCRIPTION

JOB TITLE: Gas Safety Coordinator **REPORTS TO:** Safety Manager

DEPARTMENT: Corporate Services (Corporate) **NUMBER OF PEOPLE SUPERVISED:** 0

JOB SUMMARY: Responsible for assisting the Safety Manager in developing, coordinating and monitoring the safety program for state wide Divisions. The Safety Coordinator will: set a standard by leading by example; ensure the documentation of accidents, safety violations, unsafe conditions/activities, and ensure the implementation of corrective actions; review the documentation for completeness, accuracy and compliance with established procedures; recommend necessary updates to safety and health programs. Perform safety audits and provide recommendations for worker's compensation and property loss reduction; provide safety and health services, such as training, attending and coordinating safety meetings, conduct equipment and facilities audits and reviews, and providing recommendations to local management.

DUTIES AND RESPONSIBILITIES:

People Related
- Work with division personnel to comply with safety and health requirements.
- Assist managers and supervisors to address employee safety and health concerns.
- Work with division managers and supervisors to enforce company policies and procedures
- Monitor the safety and health performance level of each division and recommend improvements

Service Related
- Communicate with managers and supervisors regarding proper execution of procedures, policies and paperwork.
- Assist supervisors and managers with inspections, investigations, and safety presentations.
- Assist with proper compliance with safety and health procedures.
- Assist with safety and health training of division personnel.

Performance Related
- Over night travel up to 50% may be required and on call as needed.
- Contribute to the development of polices, procedures and controls for safety and health.
- Contribute to the continued development and improvement of safety and health.
- Review statistical injury and accident information make recommendations on noticeable trends
- Prepare an annual report for management on the overall safety and health performance of the divisions.

EDUCATION:
- Bachelor's Degree preferred or a two year degree in a related discipline may be accepted.

EXPERIENCE:
- Two years of safety and health field experience with a natural gas or propane utility is preferred
- Minimum two years experience in Safety and Health required.

OTHER SKILLS REQUIRED:
- Proficient with computerized systems including Excel, Word and Outlook
- Strong organizational skills; ability to communicate effectively (verbally and written)
- Strong problem solving skills
- Strong interpersonal communication skills and attention to detail
- Ability to perform multiple tasks and meet deadlines and schedules
- Standup presentation skills
- Perform other job duties as needed

FLORIDA PUBLIC UTILITIES COMPANY
Job Description

Job Title: Senior Admin Distribution Clerk **Reports To**: Operations Manager

Department: *Operations Management*

Duties and Responsibilities:

- Review and analyze data and formulate conclusions and recommendations
- Prepare agenda, meeting minutes and other correspondence for the Division
- Accumulate and reconcile Credit Card purchases; print memo and payables statements
- Maintain records, prepare and distribute information to employees regarding Employee Benefits
- Formulate and maintain a division calendar to ensure timeliness of Employee Performance Appraisals and Merit/Annual Salary Adjustments
- Complete and review new hire packages prior to forwarding to Human Resources
- Maintain vendor lists
- Assist with special projects as assigned by the Operatons Manager
- Other administrative duties as necessary and assigned

Skill Requirements:

- Proficient with computer programs including Microsoft Word, Excel, Windows, and Powerpoint
    - Requires proficiency in spreadsheet setup and design
    - Must be able to type a minimum of 60wpm and be proficient with a 10 key calculator.
- Strong interpersonal, communication (written and oral), organization, and problem solving skills
- Ability to meet deadlines and stay on schedule
- Strong analytical skills

EDUCATION

High School Diploma required

FLORIDA PUBLIC UTILITIES COMPANY

JOB DESCRIPTION

SOUTH FLORIDA DIVISION

Position: Service Supervisor

Accountable to: Service Manager

Responsibilities: Responsible to the Service Manager for dispatching of the workload in an efficient manner in addition to performing other such duties that include but are not limited to the following:

1. Promoting good customer and public relations.
2. Performing personnel evaluations.
3. Directing, supervising and training Service Personnel.
4. Maintaining radio contact, log and file and coordinating the workforce to expedite the workload.
5. Verifying compliance with Federal, State and Local codes and regulations.
6. Inputting information in the ORCOM CIS system as required.
7. Responding to and resolving customer complaints.
8. Recommending hiring, promoting, demoting, discipline, and discharge of assigned personnel.
9. Assisting in the preparation and control of the division's O&M and Capital budgets.
10. Reviewing and approving records and reports as required.
11. Conducting and/or scheduling safety and training sessions.
12. Training and instructing personnel on Company policies, procedures, standards, safety rules and in the performance of job duties.
13. Rotating on a regular basis as "on-call" supervisor after regular scheduled hours.

14. Promoting good bargaining unit/labor relations.

15. Completing all reports as required.

16. Completing special assignments and performing other duties as required.

17. Performing work assignments in accordance with governmental agencies regulations and Company procedures, policies and standards.

FLORIDA PUBLIC UTILITIES COMPANY

JOB DESCRIPTION

South Florida

Position: Gas Utility Worker / Service / Warehouse / I + M

Accountable to: Operation Supervisors

Responsibilities: Responsible to the Operation Supervisors to perform such duties that include but are not limited to the following:

1. Promoting good customer and public relations.
2. Assisting in the installation, removal, repair and maintenance of mains, services, fuel lines, propane tanks, meters, regulator/gate station piping.
3. Delivering and assisting in the installation, servicing and repair of gas appliances.
4. Making compression, heat fused, mechanical, threaded and other type joints.
5. Assisting in the installation of cathodic protection devises (coatings, wrapping, anodes, test stations, etc.)
6. Operating and maintaining automotive equipment, such as passenger vehicles, crew trucks, dump trucks, etc. manner including performing minor repairs.
7. Towing air compressors, backhoe trailers, trencher trailers and other types of equipment.
8. Assisting in the pressure testing of mains, services and fuel lines.
9. Operating and maintaining air compressors, pneumatic/hydraulic equipment, portable generators, pumps, drills, trenchers and other such equipment.
10. Assisting in utilization and analysis of results from electronic instruments such as pipe locators, CGI's insulphone and cathodic protection instruments.
11. Utilizing telephone and mobile radio to transmit and receive information.

12. Assisting in setting up work area protection and performing work assignments in a manner, which properly safeguards the public, employees, and properly of others and the Company.

13. Reading interpreting, taking and recording as-built measurements from various maps and records.

14. Assisting in the maintenance and cleaning of bulk plants, distribution buildings and yard including unloading rail cars.

15. Training by performing various operations under the direction of more skilled personnel.

16. Performing Turn On/Turn Off calls and reading residential and commercial gas meters.

17. Completing any reports and forms in connection with the performance of their duties.

18. Performing Warehouse duties when needed.

19. Performing similar or less skilled work as required.

20. Special assignments within capability as required.

21. Performing work assignments in accordance with Governmental Agencies regulations and Company procedures, policies and standards.

FLORIDA PUBLIC UTILITIES

FLORIDA PUBLIC UTILITIES COMPANY
JOB DESCRIPTION

JOB TITLE: CIS BUSINESS ANALYST **REPORTS TO:** CIS MANAGER

DEPARTMENT: CUSTOMER RELATIONS **# PEOPLE SUPERVISED:** 0

JOB SUMMARY: To ensure the compliance with internal billing, credit and collections controls and SOX 404 compliance. To design and provide executive summary reports to management. Monitor CIS application for approval level compliance regarding the extension of credit including initial account set up and approvals outside existing policies. Auxiliary trainer, help support and perform back up month end duties for the CIS application. Work closely with Customer Service Managers and General Managers.

DUTIES AND RESPONSIBILITES: Responsible monitoring and reviewing the daily, weekly, bi-weekly and monthly reports company wide pertaining to credit and collections and others that may be necessary to ensure we are obtaining all revenues and pass our internal controls audits as a company. Perform analysis and audit company wide on all Collection and Meter Reading performance, submit monthly documentation to the COO, GM's, Director, Customer Relations, CIS Manager and others as requested. Provide monthly analysis on Bankruptcies, Collection Agencies, Deposit/Surety Bond adequacy. Provide ongoing reports requested by auditors or others as needs develop. Be responsible to review and research via business periodicals or internet financial news that may affect FPU customers or other Market segment's ability to pay their receivables. The position will have approval responsibility for all credit decisions. Other tasks as assigned by Manager.

PEOPLE RELATED: The ability to effectively communicate to all internal and external customers is required. Applicant must have the ability to build relationships with co-workers and vendors in a teamwork environment. The candidate must possess good problem solving skills and conflict resolution abilities with a good attitude towards work and customers.

SERVICE RELATED: The candidate must be flexible, have strong communication skills both verbal and written and have the ability to brainstorm on new ideas and find solutions. The candidate must have strong organizational skills.

PERFORMANCE RELATED: This individual must be an independent thinker, highly self-motivated, dependable, self-starter with strong initiative, multi tasking and with the ability to meet deadlines. Strong follow-up, attention to details and strong work ethic are necessary for success. The individual must be a problem solver with the ability to analyze issues and bring solutions to a conclusion without the need for constant supervision.

EDUCATION: A four year Business Bachelors degree from an accredited college or university is preferred. Two year Business Associates degree from an accredited college or university is required with related work related experience in the areas specified for duties and responsibilities.

EXPERIENCE: Customer Service, accounting or collection background is required. Reporting analysis and reconciliation background is necessary. Utility knowledge is preferred. Previous supervisory experience is considered a plus.

OTHER SKILLS REQUIRED: Existing experience in a CIS system is preferred. Proficiency in all applications of word, excel, power point and office is required. Strong organizational skills and multi tasking is required.

Florida Public Utilities Company
Job Description

Job Title: Automated Mapping & Facilities Maintenance Coordinator (AM/FM Coordinator)

Department: Division Management

Duties and Responsibilities:

- Responsible to the Engineering Manager for day-to-day support of the AM/FM system, customization and troubleshooting in the SQL Server databases, setting up user groups & permissions, setting up new computers and upgrading computers as new software products are released
- Promoting good customer & public relations
- Monitor the function of each database
- Creating & modifying Excel spreadsheets for reporting purposes
- Publishing, subscribing and modifying publications
- Monitor client merge jobs, server jobs and server disk space
- Other responsibilities as outlined in the "uaAdmin" manual
- Completing special assignments and performing other duties as required by the General Manager

Skill Requirements:

- Experience with Microsoft SQL Server is required and familiarity GPS interfaces are preferred.
- CADD experience is preferred

Education:

- High school diploma and at least 4 years experience with natural gas mapping

FLORIDA PUBLIC UTILITIES COMPANY

JOB DESCRIPTION

JOB TITLE: Residential Marketing Representative **REPORTS TO:** Marketing Manger/Supervisor

DEPARTMENT: Marketing

POSITION SUMMARY: The Residential Marketing Representative is responsible for maintaining and increasing residential customer accounts. Residential accounts include new construction, existing after market homes and competitive takeover propane accounts. The primary challenge to this position is to credibly present gas as a cost-effective energy source to generate additional gas sales. Inherent to this challenge is its requirement of a broad-based knowledge of residential appliances and applicable gas technologies with continual updating for use in gaining the competitive edge.

DUTIES AND RESPONSIBILITIES:

- Contribute effort in increasing Company profitability through obtaining new residential accounts.
- Maximize sales volume commensurate with required profit levels yielded by existing residential accounts through the implementation and the administration of customer retention and load growth programs while providing exemplary representative service.
- Cultivate and apply informed persuasive behavior through frequent contact with existing and potential customer accounts of both a rapport maintaining and service rendering service.
- Accurately represent Company credibility to service accounts through effective communication skills used in relating accurate information on the economic status of the company and industry as well as the cost-effectiveness of gas use versus electricity.
- Timely implementation of contracted service agreements through initiation of workflow action and clear communication with appropriate Company personnel and departments.
- Provides information in a timely manner as appropriate for the various required reports and other assigned projects.
- Initiate and coordinate teamwork with other Company personnel and departments to meet the needs of residential customers..
- Develops relationships and works closely with contractors, realtors and dealers informing them of gas processes and end use equipment as well as promoting gas utilization.
- Develop and maintain knowledge pertinent to the application and installation of material, equipment and labor necessary to install gas fuel lines, gas service lines, equipment and venting systems (e.g. FPUC Tariff, FPSC Rules and Regulations, NFPA 54, etc.).
- Represent the Company in a public relations manner, attend meetings, participate in trade associations and organizations responsible for community development.
- Keep abreast of expansion, new construction or other upgradings of energy-related importance using dodge reports, construction reports, newspapers, canvassing the assigned territory and through business contacts as relevant to accounts.
- Maintain reliable transportation and minimum insurance requirements as imposed by the Company.
- Maintain good territorial management skills.
- Provide merchandise and jobbing sales assistance to customer as appropriate.
- Provide assistance as requested for special projects.

EDUCATION: A bachelor's degree or equivalent work experience.

EXPERIENCE: A minimum of two years marketing and sales experience or related work experience (preferably in natural or propane gas).

SKILLS REQUIRED:

- Detailed oriented and very organized.
- High level of initiative.
- Proficient computer skills (i.e. word processing and spreadsheet).
- Mature time management skills.
- Established selling techniques, negotiating and closing skills.
- Strong interpersonal and networking skills.
- Excellent verbal and written skills.

OTHER SKILLS DESIRED:

- Tenacious
- Sense of urgency in completing marketing, sales or related tasks

SALARY RANGE: Base salary commensurate with experience plus commissions, bonuses and incentives.

Responsibility	Position	Hired as of 1/12/09 ?	Salary	
Kitner	Marketing admin (vacancy in 2008)	Yes, P/T		Employment req and posting are in process, will fill with temporary or permanent F/T hire by early 2009
Kitner	I&M position - Central FL (vacant late 2008)	No		Employment req and posting are in process, expect new hire in 2 - 6 months
Kitner	I&M position - Central FL (vacant late 2008)	No		Employment req and posting are in process, expect new hire in 2 - 6 months
Kitner	Service Personnel - CF (vacant in 2008)	No		Employment req and posting are in process, expect new hire in 2 - 6 months but it will depend on economic conditions
Kitner	AM / FM Administrator - CF new position	No		AM/FM System became operational 1/5/2009, employment req and posting are in process, expect to hire in 2 - 6 months
Kitner	CF Admin Asst. / Analyst - new position	No		Employment req and posting are in process, will fill with temporary or permanent hire by early 2009
Kitner	Operations supervisor - CF (vacant in 2008)	Yes		Filled on a temporary basis with potential candidates, Bill McDaniel, Jim Whitaker, & George Speerin
Schneidermann	Safety Admin - Corporate new position	No		Employment requisition being processed and we are in communication with agencies to fill position
Schneidermann	Energy logistics specialist (vacant in 2008)	Yes		Filled third quarter 2008
Kennedy	SF service position (vacant in 2008) GUW	No		Employment req and posting are in process, expect new hire in 2 - 6 months but it will depend on economic conditions
Kennedy	SF service position (vacant in 2008) GUW	No		Employment req and posting are in process, expect new hire in 2 - 6 months but it will depend on economic conditions
Kennedy	SF warehouse position (vacant in 2008)	Yes		Employment req and posting are in process. Filled with temp. Expect to fill in 2 - 6 months.
Kennedy	SF I&M position (vacant in 2008)	No		Employment req and posting are in process, expect new hire in 2 - 6 months

NOTE: Salary amounts do not include payroll taxes or other overhead costs.

Responsibility	Position	Hired as of 1/12/09 ?	Salary	
Kennedy	SF AM / FM Coordinator - New position	No		AM/FM System became operational 1/5/2009, employment req and posting are in process, expect to hire in 2 - 6 months
Kennedy	SF Sr. Admin Distribution Clerk (vacant in 2008)	Yes		Filled
Kennedy	SF Service Supervisor - (vacant in 2008)	Yes		Filled on a temporary basis with potential candidates, Glenn Reuter, Norm Anderson & Brian Gaugler
Seagrave	Marketing sales rep (vacant in 2008)	No		Employment req and posting are in process, expect new hire in 2 - 6 months
Petty	Customer relations new position	Yes		Filled on a temporary basis, expect to hire permanent candidate in 2 - 6 months
Martin	Temp for IRS audit assistance	Yes		Currently utilizing consultants
Martin	Compliance Accountant	Yes		
Martin	Assistant Controller	Yes		
Martin	Sr. Tax Accountant	Yes		
Napier	Construction Accountant	Yes		
Napier	General Ledger Accountant	Yes		
Napier	Cash Accountant	Yes		
Napier	Inventory Analyst	Yes		
Knowles	Programmer (Fath / Mercado)	Yes		
Knowles	(Commeaux / Voyard)	Yes		
Knowles	(Gause / Kelvin)	Yes		
Knowles	(Wolf / Jacobs)	Yes		
Bonn	(Matthew)	Yes		
Bonn	(Fatta)	Yes		

NOTE: Salary amounts do not include payroll taxes or other overhead costs.

Q. Explain the over and above non- personnel adjustments for Central Florida Operations.

A. The non-personnel adjustments for Central Florida operations include an adjustment for the sub-aqueous crossing inspection, intra-coastal crossing location, a GPS dispatching and navigational system, the SummerGlen conversion, training and line locating. Witness Kitner has included in his testimony the nature of each of these adjustments. The adjustment amount for each of these items has been computed as follows:

Sub-aqueous crossing inspection $0 in 2008, $600 in 2009 – This amount is 1/5 of the total cost, based on a vendor quote for $2,860.

Intra-coastal crossing location $4,800 in 2008, $0 in 2009 – Actual cost for line location, 2 days at $2,400 per day.

LOGAN DIVING & SALVAGE

4811 BOWDEN ROAD
JACKSONVILLE, FLORIDA 32216
TEL: (904) 731-0000 FAX: (904) 731-5493

JUNE 23, 2008

MR. GLEN PENDLETON
FLORIDA PUBLIC UTILITES
SYSTEM OPERATIONS SUPERVISIOR
(386) 668-9826
(386) 785-4552
GPENDLETON@FPUC.COM

RE: 4" GAS MAIN CROSSING / INTRACOASTAL WATERWAY
NEW SMYRNA BEACH, FLORIDA

MR. PENDLETON:

THIS WILL COMPLY WITH YOUR REQUEST FOR PROPOSAL REGARDING THE REFERENCED.

LOGAN DIVING & SALVAGE PROPOSES TO PROVIDE FULL TIME SUPERVSION, DIVERS, LABOR, EQUIPMENT AND INSURANCE TO PERFORM A HYDROGRAPHIC SURVEY AND DIVING INSPECTION OF THE CROSSING FOR THE LUMP SUM OF.....$ 2860.00

SPECIFICALLY, DIVERS UTILIZING SURFACE SUPPLIED DIVE GEAR WITH HARDWIRE COMMUNICATIONS WILL SEARCH THE BOTTOM FOR EXPOSED OR SUSPENDED PIPE. IF FOUND, THE P/L WILL BE INSPECTED FOR COATING DAMAGE, DENTS, DINGS, CREASES OR ANY ABNORMAL OPERATING CONDITION. EXPOSED AND OR SUSPENDED P/L WILL BE STATIONED AND CALLED OUT ON AN UPDATED PLAN/PROFILE DRAWING. NEW DRAWING TO BE IN AUTOCAD FORMAT FOR ELECTRONIC TRANSMISSION.

NEW GROUNDLINE PROFILE WILL BE OBTAINED WITH A RAYTHEON DE-219 SURVEY CHART RECORDING FATHOMETER WHICH CONTROLS VERTICAL DATA ALONG WITH A TOPCON TOTAL STATION ON SHORE CONTROLLING HORIZONTAL DATA.

NEW DRAWING COMPLETE WITH WRITTEN REPORT DETAILING ALL FINDINGS WILL BE SUBMITTED IN TRIPLICATE UPON COMPLETION FOR REVIEW AND DOCUMENTATION.

WE TRUST YOU WILL FIND OUR PROPOSAL TO BE COMPLETE AND SATIFACTORY, IF YOU HAVE ANY QUESTIONS PLEASE CALL AT YOUR CONVENIENCE FOR ADDITIONAL INFORMATION.

THANK YOU FOR THIS OPPORTUNITY TO ONCE AGAIN BE OF SERVICE.

BEST REGARDS,

/SCOTT C. ANDERSON/

SCOTT C. ANDERSON
PRESIDENT
LOGAN DIVING& SALVAGE
WWW.LOGANDIVING.COM

Q. Explain the over and above non- personnel adjustments for Central Florida Operations.

A. The non-personnel adjustments for Central Florida operations include an adjustment for the sub-aqueous crossing inspection, intra-coastal crossing location, a GPS dispatching and navigational system, the SummerGlen conversion, training and line locating. Witness Kitner has included in his testimony the nature of each of these adjustments. The adjustment amount for each of these items has been computed as follows:

GPS dispatching and navigational system $6,800 in 2008, $17,700 in 2009 – We purchased 16 connected navigation units with messaging. The annual service cost of each is $599.40. The total cost of $9,590.40 was split between natural gas and propane based on vehicle count, with $8,439.60 representing the natural gas portion. We purchased 33 navigation and location units without messaging. The annual service cost of each is $419.40. The total cost of $13,840.20 was split between natural gas and propane based on vehicle count, with $9,226.80 representing the natural gas portion. The service cost for the connected navigation units ($8,439.60) and the location only units ($9,226.80) provides a total annual service cost to natural gas of $17,666.40, (or $17,700). The 2009 adjustment represents a full year; the 2008 adjustment represents costs incurred for a partial year.

GPS Dispatching

Natural Gas Vehicles Capital Costs	Propane Vehicles		Cost	Natural Gas	Propane	
41	8	GPS	600	24600	4800	$29,400.00
41	2	TomTom 720	350	14350	700	$15,050.00
41	2	Mounts	50	2050	100	$2,150.00
41	8	Installs	100	4100	800	$4,900.00
			Sub-total	45100	6400	$51,500.00
			Tax	2931.5	416	$3,347.50
			Total	**$48,031.50**	**$6,816.00**	$54,847.50

Monthly Service

		Connected			
~~15~~ 14	2	Navigation	49.95	703.30	95.90
25	8	Location Only	34.95	768.90	384.45
		Total Monthly		1,472.20	480.35
		Total Annual		**$17,666.35**	**$5,764.25**

+1@34.95 419.40

18,085.75

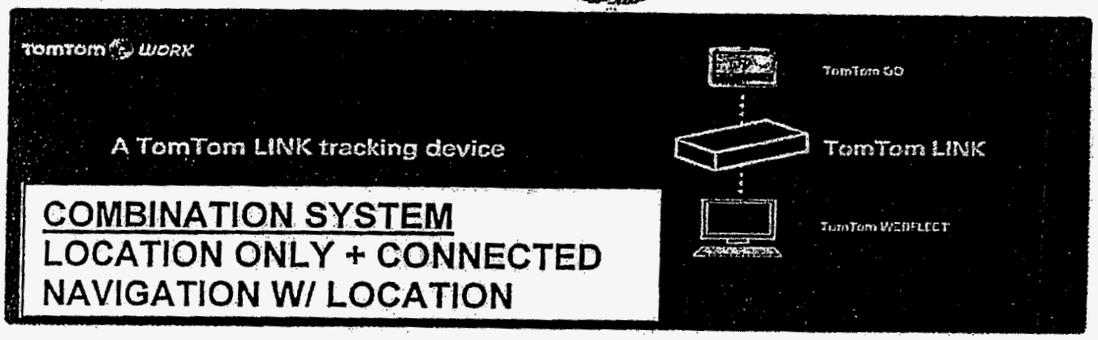
July 14, 2008

smart
Connected
Easy

GPS Dispatching

TRAXXIS GPS Solutions

TOMTOM® WORK



TOMTOM GPS EQUIPMENT

34	TomTom LINK GPS @ $ 600 ea.	=	$ 20,400
37	TomTom GO720 PND @ $350 ea.	=	$ 12,950
15	TomTom GO720 Mounts @ $50 ea.	=	$ 750
34	INSTALLS @ $100 ea.	=	$ 3,400
TOTAL CASH INVESTMENT		=	$ 37,500
TAX @ 6.5 %		=	$ 2,437.50

TOTAL CASH INVESTMENT W/ TAX = $39,937.50

- Covers the following requirements: 15 Trucks w/ LINK+Nav+Msg, (LOC. + CONNECTED NAV.),6 Trucks w/ LINK (LOC. ONLY / NO NAV.), 13 Trucks w/ LINK+720 PND (LOC. ONLY / STAND-ALONE NAV), 9 Trucks w/ 720 PND only (NAV ONLY)
- Includes installation on-site!

TOMTOM MONTHLY GPS SERVICE

15 ~~15~~	CONNECTED NAVIGATION @ $49.95 ea.	=	$ 749.25
19	LOCATION ONLY @ $34.95 ea.	=	$ 664.05

MONTHLY TOTAL GPS SERVICE = $ 1,413.30

- Includes 1 MINUTE Automatic Location Updates (GSM), Real-time location features, TomTom WEBFLEET Online Account Access and Unlimited location / 2-Way Messaging

Q. Explain the over and above non- personnel adjustments for Central Florida Operations.

A. The non-personnel adjustments for Central Florida operations include an adjustment for the sub-aqueous crossing inspection, intra-coastal crossing location, a GPS dispatching and navigational system, the SummerGlen conversion, training and line locating. Witness Kitner has included in his testimony the nature of each of these adjustments. The adjustment amount for each of these items has been computed as follows:

Intra-coastal crossing location $4,800 in 2008, $0 in 2009 – Actual cost for line location, 2 days at $2,400 per day.

Per day 2,440.x
# of days 2.=K
TOTAL 4,880.*+

LOGAN DIVING & SALVAGE

4811 BOWDEN ROAD
JACKSONVILLE, FLORIDA 32216
TEL: (904) 731-0000 FAX: (904) 731-5493

JULY 2, 2008

MR. GLEN PENDLETON
FLORIDA PUBLIC UTILITES
SYSTEM OPERATIONS SUPERVISIOR
(386) 668-9826
(386) 785-4552
GPENDLETON@FPUC.COM

RE: 4" GAS MAIN CROSSING / INTRACOASTAL WATERWAY – LOCATION
NEW SMYRNA BEACH, FLORIDA

MR. PENDLETON,

THIS WILL COMPLY WITH YOUR REQUEST FOR PROPOSAL REGARDING THE REFERENCED.

LOGAN DIVING & SALVAGE PROPOSES TO PROVIDE FULL TIME SUPERVISION, DIVERS, LABOR, EQUIPMENT AND INSURANCE TO ASSIST IN LOCATING THE UNDERWATER GAS MAIN AS FOLLOWS:

WATER JET/JET PROBING

1) PHYSICAL DIVER SEARCH OF THE PRE-DREDGE AREA FOR EXPOSED OR SUSPENDED PIPE/CABLE.

2) LOCALIZED FIELD HYDROGRAPHIC SURVEY OF THE CROSSING AREA IN DREDGE FOOTPRINT TO DETERMINE EXISTING GROUNDLINE ELEVATION.

3) WATER JETTING/ WATER PROBING TO ESTABLISH PIPELINE ELEVATION AND IDENTIFICATION.

4) PROVIDE AND INSTALL BUOYS, 25' ON CENTER ON PIPELINE WITH COLOR CODE FOR IDENTIFICATION (100' EITHER SIDE OF CHANNEL AND TO TOE OF SLOPE IN CHANNEL).

5) ESTABLISH TOP OF PIPELINE (WHERE FOUND) ELEVATION IN REFERENCE TO LOCAL BRIDGE BENCHMARKS AND CONVERT TO DREDGE ELEVATION DATUM (NGVD 1929).

MOBILIZATION.....$ N/C

THREE MAN OSHA EQUIPPED SURFACE SUPPLIED DIVE TEAM, TRUCK, BOAT, SURVEY EQUIPMENT, JET PUMPS, WATER LANCE, BUOYS AND PROBING EQUIPMENT.....$2440.00/DAY NOT TO EXCEED 2 DAYS

DEMOBILIZATION.....$ N/C

BEST REGARDS,
/SCOTT C. ANDERSON/
SCOTT C. ANDERSON
PRESIDENT

COMPANY LABOR & TRANSPORTATION
$ 1,100.00

Q. Explain the over and above non- personnel adjustments for Central Florida Operations.

A. The non-personnel adjustments for Central Florida operations include an adjustment for the sub-aqueous crossing inspection, intra-coastal crossing location, a GPS dispatching and navigational system, the SummerGlen conversion, training and line locating. Witness Kitner has included in his testimony the nature of each of these adjustments. The adjustment amount for each of these items has been computed as follows:

SummerGlen Conversion $57,300 in 2008 and $57,300 in 2009 – Since the SummerGlen conversion occurred in late 2007, we had to normalize the historic year expenses so that our projected test year reflected appropriate expenses as they relate to SummerGlen. $33,300 is for supervision, marketing and office payroll, $12,000 is for field employees and meter reading costs, and $12,000 is for various office expenses.

SummerGlen Adjustments

	Normalized for 2008	21.2% for accounts converted to natural gas
Distribution Expenses	$74,709	$15,838
Customer Service Expense	$90,516	$19,189
Sales Expense	$66,259	$14,047
Maintenance Expense	$39,121	$8,294
		$57,368

Estimate of General Manager, Central Florida

	33,000.+	Supervision
	12,000.+	Field
	12,000.+	Misc. Office
003		
	57,000.*+	

Q. Explain the over and above non- personnel adjustments for Central Florida Operations.

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Operational, technical, safety and leadership training $27,140 in 2009- This adjustment includes training costs for Avanti training, SGA training, Gas training, and FNGA training.

2009 TRAINING & SEMINARS

AVANTI TRAINING CENTER

Basic Distribution; 4 day course – 4 attendees	$3,320.00	1660
Regulator Training; 3 day course – 2 attendees	$1,420.00	710
Gas Valve Training; 3 day course – 4 attendees	$2,840.00	1420
Advance Distribution: 3.5 day course – 2 attendees	$1,420.00	710

National Welding Inspection School

Welding Certification Inspection Class – 2 attendees	$5,000.00	2500

SGA TRAINING

Managing Natural Gas Emergency Workshop – 2 attendees	$3,200.00	1600 X
Commercial & Industrial Marketing Conference – 2- attendees	$3,200.00	~~1600~~
Commercial Food Service Marketing Conference – 2 attendees	$3,200.00	1600
Pipeline Construction Workshop – 2 attendees	$3,200.00	1600
Pipeline Repair Workshop – 2 attendees	$3,200.00	1600
Operations and Marketing Conference and Expo – 2 attendees	$3,200.00	1600
SGA Training Week – 2 attendees	$3,200.00	1600
Distribution Operating Conference – 4 attendees	$6,240.00	1560
Customer Solutions Conference – 2 attendees	$4,800.00	2400
Distribution Operating Executive Roundtable – 2 attendee	$5,000.00	2500
Operator Qualification – 1 attendee	$1,850.00	

GAS TRAINING SERVICES

Gas Pipe Sizing – 14 attendees	$1,050.00	525
Emergency Response – 14 attendees	$1,050.00	450

Natural Gas Overview - 14 attendees	$1,050.00	525
Intro to Natural Gas - 14 attendees	$1,050.00	450
Florida Fuel Gas Code – 14 attendees	$1,050.00	525
FNGA TRAINING		
Annual Conference – 2 attendees	$1,600.00	
Annual Distribution/Marketing Conference – 4 attendees	$3,200.00	1600
Appalachian Measurement Course – 1 attendee	$1,800.00	
Appalachian Underground Corrosion Course – 2 attendees	$3,600.00	
Florida Utility Coordinating Committee Meeting – 1 attendee (quarterly)	$1,400.00	
GAS TECHNOLOGY INSTITUTE		
Gas Distribution Engineering & System Planning – 2 attendees	$10,000.00	
Distribution Integrity Management – 1 attendee	$4,000.00	
International Builders Conference – 4 attendees	$4,000.00	
Southeast Builders Conference – 4 attendees	$3,000.00	

1,660.+
710.+
1,420.+
710.+
2,500.+
1,600.+
~~1,600.+~~
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1,600.+
1,600.+
1,600.+
1,600.+
1,560.+
2,400.+
2,500.+
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450.+
525.+
450.+
525.+
1,600.+
28,735.*+

021

28,735. +
1,600. –
27,135. ◊

Q. Explain the over and above non- personnel adjustments for Central Florida Operations.

A. The non-personnel adjustments for Central Florida operations include an adjustment for the sub-aqueous crossing inspection, intra-coastal crossing location, a GPS dispatching and navigational system, the SummerGlen conversion, training and line locating. Witness Kitner has included in his testimony the nature of each of these adjustments. The adjustment amount for each of these items has been computed as follows:

Line locating ($12,600) in 2008 – This adjustment represents the decrease in line locating expenses we are experiencing in 2008 based on Witness Kitner's experience as the General Manager of Central Florida Operations.

Lundgren April

From: Kitner Don
Sent: Tuesday, January 27, 2009 1:31 PM
To: Lundgren April; Kennedy Barry
Cc: Martin Cheryl
Subject: RE: FPSC inquiry - line locating

Underground facility owners are required by law to locate their facilities, at no charge to the requestor, in areas of proposed excavation. The Company experienced an abnormally low number of requests in 2008 for line locations. The number of location requests, are expected to begin to return to normal levels in 2009 based on forecasted construction activities, particularly in the municipal road construction arena. Approximately 50% to 60% of the line locations received are generated from road construction projects. The Company experienced municipal road projects in 2008 totaling roughly 9.5 miles. In 2009 and subsequent years the number of municipal road construction projects is expected to more than double based on information received from local and state agencies and particularly in light of the State of Florida's announcement to speed up road construction. In fact, the newly projected road construction projects impacting Central Florida's facilities are estimated to be over 30 miles more than triple the average of previous years. With this in mind we expect the expenses for line locations to be back to the levels experienced in 2007.

Don Kitner
General Manager, Central Florida
386-668-9201

From: Lundgren April
Sent: Friday, January 23, 2009 4:50 PM
To: Kitner Don; Kennedy Barry
Cc: Martin Cheryl
Subject: FPSC inquiry - line locating

Good afternoon:

Kathy would like an explanation for why we experienced such a significant decrease in line locating from 2007 to 2008, and why we expect levels to increase from what we are experiencing in 2008 as compared to 2009.

Thank you,
April Lundgren
Assistant Controller
Florida Public Utilities Company
561.838.1788

284,958.+ 2007
272,392.- 2008

002

12,566.*+ Reduction from 07-08

0.*

Q. Explain the over and above non- personnel adjustments for Central Florida Operations.

A. The non-personnel adjustments for Central Florida operations include an adjustment for the sub-aqueous crossing inspection, intra-coastal crossing location, a GPS dispatching and navigational system, the SummerGlen conversion, training and line locating. Witness Kitner has included in his testimony the nature of each of these adjustments. The adjustment amount for each of these items has been computed as follows:

Web based operator qualification training $13,400 in 2008 and 2009 - $100 per license x 134 employees.

FNGA Enrollment Form

Enrollment
EnergyU

OPERATOR QUALIFICATION TRAINING

FOR OFFICE USE ONLY
Code: 332005
Amt _____ Ck # _____
Date Rec'd _____ Initials _____

Contact Name	Title
Company	
Mailing Address	
City/State/Zip	
Email Address	
Telephone Number	Fax Number

Each individual user, including the Administrator(s), will require a login license in order to access EnergyU.

Customer Support Contact: Cindy Szambelan – 651-289-9600 ext. 106 or email Cindy at cindys@midwestenergy.org

*Check library(s) that will be required	Number of Licenses	Price per Login License	Total Commitment
☒ 192 Gas ☐ 195 Liquids ☒ Propane ☐ OSHA/Safety		**$100.00**	**Number of Total Licenses X ($100)**
		Total Amount Due	**$** _____

Select payment method:

☐ Check enclosed
Check #_____

☐ Purchase order attached
PO #_____

☐ Credit Card

Credit Card Information

☐ American Express ☐ Visa ☐ Master Card

Card#_____

Name on Card_____

Today's Date_____ Expiration Date_____

Signature_____

Employees 134 • x
100 • = K
13,400 • * +

134 • *

Q. Explain the over and above non- personnel adjustments for Corporate Services.

A. The non-personnel adjustments for South Florida operations include an adjustment for Smith System training, third party claims administration, license monitoring, Worksteps program, Bulli Ray, SGA Super Week, FGT Shippers meetings, Gas Mart, Occupational health and Safety seminars, Corporate office landscaping, Corporate office painting, Corporate office flooring, and gas distribution integrity. Witness Schneidermann has included in his testimony the nature of each of these adjustments. The adjustment amount for each of these items has been computed as follows:

Smith System $60,950 in 2009 – These costs are based on a vendor quote of $373 per student for 150 students for the DriverDirect standard one day course. Additionally, we have included costs for the five day DriverTrainer course for instructors based on the vendor quote of $1,935 (plus $550 in additional expenses) per student for two employees. Of the total $60,950, $31,085 has been allocated to natural gas based on adjusted gross profit allocation factors.

Q. #43

Schneidermann Marc

From: Brenda Wozniak [bwozniak@smith-system.com]
Sent: Monday, June 09, 2008 5:37 PM
To: Schneidermann Marc
Subject: Smith System Classes Coming to Your Area!!!!!!

SMITH SYSTEM. Drive Different.

Smith System Multi-Company Classes for GA & FL...

DriverDirect - Our standard one day class for your drivers who need personal driver training directly from one of our instructors. (#42)

Orlando – July 21st
Tampa - Aug 8th
Atlanta - Sept 24th

$373.00 per student X 150 = $55,950

DriverTrainer - Our five day instructor train-the-trainer course.

Atlanta - August 4 – 8
September 22 - 26

Orlando – July 14 – 18
August 18 – 22

Ft. Lauderdale – September 8 - 12

$1,935.00 per student
550 Expense per student
4,970 (#43)

DriverTrainer Refresher - Our two day class for your current Smith System trained instructors who need to be re-certified.

Atlanta - July 21 – 22
Sept 22 – 23
Orlando – August 7 – 8
Sept 25 – 26
Ft. Lauderdale – July 24 – 25

$722.00 per student

Our Multi Company Classes will typically fill well ahead of class time. All seats are available first come, first served. Contact Jon to secure a place.

** As always, depending on how many of your personnel need to be trained, you can also host your own classes. These classes have a different pricing structure and you may find the schedule to be more flexible.

If you are interested in Multi-Company classes in other area of the US, please contact Jon. -----
Thank you!!!! ---------

Jon Kirk
Regional Manager for Smith System, Inc.
770-926-9285, 800-649-7641
email - jkirk@smith-system.com
Visit our website at www.smith-system.comView our training aids and materials at http://www.smith-system.com/purchase.shtml
View our training options at http://www.smith-system.com/onroad.shtml

Q. Explain the over and above non- personnel adjustments for Corporate Services.

A. The non-personnel adjustments for South Florida operations include an adjustment for Smith System training, third party claims administration, license monitoring, Worksteps program, Bulli Ray, SGA Super Week, FGT Shippers meetings, Gas Mart, Occupational health and Safety seminars, Corporate office landscaping, Corporate office painting, Corporate office flooring, and gas distribution integrity. Witness Schneidermann has included in his testimony the nature of each of these adjustments. The adjustment amount for each of these items has been computed as follows:

Third Party Claims Administrator $25,000 in 2009 – These costs are based on the lowest vendor quote. Of the total $25,000, $12,750 has been allocated to natural gas based on adjusted gross profit allocation factors.

#44

AUTO LIABILITY & GENERAL LIABILITY - Life of Claim Cost Comparison			
	ESIS	Gallagher Bassett	Helmsman
Auto Liability:			
Bodily Injury	$799.00	$795.00	$995.00
Property Damage	$550.00	$415.00	$395.00
Collision (Data Storage)	Cost Not Provided*	$150.00	Cost Not Provided
General Liability:			
Bodily Injury	$799.00	$795.00	$895.00
Property Damage	$550.00	$415.00	$350.00
Record Only	$75.00	$46.00	~~$65.00~~ 46
Reporting Fee	$8.00	No Charge	No Charge
Administration Fee	$5,500.00	$9,500.00	$2,900.00
RMIS Data/Access Fees	$13,000.00	Included in Admin. Fee	$6,780.00*
Additional Users	$2800.00**	$2,195.00*	$1,495.00
Index Bureau	$8.00	No Charge	No Charge
Paid Loss Deposit Fund (PLDF)	$5,000.00	$10,000.00	$2,740.00
Subrogation Recovery	20%	15%	$250.00 per claim
Claim Review	4 Reviews Included in Pricing	4 Reviews Included in Pricing	4 $4200.00**
Total Upfront Costs	$23,500.00	$12,084.00**	$12,420.00
Total Estimated Program Costs*:	**$32,103.00**	**$35,000.00*** **	$24,330.00
*Total Estimated Program Costs are based on FPU's 15 year historical claim averages and assumes receipt of 3 ABI, 3 APD, 2 GLBI and 5 GLPD claims annually. No pricing consideration given for Record Only claims.	*No fee if "self-administration" claim module utilized.	*Base cost includes 4 user accesses.	*4 accesses based on a price of $1,495.00 per access; $400.00 usage fee and 4 hours of training at $400.00.
	**Base cost includes 4 user accesses.	**Upfront costs were estimated by assuming one month's cost of the $25,000.00 minimum Account Service Fee plus the $10,000 PLDF charge.	**4 reviews based on a price of $1050.00 per telephonic review; audit cost is $3,195.00 per audit. 3410 ÷ 3 = 313
		***Minimum Account Service Fee is $25,000.00.	Per claim pricing does not include field investigation charged at $90.00 hour or hearing attendance at $105.00 hour.
			Pricing based on $5000.00 settlement authority.

FLORIDA PUBLIC UTILITIES

MSW

Lowest Bid

Awarded

Exhibit 40.17
Pg. 2 of 2

Q. Explain the over and above non- personnel adjustments for Corporate Services.

A. The non-personnel adjustments for South Florida operations include an adjustment for Smith System training, third party claims administration, license monitoring, Worksteps program, Bulli Ray, SGA Super Week, FGT Shippers meetings, Gas Mart, Occupational health and Safety seminars, Corporate office landscaping, Corporate office painting, Corporate office flooring, and gas distribution integrity. Witness Schneidermann has included in his testimony the nature of each of these adjustments. The adjustment amount for each of these items has been computed as follows:

Drivers license monitoring $5,000 in 2009 - Based on vendor quote of approximately $3,500 in minimum annual costs for MVRs and monitoring plus approximately $1,500 in monthly monitoring fees based 155 drivers at $9.60 per year each. $2,550 of the total cost has been allocated to natural gas based on adjusted gross profit allocation factors.

3011 Earl Rudder Fwy S
College Station, Texas 77845

Gerry,
Following is the amended annual cost. Let me know if you have any questions.

Thanks,
Stefanie

DATE: 4/25/06

TO: GERRY STUCKART
FLORIDA PUBLIC UTILITIES

FROM: Stefanie Haggerty
800-299-7099 ext 8304
201-748-1396 fax
SHAGGERTY@IIX.COM

Gerry,
Thanks for contacting iiX today. Following is our information.

Price per MVR using ExpressNet (Internet):
iiX service fee $2 (at most, decreases with volume-see schedule) + State fee + QuickTime fee
Example: Florida 7-yr -- $2 at most + $3.125 (7-yr fee) + $.35 QT fee = $5.48 at most per FL 7-yr MVR *(returned instantly)*

On the phone I quoted ≈ $3.50 per FL MVR, this was based on the 3-year MVR. I've quoted the 7-year MVR above to be on the safe side since I wasn't sure how many years you want to look at.

Based on 200 drivers, the cost for 200 FL 7-yr MVRs would be:
$1 + $3.125 (7-yr fee) + $.35 QT fee = $4.48 per FL 7-yr MVR *(returned instantly)*
$4.48 x 200 = $896.00 (one-time cost, likely the first month the account is set up)

DriverAdvisor pricing:
$1 at most, per driver monitored per month
Based on 200 drivers monitored, the cost for 200 FL 7-yr MVRs would be: $.80 x 200= $160 per month
$160 x 12 = $1920

DriverAdvisor is an affordable service that provides continuous monitoring for critical MVR record activity on a driver or group of drivers. Examples of "critical" activity include violations, suspensions, revocations, and accidents (when reported by the state). As a DriverAdvisor subscriber, iiX will automatically provide you with a current MVR (*at the applicable state and iiX*

Continued on next page...

processing fees) on a monitored driver when a state DMV reports new activity on that driver. Each month you will receive an e-mail that indicates if there are monitored drivers with DMV activity, or, if there is no activity, an e-mail will be sent stating that there was no reported activity on your monitored drivers. MVRs ordered and returned as a result of monitored activity are billed at the standard MVR fee for that state (plus applicable processing fees). MVRs delivered by DriverAdvisor are viewed and printed in the ExpressNet Request/Reports area.

When new activity is detected, an MVR is automatically ordered and will be viewed in ExpressNet, so you can see the violation, change in status, etc. and take appropriate action. As stated above, MVR fees are assessed when these MVRs are ordered as a result of monitoring/new activity.

Account set up fee: $50 (one-time charge, not due now-billed on first invoice)
Monthly fee: $7.50 (charged in months reports are ordered, but not when the only charge is the DriverAdvisor monitoring fees)

The minimum annual costs to Florida Public Utilites for MVRs and monitoring are:

$50.00	Set up fee
$870.00	Initial MVR costs - to run 250 Florida 3-year MVRs
$2,400.00	Annual cost to monitor drivers monthly (250 drivers per month)
$107.52	Annual cost of 2 Florida 3-year MVRs per month*
~~$90.00~~	Monthly fee annual cost ($7.50 per month when reports are ordered)
$3,517.52	**Total**

*The unknown here is how many drivers will have new violations, etc. each month, and ultimately how many MVRs will be ordered because of the new activity. Based on other Florida companies that monitor, I've used an average. This is very unreliable, since other companies' employees actions cannot predict that of another. I'm using this only for estimating purposes.

We also offer criminal reports - the cost of reports and a description of each is displayed on the ExpressNet screen. Let me know if you need details.

DriverSafe is the screen in ExpressNet that allows you to store driver request information and prior MVR orders for quick reference, and enable monitoring.

To set up an account, please complete:

- **Employment Subscription Agreement**
- **Copy of business license or tax return**

Please fax the documents back to my attention. If you have any questions, please contact me.

Thanks!
Stefanie

Note: opt for DriverAdvisor Pgl for 155 drivers
155 x $0.80 x 12 = 1488.00
+ 3517.52 (above)
$ 5,005.52

≈ $5,000 -

Q. Explain the over and above non- personnel adjustments for Corporate Services.

A. The non-personnel adjustments for South Florida operations include an adjustment for Smith System training, third party claims administration, license monitoring, Worksteps program, Bulli Ray, SGA Super Week, FGT Shippers meetings, Gas Mart, Occupational health and Safety seminars, Corporate office landscaping, Corporate office painting, Corporate office flooring, and gas distribution integrity. Witness Schneidermann has included in his testimony the nature of each of these adjustments. The adjustment amount for each of these items has been computed as follows:

Worksteps $60,000 in 2009 – Cost based on vendor quote; the Comprehensive Post Offer Functional Employment Test (at a cost of $150 per employee) and the Fit For Duty RTW Test (at a cost of $150 per employee) for 200 employees (anticipated sample selection). Of the $60,000 total costs, $30,600 has been allocated to natural gas based on adjusted gross profit allocation factors.

LETTER AGREEMENT

THIS AGREEMENT is by and between WorkSTEPS®, Inc., a Texas corporation located at University Business Park, 3019 Alvin Devane, Suite 150, Austin, Texas, 78741 **("WorkSTEPS")**, and **Florida ~~Power and Light~~**, a _____ corporation, located at _____ **("COMPANY")**, collectively **("THE PARTIES")**.

WHEREAS: COMPANY is desirous of implementing a functional employment testing program as a part of its work injury and disability management program, to, among other reasons, effectuate a reduction of on-the-job injuries by trying to determine if an applicant or employee can safely perform the essential functions of the job.

WHEREAS: WorkSTEPS has developed functional employment testing protocols and procedures that COMPANY desires to utilize for its functional employment testing program, and

WHEREAS: WorkSTEPS desires to assist COMPANY in implementing the WorkSTEPS functional employment-testing program,

THEREFORE THE PARTIES HERETO DO HEREBY AGREE AS FOLLOWS: Based on the functional employment test(s) and services that have been identified below the price for the test(s) and services shall be:

◆ Comprehensive Post Offer Functional Employment Test	$ 150.00
◆ Fit For Duty RTW	$ 150.00
◆ Basic Carpal Tunnel	$ 25.00
◆ No Show Fee (24 hour cancellation required)	$ 50.00
◆ Job Analysis (per hour)	$ 150.00
◆ Return on Investment Study (annual), if requested.	$ 250.00
◆ Policies and Procedures Development, if requested.	$ 500.00

$ 15-02400/yr = 60,000

Company agrees to pay WorkSTEPS within thirty (30) days of receipt of an invoice for completed tests.

Job Analyses is the foundation of the COMPANY'S functional employment testing program. A job analyses is a measurement of the physical demands and requirements of the essential functions of a specific job. Accurate and current job analyses are the COMPANY'S responsibility. Job Specific Authorization Forms that document essential function requirements must be executed by COMPANY'S representative and provided to WorkSTEPS before testing can begin. COMPANY managers should use professionals experienced in assisting with job analyses or other trained and certified ergonomic assessment specialists to assist in the preparation of job analyses and documentation of essential functions. The job analyses should be based on a close, careful examination of the specific job by an individual trained and competent in making the physical measurements of the essential functions of the specific job. The job analyses provides specific job content validity to COMPANY's functional employment testing program, which seeks to simulate the specific physical demands necessary to perform essential job functions. Accurate and up-to-date job analyses help ensure that employment decisions are based on objective, sound, individual, and job specific information. Likewise, accurate and up-to-date job analyses helps ensure that no individual or group of individuals is discriminated against. COMPANY agrees to enter into an agreement in the form attached hereto as Exhibit "1" with the provider that will perform the job analysis.

The term of this Agreement shall be for a term of ___ year (s). The Agreement shall be automatically renewed each year for twenty (20) additional 1 year terms, unless terminated by either Party.

Q. Explain the over and above non- personnel adjustments for Corporate Services.

A. The non-personnel adjustments for South Florida operations include an adjustment for Smith System training, third party claims administration, license monitoring, Worksteps program, Bulli Ray, SGA Super Week, FGT Shippers meetings, Gas Mart, Occupational health and Safety seminars, Corporate office landscaping, Corporate office painting, Corporate office flooring, and gas distribution integrity. Witness Schneidermann has included in his testimony the nature of each of these adjustments. The adjustment amount for each of these items has been computed as follows:

Bulli Ray recertification and training $6,000 in 2009 – Costs are based on vendor quote for $1,850 per person for 3 employees. We have included additional costs for travel and hotel. Of the total $6,000 cost, $3,060 has been allocated to natural gas based on adjusted gross profit allocation factors.

BULLI RAY ENTERPRISES

Train the Trainer Course

Location: Bulli Ray National Training Center for Occupational Dog Bite Safety
Murfreesboro, TN

Dates: November 4th – 7th 2008
Main Instructor: Mitzi Robinson

Required text(s): Facilitator's Manual (Provided)
Participant's Manual (Provided)
Safety Talk Guidebook (Provided)

Other: Product and Safety form (Provided)
Occupational Dog Bite Safety Video (Provided)
Safety Talk DVD - included 12 Safety Talks for Employees

Costs: $1850.00 X 3 = $5550 + Air/Hotel = $6500-

General Conference Description:
This 3.5 day intensive training provides Bulli Ray Occupational Dog Bite Safety Certification for in-house safety leaders. After attending our conference, participants will be equipped with the following tools:

- Skills to address Occupational Dog Bite Safety (ODBS) in their company
- Skills to enable trainer to design a year training calendar for their employees
- Review Company Policy and Safety Procedures
- Skills to implement a program to teach dog awareness, self-defense, and job safety
- Knowledge of canine breeds, behaviors, and dog bite statistics
- Ability to save lives in their company
- A design template for an effective safety policy that will result in a safer work environment
- Knowledge of the dog laws of your company's area of service. Working with animal control, city council, county commissioners and legislators. Looking at the big picture.
- Experience of working with live dogs, thus providing the reality and sense of urgency for the importance for ODBS

Course Work Outline:

- How to perform a "Site Evaluation"
- What to look for and do after "Entering the Yard"
- Approaching the Front Door
- While Inside the Home
- Interaction with Customer
- Fence and Barrier Syndrome
- Reading Canine Body Posture
- Man Stoppers
- Self Defense Methods with an Individual Dog
- Self Defense Methods with a Pack of Dogs
- Hands on Training with Attack Dogs
- Certification Test
- Looking at your workforce.
- Who is dog bait?
- Training women to defend themselves in the field..
- The Pit Bull/ Pit Bull mentality.
- Tools and Resources for employees

For information please refer to our website www.bulliray.com, click on Train the Trainer.
If you have any questions please contact Mitzi Robinson at 888-777-3647 or bulliray@msn.com or cinderball37@hotmail.com .

Q. Explain the over and above non- personnel adjustments for Corporate Services.

A. The non-personnel adjustments for South Florida operations include an adjustment for Smith System training, third party claims administration, license monitoring, Worksteps program, Bulli Ray, SGA Super Week, FGT Shippers meetings, Gas Mart, Occupational health and Safety seminars, Corporate office landscaping, Corporate office painting, Corporate office flooring, and gas distribution integrity. Witness Schneidermann has included in his testimony the nature of each of these adjustments. The adjustment amount for each of these items has been computed as follows:

SGA Super Week & Safety Committee $3,000 in 2009 – Cost includes 3 day course at $445 per person, hotel and meals of $507 ($169 per day for 3 days) per person, for three employees. We have included additional costs of $144 for mileage, tolls and other miscellaneous costs.

49

Super Week - Florida

May 7 - 9, 2008

(Please make copies of this form as necessary)

Name Safety Mgr, SF. Safety Coor, CF Safety Coor Title _____

Company _____

Mailing Address _____ City/State/ZIP _____

Phone _____ Fax _____ E-mail _____

	Wednesday, May 7, 2008	Fee:	Member	Non-member
☐	Odorization		$175	$205
	(8:00 am - 4:30 pm)			
☐	Excavation Safety/Competent Person		$175	$205
	(8:00 am - 4:30 pm)			
☐	Locating Techniques		$175	$205
	(8:00 am - 4:30 pm)			

175

	Thursday, May 8, 2008			
☐	Tapping & Stopping Workshoop		$95	$125
	(8:00 am – Noon)	*(with an Afternoon Session)*	$175	$205
☐	Static Electricity/Squeeze Off		$95	$125
☐	*(8:00 am – Noon)*	*(with an Afternoon Session)*	$175	$205
☐	What Customers Really Want and How to Give it to Them		$95	$125
	(8:00 am –Noon)	*(with an Afternoon Session)*	$175	$205
☐	Metering Workshop		$95	$125
	(1:00 – 4:30 pm)	*(with a Morning Session)*	$175	$205
☐	What Every Gas Employee Needs to Know About Gaining & Retaining Customers		$95	$125
	(1:00 pm - 4:30 pm)	*(with a Morning Session)*	$175	$205
☐	Leak Control and Detection		$95	$125
	(1:00 pm - 4:30 pm)	*(with a Morning Session)*	$175	$205

95
175

	Friday, May 9, 2008		
☐	Regulator Workshop	$95	$125
	(8:00 am - noon)		
☐	Making Field Repairs on Natural Gas Lines	$95	$125
	(8:00 am - noon)		
☐	Valve School 101	$95	$125
	(8:00 am - noon)		

95
x 4
380
x 3

	Exhibitors		
☐	Exhibitor	$295	$395
☐	Additional Booth Personnel	$125	$175

hotel = 130/day + $39/day meals = $169/day/per person

3 x $169 x 3

TOTAL DUE $ 1335 —

1521

2856 + fuel & tolls

= ~3,000

☐ Check enclosed ☐ Please invoice

☐ Credit card: ☐ American Express ☐ MasterCard ☐ Visa

Card # _____ Exp. Date _____

Name on Card _____

Return to: Debbie Krawzik ♦ Southern Gas Association ♦ 3030 LBJ Freeway, Suite 1300 ♦ Dallas, TX 75234
Phone: 972-620-4012 ♦ Fax: 972-620-1613 ♦ e-mail:dkrawzik@southerngas.org

Cancellation Policy: Refunds must be requested from SGA. For late cancellations, the following charge will be made:
• Canceling up to two weeks before the activity will be refunded in full
• Canceling within two weeks of the program, 25 percent of fee • Canceling within three days, no refund but substitutions may be made

Q. Explain the over and above non- personnel adjustments for Corporate Services.

A. The non-personnel adjustments for South Florida operations include an adjustment for Smith System training, third party claims administration, license monitoring, Worksteps program, Bulli Ray, SGA Super Week, FGT Shippers meetings, Gas Mart, Occupational health and Safety seminars, Corporate office landscaping, Corporate office painting, Corporate office flooring, and gas distribution integrity. Witness Schneidermann has included in his testimony the nature of each of these adjustments. The adjustment amount for each of these items has been computed as follows:

FGT Shippers Meetings ($600) in 2008 and $1,500 in 2009 – Costs based on attending the Summer Operations Meeting and the Shipper's Meeting for 2 employees attending twice per year.

FLORIDA GAS TRANSMISSION 2008

SUMMER OPERATIONS MEETING

May 5 - 6 • Omni Orlando Resort at ChampionsGate • Orlando, Florida

Name:

Company:

Please cut and paste the below link into your internet browser to make your room reservation directly online at the Omni. A block of rooms has been reserved until April 11, 2008, at the discounted rate of $195. → 225 w/ tax
http://www.omnihotels.com/FindAHotel/OrlandoChampionsGate/MeetingFacilities/FloridaGasTransmissionCompany5.aspx

Attendance & Event Agenda

☐ Yes, I plan to attend! ☐ No, I am unable to attend.

Monday, May 5, 2008

1:00 – 3:00 p.m. Training Sessions - Please indicate your interest below:

☐ Contract Administration ☐ Capacity Release

☐ Scheduling ☐ Invoicing/Flowing Gas

5:00 – 6:00 p.m. Welcome Reception in Trevi's

7:00 p.m. Dinner at the Golf Clubhouse

FGT Meetings 2x/year
Director & Gas Logistics Mgr Attend
2x($225x2) = 900
2x(629x2) = 916
Expenses 4x39 = 156
Fuel 150
$2122
Mai

Tuesday, May 6, 2008

8:00 a.m. Continental Breakfast – Congressional Room Foyer

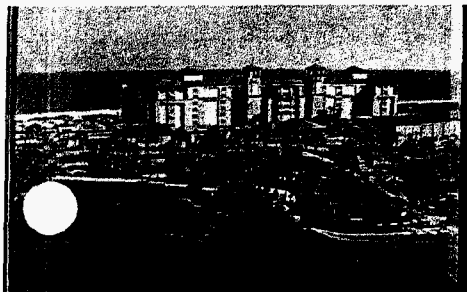
9:00 a.m. Business Session – Congressional Room

Welcome and Introductions	Brad Holmes
Operations	Mike Bryant
Projects Update	Jack Boatman
Feedback Request	

11:30 a.m. Buffet Lunch in ChampionsGate

☐ Yes, I plan to stay for lunch ☐ No, I will not stay for lunch

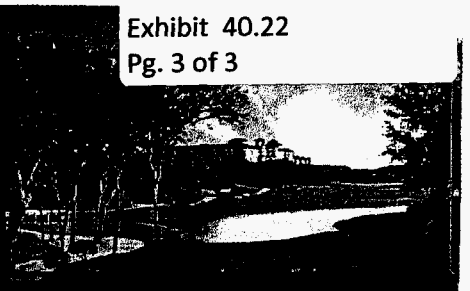
Please return this form via email to **Meetings@PanhandleEnergy.com** or by fax to 713.989.1190 no later than Friday, April 4, 2008.



2008 SHIPPER'S MEETING

OCTOBER 16 - 17

THE RITZ-CARLTON AMELIA ISLAND



FLORIDA GAS TRANSMISSION COMPANY

Name: **Company:**

Florida Gas has reserved a block of rooms at The Ritz-Carlton Amelia Island at the rate of $199 for the nights of October 15th & 16th. Rooms reserved before and after this date are based on availability, and may be subject to the hotel rack rate. Please return this form *prior to Friday, September 12th* to confirm your reservation. A room will be reserved in your name and you will be provided with your confirmation number. Please do not contact the hotel directly.

Attendance & Event Agenda

☐ Yes, I plan to attend! ☐ No, I am unable to attend.

Please reserve a room in my name for the following days:

☐ October 14 ☐ **October 15** ☐ **October 16** ☐ October 17

Thursday, October 16

11:00 a.m. Welcome Reception and Lunch on the Courtyard
Noon Depart for Golf and Fishing

Please mark the afternoon activity in which you would like to participate:

☐ Golf at The Golf Club at Amelia Island
Handicap: ☐ RH Rentals ☐ LH Rentals

☐ Fishing Charter ☐ Spa Services

7:00 p.m. Reception, Dinner & Casino in Salon 1

Friday, October 17

8:00 a.m. Breakfast buffet located in the Salon 1 Foyer and Terrace
9:00 a.m. Business Session located in the Salon 1
Noon Lunch Buffet on the Center Courtyard
☐ Yes, I will stay for lunch ☐ No, I am unable to stay for lunch

Afternoon Depart

Men's Golf Shirt Size: ***Ladies – Sizing Not Required***

☐ Small ☐ Medium ☐ Large ☐ Xlarge ☐ XXLarge

Special Requests:

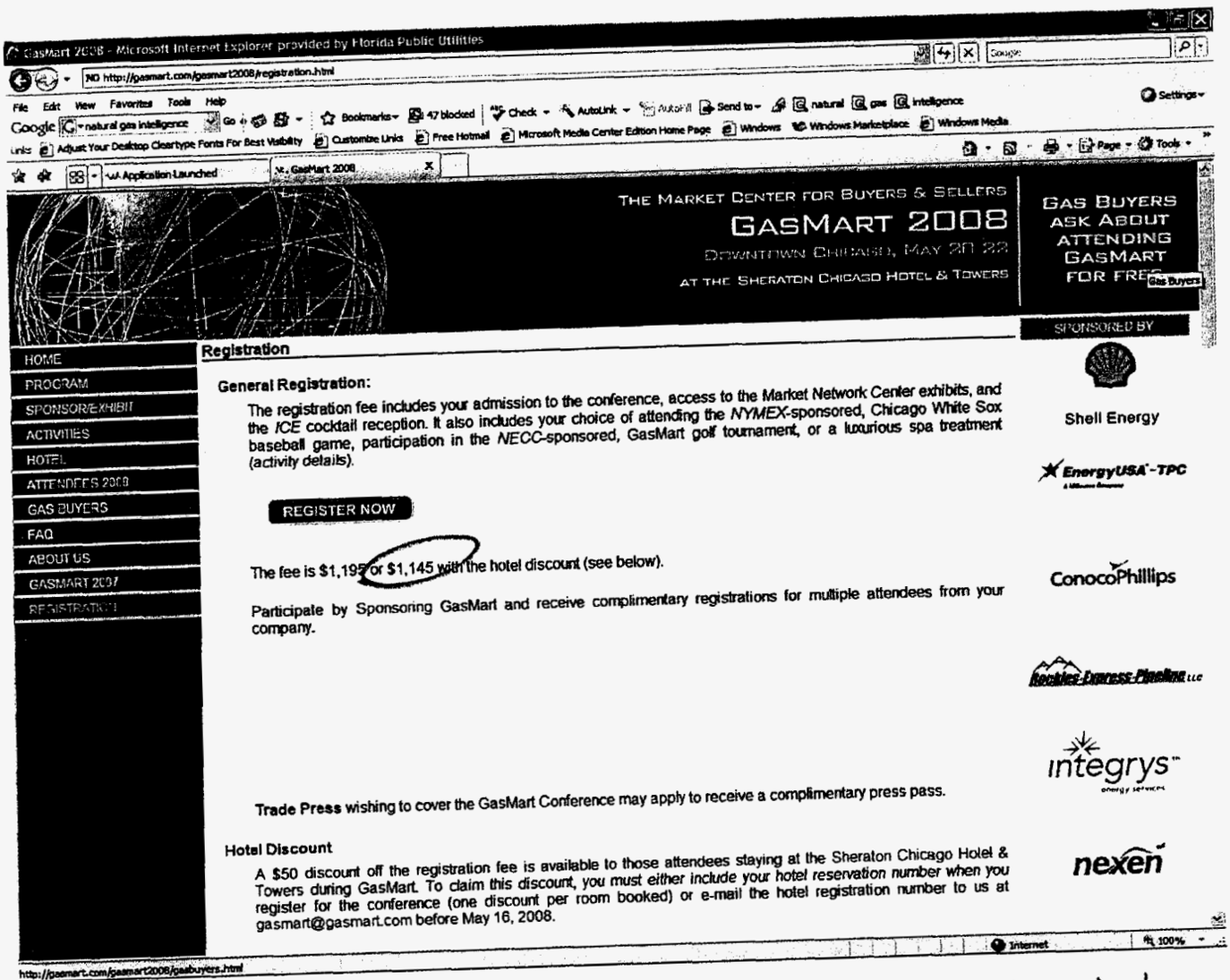
Please respond by returning this completed form via email to **Meetings@SUG.com** or by fax to 713.989.1190 no later than Friday, September 12, 2008.
Please contact Shari Stafford at (713) 989-7652 with questions.

Q. Explain the over and above non- personnel adjustments for Corporate Services.

A. The non-personnel adjustments for South Florida operations include an adjustment for Smith System training, third party claims administration, license monitoring, Worksteps program, Bulli Ray, SGA Super Week, FGT Shippers meetings, Gas Mart, Occupational health and Safety seminars, Corporate office landscaping, Corporate office painting, Corporate office flooring, and gas distribution integrity. Witness Schneidermann has included in his testimony the nature of each of these adjustments. The adjustment amount for each of these items has been computed as follows:

Gas Mart Third party natural gas supply meetings ($2,000) in 2008 and $4,000 in 2009 – The adjustment is based on historical cost of $1,145 for the training course and $910 in travel costs for two people.

p1 of 2



GasMart restarted in 2008. Only Director attended & registration was waived. Actual Expense was $909.86.
The program was excellent and for '09 the Energy Logistics Manager should also attend Est cost = 2x(1145+910) = $4,110 ≈ 4,000

Excerpt from M Schneidermann's May 2008 Expense Report for GasMart Expense

FLORIDA PUBLIC UTILITIES COMPANY - EXPENSE REPORT

COMPANY 001 **EMPLOYEE #** 240 **EMPLOYEE NAME** Marc L. Schneidermann

DATE	DESCRIPTION (SHOW HOTEL, LOCATION, UNIQUE ITEMS ON SEPARATE LINES)	TRAVEL (HOTEL &TRANSP)	MEALS (incl. Tip) No.	MEALS (incl. Tip) Amount	ENTERTAINMENT*	OTHER**	TOTAL
5/23	GasMart Chicago, IL	458.50				36.00	494.50
5/20	Inn of Chicago, Chicago, IL	166.18	2	29.00		7.00	202.18
5/21	Inn of Chicago, Chicago, IL	166.18	1	18.00			184.18
5/22			2	29.00			29.00
							909.86

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Occupational Health and Safety seminars ($300) in 2008 and $3,000 in 2009 – Of the total $3,000 cost for 2009, $1,530 has been allocated to natural gas based on adjusted gross profit allocation factors.

The projection is based on management's best estimate.

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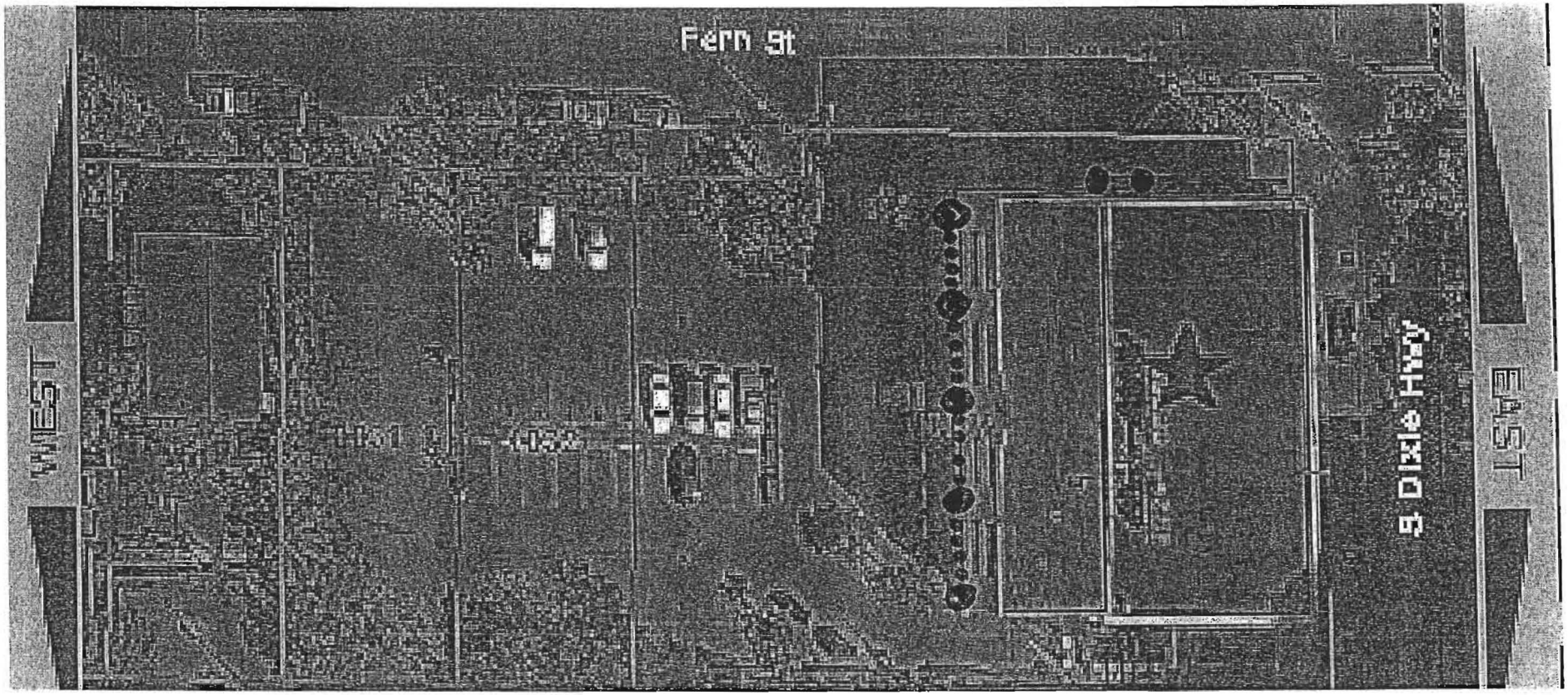
Corporate office landscaping ($3,600) in 2008 and $3,600 in 2009 – Based on vendor quote, $1,750 for 7 of the 45 gallon pots (unit cost of $250), $900 for 20 of the 3 gallon pots (unit cost of $45), $400 for 2 planters with drip system at the office entry, $200 for tax and $400 for delivery and installation. Of the total $3,600 cost for 2009, $1,944 has been allocated to natural gas based on common plant allocation factors.



Bambusa vulgaris 'Wamin' ● × 7 @ $250 each = $1750

Bambusa glaucophylla ● × 20 @ 45 each = 900

2650

2 planters w/ drip system & office cleaning 400 / 3050 + 198.25 = 3198.25

Delivery & Install 400 / 3598.25 ≈ $3600

Tropical® BAMBOO
www.tropicalbamboo.com

Bambusa vulgaris 'Wamin' - Dwarf Buddha Belly Bamboo

A dwarf bamboo that is perfect by a pond but will fit just about any landscape. Swollen internodes are unusual and are sure to attract your visitors' attention. This bamboo could have been conjured up by Tim Burton or Dr. Seuss. In Florida (and other warm, humid areas) this species is much more reliable and consistent in producing swollen internodes (bellies) than the first species given the name Buddha Belly Bamboo, Bambusa ventricosa (tuldoides). 12' - 15' with up to 3" dia. culms. Min. temp 27°F. MIn USDA zone 9b

More Photos...!

View Video...!

Add To Cart **3 gallon -**
All other sizes, local pick-up or delivery only

Product Type and Price List							
1 gal	3 gal	7 gal	15 gal	25 gal	45 gal	65 gal	Field Grown
$12.00	$25.00	$45.00	$75.00	$150.00	$250.00	$350.00	$500.00+

×7
1750

Bambusa glaucophylla (heterostachya)

Long, narrow, highly variegated leaves. Introduced as 'Taiwan variegated'. One of the few small growing tropical bamboos. Grows in a bush-like habit. May grow to 12' with 3/4" dia. culms. Min. temp 25°F. Min USDA zone 9b

Add To Cart **3 gallon -**
All other sizes, local pick-up or delivery only

More Photos...!

Product Type and Price List							
1 gal	3 gal	7 gal	15 gal	25 gal	45 gal	65 gal	Field Grown
N/A	$45.00	$75.00	$100.00	N/A	N/A	N/A	$500.00+

×20
900

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Gas distribution integrity $50,000 in 2009 – This cost estimate is based on the knowledge and experience of Management. Witness Schneidermann has discussed the computation of the $50,000 adjustment in his testimony.

The Notice of Proposed Rulemaking was issued in the Federal Register on June 25,2008. The proposed rule lists seven elements in an Integrity Management program which operators would have to develop and implement: 1) knowledge of infrastructure; 2) identification of threats; 3) evaluation and prioritization of risks; 4) mitigation of risks; 5) measurement and monitoring of performance; 6) periodic evaluation and improvement; and 7) reporting of results. Comments are being received on the NOPR however it is expected that compliance with the actual resulting rule will begin during 2009. We expect the initial effect of the final rule to have significant financial effects on the operations of gas distribution pipelines. The most recent estimated annual cost that we have seen is indicates a potential nationwide cost of $100 million for 1.9 million miles of gas distribution lines. This equates to approximately $53 per mile of main per year. Taking into account the appropriate ratios, the expected annual cost for FPU's gas operations to comply could be approximately $100,000. Since we cannot be sure exactly when the new rule(s) will take effect, we have figured the financial impacts as though we would start incurring costs during the summer of 2009. As such, we have included only $50,000 as projected expense associated with the additional compliance cost for the period covering July through December one-half of our annual projection of $100,000 We have included this estimated cost of compliance within our projections of 2009 expenses.

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Corporate office painting $11,750 in 2009 – The adjustment is based on vendor quote of $29,500 for interior painting and $17,500 for exterior painting. The total $47,000 has been allocated over a four year recovery period for an annual cost of $11,750. Of the total annual cost, $6,345 has been allocated to natural gas based on common plant allocation factors.

7369 Westport Place
West Palm Beach, Florida 33413

(561) 845-0123
(800) 232-1564
fax (561) 697-9815

advanced painting contractors

FAX BID PROPOSAL

JOB NAME: **FLORIDA PUBLIC UTILITIES COMPANY**
Interior & Exterior Re-Painting of Entire Building
401 South Dixie Highway - West Palm Beach

BID TO: Mr. Mark Schneidermann
OWNER: *Florida Public Utilities Company*
ADDRESS: 401 South Dixie Highway
West Palm Beach, FL 33401

PHONE#: (561) 723-3467
FAX #: (561) 833-8562

DATE: 8/13/08 BID BY: *Daniel Eggertsson*

SCOPE: **Interior & Exterior Re-Painting of Entire Building**

- On the Exterior, we will first pressure clean all the Exterior Walls & Ceilings of the building to remove all dirt, mold, mildew, etc.
- When the pressure cleaning is complete we will apply one coat of PPG *Permacrete®* Masonry **Surface Sealer** to lock in the existing paint and provide a sound surface for the finish paint.
- Before the finish coat we will patch any small cracks in the surface with an **Elastomeric Patching Material** floated out to match the existing texture as closely as possible.
- After all prep work is complete we will apply one coat of PPG *ProSidingPlus+®* **Exterior Flat Paint** in the color selected by the Owner.
- All Exterior Hollow Metal or Steel Swing Doors will be sanded, spot primed where necessary and given two coats of a **Semi-Gloss Enamel.**
- On the Interior we will patch any small holes in the drywall walls with a spackling material or 20 minute drywall mud. We will then re-paint the walls of the Common Areas, Restrooms, Stairwells & Offices that weren't newly painted an alternate color by the employee with PPG *Speedhide* ® **Interior Latex Flat Paint.** Any Drywall Ceilings or Soffits will also be painted.
- All Interior Doors & Frames as well as any wood trim will be sanded, spot primed where necessary and given two coats of a **Semi-Gloss Enamel.**
- The Concrete Floors of both Stairwells will be acid etched and given two coats of **H&C® Concrete Stain with SharkGrip®** in the color selected by the Owner.
- Quote includes all Labor, Materials & Boom Lift Rental. All work to be completed during normal business hours, M-F.

INTERIOR TOTAL:	$29,500.00
EXTERIOR TOTAL:	$17,500.00

EXCLUSIONS: Work is only as described above. Any additional work requested will be priced out for approval prior to commencement of same. **We will not caulk any windows or paint any folding shutters. No Sidewalks or roofs will be pressure cleaned or painted. **All Offices or any walls that are not currently painted white will be excluded. Any OT or Weekend work will be an additional 15%.

PAYMENT: 30% DEPOSIT, THE REMAINING BALANCE FOR THE EXTERIOR & INTERIOR TO BE PAID UPON THE COMPLETION OF EACH PHASE.

NOTE : All paint materials are to be quality products as manufactured by PPG unless specifically noted otherwise. Colors not specified are "to be selected". Please call if there are any questions concerning this bid. **Pricing is valid for 1 Year.

Signed: *Daniel Eggertsson* 8/13/08
advanced painting contractors, Inc. date

Approved: _____ _____
Florida Public Utilities Company date

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Corporate office flooring $25,000 in 2009 – The anticipated cost for flooring is $100,000 based on vendor quote. The total has been allocated over a four year recovery period. Of the $25,000 annual cost, $13,500 has been allocated to natural gas based on common plant allocation factors.

ATLANTIC FLOORING
PH: 561-575-5990
Fax: 561-744-1805

371 C Cypress Dr
Tequesta, FL 33469

CUSTOMER: FPU
ADDRESS:

PROJECT NAME: Budget Figures replacement of existing carpet.

PHONE:

FAX:

ATTN: Mark

PROPOSALCONTRACT

Date: 8/22/8

WE PROPOSE TO FURNISH THE FOLLOWING:

Supply & install Mohawk Fresh Tapestry , woven construction 32oz colorstrand nylon.	2400 s/y @ 34.44	82656.00
Remove existing glue-down carpet	2400 s/y @ 3.00	7200.00
Machine rental (10days)		1000.00
Supply & install 4" vinyl cove base	2200 L/F @ 1.25	2750.00
Remove existing cove base	2200 L/F @ .50	1100.00
Overtime Labor	2400 s/y @ 1.50	3600.00
	Sub-Total	98,306.00
	Sales Tax	0.00
	Total	98,306.00

NOTES: Prices do not include floor prep.

ACCEPTED BY:

RESPECTFULLY SUBMITTED BY:

Date

Date

A 50% deposit is required prior to materials being ordered

Prices are for budget purposes only

Q. Explain the over and above non- personnel adjustments for South Florida Operations.

A. The non-personnel adjustments for South Florida operations include an adjustment for GPS, Dispatching and Navigational System, Bridge crossing repairs and maintenance, Training, Line locating and an M&J allocation correction. Witnesses Kitner and Martin have included in their testimony the nature of different components of these adjustments. The adjustment amount for each of these items has been computed as follows:

GPS, Dispatching and Navigational System $21,600 in 2008 and $43,200 in 2009 - We purchased 25 connected navigation units with messaging. The annual service cost of each is $599.40, (or $600 rounded). The total service cost of $15,000 was split between natural gas and propane based on vehicle count, with $14,000 representing the natural gas portion. We purchased 80 navigation and location units without messaging. The annual service cost of each is $419.40, (or 400 rounded). The total service cost of $32,000 was split between natural gas and propane based on vehicle count, with $30,000 representing the natural gas portion. The service cost for the connected navigation units with messaging ($14,000) and the navigation and location units without messaging ($30,000) provides a total annual service cost to natural gas of $44,000. An adjustment of $43,200 has been included for 2009 and represents a full year; the 2008 adjustment represents costs incurred for a partial year.

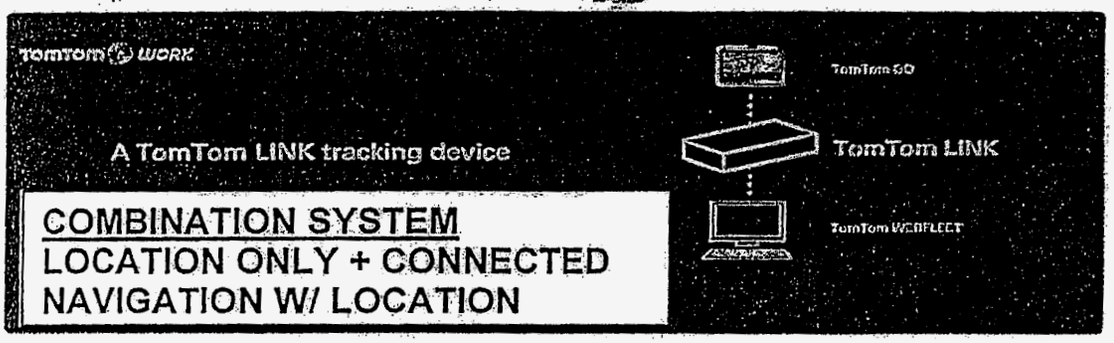
SOUTH /CENTRAL /WEST FLORIDA VEHICLE LOCATING SYSTEM ROI INFO

SF EQUIPMENT COST - 105 UNITS	NUMBER OF UNITS	UNIT COST	TOTAL COST			
NAV/LOCATING UNITS - (SUPERVISION)	16	$1,100.00	$17,600.00			
NAV/LOCATING/MESSAGING UNITS - (SERVICE)	25	$1,100.00	$27,500.00			
LOCATING UNITS ONLY - (ALL OTHERS)	64	$700.00	$44,800.00			
			$89,900.00		NATURAL	$90,525.00
TAX			$5,843.50		PROPANE	$5,218.50
TOTAL	105		$95,743.50			$95,743.50

SF MONTHLY SERVICE COST - 105 UNITS	NUMBER OF UNITS	UNIT COST	TOTAL COST			
NAV/LOCATING FEE - (SUPERVISION)	16	$34.95	$559.20			
NAV/LOCATING/MESSAGING FEE - (SERVICE)	25	$49.95	$1,248.75			
LOCATING ONLY FEE - (ALL OTHERS)	64	$34.95	$2,236.80			
			$4,044.75			
TAX			$0.00			
TOTAL	105		$4,044.75	X	12	$48,537.00

GPS Dispatching

TOMTOM® WORK



TOMTOM GPS EQUIPMENT

34	TomTom LINK GPS @ $ 600 ea.	=	$ 20,400
37	TomTom GO720 PND @ $350 ea.	=	$ 12,950
15	TomTom GO720 Mounts @ $50 ea.	=	$ 750
34	INSTALLS @ $100 ea.	=	$ 3,400
TOTAL CASH INVESTMENT		=	$ 37,500
TAX @ 6.5 %		=	$ 2,437.50

TOTAL CASH INVESTMENT W/ TAX = $39,937.50

- Covers the following requirements: 15 Trucks w/ LINK+Nav+Msg, (LOC. + CONNECTED NAV.),6 Trucks w/ LINK (LOC. ONLY / NO NAV.), 13 Trucks w/ LINK+720 PND (LOC. ONLY / STAND-ALONE NAV), 9 Trucks w/ 720 PND only (NAV ONLY)
- Includes installation on-site!

TOMTOM MONTHLY GPS SERVICE

15	CONNECTED NAVIGATION @ $49.95 ea.	=	$ 749.25
19	LOCATION ONLY @ $34.95 ea.	=	$ 664.05

MONTHLY TOTAL GPS SERVICE = $ 1,413.30

- Includes 1 MINUTE Automatic Location Updates (GSM), Real-time location features, TomTom WEBFLEET Online Account Access and Unlimited location / 2-Way Messaging

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Bridge crossing repairs and maintenance $26,250 in 2009 – The adjustment is based on the vendor quote increased by approximately 6.5% for a total of $105,000. This cost has been allocated over a four year recovery period for an annual cost of $26,250.

Conduit Constructors™
The Underbridge Piping Experts!
11521 Reames Road • Suite 102 • Charlotte, NC 28269

Sept 26, 2007

Mr. Calvin Favors
Florida Public Utilities
208 N. Sapodilla Ave.
West Palm Beach, Fl 33401

Bridge Crossing Repairs

Re: Budgetary Proposal for above ground Crossings

Conduit Constructors, LLC is pleased to provide the following scope and price proposal for the above referenced project. Based on the information we have received and our understanding of that information; our scope is detailed as follows.

Individual Scopes and Clarifications

45th and Corporate
On this crossing we will replace existing hangers with six new properly sized, stainless steel, yoke style hangers, non-conductive rollers and all necessary hardware. We will install fourteen, 240 degree shields to prevent shorting during thermal cycles. We will clean, prep, prime, and apply Trenton Wax Tape #2 to approximately 130' of 6" pipe per manufacturer's recommendations. Traffic control will be provided on this crossing. We will also install rock shield where the pipe enters and exits the ground.

Our Proposal: $10,716.00

North Shore Drive
On this crossing we will replace existing roller chairs with five new properly sized, stainless steel, yoke style hangers, non-conductive rollers, and all hardware necessary. We will install 13 240 degree shields to prevent shorting during thermal cycles. Then we will clean, prep, prime and apply Trenton Wax Tape #2 to approximately 100' of 4"" pipe per manufacturer's recommendation. We will also install rock shield where the pipe enters and exits the ground.

Our Proposal: $6421.00

Haverhill Rd.
On this crossing we will clean, prep, prime, and apply Trenton Wax Tape #2 to approximately 53' of 6" pipe. We will also install rock shield on both ends of the pipe.

Our Proposal: $3380.00

Haverhill/Caribbean
On this crossing we will clean, prep, prime, and apply Trenton Wax Tape #2 to approximately 70' of 6" pipe per manufacturer's recommendations. We will also install rock shield where the pipe enters and exits the ground.

Our Proposal: $3569.00

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The Underbridge Piping Experts!

Belvedere Rd.
On this crossing we will clean, prep, prime, and apply Trenton Wax Tape #2 to approximately 106' of 6" pipe per manufacturer's recommendations. We will also replace four stainless steel yoke style hangers with non-conductive rollers and eight 240 degree shields where the pipe touches existing supports. We will install shields and pack casings with fill putty to protect the pipe.

Our Proposal: $7125.00

Florida Mango
We will clean, prep, prime, and apply Trenton Wax Tape #2 to approximately 55' of 6" pipe per manufacturer's recommendations. We will completely remove all existing tape on pipe. We will install four 360 degree shields where pipe is resting on the headwalls. Traffic Control included.

Our Proposal: $5160.00

Westlake Drive
On this crossing we will clean, prep, prime, and apply Trenton Wax Tape #2 to approximately 35' of 4" pipe per manufacturer's recommendations. We will also install shields in the casings and use fill putty to protect the pipe.

Our Proposal: $2760.00

6th Ave
On this crossing we will replace 7 hangers with new properly sized, stainless steel yoke style hangers, non-conductive rollers, and all necessary hardware. We will also install fourteen 240 degree shields to prevent shorting during thermal cycle. Next we will clean, prep, prime, and apply Trenton Wax Tape #2 to approximately 150' of 8" pipe. We will also install rock shield where the pipe enters and exits the ground. Traffic control will be provided.

Our Proposal: $12,129.00

Orangetree
On this crossing we will clean, prep, prime, and apply Trenton Wax Tape #2 to approximately 60 of 4" pipe per manufacturer's recommendations. We will also install 6 hangers with new properly sized, stainless steel yoke style hangers, non-conductive rollers, and all necessary hardware. We will install rock shield where the pipe enters and exits the ground. We will install twelve 240 degree shields at all hanger locations.

Our Proposal: $ 6075.00

Troon Drive
On this crossing we will clean, prep, prime, and apply Trenton Wax Tape #2 to approximately 45' of 4" pipe per manufacturer's recommendations. We will also install 5 hangers with new properly sized, stainless steel yoke style hangers, non-conductive rollers, and all necessary hardware. We will install rock shield where the pipe enters and exits the ground. We will install ten 240 degree shields at all hanger locations. We will also remove rocks from the pipe.

Our Proposal: $4335.00

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Conduit Constructors™
The Underbridge Piping Experts!

Carl Bolter
On this crossing we will install 8 hangers with new properly sized, stainless steel yoke style hangers, non-conductive rollers, and all necessary hardware. We will install sixteen 240 degree shields at all hanger locations. We will clean, prep, prime, and apply Trenton Wax Tape #2 to approximately 190' of 6" pipe per manufacturer's recommendations. We will install rock shield at both ends of pipe.

Our Proposal: $11,650.00

7th ave.
On this crossing we will replace hangers with 5 new properly sized, stainless steel, yoke style hangers, non-conductive rollers, and all hardware necessary. We will install ten 240 degree shields to prevent shorting during thermal cycles. Then we will clean, prep, prime and apply Trenton Wax Tape #2 to approximately 117' of 8" pipe per manufacturer's recommendation. We will also install rock shield where the pipe enters and exits the ground.

Our Proposal: $11,590.00

Glade Rd.
This location includes two crossing. We will clean, prep, prime and apply Trenton Wax Tape #2 to approximately 160' of 6" pipe. We will install stainless steel straps at four locations to keep pipe from shifting off existing roller chairs. We will repair angle iron that is being pulled out of concrete pier. We will install rock shield at four locations where the pipe enters and exits the ground. Traffic control is included in price.

Our Proposal: $13,560.00

All the pricing here are estimates as to what it would take to rehabilitate the pipe crossings. The crossings are turn key pricing which includes all material, men, tools and equipment to perform the work. Traffic control is included on all crossing that will require lane closures, flagmen, or police protection. They do not include any fees associated with railroad permitting or railroad flag men.

I would love to discuss each crossing in detail to discuss economies of scale. Thank you for the opportunity to earn your business and I look forward to building a long term relationship with your company.

Best regards,

Burns Conrad
VP Business Development

10,716.+
6,421.+
3,380.+
3,569.+
7,125.+
5,160.+
2,760.+
12,129.+
6,075.+
4,335.+
11,650.+
11,590.+
13,560.+

013

98,470.++

Burns Conrad, VP Business Development• bconrad@conduitconstructors.com • Phone 704-598-5684 • Fax 704-598-5683

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Operational, technical, safety and leadership training $65,000 in 2009 – This adjustment includes Avanti training, SGA training, Gas training services, FGNA training, and gas technology institute training. The adjustment has been calculated by course at unit cost.

Includes SF + CF

2009 TRAINING & SEMINARS

AVANTI TRAINING CENTER

Basic Distribution; 4 day course – 4 attendees	$3,320.00
Regulator Training; 3 day course – 2 attendees	$1,420.00
Gas Valve Training; 3 day course – 4 attendees	$2,840.00
Advance Distribution: 3.5 day course – 2 attendees	$1,420.00

National Welding Inspection School

Welding Certification Inspection Class – 2 attendees	$5,000.00

SGA TRAINING

Managing Natural Gas Emergency Workshop – 2 attendees	$3,200.00
Commercial & Industrial Marketing Conference – 2- attendees	$3,200.00
Commercial Food Service Marketing Conference – 2 attendees	$3,200.00
Pipeline Construction Workshop – 2 attendees	$3,200.00
Pipeline Repair Workshop – 2 attendees	$3,200.00
Operations and Marketing Conference and Expo – 2 attendees	$3,200.00
SGA Training Week – 2 attendees	$3,200.00
Distribution Operating Conference – 4 attendees	$6,240.00
Customer Solutions Conference – 2 attendees	$4,800.00
Distribution Operating Executive Roundtable – 2 attendee	$5,000.00
Operator Qualification – 1 attendee	$1,850.00

GAS TRAINING SERVICES

Gas Pipe Sizing – 14 attendees	$1.050.00
Emergency Response – 14 attendees	$1,050.00

Natural Gas Overview - 14 attendees	$1,050.00
Intro to Natural Gas – 14 attendees	$1,050.00
Florida Fuel Gas Code – 14 attendees	$1,050.00
FNGA TRAINING	
Annual Conference – 2 attendees	$1,600.00
Annual Distribution/Marketing Conference – 4 attendees	$3,200.00
Appalachian Measurement Course – 1 attendee	$1,800.00
Appalachian Underground Corrosion Course – 2 attendees	$3,600.00
Florida Utility Coordinating Committee Meeting – 1 attendee (quarterly)	$1,400.00
GAS TECHNOLOGY INSTITUTE	
Gas Distribution Engineering & System Planning – 2 attendees	$10,000.00
Distribution Integrity Management – 1 attendee	$4,000.00
International Builders Conference – 4 attendees	$4,000.00
Southeast Builders Conference – 4 attendees	$3,000.00

3,320.+
1,420.+
2,840.+
1,420.+
5,000.+
3,200.+
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3,200.+
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3,200.+
6,240.+
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3,600.+
1,400.+
10,000.+
4,000.+
4,000.+
3,000.+

92,140.*+

030

Q. Explain the over and above non- personnel adjustments for South Florida Operations.

A. The non-personnel adjustments for South Florida operations include an adjustment for GPS, Dispatching and Navigational System, Bridge crossing repairs and maintenance, Training, Line locating and an M&J allocation correction. Witnesses Kitner and Martin have included in their testimony the nature of different components of these adjustments. The adjustment amount for each of these items has been computed as follows:

Line locating ($140,000) in 2008 and ($75,000) in 2009 – The adjustment was calculated based on the historical activity for 2007 as compared to 2008. The decrease was carried into 2009 at reduced levels as expected until activities are expected to return to a normal level.

High Tech Vendor Analysis
Line locating over and above adjustment

Actual 2008 invoices

36,066.50	
34,070.00	
38,279.25	
39,974.50	
40,762.75	
39,603.75	
41,474.75	
31,998.50	
302,230.00	YTD 9/2008
402,973.33	**Annualized 2008**

Actual 2007 invoices

37,791.25	
44,604.75	
4,800.00	
38,691.00	
43,419.75	
41,222.50	
39,210.75	
50,165.00	
44,014.50	
42,855.50	
39,810.25	
42,733.50	
32,951.50	
40,415.50	
542,685.75	YTD 12/2007
(139,712.42)	**Anticipated reduction from 2007 to 2008**

Lundgren April

From: Kitner Don
Sent: Tuesday, January 27, 2009 1:31 PM
To: Lundgren April; Kennedy Barry
Cc: Martin Cheryl
Subject: RE: FPSC inquiry - line locating

Underground facility owners are required by law to locate their facilities, at no charge to the requestor, in areas of proposed excavation. The Company experienced an abnormally low number of requests in 2008 for line locations. The number of location requests, are expected to begin to return to normal levels in 2009 based on forecasted construction activities, particularly in the municipal road construction arena. Approximately 50% to 60% of the line locations received are generated from road construction projects. The Company experienced municipal road projects in 2008 totaling roughly 9.5 miles. In 2009 and subsequent years the number of municipal road construction projects is expected to more than double based on information received from local and state agencies and particularly in light of the State of Florida's announcement to speed up road construction. In fact, the newly projected road construction projects impacting Central Florida's facilities are estimated to be over 30 miles more than triple the average of previous years. With this in mind we expect the expenses for line locations to be back to the levels experienced in 2007.

Don Kitner
General Manager, Central Florida
386-668-9201

From: Lundgren April
Sent: Friday, January 23, 2009 4:50 PM
To: Kitner Don; Kennedy Barry
Cc: Martin Cheryl
Subject: FPSC inquiry - line locating

Good afternoon:

Kathy would like an explanation for why we experienced such a significant decrease in line locating from 2007 to 2008, and why we expect levels to increase from what we are experiencing in 2008 as compared to 2009.

Thank you,
April Lundgren
Assistant Controller
Florida Public Utilities Company
561.838.1788

284,958.+ 2007
272,392.- 2008

002

12,566.*+ Reduction from 07-08

0.*

Q. Explain the over and above non- personnel adjustments for Corporate and South Florida Marketing.

A. The non-personnel adjustments for Corporate and South Florida Marketing include an adjustment for Research & Development, non-conservation industry training, and an SGA initiative. Witness Seagrave has included in his testimony the nature of these adjustments. The adjustment amount for each of these items has been computed as follows:

Non-conservation industry training ($22,500) in 2008 and $10,000 in 2009 – The 2009 adjustment includes $4,000 for 2 employees to attend the Fuel Maker CNG Unit Training course and $6,000 for 2 employees to attend the Carbon Cap & trade certification training course.

Natural Gas Overview - 14 attendees	$1,050.00
Intro to Natural Gas – 14 attendees	$1,050.00
Florida Fuel Gas Code – 14 attendees	$1,050.00

FNGA TRAINING

Annual Conference – 2 attendees	$1,600.00
Annual Distribution/Marketing Conference – 4 attendees	$3,200.00
Appalachian Measurement Course – 1 attendee	$1,800.00
Appalachian Underground Corrosion Course – 2 attendees	$3,600.00
Florida Utility Coordinating Committee Meeting – 1 attendee (quarterly)	$1,400.00

GAS TECHNOLOGY INSTITUTE

Gas Distribution Engineering & System Planning – 2 attendees	$10,000.00
Distribution Integrity Management – 1 attendee	$4,000.00
International Builders Conference – 4 attendees	$4,000.00
Southeast Builders Conference – 4 attendees	$3,000.00

FUEL MAKER CNG UNIT TRAINING

Service qualification course residential CNG units – 2 attendees	$ 4,000.00

CARBON CAP & TRADE

Carbon cap & trade certification training course – 2 attendees	$ 6,000.00

Q. Explain the over and above non- personnel adjustments for Corporate and South Florida Marketing.

A. The non-personnel adjustments for Corporate and South Florida Marketing include an adjustment for Research & Development, non-conservation industry training, and an SGA initiative. Witness Seagrave has included in his testimony the nature of these adjustments. The adjustment amount for each of these items has been computed as follows:

SGA initiative $7,820 in 2008 and 2009 – This is based on the Council for Responsible Energy member cost of $0.15 per meter times 52,133 meters in service.

SGA
LINKING PEOPLE, IDEAS, INFORMATION
Celebrating 100 Years
3030 LBJ Freeway, Suite 1300 ◆ Dallas, TX 75234
972-620-4012 ● Fax 972-620-1613
www.southerngas.org

Florida Public Utilities Company
Marc Seagrave
401 S. Dixie Hwy
West Palm Beach, FL 33401

December 9, 2008

Invoice #129

INVOICE

For CRE Membership Dues

Member Level: Investor Owned Utility

Total Residential Meters = 47,224 x $ .15 per meter = $ 7,084

$ 7,084

THANK YOU FOR SUPPORTING THE NATURAL GAS INDUSTRY!

Method of Payment:

☐ Check enclosed. (Make check payable in U.S. Dollars to Southern Gas Association.) Please show Invoice No. on check.

☐ Credit Card
☐ American Express ☐ MasterCard ☐ Visa

Card # _____ Exp. Date _____

Name as it appears on Card _____

Please make payment by returning a copy of this invoice. TERMS: Net 30 days
Statements are not rendered except on accounts, which are past due.

Q. Explain the over and above non- personnel adjustments for Corporate and South Florida Marketing.

A. The non-personnel adjustments for Corporate and South Florida Marketing include an adjustment for Research & Development, non-conservation industry training, and an SGA initiative. Witness Seagrave has included in his testimony the nature of these adjustments. The adjustment amount for each of these items has been computed as follows:

Research & Development $50,000 in 2009 – This projected cost includes amounts for contributions to organizations such as GTI, AGA and the Florida solar Energy Center to support research and development of such gas utilization equipment as natural gas fuel cells, desiccant dehumidification systems, residential natural gas fueling units and solar water heating with natural gas back up tankless water heaters. It also includes funds for R&D relating to the establishment of a commercial natural gas fueling station, funds for the installation of a desiccant dehumidification unit in a public school, and funds for equipment to monitor the humidity and performance of the desiccant dehumidification units in our corporate office. The resulting data will serve as a marketing tool to educate our customers.

Lundgren April

From: Seagrave Marc
Sent: Wednesday, November 12, 2008 5:50 PM
To: Lundgren April
Cc: Martin Cheryl
Subject: RE: Testimony review

April,

A rough estimate for our R&D program would be:

- Contributions to organizations such as GTI, AGA and the Florida Solar Energy Center to support research and development of such gas utilization equipment as: Natural gas fuel cells, desiccant dehumidification systems, residential natural gas fueling units and solar water heating with natural gas back up tankless water heaters. We expect our contributions to this research to be approximately **$10,000** annually.

- We expect to spend **$25,000** annually in a joint venture to establish a commercial natural gas fueling station in our markets.

- We expect to spend **$10,000** to install a desiccant dehumidification unit in a public school as a joint venture with a school board.

- We expect to spend **$5,000** on equipment to monitor the humidity and performance of 8 desiccant dehumidification units installed in our corporate office. The data will be used to share with customers who are interested in utilizing this technology in their home or business.

I hope this is specific enough. Please let me know.

Thanks,

Marc S. Seagrave

Marc Seagrave, CSP, CGP
Certified Sales Professional
Certified Green Professional
Director of Marketing & Sales
Florida Public Utilities Company
401 S. Dixie Hwy
West Palm Beach, FL 33401
(561) 838-1714 Office
(561) 723-3439 Cell
(561) 833-8562 Fax
mseagrave@fpuc.com

0•*
10,000•+
25,000•+
10,000•+
5,000•+
004
50,000•*+

From: Lundgren April
Sent: Wednesday, November 12, 2008 2:29 PM
To: Seagrave Marc
Subject: Testimony review

Hi Marc:

Q. Explain the over and above non- personnel adjustments for Corporate - General.

A. The non-personnel adjustments included in Corporate - General are based on historical costs and are as follows for 2009:

1. $1,102 for Conferences (of which 52% or $573 has been allocated to natural gas based on the allocation factors for utility plant)
2. $2,490 for FNGA annual dues
3. $400 for AGDF annual dues
4. $266 for SGA annual dues

Natural Gas Rate Proceeding, Corporate or Natural Gas Expenses
Department___Executive - Stein_____
Approved by:___C.L. Stein_____ Date:__7-7-08_____

Item	New Item or Over and Above	Account number	Actual YTD Amount Dec-07	Actual YTD Amount Apr-08	Projected Annual Amt. 2008	Amount over YTD Dec-07	Projected Annual Amt. 2009	Amount over YTD Dec-07	Details of Item and Projection Method(support and/or basis and calculation).
Conferences:									
FNGA/AGDF Board Meetings (Feb)		*SRVP*	$ 176	$ 155	$ 500	$ 324	$ 500	$ 324	Officer/Board Member
SGA Annual Meeting (April)		*SRVP*	$ 636	$ 1,320	$ 1,500		$ 1,600		SGA Committee Member; Industry update
FNGA Annual Convention (June)		*SRVP*	$ 816	*not attending*	$ 1,000	$ 184	$ 1,000	$ 184	Officer/Board Member
SGA Distribution Operating Roundtable (Sept)		*SRVP*	$ 406		$ 1,500		$ 1,500		SGA Committee Member; Industry update
FNGA/AGDF Board Meetings (Sept)		*SRVP*	$ 506		$ 500	$ (6)	$ 500	$ (6)	Officer/Board Member
2008 Executive Wholesale Summit by Southern Company			$ -	*not attending*	$ 600	$ 600	$ 600	$ 600	Interaction with Southern Company
								$ -	
FNGA Annual Dues		*35% 121.4010.93022* *35% 123.4010.93022* *16% 121.4010.910* *16% 123.4010.910*	$ 28,010		$ 29,500	$ 1,490	$ 30,500	$ 2,490	Co. membership & Officer/Board member
AGDF Annual Dues		46% 121.4010.93022 9% 123.4010.928 32% 121.4010.928 13% 123.4010.93022	$ 19,600	$ 13,200	$ 20,000	$ 400	$ 20,000	$ 400	Co. membership & Officer/Board member
SGA Annual Dues		73% 121.4010.93022 27% 123.4010.93022	$ 7,734	$ 7,806	$ 7,900	$ 166	$ 8,000	$ 266	Co. membership & Committee Member
FPGA/NPGA (combined) Annual Dues	Propane	60% 991.4010.870 27% 993.4010.870 13% 995.4010.870	$ 6,708	$ 6,549	$ 7,000	$ 292	$ 7,000	$ 292	Co. membership & Committee Member

Q. Explain the over and above non- personnel adjustments for Customer Relations.

A. The non-personnel adjustments for Customer relations include an adjustment for Kubra E-bill, Postage, and Envelopes. All of these adjustments are shown below in total while only 53% is allocated to natural gas (based on the customer allocation percentage) and has been included for recovery. The company-wide adjustment amount for each of these items has been computed as follows:

Kubra E-bill $1,200 in 2009 – The origination fee is based on unit cost of $0.05 for 2,000 bills for a total of $100 per month or $1,200 per year.

Postage $11,970 in 2009 – Based on an increase of $0.015 for 114,000 units each month effective June 1, 2009.

Envelopes $448 in 2009 – Based on an increase of $0.004 for 112,000 pieces.

2009, Schedule G-2 (C-2), Net Operating Income Adjustments
ADJUSTMENT 4 - OTHER

DESCRIPTION	NOI EFFECT
Depreciation:	
Decrease in Depreciation - Due to reduction of Plant resulting from proposed increase in Bare Steel and Tubing Replacemtent Program. See Direct Testimony Exhibit JVM-3. Depreciation	$ 1,166
Increase in Depreciation - Due to increase in Plant resulting from proposed recovery of unrecoverable AEP Contributions. See Direct Testimony Exhibit JVM-4.	$ (63,996)
TOTAL INCREASE IN DEPRECIATION	**$ (62,830)**
Amortization:	
Increase In Amortization - Due to proposed annual increase in Bare Steel and Tubing Replacemtent Program - See Direct Testimony Exhibit JVM-3.	
TOTAL INCREASE IN AMORTIZATION	**$ (56,798)**

Florida Public Utilities Company
CONSOLIDATED NATURAL GAS

13-Month Average Depreciation Expense Allocated to Non-Regulated

For Use First Three Quarters 2008
13 MONTHS ENDING DECEMBER 31, 2007 (adjusted for anticipated major 2008 changes)

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.39

	TOTAL	PROPANE	M&J	SOUTH FLORIDA								CENTRAL FLORIDA							
ACCOUNT	13-MONTH AVERAGE NON-REGULATED RESERVE	13-MONTH AVERAGE NON-REGULATED RESERVE	13-MONTH AVERAGE NON-REGULATED RESERVE	12 MONTH DEPR	CAPITALIZATION RATE	CAPITALIZATION AMOUNT	NET 12 MONTH TOTAL	ALLOCATION METHOD	PROPANE NON-REGULATED %	M&J NON-REGULATED %	PROPANE 13-MONTH AVERAGE NON-REGULATED RESERVE	M&J 13-MONTH AVERAGE NON-REGULATED RESERVE	12 MONTH DEPR	CAPITALIZATION RATE	CAPITALIZATION AMOUNT	NET 12 MONTH TOTAL	ALLOCATION METHOD	PROPANE NON-REGULATED %	M&J NON-REGULATED %	PROPANE 13-MONTH AVERAGE NON-REGULATED RESERVE	M&J 13-MONTH AVERAGE NON-REGULATED RESERVE
303	-	-	-	-		-	-	N/A	0%	0%	-	-	7,260		-	7,260	N/A	0%	0%	-	-
3031	-	-	-	-		-	-	N/A	0%	0%	-	-	-		-	-	N/A	0%	0%	-	-
374	-	-	-	-		-	-	N/P/M	16%	3%	-	-	-		-	-	N/A	0%	0%	-	-
3741	-	-	-	408		-	408	N/A	0%	0%	-	-	-		-	-	N/P/M	19%	6%	-	-
375	2,547	2,142	405	13,200		-	13,200	N/P/M	16%	3%	2,112	396	156		-	156	N/P/M	19%	6%	30	9
3761	-	-	-	426,586		-	426,586	N/A	0%	0%	-	-	183,291		-	183,291	N/A	0%	0%	-	-
3762	-	-	-	541,926		-	541,926	N/A	0%	0%	-	-	162,866		-	162,866	N/A	0%	0%	-	-
378	-	-	-	8,820		-	8,820	N/A	0%	0%	-	-	1,596		-	1,596	N/A	0%	0%	-	-
379	-	-	-	62,004		-	62,004	N/A	0%	0%	-	-	8,571		-	8,571	N/A	0%	0%	-	-
3801	-	-	-	486,168		-	486,168	N/A	0%	0%	-	-	171,931		-	171,931	N/A	0%	0%	-	-
3802	-	-	-	86,647		-	86,647	N/A	0%	0%	-	-	75,497		-	75,497	N/A	0%	0%	-	-
381	-	-	-	132,924		-	132,924	N/A	0%	0%	-	-	51,655		-	51,655	N/A	0%	0%	-	-
382	-	-	-	47,154		-	47,154	N/A	0%	0%	-	-	31,991		-	31,991	N/A	0%	0%	-	-
383	-	-	-	48,136		-	48,136	N/A	0%	0%	-	-	16,272		-	16,272	N/A	0%	0%	-	-
384	-	-	-	18,612		-	18,612	N/A	0%	0%	-	-	11,182		-	11,182	N/A	0%	0%	-	-
385	-	-	-	1,262		-	1,262	N/A	0%	0%	-	-	337		-	337	N/A	0%	0%	-	-
387	3,430	3,430	-	14,537		-	14,537	N/P	16%	0%	2,326	-	5,808		-	5,808	N/P	19%	0%	1,104	-
389	-	-	-	-		-	-	N/P/M	16%	3%	-	-	-		-	-	N/P/M	19%	6%	-	-
3892	-	-	-	-		-	-	N/P	16%	0%	-	-	-		-	-	N/A	0%	0%	-	-
390	8,618	6,587	2,031	2,396		-	2,396	N/P/M	16%	3%	383	72	32,654		-	32,654	N/P/M	19%	6%	6,204	1,959
3911	1,203	950	253	2,292		-	2,292	N/P/M	16%	3%	367	69	3,066		-	3,066	N/P/M	19%	6%	583	184
3912	810	641	169	1,582		-	1,582	N/P/M	16%	3%	253	47	2,040		-	2,040	N/P/M	19%	6%	388	122
3913	13,838	11,212	2,626	44,584		-	44,584	N/P/M	16%	3%	7,133	1,338	21,469		-	21,469	N/P/M	19%	6%	4,079	1,288
391305	12,127	9,772	2,355	35,617		-	35,617	N/P/M	16%	3%	5,699	1,069	21,436		-	21,436	N/P/M	19%	6%	4,073	1,286
3921	3,239	2,700	539	18,784	18.67%	3,507	15,277	N/P/M	16%	3%	2,444	458	1,507	10.77%	162	1,345	N/P/M	19%	6%	256	81
3922	52,630	42,412	10,218	190,167	18.67%	35,500	154,667	N/P/M	16%	3%	24,747	4,640	104,193	10.77%	11,221	92,972	N/P/M	19%	6%	17,665	5,578
3923	-	-	-	-	18.67%	-	-	N/A	0%	0%	-	-	-	10.77%	-	-	N/A	0%	0%	-	-
3924	637	510	127	2,077	18.67%	388	1,689	N/P/M	16%	3%	270	51	1,415	10.77%	152	1,263	N/P/M	19%	6%	240	76
393	84	71	13	444		-	444	N/P/M	16%	3%	71	13	-		-	-	N/P/M	19%	6%	-	-
394	3,451	3,451	-	14,455		-	14,455	N/P	16%	0%	2,313	-	5,991		-	5,991	N/P	19%	0%	1,138	-
395	-	-	-	-		-	-	N/P/M	16%	3%	-	-	-		-	-	N/P/M	19%	6%	-	-
396	3,988	3,988	-	13,582		-	13,582	N/P	16%	0%	2,173	-	9,552		-	9,552	N/P	19%	0%	1,815	-
397	4,361	3,529	832	13,788		-	13,788	N/P/M	16%	3%	2,206	414	6,964		-	6,964	N/P/M	19%	6%	1,323	418
398	1,858	1,500	358	5,624		-	5,624	N/P/M	16%	3%	900	169	3,156		-	3,156	N/P/M	19%	6%	600	189
399	-	-	-	-		-	-	N/A	0%	0%	-	-	-		-	-	N/A	0%	0%	-	-
	112,821	92,895	19,926	2,233,776		39,395	2,194,381				53,397	8,736	941,856		11,535	930,321				39,498	11,190

120,872.5	Total Transportation Hours
22,564.0	Transportation Hours Capitalized
18.67%	% Hours Capitalized

2006	TOTAL	CAPITALIZE	OTHER NON-EXP
Jan	10,785.5	2,281.5	44.5
Feb	9,904.0	1,998.5	69.5
Mar	10,910.0	2,354.5	26.0
Apr	10,207.5	1,925.0	70.5
May	10,865.5	2,180.0	37.5
Jun	10,361.0	1,984.5	27.0
Jul	10,072.0	1,807.5	51.5
Aug	10,469.0	1,779.0	34.0
Sep	9,694.0	1,876.0	42.5
Oct	9,980.5	1,856.0	48.5
Nov	9,513.0	1,355.0	31.0
Dec	8,628.0	1,176.5	35.0
	121,390.0	22,564.0	517.5

53,589.9	Total Transportation Hours
5,762.6	Transportation Hours Capitalized
10.77%	% Hours Capitalized

2006	TOTAL	CAPITALIZE	OTHER NON-EXP
Jan	4,844.0	462.0	60.1
Feb	4,621.0	749.0	2.5
Mar	4,276.5	492.0	24.5
Apr	4,819.0	804.0	5.0
May	4,913.5	542.5	15.0
May	4,314.5	309.5	33.0
Jul	4,109.0	435.0	1.5
Aug	4,326.0	414.0	29.5
Sep	4,439.5	424.5	13.5
Oct	4,917.5	596.5	4.0
Nov	3,922.5	363.5	17.0
Dec	4,222.0	370.0	9.5
	53,725.0	5,762.5	215.1

RATE BASE ADJUSTMENTS

In the MFR, Rate Base Adjustment details were required for only 2009 on Schedule G-1(4), Page 4 of 28. The rate base adjustments for 2008 and 2009 will be presented in response to this Document Request in the order they were shown on Schedule G-1(4).

ADJUSTMENT NUIMBER FROM Schedule G-1,	Account(s)	Class	DESCRIPTION	TYPE	2008 AMOUNT - Effect on Rate Base	Exhibit for 2008 Details	2009 AMOUNT - Effect on Rate Base	Exhibit for 2009 Details
1	1010	Plant	Non-Regulated Plant	Commission Adjustment	(1,853,653)	Exhibit 40.42	(1,853,653)	Exhibit 40.42
2	1010.3031	Plant	Non-Compete Agreement	Commission Adjustment	(1,900,000)	Exhibit 40.41	(1,900,000)	Exhibit 40.41
3	1010	Plant	Proposed Increase in Bare Steel Replacement Program.	Company Adjustment	-	n/a	(28,399)	Exhibit 40.41
4	1010	Plant	Proposed Reversal of AEP Contributions	Company Adjustment	-	n/a	2,461,202	Exhibit 40.46
5	1140.2	Plant	Goodwill	Commission Adjustment	(552,803)	Exhibit 40.41	(552,803)	Exhibit 40.41
6	1080	Plant	Non-Regulated Reserve	Commission Adjustment	466,889	Exhibit 40.43	466,889	Exhibit 40.43
7	1080	Plant	Reduction in Reserve due to depreciation associated with #3, above	Company Adjustment	-	n/a	424	Exhibit 40.41
8	1080	Plant	Increase in Reserve due to depreciation associated with #4, above	Company Adjustment	-	n/a	(31,998)	Exhibit 40.46
9	1150.1	Plant	Unrecorded Reserve - Acquisition Adjustment	Commission Adjustment	(92,214)	Exhibit 40.41	(92,214)	Exhibit 40.41
10	1540.1	Working Capital	Non-Regulated Materials & Supplies Inventory	Commission Adjustment	(47,043)	Exhibit 40.41	(48,332)	Exhibit 40.41
11	1860.4	Working Capital	Eliminate AEP-Deferred Debits	Commission Adjustment	(4,183,233)	Exhibit 40.41	(4,297,854)	Exhibit 40.41
12	1860.1	Working Capital	Eliminate ½ Rate Case Expense-Deferred Debit	Commission Adjustment	(69,465)	Exhibit 40.44	(324,270)	Exhibit 40.44
none in 2009	2290.1	Working Capital	Over-Earniongs Refund	Commission Adjustment	18,366	Exhibit 40.41	-	n/a
					(8,213,156)		(6,201,008)	

2008 and 2009 RATE BASE ADJUSTMENTS

2008

Rate Base Adjustment 2, Account 1010.3031, Non-Compete Agreement, Commission Adjustment, ($1,900,000):

The entire balance of this account is eliminated from rate base. The balance is presented in the MFR on Schedule G-1(9), Page 9 of 28.

Rate Base Adjustment 5, Account 1140.2, Goodwill, Commission Adjustment, ($552,803):

The entire balance of account 1140.2 is eliminated from rate base. The total of all 1140 accounts is shown in the MFR on Schedule G-1(5), Page 5A of 28. Details of individual 1140 accounts are shown on Schedule B-6, Page 2 of 2.

Rate Base Adjustment 9, Account 1150.1, Unrecorded Reserve - Acquisition Adjustment , Commission Adjustment, ($92,214):

As ordered in the 2004 rate case, Docket No. 040216-GU, Order No. PSC-04-1110-PAA-GU, Pages 8-11, G-Acquisition Adjustment; the reserve account for the acquisition is to include accumulated reserves from the date the assets were acquired through the date the acquisition adjustment approval becomes effective. See Exhibit 40.48 containing the referenced section of the Order.

Staff determined that amortization would have begun on January 2002: the rate case was approved in November 2005, with the first amortization entry being recorded in December 2005: a period of 35 months. The reserve account is to be adjusted (increased) by 35 months at the monthly rate of $2,667.71 [$960,376 ÷ 360 months] = $92,214.

Rate Base Adjustment 10, Account 1540.1, Non-Regulated Materials & Supplies Inventory, Commission Adjustment, ($47,043):

The adjustment equals 9% of the account balance as contained in Schedule G-1(5), Page 5A of 28: $522,697 × 9%.

As ordered in the 2004 rate case, Docket No. 040216-GU, Order No. PSC-04-1110-PAA-GU, Page 12, I3; 9% of the balance in this account is to be eliminated from rate base as non-regulatory inventory. See Exhibit 40.49 containing the referenced section of the Order.

Rate Base Adjustment 11, Account 1860.4, Eliminate AEP-Deferred Debits, Commission Adjustment, ($4,183,233):

The entire account balance is eliminated from rate base. This is a Commission Adjustment that removes the total account balance from Rate Base. AEP Deferred Debits was approved under a separate 1994 Docket No. 941291-GU: see the attached Exhibit 40.50. The docket specifically states that the account is not to be included in rate base.

2008-continued

Rate Base Adjustment (2008, none in 2009), Account 2290.1, Eliminate Over-Earnings Refund, Commission Adjustment, $18,366:

Eliminated from rate base is the entire account balance, as contained in Schedule G-1(6), Page 6A of 28. This Commission adjustment reflects 2005 and 2006 over-earnings determined during Commission audits of the annual surveillance reports. For the 2005, Docket No. 070107-GU, and for 2006 Docket No. 080514-GU allowed FPUC to transfer these over-earnings balances to the storm reserve account in September 2008.

2009

Rate Base Adjustment 2, Account 1010.3031, Non-Compete Agreement, Commission Adjustment, ($1,900,000):

The entire balance of account 1010.3031 is eliminated from rate base. The balance is presented in the MFR on Schedule G-1(10), Page 10 of 28.

Rate Base Adjustment 3, Account 1010, Bare Steel and Tubing Replacement Program, Company Adjustment, ($28,399):

The Bare Steel Replacement Program was approved in the 2004 rate case: Docket No. 040216-GU, Order No. PSC-04-1110-PAA-GU, Page 8, F-Bare Steel Replacement Program. See Exhibit 40.48, attached. The approved annual amortization was $566,308.

As discussed in the Direct Testimony of James Mesite, page 31 and 32, and Exhibit JVM-2 and JVM-3, we are proposing an increase in the annual amortization to $623,106. The 13-month average effect to rate base is ($28,399)

Data used to determine the overall remaining program cost was based on the data used for the 2004 rate case, adjusted for subsequent replacements and increases for additional steel tubing identified as being in need of replacement. Costing projection were based on the Division Managers' evaluation of current installation costs for their respective locations.

Please see Exhibit 40.45, attached.

Rate Base Adjustment 5, Account 1140.2, Goodwill, Commission Adjustment, ($552,803):

The entire balance of account 1140.2 is eliminated from rate base. The total of all 1140 accounts is shown in the MFR on Schedule G-1(7), Page 7A of 28. Details of individual 1140 accounts are shown on Schedule B-6, Page 2 of 2.

Rate Base Adjustment 7, Account 1080, Reserve-Bare Steel and Tubing Replacement Program, Company Adjustment, $424:

Please refer to Adjustment 3, above. The Direct Testimony of James Mesite, Exhibit JVM-3 for associated reserve adjustment details.

Rate Base Adjustment 9, Account 1150.1, Unrecorded Reserve - Acquisition Adjustment , Commission Adjustment, ($92,214):

See 2008 Rate Base Adjustment 9, above.

Rate Base Adjustment 10, Account 1540.1, Non-Regulated Materials & Supplies Inventory, Commission Adjustment, ($48,332):

The adjustment equals 9% of the account balance as contained in Schedule G-1(7), Page 7A of 28: $537,919 × 9%.

As ordered in the 2004 rate case, Docket No. 040216-GU, Order No. PSC-04-1110-PAA-GU, Page 12, I3; 9% of the balance in this account is to be eliminated from rate base as non-regulatory inventory. See Exhibit 40.49 containing the referenced section of the Order.

Rate Base Adjustment 11, Account 1860.4, Eliminate AEP-Deferred Debits, Commission Adjustment, ($4,297,854):

The entire account balance is eliminated from rate base. This is a Commission Adjustment that removes the total account balance from Rate Base. AEP Deferred Debits was approved under a separate 1994 Docket No. 941291-GU: see the attached Exhibit 40.50. The docket specifically states that the account is not to be included in rate base.

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.42

Florida Public Utilities Company
CONSOLIDATED NATURAL GAS
13-Month Average Plant in Service Allocated to Non-Regulated
Used to Estimate 2008 and 2009 Non-Regulatory Plant
13 MONTHS ENDING DECEMBER 31, 2007

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.42

	TOTAL	PROPANE	M&J	SOUTH FLORIDA						CENTRAL FLORIDA					
ACCOUNT	13-MONTH AVERAGE NON-REGULATED PLANT	13-MONTH AVERAGE NON-REGULATED PLANT	13-MONTH AVERAGE NON-REGULATED PLANT	13 MONTH AVERAGE FROM TB	ALLOCATION METHOD	PROPANE NON-REGULATED %	M&J NON-REGULATED %	PROPANE 13-MONTH AVERAGE NON-REGULATED PLANT	M&J 13-MONTH AVERAGE NON-REGULATED PLANT	13 MONTH AVERAGE FROM TB	ALLOCATION METHOD	PROPANE NON-REGULATED %	M&J NON-REGULATED %	PROPANE 13-MONTH AVERAGE NON-REGULATED PLANT	M&J 13-MONTH AVERAGE NON-REGULATED PLANT
303	-	-	-	-	N/A	0%	0%	-	-	213,641	N/A	0%	0%	-	-
3031	-	-	-	-	N/A	0%	0%	-	-	1,900,000	N/A	0%	0%	-	-
374	10,771	9,070	1,701	56,686	N/P/M	16%	3%	9,070	1,701	44,422	N/A	0%	0%	-	-
3741	-	-	-	12,910	N/A	0%	0%	-	-	-	N/P/M	19%	6%	-	-
375	90,957	76,479	14,478	471,269	N/P/M	16%	3%	75,403	14,138	5,665	N/P/M	19%	6%	1,076	340
3761	-	-	-	16,484,468	N/A	0%	0%	-	-	6,767,454	N/A	0%	0%	-	-
3762	-	-	-	20,840,962	N/A	0%	0%	-	-	6,258,183	N/A	0%	0%	-	-
378	-	-	-	259,306	N/A	0%	0%	-	-	46,890	N/A	0%	0%	-	-
379	-	-	-	1,771,606	N/A	0%	0%	-	-	243,120	N/A	0%	0%	-	-
3801	-	-	-	15,238,269	N/A	0%	0%	-	-	5,310,537	N/A	0%	0%	-	-
3802	-	-	-	1,154,960	N/A	0%	0%	-	-	1,005,873	N/A	0%	0%	-	-
381	-	-	-	4,031,955	N/A	0%	0%	-	-	1,566,617	N/A	0%	0%	-	-
382	-	-	-	1,582,725	N/A	0%	0%	-	-	1,033,740	N/A	0%	0%	-	-
383	-	-	-	1,382,131	N/A	0%	0%	-	-	467,397	N/A	0%	0%	-	-
384	-	-	-	548,919	N/A	0%	0%	-	-	329,016	N/A	0%	0%	-	-
385	-	-	-	38,386	N/A	0%	0%	-	-	10,233	N/A	0%	0%	-	-
387	93,659	93,659	-	392,882	N/P	16%	0%	62,861	-	162,097	N/P	19%	0%	30,798	-
389	106,028	84,996	21,032	283,021	N/P/M	16%	3%	45,283	8,491	209,017	N/P/M	19%	6%	39,713	12,541
3892	-	-	-	-	N/P	16%	0%	-	-	-	N/A	0%	0%	-	-
390	344,766	263,522	81,244	96,138	N/P/M	16%	3%	15,382	2,884	1,306,001	N/P/M	19%	6%	248,140	78,360
3911	25,019	19,761	5,258	47,860	N/P/M	16%	3%	7,658	1,436	63,701	N/P/M	19%	6%	12,103	3,822
3912	11,075	8,768	2,307	22,530	N/P/M	16%	3%	3,605	676	27,176	N/P/M	19%	6%	5,163	1,631
3913	125,293	101,546	23,747	405,336	N/P/M	16%	3%	64,854	12,160	193,114	N/P/M	19%	6%	36,692	11,587
391305	109,496	88,239	21,257	321,956	N/P/M	16%	3%	51,513	9,659	193,293	N/P/M	19%	6%	36,726	11,598
3921	34,040	28,414	5,626	163,011	N/P/M	16%	3%	26,082	4,890	12,273	N/P/M	19%	6%	2,332	736
3922	698,596	567,333	131,263	2,333,345	N/P/M	16%	3%	373,335	70,000	1,021,042	N/P/M	19%	6%	193,998	61,263
3923	-	-	-	-	N/A	0%	0%	-	-	-	N/A	0%	0%	-	-
3924	8,979	7,383	1,596	35,842	N/P/M	16%	3%	5,735	1,075	8,676	N/P/M	19%	6%	1,648	521
393	1,817	1,530	287	9,562	N/P/M	16%	3%	1,530	287	-	N/P/M	19%	6%	-	-
394	50,848	50,848	-	220,702	N/P	16%	0%	35,312	-	81,770	N/P	19%	0%	15,536	-
395	-	-	-	-	N/P/M	16%	3%	-	-	-	N/P/M	19%	6%	-	-
396	55,975	55,975	-	215,469	N/P	16%	0%	34,475	-	113,158	N/P	19%	0%	21,500	-
397	55,347	44,775	10,572	173,800	N/P/M	16%	3%	27,808	5,214	89,298	N/P/M	19%	6%	16,967	5,358
398	30,987	25,017	5,970	94,013	N/P/M	16%	3%	15,042	2,820	52,502	N/P/M	19%	6%	9,975	3,150
399	-	-	-	-	N/A	0%	0%	-	-	-	N/A	0%	0%	-	-
	1,853,653	1,527,315	326,338	68,690,019				854,948	135,431	28,735,906				672,367	190,907

Based on Customers - Allocation Methods - N/P/M, Allocated between Natural Gas, Propane, and M & J: N/P, Allocated between Natural Gas and Propane: N/A=Not Allocated

		PROPANE	M&J
N/P/M	=	16%	3%
N/P	=	16%	0%
N/A	=	0%	0%

Based on Customers - Allocation Methods - N/P/M, Allocated between Natural Gas, Propane, and M & J: N/P, Allocated between Natural Gas and Propane: N/A=Not Allocated

		PROPANE	M&J
N/P/M	=	19%	6%
N/P	=	19%	0%
N/A	=	0%	0%

PROOF: The combined total of above Plant Balances is equal to balances shown in MFR on Schedule B-4.

Florida Public Utilities Company
CONSOLIDATED NATURAL GAS
13-Month Average Reserve Allocated to Non-Regulated
Used to Estimate 2008 and 2009 Non-Regulatory Reserve
13 MONTHS ENDING DECEMBER 31, 2007

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.43

	TOTAL	PROPANE	M&J	SOUTH FLORIDA						CENTRAL FLORIDA					
ACCOUNT	13-MONTH AVERAGE NON-REGULATED RESERVE	13-MONTH AVERAGE NON-REGULATED RESERVE	13-MONTH AVERAGE NON-REGULATED RESERVE	13 MONTH AVERAGE FROM TB	ALLOCATION METHOD	PROPANE NON-REGULATED %	M&J NON-REGULATED %	PROPANE 13-MONTH AVERAGE NON-REGULATED RESERVE	M&J 13-MONTH AVERAGE NON-REGULATED RESERVE	13 MONTH AVERAGE FROM TB	ALLOCATION METHOD	PROPANE NON-REGULATED %	M&J NON-REGULATED %	PROPANE 13-MONTH AVERAGE NON-REGULATED RESERVE	M&J 13-MONTH AVERAGE NON-REGULATED RESERVE
303	-	-	-	-	N/A	0%	0%	-	-	(99,812)	N/A	0%	0%	-	-
3031	-	-	-	-	N/A	0%	0%	-	-	-	N/A	0%	0%	-	-
374	-	-	-	-	N/P/M	16%	3%	-	-	-	N/A	0%	0%	-	-
3741	3,150	2,394	756	(4,726)	N/A	0%	0%	-	-	12,598	N/P/M	19%	6%	2,394	756
375	(46,451)	(39,263)	(7,188)	(253,874)	N/P/M	16%	3%	(40,620)	(7,616)	7,140	N/P/M	19%	6%	1,357	428
3761	-	-	-	(2,925,924)	N/A	0%	0%	-	-	(1,305,337)	N/A	0%	0%	-	-
3762	-	-	-	(10,723,596)	N/A	0%	0%	-	-	(3,274,361)	N/A	0%	0%	-	-
378	-	-	-	(82,305)	N/A	0%	0%	-	-	(2,606)	N/A	0%	0%	-	-
379	-	-	-	(342,913)	N/A	0%	0%	-	-	(93,685)	N/A	0%	0%	-	-
3801	-	-	-	(3,864,310)	N/A	0%	0%	-	-	(1,322,196)	N/A	0%	0%	-	-
3802	-	-	-	(949,285)	N/A	0%	0%	-	-	(920,198)	N/A	0%	0%	-	-
381	-	-	-	(1,344,656)	N/A	0%	0%	-	-	(730,164)	N/A	0%	0%	-	-
382	-	-	-	(451,615)	N/A	0%	0%	-	-	(263,508)	N/A	0%	0%	-	-
383	-	-	-	(473,080)	N/A	0%	0%	-	-	(230,578)	N/A	0%	0%	-	-
384	-	-	-	(174,346)	N/A	0%	0%	-	-	(84,547)	N/A	0%	0%	-	-
385	-	-	-	(11,139)	N/A	0%	0%	-	-	(1,019)	N/A	0%	0%	-	-
387	(17,983)	(17,983)	-	(85,936)	N/P	16%	0%	(13,750)	-	(22,279)	N/P	19%	0%	(4,233)	-
389	-	-	-	-	N/P/M	16%	3%	-	-	-	N/P/M	19%	6%	-	-
3892	-	-	-	-	N/P	16%	0%	-	-	-	N/A	0%	0%	-	-
390	(79,045)	(60,340)	(18,705)	(17,009)	N/P/M	16%	3%	(2,721)	(510)	(303,257)	N/P/M	19%	6%	(57,619)	(18,195)
3911	(6,441)	(5,060)	(1,381)	(10,588)	N/P/M	16%	3%	(1,694)	(318)	(17,715)	N/P/M	19%	6%	(3,366)	(1,063)
3912	(6,024)	(4,643)	(1,381)	(4,138)	N/P/M	16%	3%	(662)	(124)	(20,954)	N/P/M	19%	6%	(3,981)	(1,257)
3913	(6,959)	(7,389)	430	(134,634)	N/P/M	16%	3%	(21,541)	(4,039)	74,485	N/P/M	19%	6%	14,152	4,469
391305	(13,516)	(10,843)	(2,673)	(36,618)	N/P/M	16%	3%	(5,859)	(1,099)	(26,230)	N/P/M	19%	6%	(4,984)	(1,574)
3921	(11,487)	(9,587)	(1,900)	(54,963)	N/P/M	16%	3%	(8,794)	(1,649)	(4,175)	N/P/M	19%	6%	(793)	(251)
3922	(198,763)	(161,534)	(37,229)	(671,425)	N/P/M	16%	3%	(107,428)	(20,143)	(284,767)	N/P/M	19%	6%	(54,106)	(17,086)
3923	-	-	-	-	N/A	0%	0%	-	-	-	N/A	0%	0%	-	-
3924	(5,237)	(4,337)	(900)	(22,881)	N/P/M	16%	3%	(3,661)	(686)	(3,560)	N/P/M	19%	6%	(676)	(214)
393	(1,736)	(1,462)	(274)	(9,137)	N/P/M	16%	3%	(1,462)	(274)	-	N/P/M	19%	6%	-	-
394	(27,562)	(27,562)	-	(93,821)	N/P	16%	0%	(15,011)	-	(66,058)	N/P	19%	0%	(12,551)	-
395	-	-	-	-	N/P/M	16%	3%	-	-	(1)	N/P/M	19%	6%	-	-
396	(20,057)	(20,057)	-	(57,446)	N/P	16%	0%	(9,191)	-	(57,187)	N/P	19%	0%	(10,866)	-
397	(25,953)	(21,017)	(4,936)	(82,837)	N/P/M	16%	3%	(13,254)	(2,485)	(40,856)	N/P/M	19%	6%	(7,763)	(2,451)
398	(2,825)	(2,295)	(530)	(9,478)	N/P/M	16%	3%	(1,516)	(284)	(4,100)	N/P/M	19%	6%	(779)	(246)
399	-	-	-	-	N/A	0%	0%	-	-	-	N/A	0%	0%	-	-
	(466,889)	(390,978)	(75,911)	(22,892,680)				(247,164)	(39,227)	(9,084,927)				(143,814)	(36,684)

PROOF: The combined total of above Reserve Balances is equal to balances shown in MFR on Schedule B-9.

Florida Public Utilities
2008 - Deferred Rate Case Costs

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.44

December 2007		
Balance		88,630
January 2008		
Amortize 2004 Rate Case Costs	(7,386)	
Accrual for Estimated 2008 Rate Case Costs	-	
Balance		81,244
February 2008		
Amortize 2004 Rate Case Costs	(7,386)	
Accrual for Estimated 2008 Rate Case Costs	-	
Balance		73,858
March 2008		
Amortize 2004 Rate Case Costs	(7,386)	
Accrual for Estimated 2008 Rate Case Costs	-	
Balance		66,472
April 2008		
Amortize 2004 Rate Case Costs	(7,386)	
Accrual for Estimated 2008 Rate Case Costs	-	
Balance		59,086
May 2008		
Amortize 2004 Rate Case Costs	(7,386)	
Accrual for Estimated 2008 Rate Case Costs	-	
Balance		51,700
June 2008		
Amortize 2004 Rate Case Costs	(7,386)	
Accrual for Estimated 2008 Rate Case Costs	-	
Balance		44,314
July 2008		
Amortize 2004 Rate Case Costs	(7,386)	
Accrual for Estimated 2008 Rate Case Costs	20,000	
Balance		56,928
August 2008		
Amortize 2004 Rate Case Costs	(7,386)	
Accrual for Estimated 2008 Rate Case Costs	40,000	
Balance		89,542
September 2008		
Amortize 2004 Rate Case Costs	(7,386)	
Accrual for Estimated 2008 Rate Case Costs	40,000	
Balance		122,156
October 2008		
Amortize 2004 Rate Case Costs	(7,386)	
Accrual for Estimated 2008 Rate Case Costs	150,000	
Balance		264,770
November 2008		
Amortize 2004 Rate Case Costs	(7,386)	
Accrual for Estimated 2008 Rate Case Costs	100,000	
Balance		357,384
December 2008		
Amortize 2004 Rate Case Costs	(7,384)	
Accrual for Estimated 2008 Rate Case Costs	100,000	
Balance		450,000
13-Month Average		**138,930** **@ 1/2 = 69,465**

Per 2004 Rate Case final order, Docket No. 040216, Order No. PSC-04-1110-PAA-GU, Page 26-27, Section Q-Rate Case Expense: One-half of the unamortized rate case expense is to be included in working capital (1/2 elimiated). Copy of these pages is included in this exhibit.

Florida Public Utilities
2009 - Deferred Rate Case Costs

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.44

December 2008		
Balance		450,000
January 2009		
Amortize 2008 Rate Case Costs	(17,585)	
Accrual for Estimated 2008 Rate Case Costs	80,000	
Balance		512,415
February 2009		
Amortize 2008 Rate Case Costs	(17,585)	
Accrual for Estimated 2008 Rate Case Costs	80,000	
Balance		574,830
March 2009		
Amortize 2008 Rate Case Costs	(17,585)	
Accrual for Estimated 2008 Rate Case Costs	80,000	
Balance		637,245
April 2009		
Amortize 2008 Rate Case Costs	(17,585)	
Accrual for Estimated 2008 Rate Case Costs	80,000	
Balance		699,660
May 2009		
Amortize 2008 Rate Case Costs	(17,585)	
Accrual for Estimated 2008 Rate Case Costs	74,080	
Balance		756,155
June 2009		
Amortize 2008 Rate Case Costs	(17,585)	
Accrual for Estimated 2008 Rate Case Costs	-	
Balance		738,570
7/312009		
Amortize 2008 Rate Case Costs	(17,585)	
Accrual for Estimated 2008 Rate Case Costs	-	
Balance		720,985
8/312009		
Amortize 2008 Rate Case Costs	(17,585)	
Accrual for Estimated 2008 Rate Case Costs	-	
Balance		703,400
9/302009		
Amortize 2008 Rate Case Costs	(17,585)	
Accrual for Estimated 2008 Rate Case Costs	-	
Balance		685,815
10/312009		
Amortize 2008 Rate Case Costs	(17,585)	
Accrual for Estimated 2008 Rate Case Costs	-	
Balance		668,230
11/302009		
Amortize 2008 Rate Case Costs	(17,585)	
Accrual for Estimated 2008 Rate Case Costs	-	
Balance		650,645
12/312009		
Amortize 2008 Rate Case Costs	(17,585)	
Accrual for Estimated 2008 Rate Case Costs	-	
Balance		633,060
		8,431,010
13-Month Average		**648,539** **@ 1/2 = 324,270**

Per 2004 Rate Case final order, Docket No. 040216, Order No. PSC-04-1110-PAA-GU, Page 26-27, Section Q- Rate Case Expense: One-half of the unamortized rate case expense is to be included in working capital (1/2 elimiated). Copy of these pages is included in this exhibit.

Rate Case Projected Expenses- Consolidated Natural Gas Rate Case 2009 Projected Test Year

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.44

		Projected Amount	Description or Calculation of amount
Outside Consultants:			
Christensen Associates	Consulting Fees	354,500	Estimate from Consultants (Accounting, Cost of Service, Cost of Capital, Rate Design)
	Net	**354,500**	
Darryl Troy	Consulting Fees	47,250	Estimate for rate case preparation/support 750 hours $ 63
Accounting	Other Costs	1,000	Estimate
	Net	**48,250**	
Jennifer Starr	Consulting Fees	5,000	Estimate for rate case preparation/Support
	Other Costs	500	
	Net	**5,500**	
Legal Services:			
Doc Horton	Legal Services	100,000	Est. from Attorney
	Costs	7,500	Estimate
	Net	**107,500**	
Additonal Personnel, Overtime and Temporary Pay:			
Overtime/additional Pay	Costs	39,000	$ 30 per hour 300 hours, additional pay 30,000
Temporary Pay	Costs	168,000	$ 50/$128/$75 per hour 2000 hours
	Net	**207,000**	
Travel Expenses:			
2 Service Hearings			
Hotel		1,700	7 persons at 120 per night, 2 nights
Travel		2,300	Airlines 5 people $ 400 each, and car travel, rental and tolls $300
Meals		600	7 persons at $40 per day, 3 days
Other		800	Telephone, parking, other
	Net	**5,400**	
Hearings Actual (2)			
Hotel		4,200	7 persons at 120 per night, 5 nights
Travel		4,600	airline tickets, $400 for 5 two times, and car travel, rental and tolls $ 600
Meals		2,000	7 persons at $40 per day, 7 days
Other		1,600	Telephone, parking, other
	Net	**12,400**	
Other Travel to WPB, and FPSC			
Hotel		6,300	7 people 150.00 per night, 2 nights, 3 trips each
Travel		7,300	Airlines 7 people $ 500 each two times, and car travel, rental and tolls $300
Meals		1,680	7 persons at $40 per day, 3 days, 2 trips
Other		1,000	Telephone, parking, other
	Net	**16,280**	
Mailing, Office Supplies, Adm Costs, Other			
customer hearing notices		15,750	52000 customers @ .30, plus 500 extra
agenda hearing notices		15,750	52000 customers @ .30, plus 500 extra
Final rate notices		15,750	52000 customers @ .30, plus 500 extra
Ads for newspapers		25,000	2 areas, local ads, two times 12,500 for two areas
Office Supplies		5,000	Estimate
Other Costs		10,000	Estimate
Unamortized prior rate case expense		-	Actual as of 1/2009
	Net	**87,250**	
	TOTAL	**844,080**	
4 years	Annual Expense	$ 211,020	

	Costs	Amortization	Balance				
Dec-07			-	Dec-08			450,000
Jan-08			-	Jan-09	80000	17,585	512,415
Feb-08			-	Feb-09	80000	17,585	574,830
Mar-08			-	Mar-09	80000	17,585	637,245
Apr-08			-	Apr-09	80000	17,585	699,660
May-08			-	May-09	74080	17,585	756,155
Jun-08			-	Jun-09		17,585	738,570
Jul-08	20000		20,000	Jul-09		17,585	720,985
Aug-08	40000		60,000	Aug-09		17,585	703,400
Sep-08	40000		100,000	Sep-09		17,585	685,815
Oct-08	150000		250,000	Oct-09		17,585	668,230
Nov-08	100000		350,000	Nov-09		17,585	650,645
Dec-08	100000		450,000	Dec-09		17,585	633,060
13 mth Average			94,615	13 mth Average			648,539
12 month Total		$ -		12 month Total		$ 211,020	

expected to be slightly less than originally projected. Additionally, based on Audit Exception No. 3, we have changed the allocation factor to the Natural Gas Division from 51% to 47%. Therefore, based on the updated study and the findings in the staff audit, the OPEB expense shall be reduced by $11,886 to reflect a balance of $103,400.

P. Pension Expense

The company included $612,547 of pension expense in its MFRs for the projected test year ending December 31, 2005. However, the company has since received an updated actuarial valuation of the employee's pension plan. The updated valuation includes an assumed discount rate of 6.25%, a salary progression assumption of 3.5%, and an expected rate of return on assets of 8.5%. We find these assumptions to be reasonable. Additionally, based on Audit Exception No. 3, we changed the allocation factor to the Natural Gas Division from 51% to 47%. Based on the updated valuation and the findings in the staff audit, pension expense shall be reduced by $26,645 to reflect a balance of $585,902.

Q. Rate Case Expense

In its MFRs, the utility requested $587,300 in rate case expense, amortized over four years. As part of its analysis, our staff requested an updated expense to date through July, 2004, with supporting documentation, as well as the estimated amount to complete the case. The utility submitted a revised estimate of rate case expense through completion of the PAA process of $420,717. The components of the utility's estimated rate case expense are as follows:

	MFR Estimated	Actual	Additional Estimated	Total
Legal Fees	$118,000	$17,060	$33,540	$50,600
Consultant Fees	333,000	208,705	46,845	255,550
Travel Expenses	30,700	1,737	9,500	11,237
Paid Overtime & Temp Pay	50,000	32,998	8,002	41,000
Other Expenses	55,600	29,213	33,117	62,330
Total	$587,300	$289,713	$131,004	$420,717

A review of the requested actual expenses and supporting documentation shows that these expenses appear to be reasonable. Also, a review of the estimated expenses above shows the estimated expenses submitted by the utility to be reasonable.

Therefore, we find that the appropriate rate case expense is $420,717, amortized at the rate of $105,179 over four years. Therefore, Account 928, Regulatory Commission Expenses,

shall be reduced by $41,646. In addition, one-half of the unamortized rate case expense of $368,127, or $184,064, shall be included in unamortized rate case expense in working capital for the projected test year. As a result, working capital shall be reduced by $329,826.

R. Membership Dues

The company recorded $13,035 in Florida Natural Gas Association (FNGA) dues in 2003. Pursuant to its response to Staff Data Request 64, 15% of the FNGA dues, or $1,955, are attributed to lobbying activities. In addition, the company recorded $435 and $500 in dues to Volusia Home Builders Association and Home Builders Association, respectively. These organizations provide no benefit to the general body of ratepayers; therefore, these dues shall be removed. Further, pursuant to its response to Staff Data Request 65, the dues of the National Association of Corporate Directors should have been allocated to the electric and propane operations. This amounts to a decrease of $221. Therefore, Account 930, Dues and Economic Development Expense, shall be reduced by $3,213 ($3,111 trended to 2005).

S. Change in Depreciation Rates

FPUC's projected test year depreciation expense was recalculated using the depreciation rates approved by Proposed Agency Action Order No. PSC-04-1045-PAA-GU, issued October 26, 2004, in Docket No. 040352-GU, In re: 2004 Depreciation Study by Florida Public Utilities Company. The impacts of the new depreciation rates on the projected test year are to increase depreciation expense by $154,289 and to increase accumulated depreciation by $77,145.

T. Taxes Other Than Income (TOTI)

The company included $4,464,719 of TOTI in its MFRs for the projected test year ending December 31, 2005. This amount includes $1,402,286 of State Gross Receipts Tax and $1,346,194 of Franchise Fees. The company has included the exact amounts as part of its 2005 revenue. Therefore, no adjustment is necessary for these two components of TOTI.

Payroll Taxes

Earlier in this Order, in the above sections for New Positions and Account 920 Payroll Increase, we have made adjustments to payroll expense which amount to a net decrease of $80,333. Using a composite payroll tax rate of 8.37%, we have decreased the related payroll taxes associated with these adjustments by $6,724 ($80,333 x 8.37%).

Regulatory Assessment Fees

We have increased total operating revenues by $3,600. As a result, Regulatory Assessment Fees (RAFs) shall be increased by $18 ($3,600 x .005) to reflect the additional revenues. Also, pursuant to Audit Exception No. 10, we have determined the revenue amount used for the 2005 RAF calculation to be understated. As a result, RAFs shall be increased by $6,692. The net effect of these RAF adjustments is an increase of $6,710.

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Docket Request No 1
Exhibit 40.45

Mesite Jim

From: Kennedy Barry
Sent: Thursday, October 02, 2008 5:36 PM
To: Mesite Jim
Subject: RE: tubing - 17,500'

verification

From: Mesite Jim
Sent: Thursday, October 02, 2008 4:16 PM
To: Kennedy Barry
Subject: RE: tubing - 17,500'

And you told me on the phone 625 services. These will be at the same rate used for bare steel services.

Tubing installation cost will be $15/ft.

Please reply with a verification of the above.

Thanks,

Jim

tel.561.838.1733
fax.561.366.1533

From: Kennedy Barry
Sent: Thursday, October 02, 2008 3:55 PM
To: Mesite Jim
Subject: tubing - 17,500'

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Docket Request No 1
Exhibit 40.45

Mesite Jim

From: Kitner Don
Sent: Wednesday, October 01, 2008 7:29 AM
To: Mesite Jim
Cc: Kennedy Barry
Subject: Bare steel replacements

Jim
CF has eliminated 61,691' of bare steel main and 300 bare steel services thru 9/30/08.

Barry will provide the info for SF.

Let me know if you need anything else.

Don Kitner
General Manager, Central Florida
386-668-9201

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Docket Request No 1
Exhibit 40.45

Mesite Jim

From: Kitner Don
Sent: Thursday, October 02, 2008 1:43 PM
To: Mesite Jim
Subject: RE: BARE STEEL REPLACEMENT

In looking at it again it appears CF should be $765 and SF $830

Don Kitner
General Manager, Central Florida
386-668-9201

From: Mesite Jim
Sent: Thursday, October 02, 2008 1:30 PM
To: Kitner Don
Subject: RE: BARE STEEL REPLACEMENT

Is that a definite "change service costs to $830 for both divisions"? ☺

Thanks,

Jim
tel.561.838.1733
fax.561.366.1533

From: Kitner Don
Sent: Thursday, October 02, 2008 12:57 PM
To: Mesite Jim; Kennedy Barry
Subject: RE: BARE STEEL REPLACEMENT

Jim,
I agree with the main costs but we may want to increase the service costs to $830.00 per service based on the spreadsheets you sent.

Don Kitner
General Manager, Central Florida
386-668-9201

From: Mesite Jim
Sent: Thursday, October 02, 2008 12:23 PM
To: Kennedy Barry; Kitner Don
Subject: BARE STEEL REPLACEMENT

Per our earlier conversations, main installation cost recovery will be shown at $25/ft. for South Florida, and $20/ft. for Central Florida.

We did not discuss but I assume that service installations will remain at $500 per service for both divisions.

Please replay with a confirmation of the above info.

Thank You,

Jim Mesite
Senior Project Accountant, Corporate Accounting
jmesite@fpuc.com
tel.561.838.1733
fax.561.366.1533

Mesite Jim

From: Kitner Don
Sent: Thursday, October 02, 2008 12:57 PM
To: Mesite Jim; Kennedy Barry
Subject: RE: BARE STEEL REPLACEMENT

Jim,
I agree with the main costs but we may want to increase the service costs to $830.00 per service based on the spreadsheets you sent.

Don Kitner
General Manager, Central Florida
386-668-9201

From: Mesite Jim
Sent: Thursday, October 02, 2008 12:23 PM
To: Kennedy Barry; Kitner Don
Subject: BARE STEEL REPLACEMENT

Per our earlier conversations, main installation cost recovery will be shown at $25/ft. for South Florida, and $20/ft. for Central Florida.

We did not discuss but I assume that service installations will remain at $500 per service for both divisions.

Please replay with a confirmation of the above info.

Thank You,

Jim Mesite
Senior Project Accountant, Corporate Accounting
jmesite@fpuc.com
tel.561.838.1733
fax.561.366.1533

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

AEP Performance Report Summary

as of 12/31/08

Project Information							Collection Status																	
Project Name:	IR #	AEP #	Division	Revenue Start	Expenses Start		Original ECC	Balance as of 6/30/03	Percentage of Balance Outstanding	Total AEP Revenue	Total Interest	Min Months Remaining to collect	Projected ECC Balance As of Dec. 2008	Payoff Year	Balance Uncollectable Through AEP Rate (Rate Base Recovery)	Payoff Year	ECC Based on 0 AEP Rate	Payoff Year	ECC Based on 0 AEP Rate	Payoff Year	ECC Based on 1 AEP Rate
1 Deltona Ph.1	919	20001	CF	09/1998	02/1998		478,227	66,070	14%	696,954	284,797	0	30,626	N/A	30,626	N/A		N/A		N/A	
2 Stone Gable	20021	20092	CF	02/1999	08/1998		18,744	3,748	20%	24,497	9,502	0	2,756	N/A	2,756	N/A		N/A		N/A	
3 Deltona Ph.2	20094	20093	CF	03/1999	01/1999		370,122	390,408	105%	275,380	295,665	0	392,495	N/A	392,495	N/A		N/A		N/A	
4 Debary Golf	20099	20098	CF	04/1999	01/1999		41,785	23,080	55%	46,526	27,821	0	21,415	N/A	21,415	N/A		N/A		N/A	
5 Convert Deltona Ph III	20290	20289	CF	05/2000	12/1999		425,787	360,798	85%	346,233	281,236	17	354,197	N/A	321,506	N/A	337,512	N/A	334,567	N/A	331,623
6 Victoria Pk. Ph. I	20560	20561	CF	10/2001	03/2001		445,068	328,382	74%	391,244	274,588	34	180,557	N/A	163,012	N/A	124,926	N/A	107,974	N/A	91,022
7 Fawn Ridge Sub.	20590	20591	CF	11/2002	07/2001		37,774	14,372	38%	35,622	17,460	47	10,162	2010	-	2010	-	2009	-	2009	-
8 Lake Mary H.S.	20797	20798	CF	08/2002	04/2002		14,091	15,656	111%	5,825	7,390	44	15,686	N/A	13,476	N/A	8,908	N/A	7,636	N/A	6,364
9 Springview Unit 6	20880	20881	CF	10/2002	06/2002		17,748	8,612	49%	16,309	7,173	46	7,052	N/A	4,966	2011	-	2010	-	2010	-
10 Winter Springs Town Ctr	21030	21031	CF	02/2003	01/2003		122,437	150,376	123%	31,071	59,009	50	152,677	N/A	129,016	N/A	165,903	N/A	161,213	N/A	156,524
11 Lakes of Deland	21150	21151	CF	06/2005	08/2003		71,646	99,682	139%	2,499	30,535	77	102,811	N/A	99,580	N/A	156,289	N/A	155,512	N/A	154,734
12 Riverside at DeBary	21159	21160	CF	06/2004	08/2003		117,000	143,309	122%	21,864	47,994	65	144,702	N/A	123,282	N/A	169,775	N/A	165,090	N/A	160,404
13 Arbor Ridge	21314	21315	CF	07/2004	04/2004		195,796	164,512	84%	65,562	57,978	67	158,428	N/A	98,165	N/A	97,374	N/A	82,555	N/A	67,736
14 Inlet Shore Estates	21327	21328	CF	11/2004	07/2004		13,169	12,140	92%	4,935	3,906	70	11,528	N/A	5,590	N/A	5,142	N/A	3,851	N/A	2,561
15 Deltona Woods	21685	21686	CF	06/2006	10/2005		9,982	8,726	87%	3,261	2,005	89	7,777	N/A	1,874	2015	-	2014	-	2013	-
16 Bella Foresta	21742	21743	CF	05/2006	01/2006		35,646	42,619	120%	92	7,065	88	44,278	N/A	43,907	N/A	88,069	N/A	87,953	N/A	87,836
17 Wellington Woods	22075	22076	CF	09/2007	08/2007		48,789	51,755	106%	3	2,988	105	53,902	N/A	50,135	N/A	98,258	N/A	96,970	N/A	95,682
18 Florida Days	22080	22081	CF	03/2008	07/2007		34,492	36,645	106%	17	2,170	111	38,135	N/A	35,798	N/A	70,497	N/A	69,712	N/A	68,927
19 Summer Glen	22120	22121	CF	10/2007	09/2007		290,988	276,066	95%	30,054	15,132	106	262,540	N/A	131,613	N/A	145,580	N/A	108,077	N/A	70,574
20 Veramonte Subdivision	22132	22133	CF		10/2007		18,793	19,559	104%	-	766	120	20,364	2017	-	2016	-	2015	-	2015	-
						CF Total	**2,808,084**	**2,216,516**	**79%**	**1,997,948**	**1,435,180**	**57**	**2,012,089**		**1,669,213**		**1,468,233**		**1,381,110**		**1,293,987**
21 La Chalet	20497	20498	SF	06/2001	12/2000		40,254	25,564	64%	37,380	22,690	30	23,665	N/A	17,513	N/A	16,060	N/A	15,016	N/A	13,973
22 Thor./Versailles	20659	20660	SF	05/2002	09/2001		461,427	571,396	124%	184,212	294,181	41	568,725	N/A	500,921	N/A	531,073	N/A	511,564	N/A	492,055
23 Mizner Falls Subdiv.	20694	20695	SF	04/2002	12/2001		116,213	147,956	127%	37,423	69,165	40	150,041	N/A	135,002	N/A	156,409	N/A	152,869	N/A	149,328
24 Kenco Commun.	20733	20734	SF	03/2003	01/2002		44,360	57,780	130%	14,835	28,256	49	55,077	N/A	34,084	N/A	2,941	2012	-	2012	-
25 Ibis Parcel V-Terra Lago	20768	20769	SF	06/2002	02/2002		10,213	18	0%	14,978	3,805	42	-	2008	-	N/A	-	N/A	-	N/A	-
26 Equestrian Club	20848	20849	SF	10/2002	05/2002		105,392	69,951	66%	83,701	48,260	46	63,055	N/A	32,885	N/A	11,204	N/A	4,102	2011	-
27 Juno Beach	20850	20851	SF	02/2003	06/2002		141,331	151,840	107%	64,262	74,771	50	147,351	N/A	116,503	N/A	113,073	N/A	103,787	N/A	94,501
28 Victoria Grove	20860	20861	SF	12/2002	05/2002		261,501	241,485	92%	141,589	121,573	48	235,281	N/A	149,207	N/A	129,372	N/A	110,798	N/A	92,223
29 Hamilton Bay	20864	20865	SF	11/2002	06/2002		109,189	124,749	114%	41,338	56,898	46	125,503	N/A	109,753	N/A	126,108	N/A	122,709	N/A	119,311
30 Deerfield Ph. II	20973	20974	SF	02/2003	10/2002		42,898	34,092	79%	27,463	18,658	50	30,669	N/A	16,278	2011	-	2011	-	2010	-
31 Wyndsong Estates	20975	20976	SF	08/2003	11/2002		37,788	34,645	92%	19,192	16,049	56	31,697	N/A	18,257	N/A	10,212	N/A	6,782	N/A	3,352
32 Downtown Gas Lt. Dist.	20998	20999	SF	N/A	11/2002		15,409	23,414	152%	-	8,005	115	24,377	N/A	28,481	N/A	28,481	N/A	28,481	N/A	28,481
33 S.E. 6th Ave.	21006	21007	SF	03/2003	12/2002		16,279	13,505	83%	9,334	6,560	50	13,461	N/A	10,126	N/A	1,943	2012	-	2012	-
34 SR 441-Palmetto Pk.	21021	21025	SF	10/2004	12/2002		68,938	94,593	137%	11,185	36,840	69	95,672	N/A	87,169	N/A	115,081	N/A	112,309	N/A	109,537
35 Cedar Creek Subdiv.	21194	21195	SF	01/2004	10/2003		23,108	21,363	92%	10,394	8,649	61	20,899	N/A	12,841	2012	-	2011	-	2011	-
36 Equus Subdiv.	21211	21212	SF	01/2004	10/2003		56,570	55,318	98%	17,103	21,553	61	52,377	N/A	38,221	2013	-	2012	-	2012	-
37 Casa Bella Subdiv.	21241	21242	SF	03/2006	03/2004		52,610	63,103	120%	5,637	16,129	111	64,749	N/A	57,669	N/A	72,395	N/A	68,425	N/A	64,455
38 Talavera Subdiv.	21343	21344	SF	N/A	06/2004		16,907	21,937	130%	-	5,030	120	22,839	N/A	23,105	2012	-	2012	-	2011	-
39 441 Belv to Okeechobee	21390	21391	SF	10/2005	08/2004		49,734	39,299	79%	25,215	14,780	80	36,358	N/A	4,123	2012	-	2012	-	2011	-
40 Wellington Town Sq.	21435	21436	SF	N/A	11/2004		54,496	60,758	111%	-	6,262	120	63,258	2016	-	2013	-	2013	-	2013	-
41 Canopy Creek	22129	22130	SF	09/2007	08/2007		198,484	73,454	37%	186	3,301	105	76,285	N/A	20,448	N/A	23,254	N/A	6,955	2017	-
						SF Total	**1,923,101**	**1,926,222**	**100%**	**745,426**	**881,416**	**66**	**1,901,340**		**1,412,585**		**1,337,606**		**1,243,797**		**1,167,215**
						Total	**4,731,185**	**4,142,737**	**88%**	**2,743,374**	**2,316,596**	**61**	**3,913,429**		**3,081,798**		**2,805,839**		**2,624,907**		**2,461,202**

This data is the basis for the information provided in the Direct Testimony of James Mesite, Exhibit JVM-4.

Also, see the Direct Testimony of James Mesite, Exhibit JVM-4 for associated reserve and depreciation data.

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Casa Bella Subdivision
I.R. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial Date

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	64,749	As computed on Wksl
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	83,049	Total 10 year therms

0.52085

0.12085

Construction and Revenue Summary:

Net Excess Consin Cost (ECC): $ 64,749

AEPS $ 1.095 Original calculation

Manual Input: Override Computed AEPS $ 0.500 and Rate breakdown

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	63,103.00	154.62	62,948.38	424.38	63,372.75
Aug-08		154.62	63,218.13	426.20	63,644.32
Sep-08		154.62	63,489.70	428.03	63,917.73
Oct-08		154.62	63,763.10	429.87	64,192.97
Nov-08		154.62	64,038.35	431.73	64,470.07
Dec-08		154.62	64,315.45	433.59	64,749.04

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	2497	0	0	0	2497
2	6309	0	0	0	6309
3	8695	0	0	0	8695
4	9364	0	0	0	9364
5	9364	0	0	0	9364
6	9364	0	0	0	9364
7	9364	0	0	0	9364
8	9364	0	0	0	9364
9	9364	0	0	0	9364
10	9364	0	0	0	9364
Total	83,049	-	-	-	83,049

** Rate Breakdown: AEPS / therm

RS	Residential	0.500
GS	General Service	0.332
LVS	Large Volume Service	0.246
Gas Lights		0.183

ECC	64,749
Coll prior to Dec '08	-
Int prior to 2008	-
Unrecovered costs @ Dec 2008	64,749

Projected Cash Flow of:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	AEP collection: Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	1,207	1,792	-	-	-	-	-	-	$ 2,999						
2	3,050	4,528	-	-	-	-	-	-	7,578						
3	4,203	6,240	-	-	-	-	-	-	10,443					64,749	Dec-08
4	4,527	6,720	-	-	-	-	-	-	11,247		4,380	60,369	5,061	65,430	
5	4,527	6,720	-	-	-	-	-	-	11,247		4,682	60,748	5,104	65,852	
6	4,527	6,720	-	-	-	-	-	-	11,247		4,682	61,170	5,138	66,308	
7	4,527	6,720	-	-	-	-	-	-	11,247		4,682	61,626	5,175	66,801	
8	4,527	6,720	-	-	-	-	-	-	11,247		4,682	62,119	5,215	67,334	
9	4,527	6,720	-	-	-	-	-	-	11,247		4,682	62,652	5,258	67,910	
10	4,527	6,720	-	-	-	-	-	-	11,247		4,682	63,226	5,305	68,533	
Total	$ 40,146	$ 59,600	$ -	$ -	$ -	$ -	$ -	$ -	$ 99,746	$ -	$ 36,550		$ 36,255		

AEP Surcharge Collections remaining	36,550
Interest for remaining years	(36,255)
Balance collectable thru AEP for remainder	294
Unrecovered costs @ Dec 2008	64,749
AEP Recoverable	(294)
Rate Base recovery	64,455

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Wyndsong Estates
I.R. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial Date

Construction and Revenue Summary:

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	24,377	As computed on Wkst
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	-	Total 10 year therms

Net Excess Constn Cost (ECC): $ 24,377

AEPS #DIV/0! Original calculation

Manual Input: Override Computed AEPS $ 0.400 and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	0
5	0	0	0	0	0
6	0	0	0	0	0
7	0	0	0	0	0
8	0	0	0	0	0
9	0	0	0	0	0
10	0	0	0	0	0
Total	-	-	-	-	-

** Rate Breakdown: AEPS / therm

RS	Residential	0.400	100.0000%
GS	General Service	0.266	66.4191%
LVS	Large Volume Service	0.197	49.2832%
Gas Lights		0.146	36.5828%

Projected Cash Flow of:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	AEP collection: Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
1	-	-	-	-	-	-	-	-	$ -					
2	-	-	-	-	-	-	-	-	-					
3	-	-	-	-	-	-	-	-	-					
4	-	-	-	-	-	-	-	-	-					
5	-	-	-	-	-	-	-	-	-					
6	-	-	-	-	-	-	-	-	-					
7	-	-	-	-	-	-	-	-	-					
8	-	-	-	-	-	-	-	-	-					24,377
9	-	-	-	-	-	-	-	-	-		-	24,377	1,972	26,349
10	-	-	-	-	-	-	-	-	-		-	26,349	2,132	26,481
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ 4,104	

Dec-08

ECC	24,377
Coll prior to Dec '08	-
Int prior to 2008	-
Unrecovered costs @ Dec 2008	24,377
AEP Surcharge Collections remaining	-
Interest for remaining years	(4,104)
Balance collectable thru AEP for remainder	(4,104)
Unrecovered costs @ Dec 2008	24,377
AEP Recoverable	-
Rate Base recovery	24,377

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	23,414.09		23,414.09	157.85	23,571.94
Aug-08			23,571.94	158.91	23,730.85
Sep-08			23,730.85	159.99	23,890.84
Oct-08			23,890.84	161.06	24,051.90
Nov-08			24,051.90	162.15	24,214.05
Dec-08			24,214.05	163.24	24,377.30

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Hamilton Bay
I.R. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial | Date

Construction and Revenue Summary:

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	125,503	As computed on Wkst
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	207,693	Total 10 year therms

0.52085

0.12085

Net Excess Constn Cost (ECC): $ 125,503

AEPS $ 0.849 Original calculation

Manual Input: Override Computed AEPS $ 0.500 and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	979	0	0	0	979
2	7991	1017	0	0	9007
3	18266	3776	0	0	22042
4	22930	5228	0	0	28158
5	23319	5228	0	0	28547
6	22992	4211	0	0	27204
7	22433	3485	0	0	25918
8	22199	3485	0	0	25685
9	22199	3485	0	0	25685
10	22199	3485	0	0	25685
Total	185,508	33,401	-	-	218,909

** Rate Breakdown: AEPS / therm

RS	Residential	0.500	100.0000%
GS	General Service	0.332	66.4191%
LVS	Large Volume Service	0.246	49.2832%
Gas Lights		0.183	36.5829%

Projected Cash Flow of:

AEP collection:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	473	504	-	-	-	-	-	-	$ 977						
2	3,863	4,112	326	105	-	-	-	-	8,406						
3	8,830	9,400	1,212	390	-	-	-	-	19,832						
4	11,084	11,800	1,679	540	-	-	-	-	25,103						
5	11,272	12,000	1,679	540	-	-	-	-	25,491						
6	11,114	11,832	1,352	435	-	-	-	-	24,734						
7	10,844	11,544	1,119	360	-	-	-	-	23,867					125,503	Dec-08
8	10,731	11,424	1,119	360	-	-	-	-	23,634		10,403	115,101	9,732	124,833	
9	10,731	11,424	1,119	360	-	-	-	-	23,634		12,257	112,576	9,603	122,179	
10	10,731	11,424	1,119	360	-	-	-	-	23,634		12,257	109,922	9,386	119,311	
Total	$ 89,675	$ 95,464	$ 10,724	$ 3,450	$ -	$ -	$ -	$ -	$ 199,313	$ -	$ 43,465		$ 28,724		

ECC 125,503
Coll prior to Dec '08 -
Int prior to 2008 -
Unrecovered costs @ Dec 2008 125,503

AEP Surcharge Collections remaining 34,917
Interest for remaining years (28,724)

Balance collectable thru AEP for remainder 6,193

Unrecovered costs @ Dec 2008 125,503
AEP Recoverable (6,193)
Rate Base recovery 119,311

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	124,747.47	712.33	124,035.14	836.20	124,871.34
Aug-08		712.33	124,159.01	837.04	124,996.05
Sep-08		712.33	124,283.71	837.88	125,121.59
Oct-08		712.33	124,409.26	838.73	125,247.98
Nov-08		712.33	124,535.65	839.58	125,375.23
Dec-08		712.33	124,662.90	840.44	125,503.33

FPUC - Natural Gas
Docket No. 080366-GU
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Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Juno Beach
LR. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial Date

Construction and Revenue Summary:

Net Excess Constn Cost (ECC): $ 147,351

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	147,351	As computed on Wksht
ROR	8.080%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	430,674	Total 10 year therms

AEPS $ 0.461 Original calculation

Manual Input: Override Computed AEPS $ 0.500 and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	0	28259	0	0	28259
2	3661	52791	0	0	56452
3	6275	62418	0	0	68693
4	6275	62729	0	0	69004
5	5818	61797	0	0	67615
6	4576	63350	0	0	67925
7	3922	63350	0	0	67272
8	3922	63350	0	0	67272
9	3922	63350	0	0	67272
10	3922	63350	0	0	67272
Total	42,293	584,742	-	-	627,035

** Rate Breakdown: AEPS / therm

RS	Residential	0.500
GS	General Service	0.332
LVS	Large Volume Service	0.246
Gas Lights		0.183

Projected Cash Flow of: Revenue

AEP collection:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	-	-	9,073	1,365	-	-	-	-	$ 10,438						
2	1,770	448	16,950	2,550	-	-	-	-	21,717						
3	3,034	768	20,041	3,015	-	-	-	-	26,857						
4	3,034	768	20,140	3,030	-	-	-	-	26,972						
5	2,812	712	19,841	2,985	-	-	-	-	26,350						
6	2,212	560	20,340	3,060	-	-	-	-	26,172					147,351	Dec-08
7	1,896	480	20,340	3,060	-	-	-	-	25,776		21,984	125,368	11,031	136,399	
8	1,896	480	20,340	3,060	-	-	-	-	25,776		22,999	113,400	10,104	123,504	
9	1,896	480	20,340	3,060	-	-	-	-	25,776		22,999	100,505	9,061	109,566	
10	1,896	480	20,340	3,060	-	-	-	-	25,776		22,999	86,567	7,934	94,501	
Total	$ 20,445	$ 5,176	$ 187,743	$ 28,245	$ -	$ -	$ -	$ -	$ 241,609	$ -	$ 111,949		$ 36,131		

ECC 147,351
Coll prior to Dec '08 -
Int prior to 2008 -
Unrecovered costs @ Dec 2008 147,351

AEP Surcharge Collections remaining 90,981
Interest for remaining years (38,131)
Balance collectable thru AEP for remainder 52,851

Unrecovered costs @ Dec 2008 147,351
AEP Recoverable (52,851)
Rate Base recovery 94,501

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	151,838.99	1,747.33	150,091.66	1,011.87	151,103.52
Aug-08		1,747.33	149,356.19	1,006.91	150,363.10
Sep-08		1,747.33	148,615.77	1,001.92	149,617.69
Oct-08		1,747.33	147,870.35	996.89	148,867.24
Nov-08		1,747.33	147,119.91	991.83	148,111.74
Dec-08		1,747.33	146,364.41	986.74	147,351.15

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Project Name: La Chalet
I.R. #: 0
AEP #: 0
Prepared By: 0

Area Expansion Program

** Modified for true-up projection **

Procedure No.
Effective Date:
Revision # 12.7

Initial Date

Construction and Revenue Summary:

Net Excess Constn Cost (ECC): $ 23,665

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	23,665	As computed on What
ROR	8.000%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	154,370	Total 10 year therms

AEPS $ 0.215 Original calculation

Manual Input: Override Computed AEPS $ 0.500 and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	0	6933	10745	0	17678
2	0	11885	18420	0	30305
3	0	11885	18420	0	30305
4	0	11885	18420	0	30305
5	0	13618	18420	0	32038
6	0	14856	18420	0	33276
7	0	11389	18420	0	29810
8	0	7180	18420	0	25600
9	0	5942	18420	0	24363
10	0	5942	18420	0	24363
Total	-	101,514	176,527	-	278,041

** Rate Breakdown: AEPS / therm

RS	Residential	0.500
GS	General Service	0.332
LVS	Large Volume Service	0.246
Gas Lights		0.183

Projected Cash Flow of:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	AEP collection: Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	-	-	2,228	420	2,558	630	-	-	$ 5,834						
2	-	-	3,816	720	4,386	1,080	-	-	10,001						
3	-	-	3,816	720	4,386	1,080	-	-	10,001						
4	-	-	3,816	720	4,386	1,080	-	-	10,001						
5	-	-	4,372	825	4,386	1,080	-	-	10,663						
6	-	-	4,770	900	4,386	1,080	-	-	11,135						
7	-	-	3,657	690	4,386	1,080	-	-	9,812						
8	-	-	2,305	435	4,386	1,080	-	-	8,206					23,665	Dec-08
9	-	-	1,908	360	4,386	1,080	-	-	7,734		6,136	17,527	1,666	19,193	
10	-	-	1,906	360	4,386	1,080	-	-	7,734		6,510	12,684	1,289	13,973	
Total	$ -	$ -	$ 32,593	$ 6,150	$ 42,029	$ 10,350	$ -	$ -	$ 91,123	$ -	$ 18,414		$ 2,956		

ECC	23,665
Coll prior to Dec '08	-
Int prior to 2008	-
Unrecovered costs @ Dec 2008	23,665
AEP Surcharge Collections remaining	12,648
Interest for remaining years	(2,956)
Balance collectable thru AEP for remainder	9,692
Unrecovered costs @ Dec 2008	23,665
AEP Recoverable	(9,692)
Rate Base recovery	13,973

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	25,564.98	480.50	25,084.48	169.11	25,253.59
Aug-08		480.50	24,773.09	167.01	24,940.10
Sep-08		480.50	24,459.60	164.90	24,624.50
Oct-08		480.50	24,144.00	162.77	24,306.77
Nov-08		480.50	23,826.27	160.63	23,986.90
Dec-08		480.50	23,506.40	158.47	23,664.87

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Mizner Falls subdiv.
I.R. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial	Date

Construction and Revenue Summary:

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	150,041	As computed on Wkst
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 If total therms used forT1)
TH	226,366	Total 10 year therms

Net Excess Constn Cost (ECC): $ 150,041

AEPS $ 0.931 Original calculation

Manual Input: Override Computed AEPS $ 0.500 and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	5919	0	0	0	5919
2	16796	0	0	0	16796
3	24007	0	0	0	24007
4	25764	0	0	0	25764
5	25764	0	0	0	25764
6	25831	0	0	0	25831
7	25679	0	0	0	25679
8	25536	0	0	0	25536
9	25536	0	0	0	25536
10	25536	0	0	0	25536
Total	226,366	-	-	-	226,366

** Rate Breakdown: AEPS / therm

RS	Residential	0.500	[illegible]
GS	General Service	0.332	[illegible]
LVS	Large Volume Service	0.246	[illegible]
Gas Lights		0.183	[illegible]

Projected Cash Flow of:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue
1	2,861	4,984	-	-	-	-	-	-	$ 7,845
2	8,119	14,144	-	-	-	-	-	-	22,263
3	11,605	20,216	-	-	-	-	-	-	31,821
4	12,454	21,696	-	-	-	-	-	-	34,150
5	12,454	21,696	-	-	-	-	-	-	34,150
6	12,486	21,752	-	-	-	-	-	-	34,238
7	12,413	21,624	-	-	-	-	-	-	34,037
8	12,344	21,504	-	-	-	-	-	-	33,848
9	12,344	21,504	-	-	-	-	-	-	33,848
10	12,344	21,504	-	-	-	-	-	-	33,848
Total	$ 109,425	$ 190,624	$ -	$ -	$ -	$ -	$ -	$ -	$ 300,049

AEP collection:

Year	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
7	[illegible]	[illegible]	[illegible]	[illegible]	150,041	Dec-08
8		10,291	139,750	11,722	151,472	
9		12,786	138,704	11,738	150,442	
10		12,766	137,674	11,654	149,328	
Total	$ -	$ 43,641		$ 35,114		

ECC	150,041
Coll prior to Dec '08	-
Int prior to 2008	-
Unrecovered costs @ Dec 2008	150,041
AEP Surcharge Collections remaining	35,827
Interest for remaining years	(35,114)
Balance collectable thru AEP for remainder	713
Unrecovered costs @ Dec 2008	150,041
AEP Recoverable	(713)
Rate Base recovery	149,328

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	147,954.87	651.17	147,303.70	993.07	148,296.78
Aug-08		651.17	147,645.61	995.38	148,640.99
Sep-08		651.17	147,989.82	997.70	148,987.52
Oct-08		651.17	148,336.35	1,000.03	149,336.39
Nov-08		651.17	148,685.22	1,002.39	149,687.61
Dec-08		651.17	149,036.44	1,004.75	150,041.19

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: SR 441 - Palmetto Park
I.R. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial | Date

Construction and Revenue Summary:

Net Excess Constn Cost (ECC): $ 95,672

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	95,672	As computed on Wkst
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	81,818	Total 10 year therms

AEPS $ 1.842 Original calculation

Manual Input: Override Computed AEPS $ 0.500 and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	0	2361	0	0	2361
2	0	6409	0	0	6409
3	0	8095	2598	0	10692
4	0	9276	4451	0	13727
5	0	11300	4451	0	15751
6	0	12143	4451	0	16594
7	0	12143	4451	0	16594
8	0	12143	4451	0	16594
9	0	12143	4451	0	16594
10	0	12143	4451	0	16594
Total	-	98,156	33,752	-	131,908

** Rate Breakdown: AEPS / therm

RS	Residential	0.500	100.000%
GS	General Service	0.332	66.1181%
LVS	Large Volume Service	0.246	49.2532%
Gas Lights		0.183	36.5829%

Projected Cash Flow of:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	AEP collection: Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	-	-	758	210	-	-	-	-	$ 968						
2	-	-	2,058	570	-	-	-	-	2,628						
3	-	-	2,599	720	618	315	-	-	4,252						
4	-	-	2,978	825	1,060	540	-	-	5,403						
5	-	-	3,628	1,005	1,060	540	-	-	6,233					$ 95,672	Dec-08
6	-	-	3,899	1,080	1,060	540	-	-	6,578		5,312	90,359	7,525	97,884	
7	-	-	3,899	1,080	1,060	540	-	-	6,578		5,129	92,755	7,711	100,467	
8	-	-	3,899	1,080	1,060	540	-	-	6,578		5,129	95,338	7,920	103,258	
9	-	-	3,899	1,080	1,060	540	-	-	6,578		5,129	98,130	8,146	106,276	
10	-	-	3,899	1,080	1,060	540	-	-	6,578		5,129	101,147	8,390	109,537	
Total	$ -	$ -	$ 31,515	$ 8,730	$ 8,036	$ 4,095	$ -	$ -	$ 52,376	$ -	$ 31,323		$ 39,693		

ECC 95,672
Coll prior to Dec '08 -
Int prior to 2008 -
Unrecovered costs @ Dec 2008 95,672

AEP Surcharge Collections remaining 25,827
Interest for remaining years (39,693)
Balance collectable thru AEP for remainder (13,866)

Unrecovered costs @ Dec 2008 95,672
AEP Recoverable 13,866
Rate Base recovery 109,537

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	94,583.76	458.00	94,135.76	634.63	94,770.39
Aug-08		458.00	94,312.39	635.82	94,948.21
Sep-08		458.00	94,490.21	637.02	95,127.24
Oct-08		458.00	94,669.24	638.23	95,307.46
Nov-08		458.00	94,849.46	639.44	95,488.91
Dec-08		458.00	95,030.91	640.67	95,671.57

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Thor./Versailles
LR. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial Date

Construction and Revenue Summary:

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	568,725	As computed on Wksl
ROR	8.000%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	1,109,076	Total 10 year therms

Net Excess Constn Cost (ECC): $ 568,725

AEPS $ 0.720 Original calculation

Manual Input: Override Computed AEPS $ 0.500

and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	14136	5260	5086	0	24485
2	44317	10771	13806	0	68894
3	70135	15530	17439	0	103104
4	92059	18034	17439	0	127533
5	106988	18034	22526	0	147548
6	113413	16281	26159	0	155853
7	116823	15029	26159	0	158011
8	117848	15029	26159	0	159035
9	117848	15029	26159	0	159035
10	117848	15029	26159	0	159035
Total	911,417	144,025	207,091	-	1,262,533

** Rate Breakdown: AEPS / therm

RS	Residential	0.500
GS	General Service	0.332
LVS	Large Volume Service	0.246
Gas Lights		0.183

Projected Cash Flow of: Revenue

AEP collection:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	6,834	7,728	1,589	315	1,211	315	-	-	$ 18,092						
2	21,423	24,224	3,458	645	3,267	855	-	-	53,892						
3	33,903	38,336	4,986	930	4,152	1,080	-	-	83,387						
4	44,502	50,320	5,790	1,080	4,152	1,080	-	-	106,924						
5	51,716	58,480	5,790	1,080	5,363	1,395	-	-	123,826						
6	54,824	61,992	5,227	975	6,228	1,620	-	-	130,866						
7	56,472	63,856	4,825	900	6,228	1,620	-	-	133,902					568,725	Dec-08
8	56,968	64,416	4,825	900	6,228	1,620	-	-	134,957		80,743	507,981	43,553	551,534	
9	56,968	64,416	4,825	900	6,228	1,620	-	-	134,957		70,357	481,177	41,773	522,951	
10	56,968	64,416	4,825	900	6,228	1,620	-	-	134,957		70,357	452,594	39,461	492,055	
Total	$ 440,579	$ 496,184	$ 46,242	$ 8,625	$ 49,306	$ 12,825	$ -	$ -	$ 1,055,761	$ -	$ 252,587		$ 124,787		

ECC 568,725
Coll prior to Dec '08 -
Int prior to 2008 -
Unrecovered costs @ Dec 2008 568,725

AEP Surcharge Collections remaining 201,457
Interest for remaining years (124,787)

Balance collectable thru AEP for remainder 76,670

Unrecovered costs @ Dec 2008 568,725
AEP Recoverable (76,670)
Rate Base recovery 492,055

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	571,394.01	4,260.83	567,133.18	3,823.42	570,956.60
Aug-08		4,260.83	566,695.77	3,820.47	570,516.24
Sep-08		4,260.83	566,255.41	3,817.51	570,072.91
Oct-08		4,260.83	565,812.08	3,814.52	569,626.60
Nov-08		4,260.83	565,365.76	3,811.51	569,177.27
Dec-08		4,260.83	564,916.44	3,808.48	568,724.91

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Victoria Grove
I.R. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

	Initial	Date

Construction and Revenue Summary:

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	235,281	As computed on Wksht
ROR	8.080%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	1,093,787	Total 10 year therms

Net Excess Constn Cost (ECC): $ 235,281

AEPS $ 0.302 Original calculation

Manual Input: Override Computed AEPS $ 0.500

and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	268	1855	0	0	2123
2	40723	3180	0	0	43904
3	99047	3180	0	0	102228
4	130732	3180	0	0	133912
5	138280	3180	0	0	141460
6	136006	3180	0	0	139186
7	132910	3180	0	0	136091
8	131859	3180	0	0	135039
9	131859	3180	0	0	135039
10	131859	3180	0	0	135039
Total	1,073,542	30,479	-	-	1,104,022

** Rate Breakdown: AEPS / therm

			Note: Less % of therms per class are counted in 10 year therm total
RS	Residential	0.500	100.0000%
GS	General Service	0.332	66.4191%
LVS	Large Volume Service	0.245	48.2532%
Gas Lights		0.183	36.5839%

Projected Cash Flow of:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	AEP collection: Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	129	112	596	105	-	-	-	-	$ 942						
2	19,886	17,048	1,021	180	-	-	-	-	37,935						
3	47,879	41,464	1,021	180	-	-	-	-	90,545						
4	63,196	54,728	1,021	180	-	-	-	-	118,125						
5	66,845	57,888	1,021	180	-	-	-	-	125,934						
6	65,745	56,936	1,021	180	-	-	-	-	123,882						
7	64,249	55,640	1,021	180	-	-	-	-	121,090					235,281	Dec-08
8	63,741	55,200	1,021	180	-	-	-	-	120,142		49,256	186,025	17,042	203,067	
9	63,741	55,200	1,021	180	-	-	-	-	120,142		68,866	136,061	13,719	149,800	
10	63,741	55,200	1,021	180	-	-	-	-	120,142		68,866	82,814	9,409	92,223	
Total	$ 518,950	$ 449,416	$ 9,786	$ 1,725	$ -	$ -	$ -	$ -	$ 979,877	$ -	$ 214,753		$ 40,170		

ECC	235,281
Coll prior to Dec '08	-
Int prior to 2008	-
Unrecovered costs @ Dec 2008	235,281

AEP Surcharge Collections remaining	183,227
Interest for remaining years	(40,170)
Balance collectable thru AEP for remainder	143,058

Unrecovered costs @ Dec 2008	235,281
AEP Recoverable	(143,058)
Rate Base recovery	92,223

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	241,485.93	2,627.17	238,858.76	1,610.31	240,469.07
Aug-08		2,627.17	237,841.90	1,603.45	239,445.35
Sep-08		2,627.17	236,818.19	1,596.55	238,414.74
Oct-08		2,627.17	235,787.57	1,589.60	237,377.17
Nov-08		2,627.17	234,750.00	1,582.61	236,332.61
Dec-08		2,627.17	233,705.44	1,575.56	235,281.01

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Wyndsong Estates
I.R. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

	Initial	Date

Construction and Revenue Summary:

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC)/T2*TH)

ECC	31,697	As computed on Wkst
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	126,825	Total 10 year therms

Net Excess Constn Cost (ECC): $ 31,697

AEPS $ 0.346 Original calculation

Manual Input: Override Computed AEPS $ 0.500 and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	1826	0	0	0	1826
2	6396	0	0	0	6396
3	8826	0	0	0	8826
4	10912	746	0	0	11658
5	14563	1279	0	0	15843
6	16142	1279	0	0	17421
7	16142	1279	0	0	17421
8	16142	1279	0	0	17421
9	16142	1279	0	0	17421
10	16142	1279	0	0	17421
Total	123,231	8,423	-	-	131,654

** Rate Breakdown: AEPS / therm

RS	Residential	0.500
GS	General Service	0.332
LVS	Large Volume Service	0.246
Gas Lights		0.183

Projected Cash Flow of:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	AEP collection: Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	882	1,064	-	-	-	-	-	-	$ 1,946						
2	3,092	3,728	-	-	-	-	-	-	6,820						
3	4,266	5,144	-	-	-	-	-	-	9,410						
4	5,275	6,360	240	105	-	-	-	-	11,980						
5	7,040	8,488	411	180	-	-	-	-	16,119						
6	7,803	9,406	411	180	-	-	-	-	17,802					31,697.25	Dec-08
7	7,803	9,406	411	180	-	-	-	-	17,802		8,520	23,177	2,220	25,397	
8	7,803	9,406	411	180	-	-	-	-	17,802		8,486	16,901	1,711	18,612	
9	7,803	9,406	411	180	-	-	-	-	17,802		8,486	10,117	1,162	11,279	
10	7,803	9,406	411	180	-	-	-	-	17,802		8,486	2,783	569	3,352	
Total	$ 59,570	$ 71,824	$ 2,704	$ 1,185	$ -	$ -	$ -	$ -	$ 135,283	$ -	$ 42,551		$ 5,662		

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	34,645.93	712.00	33,933.93	228.77	34,162.70
Aug-08		712.00	33,450.70	225.51	33,676.21
Sep-08		712.00	32,964.21	222.23	33,186.45
Oct-08		712.00	32,474.45	218.93	32,693.38
Nov-08		712.00	31,981.38	215.61	32,196.99
Dec-08		712.00	31,484.99	212.26	31,697.25

ECC	31,697
Coll prior to Dec '08	-
Int prior to 2008	-
Unrecovered costs @ Dec 2008	31,697

AEP Surcharge Collections remaining	34,007
Interest for remaining years	(5,662)
Balance collectable thru AEP for remainder	28,345

Unrecovered costs @ Dec 2008	31,697
AEP Recoverable	(28,345)
Rate Base recovery	3,352

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Florida Days
LR. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

	Initial	Date

Construction and Revenue Summary:

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	38,135	As computed on Wkst
ROR	8.080%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	11,766	Total 10 year therms

Net Excess Constn Cost (ECC): $ 38,135

AEPS $ 4.552 Original calculation

Manual Input: Override Computed AEPS $ 0.500 and Rate breakdown

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	36,644.86	2.83	36,642.03	247.03	36,889.05
Aug-08		2.83	36,886.22	248.67	37,134.90
Sep-08		2.83	37,132.06	250.33	37,382.39
Oct-08		2.83	37,379.56	252.00	37,631.56
Nov-08		2.83	37,626.73	253.68	37,882.41
Dec-08		2.83	37,879.58	255.37	38,134.95

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	159	0	0	0	159
2	432	0	0	0	432
3	705	0	0	0	705
4	978	0	0	0	978
5	1251	0	0	0	1251
6	1524	0	0	0	1524
7	1665	0	0	0	1665
8	1684	0	0	0	1684
9	1684	0	0	0	1684
10	1684	0	0	0	1684
Total	11,766	-	-	-	11,766

** Rate Breakdown: AEPS / therm

RS	Residential	0.500	[illegible]
GS	General Service	0.332	[illegible]
LVS	Large Volume Service	0.245	[illegible]
Gas Lights		0.183	[illegible]

ECC	38,135
Coll prior to Dec '08	
Int prior to 2008	-
Unrecovered costs @ Dec 2008	38,135

Projected Cash Flow of:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	AEP collection: Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
1	77	168	-	-	-	-	-	-	$ 245					$ 38,135 Dec-08
2	209	456	-	-	-	-	-	-	665		125	38,010	3,080	41,090
3	341	744	-	-	-	-	-	-	1,085		353	40,737	3,310	44,047
4	473	1,032	-	-	-	-	-	-	1,505		489	43,558	3,544	47,102
5	605	1,320	-	-	-	-	-	-	1,925		626	46,476	3,785	50,261
6	737	1,608	-	-	-	-	-	-	2,345		762	49,499	4,035	53,535
7	805	1,756	-	-	-	-	-	-	2,561		832	52,702	4,297	57,000
8	814	1,776	-	-	-	-	-	-	2,590		842	56,158	4,577	60,735
9	814	1,776	-	-	-	-	-	-	2,590		842	59,893	4,879	64,773
10	814	1,776	-	-	-	-	-	-	2,590		842	63,931	5,206	69,137
Total	$ 5,687	$ 12,412	$ -	$ -	$ -	$ -	$ -	$ -	$ 18,099	$ -	$ 5,746		$ 36,714	

AEP Surcharge Collections remaining	5,712
Interest for remaining years	(36,714)
Balance collectable thru AEP for remainder	(31,002)
Unrecovered costs @ Dec 2008	38,135
AEP Recoverable	31,002
Rate Base recovery	69,137

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Inlet Shore Estates
LR. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial Date

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	11,528	As computed on What
ROR	8.080%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	38,006	Total 10 year therms

Construction and Revenue Summary:

Net Excess Constn Cost (ECC): $ 11,526

AEPS $ 0.426 Original calculation

Manual Input: Override Computed AEPS $ 0.500 and Rate breakdown

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	12,140.36	181.00	11,959.36	80.63	12,039.99
Aug-08		181.00	11,858.99	79.95	11,938.94
Sep-08		181.00	11,757.94	79.27	11,837.20
Oct-08		181.00	11,656.20	78.58	11,734.79
Nov-08		181.00	11,553.79	77.89	11,631.68
Dec-08		181.00	11,450.68	77.20	11,527.87

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therms Load Added
1	174	0	0	0	174
2	1517	0	0	0	1517
3	3084	0	0	0	3084
4	4452	0	0	0	4452
5	4900	0	0	0	4900
6	4776	0	0	0	4776
7	4776	0	0	0	4776
8	4776	0	0	0	4776
9	4776	0	0	0	4776
10	4776	0	0	0	4776
Total	38,006	-	-	-	38,006

** Rate Breakdown: AEPS / therm

RS	Residential	0.500	[illegible]
GS	General Service	0.332	[illegible]
LVS	Large Volume Service	0.246	[illegible]
Gas Lights		0.183	[illegible]

ECC	11,528
Coll prior to Dec '08	-
Int prior to 2008	-
Unrecovered costs @ Dec 2008	11,528

Projected Cash Flow of:

Revenue

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue
1	84	56	-	-	-	-	-	-	$ 140
2	733	488	-	-	-	-	-	-	1,221
3	1,491	992	-	-	-	-	-	-	2,483
4	2,152	1,432	-	-	-	-	-	-	3,584
5	2,369	1,576	-	-	-	-	-	-	3,945
6	2,309	1,536	-	-	-	-	-	-	3,845
7	2,309	1,536	-	-	-	-	-	-	3,845
8	2,309	1,536	-	-	-	-	-	-	3,845
9	2,309	1,536	-	-	-	-	-	-	3,845
10	2,309	1,536	-	-	-	-	-	-	3,845
Total	$ 16,372	$ 12,224	$ -	$ -	$ -	$ -	$ -	$ -	$ 30,596

AEP collection:

Year	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1						
2						
3						
4						
5					11,528	Dec-08
6		2,280	9,248	840	10,088	
7		2,368	7,700	720	8,420	
8		2,368	6,032	585	6,617	
9		2,368	4,229	439	4,668	
10		2,368	2,280	281	2,561	
Total	$ -	$ 14,003		$ 2,864		

AEP Surcharge Collections remaining	11,831
Interest for remaining years	(2,864)
Balance collectable thru AEP for remainder	8,967
Unrecovered costs @ Dec 2008	11,528
AEP Recoverable	(8,967)
Rate Base recovery	2,561

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Lake Mary High School
I.R. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial | Date

Construction and Revenue Summary:

Balance Excess Constn Cost (ECC): $ 15,686

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/TZ*TH)

ECC	15,686	As computed on Wkst
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used for T1)
TH	77,504	Total 10 year therms

AEPS $ 0.284 Original calculation

Manual Input: Override Computed AEPS $ 0.500 and Rate breakdown

0.52085

0.12085

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	0	0	3823	0	3823
2	0	2611	6554	0	9164
3	0	5781	6554	0	12335
4	0	8018	6554	0	14572
5	0	8951	6554	0	15505
6	0	8951	6554	0	15505
7	0	8951	6554	0	15505
8	0	8951	6554	0	15505
9	0	8951	6554	0	15505
10	0	8951	6554	0	15505
Total	-	70,114	62,807	-	132,922

** Rate Breakdown: AEPS / therm

RS	Residential	0.500	[redacted]
GS	General Service	0.332	[redacted]
LVS	Large Volume Service	0.246	[redacted]
Gas Lights		0.183	[redacted]

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	15,655.71	99.83	15,555.88	104.87	15,660.75
Aug-08		99.83	15,560.92	104.91	15,665.82
Sep-08		99.83	15,565.99	104.94	15,670.93
Oct-08		99.83	15,571.10	104.98	15,676.07
Nov-08		99.83	15,576.24	105.01	15,681.25
Dec-08		99.83	15,581.41	105.04	15,686.46

ECC	15,686
Coll prior to Dec '08	-
Int prior to 2008	-
Unrecovered costs @ Dec 2008	15,686

Projected Cash Flow of:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	AEP collection: Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	-	-	-	-	910	315	-	-	$ 1,225	[redacted]					
2	-	-	838	210	1,560	540	-	-	3,148						
3	-	-	1,856	465	1,560	540	-	-	4,421						
4	-	-	2,574	645	1,560	540	-	-	5,320						
5	-	-	2,874	720	1,560	540	-	-	5,694						
6	-	-	2,874	720	1,560	540	-	-	5,694						
7	-	-	2,874	720	1,560	540	-	-	5,694					15,686	Dec-08
8	-	-	2,874	720	1,560	540	-	-	5,694		2,892	12,794	1,152	13,946	
9	-	-	2,874	720	1,560	540	-	-	5,694		4,586	9,360	943	10,302	
10	-	-	2,874	720	1,560	540	-	-	5,694		4,586	5,716	648	6,364	
Total	$ -	$ -	$ 22,512	$ 5,640	$ 14,954	$ 5,175	$ -	$ -	$ 46,280	$ -	$ 13,263		$ 2,743		

AEP Surcharge Collections remaining	12,065
Interest for remaining years	(2,743)
Balance collectable thru AEP for remainder	9,323

Unrecovered costs @ Dec 2008	15,686
AEP Recoverable	(9,323)
Rate Base recovery	6,364

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Lakes of Deland
I.R. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial / Date

Construction and Revenue Summary:

Net Excess Constn Cost (ECC): $ 102,811

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	102,811	As computed on Wksht
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	17,102	Total 10 year therms

AEPS $ 8.443 Original calculation

Manual Input: Override Computed AEPS $ 0.500 and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	115	0	0	0	115
2	541	0	0	0	541
3	1207	0	0	0	1207
4	1736	0	0	0	1736
5	2120	0	0	0	2120
6	2277	0	0	0	2277
7	2277	0	0	0	2277
8	2277	0	0	0	2277
9	2277	0	0	0	2277
10	2277	0	0	0	2277
Total	17,102	-	-	-	17,102

** Rate Breakdown: AEPS / therm

RS	Residential	0.500	[illegible]
GS	General Service	0.332	[illegible]
LVS	Large Volume Service	0.246	[illegible]
Gas Lights		0.183	[illegible]

Projected Cash Flow of: Revenue

AEP collection:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	55	168	-	-	-	-	-	-	$ 223						
2	261	792	-	-	-	-	-	-	1,053						
3	583	1,768	-	-	-	-	-	-	2,351						
4	839	2,544	-	-	-	-	-	-	3,383					102,811	Dec-06
5	1,025	3,106	-	-	-	-	-	-	4,131		1,479	101,332	8,258	109,590	
6	1,101	3,336	-	-	-	-	-	-	4,437		1,138	108,451	8,820	117,271	
7	1,101	3,336	-	-	-	-	-	-	4,437		1,138	116,133	9,441	125,574	
8	1,101	3,336	-	-	-	-	-	-	4,437		1,138	124,435	10,113	134,548	
9	1,101	3,336	-	-	-	-	-	-	4,437		1,138	133,410	10,839	144,249	
10	1,101	3,336	-	-	-	-	-	-	4,437		1,138	143,110	11,624	154,734	
Total	$ 8,267	$ 25,058	$ -	$ -	$ -	$ -	$ -	$ -	$ 33,325	$ -	$ 9,069		$ 59,094		

ECC 102,811
Coll prior to Dec '08 (1,898)
Int prior to 2008 -
Unrecovered costs @ Dec 2008 100,913

AEP Surcharge Collections remaining 7,171
Interest for remaining years (59,094)
Balance collectable thru AEP for remainder (51,923)

Unrecovered costs @ Dec 2008 102,811
AEP Recoverable 51,923
Rate Base recovery 154,734

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	99,682.00	158.17	99,523.83	670.96	100,194.79
Aug-08		158.17	100,036.62	674.41	100,711.04
Sep-08		158.17	100,552.87	677.89	101,230.76
Oct-08		158.17	101,072.60	681.40	101,754.00
Nov-08		158.17	101,595.83	684.93	102,280.75
Dec-08		158.17	102,122.59	688.48	102,811.08

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Riverside @ DeBary
I.R. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial Date

Construction and Revenue Summary:

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	144,702	As computed on Wkst
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used for T1)
TH	130,079	Total 10 year therms

Net Excess Constn Cost (ECC): $ 144,702

AEPS $ 1.592 Original calculation

Manual Input: Override Computed AEPS $ 0.500

and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	260	0	0	4094	4354
2	2262	0	0	7019	9281
3	6675	0	0	7019	13694
4	10544	0	0	7019	17563
5	12237	0	0	7019	19256
6	13819	0	0	7019	20838
7	14836	0	0	7019	21855
8	14944	0	0	7019	21963
9	14944	0	0	7019	21963
10	14944	0	0	7019	21963
Total	105,466	-	-	67,264	172,730

** Rate Breakdown: AEPS / therm

RS	Residential	0.500	100.0000%
GS	General Service	0.332	66.4181%
LVS	Large Volume Service	0.246	49.2552%
Gas Lights		0.183	36.5629%

Projected Cash Flow of:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	AEP collection: Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	125	168	-	105	-	-	724	1	$ 1,124						
2	1,093	1,464	-	180	-	-	1,242	3	3,982						
3	3,227	4,320	-	180	-	-	1,242	3	8,971						
4	5,097	6,824	-	180	-	-	1,242	3	13,345						
5	5,915	7,920	-	180	-	-	1,242	3	15,260					144,702	Dec-08
6	6,680	8,944	-	180	-	-	1,242	3	17,048		8,493	136,210	11,363	147,572	
7	7,172	9,602	-	180	-	-	1,242	3	18,198		8,702	136,870	11,587	150,457	
8	7,224	9,672	-	180	-	-	1,242	3	18,320		8,756	141,700	11,818	153,518	
9	7,224	9,672	-	180	-	-	1,242	3	18,320		8,756	144,762	12,065	156,827	
10	7,224	9,672	-	180	-	-	1,242	3	18,320		8,756	148,071	12,333	160,404	
Total	$ 50,962	$ 68,256	$ -	$ 1,725	$ -	$ -	$ 11,898	$ 24	$ 132,888	$ -	$ 52,256		$ 59,166		

ECC 144,702
Coll prior to Dec '08 -
Int prior to 2008 -
Unrecovered costs @ Dec 2008 144,702

AEP Surcharge Collections remaining 43,464
Interest for remaining years (59,166)

Balance collectable thru AEP for remainder (15,702)

Unrecovered costs @ Dec 2008 144,702
AEP Recoverable 15,702
Rate Base recovery 160,404

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	143,308.00	732.67	142,575.33	961.20	143,536.53
Aug-08		732.67	142,803.86	962.74	143,766.60
Sep-08		732.67	143,033.93	964.29	143,998.22
Oct-08		732.67	143,265.55	965.85	144,231.40
Nov-08		732.67	143,498.73	967.42	144,466.15
Dec-08		732.67	143,733.49	969.00	144,702.49

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Summer Glen
I.R. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial Date

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	262,540	As computed on Wtst
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	693,088	Total 10 year therms

0.52085

0.12085

Construction and Revenue Summary:

Net Excess Constn Cost (ECC): $ 262,540

AEPS $ 0.532 Original calculation

Manual input: Override Computed AEPS $ 0.500 and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	28808	1910	14211	844	45774
2	52693	3275	24363	1447	81777
3	55696	3275	24363	1447	84780
4	56794	3275	24363	1447	85878
5	57891	3275	24363	1447	86975
6	58988	3275	24363	1447	88073
7	60019	3275	24363	1447	89103
8	60429	3275	24363	1447	89513
9	60429	3275	24363	1447	89513
10	60429	3275	24363	1447	89513
Total	552,177	31,382	233,474	13,866	830,898

** Rate Breakdown: AEPS / therm

RS	Residential	0.500	
GS	General Service	0.332	
LVS	Large Volume Service	0.246	
Gas Lights		0.183	

Projected Cash Flow of:
Revenue

AEP collection:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	13,926	30,240	613	105	3,384	315	149	-	$ 48,732					262,540	Dec-08
2	25,472	55,312	1,051	180	5,800	540	256	-	88,612						
3	26,923	58,464	1,051	180	5,800	540	256	-	93,215		41,803	220,637	19,545	240,182	
4	27,454	59,616	1,051	180	5,800	540	256	-	94,896		35,749	204,433	17,985	222,418	
5	27,985	60,768	1,051	180	5,800	540	256	-	96,580		36,297	186,120	16,525	202,646	
6	28,515	61,920	1,051	180	5,800	540	256	-	98,263		36,846	165,800	14,904	180,703	
7	29,013	63,002	1,051	180	5,800	540	256	-	99,843		37,362	143,342	13,108	156,449	
8	29,211	63,432	1,051	180	5,800	540	256	-	100,471		37,586	118,863	11,137	130,020	
9	29,211	63,432	1,051	180	5,800	540	256	-	100,471		37,586	92,454	8,999	101,453	
10	29,211	63,432	1,051	180	5,800	540	256	-	100,471		37,586	63,867	6,686	70,574	
Total	$ 266,922	$ 579,618	$ 10,076	$ 1,725	$ 55,586	$ 5,175	$ 2,453	$ -	$ 921,557	$ -	$ 349,462		$ 108,890		

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	276,066.27	4,050.50	272,015.77	1,833.84	273,849.61
Aug-08		4,050.50	269,799.11	1,818.90	271,618.01
Sep-08		4,050.50	267,567.51	1,803.85	269,371.36
Oct-08		4,050.50	265,320.86	1,788.70	267,109.56
Nov-08		4,050.50	263,059.06	1,773.46	264,832.52
Dec-08		4,050.50	260,782.02	1,758.11	262,540.12

ECC	262,540
Coll prior to Dec '08	-
Int prior to 2008	-
Unrecovered costs @ Dec 2008	262,540

AEP Surcharge Collections remaining	300,856
Interest for remaining years	(108,890)
Balance collectable thru AEP for remainder	191,966

Unrecovered costs @ Dec 2008	262,540
AEP Recoverable	(191,966)
Rate Base recovery	70,574

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Victoria Park Phase 1
I.R. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

	Initial	Date

Construction and Revenue Summary:

Balance Excess Constn Cost (ECC): $ 280,613

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	280,613	As computed on What
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	1,312,274	Total 10 year therms

AEPS $ 0.300 Original calculation

Manual Input: Override Computed AEPS $ 0.500

and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	2408	0	10078	0	12486
2	12689	0	17276	0	29965
3	31825	0	47510	0	79334
4	61456	1235	79183	0	141876
5	103538	2117	66226	0	171881
6	146319	2117	51829	0	200265
7	162639	3351	51829	0	217819
8	164652	4233	71985	0	240870
9	166181	4233	86382	0	256796
10	166181	4233	86382	0	256796
Total	1,017,888	21,519	568,680	-	1,608,087

** Rate Breakdown: AEPS / therm

RS	Residential	0.500
GS	General Service	0.332
LVS	Large Volume Service	0.246
Gas Lights		0.183

Rate : xxx % of therms per class are counted in 10 year therm total

	100.0000%
	66.4161%
	49.2532%
	36.5828%

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	328,382.53	9,975.00	318,407.53	2,146.60	320,554.13
Aug-08		9,975.00	310,579.13	2,093.82	312,672.95
Sep-08		9,975.00	302,697.95	2,040.69	304,738.64
Oct-08		9,975.00	294,763.64	1,987.20	296,750.84
Nov-08		9,975.00	286,775.84	1,933.35	288,709.18
Dec-08		9,975.00	278,734.18	1,879.13	280,613.32

ECC	280,613
Coll prior to Dec '08	-
Int prior to 2008	-
Unrecovered costs @ Dec 2008	280,613

Projected Cash Flow of:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue
1	1,164	1,512	-	-	2,399	315	-	-	$ 5,390
2	6,134	7,968	-	-	4,113	540	-	-	18,755
3	15,384	19,984	-	-	11,312	1,485	-	-	48,165
4	29,709	38,592	396	105	18,853	2,475	-	-	90,130
5	50,050	65,016	680	180	15,768	2,070	-	-	133,764
6	70,731	91,880	680	180	12,340	1,620	-	-	177,430
7	78,620	102,128	1,076	285	12,340	1,620	-	-	196,069
8	79,583	103,392	1,359	360	17,139	2,250	-	-	204,083
9	80,332	104,352	1,359	360	20,567	2,700	-	-	209,670
10	80,332	104,352	1,359	360	20,567	2,700	-	-	209,670
Total	$ 492,047	$ 639,176	$ 6,909	$ 1,830	$ 135,397	$ 17,775	$ -	$ -	$ 1,293,134

AEP collection:

Year	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	[redacted]					
2						
3						
4						
5						
6						
7					280,613	Dec-08
8		112,735	167,879	18,142	186,020	
9		105,769	80,251	10,771	91,022	
10						
Total	$ -	$ 338,204		$ 28,912		

AEP Surcharge Collections remaining	218,504
Interest for remaining years	(28,912)
Balance collectable thru AEP for remainder	189,591
Unrecovered costs @ Dec 2008	280,613
AEP Recoverable	(189,591)
Rate Base recovery	91,022

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Wellington Woods
LR #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial Date

Construction and Revenue Summary:

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	53,902	As computed on Wkst
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	19,060	Total 10 year therms

Net Excess Constn Cost (ECC): $ 53,902

AEPS $ 3.972 Original calculation

Manual Input: Override Computed AEPS $ 0.500 and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	137	0	0	0	137
2	509	0	0	0	509
3	990	0	0	0	990
4	1502	0	0	0	1502
5	2041	0	0	0	2041
6	2521	0	0	0	2521
7	2791	0	0	0	2791
8	2856	0	0	0	2856
9	2856	0	0	0	2856
10	2856	0	0	0	2856
Total	19,060	-	-	-	19,060

** Rate Breakdown: AEPS / therm

RS	Residential	0.500
GS	General Service	0.332
LVS	Large Volume Service	0.246
Gas Lights		0.183

Projected Cash Flow of:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	AEP collection: Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	66	168	-	-	-	-	-	-	$ 234		[illegible]			$ 53,902	Dec-08
2	246	624	-	-	-	-	-	-	870		375	53,527	4,345	57,873	
3	478	1,214	-	-	-	-	-	-	1,692		495	57,378	4,662	62,040	
4	726	1,842	-	-	-	-	-	-	2,568		751	61,289	4,989	66,278	
5	987	2,504	-	-	-	-	-	-	3,491		1,021	65,257	5,321	70,577	
6	1,218	3,092	-	-	-	-	-	-	4,310		1,260	69,317	5,659	74,976	
7	1,349	3,424	-	-	-	-	-	-	4,773		1,396	73,580	6,009	79,589	
8	1,381	3,504	-	-	-	-	-	-	4,885		1,428	78,161	6,381	84,542	
9	1,381	3,504	-	-	-	-	-	-	4,885		1,428	83,114	6,782	89,896	
10	1,381	3,504	-	-	-	-	-	-	4,885		1,428	88,467	7,215	95,682	
Total	$ 9,213	$ 23,380	$ -	$ -	$ -	$ -	$ -	$ -	$ 32,593	$ -	$ 9,588		$ 51,362		

ECC	53,902
Coll prior to Dec '08	(6)
Int prior to 2008	-
Unrecovered costs @ Dec 2008	53,896

AEP Surcharge Collections remaining	9,582
Interest for remaining years	(51,362)
Balance collectable thru AEP for remainder	(41,780)

Unrecovered costs @ Dec 2008	53,902
AEP Recoverable	(53,902)
Rate Base recovery	

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	51,774.91	0.50	51,774.41	349.05	52,123.46
Aug-08		0.50	52,122.96	351.40	52,474.35
Sep-08		0.50	52,473.85	353.76	52,827.61
Oct-08		0.50	52,827.11	356.14	53,183.26
Nov-08		0.50	53,182.76	358.54	53,541.30
Dec-08		0.50	53,540.80	360.95	53,901.75

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Winter Springs Town Center
LR. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial | Date

Construction and Revenue Summary:

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	152,677	As computed on Wkst
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	165,236	Total 10 year therms

Balance Excess Constn Cost (ECC): $ 152,677

AEPS $ 1.296 Original calculation

Manual Input: Override Computed AEPS $ 0.500

and Rate breakdown

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	150,375.00	632.33	149,742.67	1,009.52	150,752.18
Aug-08		632.33	150,119.85	1,012.06	151,131.91
Sep-08		632.33	150,499.57	1,014.62	151,514.19
Oct-08		632.33	150,881.86	1,017.20	151,899.05
Nov-08		632.33	151,266.72	1,019.79	152,286.51
Dec-08		632.33	151,654.18	1,022.40	152,676.58

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	0	1546	10332	0	11878
2	0	4196	17712	0	21908
3	0	5300	17712	0	23012
4	0	5300	17712	0	23012
5	0	8391	17712	0	26104
6	0	12145	17712	0	29858
7	0	14795	22878	0	37674
8	0	15900	26568	0	42468
9	0	15900	26568	0	42468
10	0	15900	26568	0	42468
Total	-	99,372	201,477	-	300,849

** Rate Breakdown: AEPS / therm

RS	Residential	0.500
GS	General Service	0.332
LVS	Large Volume Service	0.246
Gas Lights		0.183

Therms : rate % of therms per class are counted in 10 year therm total

100.0000%
68.4181%
49.3532%
36.5829%

ECC 152,677
Coll prior to Dec '08 -
Int prior to 2008 -
Unrecovered costs @ Dec 2008 152,677

Projected Cash Flow of:

Revenue

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue
1	-	-	496	105	2,460	1,260	-	-	$ 4,321
2	-	-	1,347	285	4,217	2,160	-	-	8,009
3	-	-	1,702	360	4,217	2,160	-	-	8,439
4	-	-	1,702	360	4,217	2,160	-	-	8,439
5	-	-	2,694	570	4,217	2,160	-	-	9,641
6	-	-	3,900	825	4,217	2,160	-	-	11,102
7	-	-	4,750	1,005	5,447	2,790	-	-	13,992
8	-	-	5,105	1,080	6,326	3,240	-	-	15,751
9	-	-	5,105	1,080	6,326	3,240	-	-	15,751
10	-	-	5,105	1,080	6,326	3,240	-	-	15,751
Total	$ -	$ -	$ 31,905	$ 6,750	$ 47,970	$ 24,570	$ -	$ -	$ 111,195

AEP collection:

Year	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
1					
2					
3					
4					
5					
6					152,677 Dec-08
7		9,088	143,809	11,985	155,594
8		11,823	143,770	12,109	155,880
9		11,823	144,057	12,132	156,189
10		11,823	144,366	12,157	156,524
Total	$ -	$ 52,125		$ 48,384	

AEP Surcharge Collections remaining 44,537
Interest for remaining years (48,384)

Balance collectable thru AEP for remainder (3,847)

Unrecovered costs @ Dec 2008 152,677
AEP Recoverable 3,847
Rate Base recovery 156,524

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up protection **

Project Name: Arbor Ridge
I.R. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial | Date

Construction and Revenue Summary:

Net Excess Constn Cost (ECC): $ 158,428

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	158,428	As computed on Wkst
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used for T1)
TH	416,056	Total 10 year therms

AEPS $ 0.535 Original calculation

Manual Input: Override Computed AEPS $ 0.500 and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	10179	0	3611	4094	17884
2	18646	0	6190	7019	31856
3	30680	1570	9801	7019	49070
4	40560	1645	8769	7019	57993
5	42114	897	6190	7019	56220
6	42257	897	6190	7019	56363
7	42257	897	6190	7019	56363
8	42257	897	6190	7019	56363
9	42257	897	6190	7019	56363
10	42257	897	6190	7019	56363
Total	353,466	8,599	65,509	67,264	494,837

** Rate Breakdown: AEPS / therm

RS	Residential	0.500	[redacted]
GS	General Service	0.332	[redacted]
LVS	Large Volume Service	0.246	[redacted]
Gas Lights		0.183	[redacted]

Projected Cash Flow of: Revenue

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	AEP collection: Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	4,921	5,712	-	-	860	315	724	1	$ 12,533		[redacted]				
2	9,014	10,464	-	-	1,474	540	1,242	3	22,736						
3	14,831	17,216	504	630	2,333	855	1,242	3	37,614						
4	19,607	22,760	528	660	2,068	765	1,242	3	47,652						
5	20,358	23,632	288	360	1,474	540	1,242	3	47,896					158,428	Dec-08
6	20,427	23,712	288	360	1,474	540	1,242	3	48,045		24,668	133,760	11,819	145,579	
7	20,427	23,712	288	360	1,474	540	1,242	3	48,045		24,235	121,344	10,797	132,141	
8	20,427	23,712	288	360	1,474	540	1,242	3	48,045		24,235	107,906	9,710	117,616	
9	20,427	23,712	288	360	1,474	540	1,242	3	48,045		24,235	93,381	8,535	101,916	
10	20,427	23,712	288	360	1,474	540	1,242	3	48,045		24,235	77,681	7,265	84,946	
Total	$ 170,865	$ 198,344	$ 2,761	$ 3,450	$ 15,597	$ 5,715	$ 11,898	$ 24	$ 408,655	$ -	$ 146,710		$ 48,125		

ECC 158,428
Coll prior to Dec '08 -
Int prior to 2008 -
Unrecovered costs @ Dec 2008 158,428

AEP Surcharge Collections remaining 121,606
Interest for remaining years (48,125)

Balance collectable thru AEP for remainder 73,483

Unrecovered costs @ Dec 2008 158,428
AEP Recoverable (73,483)
Rate Base recovery 84,946

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	164,511.00	2,091.83	162,419.17	1,094.98	163,514.14
Aug-08		2,091.83	161,422.31	1,088.26	162,510.56
Sep-08		2,091.83	160,418.73	1,081.49	161,500.22
Oct-08		2,091.83	159,408.39	1,074.68	160,483.07
Nov-08		2,091.83	158,391.23	1,067.82	159,459.05
Dec-08		2,091.83	157,367.22	1,060.92	158,428.14

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Bella Foresta
LR. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial Date

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	44,278	As computed on Wkst
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used for T1)
TH	1,813	Total 10 year therms

Construction and Revenue Summary:

Net Excess Constn Cost (ECC): $ 44,278

AEPS $ 34.304 Original calculation

Manual Input: Override Computed AEPS $ 0.500 and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	84	0	0	0	84
2	173	0	0	0	173
3	195	0	0	0	195
4	195	0	0	0	195
5	195	0	0	0	195
6	195	0	0	0	195
7	195	0	0	0	195
8	195	0	0	0	195
9	195	0	0	0	195
10	195	0	0	0	195
Total	1,813	-	-	-	1,813

** Rate Breakdown: AEPS / therm

			Basis : Year to yr therms per class are counted to 10 year therm total
RS	Residential	0.500	100.0000%
GS	General Service	0.332	66.4191%
LVS	Large Volume Service	0.246	49.2532%
Gas Lights		0.183	36.5629%

Projected Cash Flow of:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	AEP collection: Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
1	40	588	-	-	-	-	-	-	$ 628					$ 44,278 Dec-08
2	84	1,218	-	-	-	-	-	-	1,302		135	44,143	3,577	47,720
3	84	1,368	-	-	-	-	-	-	1,452		97	47,822	3,857	51,479
4	94	1,368	-	-	-	-	-	-	1,462		97	51,382	4,161	55,542
5	94	1,368	-	-	-	-	-	-	1,462		97	55,445	4,489	59,935
6	94	1,368	-	-	-	-	-	-	1,462		97	59,837	4,845	64,682
7	94	1,368	-	-	-	-	-	-	1,462		97	64,585	5,229	69,814
8	94	1,368	-	-	-	-	-	-	1,462		97	69,716	5,644	75,360
9	94	1,368	-	-	-	-	-	-	1,462		97	75,263	6,093	81,356
10	94	1,368	-	-	-	-	-	-	1,462		97	81,259	6,578	87,836
Total	$ 876	$ 12,750	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,626	$ -	$ 1,097		$ 44,471	

ECC	44,278
Coll prior to Dec '08	(184)
Int prior to 2008	-
Unrecovered costs @ Dec 2008	44,094

AEP Surcharge Collections remaining	913
Interest for remaining years	(44,471)
Balance collectable thru AEP for remainder	(43,558)

Unrecovered costs @ Dec 2008	44,278
AEP Recoverable	43,558
Rate Base recovery	87,836

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	42,619.15	15.33	42,603.82	287.22	42,891.04
Aug-08		15.33	42,875.70	289.05	43,164.76
Sep-08		15.33	43,149.42	290.90	43,440.32
Oct-08		15.33	43,424.99	292.76	43,717.75
Nov-08		15.33	43,702.41	294.63	43,997.04
Dec-08		15.33	43,981.71	296.51	44,278.22

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Document Request No. 1
Exhibit 40.46

Area Expansion Program

** Modified for true-up projection **

Project Name: Deltona Phase 3
I.R. #: 0
AEP #: 0
Prepared By: 0

Procedure No.
Effective Date:
Revision # 12.7

Initial Date

Construction and Revenue Summary:

Calculation of AEP Surcharge:

AEPS= (ECC+(ROR*T1*.5*ECC))/T2*TH)

ECC	354,197	As computed on Wkst
ROR	8.090%	Company's Authorized Rate
T1	10	Years for collection
T2	1	(1 if total therms used forT1)
TH	1,000,661	Total 10 year therms

Balance Excess Constn Cost (ECC): $ 354,197

AEPS $ 0.497 Original calculation

Manual Input: Override Computed AEPS $ 0.500

and Rate breakdown

Summary of projected Therms:

Year	Total Annual Residential Usage	Total Annual General Serv Usage	Total Annual Large Volume Usage	Total Annual Gas Light Usage	Total Therm Load Added
1	993	0	0	0	993
2	59873	1967	17035	0	78895
3	99294	4401	29203	0	132898
4	97819	5111	34881	0	137811
5	96883	6104	38937	0	141925
6	95324	7808	33259	0	136390
7	93026	9511	34881	0	137419
8	89311	10221	38937	0	138469
9	86673	11215	38937	0	136825
10	86106	11925	38937	0	136968
Total	805,103	68,283	305,007	-	1,178,393

** Rate Breakdown: AEPS / therm

RS	Residential	0.500
GS	General Service	0.332
LVS	Large Volume Service	0.246
Gas Lights		0.183

Projected Cash Flow of:

Year	Residential Non-fuel Revenue	Residential Customer Charge	General Serv. Non-fuel Revenue	General Serv. Customer Charge	Large Volume Non-fuel Revenue	Large Volume Customer Charge	Lights Non-fuel Revenue	Lights Customer Charge	Total Base Revenue	AEP collection: Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered	
1	480	560	-	-	-	-	-	-	$ 1,040						
2	28,846	33,664	638	210	4,056	945	-	-	68,359						
3	47,999	56,016	1,413	465	6,963	1,620	-	-	114,486						
4	47,286	55,184	1,641	540	8,305	1,935	-	-	114,891						
5	46,833	54,656	1,960	645	9,271	2,160	-	-	115,525						
6	46,079	53,776	2,507	825	7,919	1,845	-	-	112,951						
7	44,969	52,480	3,054	1,005	8,305	1,935	-	-	111,748						
8	43,173	50,384	3,282	1,080	9,271	2,160	-	-	109,349						
9	41,898	48,896	3,601	1,185	9,271	2,160	-	-	107,010					354,197	Dec-08
10	41,624	48,576	3,829	1,260	9,271	2,160	-	-	106,719		49,237	304,960	26,663	331,623	
Total	$ 389,187	$ 454,192	$ 21,924	$ 7,215	$ 72,619	$ 16,920	$ -	$ -	$ 982,056	$ -	$ 91,109		$ 26,663		

ECC	354,197
Coll prior to Dec '08	-
Int prior to 2008	-
Unrecovered costs @ Dec 2008	354,197
AEP Surcharge Collections remaining	49,237
Interest for remaining years	(26,663)
Balance collectable thru AEP for remainder	22,574
Unrecovered costs @ Dec 2008	354,197
AEP Recoverable	(22,574)
Rate Base recovery	331,623

PROJECTED 2008 ECC BALANCE

	Excess Construction Cost	AEPS Surcharge	Balance before Interest	Interest charge (cost of money)	Total Cost To be recovered
Jul-08	360,790.15	3,489.33	357,300.82	2,408.80	359,709.62
Aug-08		3,489.33	356,220.29	2,401.52	358,621.80
Sep-08		3,489.33	355,132.47	2,394.18	357,526.66
Oct-08		3,489.33	354,037.32	2,386.80	356,424.12
Nov-08		3,489.33	352,934.79	2,379.37	355,314.16
Dec-08		3,489.33	351,824.83	2,371.89	354,196.71

FPUC - Natural Gas
Docket No. 080366-GU
FPSC Docket Request No 1
Exhibit 40.47

BLANK EXHIBIT

service line, the short section of the remaining service line to the main, shall be disconnected closer to the main or at the main, if at some later date it becomes accessible during normal operations.

Based upon review of the information provided by FPUC, there are 309 service lines that have been inactive for five or more years. Therefore, these lines shall be removed from the projected test year for ratemaking purposes. Accordingly, $113,998, $278,678, and $4,045 shall be removed from plant-in-service, accumulated depreciation, and depreciation expense, respectively, for the projected test year. The cost to remove the inactive service lines is approximately $157,204, which is included in the accumulated depreciation amount of $278,678.

F. Bare Steel Replacement Program

The bare steel replacement program proposed by the utility would replace all of the utility's existing bare steel mains and service lines with plastic pipe. Bare steel mains and service lines do not appear to have effective cathodic protection on them. Included in this total is approximately five miles of cast iron mains. Some of these mains and service lines have experienced corrosion and corrosion-related gas leaks.

The utility's proposed program would replace all existing mains over a 75-year period beginning in 2005, at a total cost of $28,315,380, amortized at $377,538 per year. We find that the replacement period shall be shortened to 50 years to reflect the average useful life of the equipment. This change results in a yearly increase in amortization expense of $188,770 for a total of $566,308. Accumulated amortization for the projected test year is also increased by $94,385.

G. Acquisition Adjustment

On December 14, 2001, FPUC acquired the assets of SFNG for a purchase price of $9,917,000. Part of the purchase price was for SFNG's propane operations. SFNG had approximately 4,300 residential, 360 commercial, and 1,000 propane customers. The utility believes that its request for inclusion of its proposed acquisition adjustment is justified for the following reasons.

The utility states that there were approximately $138,000 in operational savings as a result of the acquisition. The utility imputed that these savings translated into a justifiable rate base increase of approximately $1,801,000. This calculation assumes that it would take $1,801,000 in rate base to produce an additional revenue requirement of $138,000 based on its December 31, 2001 rate of return of 7.68%. Using the same methodology, the utility calculated that the rate of return differential between SFNG and FPUC at December 31, 2001 would equate to $816,000 in additional justifiable rate base. The utility also calculated the fuel cost differential between the two utilities and, again applying FPUC's allowable rate of return, imputed that an additional $4,018,000 in rate base was justified. In this filing, FPUC stated that its justifiable increase to rate base as a result of this purchase was $6,637,112; however, FPUC is seeking approval for total goodwill of $3,300,000 to be included in rate base as a positive acquisition adjustment.

The utility indicated that $960,376 of the total amount of $3,300,000 represented the fair market value over the book value of the acquired assets. Section 366.06(1), F.S., states that this Commission

> shall investigate and determine the actual legitimate costs of the property of each utility company, actually used and useful in the public service, and shall keep a current record of the net investment of each public utility company in such property which value, as determined by the commission, shall be used for ratemaking purposes and shall be the money honestly and prudently invested by the public utility company in such property used and useful in serving the public, less accrued depreciation, and shall not include any goodwill or going-concern value or franchise value in excess of payment made therefor.

According to Title 18 of The Code of Federal Regulations (18 CFR), revised as of April 1, 2004, p. 580, an acquisition adjustment ". . . shall include the difference between (a) the cost to the accounting utility . . ., and (b) the original cost, estimated if not known." The utility stated that its request for the inclusion of an additional $3,300,000 as an acquisition adjustment in rate base meets this standard.

However, we find that the $3,300,000 amount contains an amount for goodwill. In its exhibit, the utility stated, "The total goodwill inclusive of intangible assets for the SFNG portion of the acquisition amounted to $3.3 million. Included in the total goodwill is the difference between the fair market value and book value (historical cost) of the plant acquired, amounting to $960,376." As discussed above, 18 CFR defines an acquisition adjustment as the cost to the utility over the original cost. In this case, this amounts to the $960,376 that we find shall be included in rate base. The remaining $2,339,624 is goodwill and shall not be included in rate base.

In order to properly evaluate the utility's request, it is necessary to use objective standards to develop quantitative benefits to the former customers of SFNG and the pre-acquisition customers of FPUC. By Order No. 23858, issued December 11, 1990, in Docket No. 891353-GU, In re: Application of Peoples Gas Systems, Inc. for a rate increase, this Commission examined a number of potential benefits to the existing customers of the acquired Southern Gas Company. The Order stated, "It is our policy to disallow positive acquisition adjustments unless extraordinary circumstances can be proven." The Commission ultimately approved a positive acquisition adjustment of $2,351,756 amortized over 30 years. In this case, we have also examined the potential benefits resulting from FPUC's acquisition of SFNG. We find that there are resulting benefits as discussed below.

Increased Quality of Service

SFNG's last full year of operations prior to its acquisition was 2001. For that year, there were a total of nine complaints filed with the Division of Regulatory Compliance and Consumer Assistance. SFNG had approximately 4,300 residential and 360 commercial customers. This

translates into a complaint ratio of 1.93 complaints per 1000 customers for the 2001 calendar year. FPUC has approximately 49,200 gas customers, and there were 27 complaints filed the period of August 2003 to early August 2004. FPUC's complaint ratio is approximately .55 per 1000 customers; a ratio approximately three-and one-half times lower than SFNG's ratio.

Our staff engineer assigned to the present case indicates that portions of the existing SFNG plant were old, and were not maintained to the standards of FPUC. In particular, pressure regulators and gate stations will need to be upgraded to meet the present standards of FPUC. This is a reliability issue not a safety issue. Many parts in use are no longer made due to their age. Pursuant to our staff engineer, expenses for the needed repairs and upgrades to the former SFNG plant are included in this case.

Lower Overall Cost of Capital

SFNG's last Rate of Return Report for June 2001 filed on September 17, 2001, prior to the acquisition, indicated that SFNG had a 10.28% allowable rate of return, and an average achieved rate of return of 5.47%, which was below the required rate of return of 9.47%. In this case, we have determined a cost of equity of 11.25% and an overall rate of return of 7.62%.

Lowered Operating Costs

In the past, this Commission has looked at cost savings to support any request to include acquisition adjustments in rate base. See Order No. 18716, issued January 26, 1988, in Docket No. 870118-GU, Petition of Central Florida Gas Company to increase its rates and charges. Also, see Order No. 24013, issued January 23, 1991, in Docket No. 891175-GU, Petition of City Gas Company Inc. for a rate increase. In the present case, the utility provided an exhibit that indicated that there are measurable cost savings of at least $138,000 of net cost reductions that resulted from synergies realized from the merger. While certain expenses, such as additional printing and mailing costs do increase, it is more than offset by a reduction in expenses by eliminating duplicative staff and facilities, and the costs for SFNG's billing subcontractor. A review of FPUC's documentation shows that the stated savings appear reasonable. Additionally, there does not appear to be any adverse financial consequences to the existing rate payers. These cost savings benefit not only the former SFNG customers, but FPUC's pre-acquisition or existing customers as well; moreover, even after the inclusion of the acquisition adjustment in rate base, there appear to be net savings of approximately $65,000.

Additionally, the purchase of SFNG allows FPUC to reduce allocated costs to the pre-acquisition customers of FPUC. FPUC allocates plant and a number of expenses to both regulated and non-regulated operations based on such factors as percentage of customers, utility plant, or payroll. Adding additional non-regulated propane and additional natural gas customers has the effect of reducing the percentage allocated to the existing pre-acquisition regulated customers.

Also, while fuel costs are removed in determining final base rates in a rate case, fuel costs impact the total amount of a customer's bill. To properly evaluate the total impact on customers, fuel charges as well as base rates must be considered. FPUC provided documentation indicating

that its fuel charge per therm for 2001 was 15.5% less than the per therm cost for SFNG. This would translate into potential yearly cost savings of over $300,000 for the former SFNG customers, based on rates in effect prior to the acquisition. As a result, if our proposed rates become final, the average bill reduction for a former SFNG residential customer using 22 therms monthly is a decrease of 2.4%, or $0.83 per month reduction compared to the average residential bill for SFNG customers approved by this Commission in Order No. 24608, issued June 3, 1991, in Docket No. 900623-GU, In re: Petition for general rate Relief by South Florida Natural Gas Company.

Conclusion

We find that FPUC has properly met its burden to justify the inclusion of an acquisition adjustment of $960,376 in rate base. The acquisition of the SFNG system has benefited the former customers of SFNG through expense reductions, reduced fuel prices, and a higher level of customer service. The existing rate payers benefit from the acquisition because there is a net savings of approximately $65,000 even after the inclusion of this acquisition adjustment in rate base and a larger base to allocate common costs, and the average former SFNG customer will have a monthly bill reduction of 2.4%. FPUC's larger size after the acquisition should allow FPUC to more easily attract capital at a lower cost rate, which will benefit all of its customers. This acquisition adjustment shall be amortized over 30 years. The utility has indicated, and our staff, upon review of FPUC's recent depreciation study, agrees that a 30-year amortization period reasonably reflects the useful remaining life of the SFNG plant. Therefore, the acquisition adjustment shall be amortized over 30 years.

Based on the above, the proper totals for the acquisition adjustment, accumulated amortization of the acquisition adjustment, and the related amortization expense for the projected test year shall be $960,376, $128,052, and $32,013, respectively. Because the assets of SFNG were acquired on December 14, 2001, the 30-year amortization period shall be for the period beginning January 1, 2002, reducing the remaining amortization period at the end of the projected test year to 26 years. The resulting reductions to utility plant, and amortization expense are $2,339,624 and $67,713, respectively. The total accumulated amortization of acquisition shall be increased by $78,189.

The permanence of these cost savings shall be reviewed in FPUC's next rate case. If it is determined at that time that the cost savings no longer exist, the acquisition adjustment shall be partially or totally removed from rate base.

H. Construction Work In Progress (CWIP)

Our auditors reviewed the proposed construction budget for the projected test year and made two adjustments that resulted from delays, cancellations or other changes to the forecast. Additional CWIP totaling $79,036 was carried over from 2004 to the projected test year, and reduced by a $37,500 decrease to the general plant construction budget; this results in a net increase to the utility's projected test year CWIP budget of $41,536. Therefore, the appropriate level of CWIP for the projected test year is $235,540.

I. Working Capital

1. Working Capital Allocations

Audit Exception No. 2 stated that the utility used projected factors in its filing to allocate common asset and liability accounts to working capital in its MFRs. When the utility determined its 2004 factors, the allocation rates determined were much lower than the factors originally projected. In addition, the utility used a revenue factor based on utility-only rather than on a consolidated basis. Since most of the allocated accounts are liabilities, the changes to the allocation factors have the effect of increasing working capital. Therefore, we find that working capital shall be increased by $1,434,985 to reflect these changes.

2. Cash

The utility's MFRs indicated a 13-month average of cash in working capital for the projected test year of $444,298. Audit Disclosure No. 6 of the staff audit stated that a proposed equity offering had been rescinded by the Board of Directors based on advice of the company's underwriters for the equity offering. The postponed offering affected the projected level of cash in working capital. The utility still believes that an equity offering will be necessary within the next three years; however, the utility could not positively state the offering will be made until after the projected test year. Upon request of our staff, the utility provided a revised projection of cash which stated that projected test year cash would be $288,650. As a result of this revision, cash shall be reduced by $155,648 ($444,298 - $288,650).

3. Materials and Supplies

The Plant Materials and Operating Supplies account includes the cost of material purchased for use in the utility business for construction, operation and maintenance purposes. The utility's MFRs indicate that the projected test year balance in this account will be $473,077. Although, a portion of this account would normally be allocated to non-utility operations, the utility did not make an allocation to its non-regulated operations. The utility indicated that if an allocation was made based on how the materials in this account were used, that 9% would be allocated to propane. To allow for this 9% adjustment, the Materials and Supplies account shall be reduced by $42,577.

4. Medical Self Insurance Reserve and Accrued Liability Insurance

Later in this Order we decrease Injuries and Damages expense, Account 925, by $9,676. The 13-month average effect of this decrease is $4,838. Therefore, we have decreased the balance in accrued liability insurance by $4,838.

We have also decreased Other Post Employment Benefits expense, Account 926.3, by $11,886. The 13-month average effect of this decrease is $5,943. Therefore, we have decreased the balance in the medical self insurance reserve by $5,943.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Petition for approval of modification to tariff provisions governing main and service extensions by FLORIDA PUBLIC UTILITIES COMPANY.	DOCKET NO. 941291-GU ORDER NO. PSC-95-0162-FOF-GU ISSUED: February 7, 1995

The following Commissioners participated in the disposition of this matter:

SUSAN F. CLARK, Chairman
J. TERRY DEASON
JOE GARCIA
JULIA L. JOHNSON
DIANE K. KIESLING

ORDER APPROVING TARIFF MODIFICATION

BY THE COMMISSION:

Florida Public Utilities Company (FPUC) presently extends its facilities to provide service in accordance with the provisions of Rule 25-7.054, Florida Administrative Code. The rule requires extensions to be made at no cost to the customer when the capital investment necessary to extend FPUC's facilities to provide service is equal to or less than the maximum allowable construction cost. The maximum allowable construction cost (MACC) is defined as an amount equal to four times the estimated annual gas revenues to be derived from the facilities less the cost of gas.

In the event the required capital investment exceeds the MACC, FPUC requires the customer(s) to make a non-interest bearing advance in aid of construction in an amount equal to the difference, provided that:

1. At the end of the first year the FPUC will refund to customers paying the advance in aid of construction an amount equal to the excess, if any, of the MACC calculated using actual gas revenues, less actual cost of gas, over the MACC used to determine the amount of the advance in aid of construction.

2. For each additional customer taking service at any point on the extension within a period of five years from date of construction, FPUC will refund to the customer also paid the advance in aid of construction an amount by which the MACC for the new customer exceeds the cost of connecting the customer, provided that an additional main extension will not have been necessary to serve the additional customer.

FPUC proposed an alternative method of recovering capital investment in excess of the MACC when extending its facilities to provide service to customers who presently do not have natural gas service available and do not meet our approved feasibility formula. This method allows new gas customers who do not presently meet feasibility criteria to obtain gas service without increasing costs to existing customers of FPUC. FPUC will fund the amount above the MACC required to construct the facilities and recover the investment from customers served by the extension by collecting an Area Expansion Program (AEP) surcharge.

The AEP provides for determination of a specific surcharge applicable to each designated expansion area by class of customer. It is calculated by a formula based on: the amount of excess capital investment required; the Company's authorized rate of return, which we approved in its last rate proceeding; the projected sales to be made on the extension; the period of time the surcharge is applicable, and; the competitive conditions in the prevailing expansion area. Once set, the AEP surcharge will remain constant for the projected term of the collection period. If the revenues collected exceed the estimated AEP projection, FPUC will refund any revenues in excess of the projected surcharge total to all existing customers in the AEP area.

The excess cost above the MACC should not be included in the rate base for ratemaking and earnings surveillance reports. The related surcharge recovery should be excluded from the income statement. Specific adjustments should be made on the earnings surveillance report to eliminate these items. In addition, specific subaccounts should be established to clearly identify the amounts related to the excess cost above the MACC and its recovery.

We have reviewed the potential income tax impact of the contributions. FPUC currently receives very few request for this type of extension, and the amount collected is small. Since the amount collected will be only the differential between what is and is not economically feasible and there is a potential for a refund, the tax impact of the contribution is immaterial. If

FPUC's amount or quantity of contributions increase, however, we may wish to review the tax impact again.

The AEP surcharge option for funding main & service extension will allow customers who could not otherwise be served natural gas under existing tariff provisions to have gas service. These customers might include existing L.P. gas (propane) customers, customers in new areas not yet developed, and areas fully developed that are remote from existing gas systems. The existing customers and FPUC will be protected by the surcharge recovery of any amount by which the investment exceeds the MACC.

It is, therefore,

ORDERED by the Florida Public Service Commission that the proposed tariff modifications to Florida Public Utilities Company's main and service extensions are approved, as discussed in the body of this Order. It is further

ORDERED that the tariff is effective January 17, 1995. It is further

ORDERED that if a protest is filed in accordance with the requirements set forth below, the tariff shall remain in effect, with any increase in revenues held subject to refund, pending resolution of the protest. It is further

ORDERED that if no protest is filed in accordance with the requirements set forth below, this docket shall be closed.

By ORDER of the Florida Public Service Commission, this 7th day of February, 1995.

BLANCA S. BAYÓ, Director
Division of Records and Reporting

by: /s/ Kay Flynn
Chief, Bureau of Records

This is a facsimile copy. A signed copy of the order may be obtained by calling 1-904-488-8371.

(S E A L)

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NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.59(4), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

The Commission's decision on this tariff is interim in nature and will become final, unless a person whose substantial interests are affected by the action proposed files a petition for a formal proceeding, as provided by Rule 25-22.036(4), Florida Administrative Code, in the form provided by Rule 25-22.036(7)(a)(d) and (e), Florida Administrative Code. This petition must be received by the Director, Division of Records and Reporting, 101 East Gaines Street, Tallahassee, Florida 32399-0870, by the close of business on February 28, 1995.

In the absence of such a petition, this order shall become final on the day subsequent to the above date.

Any objection or protest filed in this docket before the issuance date of this Order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

If this Order becomes final on the date described above, any party adversely affected may request judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or by the First District Court of Appeal in the case of a water or wastewater utility by filing a notice of appeal with the Director, Division of Records and Reporting and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days of the date this Order becomes final, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

ARCHITECTURAL/ENGINEERING SERVICES
for
FLORIDA PUBLIC UTILITIES
Parcel 1
Schumacher at Water Tower Road
LAKE PARK, FLORIDA 33403

JANUARY 25, 2008

The following are the Basic Design Services included and excluded in this contract, Time and Reimbursable Rates for changes required outside our work scope, Insurance Coverage, Contract for Basic Design Services, Design Parameters Form.

A. The following services are included if required by governmental agencies:

SITE PLAN APPROVAL

1. Title Sheet.
2. Site Plans with details.
3. Utility Plans (water, sewer, electric, phone).
4. Paving, Drainage Plans / Details.
5. Landscape and Irrigation Plan.
6. Site Photometrics.
7. Floor Plan.
8. Architectural Elevations.
9. Colored Elevations.
10. Sample Board.
11. Required Code Research.
12. Required design progress meetings with Owner.

CONSTRUCTION DOCUMENTS

1. Title Sheet.
2. Site Plans with details.
3. Utility Plans (water, sewer, electric, phone).
4. Paving, Drainage Plans / Details.
5. Landscape and Irrigation Plan.

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6. Site Electrical Plan.
7. Site Photometrics.
8. Floor Plan.
9. Architectural Elevations.
10. Roof Plan/Framing Plans.
11. Wall Sections.
12. Miscellaneous required details.
13. Specifications (Limited to documents prepared on standard drawing format only).
14. Life Safety Plans and Notes.
15. Foundation Plans.
16. Water and Wasteline Risers.
17. Fire Sprinkler Specifications.
18. HVAC / Ventilation Drawings and Specifications.
19. Electrical Plans.
20. Electrical Details.
21. Fire Alarm System Diagrams.
22. Energy Code Calculations.
23. Required Code Research.
24. Required design progress meetings with Owner.

B. Items by Client (additional expenses):

1. Zoning Application, Permit and Impact fees.
2. Boundary Survey with Topography, Location of Utilities and Easements.
3. Soil Borings, Percolation Test, Recommendations (Included in construction estimate).
4. Exfiltration Tests (if required).
5. Original Plots at $9.00/plot (one for each sheet).
6. Printing Costs at $2.00/sheet for all progress, Client requested, permit and construction sheets.
7. Any changes made by Client after sign-off of Preliminary Site Plan, Floor Plan and Architectural Elevations.
8. Electric and phone connection fees.
9. Traffic study/statement, if required.
10. Building or monument signage design (see Exhibit B, Item 11).
11. Unforeseen conditions resulting in additional services not listed in item's A and G.
12. Any item not listed in Section A above.
13. See section G for additional exclusions where applicable.

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C. TIME AND REIMBURSABLE RATES:

1. Principal: $165.00/Hour
2. Professional Engineer: $165.00/Hour
3. Engineer I: $100.00/Hour
4. Engineer II: ..... $ 65.00/Hour
5. Engineering Inspector: $165.00/Hour
6. Registered Architect: $165.00/Hour
7. Architect I: $165.00/Hour
8. Architect II: ..... $ 90.00/Hour
9. Senior Planner: $125.00/Hour
10. Project Manager: ..... $ 90.00/Hour
11. Computer Design and Drafting: ..... $ 70.00/Hour
12. Administrative Support: ..... $ 40.00/Hour
13. Land Planner Consultant ..... $ 98.00/Hour
14. Rate and Fee Adjustment: The attached schedule of hourly billing rates is subject to change at the end of each calendar year, and shall be reflected in this Agreement. Lump sum fees are also subject to change at the end of each calendar year based upon the Consumer Price Index for All Urban Consumers (CPI-U).
15. Additional Services: Services authorized by the Client, other than those specifically set forth in the Architectural/Engineering Services Agreement, shall be considered additional services for which owner shall compensate Ahrens on a "Time & Expense" basis or as otherwise agreed by the parties. Additional services include revisions to work previously performed that are required because of a change in the data, criteria, or information furnished to Ahrens, a change in the scope or concept of the project initiated by the Client, and/or services that are required by changes in the requirements of public agencies, after work under this Agreement has commenced. A "Change of Scope Memorandum" will be executed by Client before such work is started.
16. Plots at $9.00 per sheet.
17. All prints at $2.00 per sheet, excluding those listed in Item "A" above.
18. Outside contractual services secured by Ahrens on Client's behalf, travel costs by commercial carrier, direct non-salary expenses including, but not limited to, meals, lodging, special

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mailing or delivery services, legal advertisements and notices, title search service, long distance phone calls and car mileage ($0.46 per mile plus Ahrens' fee) shall be reimbursed at 125 percent of Ahrens' cost.

19. A 1.5 percent charge will be added to all contractual Time and Expenses invoices to cover Ahrens' expense items such as occasional photocopies, local telephone charges, fax, local travel, and regular postage.

20. Time & Expense fees owed Ahrens for an invoice period shall be based on the amount of time expended by Ahrens in performing the services , calculated portal-to-portal, multiplied by the prevailing rate for the personnel performing the work. A minimum of one hour of time will be charged for attendance at any public hearing, commission or board meeting, or at any legal or administrative proceeding. Client will reimburse Ahrens for all direct non-salary expense, including but not limited to those shown in TIME AND REIMBURSABLE RATE.

D. INSURANCE COVERAGE:

1. Workers' Compensation and Employers' Liability Insurance in accordance with the laws of the State in which the Project is located and wherever the Architect/Engineer's Services are being performed. Employer's Liability coverage shall be written with at least the following limits of liability:
   a. Bodily Injury by Accident: $100,000.00 Each Accident
   b. Bodily Injury by Disease: $500,000.00 Policy Limit
   c. Bodily Injury by Disease: $100,000.00 Each Employee
2. Commercial General Liability Insurance, listing the Client and Contractor as additional insured, with at least the following limits of liability:
   a. Each Occurrence Limit: $1,000,000.00
   b. General Aggregate: $2,000,000.00
   c. Products/Completed: $1,000,000.00 (operations aggregate)
   d. Personal and Advertising: $1,000,000.00 (injury limit)
3. Business Automobile Liability Insurance with at least the following limit of liability:
   a. $1,000,000.00 Each Accident
4. The Architect/Engineer shall require its consultants to maintain Business General Liability and Business Automobile Liability

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coverage with a company satisfactory to the Client and with limits acceptable to the Client.

5. PROFESSIONAL LIABILITY INSURANCE: The Architect/Engineer shall maintain Professional Liability Insurance with a company satisfactory to the Client for claims arising from the negligent performance of professional services under this Agreement, which shall be PRACTICE POLICY written for not less than $2,000,000.00 per claim and in the aggregate with a deductible not to exceed $7,500.00. The Professional Liability Insurance shall contain prior acts coverage sufficient to cover all Services performed by the Architect/Engineer for this Project. The deductible shall be paid by the Architect/Engineer.
6. Consultants retained by the Architect/Engineer for this Project shall maintain Professional Liability Insurance coverage.

E. PAYMENT SCHEDULE:

SITE PLAN APPROVAL:

1. Schematic Design Studies: TWELVE THOUSAND DOLLARS ($12,000.00).
2. Owner sign-off on conceptual site plan: FOUR THOUSAND DOLLARS ($4,000.00).
3. Owner sign-off on floor plan: FOUR THOUSAND DOLLARS ($4,000.00).
4. Owner sign-off on elevations: FOUR THOUSAND DOLLARS ($4,000.00).
5. Completion of site plan set: FIFTEEN THOUSAND DOLLARS (15,000.00).
6. Completion of floor plans: EIGHT THOUSAND DOLLARS ($8,000.00).
7. Completion of colored elevations: THREE THOUSAND DOLLARS ($3,000.00).
8. Completion of photometrics plan: ONE THOUSAND DOLLARS ($1,000.00).
9. Completion of landscape plan: SIX THOUSAND DOLLARS ($6,000.00).
10. Submission to Seacoast Utility Authority: FOUR THOUSAND DOLLARS ($4,000.00).

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11. Submission to SFWMD: SIX THOUSAND DOLLARS ($6,000.00).
12. Site plan approval package submittal to the Town of Lake Park: EIGHT THOUSAND DOLLARS ($8,000.00).
13. All potential comments from agencies shall be addressed after final payments.
14. TOTAL FEE FOR PHASE I: SEVENTY FIVE THOUSAND DOLLARS ($75,000.00).

CONSTRUCTION DOCUMENTS:

1. Retainer: TWENTY THOUSAND DOLLARS ($20,000.00).
   a. Due upon execution of Agreement.
   b. Includes Notice to Proceed beyond Phase I.
2. Design Development Documents: SIXTY FIVE THOUSAND FIVE HUNDRED DOLLARS ($65,500.00).
   a. 25% upon creation of substantially complete Structural plans: SIXTEEN THOUSAND THREE HUNDRED SEVENTY FIVE DOLLARS ($16,375.00).
   b. 25% upon creation of substantially complete Electrical and Mechanical plans: SIXTEEN THOUSAND THREE HUNDRED SEVENTY FIVE DOLLARS ($16,375.00).
   c. 25% upon creation of substantially complete Architectural plans: SIXTEEN THOUSAND THREE HUNDRED SEVENTY FIVE DOLLARS ($16,375.00).
   d. 25% upon creation of substantially complete Fire Protection plans: SIXTEEN THOUSAND THREE HUNDRED SEVENTY FIVE DOLLARS ($16,375.00).
3. Construction Documents: THIRTY FOUR THOUSAND DOLLARS ($34,000.00).
   a. 50% upon Notice to Proceed: SEVENTEEN THOUSAND DOLLARS ($17,000.00).
   b. 25% upon Completion of Drawings: EIGHT THOUSAND FIVE HUNDRED DOLLARS ($8,500.00).
   c. 25% upon creation of rough budget: EIGHT THOUSAND FIVE HUNDRED DOLLARS ($8,500.00).
4. TOTAL FEE FOR PHASE II: ONE HUNDRED NINETEEN THOUSAND FIVE HUNDRED DOLLARS ($119,500.00).

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The TOTAL FEE of ONE HUNDRED NINETY FOUR THOUSAND FIVE HUNDRED DOLLARS ($194,500.00) is based on the historical project costs for the work as outlined in ITEM G. Should the cost exceed the budget amount as listed in ITEM G, then the design fee shall be increased by four percent (4%) for any amounts over Ahrens' preliminary budget estimate. However, Ahrens has the right to adjust their fee at any time prior to providing a final contract amount to compensate for increase in costs associated with final design parameters. Should this intervening adjustment exceed the percentage of the actual contract, then Ahrens shall credit this excess to the construction of the project.

F. PAYMENT OF INVOICES:

1. Contract fee for BASIC DESIGN SERVICES shall be as per required retainers and balances shall be invoiced bi-monthly with payments required within ten (10) days of invoice.
2. TIME AND REIMBURSABLES shall be invoiced weekly and payments required within ten (10) days of invoice.
3. Within five (5) days of receipt of Ahrens' invoice, Client shall examine invoice in detail as to accuracy/completeness and shall raise any question/objection in writing regarding invoice within these five (5) days. After five (5) days from receipt of Ahrens' invoice, Client waives any question/objection to the invoice not earlier raised.
4. If Client fails to make any payment due Ahrens within fifteen (15) days in United States currency, from the date of Ahrens' invoice, the amounts due Ahrens shall include a charge at the rate of 1.5% per month (18% per annum) or as otherwise provided by law. Ahrens reserves the sole right to suspend all services to Client if any invoice remains unpaid twenty (20) days after date of invoice. If services are suspended they may not resume until all unpaid invoices and accrued interest are paid in full.
5. Invoices shall be prepared in Ahrens' style and format. If Client requests a different style or format that requires additional preparation time by Ahrens, then Client shall compensate Ahrens for that additional effort at the prevailing rate for personnel performing the work.

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6. LUMP SUM FEES owed Ahrens for an invoice period shall be calculated by Ahrens based upon Ahrens' percentage estimate of the amount of work accomplished for the period.
7. Applications for payment may not necessarily follow the order shown above and may be grouped together.

G. DESIGN PARAMETERS FORM

Note: This form shall be used as a basis of design, as reference in determining the design fee and shall be considered part of the design/build agreement.

1. Project Name: FLORIDA PUBLIC UTILITIES
2. Type of Use: OPERATIONS OFFICE / WAREHOUSE AND MAINTENANCE
3. Building Size: 24,206 SF ± Two (2) story operations office/warehouse, separate 6,475 SF Maintenance Building, 180 SF Water Storage, 1,500 SF Canopy, Propane Storage Facility and Fuel Island.

4.	Office Quality:	☐ N/A	☐ High	☒ Med	☐ Low		
5.	Office Cubicles:		☐ Yes	☒ No			
6.	Mezzanine Req'd:		☐ Yes	☒ No			
7.	Truckwells Req'd:		☒ Yes	☐ No			
8.	Compressed Air:		☒ Yes	☐ No			
9.	A/C Office (If included):		☒ Yes	☐ No			
10.	A/C Warehouse:		☐ Yes	☒ No			
11.	Electrical Scope (Intensity):		☐ High	☒ Med	☐ Low		
12.	Fire Alarm System:		☒ Yes	☐ No			
13.	Site Plan Approval Required:		☒ Yes	☐ No			

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14. Emergency Generator: ☒ Yes ☐ No

15. Municipality: Town of Lake Park

16. Construction Budget Amount: $4,744,000.00 plus $194,500 in design fees

17. Construction Type: TBD, incorporating Green Building Technology

18. Lot size: 6.22 acres

17. Include civil drawings: ☒ Yes ☐ No

18. Include landscaping: ☒ Yes ☐ No

19. Project Specifics/Conditions:

a. Re-zoning not included

b. Assumed positive drainage out fall

c. AGC Document No. 415 (construction contract) to be finalized upon completion of working drawings. (See Exhibit B for sample contract).

d. Concrete parking utilized for construction budget

H. General terms and conditions:

a. PERFORMANCE: Ahrens shall perform the work in an expeditious and diligent manner. The standard of care for all professional and related services performed or furnished by Ahrens under this Agreement will be the care and skill ordinarily used by members of Ahrens' profession practicing under similar conditions at the same time and in the same locality. The parties to this Agreement agree that Ahrens has no control over certain aspects of the work, including but not limited to, the timely submittal of data or information to be furnished by others for Ahrens' use, the review and approval process of governmental, jurisdictional, or utility agencies and entities. Ahrens

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asserts no guarantees regarding permit application processing times and issuance of a permit, and incurs no liability for same. Ahrens' opinions of probable project costs are made on the basis of Ahrens' judgment and experience for the given time and economic conditions. Ahrens does not guarantee that proposals, bids or actual project cost will not vary from Ahrens' opinions of probable cost.

b. DATA PROVIDED BY OTHERS: Client is responsible for supplying Ahrens with information and data required for Ahrens' use in accomplishing the work. Ahrens shall not be responsible or liable for any inaccurate or incomplete information provided by others, or for its good faith use of inaccurate or incomplete information provided by others.

c. OWNERSHIP OF DOCUMENTS: All documents, including drawings, specifications, field notes, and electronically generated information and data prepared by Ahrens pursuant to the terms of this Agreement are the sole property of Ahrens Companies and are copyrighted to the fullest extent of the Law. They are not to be used for duplication or bidding purposes until all fees herein have been paid in full. Copies of Ahrens non-proprietary documents will be made available to Client at the "Time & Expense" cost for reproducing said documents. These documents are not intended or represented to be suitable for reuse for extensions of this or any other project, and Client or others are prohibited from making or incorporating any adjustments, changes or amendments to them without specific written approval from Ahrens.

d. ENFORCEMENT: In any action to enforce or to interpret this Agreement, the prevailing party shall be entitled to recover all costs and expenses incurred, including reasonable attorney's fees. For the purpose of this Agreement "action" shall be interpreted to include negotiations and investigation prior to the institution of proceedings at the trial level as well as costs and fees incurred through any appeals. In the event Client has or asserts some claim or demand against Ahrens based upon this Agreement or any services delivered under this Agreement, including any extensions or modifications thereof, Client, as well as all persons or firms claiming through, under, or against Client, must initiate suit against Ahrens within one year from the date upon which the services were delivered or claim shall be forever barred. Ahrens's liability is limited to the fees paid by Client under the terms and conditions of this Agreement. Ahrens agrees to waive this limitation upon receiving Client's written request and additional payment of four percent of Ahrens' fee, or five hundred dollars ($500.00), whichever is greater, within five (5) days of the date

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of this Agreement. Venue for any disputes shall be in Palm Beach County Florida, unless otherwise required by Florida law.

e. AGREEMENT MODIFICATION: This Agreement may be modified by the parties at any time, but no such modification shall be effective unless reduced to writing and signed by both parties.

f. PRIVITY OF AGREEMENT: This Agreement is not to be construed to provide any obligation from Ahrens to any third parties, including, but not limited to, any contractors (general or sub), banks, lending institutions or to any successors in title to the Client. The rights under this Agreement only inure to the parties hereto.

g. ASSIGNABILITY: This Agreement is expressly understood to be nontransferable and non-assignable by either party without the express written consent of the other party.

h. ACCEPTANCE: The fees, terms and conditions offered in this Agreement shall be valid and open for acceptance by Client for a period of thirty (30) days after the date the Agreement is signed by Ahrens.

i. EFFECTIVE DATE: This Agreement shall become effective on the date that it is signed by Client and returned to Ahrens with the required retainer.

j. TERMINATION: This Agreement may be terminated by either party upon giving seven (7) days written notice, and Client shall be responsible only for those fees and expenses incurred through the date of receipt of said notice. Notice shall be delivered to above stated addresses.

k. SEVERABILITY: In the event a court of competent jurisdiction determines that any term or provision of this contract is unenforceable for any reason, the balance of the terms and conditions shall nonetheless remain in full force and effect and such unenforceable provisions shall be deemed to have been excised and deleted from this Agreement as though it had never been a part hereof.

l. Permit processing is excluded. This item is included in the construction contract or is provided per the TIME AND REIMBURSABLE RATE.

m. No processing of any permits nor release of permit documents shall occur until 100% of all design fees have been paid.

n. If the Client elects to relieve Ahrens Companies as designer-of-record, Client must provide a certified letter to Ahrens Companies from the new designer stating that they are replacing us as designer-of-record and will assume full liability and responsibility of the complete set of contract documents.

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o. SPECIAL PROVISIONS:

I. The following exhibits are part of this agreement:

1. Exhibit A – Town of Lake Park Required Plans and Documents for Submittal.
2. Exhibit B - AGC Document No. 415 (sample contract) pertaining to the construction phase of the project.

_____ _____

Marc L. Schneidermann, Director, Corporate Services Date

Florida Public Utilities
401 S. Dixie Highway
West Palm Beach, FL 33401-5886
Phone: 561-838-1767
Fax: 561-366-1577

_____ _____

Richard C. Ahrens, CEO Date

Ahrens Companies
1461 Kinetic Road
Lake Park, FL 33403
Phone: 561-863-9004
Fax: 561-863-9007

F:\Exhibits\FLORIDA PUBLIC UTILITIES CORP OFFICE Revised 012508.doc

OWNER_____
AHRENS_____

Required Plans and Documents for Submittal: 10 Complete Sets Must Be Bound

1. Boundary Survey (signed and sealed) *no more that 1 year old*
   a. Abstract Survey (title work)
   b. Town easements and utility easements locations
   c. Over head power lines locations
2. Plat *(when applicable) * same business as original preliminary plat or boundary survey*
   a. Must follow Florida M.T.S.
   b. Easements locations
   c. Abandoned locations
   d. Rededicated locations
3. Site Plan
   a. Existing conditions
   b. Proposed site modifications
      - Acreage
      - Total square footage
      - Parking total
      - Building coverage %
      - Pervious/Impervious %
      - Total units
      - Zoning of surrounding properties
4. Architectural Plans (signed and sealed)
   a. Architectural elevations- front, rear, sides
   b. Color renderings on 24"x36" board
5. Landscape Plan with Irrigation (signed and sealed)
   a. Existing conditions
      - To be removed
      - To remain
   b. Proposed site modifications
      - Completed by professional Landscape Architect
      - Plant List
   c. Irrigation
6. Drainage and Paving Plan (signed and sealed)
   a. Existing conditions
   b. Proposed site modifications
      - Paving
      - Drainage calculations (25-3 day storm)
      - Drainage flow line
      - Out fall of property
      - Grade levels
      - Percolation test
7. Environmental Report *(when applicable)*
   a. Soil boring
   b. Existing site conditions
8. Traffic Analysis
   a. Completed by professional Traffic Engineer
   b. Must address the impact of the development on the adjacent roadways
   c. Must also be submitted to Palm Beach County to receive confirmation that project meets traffic concurrency
9. Lighting Photometrics
10. Master Signage Plans
11. Building and Signage color board (24"x36")
    a. Colors
    b. Materials

FLORIDA PUBLIC UTILITIES
BEGINNING JANUARY 1, 2008

MAINTENANCE OF GENERAL OFFICE

	1840		1849		Propane		1630.1	
	Allocated Common Plant June 30, 2007	%	Allocated Common Plant June 30, 2007	%	Allocated Common Plant June 30, 2007	%	Allocated Mat. & Sup June 30, 2007	%
121 South Florida	$2,121,524	46.0	2,121,524	38.0			254,984	19.0
123 Central Florida	892,867	19.0	892,867	16.0			149,164	11.0
114 Northwest Florida	634,083	14.0	634,083	11.0			299,604	22.0
115 Northeast Florida - Electric	985,787	21.0	985,787	17.0			657,962	48.0
991 South Florida - Propane			436,032	8.0	436,032	56.0		
993 Central Florida - Propane			251,037	4.0	251,037	32.0		
995 Northeast Florida - Propane			93,224	2.0	93,224	12.0		
141 South Florida - M & J			132,136	2.0				
143 Central Florida - M & J			85,104	2.0				
945 Northeast Florida - M & J			6,719	0.0				
Total	$4,634,261	100.0	5,638,513	100.0	780,293	100.0	1,361,714	100.0
Allocation Ratio ID	FPUCCOMPLT		CONSCOMPLT				OFFICESERV	
Applicable to Account :	935							
Applicable M & J Account:	4160.74							

FPUC-Natural Gas
Docket No. 080366-GU
FPSC – Data Request No. 1
Exhibit 42.1

FLORIDA PUBLIC UTILITIES
BEGINNING JANUARY 1, 2008

ADMINISTRATIVE & GENERAL SALARIES & PROPERTY INSURANCE EXPENSES

	1840		1849		Propane		North East Florida	
	Utility Plant 12 mths ended June 30, 2007	%	Utility Plant 12 mths ended June 30, 2007	%	Utility Plant 12 mths ended June 30, 2007	%	Utility Plant 12 mths ended June 30, 2007	%
121 South Florida	$71,690,477	40.0	$71,690,477	37.0				
123 Central Florida	29,908,871	17.0	29,908,871	15.0				
114 Northwest Florida	32,037,100	18.0	32,037,100	16.0				
115 Northeast Florida - Electric	44,787,881	25.0	44,787,881	23.0			44,787,881	95.0
991 South Florida - Propane			9,471,625	5.0	9,471,625	51.0		
993 Central Florida - Propane			6,347,114	3.0	6,347,114	35.0		
995 Northeast Florida - Propane			2,555,832	1.0	2,555,832	14.0	2,555,832	5.0
141 South Florida - M & J			132,136	0.0				
143 Central Florida - M & J			85,104	0.0				
945 Northeast Florida - M & J			6,719	0.0			6,719	0.0
Total	$178,424,329	100.0	$197,022,859	100.0	$18,374,571	100.0	$47,350,432	100.0
Allocation Ratio ID	FPUCPLANT		CONSPLANT		CONDEPFLO			
Applicable to Account:	920 9201 924							
Applicable M & J Account:	4160.73							

Exhibit 42.1
Pg. 2 of 6

FLORIDA PUBLIC UTILITIES
BEGINNING JANUARY 1, 2008

Common Depreciation Expense

		4030 Common Plant Remaining June 30, 2007	%	4030 Common Plant EDP June 30, 2007	%
121	South Florida	$1,233,019	41.0	$888,505	33.0
123	Central Florida	370,217	12.0	522,650	19.0
114	Northwest Florida	419,580	14.0	339,722	12.0
115	Northeast Florida - Electric	567,667	19.0	418,120	15.0
991	South Florida - Propane	190,494	6.0	245,538	9.0
993	Central Florida - Propane	74,043	2.0	176,994	6.0
995	Northeast Florida - Propane	24,681	1.0	68,543	3.0
141	South Florida - M & J	85,881	3.0	46,255	2.0
143	Central Florida - M & J	55,313	2.0	29,791	1.0
945	Northeast Florida - M & J	4,367	0.0	2,352	0.0
	Total	$3,025,262	100.0	$2,738,470	100.0
Allocation Ratio ID		CONSCOMREM		CONSCOMEDP	
Applicable to Accounts:		4030.2		4030.21	
Applicable M & J Accounts:		4160.8		4160.8	

Exhibit 42.1
Pg. 3 of 6

FLORIDA PUBLIC UTILITIES
ALLOCATION OF COMMON UTILITY PLANT
AS OF JUNE 30, 2007

Description	FPU Amount (1180, 1070)	PROPANE Amount (1010, 1070)
Land	$341,926	
Structures & Improvements	2,167,739	
Sub-Total	2,509,665	
Misc. Intangible Plant	1,833	
Office Furniture & Equipment	37,920	
Office Machines	143,866	
EDP Equipment	2,613,251	125,219
Transportation Equipment	208,796	
Communication Equipment	116,955	
Misc. Equipment	9,758	
Misc. Tangible Assets	22,969	
Accrual Capital Items	(26,500)	
Total Common Plant	$5,638,513	$125,219

Common Plant Allocation of Land & Structures & Improvements	Allocation Per Study Sq. Footage	Allocation Per Study %	Common Land & Structures	
Common - All Divisions	22,279	77.8%	1,952,519	
Local - South FL*	4,693	16.4%	411,585	(A)
Local - Merchandising	1,648	5.8%	145,561	(B)
Total	28,620	100.00%	2,509,665	

Total Common Land & Structures & Improvements $2,509,665

Check					
	1180	5,565,987	1010	189,524,083
	1070	72,526	1040	656,017
		5,638,513	1070	2,839,993
			Less 3031	(2,800,000)
			Less Propane	(125,219)
				190,094,874
				0

Allocation of Local - South FL*	6/30/2007 Billed Customers	Allocation Per Study %	Common Land & Structures	
FPU	32,654	83.7%	344,497	
Propane (Non-Regulated)	6,382	16.3%	67,088	
Total	39,036	100.0%	411,585	(A)

	PROPANE	FPU	Total	
Common Plant (1180)		5,638,513		
Less Direct to WPB		557,146		(A+B)
Remaining Common		5,081,367		
Less EDP to allocated	125,219	2,613,251	2,738,470	
Remaining Common Excl. EDP to allocate		2,468,116		

Exhibit 42.1
Pg. 4 of 6

Allocation of Utility Plant All Division	(A) Utility Plant (101,106,107)	(B) Acquisition Adjust (114)	(C) Direct Common Loc & Mer	(D) Sub-Total (A+B+C+D)	(E) Note 1 Allocation %	(F) Remaining Common	(G) Common EDP Equip	(H) Adj. Plant (E+G+H)	Consolidated Allocation %	FPU Allocation %
Florida Public Utilities										
Northwest Electric	$31,274,107	$3,691		$31,277,798	17%	$419,580	$339,722	$32,037,100	17%	18%
Northeast Electric	43,802,094			43,802,094	23%	567,667	418,120	44,787,881	23%	25%
South FL NG	69,598,476	(29,523)	344,497	69,913,450	36%	888,522	888,505	71,690,477	36%	40%
Central Florida NG*	27,169,902	1,846,102		29,016,004	15%	370,217	522,650	29,908,871	15%	17%
Merchandising	656,017		145,561	801,578	0%	-	78,398	879,976	0%	
Propane Operations										
South FL Propane*	9,035,593		67,088	9,102,681	5%	123,406	245,538	9,471,625	5%	
Central FL Propane* ^	6,096,077			6,096,077	3%	74,043	176,994	6,347,114	3%	
Northeast FL Propane*	2,462,608			2,462,608	1%	24,681	68,543	2,555,832	1%	
Total	$190,094,874	$1,820,270	$557,146	$192,472,290	100%	2,468,116	2,738,470	197,678,876	100%	100%

* Excludes acct. 3031 intangible non-compete & Goodwill account 1140.2

^ includes West FL

	EDP Equipment				Remaining Common					
	Customers Billed 6/30/2007	Allocation %	Common EDP	FPUC Allocation %	Remaining Common	Direct Common	Total Remaining Common	Allocation %	Total Common	Allocation %
Florida Public Utilities										
Northwest Electric	12,809	13%	339,722	16%	419,580	-	419,580	14%	634,083	11%
Northeast Electric	15,018	16%	418,120	19%	567,667	-	567,667	19%	985,787	17%
South FL NG	32,654	34%	888,505	41%	888,522	344,497	1,233,019	41%	2,121,524	38%
Central Florida NG*	18,820	20%	522,650	24%	370,217	-	370,217	12%	892,867	16%
Merchandising	2,826	3%	78,398		0	145,561	145,561	5%	223,959	4%
Propane Operations										
South FL Propane*	6,382	7%	245,538		123,406	67,088	190,494	6%	436,032	8%
Central FL Propane* ^	4,716	5%	176,994		74,043	-	74,043	2%	251,037	4%
Northeast FL Propane*	1,632	2%	68,543		24,681	-	24,681	1%	93,224	2%
Total	94,857	100%	2,738,470	100%	2,468,116	557,146	3,025,262	100%	5,638,513	100%

Merchandise	Allocation %	Total M & J Common EDP	Total M & J Remain Comm	Total M & J Comm Plant
South FL	59.0%	46,255	85,881	132,136
Central FL	38.0%	29,791	55,313	85,104
Northeast FL	3.0%	2,352	4,367	6,719
Total	100.0%	78,398	145,561	223,959

	Adj. Plant	Materials & Supplies SJ 45-69	Total	Note 2 Allocation %	Note 5 Allocation 80%	Note 6 Allocation %
Florida Public Utilities						
Northwest Electric	32,037,100	299,604	32,336,704	18%	14%	22%
Northeast Electric	44,787,881	657,962	45,445,843	25%	20%	48%
South FL NG	71,690,477	254,984	71,945,461	40%	32%	19%
Central Florida NG*	29,908,871	149,164	30,058,035	17%	14%	11%
Total	178,424,329	1,361,714	179,786,043	100%	80%	100%

	Note 1 Allocation %	Note 3 Allocation 70%	Note 4 Allocation 20%
Florida Public Utilities			
Northwest Electric	17%	12%	3%
Northeast Electric	23%	16%	5%
South FL NG	36%	25%	7%
Central Florida NG*	15%	11%	3%
Merchandising	0%	0%	0%
Propane Operations			
South FL Propane*	5%	4%	1%
Central FL Propane* ^	3%	2%	1%
Northeast FL Propane*	1%	1%	0%
Total	100%	70%	20%

FLORIDA PUBLIC UTILITIES
BEGINNING JANUARY 1, 2008

ADMINISTRATIVE & GENERAL SALARIES & OFFICE SUPPLIES & EXPENSES

	1840		1849		Propane	
	Payroll Base 12 mths ended June 30, 2007	%	Payroll Base 12 mths ended June 30, 2007	%	Payroll Base 12 mths ended June 30, 2007	%
121 South Florida	6,235,155.00	46.0	$6,235,155	35.0		
123 Central Florida	2,778,283	21.0	2,778,283	16.0		
114 Northwest Florida	2,199,142	16.0	2,199,142	12.0		
115 Northeast Florida - Electric	2,315,143	17.0	2,315,143	13.0		
991 South Florida - Propane			1,778,362	10.0	1,778,362	53.0
993 Central Florida - Propane			998,836	6.0	998,836	30.0
995 Northeast Florida - Propane			575,253	3.0	575,253	17.0
141 South Florida - M & J			669,110	4.0		
143 Central Florida - M & J			210,489	1.0		
945 Northeast Florida - M & J			46,447	0.0		
Total	$13,527,723	100.0	$17,806,220	100.0	$3,352,451	100.0

Allocation Ratio ID: FPUCPAYROL
Applicable to Accounts: 9211, 9212, 9213, 9214, 9215, 9216

CONSPAYROL
Applicable M & J Account: 4160.72

FPUC-Natural Gas
Docket No. 080366-GU
FPSC – Data Request No. 1
Exhibit 42.2

FLORIDA PUBLIC UTILITIES
BEGINNING JANUARY 1, 2008

PENSIONS AND OTHER EMPLOYEE BENEFITS

		1840		1849		Propane		North East Florida	
		Payroll Base 12 mths ended June 30, 2007	%	Payroll Base 12 mths ended June 30, 2007	%	Payroll Base 12 mths ended June 30, 2007	%	Payroll Base 12 mths ended June 30, 2007	%
121	South Florida	$6,235,155	46.0	$6,235,155	37.0				
123	Central Florida	2,778,283	21.0	2,778,283	16.0				
114	Northwest Florida	2,199,142	16.0	2,199,142	13.0				
115	Northeast Florida - Electric	2,315,143	17.0	2,315,143	14.0			2,315,143	80.0
991	South Florida - Propane			1,778,362	11.0	1,778,362	53.0		
993	Central Florida - Propane			998,836	6.0	998,836	30.0		
995	Northeast Florida - Propane			575,253	3.0	575,253	17.0	575,253	20.0
	Total	$13,527,723	100.0	$16,880,174	100.0	$3,352,451	100.0	$2,890,396	100.0
Allocation Ratio ID				CONSPAYRL2					
Applicable to Accounts :		9261							
		9262							
		9263							
		9264							
		9265							

Exhibit 42.2
Pg. 2 of 17

FLORIDA PUBLIC UTILITIES
AFTER TAX PAYROLL ALLOCATIONS
(JE 9's that are booked to each division)

	Je 9 12 mths ended 6/30/2007	Common Plant Basis 1840 2007 alloc 935	1849 2007 alloc 935	(A) Allocated amounts 935	Payroll Basis 1840 2007 alloc 921X, 926X	1849 2007 alloc 921X	1849 2007 alloc 926X	Allocated amounts 921X, 926X	Utility Plant Basis 1840 2007 alloc 920X	1849 2007 alloc 920X	Allocated amounts 920X	Gross Profit 1840 2007 alloc 925X	1849 2007 alloc 925X	(B) Allocated amounts 925X	*Customers 1840 2007 alloc 90X	1849 2007 alloc 90X	Allocated amounts 90X	1860.1 Direct Charges to SJ	1630.1 Ave alloc basis 1070	Allocated Amount	Total Payroll
FLORIDA PUBLIC UTILITIES																					
SOUTH FL	5,375,998	47%	38%	41,502	46%	31%	36%	(192,389)	40%	36%	879,506	41%	34%	2,843	42%	34%	105,621		16%	22,164	6,235,155
CENTRAL FLORIDA	2,462,599	19%	16%	11,652	20%	15%	16%	(83,577)	17%	15%	366,461	21%	17%	1,008	23%	20%	62,131		13%	18,009	2,778,283
NORTHWEST FL (ELECTRIC)	1,773,268	13%	11%	2,977	17%	13%	13%	(71,049)	18%	17%	415,323	19%	15%	499	16%	14%	43,491		25%	34,633	2,199,142
NORTHEAST FL (ELECTRIC)	1,704,644	21%	17%	4,601	17%	13%	14%	(71,019)	25%	23%	561,907	19%	16%	1,582	19%	16%	49,704		46%	63,724	2,315,143
PROPANE																					
SOUTH FL	1,629,735	57%	8%	2,152		11%	11%	749		5%	122,154		10%	10,826		7%	21,746				1,778,362
CENTRAL FLORIDA*	903,927	31%	5%	1,345		6%	6%	409		3%	73,292		4%	4,330		5%	15,533				998,836
NORTHEAST FL (PROPANE)	541,672	12%	2%	538		3%	4%	234		1%	24,431		2%	2,165		2%	6,213				575,253
											0			0			0				0
M&J																					
SOUTH FL	854,297		2%	538		5%		193		0%	0		1%	1,083		1%	3,107	9,892			669,110
CENTRAL FLORIDA*	205,953		1%	269		2%		77		0%	0		1%	1,083		1%	3,107				210,489
NORTHEAST FL (PROPANE)	46,498		0%	0		1%		39		0%	0		0%	0		0%	0				46,447
																					0
Clearing 1840																					
1840.9200	0																				
1840.9252	(82,837)																				
1840.9261	(176,940)																				
1840.9262	(239,668)																				
1840.9264	(6,528)																				
1840.9350	140																				
Clearing 1849																					
1849.9010	127,648																				
1849.9030	131,351																				
1849.9050	51,454																				
1849.9200	1,763,508																				
1849.9201	679,568																				
1849.9213	1,559																				
1849.9215	2,303																				
1849.9216	0																				
1849.9251	108,256																				
1849.9252	0																				
1849.9262	2,942																				
1849.9350	28,896																				
Other																					
M&S 1630.1	138,530																				
OWIP Total 1860.1	9,892																				
Penny 1860.23	(43)																				
100 1070.390	38,538 (A)																				
900 1070.3913	0 (A)																				
2280.20	0 (B)																				
Elimination 1860.23	43																				
OWIP* Elimination 1860.1																					
Total	17,806,220	200%	100%	65,574	100%	100%	100%	(416,333)	100%	100%	2,443,074	100%	100%	25,419	100%	100%	310,653	9,892	100%	138,530	17,806,220
				65,574				(416,333)			2,443,074			25,419			310,653	9,892		138,530	17,806,220
																					0

Check

2420.1	Vacation Pay	(122,414)
2320.9	AP Payroll Ded	(5,920,168)
2320.8	AP Payroll	(11,767,822)
4260.11	Charitalbe Cont	4,227
	Elimination 1860.1	(43)
OWIP*	Elimination 1860.1	0
		(17,806,220)
		0

DIV	DEPT	NAME	FCCUD	FCOBJ	FCSUB	FCSLR	FCPCNT	EMPLNO
0	100	SANTIAGO, ZUREHIDA M	000121	4010	8802		0.27	2982
0	100	SANTIAGO, ZUREHIDA M	000141	4160	391		0.07	2982
0	100	SANTIAGO, ZUREHIDA M	000141	4160	33		0.27	2982
0	100	SANTIAGO, ZUREHIDA M	000991	1070	385	000003	0.06	2982
0	100	SANTIAGO, ZUREHIDA M	000991	1070	386	000003	0.07	2982
0	100	SANTIAGO, ZUREHIDA M	000991	4010	8033		0.26	2982
0	100	VACANT - SERVICE SUPERVISOR	000121	4010	874		0.05	5355
0	100	VACANT - SERVICE SUPERVISOR	000121	4010	878		0.19	5355
0	100	VACANT - SERVICE SUPERVISOR	000121	4010	8791		0.15	5355
0	100	VACANT - SERVICE SUPERVISOR	000121	4010	8792		0.15	5355
0	100	VACANT - SERVICE SUPERVISOR	000121	4010	8793		0.15	5355
0	100	VACANT - SERVICE SUPERVISOR	000121	4020	887		0.05	5355
0	100	VACANT - SERVICE SUPERVISOR	000121	4020	892		0.05	5355
0	100	VACANT - SERVICE SUPERVISOR	000141	4160	33		0.05	5355
0	100	VACANT - SERVICE SUPERVISOR	000991	4010	878		0.05	5355
0	100	VACANT - SERVICE SUPERVISOR	000991	4010	8791		0.04	5355
0	100	VACANT - SERVICE SUPERVISOR	000991	4010	8792		0.03	5355
0	100	VACANT - SERVICE SUPERVISOR	000991	4010	8793		0.04	5355
0	101	JOYCE, JOHN K	000121	4010	874		0.80	2073
0	101	JOYCE, JOHN K	000121	4010	8801		0.05	2073
0	101	JOYCE, JOHN K	000121	4020	887		0.15	2073
0	102	MCNIE, GERARD	000121	1630	1		1.00	3048
0	102	PERRY JR., DAVID W.	000121	1630	1		1.00	2496
0	102	SERRAES, JOHN	000121	1630	1		1.00	1724
0	103	ROSSETTO, WALTER	000121	4010	870		0.35	3032
0	103	ROSSETTO, WALTER	000121	4010	874		0.20	3032
0	103	ROSSETTO, WALTER	000121	4010	8802		0.20	3032
0	103	ROSSETTO, WALTER	000121	4020	887		0.20	3032
0	103	ROSSETTO, WALTER	000991	4010	870		0.05	3032
0	104	GARFIELD, DANIEL J.	000121	4010	874		0.20	1211
0	104	GARFIELD, DANIEL J.	000121	4010	878		0.30	1211
0	104	GARFIELD, DANIEL J.	000121	4020	8931		0.14	1211
0	104	GARFIELD, DANIEL J.	000121	4020	8932		0.14	1211
0	104	GARFIELD, DANIEL J.	000121	4020	892		0.15	1211
0	104	GARFIELD, DANIEL J.	000991	4020	8931		0.05	1211
0	104	GARFIELD, DANIEL J.	000991	4020	8932		0.02	1211
0	105	CASSIDY, EILEEN B.	000121	4010	8802		0.84	2609
0	105	CASSIDY, EILEEN B.	000991	4010	8802		0.16	2609
0	105	MCLAUGHLIN, DEBRA A.	000121	4010	8802		0.84	2977
0	105	MCLAUGHLIN, DEBRA A.	000991	4010	8802		0.16	2977
0	105	FRUSCIANTE, DONNA M.	000121	4010	8802		0.84	3501
0	105	FRUSCIANTE, DONNA M.	000991	4010	8802		0.16	3501
0	105	MORELAND, DOUGLAS	000121	4010	874		0.05	3789
0	105	MORELAND, DOUGLAS	000121	4010	878		0.20	3789
0	105	MORELAND, DOUGLAS	000121	4010	8791		0.15	3789
0	105	MORELAND, DOUGLAS	000121	4010	8792		0.10	3789
0	105	MORELAND, DOUGLAS	000121	4010	8793		0.15	3789
0	105	MORELAND, DOUGLAS	000121	4020	887		0.05	3789
0	105	MORELAND, DOUGLAS	000121	4020	892		0.05	3789

DIV	DEPT	NAME	FCCUD	FCOBJ	FCSUB	FCSLR	FCPCNT	EMPLNO
0	105	MORELAND, DOUGLAS	000141	4160	33		0.10	3789
0	105	MORELAND, DOUGLAS	000991	4010	878		0.05	3789
0	105	MORELAND, DOUGLAS	000991	4010	8791		0.04	3789
0	105	MORELAND, DOUGLAS	000991	4010	8792		0.02	3789
0	105	MORELAND, DOUGLAS	000991	4010	8793		0.04	3789
0	105	LEWIS, DUANE P.	000121	4010	874		0.05	2532
0	105	LEWIS, DUANE P.	000121	4010	878		0.19	2532
0	105	LEWIS, DUANE P.	000121	4010	8791		0.15	2532
0	105	LEWIS, DUANE P.	000121	4010	8792		0.15	2532
0	105	LEWIS, DUANE P.	000121	4010	8793		0.15	2532
0	105	LEWIS, DUANE P.	000121	4020	887		0.05	2532
0	105	LEWIS, DUANE P.	000121	4020	892		0.05	2532
0	105	LEWIS, DUANE P.	000141	4160	33		0.05	2532
0	105	LEWIS, DUANE P.	000991	4010	878		0.05	2532
0	105	LEWIS, DUANE P.	000991	4010	8791		0.04	2532
0	105	LEWIS, DUANE P.	000991	4010	8792		0.03	2532
0	105	LEWIS, DUANE P.	000991	4010	8793		0.04	2532
0	105	PARKER, EVERITTE R.	000121	4010	874		0.05	1812
0	105	PARKER, EVERITTE R.	000121	4010	878		0.19	1812
0	105	PARKER, EVERITTE R.	000121	4010	8791		0.15	1812
0	105	PARKER, EVERITTE R.	000121	4010	8792		0.15	1812
0	105	PARKER, EVERITTE R.	000121	4010	8793		0.15	1812
0	105	PARKER, EVERITTE R.	000121	4020	887		0.05	1812
0	105	PARKER, EVERITTE R.	000121	4020	892		0.05	1812
0	105	PARKER, EVERITTE R.	000141	4160	33		0.05	1812
0	105	PARKER, EVERITTE R.	000991	4010	878		0.05	1812
0	105	PARKER, EVERITTE R.	000991	4010	8791		0.04	1812
0	105	PARKER, EVERITTE R.	000991	4010	8792		0.03	1812
0	105	PARKER, EVERITTE R.	000991	4010	8793		0.04	1812
0	106	MONDS, LILA L.	000121	4010	878		0.27	3877
0	106	MONDS, LILA L.	000121	4020	8931		0.28	3877
0	106	MONDS, LILA L.	000123	4010	878		0.16	3877
0	106	MONDS, LILA L.	000123	4020	8931		0.16	3877
0	106	MONDS, LILA L.	000991	4010	878		0.04	3877
0	106	MONDS, LILA L.	000991	4020	8931		0.04	3877
0	106	MONDS, LILA L.	000993	4010	878		0.02	3877
0	106	MONDS, LILA L.	000993	4020	8931		0.02	3877
0	106	MONDS, LILA L.	000995	4010	878		0.00	3877
0	106	MONDS, LILA L.	000995	4020	8931		0.01	3877
0	106	RIPPEY, SHANE	000121	4010	878		0.30	2522
0	106	RIPPEY, SHANE	000121	4020	8931		0.25	2522
0	106	RIPPEY, SHANE	000123	4010	878		0.16	2522
0	106	RIPPEY, SHANE	000123	4020	8931		0.16	2522
0	106	RIPPEY, SHANE	000991	4010	878		0.05	2522
0	106	RIPPEY, SHANE	000991	4020	8931		0.04	2522
0	106	RIPPEY, SHANE	000993	4010	878		0.02	2522
0	106	RIPPEY, SHANE	000993	4020	8931		0.02	2522
0	106	BRUTZMAN, WILLIAM J.	000121	4010	874		0.62	2585
0	106	BRUTZMAN, WILLIAM J.	000121	4020	887		0.26	2585

DIV	DEPT	NAME	FCCUD	FCOBJ	FCSUB	FCSLR	FCPCNT	EMPLNO
0	106	BRUTZMAN, WILLIAM J.	000121	4020	892		0.12	2585
0	106	PETERSON, BRENDA	000121	4010	8802		0.71	250
0	106	PETERSON, BRENDA	000141	4160	33		0.15	250
0	106	PETERSON, BRENDA	000991	4010	8033		0.03	250
0	106	PETERSON, BRENDA	000991	4010	8802		0.07	250
0	106	PETERSON, BRENDA	000991	4010	930		0.04	250
0	106	FAVORS, CALVIN R.	000121	1630	1		0.12	2742
0	106	FAVORS, CALVIN R.	000121	4010	870		0.15	2742
0	106	FAVORS, CALVIN R.	000121	4010	874		0.15	2742
0	106	FAVORS, CALVIN R.	000121	4010	878		0.15	2742
0	106	FAVORS, CALVIN R.	000121	4020	885		0.12	2742
0	106	FAVORS, CALVIN R.	000121	4020	887		0.12	2742
0	106	FAVORS, CALVIN R.	000121	4020	892		0.12	2742
0	106	FAVORS, CALVIN R.	000121	4020	935		0.02	2742
0	106	FAVORS, CALVIN R.	000141	4160	33		0.05	2742
0	106	POINDEXTER, CICELY	000121	4010	8802		0.89	0
0	106	POINDEXTER, CICELY	000991	4010	8802		0.11	0
0	106	SEATON, PAULA S.	000121	4010	870		0.35	2526
0	106	SEATON, PAULA S.	000121	4010	874		0.20	2526
0	106	SEATON, PAULA S.	000121	4010	8802		0.20	2526
0	106	SEATON, PAULA S.	000121	4020	887		0.20	2526
0	106	SEATON, PAULA S.	000991	4010	870		0.05	2526
0	108	WADE, SHARON A.	000991	4010	8033		0.50	2369
0	108	WADE, SHARON A.	000991	4010	8802		0.25	2369
0	108	WADE, SHARON A.	000991	4020	896		0.25	2369
0	108	KNIGHT, RICHARD P.	000141	4160	33		0.05	5355
0	108	KNIGHT, RICHARD P.	000991	4010	8033		0.25	5356
0	108	KNIGHT, RICHARD P.	000991	4010	870		0.25	5357
0	108	KNIGHT, RICHARD P.	000991	4010	901		0.05	5358
0	108	KNIGHT, RICHARD P.	000991	4010	911		0.25	5359
0	108	KNIGHT, RICHARD P.	000991	4020	885		0.15	5360
0	108	MATTEI-YARNOLD, YSTEB	000991	4010	8033		0.50	3071
0	108	MATTEI-YARNOLD, YSTEB	000991	4010	8802		0.25	3071
0	108	MATTEI-YARNOLD, YSTEB	000991	4020	896		0.25	3071
0	109	STOTTSBERRY, DONALD M.	000114	1840	1		0.08	2861
0	109	STOTTSBERRY, DONALD M.	000115	1840	1		0.10	2861
0	109	STOTTSBERRY, DONALD M.	000121	1840	1		0.67	2861
0	109	STOTTSBERRY, DONALD M.	000123	1840	1		0.13	2861
0	109	STOTTSBERRY, DONALD M.	000993	4010	8032		0.02	2861
0	201	SANTAELLA, MARY C.	000121	4010	901		0.75	2933
0	201	SANTAELLA, MARY C.	000121	4010	903		0.08	2933
0	201	SANTAELLA, MARY C.	000991	4010	901		0.15	2933
0	201	SANTAELLA, MARY C.	000991	4010	903		0.02	2933
0	201	RIPPEY, LORI S.	000121	4010	901		0.75	2324
0	201	RIPPEY, LORI S.	000121	4010	903		0.08	2324
0	201	RIPPEY, LORI S.	000991	4010	901		0.15	2324
0	201	RIPPEY, LORI S.	000991	4010	903		0.02	2324
0	201	AARONS, KEON S.	000121	4010	903		0.81	2775
0	201	AARONS, KEON S.	000141	4160	6		0.03	2775

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0	201	AARONS, KEON S.	000991	4010	903		0.16	2775
0	201	BOYD, CHARLOTTE M.	000121	4010	903		0.81	3107
0	201	BOYD, CHARLOTTE M.	000141	4160	6		0.03	3107
0	201	BOYD, CHARLOTTE M.	000991	4010	903		0.16	3107
0	201	FEDINA, PATRICIA G.	000121	4010	903		0.81	3666
0	201	FEDINA, PATRICIA G.	000141	4160	6		0.03	3666
0	201	FEDINA, PATRICIA G.	000991	4010	903		0.16	3666
0	201	HAGANS, WILLIAM	000121	4010	903		0.81	2620
0	201	HAGANS, WILLIAM	000141	4160	6		0.03	2620
0	201	HAGANS, WILLIAM	000991	4010	903		0.16	2620
0	201	HILL, TARA	000121	4010	903		0.81	2695
0	201	HILL, TARA	000141	4160	6		0.03	2695
0	201	HILL, TARA	000991	4010	903		0.16	2695
0	201	JAENTSCHKE, JEAN	000121	4010	903		0.81	3108
0	201	JAENTSCHKE, JEAN	000141	4160	6		0.03	3108
0	201	JAENTSCHKE, JEAN	000991	4010	903		0.16	3108
0	201	MCCLYMONT, MARTA	000121	4010	903		0.81	3056
0	201	MCCLYMONT, MARTA	000141	4160	6		0.03	3056
0	201	MCCLYMONT, MARTA	000991	4010	903		0.16	3056
0	201	PORTALES, ADIEL	000121	4010	903		0.81	2781
0	201	PORTALES, ADIEL	000141	4160	6		0.03	2781
0	201	PORTALES, ADIEL	000991	4010	903		0.16	2781
0	201	BASHFORD, MAXINE J.	000121	4010	903		0.81	2839
0	201	BASHFORD, MAXINE J.	000141	4160	6		0.03	2839
0	201	BASHFORD, MAXINE J.	000991	4010	903		0.16	2839
0	201	SHYNE, H. DENISE	000121	4010	903		0.81	3052
0	201	SHYNE, H. DENISE	000141	4160	6		0.03	3052
0	201	SHYNE, H. DENISE	000991	4010	903		0.16	3052
0	201	SIMPSON, SHEILA C.	000121	4010	903		0.81	2347
0	201	SIMPSON, SHEILA C.	000141	4160	6		0.03	2347
0	201	SIMPSON, SHEILA C.	000991	4010	903		0.16	2347
0	201	VARGAS, LUIS E	000121	4010	903		0.81	3002
0	201	VARGAS, LUIS E	000141	4160	6		0.03	3002
0	201	VARGAS, LUIS E	000991	4010	903		0.16	3002
0	201	WHITE, LISA	000121	4010	903		0.81	2950
0	201	WHITE, LISA	000141	4160	6		0.03	2950
0	201	WHITE, LISA	000991	4010	903		0.16	2950
0	201	WHITE, SANDRA	000114	4010	903		0.01	2909
0	201	WHITE, SANDRA	000115	4010	903		0.01	2909
0	201	WHITE, SANDRA	000121	4010	903		0.79	2909
0	201	WHITE, SANDRA	000123	4010	903		0.03	2909
0	201	WHITE, SANDRA	000991	4010	903		0.16	2909
0	201	ZALDIVAR, MAGBIS Y.	000121	4010	903		0.81	3035
0	201	ZALDIVAR, MAGBIS Y.	000141	4160	6		0.03	3035
0	201	ZALDIVAR, MAGBIS Y.	000991	4010	903		0.16	3035
0	202	BYTHWOOD, CHRIS	000121	4010	903		0.84	2901
0	202	BYTHWOOD, CHRIS	000991	4010	903		0.16	2901
0	202	CHANDLER, DAVID G	000121	4010	903		0.84	1644
0	202	CHANDLER, DAVID G	000991	4010	903		0.16	1644

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0	202	MONTGOMERY, DAVE	000121	4010	903		0.84	433
0	202	MONTGOMERY, DAVE	000991	4010	903		0.16	433
0	301	SEAGRAVE, MARC S.	000114	4010	907	061050	0.10	3800
0	301	SEAGRAVE, MARC S.	000115	4010	907	061050	0.10	3800
0	301	SEAGRAVE, MARC S.	000121	4010	907	071450	0.10	3800
0	301	SEAGRAVE, MARC S.	000121	4010	911		0.30	3800
0	301	SEAGRAVE, MARC S.	000123	4010	907	071450	0.10	3800
0	301	SEAGRAVE, MARC S.	000123	4010	911		0.15	3800
0	301	SEAGRAVE, MARC S.	000991	4010	911		0.06	3800
0	301	SEAGRAVE, MARC S.	000993	4010	911		0.06	3800
0	301	SEAGRAVE, MARC S.	000995	4010	911		0.03	3800
0	301	EYSIE, JOE	000114	4010	907	061050	0.17	2932
0	301	EYSIE, JOE	000115	4010	907	061050	0.19	2932
0	301	EYSIE, JOE	000121	4010	907	071450	0.41	2932
0	301	EYSIE, JOE	000123	4010	907	071450	0.23	2932
0	301	BUTCHER, DALE M.	000121	4010	908	071050	0.05	1505
0	301	BUTCHER, DALE M.	000121	4010	908	071450	0.05	1505
0	301	BUTCHER, DALE M.	000121	4010	9121		0.85	1505
0	301	BUTCHER, DALE M.	000991	4010	912		0.05	1505
0	301	HADLEY, GARTH A	000121	4010	908	070250	0.15	2939
0	301	HADLEY, GARTH A	000121	4010	908	070650	0.10	2939
0	301	HADLEY, GARTH A	000121	4010	9121		0.59	2939
0	301	HADLEY, GARTH A	000991	4010	912		0.16	2939
0	301	JAIKARAN, AMANDA	000121	4010	908	070250	0.15	2885
0	301	JAIKARAN, AMANDA	000121	4010	908	070650	0.10	2885
0	301	JAIKARAN, AMANDA	000121	4010	9121		0.59	2885
0	301	JAIKARAN, AMANDA	000991	4010	912		0.16	2885
0	301	SMITH, JARRETT J.	000121	4010	908	070250	0.15	2843
0	301	SMITH, JARRETT J.	000121	4010	908	070650	0.10	2843
0	301	SMITH, JARRETT J.	000121	4010	9121		0.59	2843
0	301	SMITH, JARRETT J.	000991	4010	912		0.16	2843
0	301	RUINI, MAURO	000121	4010	908	070250	0.15	3044
0	301	RUINI, MAURO	000121	4010	908	070650	0.10	3044
0	301	RUINI, MAURO	000121	4010	9121		0.59	3044
0	301	RUINI, MAURO	000991	4010	912		0.16	3044
0	301	ARAYA, GIACINTA A.	000121	4010	908	070550	0.00	2046
0	301	ARAYA, GIACINTA A.	000121	4010	908	070650	0.35	2046
0	301	ARAYA, GIACINTA A.	000121	4010	9121		0.35	2046
0	301	ARAYA, GIACINTA A.	000141	4160	52		0.25	2046
0	301	ARAYA, GIACINTA A.	000991	4010	912		0.05	2046
0	301	STEPHERSON, LLEWELLYN W.	000121	4010	908	070150	0.20	2682
0	301	STEPHERSON, LLEWELLYN W.	000121	4010	9121		0.70	2682
0	301	STEPHERSON, LLEWELLYN W.	000991	4010	912		0.10	2682
0	301	MCMAHON, JULIE M	000121	4010	908	070150	0.20	2771
0	301	MCMAHON, JULIE M	000121	4010	9121		0.70	2771
0	301	MCMAHON, JULIE M	000991	4010	912		0.10	2771
0	301	PALMER, TIFFANY	000114	4010	908	061050	0.05	3102
0	301	PALMER, TIFFANY	000115	4010	908	061050	0.05	3102
0	301	PALMER, TIFFANY	000121	4010	908	071450	0.05	3102

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0	301	PALMER, TIFFANY	000121	4010	9121		0.51	3102
0	301	PALMER, TIFFANY	000123	4010	908	071450	0.05	3102
0	301	PALMER, TIFFANY	000123	4010	9121		0.24	3102
0	301	PALMER, TIFFANY	000991	4010	912		0.02	3102
0	301	PALMER, TIFFANY	000993	4010	912		0.02	3102
0	301	PALMER, TIFFANY	000995	4010	912		0.01	3102
0	301	HUMPHREY, WINSTON A.	000121	4010	908	070450	0.05	2434
0	301	HUMPHREY, WINSTON A.	000121	4010	908	071450	0.05	2434
0	301	HUMPHREY, WINSTON A.	000121	4010	9121		0.85	2434
0	301	HUMPHREY, WINSTON A.	000991	4010	912		0.05	2434
0	301	KEIP, DOUGLAS C	000121	4010	908	071450	0.20	1006
0	301	KEIP, DOUGLAS C	000121	4010	9121		0.64	1006
0	301	KEIP, DOUGLAS C	000991	4010	912		0.16	1006
0	301	PESCATORE, MELISSA	000121	1070	376120	000003	0.10	2626
0	301	PESCATORE, MELISSA	000121	1070	376140	000003	0.10	2626
0	301	PESCATORE, MELISSA	000121	1070	380105	000003	0.03	2626
0	301	PESCATORE, MELISSA	000121	1080	3802		0.02	2626
0	301	PESCATORE, MELISSA	000121	4010	908	071450	0.10	2626
0	301	PESCATORE, MELISSA	000121	4010	9121		0.41	2626
0	301	PESCATORE, MELISSA	000123	4010	908	071450	0.05	2626
0	301	PESCATORE, MELISSA	000123	4010	9121		0.16	2626
0	301	PESCATORE, MELISSA	000991	4010	912		0.02	2626
0	301	PESCATORE, MELISSA	000993	4010	912		0.01	2626
0	301	COSTLOW, JOHN M.	000121	4010	908	071450	0.20	3022
0	301	COSTLOW, JOHN M.	000121	4010	9121		0.56	3022
0	301	COSTLOW, JOHN M.	000141	4160	6		0.10	3022
0	301	COSTLOW, JOHN M.	000991	4010	912		0.14	3022
0	301	RATTLER, SANDRA L.	000121	4010	908	071450	0.20	291
0	301	RATTLER, SANDRA L.	000121	4010	9121		0.63	291
0	301	RATTLER, SANDRA L.	000141	4160	52		0.05	291
0	301	RATTLER, SANDRA L.	000991	4010	912		0.12	291
0	301	LIFTON, CAROL M.	000105	1849	920		0.40	3046
0	301	LIFTON, CAROL M.	000121	4010	9122		0.30	3046
0	301	LIFTON, CAROL M.	000123	4010	9122		0.15	3046
0	301	LIFTON, CAROL M.	000991	4010	912		0.06	3046
0	301	LIFTON, CAROL M.	000993	4010	912		0.06	3046
0	301	LIFTON, CAROL M.	000995	4010	912		0.03	3046
0	301	SCOTTEN, LAURA C.	000105	1849	920		0.40	2708
0	301	SCOTTEN, LAURA C.	000121	4010	9122		0.30	2708
0	301	SCOTTEN, LAURA C.	000123	4010	9122		0.15	2708
0	301	SCOTTEN, LAURA C.	000991	4010	912		0.06	2708
0	301	SCOTTEN, LAURA C.	000993	4010	912		0.06	2708
0	301	SCOTTEN, LAURA C.	000995	4010	912		0.03	2708
0	301	MCLEAN, MICHELLE	000121	4010	9121		0.46	3090
0	301	MCLEAN, MICHELLE	000121	4010	908	071450	0.05	3090
0	301	MCLEAN, MICHELLE	000121	4010	908	070650	0.10	3090
0	301	MCLEAN, MICHELLE	000141	4160	54		0.04	3090
0	301	MCLEAN, MICHELLE	000991	1070	385	000003	0.20	3090
0	301	MCLEAN, MICHELLE	000991	1070	386	000003	0.05	3090

DIV	DEPT	NAME	FCCUD	FCOBJ	FCSUB	FCSLR	FCPCNT	EMPLNO
0	301	MCLEAN, MICHELLE	000991	4010	916		0.10	3090
0	301	RODRIGUEZ, AVILIO	000121	4010	9121		0.46	6047
0	301	RODRIGUEZ, AVILIO	000121	4010	908	071450	0.05	6047
0	301	RODRIGUEZ, AVILIO	000121	4010	908	070650	0.10	6047
0	301	RODRIGUEZ, AVILIO	000141	4160	54		0.04	6047
0	301	RODRIGUEZ, AVILIO	000991	1070	385	000003	0.20	6047
0	301	RODRIGUEZ, AVILIO	000991	1070	386	000003	0.05	6047
0	301	RODRIGUEZ, AVILIO	000991	4010	916		0.10	6047
0	301	CZAJKOWSKI, DAVID MARC	000121	4010	9121		0.46	3089
0	301	CZAJKOWSKI, DAVID MARC	000121	4010	908	071450	0.05	3089
0	301	CZAJKOWSKI, DAVID MARC	000121	4010	908	070650	0.10	3089
0	301	CZAJKOWSKI, DAVID MARC	000141	4160	54		0.04	3089
0	301	CZAJKOWSKI, DAVID MARC	000991	1070	385	000003	0.20	3089
0	301	CZAJKOWSKI, DAVID MARC	000991	1070	386	000003	0.05	3089
0	301	CZAJKOWSKI, DAVID MARC	000991	4010	916		0.10	3089
0	301	FITZGERALD, SHARON L.	000121	4010	9162		0.84	3086
0	301	FITZGERALD, SHARON L.	000991	4010	916		0.16	3086
0	301	ROHOMAN, ABIDALI	000121	4010	813		0.63	2821
0	301	ROHOMAN, ABIDALI	000123	4010	813		0.37	2821
0	301	SEAY, CATHERINE T.	000121	4010	9121		0.64	3095
0	301	SEAY, CATHERINE T.	000121	4010	908	070250	0.10	3095
0	301	SEAY, CATHERINE T.	000121	4010	908	070650	0.10	3095
0	301	SEAY, CATHERINE T.	000991	4010	912		0.16	3095
0	301	MCGOLDRICK, WILLIAM J.	000121	4010	908	070450	0.05	1599
0	301	MCGOLDRICK, WILLIAM J.	000121	4010	908	071450	0.10	1599
0	301	MCGOLDRICK, WILLIAM J.	000121	4010	9121		0.78	1599
0	301	MCGOLDRICK, WILLIAM J.	000123	4010	908	070450	0.01	1599
0	301	MCGOLDRICK, WILLIAM J.	000123	4010	908	071450	0.01	1599
0	301	MCGOLDRICK, WILLIAM J.	000123	4010	9121		0.05	1599
0	401	KNOWLES, TERRY D.	000102	1849	920		1.00	2790
0	401	COMEAUX, ADAM S.	000102	1849	920		1.00	2988
0	401	FATH, DENNIS CARL	000102	1849	920		1.00	1231
0	401	MERCADO, ESPERANZA	000102	1849	920		1.00	58944
0	401	VACANT	000102	1849	920		1.00	0
0	401	MARINELLI, MICHAEL R.	000102	1849	920		1.00	2669
0	401	MESSINA, VINCENT M.	000102	1849	920		1.00	2573
0	401	LEVERT, PAMELA D.	000102	1849	920		1.00	881
0	401	GAUSE, JAMES F.	000102	1849	920		1.00	3029
0	401	WOLF, MICHAEL A.	000102	1849	920		1.00	2741
0	501	ALLEN, ROBIN L.	000101	1849	920		1.00	2010
0	501	BELLECHASES, DINA	000101	1849	920		1.00	815
0	501	BHATIA, NADIRA	000101	1849	920		1.00	3040
0	501	BURNS, PAMELA B.	000101	1849	920		1.00	3031
0	501	COX, DOREEN B.	000101	1849	920		1.00	2486
0	501	VACANT	000101	1849	920		1.00	2326
0	501	JAEGER, MELANIE	000101	1849	920		1.00	2937
0	501	KHOJASTEH, MEHRDAD	000101	1849	920		1.00	2334
0	501	LUNDGREN, APRIL	000101	1849	920		1.00	2627
0	501	MAHAN, CLAUDETTE A.	000101	1849	920		1.00	2848

DIV	DEPT	NAME	FCCUD	FCOBJ	FCSUB	FCSLR	FCPCNT	EMPLNO
0	501	MARTIN, CHERYL M.	000101	1849	920		1.00	128
0	501	CHRISTIANSEN, JENNIFER R.	000101	1849	920		1.00	3098
0	501	NAPIER, MICHELLE D.	000101	1849	920		1.00	750
0	501	JONES, TANZANIKA L.	000101	1849	920		1.00	2340
0	501	STARR, JENNIFER	000101	1849	920		1.00	1500
0	501	WILSON, AUDRA	000101	1849	920		1.00	3021
0	501	YOUNG, CURTIS D.	000101	1849	920		0.42	2616
0	501	YOUNG, CURTIS D.	000114	4010	910	061050	0.08	2616
0	501	YOUNG, CURTIS D.	000114	4010	928		0.10	2616
0	501	YOUNG, CURTIS D.	000115	4010	910	061050	0.10	2616
0	501	YOUNG, CURTIS D.	000115	4010	928		0.12	2616
0	501	YOUNG, CURTIS D.	000121	4010	910	071450	0.10	2616
0	501	YOUNG, CURTIS D.	000123	4010	910	071450	0.08	2616
0	501	MESITE JR, JAMES V.	000101	1849	920		0.90	2048
0	501	MESITE JR, JAMES V.	000121	4010	928		0.05	2048
0	501	MESITE JR, JAMES V.	000123	4010	928		0.05	2048
0	501	PALACIOS, CINDY J.	000101	1630	1		0.60	2343
0	501	PALACIOS, CINDY J.	000101	1849	920		0.40	2343
0	501	ALVAREZ, MARIO	000101	1849	920		0.38	2484
0	501	ALVAREZ, MARIO	000121	4010	8801		0.26	2484
0	501	ALVAREZ, MARIO	000121	4010	905		0.13	2484
0	501	ALVAREZ, MARIO	000121	4010	9162		0.13	2484
0	501	ALVAREZ, MARIO	000991	4010	8801		0.05	2484
0	501	ALVAREZ, MARIO	000991	4010	905		0.03	2484
0	501	ALVAREZ, MARIO	000991	4010	916		0.02	2484
0	501	CARSON, WILLIE	000101	1849	920		0.38	3738
0	501	CARSON, WILLIE	000121	4010	8801		0.26	3738
0	501	CARSON, WILLIE	000121	4010	905		0.13	3738
0	501	CARSON, WILLIE	000121	4010	9162		0.13	3738
0	501	CARSON, WILLIE	000991	4010	8801		0.05	3738
0	501	CARSON, WILLIE	000991	4010	905		0.03	3738
0	501	CARSON, WILLIE	000991	4010	916		0.02	3738
0	501	RANCE, DONNA M	000101	1630	1		0.84	1898
0	501	RANCE, DONNA M	000101	1849	920		0.16	1898
0	501	RUHLIN, SHERRI L	000101	1630	1		0.84	3036
0	501	RUHLIN, SHERRI L	000101	1849	920		0.16	3036
0	501	BITTLE, SARAH J.	000101	1630	1		0.84	2652
0	501	BITTLE, SARAH J.	000101	1849	920		0.16	2652
0	501	MCCAULEY, LORI ANN	000101	1630	1		0.84	2518
0	501	MCCAULEY, LORI ANN	000101	1849	920		0.16	2518
0	502	BONN, WAYNE C.	000104	1849	920		1.00	2563
0	502	MATTHEW, CHERIE A.	000104	1849	920		1.00	3057
0	502	FATTA, KIMBERLY A.	000104	1849	920		1.00	3072
0	503	ENGLISH, JOHN T.	000103	1849	9201		1.00	1177
0	503	STEIN, CHARLES L.	000103	1849	9201		1.00	1142
0	503	BACHMAN, GEORGE M.	000103	1849	9201		1.00	1695
0	503	ERDEK, BONNIE L.	000103	1849	920		1.00	3493
0	503	SAYLOR, CHAUNDRA L.	000103	1849	920		1.00	2500
0	503	SCHNEIDERMANN, MARC L.	000106	1849	920		0.50	240

DIV	DEPT	NAME	FCCUD	FCOBJ	FCSUB	FCSLR	FCPCNT	EMPLNO
0	503	SCHNEIDERMANN, MARC L.	000106	1849	9251		0.25	240
0	503	SCHNEIDERMANN, MARC L.	000121	4010	813		0.17	240
0	503	SCHNEIDERMANN, MARC L.	000123	4010	813		0.08	240
0	503	KENNEDY, BARRY D.	000121	4010	870		0.84	2803
0	503	KENNEDY, BARRY D.	000991	4010	870		0.16	2803
0	504	ARTHUR, PAMELA S	000100	1849	901		1.00	1880
0	504	HUGHLEY-GRANT, STEPHANIE S.	000100	1849	901		1.00	2523
0	504	OAKES, KATHLEEN M	000100	1849	903		1.00	844
0	504	PETTY, JULIA K.	000100	1849	903		1.00	2472
0	504	WILLIS, ARNELL	000100	1849	903		1.00	2370
0	504	VACANT-CR ANALYSIS	000100	1849	901		1.00	0
0	507	STUCKART, GERARD	000106	1849	9251		1.00	2915
0	507	DELAHAY, DANIEL	000121	4010	9251		0.51	3047
0	507	DELAHAY, DANIEL	000123	4010	9251		0.25	3047
0	507	DELAHAY, DANIEL	000991	4010	9251		0.14	3047
0	507	DELAHAY, DANIEL	000993	4010	9251		0.06	3047
0	507	DELAHAY, DANIEL	000995	4010	9251		0.04	3047
0	507	VACANT	000114	4010	9251		0.46	0
0	507	VACANT	000115	4010	9251		0.54	0
0	702	VACANT-GAS LOGISTICS	000121	4010	813		0.63	0
0	702	VACANT-GAS LOGISTICS	000123	4010	813		0.37	0
0	702	SNYDER, CHRISTOPHER M.	000121	4010	813		0.63	1862
0	702	SNYDER, CHRISTOPHER M.	000123	4010	813		0.37	1862
3	106	REGISTER, L. WAYNE	000123	1630	1		0.90	1017
3	106	REGISTER, L. WAYNE	000123	1840	1		0.05	1017
3	106	REGISTER, L. WAYNE	000143	4160	33		0.05	1017
3	106	BLAND, FRED L.	000123	1840	1		0.05	1943
3	106	BLAND, FRED L.	000123	4010	870		0.36	1943
3	106	BLAND, FRED L.	000123	4010	874		0.15	1943
3	106	BLAND, FRED L.	000123	4010	878		0.05	1943
3	106	BLAND, FRED L.	000123	4020	885		0.31	1943
3	106	BLAND, FRED L.	000143	4160	33		0.02	1943
3	106	BLAND, FRED L.	000993	4010	870		0.03	1943
3	106	BLAND, FRED L.	000993	4010	878		0.01	1943
3	106	BLAND, FRED L.	000993	4020	885		0.02	1943
3	106	MIDDLETON, DONALD E.	000123	1840	1		0.05	134
3	106	MIDDLETON, DONALD E.	000123	4010	870		0.36	134
3	106	MIDDLETON, DONALD E.	000123	4010	874		0.15	134
3	106	MIDDLETON, DONALD E.	000123	4010	878		0.05	134
3	106	MIDDLETON, DONALD E.	000123	4020	885		0.31	134
3	106	MIDDLETON, DONALD E.	000143	4160	33		0.02	134
3	106	MIDDLETON, DONALD E.	000993	4010	870		0.03	134
3	106	MIDDLETON, DONALD E.	000993	4010	878		0.01	134
3	106	MIDDLETON, DONALD E.	000993	4020	885		0.02	134
3	106	THOMAS JR, WILLIAM A	000123	1840	1		0.05	2719
3	106	THOMAS JR, WILLIAM A	000123	4010	870		0.36	2719
3	106	THOMAS JR, WILLIAM A	000123	4010	874		0.15	2719
3	106	THOMAS JR, WILLIAM A	000123	4010	878		0.05	2719
3	106	THOMAS JR, WILLIAM A	000123	4020	885		0.31	2719

DIV	DEPT	NAME	FCCUD	FCOBJ	FCSUB	FCSLR	FCPCNT	EMPLNO
3	106	THOMAS JR, WILLIAM A	000143	4160	33		0.02	2719
3	106	THOMAS JR, WILLIAM A	000993	4010	870		0.03	2719
3	106	THOMAS JR, WILLIAM A	000993	4010	878		0.01	2719
3	106	THOMAS JR, WILLIAM A	000993	4020	885		0.02	2719
3	106	PENDLETON, GLENN E.	000123	1840	1		0.05	1521
3	106	PENDLETON, GLENN E.	000123	4010	870		0.15	1521
3	106	PENDLETON, GLENN E.	000123	4010	874		0.58	1521
3	106	PENDLETON, GLENN E.	000123	4010	878		0.05	1521
3	106	PENDLETON, GLENN E.	000123	4020	885		0.15	1521
3	106	PENDLETON, GLENN E.	000143	4160	33		0.02	1521
3	106	SANDSTROM, SUSAN L	000123	4010	9121		0.70	2539
3	106	SANDSTROM, SUSAN L	000123	4010	908	071450	0.05	2539
3	106	SANDSTROM, SUSAN L	000123	4010	908	070650	0.10	2539
3	106	SANDSTROM, SUSAN L	000143	4160	33		0.04	2539
3	106	SANDSTROM, SUSAN L	000993	4010	912		0.11	2539
3	106	CLIFFORD, RITA J.	000123	1840	1		0.07	2510
3	106	CLIFFORD, RITA J.	000123	4010	8802		0.83	2510
3	106	CLIFFORD, RITA J.	000993	4010	8802		0.10	2510
3	106	DAVIS, CLEOTA KATRINA	000123	1840	1		0.07	122
3	106	DAVIS, CLEOTA KATRINA	000123	4010	8802		0.83	122
3	106	DAVIS, CLEOTA KATRINA	000993	4010	8802		0.10	122
3	108	BLAZINA, GREG S.	000123	1840	1		0.05	2666
3	108	BLAZINA, GREG S.	000123	4010	870		0.07	2666
3	108	BLAZINA, GREG S.	000123	4020	885		0.06	2666
3	108	BLAZINA, GREG S.	000143	4160	33		0.02	2666
3	108	BLAZINA, GREG S.	000993	4010	8033		0.10	2666
3	108	BLAZINA, GREG S.	000993	4010	870		0.25	2666
3	108	BLAZINA, GREG S.	000993	4010	903		0.05	2666
3	108	BLAZINA, GREG S.	000993	4010	911		0.25	2666
3	108	BLAZINA, GREG S.	000993	4020	885		0.15	2666
3	108	POMEROY, KEITH	000123	1840	1		0.05	2826
3	108	POMEROY, KEITH	000123	4010	870		0.07	2826
3	108	POMEROY, KEITH	000123	4020	885		0.06	2826
3	108	POMEROY, KEITH	000143	4160	33		0.02	2826
3	108	POMEROY, KEITH	000993	4010	8033		0.10	2826
3	108	POMEROY, KEITH	000993	4010	870		0.25	2826
3	108	POMEROY, KEITH	000993	4010	901		0.05	2826
3	108	POMEROY, KEITH	000993	4010	911		0.25	2826
3	108	POMEROY, KEITH	000993	4020	885		0.15	2826
3	201	CARSON, MELINDA L.	000123	4010	8801		0.02	2968
3	201	CARSON, MELINDA L.	000123	4010	8802		0.10	2968
3	201	CARSON, MELINDA L.	000123	4010	903		0.76	2968
3	201	CARSON, MELINDA L.	000993	4010	8033		0.02	2968
3	201	CARSON, MELINDA L.	000993	4010	8802		0.02	2968
3	201	CARSON, MELINDA L.	000993	4010	903		0.08	2968
3	201	MOORE, SANDRA L.	000123	4010	8801		0.02	3027
3	201	MOORE, SANDRA L.	000123	4010	8802		0.10	3027
3	201	MOORE, SANDRA L.	000123	4010	903		0.76	3027
3	201	MOORE, SANDRA L.	000993	4010	8033		0.02	3027

DIV	DEPT	NAME	FCCUD	FCOBJ	FCSUB	FCSLR	FCPCNT	EMPLNO
3	201	MOORE, SANDRA L.	000993	4010	8802		0.02	3027
3	201	MOORE, SANDRA L.	000993	4010	903		0.08	3027
3	201	FINIGAN, CHRISTINA	000123	4010	8801		0.02	2924
3	201	FINIGAN, CHRISTINA	000123	4010	8802		0.10	2924
3	201	FINIGAN, CHRISTINA	000123	4010	903		0.76	2924
3	201	FINIGAN, CHRISTINA	000993	4010	8033		0.02	2924
3	201	FINIGAN, CHRISTINA	000993	4010	8802		0.02	2924
3	201	FINIGAN, CHRISTINA	000993	4010	903		0.08	2924
3	201	GRIMM, AILEEN E.	000123	4010	8801		0.02	2816
3	201	GRIMM, AILEEN E.	000123	4010	8802		0.10	2816
3	201	GRIMM, AILEEN E.	000123	4010	903		0.76	2816
3	201	GRIMM, AILEEN E.	000993	4010	8033		0.02	2816
3	201	GRIMM, AILEEN E.	000993	4010	8802		0.02	2816
3	201	GRIMM, AILEEN E.	000993	4010	903		0.08	2816
3	201	ROSARIO, MILLIE G.	000123	4010	8801		0.02	3039
3	201	ROSARIO, MILLIE G.	000123	4010	8802		0.10	3039
3	201	ROSARIO, MILLIE G.	000123	4010	903		0.76	3039
3	201	ROSARIO, MILLIE G.	000993	4010	8033		0.02	3039
3	201	ROSARIO, MILLIE G.	000993	4010	8802		0.02	3039
3	201	ROSARIO, MILLIE G.	000993	4010	903		0.08	3039
3	201	RICHMOND, YVONNE R.	000123	4010	8801		0.02	2785
3	201	RICHMOND, YVONNE R.	000123	4010	8802		0.10	2785
3	201	RICHMOND, YVONNE R.	000123	4010	903		0.76	2785
3	201	RICHMOND, YVONNE R.	000993	4010	8033		0.02	2785
3	201	RICHMOND, YVONNE R.	000993	4010	8802		0.02	2785
3	201	RICHMOND, YVONNE R.	000993	4010	903		0.08	2785
3	201	MARTIN, COLETTE	000123	4010	8801		0.04	2063
3	201	MARTIN, COLETTE	000123	4010	8802		0.12	2063
3	201	MARTIN, COLETTE	000123	4010	903		0.80	2063
3	201	MARTIN, COLETTE	000993	4010	8802		0.02	2063
3	201	MARTIN, COLETTE	000993	4010	903		0.02	2063
3	201	HARTMAN, MARTHA J.	000123	4010	901		0.43	715
3	201	HARTMAN, MARTHA J.	000123	4010	903		0.43	715
3	201	HARTMAN, MARTHA J.	000143	4160	6		0.03	715
3	201	HARTMAN, MARTHA J.	000993	4010	901		0.05	715
3	201	HARTMAN, MARTHA J.	000993	4010	903		0.06	715
3	201	MILLETT, DONALD W.	000123	4010	901		0.43	124
3	201	MILLETT, DONALD W.	000123	4010	903		0.43	124
3	201	MILLETT, DONALD W.	000143	4160	6		0.03	124
3	201	MILLETT, DONALD W.	000993	4010	901		0.05	124
3	201	MILLETT, DONALD W.	000993	4010	903		0.06	124
3	201	BAIRD, FRANCES H.	000143	4160	6		0.05	2697
3	201	BAIRD, FRANCES H.	000123	4010	8802		0.07	2697
3	201	BAIRD, FRANCES H.	000123	4010	903		0.16	2697
3	201	BAIRD, FRANCES H.	000993	4010	8033		0.25	2697
3	201	BAIRD, FRANCES H.	000993	4010	8802		0.13	2697
3	201	BAIRD, FRANCES H.	000993	4010	903		0.34	2697
3	201	DUNHAM, DENISE R.	000143	4160	6		0.05	2834
3	201	DUNHAM, DENISE R.	000123	4010	8802		0.07	2834

DIV	DEPT	NAME	FCCUD	FCOBJ	FCSUB	FCSLR	FCPCNT	EMPLNO
3	201	DUNHAM, DENISE R.	000123	4010	903		0.16	2834
3	201	DUNHAM, DENISE R.	000993	4010	8033		0.25	2834
3	201	DUNHAM, DENISE R.	000993	4010	8802		0.13	2834
3	201	DUNHAM, DENISE R.	000993	4010	903		0.34	2834
3	301	LANDRY, KIMBERLY	000123	4010	908	071450	0.10	3064
3	301	LANDRY, KIMBERLY	000123	4010	908	070250	0.07	3064
3	301	LANDRY, KIMBERLY	000123	4010	908	070650	0.06	3064
3	301	LANDRY, KIMBERLY	000123	4010	9121		0.68	3064
3	301	LANDRY, KIMBERLY	000993	4010	912		0.09	3064
3	301	RECK, EULYNN H.	000123	4010	908	071450	0.10	2690
3	301	RECK, EULYNN H.	000123	4010	908	070250	0.07	2690
3	301	RECK, EULYNN H.	000123	4010	908	070650	0.06	2690
3	301	RECK, EULYNN H.	000123	4010	9121		0.68	2690
3	301	RECK, EULYNN H.	000993	4010	912		0.09	2690
3	301	THOMPSON, MARK F	000123	4010	908	071450	0.10	3065
3	301	THOMPSON, MARK F	000123	4010	908	070250	0.07	3065
3	301	THOMPSON, MARK F	000123	4010	908	070650	0.06	3065
3	301	THOMPSON, MARK F	000123	4010	9121		0.68	3065
3	301	THOMPSON, MARK F	000993	4010	912		0.09	3065
3	301	LYNCH, DANIEL R	000123	4010	908	071450	0.20	2999
3	301	LYNCH, DANIEL R	000123	4010	911		0.70	2999
3	301	LYNCH, DANIEL R	000993	4010	911		0.10	2999
3	301	JONES, TIFFANEY L.	000123	4010	908	071450	0.35	2998
3	301	JONES, TIFFANEY L.	000123	4010	8802		0.05	2998
3	301	JONES, TIFFANEY L.	000123	4010	9121		0.38	2998
3	301	JONES, TIFFANEY L.	000143	4160	33		0.13	2998
3	301	JONES, TIFFANEY L.	000993	4010	8802		0.01	2998
3	301	JONES, TIFFANEY L.	000993	4010	912		0.08	2998
3	301	HUGHES, WADE	000123	4010	908	071450	0.03	2745
3	301	HUGHES, WADE	000123	4010	908	070250	0.02	2745
3	301	HUGHES, WADE	000123	4010	908	070650	0.01	2745
3	301	HUGHES, WADE	000123	4010	9121		0.17	2745
3	301	HUGHES, WADE	000993	4010	912		0.77	2745
3	503	KITNER, DONALD E.	000123	4010	908	071450	0.10	483
3	503	KITNER, DONALD E.	000123	4010	870		0.25	483
3	503	KITNER, DONALD E.	000123	4010	901		0.15	483
3	503	KITNER, DONALD E.	000123	4010	911		0.09	483
3	503	KITNER, DONALD E.	000123	4020	885		0.22	483
3	503	KITNER, DONALD E.	000993	4010	870		0.06	483
3	503	KITNER, DONALD E.	000993	4010	901		0.04	483
3	503	KITNER, DONALD E.	000993	4010	911		0.04	483
3	503	KITNER, DONALD E.	000993	4020	885		0.05	483
3	701	MEDINA, MICHELE	000123	4010	874		0.95	2638
3	701	MEDINA, MICHELE	000123	4010	8801		0.05	2638
4	102	MORRIS, CLARIECE W.	000114	1630	1		0.90	337
4	102	MORRIS, CLARIECE W.	000114	4010	580		0.10	337
4	201	CALHOUN, PAMELA J.	000114	4010	903		1.00	2024
4	201	HALL, KIMBERLY R.	000114	4010	903		1.00	2546
4	201	JONES, KATHERINE S	000114	4010	903		1.00	2827

DIV	DEPT	NAME	FCCUD	FCOBJ	FCSUB	FCSLR	FCPCNT	EMPLNO
4	201	JONES, SARAH A.	000114	4010	903		1.00	2431
4	201	AMOS, STEPHEN A	000114	4010	903		1.00	3111
4	201	FOWLER, DONNA T.	000114	1630	1		0.05	2341
4	201	FOWLER, DONNA T.	000114	4010	580		0.30	2341
4	201	FOWLER, DONNA T.	000114	4010	5881		0.10	2341
4	201	FOWLER, DONNA T.	000114	4010	902		0.20	2341
4	201	FOWLER, DONNA T.	000114	4010	903		0.35	2341
4	504	MCCOY, LAURA A.	000100	1849	905		1.00	2762
4	504	ROYE, JANINE	000100	1849	905		1.00	2961
4	501	MURDOCK, LESLIE M	000114	4010	907	061050	0.20	2825
4	501	MURDOCK, LESLIE M	000100	1849	901		0.13	2825
4	501	MURDOCK, LESLIE M	000114	4010	5882		0.05	2825
4	501	MURDOCK, LESLIE M	000114	4010	902		0.20	2825
4	501	MURDOCK, LESLIE M	000114	4010	903		0.42	2825
4	503	MYERS, DONALD R.	000100	1849	901		0.04	256
4	503	MYERS, DONALD R.	000114	4010	580		0.50	256
4	503	MYERS, DONALD R.	000114	4010	901		0.29	256
4	503	MYERS, DONALD R.	000114	4020	590		0.17	256
5	108	ASSELIN, RANDALL JOHN	000945	4160	33		0.17	3097
5	108	ASSELIN, RANDALL JOHN	000995	1630	1		0.06	3097
5	108	ASSELIN, RANDALL JOHN	000995	4010	8033		0.11	3097
5	108	ASSELIN, RANDALL JOHN	000995	4010	870		0.29	3097
5	108	ASSELIN, RANDALL JOHN	000995	4010	911		0.23	3097
5	108	ASSELIN, RANDALL JOHN	000995	4020	885		0.14	3097
5	201	VACANT	000115	4010	903		0.90	0
5	201	VACANT	000995	4010	903		0.10	0
5	201	BRADLEY, GERRY L.	000115	4010	903		0.90	2768
5	201	BRADLEY, GERRY L.	000995	4010	903		0.10	2768
5	201	GAMBLE, LINDA J.	000115	4010	903		0.90	3045
5	201	GAMBLE, LINDA J.	000995	4010	903		0.10	3045
5	201	HUNT, NIOKA K.	000115	4010	903		0.90	2543
5	201	HUNT, NIOKA K.	000995	4010	903		0.10	2543
5	201	WILLIAMS, RENA M	000115	4010	903		0.90	4116
5	201	WILLIAMS, RENA M	000995	4010	903		0.10	4116
5	201	BEALE, SUSAN M.	000115	4010	903		0.10	2820
5	201	BEALE, SUSAN M.	000945	4160	6		0.10	2820
5	201	BEALE, SUSAN M.	000995	4010	8033		0.25	2820
5	201	BEALE, SUSAN M.	000995	4010	8802		0.15	2820
5	201	BEALE, SUSAN M.	000995	4010	903		0.40	2820
5	301	WINSTON, LINDA M.	000995	4010	912		1.00	2483
5	501	LACHARITE, ROGER	000115	4010	903		0.78	3049
5	501	LACHARITE, ROGER	000115	4010	907	061050	0.13	3049
5	501	LACHARITE, ROGER	000995	4010	903		0.09	3049
5	501	THORNTON, PATRICIA A	000115	4010	901		0.30	275
5	501	THORNTON, PATRICIA A	000115	4010	902		0.30	275
5	501	THORNTON, PATRICIA A	000115	4010	903		0.30	275
5	501	THORNTON, PATRICIA A	000995	4010	901		0.10	275
5	503	CUTSHAW, P. MARK	000115	4010	580		0.30	865
5	503	CUTSHAW, P. MARK	000115	4010	901		0.30	865

DIV	DEPT	NAME	FCCUD	FCOBJ	FCSUB	FCSLR	FCPCNT	EMPLNO
5	503	CUTSHAW, P. MARK	000115	4020	590		0.30	865
5	503	CUTSHAW, P. MARK	000995	4010	901		0.10	865
5	503	PUENTES, JORGE	000115	4010	580		0.50	2765
5	503	PUENTES, JORGE	000115	4020	590		0.50	2765

FLORIDA PUBLIC UTILITIES
BEGINNING JANUARY 1, 2008

OUTSIDE - PROFESSIONAL SERVICES & GENERAL LIABILITY INSURANCE

	1840		1849		Propane		North East Florida		Gas Divisions	
	Adj. Gross Profit 12 mths ended June 30, 2007	%	Adj. Gross Profit 12 mths ended June 30, 2007	%	Adj. Gross Profit 12 mths ended June 30, 2007	%	Adj. Gross Profit 12 mths ended June 30, 2007	%	Adj. Gross Profit 12 mths ended June 30, 2007	%
121 South Florida	$14,864,954	42.0	$14,864,954	34.0					$14,864,954	51.0
123 Central Florida	7,347,589	20.0	7,347,589	17.0					7,347,589	25.0
114 Northwest Florida	6,841,597	19.0	6,841,597	15.0						
115 Northeast Florida - Electric	6,916,389	19.0	6,916,389	16.0			6,916,389	87.0		
991 South Florida - Propane			4,184,030	9.0	4,184,030	59.0			4,184,030	14.0
993 Central Florida - Propane			1,788,109	4.0	1,788,109	26.0			1,788,109	6.0
995 Northeast Florida - Propane			1,039,719	2.0	1,039,719	15.0	1,039,719	13.0	1,039,719	4.0
141 South Florida - M & J			766,331	2.0						
143 Central Florida - M & J			320,691	1.0						
945 Northeast Florida - M & J			78,203	0.0						
Total	$35,970,529	100.0	$44,147,612	100.0	$7,011,858	100.0	$7,956,108	100.0	$29,224,401	100.0

Allocation Ratio ID: FPUCBASREV
Applicable to Accounts:
9231
9232
9233
9251
9252
9301
9302
93022
928

CONSBASREV
Applicable M & J Account: 4160.73

FPUC-Natural Gas
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Exhibit 42.3

FLORIDA PUBLIC UTILITIES
Adjusted Gross Profit
12 Months Ended June 30, 2007

		Gross Profit	Less Rate Refund	Less OSS & Trans GSLD	Summer Glen Conversion	Adjusted Gross Profit		
Northwest Electric		6,841,597	-	-		6,841,597	15%	16%
Northeast Electric		7,434,761	-	518,372		6,916,389	16%	16%
South FL NG		18,653,068	8,901	3,779,213		14,864,954	34%	36%
Central Florida		8,332,097	-	1,154,813	170,305	7,347,589	17%	16%
	Total	41,261,523	8,901	5,452,398	170,305	35,970,529		
South FL Propane		4,184,030				4,184,030	9%	9%
Central Florida Propane*		2,010,822			(222,713)	1,788,109	4%	3%
Northeast Propane		1,039,719				1,039,719	2%	2%
	Total	7,234,571	0	0	(222,713)	7,011,858		

	Revenues	Less Merch & Install Exp	Less Jobbing & I&M exp	Adjusted Gross Profit		
South FL M&J	2,287,144	1,280,573	240,240	766,331	2%	1%
Central FL M&J*	858,996	440,781	97,524	320,691	1%	0%
Northeast FL M&J	249,231	155,993	15,035	78,203	0%	0%
Total	3,395,371	1,877,347	352,799	1,165,225		
				44,147,612	100.00%	

	Merchandise	Jobbing	Total Revenues
South FL M&J	1,665,846	621,298	2,287,144
Central FL M&J*	588,138	270,858	858,996
Northeast FL M&J	194,753	54,478	249,231
	2,448,737	946,634	3,395,371
Revenue Allocation	**72%**	**28%**	**100%**

		Adjusted Gross Profit	%	Note 1 15%
Natural Gas	South FL	14,864,954	67%	10%
	Central Florida	7,347,589	33%	5%
		22,212,543	100%	15%
Electric	Northwest Electric	6,841,597	50%	
	Northeast Electric	6,916,389	50%	
		13,757,986	100%	
South Fl	Natural Gas	14,864,954	78%	
	Propane	4,184,030	22%	
		19,048,984	100%	
Central Fl*	Natural Gas	7,347,589	80%	
	Propane	1,788,109	20%	
		9,135,698	100%	

* Actual data includes West FL

Florida Public Utilities
BEGINNING JANUARY 1, 2008
Billed Customers as of June 30, 2007

Customer Accounts Expenses

	1840		Miscellaneous Allocations					
	FPU Customers		Northeast Fl Customers		Northeast & Northwest Customers		Natural Gas Customers	
	Billed	%	Billed	%	Billed	%	Billed	%
121 South Florida	32,654	41%					32,654	63%
123 Central Florida	18,820	24%					18,820	37%
114 Northwest Florida	12,809	16%			12,809	46%		
115 Northeast Florida - Electric	15,018	19%	15,018	100%	15,018	54%		
Total	79,301	100%	15,018	100%	27,827	100%	51,474	100%
Allocation Ration iD	FPUCCUSTOM							

	1849		Miscellaneous Allocations									
	Total Company		Propane		Natural Gas & Propane		Northeast Fl		South Florida		Central Florida	
	Billed	%	Billed	%	Billed	%	Billed	%	Billed	%	Billed	%
121 South Florida	32,654	33%			32,654	51%			32,654	84%		
123 Central Florida	18,820	20%			18,820	29%					18,820	80%
114 Northwest Florida	12,809	14%										
115 Northeast Florida - Electric	15,018	16%					15,018	90%				
991 South Florida - Propane	6,382	7%	6,382	50%	6,382	10%			6,382	16%		
993 Central Florida - Propane	4,716	5%	4,716	37%	4,716	7%					4,716	20%
995 Northeast Florida - Propane	1,632	2%	1,632	13%	1,632	3%	1,632	10%				
141 South Florida - M & J	1,169	1%										
143 Central Florida - M & J	1,558	2%										
945 Northeast Florida - M & J	99	0%										
Total	94,857	100%	12,730	100%	64,204	100%	16,650	100%	39,036	100%	23,536	100%
Allocation Ratio ID	CONSCUSTOM											
Applicable to Accounts:	901		Applicable M & J Account:		4160.6							
	903											
	905											

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FLORIDA PUBLIC UTILITIES
BEGINNING JANUARY 1, 2008

Division	Billed 12 mth ave 6/30/2007	Note 1 Allocation %	Note 2 97% Allocated	Note 3 90% Allocated	Note 4 80% Allocated	Note 5 25% Allocated	Note 18 85% Allocated	Note 22 33% Allocated
South FL (exc. oss & trans)								
FPU	32,654	84%	81%	76%	67%	21%	71%	28%
Propane	6,382	16%	16%	14%	13%	4%	14%	5%
Total	39,036	100%	97%	90%	80%	25%	85%	33%

					Note 11 75% Allocated	Note 12 92% Allocated	Note 13 96% Allocated	Note 24 30% Allocated
Central Florida								
FPU	18,820	80%	78%	72%	60%	74%	77%	24%
Propane	4,716	20%	19%	18%	15%	18%	19%	6%
Total	23,536	100%	97%	90%	75%	92%	96%	30%

Division	Residential Customers 12 mth ave 6/30/2007	Note 6 Allocation %	Commercial Customers 12 mth ave 6/30/2007	Note 7 Allocation %	Note 10 Allocation 25%
South FL (exc. oss & trans)					
FPU	29,466	84%	3,144	84%	21%
Propane	5,795	16%	587	16%	4%
Total	35,261	100%	3,731	100%	25%
Central Florida					
FPU	17,155	78%	1,166	82%	20%
Propane	4,928	22%	258	18%	5%
Total	22,083	100%	1,424	100%	25%

		Note 19
Consolidated Customers		
Excluding South FL	52,995	58%
South FL	39,036	42%
Total	92,031	100%

Electric Allocations		Note 31
Northwest Electric*	12,809	46%
Northeast Electric*	15,018	54%
Total	27,827	100%

		Note 25	Note 30
Northwest Electric*	12,809	15%	
Northeast Electric*	15,018	16%	
South FL(exc. oss & tra	32,654	35%	
Central Florida ***	18,820	20%	80%
South FL Propane	6,382	7%	
Central FL Propane **	4,716	5%	20%
Northeast FL Propane	1,632	2%	
Total	92,031	100%	100%

Gas Customers Excluding Bulk		Note 27	Note 28
South FL(exc. oss & tra	32,654	55%	63%
Central Florida ***	18,820	32%	37%
South FL Propane	4,471	8%	
Central FL Propane **	2,074	4%	
Northeast FL Propane	332	1%	
Total	58,351	100%	100%

*Excludes outdoor lighting customers

FLORIDA PUBLIC UTILITIES
BEGINNING JANUARY 1, 2008

BILLED CUSTOMER BASIS								
	BILLED	Allocation %						
	Customers	Note 20		Note 9	Note 29	Note 21	Note 14	Note 23
	12 mth ave						Gas	Northeast
Division	6/30/2007	FPU & Flo	Consol	30%	South FL	Cent-Florida	Divisons	FL
Northwest Electric*	12,809	16%	15%	3%				
Northeast Electric*	15,018	19%	16%	5%				90%
South FL(exc. oss & trans)	32,654	41%	35%	11%	84%		49%	
Central Florida ***	18,820	24%	20%	6%		80%	30%	
Total FPU	79,301	100%						
South FL Propane	6,382	50%	7%	2%	16%		10%	
Central FL Propane **	4,716	37%	5%	2%		20%	8%	
Northeast FL Propane	1,632	13%	2%	1%			3%	10%
Total Propane	12,730	100%						
Total Consolidated	92,031		100%	30%	100%	100%	100%	100%

TOTAL NUMBER OF BILLS								
	BILLED	Allocation %						
	Customers	Note 26	Customer	Note 8	Northeast	Note 15	Note 16	Note 17
Division	06/30/07	Consol	Acct Basis	75%	FL	Gas	South FL	Cent-FL
Northwest Electric*	12,809	13%	13%	9%				
Northeast Electric*	15,018	16%	16%	12%	89%			
South FL(exc. oss & trans)	32,654	34%	34%	26%		49%	81%	
Central Florida ***	18,820	20%	20%	15%		28%		75%
Total FPU	79,301							
South FL Propane	6,382	7%	7%	5%		10%	16%	
Central FL Propane **	4,716	5%	5%	4%		7%		19%
Northeast FL Propane	1,632	2%	2%	2%	11%	2%		
Total Propane	12,730							
Consolidated FPU		97%						
South FL M&J	1,169	1%	1%			2%	3%	
Central FL M&J	1,558	2%	2%			2%		6%
Northeast FL M&J	99	0%	0%			0%		
Total M&J	2,826	3%		2%				
Total Consolidated Bills	94,857	100%	100%	75%	100%	100%	100%	100%

** Includes Summer Glen conversion of 491 customers from CF propane to CF NG.

*Excludes outdoor lighting customers

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Exhibit 43.1

```
  3/04/2009 10:05:03     Interactive Trial Balance
Account/mask  . . 001.2.*.4000.9*****
Year/period . . . 2008 + 12                    Macro name  .
Zero balance? . . 0 1=Include, 0=Exclude Budget code .
Subtotal mask . . 001000000 1=Yes, 0=No  Subtotal optio
Company masked? . 0 1=Yes, 0=No          Active accts? . . _
  Comparative view 0 0=No, 1=M/M, 2=Q/Q, 3=Y/Y, 4=Cust ____ __ / ____ __
Type options, press Enter.                        5=Display
  1   4 5 2    3
O Co#.U.D.Acct.Subacc                          Current Period
                948001        RS                   47,078.00
                948101        GS                    3,487.00
                948111        LV                      926.00
                948121        IS                        1.00
                948141        OL                       47.00
                948401        Interdepartmental         7.00
                948901        GSTS                    135.00
                948911        LVTS                    359.00
                948921        ITS                      12.00
                                                          More...

F2=Function keys  F3=Exit  F4=Prompt  F5=Fold/unfold  F24=More keys
```

3/04/2009 10:05:03 Interactive Trial Balance GLGITB GLDITB

Account/mask . . 001.2.*.4000.9***** + Balance type . . S +
Year/period . . . 2008 + 12 Macro name . . . _____ +
Zero balance? . . 0 1=Include, 0=Exclude Budget code . . . _____ +
Subtotal mask . . 001000000 1=Yes, 0=No Subtotal option . 2 0=Off,1=Det,2=Sum
Company masked? . 0 1=Yes, 0=No Active accts? . . 2 0=Inac,1=Ac,2=All
Comparative view 0 0=No, 1=M/M, 2=Q/Q, 3=Y/Y, 4=Cust ____ __ / ____ __
Type options, press Enter. 5=Display

Exhibit 43.1
Pg. 2 of 2

1 4 5 2 3
O Co#.U.D.Acct.Subacc Current Period
Grand total for all currencies: 52,052.00

Bottom

F2=Function keys F3=Exit F4=Prompt F5=Fold/unfold F24=More keys