ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: PETITION OF FLORIDA PUBLIC UTILITIES COMPANY FOR AN INCREASE IN ITS RATES AND CHARGES IN THEIR CONSOLIDATED ELECTRIC DIVISION	DOCKET NO. 030438-EI FILED: DECEMBER 29, 2003

DIRECT TESTIMONY OF MARK A. CICCHETTI

ON BEHALF OF

THE OFFICE OF PUBLIC COUNSEL

Respectfully submitted,
Harold McLean
Public Counsel

Office of Public Counsel
c/o The Florida Legislature
111 West Madison Street
Room 812
Tallahassee, FL

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TESTIMONY OF MARK ANTHONY CICCHETTI

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QUALIFICATIONS AND EXPERIENCE

Q Please state your name and address and on whose behalf you are testifying in this proceeding.

A My name is Mark Anthony Cicchetti and my business address is 2931 Kerry Forest Parkway, Suite 202, Tallahassee, Florida 32309. I am testifying on behalf of the Office of Public Counsel.

Q By whom are you employed and in what capacity?

A I am a Project Manager and Manager of the Tallahassee Office for C.H. Guernsey & Co. Guernsey is an engineering, architectural and consulting firm that has been in business for 75 years. The services Guernsey provides include: cost of service and rate studies; regulatory and litigation support; economic and financial studies; valuation studies; power supply planning, solicitation, and procurement; fuel purchasing; transmission and distribution planning and facilities design; strategic planning; telecommunications and e-business applications; architectural design for headquarters and warehouse facilities; environmental assessments; security systems; and web site development and internet applications.

For ten years prior to joining Guernsey, I was President of Cicchetti & Co., a financial research and consulting firm specializing in public utility finance, economics, and regulation. I also have been employed by the Florida State Board of Administration as Manager of Arbitrage Compliance and the Florida Public Service Commission as Chief of Finance. A detailed narrative description of my experience and qualifications is contained in Exhibit No.__(MAC-1).

Q Have you previously testified before this Commission?

A Yes, I have testified before this Commission numerous times.

PURPOSE OF TESTIMONY

Q What is the purpose of your testimony?

A The purpose of my testimony is to address the cost of common equity capital and overall rate of return for the electric division of Florida Public Utilities Company ("FPUC") and to rebut the testimony of George Bachman and Robert Camfield regarding the cost of common equity capital and overall rate of return.

Q How did you conduct your analysis and develop your recommendation?

A I studied the current economic environment and current interest rates and examined Federal Reserve policies in the context of how such policies affect the cost of capital of utilities. I reviewed the characteristics of FPUC and examined the structure of the power markets as well as the business and financial risks that are important to investors. I compared FPUC's financial statistics to those of comparable companies and used this comparison as a backdrop for my analysis of FPUC. Finally, I estimated the cost of common equity to FPUC.

CAPITAL ATTRACTION AND FINANCIAL INTEGRITY STANDARDS

Q What guiding principles did you consider in determining a fair rate of return for Peoples?

A I relied on the principles established by the Supreme Court of the United States in Bluefield Waterworks and Improvement Company v. Public Service Commission of West Virginia, 262 U.S. 679 (1923) and Federal Power Commission v. Hope Natural Gas

Company, 320 U.S. 591 (1944). Briefly stated, the Hope and Bluefield decisions provide that the return to the equity owner should be commensurate with returns on investments having corresponding risks and should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and attract capital.

Q Please define the cost of common equity capital.

A The cost of common equity capital is the minimum rate of return necessary to attract capital to a common equity investment. The cost of common equity is a function of risk. The greater the risk the greater the return investors require.

PORTFOLIO THEORY AND RELEVANT RISK

Q What risks do common equity investors face?

A A stock's risk consists of company specific risk known as diversifiable risk and market risk known as non-diversifiable risk. Company specific risk is caused by events that are unique to a particular firm such as the loss of a major customer, strikes, lawsuits, and so on. Because these things occur randomly, their effects can be eliminated through diversification - negative events at one firm will be offset by positive events at another. Market risk, on the other hand, is associated with events that affect all firms simultaneously such as inflation, war, and recession. Because all firms are affected simultaneously, the effect of these events cannot be eliminated through diversification. Therefore, since we assume investors are risk averse (that is, they accept the highest return for a given level of risk or accept the lowest level of risk for a given return), the relevant risk of a stock is the risk that cannot be diversified away. Rational investors do not accept risks that easily can be eliminated. Numerous empirical studies have shown the capital markets are efficient and

investors are compensated only for risks that cannot be diversified away. Therefore, the relevant risk of a stock is the risk it contributes to a well-diversified portfolio and is measured by beta. Beta is a measure of a stock's volatility relative to an average stock. A beta of 1.0 indicates that the individual stock's return moves up or down in the same proportion as the market return. A beta above or below 1.0 indicates higher or lower return volatility, and therefore greater or lesser risk, relative to the market as a whole.

Q What determines the relevant risk of a stock?

A The relevant risk of a stock is determined by the degree to which the stock tends to move up and down with the market. The relevant risk facing a common equity investor can be disaggregated into business risk and financial risk. Business risk relates to the uncertainty surrounding the level of operating income expected to be earned, while financial risk relates to the types of securities used to finance the firm, that is, financial leverage. It is generally accepted that companies with high business risk should capitalize their operations with a relatively lower amount of debt and fixed obligations.

Q What general economic factors influence investment decisions?

A The interrelated factors of inflation and interest rates are major factors that influence the investment decision-making process.

Q Of what significance are inflation and interest rates to an investor?

A Interest rates are important to investors because the required return on an investment is affected by the returns available on alternative investments. Additionally, rising inflation and rising interest rates erode earnings. Public utilities in general are particularly sensitive to the effects of high inflation and high interest rates. As with other industries, rising labor

and other operating expenses directly impact public utility companies' earnings. Also, due to the capital intensive nature of the public utility industries, plant costs and related financing costs have a particularly strong impact on the earnings of these companies.

Currently, the impacts associated with inflation and interest rates are less for utilities than they have been in the past because inflation and interest rates are at or near the lowest levels they have been in the last forty years.

THE CREDIT AND CAPITAL MARKETS

Q Have you examined changes in inflation rates?

A Yes. As shown on Exhibit No.___(MAC-2), inflation as measured by the consumer price index has subsided considerably since the highs experienced in the 1970's and 1980's. It is expected that inflation, as measured by the CPI, will register 1.4% for the fourth quarter of 2003. In the long-term, inflation is expected to be approximately 2.8% as indicated by the spread between 30-year treasury securities and treasury inflation protection securities ("TIPS"). The GDP price index is estimated to increase by approximately 1.7% in 2004 and is expected to continue around that low rate into 2005. Global competition, a relatively weak labor market, and gains in productivity are factors contributing to the expectations of low inflation. Exhibit No.___(MAC-2) shows inflation as measured by the GDP Price Index, the current 30-year treasury and TIPS rates, and *Blue Chip Financial Forecasts'* forecast for the GDP Index.

Q Have you examined changes in interest rates?

A Yes. Interest rates are at historically low levels. Exhibit No.___(MAC-2) shows the 10-year Treasury note rate over the last ten years and the year ahead forecast for long-term

treasury securities. The long-term treasury rate is predicted to rise to the 5.3% to 5.9% range in the coming year.

It should be noted that recent and current economic statistics do not provide a complete basis for determining the value of long-term investments. Rather, they only provide insight into the current environment within which long-term assets are being valued and function as a reference point for past and present forecasts.

Q Please discuss the current economic environment and current expectations regarding inflation and interest rates.

A As the U.S. economy enters the first quarter of 2004, economic activity is characterized as improving but uneven. Overall, wages and prices for finished goods remain fairly stable. Retail sales are generally positive but favorable expectations for holiday spending appear not to have materialized. Auto sales are mixed as manufacturers have reduced incentives.

Manufacturing activity is picking up but business travel and international travel have remained at depressed levels. There has been little gain in employment activity although there is evidence that layoffs have slowed. Widespread concern about rising health care costs persists.

Oil and natural gas prices remain high. Commercial real estate markets have remained weak while residential sales and construction have been strong in most parts of the country.

Loan activity is subdued although demand for new mortgages is fairly strong. Mortgage refinancing activity has slowed nationwide.

In conclusion, the U.S. economy is improving but uneven. The economy is characterized by low inflation, low interest rates, and varied growth. The stock market had solid gains in 2003. The future course of the economy and of inflation is difficult to predict. However, a component of required returns is compensation for expected inflation, the level of which directly impacts the cost of both debt and equity. As shown on Exhibit No.___(MAC-2) the current *Blue Chip* consensus forecast for the bellwether long-term treasury bond for the coming year is 5.70% and the current long-term forecast for inflation is 2.77%. For utilities, increases in plant and operating costs associated with inflation, and the related financing costs, are near historical lows.

DESCRIPTION OF INDUSTRY AND COMPANY

Q Have you examined the current state of the electric utility industry?

A Yes. Having been burnt by forays into nontraditional non-regulated activities such as risky financial energy trading and independent power production, most electric companies are adopting a "back-to-basics" strategy. Currently, "basic" electric utility stocks are characterized as conservative and a good source of income with relatively high yields.

The August 14, 2003 blackout in the Northeast and Midwest focused attention on the nation's transmission system. As stated by *Value Line* in an industry comment dated December 5, 2003:

> "The August 14th blackout in the Northeast showed the vulnerability of the nation's antiquated transmission system and the need for investment. Though supportive, Congress is unwilling to immediately mandate that utilities join Regional Transmission Organizations (RTOs), as proposed by the Federal

Energy Regulatory Commission (FERC). The RTOs, which are a part of the FERC's Standard Market Design blueprint, would independently control the flow of electricity across service areas with an eye toward balancing real-time demand/supply needs. Without a firm RTO requirement, the FERC may have to work harder, monitoring market power, to keep large vertically integrated utilities from abusing their control over the transmission system."

Concern for transmission reliability predates the August 14, 2003 blackout. However, the federal government's attempts to address open and equal access and reliability, dating back to the Energy Policy Act of 1992, have been less than successful. Divergent interests, as well as issues regarding states rights, have fueled questions about operational control and transaction costs. The blackout raised additional questions regarding the technical difficulties and economic benefits associated with regional planning and energy market development.

Although many questions remain regarding the ultimate resolution of transmission issues, investors continually monitor the situation and the associated risks are reflected in current stock prices.

Q Please describe FPUC.

A FPUC provides electric service through two divisions in North Florida. The Northeast Florida Division (Fernandina) served 14,020 customers as of December 31, 2002 and the Northwest Florida Division (Marianna) served 12,335 customers as of December 31, 2002. FPUC is not a generating utility. The company purchases wholesale electricity from Southern Company and Jacksonville Electric Authority. FPUC entered into favorable long-

term purchased power contracts in 1996, with both suppliers, that will last through 2007. These contracts allow FPUC to provide it's customers with the lowest electric rates in Florida.

The counties served by FPUC are Jackson, Calhoun, Liberty, and Nassau. North Florida's variety of weather patterns ensure electrical sales are not extremely seasonal in nature. FPUC is not dependent on any single customer and no customer accounts for over ten percent of sales or profit.

CAPITAL STRUCTURE

Q What is the appropriate capital structure for FPUC in this proceeding?

A The appropriate capital structure for FPUC in this proceeding is the 13-month average capital for the test year ending December 31, 2004, which I have shown on Exhibit No.___(MAC-10). FPUC's long-term debt appropriate for this case is $14,197,577 or 49.13% of the company's investor sources of capital. The Company's common stock equity that is appropriate for this proceeding is $13,852,357 or 47.99% of the company's investor sources of capital.

Q Are there any special considerations that affected your determination of this capital structure for FPUC?

A Yes. The equity ratio for the 13-month average capital structure for the 2004 test year of 47.99% is significantly above the 2002 year-end equity ratio of 29.9%, as shown on Exhibit GB-RC 13. For the years 1999 through 2002, the company's year-end equity ratios have been 41.1%, 39.6%, 28.5%, and 29.9% respectively. During part of this time period, the company has been in an overearnings position at its Northeast Division. FPUC is a

distribution company and not a generation company. In general, distribution companies are less risky than generation companies because they do not have to build, finance, and operate expensive power plants. Furthermore, FPUC has favorable low cost long-term purchased power contracts in place. Historically, the Florida Public Service Commission has relied on 13-month average test years unless there are extenuating circumstances.

Exhibit No.___(MAC-4) shows Standard and Poor's financial guidelines for utilities. As shown on Exhibit No.___(MAC-4), the total debt to total capital benchmark for a BBB utility of average business risk is 50% - 51%. This corresponds to an equity ratio of 49% to 50%. The total debt to total capital benchmark for a BBB utility of less than average risk, which I believe characterizes FPUC, is 53% to 57% which corresponds to an equity ratio of 43% to 47%. As shown on Exhibit No.___(MAC-4), FPUC's proposed total debt to total capital is 47.37%, with a proposed equity ratio of 52.06%. FPUC has not justified its need for such a costly capital structure, i.e. low debt ratio and high equity ratio. As shown on Exhibit No.____(MAC-4), the average equity ratio for the electric utility industry in 2003 is 42%.

In addition to being the most costly capital structure component, the tax impacts associated with common equity magnify the costs of equity in the capital structure. Ratepayers should not have to bear the costs of an unnecessarily high equity ratio. The appropriate capital structure for FPUC in this proceeding is the test year 13-month average capital structure.

RATE OF RETURN ANALYSIS

Q What methods did you use to determine the required return on common equity for

FPUC?

A To determine the required return on common equity, I used a two-stage, annually compounded discounted cash flow (DCF) model and a risk-premium analysis.

It is important to note that estimating the cost of common equity is a subjective procedure. It is impossible to measure it precisely and it is generally estimated within a range. The cost of common equity is a function of investor expectations and it is impossible to know all investors' expectations at any point in time. Consequently, professional judgment must be exercised when determining proxies for investor expectations. When analyzing cost of equity estimates, it is important to understand the rationale underlying the subjective inputs and how well the models relied upon reflect reality.

Q How did you apply the DCF and risk premium models to obtain FPUC's cost of common equity?

A I conducted a DCF analysis on an index of comparison electric companies and a DCF analysis and a Risk Premium analysis on Moody's Natural Gas Distribution Index. The comparison indices were selected on the basis of their line of business, size, liquidity, risk, and market following. Relying on an index of companies, rather than a single company, helps minimize forecasting errors and should provide more reliable information for use in measuring the cost of common equity.

Q Please describe the investment risk characteristics that comprise the index of comparison electric utility companies and Moody's Natural Gas Distribution Index.

At the investment risk parameters for the comparison electric utility companies are: a *Value Line* Safety Rank of 2, a *Value Line* beta of .63, an S&P bond rating of BBB+, and

an average equity ratio of 51.57% of investor capital. Exhibit No.___(MAC-5) shows the investment characteristics for The Comparison Electric Utility index.

The investment risk parameters for Moody's Natural Gas Distribution Index companies are: a *Value Line* Safety Rank of 1.7, a *Value Line* beta of .71, an S&P bond rating of A, and an average equity ratio of 49.87% of investor capital. Exhibit No.___(MAC-5) shows the investment characteristics for Moody's Natural Gas Distribution index.

Q Please briefly describe the models you used.

A The discounted cash flow model is the most commonly used market based approach for estimating a utility investor's required return on common equity capital. In a DCF analysis, the cost of equity is the discount rate which equates the present value of expected cash flows associated with a share of stock to the present price of the stock.

A risk premium analysis recognizes that equity is riskier than debt. Equity investors thus require a "risk premium" over the cost of debt as compensation for assuming additional risk.

Q Please describe the discounted cash flow model used in your analysis.

A I used a two-stage variable growth rate DCF model in order to use the specific dividend forecasts for the next five years provided by *Value Line*. *Value Line* is an independent, respected, widely circulated source of investment information. Exhibit No.___(MAC-6) shows a two-stage DCF model. In the two-stage model, dividend growth is estimated on an individual basis for an initial growth period. After the initial period, dividends are assumed to grow into perpetuity at the expected long-term growth rate.

Q How did you use this model to determine the cost of common equity capital for the index?

A The current stock price (P_o) was determined by averaging recent high and the low stock price for each company. I assumed an initial growth period based upon *Value Line's* explicit dividend forecasts (n). I used *Value Line's* forecast of dividends, and assumed a constant rate of growth in between to estimate the expected dividends (D_t) during the initial growth period. The long-term constant rate of growth expected (g_n) was calculated using the earnings retention method (b x r approach) and *Value Line's* expected return on equity (r) and expected retention rate (b).

Q Did you incorporate an allowance for flotation costs in applying your DCF model?

A Yes. The DCF calculations I performed include and adjustment of 3% to recognize the expenses associated with issuing stock. An allowance for issuance costs enables the utility to recover the costs incurred when issuing common stock. Issuance expenses include registration, legal, and underwriter fees, and printing and mailing expenses. Investors would never be able to earn the required return on their investment without an issuance cost adjustment because the sales price will always exceed the net proceeds to the company as a result of incurring issuance costs. These costs will be incurred whether the stock is publicly traded or privately held.

Conceptually, the situation with common stock is similar to that of bonds and preferred stock. With bonds for example, the issuance expenses are reflected in the cost charged to ratepayers and are recovered over the life of the bond. The cost to the company for a specific bond issue is the interest expense plus the amortization of issuance costs

divided by the principal value less the unamortized issuance costs. The result is that the cost to the utility is greater than the return to the creditor.

Unlike the case of bonds, however, common stock does not have a finite life. Therefore, issuance costs cannot be amortized and must be recovered by an upward adjustment to the allowed return on equity. This adjustment reflects the fact that, due to the issuance costs, the utility earns a return on an equity balance that is less than the actual amount paid by investors. (See Brigham, E.F., Aberwald, D., and Gapenski, L.D., "Common Equity Flotation Costs and Rate Making," Public Utilities Fortnightly, May 2, 1985, pp. 28-36). Historically, utility underwriting expenses associated with issuing common stock have averaged 3 to 4 percent of gross proceeds. (See Petteway, R.H., "A Note on the Flotation Costs of New Equity Capital Issues of Electric Companies," Public Utilities Fortnightly, March 18, 1982, pp. 68-69. When the adjustment for flotation costs (FC) is recognized, the cost of equity is given on Exhibit No.___(MAC-6).

Q What is the required return on common equity for the index of comparison electric utilities and Moody's Natural Gas Distribution Index based upon your two-stage annually-compounded DCF model?

A Solving the equation on Exhibit No.___(MAC-6) for the cost of equity (K) produces a required return on common equity for the index of comparison electric utilities of 8.60% (rounded). Solving the equation on Exhibit No.___(MAC-6) for the cost of equity (K) produces a required return on common equity for Moody's Gas Distribution Index 9.15% (rounded). Exhibit No.___(MAC-6) shows the inputs and results of my analyses.

Q Please describe the risk premium approach of determining the cost of common equity.

A The return to equity owners is a residual return and is less certain than the yield on bonds. Therefore, equity owners must be compensated for this additional risk. The risk premium approach estimates the cost of common equity by adding a premium to the cost rate of debt to compensate the investor for the greater risk inherent in an equity investment. The basic risk premium model takes the form: $K_e = B_y + R_p$ where: K_e = the cost of common equity; B_y = the yield on debt; R_p = the risk premium on common stock.

In order to apply the methodology, a risk premium for common stock over some measure of debt cost must be estimated. The debt security used in a risk premium analysis should be risk free to isolate the spread component of the return and avoid default risk and circularity concerns that are associated with debt securities issued by companies.

Q How did you estimate the equity-debt risk premium?

A I began my analysis by estimating the required market returns for Moody's Natural Gas Distribution Index for each month of the 1992 to 2002 ten-year period (120 data points) using the same DCF methodology described previously. This was accomplished by using the *Value Line* data that was available to investors each month of the 1992 to 2002 period, and the then current stock prices.

Q How was the equity-debt risk premium determined?

A For each month, the required returns on common equity derived from my DCF analyses were compared to the then current yield on long-term government bonds, as reported by Federal Reserve Board, to determine the risk premium for common equity over the yield on long-term government bonds.

Q What is your estimate of the equity - debt risk premium for the index?

A As shown on Exhibit No.___(Mac-7) the equity-debt risk premium for the index averaged 3.50% (rounded) over the period 1992 to 2002.

Q What measure of debt cost did you add to the risk premium to determine the cost of equity?

A I used the December 1, 2003 *Blue Chip Financial Forecasts'* (Blue Chip) consensus forecast for long-term government bond yields for the coming year of 5.7%. *Blue Chip Financial Forecasts* is a publication that provides interest rate forecasts from leading economists and financial analysts.

Q What is the risk premium cost of common equity for the index?

A Combining the next four quarters expected yield on long-term government bonds of 5.7% with the equity-debt risk premium of 3.5% results in a risk premium cost of equity of 9.20% for the index. Exhibit No.___(MAC-8) shows the results of the Risk Premium analysis.

Q How does the investment risk of FPUC compare to that of the index of comparison electric utilities and Moody's Gas Distribution Index?

A As an electric distribution company without the attendant risks associated with electric generation, FPUC compares favorably to both the comparison electric utilities and Moody's Gas Distribution Index. FPUC has favorable low cost long-term purchased power contracts in place, is adequately financed, has an attractive customer base (is not dependent on a single customer and no single customer accounts for more than 10% of sales or profits), has relatively stable demand, and operates under favorable regulation.

FAIR RATE OF RETURN FOR FPUC

Q Based on your DCF and risk premium analyses, what is your conclusion as to the investor required rate of return on common equity for FPUC?

A Based on my DCF and Risk Premium analyses, I conclude the investor required rate of return on common equity for FPUC is within the range of 8.60% to 9.20%. The average of the three analyses is 9.00% (rounded). As shown on Exhibit No.___(MAC-10), a return on common equity of 9.00% will allow FPUC a pre-tax Times Interest Earned ("TIE") coverage ratio of 2.72X. Such a coverage ratio, given FPUC's financial profile, business risk, and regulatory climate will allow FPUC to maintain its, financial integrity and attract capital at a reasonable cost. As shown on Exhibit GB-RC 14, a TIE ratio of 2.72 is higher than any TIE coverage ratio FPUC has achieved over the last 10 years. The median TIE ratio for BBB utilities over the period 2000-2002 was 2.1 (Standard & Poor's, Corporate Ratings Criteria, November 13, 2003, pg.50).

REBUTTAL TESTIMONY

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to provide an evaluation of the analyses of Mr. George Bachman and Mr. Robert Camfield regarding the return on common equity which the Commission should allow FPUC in this proceeding.

Q. Do you have any general comments regarding the testimony of witnesses Bachman and Camfield.

A. Yes. Mssrs. Bachman and Camfield overstate the cost of common equity due to their reliance on flawed methodologies. Application of Mssrs. Bachaman and Camfield's

recommended return on equity and their recommended capital structure results in a TIE ratio of 3.63 which is significantly above the industry average.

Q. In their CAPM, Risk Premium, Realized Market Returns analyses, Mssrs. Bachman and Camfield relied on historical earned returns to determine the required return for FPUC (Bachman, Camfield, Page 36, lines 1 and 26, Page 38, line 22). Is it appropriate to rely on historical earned returns rather than expected returns in determining the required return on common equity?

A. No. Required return is a function of expectations and not a function of ex post performance. Actual performance may deviate substantially from what was expected but it is expectations relative to requirements that determine if an investment should be made. Relying on earned returns in the ratemaking process as the basis for required returns can produce incorrect results. For example, just because a company had an earned return on equity of either 5% or 25% does not mean that the company's cost of equity was either 5% or 25%. Mssrs. Bachman and Camfield themselves note the importance of expectations in determining the required return. On page 34 line 9 of their testimony they state, "As mentioned above, the cost of capital is inherently expectational." No doubt analysts examine the past when compiling their forecasts, but it wrong to use the past as the forecast.

In "The Risk Premium Approach to Measuring a Utility's Cost of Equity" (a Public Utility Research Center working paper written in August 1984), Brigham, Shome and Vinson state, "... we concluded that, for cost of capital estimation purposes, risk premiums must be based on expectations, not on past, realized holding period returns."

Furthermore, in their CAPM and Risk Premium analyses, Bachman and Camfield use

the average rate of 1-year Treasury securities of 4.1% from 1950 through 1999 as the risk free rate. The current rate on 1-year Treasury securities is 1.3% and the forecast for 1-year Treasury securities for 2004, according to *Blue chip Financial Forecasts,* December 1, 2003, is 1.83%. It is hard to see what relevance the 1-year Treasury rate from as far back as 1950 is to the cost of equity today.

Finally, in their Risk Premium analysis, Bachman and Camfield adjust their results from 2.0% to 2.5% for the lower risks of electric utilities, "as a matter of judgement" (Bachman, Camfield, Page 38, line 17). Bachman and Camfield provide no justification for the level of this "matter of judgement." It appears if they wanted to produce a higher or lower number they could have just lowered or increased the adjustmet amount "as a matter of judgement."

Q. In their DCF analysis, Mssrs. Bachman and Camfield incorporated historical growth in earnings and cash flow as a proxy for the expected growth rate for dividends (Bachman, Camfield Page 33, line 13). Is this appropriate?

A. No. It is inappropriate to rely on expected earnings and cash flow growth as a proxy for expected dividend growth. The discounted cash flow (DCF) model is a dividend discounting model. According to DCF theory, the cost of equity is the discount rate (required rate) that equates the present value of the expected cash flows associated with a share of stock to the price of the stock. The cash flows expected to be received from a share of stock consist of expected dividends plus the price investors expect to receive when they sell the stock. The market price in any period (t) will equal the present value of the dividends and sales price expected after period (t). Applying this concept to all future sales prices, the

current stock price can be shown to equal the present value of all dividends expected to be paid in the future, including any liquidating dividend. Therefore, expected dividend growth should be used when determining the cost of common equity using a DCF model.

The expected growth in cash flow and earnings is not a valid proxy for the expected growth in dividends because neither all cash flow nor all earnings are paid out as dividends when they are realized. A fundamental principle of the DCF approach is that investors value a dollar received in the future less than a dollar received today. This is because, if they had a dollar today, they could invest it in an interest earning account and increase their wealth. This principle is called the time value of money. Generally, utility companies increase dividends in a lock-step fashion and only when it is anticipated that a higher level of earnings can support a higher level of dividends. Not properly accounting for the timing and amount of expected cash flows when preparing a discounted cash flow analysis produces an incorrect result.

Q Please summarize your testimony.

A My testimony addressed the appropriate allowed return on common equity and overall rate of return for FPUC as well as rebuttal of witnesses Bachman and Camfield.

With respect to an appropriate allowed return, I conclude the cost of common equity capital for FPUC is within the range of 8.60% to 9.20% and I recommend the Commission allow the average of the three analyses I performed of 9.00%.

Finally, the testimony of Mssrs. Bachman and Camfield overstates the cost of common equity due to their reliance on flawed methodologies. Application of Mssrs. Bachaman and Camfield's recommended return on equity and their recommended capital

structure results in a TIE ratio of 3.63 which is significantly above the industry average.

Q Does this conclude your testimony?

A Yes, it does.

EXHIBITS

Experience and Qualifications

I received a Bachelor of Science degree in Business Administration in 1980 and a Master of Business Administration degree in Finance in 1981, both from Florida State University. Upon graduation I accepted a planning analyst position with Flagship Banks, Inc., a bank holding company. As a planning analyst, my duties included merger and acquisition analysis, lease-buy analysis, branch feasibility analysis, and special projects.

In 1983, I accepted a regulatory analyst position with the Florida Public Service Commission. As a regulatory analyst, I provided in-depth analysis of the cost of equity and required overall rate of return in numerous major and minor rate cases. I reviewed and analyzed the current and forecasted economic conditions surrounding those rate cases and applied financial integrity tests to determine the impacts of various regulatory treatments. I also co-developed an integrated spreadsheet model which links all elements of a rate case and calculates revenue requirements. I received a meritorious service award from the Florida Public Service Commission for my contributions to the development of that model.

In February 1987, I was promoted to Chief of the Bureau of Finance. In that capacity I provided expert testimony on the cost of common equity, risk and return,

corporate structure, capital structure, and industry structure. I provided technical guidance to the Office of General Counsel regarding the development of financial rules and regulations. In addition, I authored the Commission's rules regarding diversification and affiliated transactions, chaired the Commission's Committee on Leveraged Buyouts, supervised the finance bureau's regulatory analysts, co-developed and presented a seminar on public utility regulation to help educate the Florida Public Service Commission attorneys, and provided technical expertise to the Commission in all areas of public utility finance for all industries.

In February 1990, I accepted the position of Chief of Arbitrage Compliance in the Division of Bond Finance, Department of General Services. As Manager of the Arbitrage Compliance Section, I was responsible for assuring that over $16 billion of State of Florida tax-exempt securities remained in compliance with the federal arbitrage requirements enacted by the Tax Reform Act of 1986. I provided investment advice to trust fund managers on how to maximize yields while remaining in compliance with the federal arbitrage regulations. I designed and implemented the first statewide arbitrage compliance system which included data gathering, financial reporting, and computation subsystems.

In July 1990, I founded Cicchetti & Company. Through Cicchetti & Company I provided financial research and consulting services, including the provision of expert testimony, in the areas of public utility finance, economics, and regulation. Topics I have testified on include cost of equity, capital structure, corporate structure, regulatory theory, cross-subsidization, industry structure, the overall cost of capital, incentive regulation, the establishment of the leverage formula for the water and wastewater industry, reconciling rate base and capital structure, risk and return, and the appropriate regulatory treatment of construction work in progress, used and useful property, construction cost recovery charges, and the tax gross-up associated with contributions-in-aid-of-construction.

In January, 2001, I joined C.H. Guernsey & Co. as a Senior Financial Consultant and Manager of the Tallahassee, Florida Office.

In 1985, I was certified by the Florida Public Service Commission as a Class B Practitioner in the areas of finance and accounting.

In June, 1985, I published an article in Public Utilities Fortnightly titled "Reconciling Rate Base and Capital Structure: The Balance Sheet Method." In September, 1986, I was awarded third place in the annual, national, Competitive Papers Session sponsored

by Public Utilities Reports, Inc., in conjunction with the University of Georgia and Georgia State University, for my

paper titled "The Quarterly Discounted Cash Flow Model, the Ratemaking Rate of Return, and the Determination of Revenue Requirements for Regulated Public Utilities." An updated version of that paper was published in the June, 1989 edition of the National Regulatory Research Institute Quarterly Bulletin. I subsequently served twice as a referee for the Competitive Papers Sessions. On June 15, 1993, I published an article on incentive regulation in *Public Utilities Fortnightly* titled "Irregular Incentives." On September 1, 2002, I published an article in *Public Utilities Fortnightly* titled "Gas Distribution: A Higher Risk Business.

I was awarded the designation Certified Rate of Return Analyst by SURFA in 1992. I am a member of the Financial Management Association International and have been listed in Who's Who in the World and Who's Who in America.

I have made public utility and finance related presentations to various groups such as the Southeastern Public Utilities Conference, the National Society of Rate of Return Analysts, the National Association of State Treasurers, and the Government Finance Officers Association.

ECONOMIC STATISTICS

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
CPI	3.0	2.6	2.8	2.9	2.3	1.5	2.2	3.4	2.8	1.6
GDP Price Index	2.6	2.3	2.5	2.1	2.9	1.2	1.4	2.1	2.4	1.1
10-Year Treasury	5.9	7.1	6.6	6.4	6.4	5.3	5.6	6.0	5.0	4.6

Inflation Forecast

30-Year treasury 4.97 - 30-Year TIPS 2.20%	2.77%
Value Line GDP Deflator - 2004 estimate	1.70%

Long-Term Treasury Forecast

	2nd-04	3rd-04	4th-04	1st-05
Blue Chip Financial Forecasts - Long-Term Treasury	5.5	5.6	5.8	5.9

Source: *Value Line*, December 26, 2003
Bloomberg, December 26, 2003
Blue Chip Financial Forecasts, December 1, 2003

EQUITY RATIO COMPARISONS

COMPARISON ELECTRIC UTILITIES

Company	Equity Ratio as a Percentage of Total Investor Capital
CH Energy Group	61.00%
Cent. Vermont P.S.	58.50%
Cleco Corporation	37.50%
Empire District	45.50%
Green Mtn. Power	50.00%
MGE Energy Inc.	55.00%
Ottor Tail Corp.	53.50%
Average	51.57%

MOODY'S NATURAL GAS DISTRIBUTION INDEX

Company	Equity Ratio as a Percentage of Total Investor Capital
AGL Resources	47.00%
Keyspan Corp.	41.00%
Laclede Group	49.40%
N.W. Nat'l Gas	52.50%
Peoples Energy	53.50%
WGL Holdings	55.80%
Average	49.87%

Source: *Value Line,* 12/26/03 for 2003

STANDARD & POOR'S RATIO GUIDELINES

Total Debt/Capitalization (%)

		Rating category
Company business risk profile		BBB
Average	5	51
	6	50

FPUC - Proposed	47.37
Electric Utility Industry Average	56.00

Source: *Standard & Poor's*, Corporate Rating Criteria
Exhibit GB-RC 1
Value Line, 12/19/03

COMPARISON ELECTRIC UTILITIES INDEX
INVESTMENT CHARACTERISTICS

	VALUE LINE SAFETY RANK	VALUE LINE BETA	EQUITY RATIO	S&P BOND RATING	REVENUES ($MILL)
CH ENERGY GROUP	1	.75	61.00%	A	820
CENT. VERMONT P.S.	3	.45	58.50%	BBB-	305
CLECO CORPORATION	3	.90	37.50%	BBB	825
EMPIRE DISTRICT	3	.60	45.50%	BBB	330
GREEN MTN. POWER	3	.60	50.00%	BBB-	276
MGE ENERGY	1	.55	55.00%	A A	380
OTTOR TAIL CORP.	2	.55	53.50%	A-	805
AVERAGE	2.29	.63	51.57%	A	534

Source: *Value Line*, 12/05/03
Value Line,10/03/03
S&P Credit ratings, 12/03

MOODY'S NATURAL GAS INDEX
INVESTMENT CHARACTERISTICS

	VALUE LINE SAFETY RANK	VALUE LINE BETA	EQUITY RATIO	S&P BOND RATING	REVENUES ($MILL)
AGL RESOURCES	2	.75	47.00%	A-	975
KEYSPAN CORP.	2	.75	41.00%	A+	7,000
LACLEDE GAS	2	.70	49.40%	A	1.050
N.W. NAT'L GAS	2	.60	52.50%	A	585
PEOPLES ENERGY	1	.75	53.50%	A-	2,138
WGL HOLDINGS	1	.70	55.80%	AA-	2063
AVERAGE	1.67	.61	49.87%	A	2,302

Source: *Value Line*, Ed. 3, 12/19/03
S&P Credit ratings, 12/03

Two-Stage, Annually Compounded
Discounted Cash Flow Model

	Expected Dividends					Est. EPS	Est. ROE	Dividend Growth	Stock Price
	2003	2004	2005	2006	2007	2007	2007+	2007+	12/03
CH Energy	2.16	2.16	2.17	2.19	2.20	2.20	9.00	0.61%	44.67
Cent. Vt.	0.88	0.92	0.96	1.00	1.04	1.85	10.00	4.17%	23.23
Cleco Corp.	0.90	0.90	0.90	0.90	0.90	1.50	12.50	1.00%	17.64
Empire Dist.	1.28	1.28	1.28	1.28	1.28	1.75	10.50	2.82%	21.26
Green Mtn.	0.76	0.80	0.84	0.88	0.92	2.15	10.50	4.77%	23.57
MGE Energy	1.35	1.36	1.37	1.37	1.38	2.25	12.00	4.64%	31.44
Otter Tail	1.08	1.10	1.12	1.14	1.16	2.00	13.00	5.46%	27.53
Average	1.20	1.22	1.23	1.25	1.27	2.07	11.07	1.69%	27.05

The cost of common equity is calculated using a two-stage, annually compounded discounted cash flow model:

$$Po(1-fc) = \sum_{t=1}^{n} Dt/(1+k)^t = (Dn(1+gn))/(k-gn) * (1/(1+k))^t$$

Solving the above equation for k using Po = $27.05, fc =3%, and n = 5, provides a cost of common equity of: 8.6%

1) Data obtained or calculated from information provided in *Value Line*, 12/05/03, 10/3/03.

2) The average stock price is the average of the high and low stock price for December 5-19, 2003, Nomura Research Institute, Ltd.

Two-Stage, Annually Compounded
Discounted Cash Flow Model

	Expected Dividends					Est. EPS	Est. ROE	Dividend Growth	Stock Price
	2003	2004	2005	2006	2007	2007	2007+	2007+	11/03
AGL RES.	1.11	1.12	1.12	1.12	1.12	2.25	11.50	5.78%	28.11
Keyspan	1.78	1.78	1.82	1.86	1.90	3.35	12.00	5.19%	34.55
Laclede	1.34	1.34	1.35	1.36	1.37	1.90	10.50	3.12%	28.79
N.W. Nat'l	1.27	1.28	1.30	1.31	1.33	2.35	10.00	4.34%	29.88
Peoples	2.12	2.16	2.19	2.21	2.24	3.70	11.50	4.54%	39.86
WGL	1.28	1.29	1.30	1.32	1.33	2.40	11.50	5.13%	27.18
Average	1.48	1.50	1.51	1.53	1.55	2.66	11.17	4.65%	31.39

The cost of common equity is calculated using a two-stage, annually compounded discounted cash flow model:

$$Po(1\text{-}fc) = \sum_{t=1}^{n} Dt/(1+k)^t = (Dn(1+gn))/(k-gn) * (1/(1+k))^t$$

Solving the above equation for k using Po = $31.39, fc =3%, and n = 5, provides a cost of common equity of: 9.128%

1) Data obtained or calculated from information provided in *Value Line*, 9/19/03.

2) The average stock price is the average of the high and low stock price for November 2003, Nomura Research Institute, Ltd.

RISK PREMIUM ANALYSIS

1992 - 2002

MONTH	GAS INDEX COST OF EQUITY	RISK FREE RATE	RISK PREMIUM
Oct 92	9.61	7.34	2.27
Nov	9.81	7.53	2.28
Dec	9.89	7.61	2.28
Jan 93	9.44	7.44	2.00
Feb	9.31	7.34	1.97
Mar	9.13	7.09	2.04
Apr	8.93	6.82	2.11
May	9.04	6.85	2.19
Jun	9.17	6.92	2.25
Jul	9.38	6.81	2.57
Aug	8.61	6.63	1.97
Sep	8.62	6.32	2.30
Oct	8.68	6.00	2.68
Nov	8.69	5.94	2.75
Dec	8.97	6.21	2.76
Jan 94	8.96	6.25	2.71
Feb	8.63	6.29	2.34
Mar	8.72	6.49	2.23
Apr	8.97	6.91	2.06
May	9.23	7.27	1.96
Jun	9.36	7.41	1.95
Jul	9.55	7.40	2.15
Aug	9.51	7.58	1.93
Sep	9.60	7.49	2.11
Oct	9.73	7.71	2.02
Nov	9.62	7.94	1.68
Dec	9.97	8.08	1.89
Jan 95	10.12	7.87	2.25
Feb	9.83	7.85	1.98
Mar	9.68	7.61	2.07
Apr	9.67	7.45	2.22

MONTH	GAS INDEX COST OF EQUITY	RISK FREE RATE	RISK PREMIUM
May 95	9.04	7.36	1.68
Jun	9.68	6.95	2.73
Jul	9.67	6.57	3.10
Aug	9.66	6.72	2.94
Sep	9.74	6.86	2.88
Oct	9.32	6.55	2.77
Nov	9.39	6.37	3.02
Dec	9.43	6.26	3.17
Jan 96	9.60	6.06	3.54
Feb	9.03	6.05	2.98
Mar	9.08	6.24	2.84
Apr	9.23	6.60	2.63
May	9.55	6.79	2.76
Jun	9.64	6.93	2.71
Jul	9.55	7.06	2.49
Aug	9.96	7.03	2.93
Sep	9.81	6.84	2.97
Oct	10.07	7.03	3.04
Nov	9.76	6.81	2.95
Dec	9.62	6.48	3.14
Jan 97	9.74	6.55	3.19
Feb	9.57	6.83	2.74
Mar	9.66	6.69	2.97
Apr	9.77	6.93	2.84
May	10.15	7.09	3.06
Jun	10.02	6.94	3.08
Jul	9.90	6.77	3.13
Aug	9.92	6.51	3.41
Sep	9.95	6.58	3.37
Oct	9.86	6.50	3.36
Nov	9.87	6.33	3.54
Dec	9.58	6.11	3.47
Jan 98	9.56	5.99	3.57
Feb	9.37	5.81	3.56
Mar	9.49	5.89	3.60

MONTH	GAS INDEX COST OF EQUITY	RISK FREE RATE	RISK PREMIUM
Apr 98	9.53	5.95	3.58
May	9.44	5.92	3.52
Jun	9.64	5.93	3.71
Jul	10.34	5.70	4.64
Aug	9.92	5.68	4.24
Sep	9.96	5.54	4.42
Oct	9.87	5.20	4.67
Nov	9.87	5.01	4.86
Dec	9.58	5.25	4.33
Jan 99	9.56	5.06	4.50
Feb	9.78	5.16	4.62
Mar	10.30	5.37	4.93
Apr	10.42	5.58	4.84
May	10.49	5.55	4.94
Jun	10.20	5.81	4.39
Jul	10.14	6.04	4.10
Aug	9.89	5.98	3.91
Sep	9.97	6.07	3.90
Oct	10.14	6.07	4.07
Nov	10.17	6.26	3.91
Dec	10.13	6.15	3.98
Jan 00	10.45	6.35	4.10
Feb	10.96	6.63	4.33
Mar	11.36	6.23	5.13
Apr	11.28	6.05	5.23
May	10.69	5.85	4.84
Jun	10.55	6.15	4.40
Jul	10.52	5.93	4.59
Aug	10.37	5.85	4.52
Sep	10.15	5.72	4.43
Oct	10.03	5.83	4.20
Nov	9.87	5.80	4.07
Dec	9.68	5.78	3.90
Jan 01	9.29	5.49	3.80
Feb	9.45	5.54	3.91
Mar	9.59	5.45	4.14

MONTH	GAS INDEX COST OF EQUITY	RISK FREE RATE	RISK PREMIUM
Apr 01	9.73	5.34	4.39
May	9.60	5.65	3.95
Jun	9.59	5.78	3.81
Jul	9.64	5.67	3.97
Aug	10.06	5.61	4.45
Sep	10.14	5.48	4.66
Oct	10.27	5.48	4.79
Nov	10.28	5.32	4.96
Dec	10.33	5.12	5.21
Jan 02	10.42	5.48	4.94
Feb	10.37	5.45	4.92
Mar	10.62	5.56	5.06
Apr	10.40	5.88	4.52
May	10.13	5.82	4.31
Jun	10.18	5.79	4.39
Jul	10.35	5.66	4.69
Aug	10.72	5.54	5.18
Sep	10.57	5.23	5.34
AVERAGE RISK PREMIUM			3.44

Source: *Value Line* 1992-2002
Federal Reserve Board

RISK PREMIUM ANALYSIS

RESULTS

Risk Premium Cost of Equity = Estimated Risk Free Rate + Equity Risk Premium

9.20% = 5.7% + 3.50%

Source: *Blue Chip Financial Forecasts*, 12/03

SUMMARY OF RESULTS

DCF Cost of Equity - Comparison Electrics	8.60%
DCF Cost of Equity - Moody'S Gas Distribution	9.15%
Risk Premium Cost of Equity	9.20%
Average	9.00%

CAPITAL STRUCTURE

	Amount	%	Cost	After-Tax Wtd. Cost	Pre-Tax Wtd. Cost
Common Equity	$13,852,357	39.87	9.00%	3.59%	5.92%
Preferred Equity	169,539	.49	4.75	.02	.04
Long-term Debt	14,197,577	40.87	7.87	3.22	3.22
Short-term Debt	643,706	1.85	3.21	.06	.06
Customer Dep .	1,207,004	3.47	6.00	.21	.21
Tax Credits-Zero	2,013	.01	0.00	0.00	0.00
Tax Credits-WTD.	180,701	.52	8.28	0.04	0.04
Deferred Taxes	4,488,144	12.92	0.00	0.00	0.00
	$490,048,281	100%		7.14%	9.48%

TIE Ratio = 2.72X

Note: Deferred taxes were increased $1,813,981 with a corresponding pro rata reduction to investor funds. The remaining adjustments were pro rata to reconcile the Office of Public Counsel recommended rate base to the capital structure.

CERTIFICATE OF SERVICE
DOCKET NO. 030438-EI

I HEREBY CERTIFY that a true and exact copy of the above and foregoing Direct Testimony of Mark A. Cicdhetti has been furnished by hand delivery* or U.S. Mail to the following parties of record this 29th day of December, 2003.

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