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January 18, 2002

-VIA HAND DELIVERY-

Ms. Blanca S. Bayó
Director of the Commission Clerk and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Re: Docket No. 001148-EI

Dear Ms. Bayó:

I am enclosing for filing in the above docket the original and fifteen (15) copies of the prefiled testimony and exhibits of Florida Power & Light Company ("FPL") witness William E. Avera, who will testify about the appropriate return on equity and capital structure for FPL. Dr. Avera is the only outside expert witness on those subjects for whom FPL intends to file direct testimony, although FPL reserves the right to file rebuttal testimony of other outside witnesses on those subjects in accordance with the schedule for rebuttal testimony. Dr. Avera's testimony demonstrates that FPL is entitled an increase in its authorized return on equity. However, FPL is not at this time seeking to increase its rates.

FPL is filing Dr. Avera's testimony today in accordance with the requirement in Order No. PSC-02-0089-PCO-EI, dated January 15, 2002, that FPL file the direct testimony of its ROE expert witness on January 18, 2002. FPL will file the remainder of its direct testimony on January 28, 2002, as contemplated by that order.

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Sincerely,

John T. Butler, P.A.

Enclosures
cc: Counsel of record (w/copy of enclosures)

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that true and correct copy of the prefiled testimony and exhibits of William E. Avera was served by hand delivery (*) or overnight delivery this 18th day of January, 2002 to the following:

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By: _____
John T. Butler, P.A.

BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION

DOCKET NO. 001148-EI
FLORIDA POWER & LIGHT COMPANY

JANUARY 18, 2002

IN RE: REVIEW OF THE RETAIL RATES
OF FLORIDA POWER & LIGHT COMPANY

TESTIMONY & EXHIBITS OF:

WILLIAM E. AVERA

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

Florida Power & Light Company	)	**Docket No. 001148-EI**

DIRECT TESTIMONY OF WILLIAM E. AVERA

ON BEHALF OF

FLORIDA POWER & LIGHT COMPANY

FINCAP, Inc.
3907 Red River
Austin, Texas 78751
(512) 458-4644

January 18, 2002

DIRECT TESTIMONY OF WILLIAM E. AVERA

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

TESTIMONY OF WILLIAM E. AVERA

DOCKET NO. 001148

JANUARY 18, 2002

I. INTRODUCTION

Q. Please state your name and business address.

A. William E. Avera, 3907 Red River, Austin, Texas, 78751.

Q. By whom are you employed and in what capacity?

A. I am a principal in Financial Concepts and Applications, Inc. (FINCAP), a firm engaged in financial, economic, and policy consulting to business and government.

A. Qualifications

Q. Describe your educational background, professional qualifications, and prior experience.

A. I received a B.A. degree with a major in economics from Emory University. After serving in the U.S. Navy, I entered the Ph.D. program in economics at the University of North Carolina at Chapel Hill. Upon graduation, I joined the faculty at the University of North Carolina and taught finance in the Graduate School of Business. I subsequently accepted a position at the University of Texas at Austin where I taught courses in financial management and investment analysis. I then went to work for International Paper Company, Inc. in New York City as Manager of Financial Education, a position in

which I had responsibility for all corporate education programs in finance, accounting, and economics.

In 1977 I joined the staff of the Public Utility Commission of Texas (PUCT) as Director of the Economic Research Division. During my tenure at the PUCT, I managed a division responsible for financial analysis, cost allocation and rate design, economic and financial research, and data processing systems, and I testified in a number of cases on a variety of financial and economic issues. Since leaving the PUCT in 1979, I have been engaged as a consultant. I have participated in a wide range of analytical assignments involving utility-related matters on behalf of utilities, industrial customers, municipalities, and regulatory commissions. I have testified before the Federal Energy Regulatory Commission (FERC), as well as the Federal Communications Commission (FCC), the Surface Transportation Board (and its predecessor, the Interstate Commerce Commission), the Canadian Radio-Television and Telecommunications Commission, and regulatory agencies, courts, and legislative committees in 28 states.

With the approval of then–Governor George W. Bush, I was appointed by the PUCT to the Synchronous Interconnection Committee to advise the Texas legislature on the costs and benefits of connecting Texas to the national electric transmission grid. Currently, I am serving as an outside director of Georgia System Operations Corporation, the system operator for electric cooperatives in Georgia.

I have served as Lecturer in the Finance Department at the University of Texas at Austin and taught in the evening graduate program at St. Edward's University for twenty years. In addition, I have lectured on economic and regulatory topics in programs

sponsored by universities and industry groups. I have taught in hundreds of educational programs for financial analysts sponsored by the Association for Investment Management and Research, the Financial Analysts Review, and local financial analysts societies. These programs have been presented in Asia, Europe, and North America, including the Financial Analysts Seminar at Northwestern University. I hold the Chartered Financial Analyst (CFA) designation and have served as Vice President for Membership of the Financial Management Association. I was elected Vice Chairman of the National Association of Regulatory Commissioners (NARUC) Subcommittee on Economics and appointed to NARUC's Technical Subcommittee on the National Energy Act. I have also served as an officer of various other professional organizations and societies. A resume containing the details of my experience and qualifications is attached as Appendix A.

B. Overview

Q. What is the purpose of your testimony?

A. My purpose here is to present to the Florida Public Service Commission (FPSC) my independent assessment of the fair rate of return on common equity (ROE) for Florida Power & Light Company's (FPL) jurisdictional electric utility operations. In addition, I also examined the reasonableness of FPL's capital structure, considering both the specific risks faced by FPL and other industry guidelines. This evaluation is required in conjunction with the FPSC's review of the Minimum Filing Requirements (MFRs) submitted by FPL in compliance with Order No. PSC-01-1535-PCO-EI.

Q. Please summarize the basis of your knowledge and conclusions concerning the issues to which you are testifying in this hearing.

A. To prepare my testimony, I used information from a variety of sources that would normally be relied on by a person in my capacity. I obtained information relevant to the organization, finances, and operations of FPL through discussions with corporate management and from my review of numerous documents relating to FPL, including bond rating agency reports, financial filings, and prior regulatory proceedings and orders. I also reviewed information relating generally to capital markets and specifically to investor perceptions, requirements, and expectations for regulated utilities. These sources, coupled with my experience in the fields of finance and utility regulation, have given me a working knowledge of FPL and are the basis for my conclusions.

Q What is the role of the return on equity in setting a utility's rates?

A. The rate of return on common equity compensates shareholders for the use of their capital to finance the plant and equipment necessary to provide utility service. Investors commit capital only if they expect to earn a return on their investment commensurate with returns available from alternative investments with comparable risks. To be consistent with sound regulatory economics and the standards set forth by the Supreme Court in the *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n* [262 U.S. 679 (1923)] and *Fed. Power Comm'n v. Hope Natural Gas Co.* [320 U.S. 591 (1944)] cases, a utility's allowed return on common equity should be sufficient to (1) fairly compensate capital invested in the utility, (2) enable the utility to offer a return adequate

to attract new capital on reasonable terms, and (3) maintain the utility's financial integrity.

Q. How did you go about developing a fair rate of return on equity for FPL?

A. I first reviewed the operations and finances of FPL and the general conditions in the utility industry and the economy. With this as a background, I developed the principles underlying the cost of equity concept and then conducted various quantitative analyses to estimate the cost of equity for a group of reference utilities. These included discounted cash flow (DCF) analyses and risk premium methods encompassing alternative approaches and studies. From the cost of equity range indicated by my analyses, a fair rate of return on equity was selected taking into account the economic requirements and specific risks for FPL, as well as other factors (*e.g.*, flotation costs) that are properly considered in setting a fair rate of return on equity.

A. Summary of Conclusions

Q. What are your findings regarding the fair rate of return on equity?

A. The results of my analyses indicated that the fair rate of return on equity for FPL is currently in the 12.15 to 14.15 percent range, with a midpoint of 13.15 percent. The bases for my conclusion are summarized below:

- *Application of the DCF model to the reference group of electric utilities implied a cost of equity of 12.6 percent;*
- *Alternative applications of the risk premium approach were used to confirm the reasonableness of my DCF results;*

- *Incorporating a 25 basis-point allowance for equity flotation costs, I concluded that the estimate of the cost of equity for the electric utility proxy group is 12.85 percent.*
- *The 12.85 percent recommended fair rate of return on equity does not explicitly incorporate any allowance for superior results. A reward to recognize and encourage exemplary performance, such as that documented in the testimony of FPL's witnesses, is an appropriate consideration in establishing a fair rate of return:*
    - *Consumers in FPL's service area have benefited from efficient and cost-effective operations, excellent customer service, improved reliability, and prices that have declined in real terms;*
    - *Providing the opportunity to earn an incremental return offers an appropriate incentive for FPL to continue to innovate and take risks in pursuit of superior performance;*
    - *Incorporating the 30 basis-point ROE reward proposed by FPL to my 12.85 percent recommended cost of equity for FPL results in a fair rate of return on equity of 13.15 percent.*
- *Finally, giving effect to the 100 basis-point range typically allowed by the FPSC for regulatory purposes results in an appropriate fair rate of return on equity range for FPL of 12.15 to 14.15 percent.*

My analyses of the cost of equity focused on a comparable group of nine electric utilities operating primarily in states where no substantive regulatory transition has been

implemented. My evaluation indicated that, after taking into account risks specific to FPL and the offsetting effect of FPL's relatively higher equity ratio, investors view FPL's overall investment risks as equivalent to those of the benchmark group of electric utilities. This conclusion was based on the following findings:

- *In evaluating FPL's relative risks, investors consider the implications of its significantly greater reliance on nuclear and purchased power and the characteristics of its service area economy;*
- *While these factors suggest that FPL may be somewhat riskier than the firms in the benchmark group, they are largely mitigated by FPL's strong capital structure;*
- *FPL's corporate bond rating, which provides the most objective and encompassing measure of overall investment risk, is identical to that maintained by the average firm in the electric utility proxy group.*

Q. What is your conclusion as to the reasonableness of FPL's capital structure?

A. Based on my evaluation, I concluded that the approximately 56 percent common equity ratio (as adjusted for off balance sheet obligations) maintained by FPL and approved by the FPSC under the 1999 Stipulation and Settlement Agreement (Revenue Sharing Agreement) continues to represent a reasonable mix of capital sources from which to calculate FPL's overall rate of return. This conclusion was based on the following findings:

- *While FPL's adjusted common equity ratio falls above the average maintained by the electric utility operating companies contained in the proxy*

group, it is well within the range of individual results for these firms and in-line with the lower leverage expected for the industry going forward;

- *While FPL's total debt ratio is slightly above rating agency guidelines for a single-A rating, this relatively conservative financial posture has not prevented recent declines in FPL's credit standing, with both major bond rating agencies continuing to maintain a "negative" outlook, warning investors of the potential for further deterioration;*
- *Absent its relatively conservative capital structure, FPL's debt rating would undoubtedly be lower than present levels and the greater investment risk that would result implies an increase in investors' required rate of return for FPL's securities;*
- *For an electric utility with an obligation to provide reliable service, investors' increased reticence to supply additional capital highlights the necessity of preserving flexibility, even during periods of adverse capital market conditions.*

Considering investors' heightened awareness of the risks associated with the electric power industry and the damage that results when a utility's financial flexibility is compromised, supportive regulation is perhaps more crucial now than at any time in the past. The cost of providing FPL an adequate return is small relative to the potential benefits that a financially sound utility can have in providing reliable service at reasonable rates and a platform for economic growth; especially when compared against the extreme burden imposed by a financially troubled service provider.

II. FUNDAMENTAL ANALYSES

Q. What is the purpose of this section?

A. As a predicate to subsequent quantitative analyses, this section briefly reviews FPL's operations and finances. In addition, it examines the risks and prospects for the electric utility industry and conditions in the capital markets and the general economy. An understanding of the fundamental factors driving the risks and prospects of electric utilities is essential in developing an informed opinion of investors' expectations and requirements, and form the basis of a fair rate of return.

A. Florida Power & Light Company

Q. Briefly describe FPL and its parent, FPL Group, Inc.

A. Headquartered in Juno Beach, Florida, FPL is engaged in the generation, transmission, and distribution of electric power throughout 34 counties located principally along the east and lower west coasts of Florida. FPL's service territory includes a population of more than 7 million, with service being provided to nearly 4 million customers. FPL is the principal subsidiary of FPL Group, Inc. (FPL Group), accounting for 90 percent of year-2000 consolidated operating revenues and 79 percent of total assets at year end. In addition to the electric utility operations of FPL, FPL Group is involved in the development, construction, and management of independent power generation facilities through FPL Energy, LLC and owns and operates a fiber-optic network that interconnects major cities within Florida (FPL FiberNet, LLC). As of December 31, 2000, FPL Group had total assets of approximately $15.3 billion, with consolidated revenues totaling over $7 billion for the most recent fiscal year.

Q. Please describe FPL's electric utility operations.

A. In addition to an economic base dominated by tourism, principal industries in FPL's service area include agriculture, manufacturing, and international trade. FPL employs approximately 9,800 individuals and during year-2000, energy sales amounted to almost 92 million megawatt hours. Approximately 59 percent of year-2000 retail electric revenues were attributable to residential customers, with 38 percent from commercial and 3 percent from industrial users. With a combined capacity of approximately 16,864 megawatts (MW), FPL's generating facilities include the four nuclear units of the St. Lucie and Turkey Point generating stations, with a combined capacity of 2,939 MW. In year-2000, nuclear generation accounted for 26 percent of the electric energy provided by FPL, followed by natural gas at 25 percent, oil at 25 percent, and coal at 7 percent.

The remaining 17 percent of FPL's year-2000 energy requirements were obtained through purchased power contracts. Take-or-pay purchased power contracts with the Jacksonville Electric Authority (JEA) and with subsidiaries of The Southern Company (Southern Company) provide approximately 1,300 MW of power through mid-2010 and 388 MW thereafter through 2021. FPL also has various firm contracts to purchase approximately 900 MW of capacity and energy from certain cogenerators and qualifying facilities. In addition, during 2001 FPL entered into agreements with several other electricity suppliers to purchase an aggregate of up to approximately 1,300 MW of power with expiration dates ranging from 2003 through 2007. FPL estimates that capacity and minimum payments under these agreements will total approximately $650 million annually through 2005.

FPL's transmission and distribution facilities consist of approximately 500 substations and include over 45,000 miles of overhead lines and approximately 22,200 miles of underground and submarine cables. At September 30, 2001, FPL's investment in net utility plant was approximately $8.3 billion. Capital expenditures for the construction or acquisition of additional facilities to meet customer demand are estimated to be approximately $3.8 billion for 2001 through 2003. Included in this three-year forecast are capital expenditures for 2001 of approximately $1.2 billion, of which $807 million had been spent by September 30, 2001.

FPL's retail electric operations are subject to the jurisdiction of the FPSC, with the interstate jurisdiction regulated by FERC. Additionally, FPL's nuclear facilities are subject to licensing by the Nuclear Regulatory Commission (NRC). The operating licenses for Turkey Point Units Nos. 3 and 4 expire in 2012 and 2013, respectively, while operating licenses for the two St. Lucie units will expire in 2016 and 2023. During 2000, FPL filed an application with the NRC to extend its license for the Turkey Point nuclear facilities and expects to file a similar request for the St. Lucie units in 2002. FPL's latest decommissioning studies indicate that FPL's portion of the cost of decommissioning its four nuclear units, including costs associated with spent fuel storage, to be $6.8 billion. At December 31, 2000, the accumulated provision for nuclear decommissioning totaled approximately $1.5 billion.

Q. What ratings have been assigned to FPL's long-term debt?

A. FPL's senior secured debt is currently rated "Aa3" by Moody's Investors Service (*Moody's*), with Standard & Poor's Corporation (*S&P*) recently downgrading FPL from

"AA-" to "A". As support for its decision to lower FPL's credit rating, *S&P* cited the financial strain associated with the intensive capital spending required to meet customers' demands for regulated utility services, while acknowledging the higher business risks associated with FPL Group's portfolio of independent power projects. S&P also noted that uncertainties over the resolution of regulatory issues and the future course of industry restructuring contribute to the risks faced by FPL's investors. Both *Moody's* and *S&P* have assigned a negative outlook to FPL's debt ratings, indicating the possibility of a further reduction in FPL's credit standing going forward. *S&P* remarked in *RatingsDirect* (September 26, 2001) that:

> The negative outlook for FPL Group and its affiliates reflects the uncertainty tied to the current regulatory proceedings and the potential for decreased revenues and cash flow at Florida Power & Light, which could affect key coverage ratios.

B. Electric Utility Industry

Q. What are the general conditions in the electric power industry?

A. For almost twenty years, electric utilities and their consumers experienced a respite from the volatility characteristic of the late 1970s and early 1980s. More recently, however, these general economic factors have been overshadowed by structural changes in the electric utility industry resulting from market forces, restructuring initiatives, and judicial decisions.

Q. Please describe these structural changes.

A. Competition is being increasingly promoted at the federal and state levels. The National Energy Policy Act of 1992, which reformed the Public Utility Holding Company Act of 1935, greatly increased prospective competition for the production and sale of power at the wholesale level. In April 1996 FERC adopted Order No. 888, which mandated open access to the wholesale transmission facilities of jurisdictional electric utilities, and it more recently addressed improvements to the transmission system including the establishment of Regional Transmission Organizations in Order 2000.

Wholesale wheeling provides transmission-dependent electric utilities with additional energy supply options; but it has also introduced new risks to participants in the wholesale power markets. As *Moody's* recognized in an April 1999 *Special Comment*:

> Companies throughout the natural gas and electric power sectors face an uncertain future as the utility industry undergoes restructuring and moves toward increased competition. The changes, in large part, stem from the efforts of the Federal Energy Regulatory Commission (FERC) that have introduced a greater measure of competition into the natural gas and electric power wholesale markets during the 1990s. Similar efforts underway or anticipated at the state level are already altering the fundamentals of the manner in which energy is bought and sold and moved to the retail customer. (p. 5)

Policies affecting competition in the electric utility industry vary widely at the state level, but over 25 jurisdictions have enacted some form of industry restructuring. As foreshadowed by Merrill Lynch in a June 24, 1996 *Electric Utilities Industry Report*, this

process of industry transition has led to the disaggregating of many formerly integrated electric utilities into three primary components – generation, transmission, and distribution:

> The electric utility industry is in a monumental transition state at the current time. The transition is from a vertically integrated, monopoly industry to one that we expect to be very competitive and significantly restructured. We expect all utility customers to have competitive choices in the next 5-10 years. We expect companies to realign and/or disaggregate their businesses – some may exit the generation business, others may exit the distribution business – as well as merge to create larger companies. ...The risk profile of the electric utility industry is clearly reaching higher levels than it has experienced in the past and will further increase. (p. 3)

While prospects for competition have shifted the risk profile of the electric utility industry upwards, the innovations, efficiencies, and responsiveness stimulated by competitive markets are ultimately expected to produce benefits for consumers in the form of lower rates and enhanced service and reliability. More recently, however, industry restructuring received a setback when electricity prices in California (one of the first states to implement competition) skyrocketed and reliability suffered.

Q. What impact have events in California and the Western U.S. had on investors' risk perceptions for firms involved in the electric power industry?

A. In the mid-1990s, California saw itself ready to claim the forefront of utility deregulation; instead, inadequate power supplies, rising demand, and a failed market

structure combined to produce a well-publicized energy crisis. *S&P* summarized the fallout from the California crisis in a September 28, 2000 *RatingsDirect* report:

> Persistent hot weather, a dearth of needed new generation capacity, rapid customer growth and usage, record natural gas prices and the consequent explosion in power prices to double and even triple normal prices in an extremely short time, are wreaking political havoc for state and federal officials. There has been a great deal of finger pointing and anger generated by the frustrated expectations for lower prices that competing generation suppliers would provide. Some argue that generators are holding back supply to take advantage of the extremely volatile and lucrative energy markets. Others contend that there simply is not enough energy to meet California's increasing electricity demands. Reduced import capabilities, due to strong economic and load growth both in the Northwest and Southwest, have also limited generation alternatives.
>
> While it is inevitable that electricity demand in California will exceed supply for the foreseeable future, California is still in a desperate search for an immediate fix to its pricing crisis.

Beyond causing regulators and legislators to re-evaluate their industry restructuring plans, the financial implications of the recent California experience have demonstrated the risks facing all segments of the electric power industry. The massive debts owed by the state's utilities to banks, power producers, and other creditors have shattered their financial integrity. Early in 2001, investors watched bond ratings for the two largest utilities in the state drop from investment grade to "junk" status within a matter of weeks. The subsequent bankruptcy filing of Pacific Gas and Electric Company (PG&E) in April 2001 brought the uncertainties associated with today's power markets

into sharp focus for the investment community. *S&P* commented on the continuing difficulties faced by investors caught up in the debacle in *"California Utilities Update"* (April 16, 2001):

> Indeed, since last summer, the company and its investors have experienced nothing but frustration – first with respect to stemming the drain of its financial resources by the malfunctioning wholesale power market before these resources finally ran dry and then with its attempts to recover these resources. As Chairman Glynn commented last Friday, the regulatory and political processes have failed us. On Monday, Standard & Poor's took one of the final downward rating actions remaining to be taken on PG&E. We downgraded the utilities senior unsecured debt rating to 'D' from 'CC' in light of the company's comments that it did not anticipate paying regularly scheduled interest on these obligations.

While the case of PG&E represents an extreme example, there is every indication that investors' risk perceptions for electric utilities have shifted sharply upward as events in the Western U.S. have continued to unfold. For example, Platts' *Electric Utility Week* (July 9, 2001) noted that the "crisis saps investor confidence" and that fallout from the financial deterioration of California's utilities had spread beyond the state as "investors have turned away, spooked by the political and regulatory climate".

Q. Are all of the risks associated with the restructuring of the electric industry known at this time?

A. No. My experience with deregulation in the transportation and natural gas industries demonstrates that the structural changes associated with deregulation produces consequences that no one can predict. As prices become primarily market-driven, future

changes in prices become inherently uncertain. Much of this uncertainty simply reflects the superior ability of markets to adjust continually both to changing customer needs and to the changing costs of meeting those needs. This point was succinctly stated in the 1997 *Economic Report of the President*:

> An insufficiently appreciated property of markets is their ability to collect and distribute information on costs and benefits in a way that enables buyers and sellers to make effective, responsive decisions. ...As tastes, technology, and resource availability change, market prices will change in corresponding ways to direct resources to the newly valued ends and away from obsolete means. It is simply impossible for governments to duplicate and utilize the massive amount of information exchanged and acted upon daily by the millions of participants in the marketplace. (p. 191)

While competition in the electric utility industry may provide benefits for both consumers and producers, these benefits come at a cost. Namely, all participants will become exposed to new uncertainties, such as the threat of new entrants and technologies and the threat of price volatility in wholesale markets. It will be the challenge of regulators and policymakers to establish competitive markets that capture the benefits of competition for consumers while mitigating the impacts of its inherent risks.

Q. Are investors likely to consider the impact of market restructuring in assessing their required rate of return for FPL?

A. While restructuring of the electric utility industry is not imminent in Florida, the Energy 2020 Study Commission established by Governor Bush in May 2000 has examined the

potential reform of the wholesale power market. Their final report identified the transition to an effective competitive wholesale generation market as one objective, along with encouraging the development of merchant power plants. The investment community recognizes that, while the restructuring process is likely to be deliberate, it will ultimately result in greater competition and business risk for incumbent utilities. Potential wholesale competitors could find FPL's market attractive, as *S&P* observed in "FPL Faces Challenges On Several Fronts", *RatingsDirect* (December 3, 1998):

> Transmission constraints, surging demand, environmental restrictions and a dearth of excess generating capacity make Florida the ideal market for strategically located independent power plants.

Moody's also recognized these potential hurdles for FPL in a July 2000 *Global Credit Research* report:

> (T)he company is not without challenges as we expect alternative suppliers will become formidable competitors once barriers to entry disappear. (p. 1)

Even before the establishment of any transition to competition, market trends and federal policies will continue to impact FPL and its investors. Moreover, as the Energy 2020 Study Commission recognized in its February 2001 *Interim Report*, lack of restructuring legislation does not leave industry stakeholders immune from adversity:

> It is important to realize that the path of "no change" will not leave the state in a status quo position. Market participants will continue to follow incentives inherent in the current policy to find opportunities to participate in Florida's market. This process will ensure that changes continue to take place – the present system will not prevent competition

from developing. The environment, however, will be replete with uncertainty and risk, and the full benefits of competition may not be ultimately realized. (p. 2)

Already, FPL has confronted the uncertainties associated with the establishment of regional transmission organizations (RTOs), pursuant to FERC's Order 2000. Together with Florida Power Corporation and Tampa Electric Company, FPL proposed the formation of an independent entity, GridFlorida, to own and operate the transmission system. However, significant issues concerning the formation and scope of RTOs, uncertainties over asset ownership, recovery of interconnection costs, and loss of functional control have yet to be resolved and continue to plague the establishment of transmission organizations. Thus, while a market restructuring plan has not yet been formalized for FPL's service territory, investors undoubtedly consider these factors in assessing the required rate of return on long-term capital, such as common equity.

Q. Are the uncertainties associated with structural changes the only risks being faced by electric utilities?

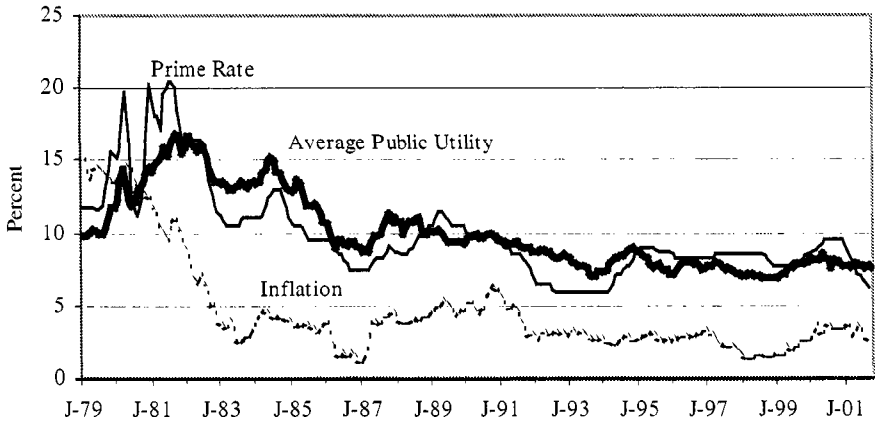
A. No. Apart from these factors, a number of electric utilities, once considered the paragon of financial stability, have experienced difficult financial straits. In part to avoid the risks associated with building additional base-load generating capacity, electric utilities have pursued a variety of options, such as increased reliance on power purchases from wholesale suppliers and non-utility generators, although these entail additional risks in and of themselves. The industry continues to face the risks inherent in operating electric utility systems. Electric utilities are confronting increased environmental pressures that could impose significant costs on utilities that rely on coal as a boiler fuel. While FPL

has demonstrated leadership within its industry in protecting the environment, it remains exposed to uncertainties regarding emissions and potential contamination. For example, in 1999 the Attorney General of the United States brought an action against Georgia Power Company for alleged violations of the Clean Air Act at the Scherer Unit No. 4, in which FPL owns a 76 percent interest. Nuclear risk persists for those utilities involved in nuclear plants, although the exposure has shifted from construction to operating and decommissioning uncertainties.

C. Economy and Capital Markets

Q. What has been the pattern of interest rates during the 1980s and 1990s?

A. Average long-term public utility bond rates, the monthly average prime rate, and inflation as measured by the consumer price index since 1979 are plotted in the graph below:

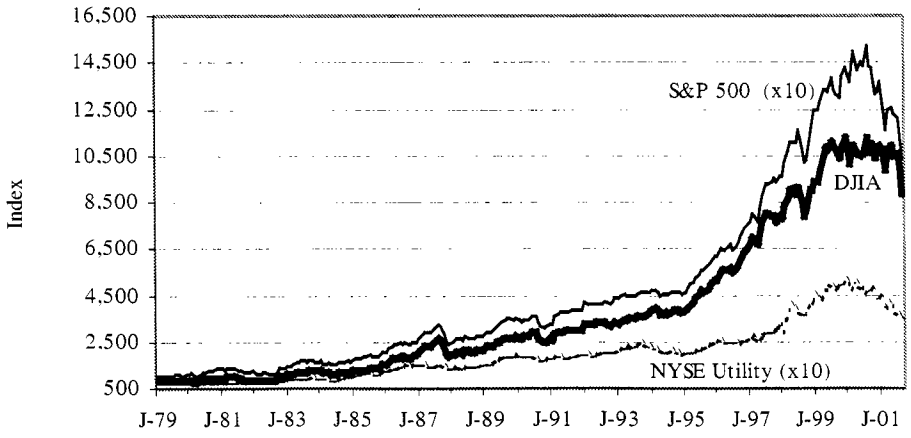


After peaking at 16.89 percent in September 1981, the average yield on long-term public utility bonds generally fell through 1986, reaching 8.77 percent in January 1987. Yields remained at or above 10 percent through mid 1989, gradually declined to 7 percent in

October 1993, but then rose to 9 percent in November 1994. Interest rates then began a general decline, with the average public utility bond yield being 7.61 percent in November 2001. In comparison with the variations experienced in the late 70s and early 80s, the more recent pattern of bond yields has been relatively flat.

Q. How has the market for common equity capital performed over this same period?

A. The 20 years leading up to early 2000 witnessed the longest bull market in U.S. history, which is generally attributed to low inflation and interest rates, sustained economic growth, a favorable business climate, and widespread merger and acquisition activity. While common stocks have increased over ten times in value since 1979, valuations, particularly for firms in high technology industries, have fallen considerably since the first quarter of 2000. At the same time, the market has become increasingly volatile, with share values repeatedly changing in full percentage points during a single day's trading. The graph below plots the performances of the Dow-Jones Industrial Average, the *S&P* 500 Composite Index, and New York Stock Exchange Utility Index since 1979 (the latter two indices were scaled for comparability):



Although the general trend in stock prices obscures much of the daily and weekly volatility in the graph, these short-term swings have increased risks for participants in equity markets. As noted by The Value Line Investment Survey (*Value Line*) in a March 9, 2001 report, investors have also felt these uncertainties in once-stable utility stocks:

> Utility investors have had to endure much more stock volatility than usual for the industry during the past three months. At the start of this year, the Dow Jones utility index fell some 19% from the December 2000 peak. (p. 155)

Q. What is the outlook for the U.S. economy and capital markets?

A. During the decade through the first quarter of 2001, the U.S. economy enjoyed the longest peacetime expansion in history. Monetary and fiscal policies resulted in modest inflation during this period, with unemployment rates falling to their lowest levels since the 1960s. A revolution in information technology, rising productivity, and vibrant international trade have all contributed to strong economic growth. However, even before the events of September 11, 2001, there were increasing signs that the economic expansion would not be sustainable. Concerns regarding the slowing pace of economic activity have been exemplified by the Federal Reserve's sequential lowering of interest rates. THE WALL STREET JOURNAL reported (November, 27, 2001) that the nonprofit National Bureau of Economic Research, which has been monitoring the state of the U.S. economy since the 1930s, announced the economy's decline into recession:

> The committee is satisfied that the total contraction in the economy is sufficient to merit the determination that a recession is underway. (p. A2)

Uncertainties over the fragility of the economy have only been magnified in the aftermath of the recent terrorist attacks, which threaten to further undermine consumer confidence and contribute to global economic instability. These factors cause the outlook to remain tenuous, with persistent stock and bond price volatility providing tangible evidence of the uncertainties faced by the U.S. economy.

Q. How do these capital market uncertainties affect electric utilities?

A. For electric utilities, stalled economic growth will likely mean reduced energy sales. Although the economic expansion may resume in 2002, conflicting economic indicators cause considerable uncertainties to persist. Additionally, the volatility of stock and bond prices and the uncertain course of interest rates creates significant financial risks for utilities that seek to raise capital to finance required plant additions. And while inflation and interest rates are now relatively low, the future increases that would likely accompany an economic recovery would place additional pressure on the adequacy of existing service rates.

III. CAPITAL MARKET ESTIMATES

Q. What is the purpose of this section?

A. In this section, capital market estimates of the cost of equity are developed for a benchmark group of electric utilities. First, I examine the concept of the cost of equity, along with the risk-return tradeoff principle fundamental to capital markets. Next, I describe DCF analyses conducted to estimate the cost of equity for the reference group

of electric utilities. Finally, I report the findings of risk premium analyses based on authorized and realized rates of return that served as a check on my DCF results.

A. Economic Standards

Q. What role does the rate of return on common equity play in a utility's rates?

A. The return on common equity serves to compensate shareholders for the use of their capital to finance the plant and equipment necessary to provide utility service. Competition for investor funds is intense and investors are free to invest their funds wherever they choose. They will commit money to a particular investment only if they expect it to produce a return commensurate with those from other investments with comparable risks. Moreover, the return on common equity is integral in achieving the sound regulatory objectives of rates that are sufficient to: 1) fairly compensate capital investment in the utility, 2) enable the utility to offer a return adequate to attract new capital on reasonable terms, and 3) maintain the utility's financial integrity. Meeting these objectives allows the utility to fulfill its obligation to provide reliable service while meeting the needs of customers through expansion of the electric system.

Q. What fundamental economic principle underlies this cost of equity concept?

A. Unlike debt capital, there is no contractually guaranteed return on common equity capital since shareholders are the residual owners of the utility. Nonetheless, common equity investors still require a return on their investment; with the cost of equity being the minimum "rent" that must be paid for the use of their money. This cost of equity typically serves as the starting point for determining a fair rate of return on common equity.

The cost of equity concept is predicated on the notion that investors are risk averse, and will willingly bear additional risk only if they expect compensation for their risk bearing. In capital markets where relatively risk-free assets are available (*e.g.*, U.S. Treasury securities) investors can be induced to hold more risky assets only if they are offered a premium, or additional return, above the rate of return on a risk-free asset. Since all assets compete with each other for investors' funds, more risky assets must yield a higher expected rate of return than less risky assets in order for investors to be willing to hold them.

Given this risk-return tradeoff, the required rate of return (k) from an asset (i) can be generally expressed as:

$$k_i = R_f + RP_i$$

where: R_f = Risk-free rate of return; and
RP_i = Risk premium required to hold risky asset i.

Thus, the required rate of return for a particular asset at any point in time is a function of: 1) the yield on risk-free assets, and 2) its relative risk, with investors demanding correspondingly larger risk premiums for assets bearing greater risk.

Q. Is there evidence that the risk-return tradeoff principle actually operates in the capital markets?

A. Yes. The risk-return tradeoff can be readily documented in certain segments of the capital markets where required rates of return can be directly inferred from market data and generally accepted measures of risk exist. Bond yields, for example, reflect investors' expected rates of return, and bond ratings measure the risk of individual bond

issues. The observed yields on government securities, which are considered free of default risk, and bonds of various rating categories demonstrate that the risk-return tradeoff does, in fact, exist in the capital markets.

Q. Does the risk-return tradeoff observed with fixed income securities extend to common stocks and other assets?

A. It is generally accepted that the risk-return tradeoff evidenced with long-term debt extends to all assets. Documenting the risk-return tradeoff for assets other than fixed income securities, however, is complicated by two factors. First, there is no standard measure of risk applicable to all assets. Second, for most assets – including common stock – required rates of return cannot be directly observed. Nevertheless, it is a fundamental tenet that investors exhibit risk aversion in deciding whether or not to hold common stocks and other assets, just as when choosing among fixed income securities. This has been supported and demonstrated by considerable empirical research in the field of finance and is confirmed by reference to historical earned rates of return, with realized rates of return on common stocks exceeding those on government and corporate bonds over the long-term.

Q. Is this risk-return tradeoff limited to differences between firms?

A. No. The risk-return tradeoff principle applies not only to investments in different firms, but also to different securities issued by the same firm. Debt, preferred stock, and common equity have different characteristics and priorities that cause investors to demand a higher rate of return to invest in the common stock of a utility versus loan it money in the form of debt or preferred stock.

When investors loan money in the form of debt (*e.g.*, long-term bonds), they enter into a contract whereby the utility agrees to pay the bondholders a specified amount of interest and to repay the principal of the loan in full. The bondholders have a senior claim on available cash flow for these payments, and if the utility fails to make them, they may force it into bankruptcy and liquidation for settlement of unpaid claims. Similarly, when a utility sells investors preferred stock, the utility promises to pay preferred stockholders specified dividends and, typically, to retire the preferred stock on a predetermined schedule. While the rights of preferred stockholders to available cash flow for these payments are junior to creditors, and preferred stockholders cannot compel bankruptcy, their claims are senior to those of common shareholders.

The last investors in line are common shareholders. They only receive the cash flow, if any, that remains after all other claimants – employees, suppliers, governments, lenders, and preferred stockholders – have been paid. As a result, the rate of return that investors require from a utility's common stock, the most junior and riskiest of its securities, is considerably higher than the yield on the utility's long-term debt or preferred stock, which have more certain, senior claims.

Q. What does the above discussion imply with respect to estimating the cost of equity?

A. Although the cost of equity cannot be observed directly, it is a function of the returns available from other investment alternatives and the risks to which the equity capital is exposed. Because it is unobservable, the cost of equity for a particular utility must be estimated by analyzing information about capital market conditions generally, assessing the relative risks of the company specifically, and employing various quantitative

methods that focus on investors' required rates of return. These various quantitative methods typically attempt to infer investors' required rates of return from stock prices, interest rates, or other capital market data.

Q. What additional difficulties are associated with estimating current costs of equity in the electric power industry?

A. Estimating the cost of equity is difficult, even when comparable publicly traded companies are available. The ongoing restructuring of the electric power industry exacerbates the problems. Industry participants are in the midst of realigning their businesses, with many electric companies disaggregating along functional lines while others are expanding and diversifying their operations. *Moody's* noted in *Electric Utilities Industry Outlook* (October 2000) that, because of market restructuring, it has become increasingly difficult to identify a peer group of firms that are directly comparable:

> The diverse strategies adopted in response to the deregulation of the US market have moved the industry from a peer group of 121 vertically integrated, regulated utilities, to 121 peer groups of one. (p. 4)

Q. Did you rely on a single method to estimate the cost of equity for FPL?

A. No. Despite the theoretical appeal of or precedent for using a particular method to estimate the cost of equity, no single approach can be regarded as wholly reliable. As the Federal Communications Commission recognized in Report and Order 42-43 (CC Docket No. 92-133, 1995):

> Equity prices are established in highly volatile and uncertain capital markets... Different forecasting methodologies compete with each other for eminence, only to be superceded by other methodologies as conditions change... In these circumstances, we should not restrict ourselves to one methodology, or even a series of methodologies, that would be applied mechanically. Instead, we conclude that we should adopt a more accommodating and flexible position.

Therefore, while I rely primarily on the results of DCF models, I also corroborate my DCF results by reference to risk premium methods that focus specifically on electric utilities. In my opinion, comparing estimates produced by one method with those produced by other methods ensures that the estimates of the cost of equity pass fundamental tests of reasonableness and economic logic.

B. Discounted Cash Flow Analyses

Q. How are DCF models used to estimate the cost of equity?

A. The use of DCF models is essentially an attempt to replicate the market valuation process that sets the price investors are willing to pay for a share of a company's stock. The model rests on the assumption that investors evaluate the risks and expected rates of return from all securities in the capital markets. Given these expected rates of return, the price of each stock is adjusted by the market until investors are adequately compensated for the risks they bear. Therefore, we can look to the market to determine what investors believe a share of common stock is worth. By estimating the cash flows investors expect to receive from the stock in the way of future dividends and capital gains, we can calculate their required rate of return. In other words, the cash flows that investors

expect from a stock are estimated, and given its current market price, we can "back-into" the discount rate, or cost of equity, that investors presumptively used in bidding the stock to that price.

Q. What market valuation process underlies DCF models?

A. DCF models are derived from a theory of valuation which assumes that the price of a share of common stock is equal to the present value of the expected cash flows (i.e., future dividends and stock price) that will be received while holding the stock, discounted at investors' required rate of return, or the cost of equity. Notationally, the general form of the DCF model is as follows:

$$P_0 = \frac{D_1}{(1+k_e)^1} + \frac{D_2}{(1+k_e)^2} + \cdots + \frac{D_t}{(1+k_e)^t} + \frac{P_t}{(1+k_e)^t}$$

where: P_0 = Current price per share;
P_t = Expected future price per share in period t;
D_t = Expected dividend per share in period t;
k_e = Cost of equity.

That is, the cost of equity is the discount rate that will equate the current price of a share of stock with the present value of all expected cash flows from the stock.

Q. Has this general form of the DCF model customarily been used to estimate the cost of equity in rate cases?

A. No. In an effort to reduce the number of required estimates and computational difficulties, the general form of the DCF model has been simplified to a "constant growth" form. But converting the general form of the DCF model to the constant growth DCF model requires a number of strict assumptions. These include:

- A constant growth rate for both dividends and earnings;
- A stable dividend payout ratio;
- The discount rate exceeds the growth rate;
- A constant growth rate for book value and price;
- A constant earned rate of return on book value;
- No sales of stock at a price above or below book value;
- A constant price-earnings ratio;
- A constant discount rate (i.e., no changes in risk or interest rate levels and a flat yield curve); and
- All of the above extend to infinity.

Given these assumptions, the general form of the DCF model can be reduced to the more manageable formula of:

$$P_0 = \frac{D_1}{k_e - g}$$

where: g = Investors' long-term growth expectations.

The cost of equity (K_e) can be isolated by rearranging terms:

$$k_e = \frac{D_1}{P_0} + g$$

This constant growth form of the DCF model recognizes that the rate of return to stockholders consists of two parts: 1) dividend yield (D_1/P_0), and 2) growth (g). In other words, investors expect to receive a portion of their total return in the form of current dividends and the remainder through price appreciation.

Q. Are the assumptions underlying the constant growth form of the DCF model met in the real world?

A. In practice, none of the assumptions required to convert the general form of the DCF model to the constant growth form are ever strictly met. Where earnings are derived solely from stable activities, and earnings, dividends, and book value track fairly closely, the constant growth form of the DCF model may be a reasonable working approximation of stock valuation. However, in other cases, where the circumstances surrounding the firm cause the required assumptions to be severely violated, the constant growth DCF model may produce widely divergent and meaningless results.

Q. How did you implement the DCF model to estimate the cost of equity for FPL?

A. As described above, application of the DCF model to estimate the cost of equity requires an observable stock price. Because FPL is a wholly-owned subsidiary of FPL Group and has no publicly traded stock, its cost of equity cannot be estimated directly using the DCF model. As an alternative, the cost of equity for an untraded firm is often estimated by applying the DCF model to publicly traded companies engaged in the same business activity. In order to reflect the risks and prospects associated with FPL's jurisdictional utility operations, my DCF analyses focused on a reference group of other electric utilities. Recognizing the measured approach to restructuring in Florida, the electric utility proxy group was composed of companies included in *Value Line's* Electric Utilities Industry group that operate primarily in states where no substantive regulatory transition has been implemented. An *RRA Regulatory Focus* report (February 28, 2001)

surveyed regulatory jurisdictions nationwide and ranked the progress of each jurisdiction toward electric industry restructuring using a 5-tier classification system:

> ...Tier 1 includes those states where retail access is in place, and Tier 5 includes states where no substantive restructuring activity is underway. (p. 1)

RRA assigned a restructuring tier of "4" to Florida, with the average restructuring tier being calculated for each utility based on the results of *RRA's* study and the business descriptions contained in *Value Line*. In order to better reflect the risks associated with FPL's electric utility operations, only those companies with an average restructuring tier of "4" or "5" were included in the reference group. Finally, utilities with an *S&P* corporate credit rating below single-A were eliminated, as were those utilities with less than $1 billion in net plant investment. These criteria resulted in the reference group of nine electric utilities shown on Exhibit ___, Schedule WEA-1, including FPL Group. The average consolidated corporate credit rating for this group of electric utilities is "A", the same as for FPL.

Q. How is the constant growth form of the DCF model typically used to estimate the cost of equity?

A. The first step in implementing the constant growth DCF model is to determine the expected dividend yield (D_1/P_0) for the firm in question. This is usually calculated based on an estimate of dividends to be paid in the coming year divided by the current price of the stock. The second, and more controversial, step is to estimate investors' long-term growth expectations (g) for the firm. Since book value, dividends, earnings, and price

are all assumed to move in lock-step in the constant growth DCF model, estimates of expected growth are sometimes derived from historical rates of growth in these variables under the presumption that investors expect these rates of growth to continue into the future. Alternatively, a firm's internal growth can be estimated based on the product of its earnings retention ratio and earned rate of return on equity. This growth estimate may rely on either historical or projected data, or both. A third approach is to rely on security analysts' projections of growth as proxies for investors' expectations. The final step is to sum the firm's dividend yield and estimated growth rate to arrive at an estimate of its cost of equity.

Q. How was the dividend yield for the reference group of electric utilities determined?

A. Estimates of dividends to be paid by each of these electric utilities over the next twelve months, obtained from *Value Line*, served as D_1. This annual dividend was then divided by the corresponding stock price for each utility to arrive at the expected dividend yield. The expected dividends, stock price, and resulting dividend yields for the firms in the electric utility proxy group are presented on Exhibit ___, Schedule WEA-1. As shown there, dividend yields for the nine firms in the electric utility proxy group ranged from 2.9 percent to 5.6 percent, with the average being 4.6 percent.

Q. What are investors most likely to consider in developing their long-term growth expectations?

A. In constant growth DCF theory, earnings, dividends, book value, and market price are all assumed to grow in lockstep and the growth horizon of the DCF model is infinite. But implementation of the DCF model is more than just a theoretical exercise; it is an

attempt to replicate the mechanism investors used to arrive at observable stock prices. Thus, the only "*g*" that matters in applying the DCF model is that which investors expect and have embodied in current market prices.

While the uncertainties inherent with common stock make estimating investors' growth expectations a difficult task for any company, in the case of electric utilities, the problem is exacerbated due to the unsettled conditions associated with the ongoing restructuring of the electric power industry. As discussed earlier, industry participants are in the midst of realigning their businesses, with many electric companies disaggregating along functional lines while others are expanding and diversifying their operations.

Given that the electric power industry is becoming increasingly diversified and consolidated, investors undoubtedly recognize that the future for electric utilities will not be an extension of the past, and that dividend policy will become increasingly conservative to accommodate the heightened uncertainties surrounding the industry.

Q. How are investors' growth expectations for electric utilities being affected by the ongoing structural changes in the industry?

A. As described earlier, the electric utility industry is in the midst of a major upheaval. Competition is being increasingly promoted at the federal and state levels, and as a result of deregulation and ensuing competition on both the supply and demand sides of the industry, electric utilities' traditional monopoly status is being eroded. The investment literature is replete with discussions of how the introduction of competition into the industry is beginning, and will continue, to impact electric utilities. The Association for

Investment Management and Research (AIMR), with over 35,000 members in the investment profession, concluded early on in *Deregulation of the Electric Utility Industry: An Overview* (January 28, 1997) that:

> Everything about the electric utility industry is undergoing a transformation. The basics of this industry are no longer valid, which means new analytical tools are needed to understand and to analyze electric utilities. Deregulation is redefining the environment in which the industry operates and creating new challenges for industry participants. Industry restructuring is affecting the valuation of electric utility securities, making investing in these securities more challenging today than ever before. (p. 1)

The transition of the electric utility industry is affecting investors' expectations in a variety of ways, from the possibility of stagnant dividend growth in the near-term to prospects for higher growth in long-term earnings.

Q. Are growth rates based on past experience likely to be indicative of what investors expect from electric utilities in the future?

A. No. Investors are certainly aware that the pace of structural change varies between jurisdictions, with some states having already implemented retail competition (*e.g.,* New Jersey) while others remain largely under traditional regulation (*e.g.,* Florida). Nevertheless, over the longer-term investors clearly expect the industry to become increasingly competitive, diversified, and consolidated and they undoubtedly recognize that the future for electric utilities will not be an extension of the past. Growth expectations for electric utilities are clouded by uncertainties associated with the timing and exact form of restructuring, and investors recognize that not all electric utility assets

will be able to compete in a restructured power market. Nevertheless, it is widely believed that once the constraints of regulation are relaxed and/or removed, the industry will achieve growth rates more closely paralleling those of firms in other sectors of the economy.

Q. Are near-term dividend growth rates likely to provide a meaningful guide to investors' growth expectations for electric utilities?

A. No. Dividend policies for electric utilities have become increasingly conservative as business risks in the industry have become more accentuated. Thus, while earnings may be expected to grow significantly, dividends have remained largely stagnant as utilities conserve financial resources to provide a hedge against heightened uncertainties and additional capabilities to expand their operations and meet customers' needs. As a result, the average payout ratio for the firms in the electric utility industry has been trending downward from approximately 80 percent historically to on the order of 65 percent. As a result, investors' focus has increasingly shifted from dividends to earnings as a measure of long-term growth. This change in investors' emphasis was noted by *Value Line* (February 19, 1999):

> Historically, investors have bought utility stocks because they offered much higher yields than most other equities...but dividends are no longer the sole focus. Investors and analysts are also paying attention to earnings, and price-earnings ratios...As the electric utility industry has been evolving into a less regulated (though not entirely deregulated) and more competitive business, so has investors' focus changed. (p. 1730)

As a result, projected growth in earnings, which ultimately support future dividends and share prices, is likely to provide a more meaningful guide to investors' long-term growth expectations.

Q. What other evidence suggests that investors are more apt to consider trends in earnings in developing growth expectations?

A. The importance of earnings in evaluating investors' expectations and requirements is well accepted in the investment community. As noted in *"Finding Reality in Reported Earnings"* published by AIMR (December 4, 1996):

> [E]arnings, presumably, are the basis for the investment benefits that we all seek. "Healthy earnings equal healthy investment benefits" seems a logical equation, but earnings are also a scorecard by which we compare companies, a filter through which we assess management, and a crystal ball in which we try to foretell the future. (p. 1)

Value Line's near-term projections and its Timeliness Rank, which is the principal investment rating assigned to each individual stock, are also based primarily on various quantitative analyses of earnings. As *Value Line* explained in its *Subscribers Guide*:

> The future earnings rank accounts for 65% in the determination of relative price change in the future; the other two variables (current earnings rank and current price rank) explain 35%. (p. 53)

The fact that investment advisory services, such as *Value Line* and *I/B/E/S*, focus on projected growth in earnings indicates that the investment community regards this measure as a better indicator of future long-term growth than those based on historical data or other near-term projections.

Q. What are security analysts currently projecting in the way of earnings growth for the firms in the electric utility proxy group?

A. The earnings growth projections for each of the firms in the electric utility proxy group reported by *I/B/E/S* and published in *S&P's* Earnings Guide are displayed on Exhibit ___, Schedule WEA-2. Also presented are the EPS growth projections reported by Zacks Investment Research (*Zacks*), *Value Line*, and First Call Corporation (*First Call*). As shown on Exhibit ___, Schedule WEA-2, the average growth rates for the electric utility proxy group implied by these security analysts' projections fell in a relatively narrow range between 8.1 and 8.8 percent.

Q. How else are investors' expectations of future long-term growth prospects often estimated for use in the constant growth DCF model?

A. In constant growth theory, growth in book equity will be equal to the product of the earnings retention ratio (b) and the earned rate of return on book equity (r). Furthermore, if the earned rate of return and payout ratio are both constant over time, growth in earnings and dividends will be equal to growth in book value. Accordingly, conventional applications of the constant growth DCF model might examine the relationships between retained earnings and earned rates of return as an indication of the growth investors might expect from the reinvestment of earnings within a firm.

While this method may provide a rough guide for evaluating a firm's growth prospects, it is important to realize that "b x r" growth rates depend on the steady-state assumptions of DCF theory (*e.g.*, constant growth rate for dividends and earnings and a stable dividend payout ratio). These underlying assumptions are seldom, if ever, met in

practice and, because of this strict dependency on the mathematical theory, "b x r" growth rates may not reflect the expectations of actual investors in the capital markets. This problem is likely to be exacerbated when the circumstances surrounding an industry are undergoing changes, such as those currently occurring in the electric utility industry. Because of this weakness, direct estimates of growth expectations, such as those embodied in securities analysts' projections, are likely to provide a more meaningful guide to what investors' expect, which is the only relevant benchmark in applying the DCF model. I have included a growth estimate based on earnings retention, recognizing that it is apt to be less reliable as an indicator of investors' expectations than security analysts' estimates.

Q. What growth rate does the earnings retention method suggest for the reference group of electric utilities?

A. The sustainable, "b x r" growth rates for each firm in the benchmark group are shown on Exhibit ___, Schedule WEA-3. For each utility, the expected retention ratio (b) was calculated based on *Value Line's* projected dividends and earnings per share. Likewise, each firm's expected earned rate of return (r) was computed by dividing projected earnings per share by projected net book value. As shown there, this method resulted in an average "b x r" growth rate for the electric utility proxy group of 6.3 percent.

Q. What did you conclude with respect to investors' growth expectations for the reference group of electric utilities?

A. Based on an average of the growth projections shown in the table below, I concluded that investors currently expect growth on the order of 8.0 percent range for the electric utility proxy group:

	Growth Rate
Analysts' Estimates	
I/B/E/S	8.1%
Zacks	8.5%
Value Line	8.8%
First Call	8.1%
"b x r" Growth	6.3%
Average	**8.0%**

Q. What cost of equity was implied for the proxy group of electric utilities using the DCF model?

A. Combining the 4.6 percent average dividend yield with a representative growth rate of 8.0 percent implied a cost of equity for the electric utility proxy group of 12.6 percent.

C. Risk Premium Analyses

Q. What other analyses did you conduct to estimate the cost of equity?

A. As a check of reasonableness on my DCF results, I also evaluated the cost of equity using risk premium methods. Because the cost of equity is inherently unobservable, no single method should be considered a solely reliable guide to investors' required rate of return. My applications of the risk premium method employ alternative approaches to measure equity risk premiums, encompass alternative periods and sample groups of companies, and include data through the present.

Q. Briefly describe the risk premium method.

A. The risk premium method of estimating investors' required rate of return extends to common stocks the risk-return tradeoff observed with bonds. The cost of equity is estimated by first determining the additional return investors require to forgo the relative safety of bonds and to bear the greater risks associated with common stock, and by then adding this equity risk premium to the current yield on bonds. Like the DCF model, the risk premium method is capital market oriented. However, unlike DCF models, which indirectly impute the cost of equity, risk premium methods directly estimate investors' required rate of return by adding an equity risk premium to observable bond yields.

Q. How did you implement the risk premium method?

A. The actual measurement of equity risk premiums is complicated by the inherently unobservable nature of the cost of equity. In other words, like the cost of equity itself and the growth component of the DCF model, equity risk premiums cannot be calculated precisely. Therefore, equity risk premiums must be estimated, with adjustments being required to reflect present capital market conditions and the relative risks of the groups being evaluated.

I based my estimates of equity risk premiums for electric utilities on (1) surveys of previously authorized rates of return on common equity, and (2) realized rates of return. Authorized returns presumably reflect regulatory commissions' best estimates of the cost of equity, however determined, at the time they issued their final order, and the returns provide a logical basis for estimating equity risk premiums. Under the realized-rate-of-return approach, equity risk premiums are calculated by measuring the rate of

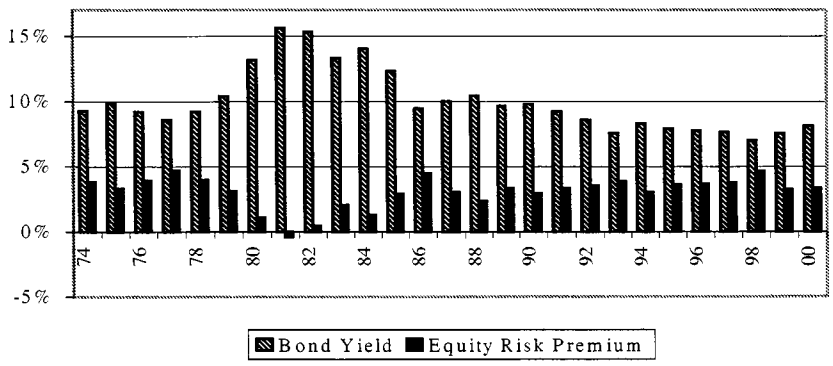
return (including dividends, interest, and capital gains and losses) actually realized on an investment in common stocks and bonds over historical periods. The realized rate of return on bonds is then subtracted from the return earned on common stocks to measure equity risk premiums. While these methods are premised on different assumptions, each having their own strengths and weaknesses, they are both widely accepted approaches that have been routinely referenced in estimating the cost of equity for regulated utilities.

Q. How did you implement the risk premium approach using surveys of allowed rates of return?

A. While the purest form of the survey approach would involve asking investors directly as to the additional return above interest rates they require to compensate for the additional risks of common equity, surveys of previously authorized rates of return on common equity are frequently referenced as the basis for estimating equity risk premiums. The rates of return on common equity authorized electric utilities by regulatory commissions across the U.S. are compiled by *RRA* and published in its *Regulatory Focus* report. In Exhibit ___, Schedule WEA-4, the average yield on public utility bonds is subtracted from the average allowed rate of return on common equity for electric utilities to calculate equity risk premiums for each year between 1974 and 2000. Over this period, these equity risk premiums for utilities averaged 3.05 percent, and the yield on public utility bonds averaged 9.97 percent.

Q. Is there any risk premium behavior that needs to be considered when implementing the risk premium method?

A. Yes. There is considerable evidence that the magnitude of equity risk premiums is not constant and that equity risk premiums tend to move inversely with interest rates. In other words, when interest rate levels are relatively high, equity risk premiums narrow, and when interest rates are relatively low, equity risk premiums widen. To illustrate, the graph below plots the yields on public utility bonds (shaded bars) and equity risk premiums (solid bars) shown on Exhibit ___, Schedule WEA-4,:



The graph clearly illustrates that the higher the level of interest rates, the lower the equity risk premium, and vice versa. The implication of this inverse relationship is that the cost of equity does not move as much as, or in lockstep with, interest rates. Accordingly, for a 1 percent increase or decrease in interest rates, the cost of equity may only rise or fall, say, 50 basis points. Therefore, when implementing the risk premium method, adjustments may be required to incorporate this inverse relationship if current interest rate levels have changed since the equity risk premiums were estimated. Finally, it is important to recognize that, for an industry in transition like the utility sector, the

historical focus of the risk premium studies almost certainly ensures that they fail to fully capture the significantly greater risks that investors now associate with providing electric utility service. As a result, they are likely to understate the cost of equity for a firm operating in today's electric power industry.

Q. What cost of equity is implied by surveys of allowed rates of return on equity?

A. As illustrated above, the inverse relationship between interest rates and equity risk premiums is evident. Based on the regression output between the interest rates and equity risk premiums displayed at the bottom of Exhibit ___, Schedule WEA-4, the equity risk premium for electric utilities increased approximately 45 basis points for each percentage point drop in the yield on average public utility bonds. As illustrated there, with the yield on average public utility bonds in November 2001 being 7.61 percent, this implied a current equity risk premium of 4.11 percent for electric utilities. Adding this equity risk premium to the November 2001 yield on single-A public utility bonds of 7.57 percent produces a current cost of equity for the utilities in the benchmark group of approximately 11.7 percent.

Q. How did you apply the realized-rate-of-return approach?

A. Widely used in academia, the realized-rate-of-return approach is based on the assumption that, given a sufficiently large number of observations over long historical periods, average realized market rates of return will converge to investors' required rates of return. From a more practical perspective, investors may base their expectations for the future on, or may have come to expect that they will earn, rates of return corresponding to those realized in the past.

Stock price and dividend data for the electric utilities included in the *S&P 500* are available since 1946. Exhibit ___, Schedule WEA-5 presents annual realized rates of return for these electric utilities in each year between 1946 and 2000. As shown there, over this 55-year period realized rates of return for these utilities have exceeded those on single-A public utility bonds by an average of 5.10 percent. The realized-rate-of-return method ignores the inverse relationship between equity risk premiums and interest rates and assumes that equity risk premiums are stationary over time; therefore, no adjustment for differences between historical and current interest rate levels was made. Adding this 5.10-percent equity risk premium to the November 2001 yield of 7.57 percent on single-A public utility bonds produces a current cost of equity for the electric utility proxy group of approximately 12.7 percent.

Q. What conclusion did you draw based on the results of these risk premium analyses?

A. While the 12.6 percent DCF cost of equity exceeds the 11.7 percent estimate based on authorized rates of return, it is slightly below the 12.7 percent cost of equity implied by realized rates of return. Given that my DCF cost of equity falls within the range of the risk premium results, application of this approach confirms the findings of my DCF analyses. This conclusion is reinforced by the fact that realized rates of return are widely cited by investment advisory services while regulatory decisions may reflect a variety of considerations unrelated to the cost of equity. Finally, as noted earlier, both risk premium estimates are likely to understate investors' current required rate of return because their historical focus fails to fully capture the significantly greater risks that investors now associate with providing electric utility service.

IV. RETURN ON EQUITY FOR FPL

Q. What is the purpose of this section?

A. This section addresses the economic requirements for FPL's rate of return on equity. It examines other factors properly considered in determining a fair rate of return, including FPL's relative investment risk, flotation costs, and an ROE reward for exemplary results. This section also discusses the regulatory policy reasons for avoiding a return on equity that is not sufficient to maintain FPL's financial integrity and ability to attract capital. Finally, this section presents my conclusions regarding the fair rate of return and evaluates the reasonableness of FPL's capital structure.

A. Relative Risks

Q. How can the overall investment risks of FPL be compared with the electric utility proxy group?

A. Perhaps the most objective guide to a utility's overall investment risk is its bond rating. Bond ratings are assigned by independent rating agencies for the purpose of providing investors with a broad assessment of the creditworthiness of a firm. The ratings assigned to a utility by the rating agencies are typically based on an evaluation of the utility's business and financial risks. The evaluation of business risk tends to be fairly qualitative, and involves an examination of the utility's relative markets and service area economy, competitive position, operations, regulation, management, supply position, and asset concentration. Meanwhile, the evaluation of financial risk tends to be more quantitative and involves an examination of financial data concerning earnings protection, capital structure, cash flow adequacy, and financial flexibility. Because the

rating agencies' evaluation includes virtually all of the factors normally considered important in assessing a firm's relative credit standing, bond ratings provide the most all-encompassing measure of investment risk readily available to investors. Ratings generally extend from triple-A (the highest) to D (in default). Other numerical designations (*e.g.*, "A1") or symbols (*e.g.*, "A+") are used to show relative standing within a category. Within the investment grade categories (triple-A through triple-B), the distinctions between these refined ratings designations tend to reflect a very modest gradation in risk.

Q. What does a comparison of bond ratings indicate with respect to FPL's relative investment risks?

A. As noted earlier, the average consolidated corporate debt rating for the utility proxy group is "A", with ratings for the individual firms all falling in the single-A category. This average single-A rating for the benchmark group assigned by *S&P* is identical to FPL's corporate credit rating. On the other hand, both *S&P* and *Moody's* have assigned a "negative" outlook to FPL's senior debt, informing investors of the potential for reduced credit standing and further downgrades going forward. Given that FPL's corporate credit rating is identical to that of the reference group, and considering FPL's "negative" outlook, investors would likely conclude that the overall investment risks for FPL are at least as great for the firms in the electric utility proxy group.

Q. What other factors would investors likely consider in evaluating the relative investment risks of FPL?

A. Approximately 26 percent of FPL's total energy requirements are provided by its four nuclear units located at the St. Lucie and Turkey Point generating stations. Meanwhile, of the eight firms other than FPL Group included in the benchmark group used to estimate the cost of equity, 4 have no nuclear generation. During year-end 2000, only one utility (Duke Energy Corporation) had greater reliance on nuclear power, with the average share of total generation from nuclear sources amounting to approximately 12 percent for the proxy group.

As discussed in the testimony of FPL's witnesses, consumers have realized considerable savings in energy costs as a result of FPL's effective management of its nuclear generating facilities. While nuclear power confers advantages in terms of fuel cost savings and diversity, investors also associate nuclear facilities with risks that are not encountered with other sources of generation. *S&P* has long recognized the additional risks posed by nuclear facilities. As *S&P* noted in an August 8, 1994 *CreditWeek* article entitled "Measuring Nuclear Risk in a Competitive Environment":

> Operating and maintaining [nuclear plants] is more complex compared with fossil plants because of safety considerations and the additional safety equipment and operational controls required. (p. 41)

FPL's nuclear facilities represent a significant portion of its generating capability, and this concentration exposes FPL to substantial additional costs for repairs and replacement power in the event of a disruption.

Longer-term uncertainties regarding the disposal of spent fuel and the ultimate costs of decommissioning continue to accompany any investment in nuclear generating facilities, even for a firm with an exemplary history of operational success like FPL. As of year-end 2000, for example, FPL had paid $425 million to the United States Department of Energy (DOE) for transportation and disposal of spent fuel; but the DOE has failed to meet its statutory obligations. As a result, FPL has been forced to store spent fuel on site and, absent expanded capabilities, it will lose its ability to accommodate additional stocks at St. Lucie Unit Nos. 1 and 2 by 2005 and 2007, respectively. As *S&P* recognized in reporting the sale of the Nine Mile Point nuclear station (*RatingsDirect*, October 24, 2001), investors undoubtedly perceive significant risks associated with utilities that own and operate nuclear plants:

> The sale improves the business profile of the participating utilities because it substantially reduces operating risk and eliminates future decommissioning liabilities.

Moreover, the September 11th terrorist attacks added an additional complicating factor that undoubtedly affects investors' assessment of the uncertainties surrounding FPL's nuclear plants. Since the attacks, nuclear plant licensees have remained at the highest level of security alert and additional reviews, oversight, or modifications may be required to respond to new security threats. In explaining its expectations for continued downward pressure on electric utility bond ratings (*RatingsDirect*, October 5, 2001), *S&P* recognized the need to consider the potential impact of increased security threats:

> ...Standard & Poor's will continue to closely monitor the costs associated with increased security measures at certain plants, particularly nuclear

stations and large hydroelectric facilities, as well as the impact that a potential decline in tourism may have on certain companies whose economies depend heavily on that industry. (p. 2)

FPL's significantly greater reliance on nuclear power relative to the other firms in the electric utility proxy group used to estimate the cost of equity implies that it faces additional risks. While a precise quantification of the impact of these uncertainties on the cost of equity is problematic, investors undoubtedly consider them in establishing their required rate of return. Given the benefits that consumers have realized as a result of FPL's investment in nuclear facilities, fairness dictates that the corresponding risks be considered in establishing FPL's allowed rate of return on equity.

Q. How does the nature of the economy in FPL's service territory impact its relative risks?

A. Past experience indicates that the economy in FPL's service territory can be highly vulnerable to any conditions that cause a decline in tourism. In the early 1970s, for example, the Florida economy was experiencing strong growth with the opening of major tourist attractions, a vibrant real estate market, and a residential construction boom. Then came the Arab oil embargo that choked the flow of tourists, who at that time mostly arrived by car, and higher interest and inflation rates that contributed to a collapse of the construction industry. Just as the skyrocketing gas prices of the 1970s dampened consumers' willingness to travel, lingering fear from the recent terrorist attacks threatens to produce a new tourism-driven recession. FPL was one of five utilities singled out by *S&P* as being particularly vulnerable to a decline in tourism

(*RatingsDirect*, October 5, 2001), with a recent commentary on Florida's economy (Florida Trend, "Where We Stand", November 1, 2001) noting that:

> Tourism, the linchpin of Florida's economy, unquestionably took the heaviest blow in the fallout from the terrorist attacks. Slightly more than half of all visitors to Florida come by plane (one in 10 comes from New York); the interruption and subsequent reduction in airline service and the public's reluctance to travel turned what had been a soft slide in tourism into a free-fall, with central Florida and south Florida suffering the most. (p. 7)

And while the Florida economy has achieved a degree of diversification that was not present during the tourism-led decline in the 1970s, many other industries, such as telecommunications and high-tech, were already struggling before the economy's latest downturn. The devastating impact of the tourism crisis on FPL's service territory has been widely reported, as exemplified by an article in the Fort Lauderdale Sun-Sentinel ("South Florida Officials Address Tourism Losses Following Terrorist Attacks", September 27, 2001):

> In South Florida, the news is bad. Among the dire assessments are projected tourism losses of $150 million a week in Miami-Dade County and $50 million a week in Broward County, county officials say. Palm Beach County is still evaluating the economic impact, but the tourism business also experienced devastating losses following the attacks.

More recently, the Miami Herald noted that while the plunge in activity immediately following the terrorist attacks had moderated, there was little cause for celebration ("Experts Say Rise in Miami-Area Hotel Occupancy Gives No Cause to Cheer", December 12, 2001):

"We're no longer in a free-fall, but we will have sluggish conditions in '02," local economist Tony Villamil told the annual economic outlook conference of the Beacon Council, Miami-Dade's development agency. "The events of Sept. 11 were like a sucker punch to our economy". Broward faces a similar situation, said Niki Grossman, president of the Greater Fort Lauderdale Convention and Visitors Bureau. ...Indeed, the signs of the slowdown are multiplying across the region. Despite strength in some key industries like construction, unemployment claims in Miami-Dade were up 140 percent in October compared to the same month last year, according to the Beacon Council, and in November they were 50 percent higher than a year earlier. ...Tourism isn't the only industry feeling the economic pinch. Merchandise trade is also declining, said Villamil, the economist, and he isn't certain when a turnaround might occur. The problem is that South Florida's largest trade partners are in Latin America, which is deeply troubled.

While the U.S. economy is also experiencing a recession, the double-whammy caused by ongoing anxiety over air travel and a cutback in discretionary income heightens the risks of an economic downturn for FPL's investors and customers. Investors undoubtedly expect the outlook for Florida's economy to improve as the national recession wanes and vacationers become more willing to travel, but they nonetheless recognize the additional volatility introduced by the state's dependence on the tourism industry.

Q. What is your conclusion regarding the relative investment risks of FPL, as compared with the average firm in the electric utility proxy group?

A. FPL's corporate credit rating, which provides the most objective and encompassing measure of overall investment risk, is identical to that maintained by the average firm in

the electric utility proxy group. Moreover, investors view FPL's relatively high reliance on nuclear generation and the dependence of its service area economy on tourism as significant risks. Based on my evaluation, and considering the offsetting benefits of FPL's relatively conservative capital structure discussed subsequently, I concluded that investors would be unlikely to distinguish between the investment risks of FPL and those of the benchmark group of electric utilities.

B. Capital Structure

Q. Is an evaluation of the capital structure maintained by a utility relevant in assessing its return on equity?

A. Yes. Other things equal, a higher debt ratio, or lower common equity ratio, translates into increased financial risk for all investors. A greater amount of debt, and preferred stock, means more investors have a senior claim on available cash flow, thereby reducing the certainty that each will receive his contractual payments. This increases the risks to which lenders and preferred stockholders are exposed, and they require correspondingly higher rates of interest and dividends, respectively, for their risk bearing. From common shareholders' standpoint, higher debt and preferred stock ratios mean that there are proportionately more investors ahead of them, thereby increasing the uncertainty as to the amount of cash flow, if any, that will remain.

Q. What capital structure is reflected in FPL's MFR filings?

A. The capital structure reflected in FPL's MFR filings (excluding deposits, deferrals, and cost-free sources) for test year ended December 31, 2001 and 2002 is as follows ($000):

13-Month Average Jurisdictional Balance

	2001		2002	
Component	**Amount**	**%**	**Amount**	**%**
Short-term Debt	$ 199,696	2.37%	$ 52,463	0.61%
Long-term Debt	2,585,555	30.72%	2,808,533	32.68%
Preferred Stock	228,682	2.72%	227,170	2.65%
Common Equity	5,403,718	64.19%	5,505,315	64.06%
Total	$8,417,651	100.00%	$8,593,481	100.00%

Q. Do the ratios shown above provide a reasonable basis on which to evaluate FPL's capital structure?

A. No. As discussed earlier, a significant portion of FPL's power requirements are obtained through long-term purchased power contracts. Because these agreements obligate FPL to make certain capacity and minimum contractual payments akin to those associated with traditional debt financing, investors consider these commitments in evaluating FPL's financial risks. As *S&P* observed in "Buy Versus Build Debate Revisited" (*CreditWeek*, May 24, 1993):

> When a utility enters into a long-term purchased power contract with a fixed-cost component, it takes on financial risk. Heavy fixed charges reduce a utility's financial flexibility and long-term contractual arrangements represent – at least in part – off balance sheet debt equivalents. (p. 1)

S&P's assessment of purchased power obligations is analogous to investors' view of other industries that rely on off balance sheet financing, such as airlines. Fitch Investors Service also remarked on the similarities between fixed obligations under purchased power contracts and other forms of debt instruments:

> The primary financial risk with respect to power purchases is the extent to which the fixed capacity payment obligation creates a debt-like liability, similar to other off balance sheet obligations, such as leases and special purpose trusts that generally are capitalized.

Accordingly, incorporating the debt equivalent of FPL's obligations under its purchased power contracts would have the effect of increasing its financial leverage. In light of investors' recent tribulations with Enron Corporation (Enron), the investment community is likely to be even more sensitive to the impact that off balance sheet obligations can have on a company's financial position.

Q. Is the full amount of FPL's purchased power obligations typically treated as debt in evaluating its financial leverage?

A. No. The present value of the fixed obligations associated with FPL's purchased power contracts amounts to approximately $4.9 billion, which is roughly 1.9 times the long-term debt reflected on its balance sheet. While arguments could be made to consider the full amount as debt equivalents, the major bond rating agencies typically include only a portion of this present value as debt in analyzing relative financial risks. By evaluating the characteristics of a utility's purchased power contracts, *S&P* places each agreement on a risk spectrum according to the degree to which payments under the contract resemble the fixed obligations of traditional debt instruments, such as long-term bonds. Obligations on the lower end of the scale would have fewer debt-like characteristics and would be considered less firm than the obligations placed at the high end of the scale. Based on this ranking, a risk factor is assigned that indicates the portion of the present value of fixed payments that are considered as debt-equivalents. For example,

obligations under take-or-pay contracts that are unconditional as to both acceptance and availability of power are considered relatively firm (risk factors between 40 percent and 80 percent), while agreements that require capacity payments only if power is available are considered less debt-like (risk factors between 10 percent and 50 percent). *S&P* assigns each of FPL's purchased power commitments a risk factor in the 10 to 50 percent range.

Q. What capital structure is implied for FPL's 2001 and 2002 test years once the off balance sheet obligations associated with purchased power contracts are incorporated?

A. As *S&P* has recognized, because of purchased power, it has been necessary for FPL to maintain a relatively greater proportion of equity capital in order to maintain its credit standing. In a December 7, 1998 report in *Utilities & Perspectives*, *S&P* noted that:

> Florida Power & Light has a sizeable amount of fixed payment purchased-power contracts, a portion of which is imputed by Standard & Poor's as an off-balance-sheet debt obligation, and has maintained a higher amount of equity capital on the balance sheet to counter this off-balance-sheet debt obligation. (p. 2)

In addition to purchased power contracts, *S&P* also considers the full amount of FPL's obligations under its nuclear fuel leasing program as an off balance sheet obligation. Incorporating the total $1.2 billion debt equivalent attributed to FPL's off balance-sheet obligations by *S&P* results in the adjusted capital structure ratios shown in the following table ($000):

Adjusted 13-Month Average Jurisdictional Balance

	2001		2002	
Component	Amount	%	Amount	%
Short-term Debt	$ 199,696	2.07%	$ 52,463	0.54%
Long-term Debt	3,822,155	39.59%	4,045,133	41.15%
Preferred Stock	228,682	2.37%	227,170	2.31%
Common Equity	5,403,718	55.97%	5,505,315	56.00%
Total	$9,654,251	100.00%	$9,830,081	100.00%

These calculations not only reflect the investment community's evaluation of FPL's financial risks, they are identical to the approach specified in Section 4 of the Revenue Sharing Agreement currently in effect for FPL (Docket No. 990067-EI, *Stipulation and Settlement*, March 10, 1999):

> FPL's adjusted equity ratio equals common equity divided by the sum of common equity, preferred equity, debt and off-balance sheet obligations. The amount used for off-balance sheet obligations will be calculated per the Standard & Poor's methodology as used in its August 1998 credit report. (p. 3)

Moreover, the common equity ratio reflected in this capitalization is also consistent with 55.83 percent adjusted equity ratio that forms the surveillance cap specified under the terms of the Revenue Sharing Agreement.

Q. How can FPL's adjusted capital structure be evaluated?

A. It is generally accepted that the norms established by comparable firms provide one valid benchmark against which to evaluate the reasonableness of a utility's capital structure. The capital structure maintained by other electric utilities should reflect their collective efforts to finance themselves so as to minimize capital costs while preserving their

financial integrity and ability to attract capital. Moreover, these industry capital structures should also incorporate the requirements of investors, both debt and equity, as well as the influence of regulators.

Q. What capitalization ratios are maintained by other electric utilities?

A. Exhibit ___, Schedule WEA-6 displays capital structure data at September 30, 2001 for the group of electric utility operating companies owned by the firms in the proxy group (excluding FPL) used to estimate the cost of equity. As shown there, after incorporating the debt equivalent of off balance sheet liabilities identified by *S&P*, the permanent, long-term capitalization for this group of other electric utility operating companies was composed of 43.4 percent long-term debt, 5.5 percent preferred, and 51.1 percent common equity. The individual common equity ratios embodied in this average ranged from a low of 42.9 percent (Alabama Power Company) to a high of 59.9 percent (Tampa Electric Company). Incorporating the same short-term debt ratio reflected in FPL's adjusted 2001 capitalization of approximately 2.1 percent results in the average capital structure ratios for this group of other utilities summarized below:

Electric Utility Operating Cos.

Capital Component	% of Total
Short-term Debt	2.1%
Long-term Debt	42.5%
Preferred Securities	5.4%
Common Equity	50.0%
Total	100.0%

Q. What implication does the increasing risk of the electric power industry have for the capital structures maintained by utilities?

A. The FPSC has recognized that a more conservative financial policy is consistent with increasing risk in the electric utility industry (97FPSC 4:320-321):

> In Order No. PSC-97-0436-FOF-EI, we found that TECO's equity ratio of 58.7% was not unreasonable and was appropriate for calculating the Company's 1995 earnings pursuant to the stipulation. ...We note that TECO's equity ratio is at its highest level ever. However, equity ratios in the electric utility industry are increasing, reflecting the increased business risk.

Moody's also noted in a July 29, 1996 *Credit Risk Commentary* that utilities must adopt a more conservative financial posture if credit ratings are to be maintained:

> "The key issue," say the analysts in a recent special comment, "is that the competitive industries have much lower operating and financial leverage, and that utilities must streamline both in order to be effective competitors." Analysts say the utilities must do this in order to post stronger financial indicators and maintain their current ratings level. (p. 3)

Accordingly, the challenges imposed by evolving structural changes in the industry imply that utilities will be required to incorporate relatively greater amounts of equity in their capital structures. More recently, *Value Line* reported in its October 5, 2001 edition (p. 695) that the average common equity ratio for all firms in the electric utility industry is expected to increase significantly over the next three to five years. Indeed, the fact that the risks of the electric utility industry have continued to increase since the FPSC approved the Revenue Sharing Agreement in March 1999 (Docket No. 990067-EI)

supports the continued reasonableness of the 55.83 equity ratio benchmark specified in the stipulation.

Q. How does FPL's capital structure compare with other widely cited financial benchmarks for electric utilities?

A. The financial ratio guidelines published by *S&P* specify a range for a utility's total debt ratio that corresponds to each specific bond rating. Widely cited in the investment community, these ratios are viewed in conjunction with a utility's *business* profile ranking, which ranges from 1 (strong) to 10 (weak) depending on a utility's relative business risks. Thus, *S&P's* guideline financial ratios for a given rating category (e.g., single-A) vary with the business or operating risk of the utility. In other words, a firm with a *business profile* of "2" (i.e., relatively lower business risk) could presumably employ more financial leverage than a utility with a business profile assessment of "9" while maintaining the same credit rating. S&P last published revised financial benchmarks in 1999, noting in a June 21, 1999 edition of *Utilities & Perspectives* that:

> Standard & Poor's has created a single set of financial targets that can be applied across the different utility segments. These financial measures reflect the convergence that is occurring throughout the utility industry and the changing risk profile of the industry in general. (p. 1)

Consistent with these revised guidelines and FPL's *S&P business profile* ranking of "4", a utility would be required to maintain a ratio of total debt to total capital in the range of 43.0 percent to 49.5 percent to qualify for a single-A bond rating, or 37.5 percent to 43.0 percent for a double-A credit. FPL's 2001 and 2002 adjusted capital structures shown earlier imply a total debt ratio of approximately 41.7 percent, composed of short-term

and long-term debt (other components of the adjusted capital structure were preferred stock and common equity).

Q. What did you conclude regarding the reasonableness of FPL's capital structure?

A. Based on my evaluation, I concluded that the approximately 56 percent common equity ratio maintained by FPL and approved by the FPSC under the Revenue Sharing Agreement continues to represent a reasonable mix of capital sources from which to calculate FPL's overall rate of return. Although FPL's adjusted common equity ratio falls above the average currently maintained by the proxy group of electric utility operating companies, it is well within the range of individual results for this reference group and consistent with the lower leverage expected for the industry. It is also consistent with the relatively greater risk associated with FPL's exposure to nuclear generation and the South Florida economy. Moreover, while the total debt ratio of 41.7 percent implied by FPL's adjusted capital structure exceeds the guidelines that *S&P* specifies for a single-A bond rating, this relatively conservative financial posture did not forestall *S&P's* recent downgrade of FPL. Indeed, both *Moody's* and *S&P* continue to maintain a "negative" outlook, indicating the potential for further declines in credit ratings.

Q. If FPL's debt ratio exceeds the guidelines for a single-A rating, why would the rating agencies continue to warn of the potential for future downgrades?

A. As noted earlier, the bond rating agencies consider a plethora of factors relevant to their assessment of a company's overall credit standing. *S&P*, and investors generally, clearly recognize that the benefits of a strong financial position are offset by a variety of other

considerations affecting FPL's relative risk. First, apart from the immediate impact that the debt-equivalent portion of purchased power costs has on FPL's financial risks, other uncertainties are associated with these sources, such as potential replacement power costs in the event of supply disruption. The heavy fixed charges associated with these obligations also reduce FPL's ongoing financial flexibility. Second, investors are undoubtedly sensitive to FPL's relatively greater reliance on nuclear power, which entails significant uncertainties not associated with other forms of generation. FPL's location down the Florida peninsula, which dictates that power flows from outside the region must come from the north, also contributes to FPL's risks. Finally, as the events of this fall have made abundantly clear, the exposure of FPL's service area economy to tourism-led volatility heightens the risks perceived by investors, especially in the midst of an economic downturn. While industry averages provide one benchmark for comparison, each firm must select its capitalization based on the risks and prospects it faces. In this regard, FPL has chosen to maintain a relatively high equity ratio due to the unique challenges posed by its heavy reliance on purchased power and nuclear generation, the burden of its significant capital spending requirements, and the circumstances of its service area economy. Absent these financial policies, FPL's debt ratings would undoubtedly be lower than present levels and the greater investment risks implied by a lower common equity ratio would increase investors' required rate of return for FPL's debt and equity securities. A lower equity ratio for FPL would also imply that its investment risks exceed those of the proxy group used to estimate the cost of equity, implying a cost of equity above that reflected in my recommendations.

Q. What other indications confirm the reasonableness of FPL's capital structure policies?

A. As THE WALL STREET JOURNAL reported in a recent article entitled *"Rating Agencies Crack Down on Utilities"* (December 19, 2001, p. C1), bond rating agencies are closely scrutinizing debt levels on power company balance sheets in the wake of Enron's collapse. For those firms with higher leverage, on or off the balance sheet, this intense focus is likely to lead to ratings downgrades, reduced access to capital, and increased borrowing costs. The article observed that even firms with stock prices at 52-week lows are preparing to issue new common equity and quoted a credit analyst with Fitch, Inc.:

> "[B]anks are fearful to put more money into the sector" and it is making credit analysts nervous as well. The smart companies, he says, are the ones that voluntarily "get their balance sheets in line" and then "let the market know they're in charge of their destiny...since the market clearly has the heebie-jeebies."

THE WALL STREET JOURNAL article went on to note the crucial role that financial flexibility plays in ensuring that the utility has the wherewithal to meet the needs of customers:

> All the belt-tightening spells bad news for continued development of the nation's energy infrastructure. Companies that can borrow more money and stretch their dollars, quite simply, can build more plants and equipment. Companies that are increasingly dependent on equity financing – particularly in a bear market – can do less.

FPL's capital structure is just one reflection of FPL's ongoing efforts to maintain access to capital on reasonable terms in order to meet the demands of its obligations to

customers. Given its unique risks and geographic position, FPL must be able to raise capital, possibly in huge amounts, whatever the capital market environment.

C. Flotation Costs

Q. What other considerations are relevant to setting the return on equity for FPL?

A. The common equity used to finance utility assets is provided either from the sale of stock in the capital markets or from retained earnings not paid out as dividends. When equity is raised through the sale of stock, there are costs associated with "floating" the new equity securities. These flotation costs include services such as legal, accounting, and printing, as well as the fees and discounts paid to compensate brokers for selling the stock to the public. Also, some argue that the "market pressure" from the additional supply of common stock and other market factors may further reduce the amount of funds a utility nets when it issues common equity.

Q. Is there an established mechanism for a utility to recognize equity flotation costs?

A. No. While debt flotation costs are recorded on the books of the utility and amortized over the life of the issue, serving to increase the effective cost of debt capital, there is no similar accounting treatment to ensure that equity flotation costs are recorded and ultimately recognized. Alternatively, no rate of return is authorized on flotation costs necessarily incurred to obtain a portion of the equity capital used to finance plant. In other words, equity flotation costs are not included in a utility's rate base since neither that portion of the gross proceeds from the sale of common stock used to pay flotation costs is available to invest in plant and equipment, nor are flotation costs capitalized as an intangible asset. Even though there is no accounting convention to accumulate the

flotation costs associated with past equity issues, flotation costs are a necessary expense of obtaining equity capital. Unless some provision is made to recognize these issuance costs, a utility's revenue requirements will not fully reflect all of the costs incurred for the use of investors' funds. For example, a 1985 article published in *Public Utilities Fortnightly* (May 2, 1985) by scholars from the Public Utility Research Center at the University of Florida demonstrates that even if no further stock issues are contemplated, a flotation cost adjustment in all future years is required to keep shareholders whole (Brigham, E. F., Aberwald, D.A., Gapenski, D. A., "Common Equity Flotation Costs and Rate Making").

Q. How can flotation costs on past equity issues be recognized in revenue requirements?

A. Because there is no direct mechanism to recognize flotation costs associated with the issuance of common stock, they must be accounted-for indirectly. An upward adjustment to the cost of equity is the most logical mechanism to reflect these costs. This is essentially how flotation costs incurred in connection with the issuance of preferred stock are generally recognized, since the cost of preferred stock is typically calculated by dividing annual preferred dividend requirements by the net proceeds from the sale of the preferred stock issue. By using net proceeds instead of face value as the denominator, flotation costs are recognized in the resulting cost of preferred stock.

Q. What is the magnitude of the adjustment to the "bare bones" cost of equity to account for flotation costs?

A. There are any number of ways in which a flotation cost adjustment can be calculated, with the adjustment ranging from just a few basis points to more than a full percent. One of the most common methods used to account for flotation costs in regulatory proceedings is to apply an average flotation-cost percentage to a utility's dividend yield. This method generally results in a flotation cost adjustment in the range of approximately 25 to 50 basis points. Accordingly, I incorporated a minimum adjustment of 25 basis points in arriving at my recommended rate of return on equity for FPL.

D. Implications for Financial Integrity

Q. Why is it important to allow FPL an adequate rate of return on equity?

A. Given the social and economic importance of the electric utility industry, it is essential to maintain reliable and economical service to all consumers. While FPL remains committed to deliver reliable electric service at the lowest possible price, a utility's ability to fulfill its mandate can be compromised if it lacks the necessary financial wherewithal.

Q. What lessons can be learned from recent events in the energy industry?

A. While Florida clearly does not face a California-style power crisis, events in the western U.S. provide a dramatic illustration of the high costs that all stakeholders must bear when a utility's financial integrity is compromised. As utilities have been forestalled from recovering the costs of the purchased power they are forced to buy to serve their customers and denied the opportunity to earn risk-equivalent rates of return, they have

been cut off from access to capital. The state's economy has been jolted as cash-strapped utilities were unable to buy enough wholesale power to avoid curtailments and rolling blackouts. Consumers have suffered the results of higher cost power and reduced reliability, which together threaten to strangle economic growth. Moreover, while the impact of the utilities' deteriorating financial condition was felt swiftly, California stakeholders have discovered first hand how difficult and complex it can be to remedy the situation after the fact. As a September 17, 2001 article in THE WALL STREET JOURNAL recognized, the fallout from political, regulatory, and market failures will be felt by California residents for the foreseeable future:

> California officials, in essence, let the state's biggest utilities go broke and then ran through billions of dollars from the state general fund because they couldn't bring themselves to pass along actual costs to consumers. Now they're planning to issue $12.5 billion in bonds to spread those costs out over 15 years. (p. R4)

Apart from the direct impact on consumers and the state's economy, there is also a question of fairness as the costs of serving existing customers are effectively shifted to a future generation of consumers.

Q. What other events have recently impacted investors' risk perceptions for the power industry?

A. Beyond the specific circumstances pertaining to events in the West, Enron's swift collapse only served to reinforce the importance of maintaining creditworthiness and access to financial resources. For investors, Enron's rapid demise magnified the risks

associated with the power sector and increased their reluctance to commit capital in the energy industry, as THE WALL STREET JOURNAL recently reported (November 30, 2001):

> Investors and lenders, spooked by the twin specters of California and Enron, have become less likely to commit capital to building new power plants, transmission lines, and gas pipelines. The U.S. will require big additions to its power production and distribution capacity when it emerges from the current recession – but for now, the nation's capital markets are reluctant to provide the necessary funds. (p. A1)

For an electric utility with an obligation to provide reliable service, investors' increased reticence to supply additional capital highlights the necessity of preserving flexibility, even during periods of adverse capital market conditions. *Moody's* affirmed this concern in a January 2001 *Special Comment*:

> [C]areful attention to ensure adequate liquidity, central to any good credit story, is heightened because unexpected increases in demand for capital can occur at any time when so much change is happening. (p. 6)

As Enron's plight makes clear, the consequences of inadequate financial resources can be sudden and severe.

Q. Do you have any personal experience regarding the damage to customers that can result when a utility's financial integrity deteriorates?

A. Yes. I was a staff member of the PUCT when the financial condition of El Paso Electric Company (EPE) began to suffer in the late 1970s. I later observed first-hand the difficulties in reversing this slide as a consultant to Asarco Mining, EPE's largest single customer. EPE's ultimate bankruptcy imposed enormous costs on customers and

absorbed an undue amount of the PUCT's resources, as well as those of the Attorneys General and other state agencies. Now I am serving as a consultant to the utility as it continues its struggle to fully recover its financial health. There is no question that customers and other stakeholders would have been far better off had EPE avoided bankruptcy by maintaining its financial resilience.

Q. What danger does an inadequate rate of return pose to FPL?

A. Once lost, investor confidence is difficult to recover and the damage is not easily reversible. Consider the example of bond ratings. To restore a company's rating to a previous, higher level, rating agencies generally require the company to maintain its financial indicators above the minimum levels required for the higher rating over a period of time. Given the negative outlook currently assigned to FPL's long-term debt ratings, the perception of a lack of regulatory support would almost certainly lead to further downgrades. Moreover, the negative impact of declining credit quality on a utility's capital costs and financial flexibility becomes more pronounced as debt ratings move down the scale from investment to non-investment grade.

At the same time, FPL plans to add significant plant investment to ensure that the energy needs of its service territory are met. *Moody's* (*Opinion Update*, July 10, 2001) and others in the investment community recognize that this will also requires a substantial increase in capital outlays:

> To meet demand growth, FPL intends to repower two stations and to add gas fired units at another, increasing capacity by some 14% (2,500 mw) by 2003. Associated capital expenditures rise dramatically over the intermediate-term.

While providing the infrastructure necessary to support a buoyant and growing economy is certainly desirable, it imposes significant responsibilities on FPL, as *S&P* noted in a July 30, 1998 *RatingsDirect* report:

> (T)he ability to meet future demands may present a challenge as Florida's economy continues to grow. (p. 1)

To meet these challenges successfully and economically, it is crucial that FPL receive adequate support for its credit standing. The relatively large concentration of residential customers in FPL's service area also heightens the critical need to maintain quality of service and accentuates the importance, and the burden, of FPL's obligation to serve.

As discussed in the testimony of FPL's witnesses, FPL has done an outstanding job of meeting customers' power requirements reliably, efficiently, and at rates that compare favorably with other utilities. While FPL's conservative posture has benefited customers and provided a strong platform for continued success, actions that serve to erode financial strength or impair financial flexibility could have swift and damaging consequences. The cost of providing FPL an adequate return is small relative to the potential benefits that a strong utility can have in providing reliable service and fostering growth. Considering investors' heightened awareness of the risks associated with the electric power industry and the damage that results when a utility's financial flexibility is compromised, supportive regulation is perhaps more crucial now than at any time in the past.

E. Return on Equity Recommendation

Q. What then is your conclusion as to the fair rate of return on equity for FPL?

A. Based on the various capital market oriented analyses described in my testimony, I concluded that the "bare bones" cost of equity for FPL is presently on the order of 12.6 percent assuming FPL's existing capital structure. This "bare bones" cost of equity, however, does not recognize flotation costs incurred in connection with past sales of common stock. Accordingly, I added a minimal adjustment of 25 basis points to arrive at a fair rate of return on common equity for FPL of 12.85 percent.

Q. Does this recommended rate of return provide for or recognize any return for other factors?

A. No it does not. My 12.85 percent recommended fair rate of return does not explicitly incorporate any allowance for exemplary performance or efficient and economic management, as discussed in the testimony of FPL's witnesses. An award to recognize such factors should be added to my fair rate of return on equity for FPL.

Q. In evaluating the fair rate of return for FPL, is it appropriate to consider a reward to recognize and encourage exemplary management?

A. Yes. As discussed in greater detail in the testimony of Mr. Dewhurst and other FPL witnesses, FPL has distinguished itself in numerous measures of operating efficiency and effectiveness while maintaining moderate electric rates. As a result, consumers and the service area economy have benefited from a climate of rapidly expanding service, efficient and cost-effective operations, excellent customer service, improved reliability, and prices that have declined in real terms. To date, the FPSC has helped to foster an

environment in which customers are assured reliable service at reasonable rates, stockholders are fairly treated, and regulators are not forced to commit significant resources to frequent rate cases. Awarding an increment of return above the cost of equity, such as the 30 basis points proposed by Mr. Dewhurst, recognizes that FPL's superior management continues to be instrumental in achieving these results. Moreover, including an award for exemplary management above the minimum fair rate of return required by investors is entirely consistent with the current regulatory regime embodied in the 1999 Revenue Sharing Agreement, which provides for earnings sharing between FPL's customers and shareholders. As demonstrated in the testimony of Mr. Dewhurst, the payoff from achieving efficiencies and stimulating investment in the utility system is so large that the incremental impact of the reward for management effectiveness on the total cost of electricity to consumers pales into insignificance.

Q. What rate of return on equity is implied for FPL after incorporating an increment for effective management?

A. Adding the 30 basis-point increment proposed by Mr. Dewhurst to my 12.85 percent recommended cost of equity results in a fair rate of return on equity of 13.15 percent. Giving effect to the 100 basis-point range typically allowed by the FPSC for regulatory purposes, this results in an appropriate fair rate of return on equity range of 12.15 to 14.15 percent.

Q. Does this conclude your direct testimony in this case?

A. Yes, it does.

DISCOUNTED CASH FLOW MODEL

EXPECTED DIVIDEND YIELD

	Sym	Company	(a) Stock Price	(b) Estimated Dividends Next 12 Mos.	Implied Dividend Yield
1	DUK	Duke Energy	$ 38.49	$ 1.10	2.9%
2	FPL	FPL Group, Inc.	$ 55.27	$ 2.30	4.2%
3	IDA	IDACorp, Inc.	$ 38.12	$ 1.86	4.9%
4	MDU	MDU Resources Group	$ 24.77	$ 0.93	3.8%
5	SCG	SCANA	$ 26.79	$ 1.25	4.7%
6	SO	Southern Company	$ 23.74	$ 1.34	5.6%
7	TE	TECO Energy	$ 26.96	$ 1.39	5.2%
8	VVC	Vectren Corp.	$ 22.55	$ 1.06	4.7%
9	XEL	Xcel Energy	$ 28.99	$ 1.50	5.2%
		Average			**4.6%**

(a) Average stock price for the week ending November 16, 2001.
(b) Summary and Index, The Value Line Investment Survey (November 23, 2001).

DISCOUNTED CASH FLOW MODEL

PROJECTED EARNINGS GROWTH

	Sym	Company	(a) IBES	(b) Zacks	(c) Value Line	(d) First Call
1	DUK	Duke Energy	12.0%	12.6%	14.0%	13.0%
2	FPL	FPL Group, Inc.	7.0%	7.2%	4.5%	7.0%
3	IDA	IDACorp, Inc.	8.0%	10.0%	2.5%	8.0%
4	MDU	MDU Resources Group	11.0%	10.6%	8.0%	10.0%
5	SCG	SCANA	5.0%	5.2%	6.5%	5.0%
6	SO	Southern Company	6.0%	5.3%	6.0%	5.0%
7	TE	TECO Energy	8.0%	9.0%	7.0%	9.0%
8	VVC	Vectren Corp.	8.0%	8.4%	15.5%	8.0%
9	XEL	Xcel Energy	8.0%	8.3%	15.0%	8.0%
		Average	**8.1%**	**8.5%**	**8.8%**	**8.1%**

NMF -- No Meaningful Figure.

(a) I/B/E/S International growth rates from Standard & Poor's Earnings Guide, (November 2001).
(b) Zacks Investment Research growth rates from www.my.zacks.com (December 5, 2001).
(c) The Value Line Investment Survey (September 7, October 5, & November 16, 2001).
(d) First Call growth rates from Yahoo!Finance (December 4, 2001).

DISCOUNTED CASH FLOW MODEL

PROJECTED "B x R" GROWTH

	Sym	Company	(a) Proj. EPS	(a) Proj. DPS	(a) Proj. BVS	"b"	"r"	"b" x "r" Growth
1	DUK	Duke Energy	$4.00	$1.10	$27.00	72.5%	14.8%	10.7%
2	FPL	FPL Group, Inc.	$5.25	$2.55	$33.50	51.4%	15.7%	8.1%
3	IDA	IDACorp, Inc.	$3.20	$1.86	$28.30	41.9%	11.3%	4.7%
4	MDU	MDU Resources Group	$2.50	$1.06	$23.50	57.6%	10.6%	6.1%
5	SCG	SCANA	$2.75	$1.45	$28.50	47.3%	9.6%	4.6%
6	SO	Southern Company	$2.05	$1.52	$13.90	25.9%	14.7%	3.8%
7	TE	TECO Energy	$2.50	$1.60	$16.00	36.0%	15.6%	5.6%
8	VVC	Vectren Corp.	$2.40	$1.19	$17.35	50.4%	13.8%	7.0%
9	XEL	Xcel Energy	$3.25	$1.75	$24.25	46.2%	13.4%	6.2%
		Average						**6.3%**

(a) The Value Line Investment Survey (September 7, October 5, & November 16, 2001).

Exhibit ____
Schedule WEA-3
Page 1 of 1

RISK PREMIUM APPROACH

ANALYSIS OF AUTHORIZED RATES OF RETURN ON EQUITY FOR ELECTRIC UTILITIES

YEAR	(a) ALLOWED ROE	(b) AVERAGE PUBLIC UTILITY BOND YIELD	RISK PREMIUM
1974	13.10%	9.27%	3.83%
1975	13.20%	9.88%	3.32%
1976	13.10%	9.17%	3.93%
1977	13.30%	8.58%	4.72%
1978	13.20%	9.22%	3.98%
1979	13.50%	10.39%	3.11%
1980	14.23%	13.15%	1.08%
1981	15.22%	15.62%	-0.40%
1982	15.78%	15.33%	0.45%
1983	15.36%	13.31%	2.05%
1984	15.32%	14.03%	1.29%
1985	15.20%	12.29%	2.91%
1986	13.93%	9.46%	4.47%
1987	12.99%	9.98%	3.01%
1988	12.79%	10.45%	2.34%
1989	12.97%	9.66%	3.31%
1990	12.70%	9.76%	2.94%
1991	12.55%	9.21%	3.34%
1992	12.09%	8.57%	3.52%
1993	11.41%	7.56%	3.85%
1994	11.34%	8.30%	3.04%
1995	11.55%	7.91%	3.64%
1996	11.39%	7.74%	3.65%
1997	11.40%	7.63%	3.77%
1998	11.66%	7.00%	4.66%
1999	10.77%	7.55%	3.22%
2000	11.43%	8.09%	3.34%
Average		9.97%	3.05%

Regression Output	
Constant	0.07545
Std Err of Y Est	0.00576
R Squared	0.78863
No. of Observations	27
Degrees of Freedom	25
X Coefficient(s)	-0.45091
Std Err of Coef.	0.04669

Current Equity Risk Premium	
Avg. Yield over Study Period	9.97%
November 2001 Avg. Utility Bond Yield	7.61%
Change in Bond Yield	-2.36%
Risk Premium/Interest Rate Relationship	-45.09%
Adjustment to Average Risk Premium	1.06%
Average Risk Premium over Study Period	3.05%
Adjusted Risk Premium	**4.11%**

(a) Major Rate Case Decisions, Regulatory Focus, Regulatory Research Associates (January 24, 2001 & January 16, 1990); UtilityScope Regulatory Service, Argus (January 1986).

(b) Moody's Public Utility Manual (1999); Moody's Credit Perspectives (various editions).

Exhibit ____
Schedule WEA-4

RISK PREMIUM APPROACH

ANALYSIS OF REALIZED RATES OF RETURN ON EQUITY FOR THE S&P ELECTRIC POWER COMPANIES

	S&P ELECTRIC COMPANIES (a)			S&P SINGLE-A PUBLIC UTILITY BONDS (b)		
	CLOSE PRICE	DIV	ANNUAL REALIZED RETURN	CLOSE YIELD	PRICE	ANNUAL REALIZED RETURN
1945	$16.34		(c)	2.730%		
1946	$15.53	$0.73	-0.49%	2.719%	$100.18	2.91%
1947	$12.89	$0.75	-12.17%	3.037%	$94.87	-2.41%
1948	$12.37	$0.71	1.47%	3.048%	$99.82	2.86%
1949	$14.60	$0.80	24.49%	2.696%	$105.88	8.93%
1950	$14.49	$0.88	5.27%	2.814%	$98.05	0.75%
1951	$16.07	$0.92	17.25%	3.314%	$92.16	-5.03%
1952	$18.28	$0.95	19.66%	3.247%	$101.06	4.37%
1953	$18.97	$0.99	9.19%	3.331%	$98.68	1.93%
1954	$22.39	$1.03	23.46%	3.152%	$102.85	6.18%
1955	$24.06	$1.09	12.33%	3.394%	$96.23	-0.61%
1956	$23.61	$1.13	2.83%	4.186%	$88.60	-8.01%
1957	$24.85	$1.19	10.29%	3.968%	$103.20	7.39%
1958	$33.14	$1.24	38.35%	4.511%	$92.42	-3.61%
1959	$33.42	$1.30	4.77%	4.799%	$96.09	0.60%
1960	$39.35	$1.37	21.84%	4.635%	$102.26	7.06%
1961	$49.28	$1.44	28.89%	4.663%	$99.61	4.25%
1962	$48.60	$1.52	1.70%	4.330%	$104.73	9.39%
1963	$51.97	$1.63	10.29%	4.510%	$97.49	1.82%
1964	$58.21	$1.74	15.36%	4.468%	$100.59	5.10%
1965	$58.05	$1.90	2.99%	4.860%	$94.71	-0.82%
1966	$53.49	$2.04	-4.34%	5.606%	$90.59	-4.55%
1967	$49.90	$2.16	-2.67%	6.497%	$89.61	-4.78%
1968	$51.95	$2.27	8.66%	7.012%	$94.25	0.75%
1969	$42.65	$2.33	-13.42%	8.433%	$85.88	-7.11%
1970	$45.62	$2.40	12.59%	8.442%	$99.91	8.34%
1971	$44.18	$2.47	2.26%	7.704%	$107.78	16.22%
1972	$43.50	$2.53	4.19%	7.736%	$99.66	7.37%
1973	$32.85	$2.51	-18.71%	8.104%	$96.25	3.98%
1974	$22.03	$2.49	-25.36%	9.254%	$89.27	-2.63%
1975	$30.56	$2.57	50.39%	9.625%	$96.63	5.89%
1976	$35.17	$2.58	23.53%	8.366%	$112.58	22.21%
1977	$35.67	$2.74	9.21%	8.810%	$95.71	4.08%
1978	$31.38	$2.94	-3.78%	9.750%	$91.55	0.36%
1979	$28.44	$3.10	0.51%	11.470%	$86.31	-3.94%
1980	$27.19	$3.20	6.86%	13.394%	$86.48	-2.05%
1981	$29.33	$3.42	20.45%	15.663%	$86.06	-0.54%
1982	$36.15	$3.62	35.59%	12.206%	$126.20	41.86%
1983	$37.14	$3.84	13.36%	12.950%	$94.63	6.83%
1984	$42.26	$4.06	24.72%	12.394%	$104.16	17.11%
1985	$48.82	$4.15	25.34%	10.538%	$115.76	28.16%
1986	$58.31	$4.21	28.06%	9.120%	$113.37	23.90%
1987	$49.71	$4.34	-7.31%	10.090%	$91.49	0.61%
1988	$53.87	$4.37	17.16%	10.020%	$100.62	10.71%
1989	$66.55	$4.28	31.48%	9.360%	$106.11	16.13%
1990	$63.47	$4.45	2.06%	9.600%	$97.82	7.18%
1991	$77.25	$4.57	28.91%	8.930%	$106.41	16.01%
1992	$76.78	$4.68	5.45%	8.640%	$102.84	11.77%
1993	$81.71	$4.71	12.56%	8.740%	$99.03	7.67%
1994	$66.30	$4.65	-13.17%	8.680%	$100.59	9.33%
1995	$81.62	$4.67	30.15%	7.970%	$107.32	16.00%
1996	$76.75	$4.61	-0.32%	7.570%	$104.26	12.23%
1997	$91.49	$4.47	25.03%	7.070%	$105.55	13.12%
1998	$100.86	$4.39	15.04%	7.000%	$100.78	7.85%
1999	$77.42	$4.35	-18.93%	8.250%	$87.39	-5.61%
2000	$113.00	$4.42	51.67%	8.400%	$98.51	6.76%
AVERAGE 1946-2000			**11.18%**			**6.08%**

REALIZED RATE OF RETURN	
S&P ELECTRIC COMPANIES	11.18%
SINGLE-A PUBLIC UTILITY BONDS	6.08%
EQUITY RISK PREMIUM	**5.10%**

(a) S&P's Security Price Index Record (1992), The Analysts' Handbook (1967, 1999, Monthly Supplement February 2001).
(b) S&P's Security Price Index Record (1996), Current Statistics (January 1997, March 1998 , December 1999 & January 2001).
(c) Computed by adding gain or loss (ending stock price - beginning stock price) to annual dividends and dividing by beginning stock price.
(d) Computed as sum of capital gain or loss plus interest income, divided by beginning price.

Note: Dividend data not available prior to 1946.

CAPITAL STRUCTURE

ELECTRIC UTILITY OPERATING COS.

At September 30, 2001

Company (b)	(a) Long-Term Debt	Preferred	Common Equity
Alabama Power Co.	48.6%	8.6%	42.9%
Georgia Power Co.	37.6%	9.2%	53.2%
Gulf Power Co.	45.9%	8.1%	46.0%
Idaho Power Co.	48.4%	6.1%	45.5%
Mississippi Power Co.	35.9%	7.6%	56.5%
Northern States Power - MN	46.1%	5.8%	48.1%
Northern States Power - WI	43.4%	0.0%	56.6%
Public Service of Colorado	42.6%	5.1%	52.3%
Savannah Electric & Power	43.1%	10.4%	46.4%
South Carolina Electric & Gas	43.1%	5.0%	51.9%
Southern Indiana Gas & Electric	46.1%	0.1%	53.8%
Southwestern Public Service	20.5%	9.0%	70.4%
Tampa Electric Co.	40.1%	0.0%	59.9%
Average (c)	**43.4%**	**5.5%**	**51.1%**

Source: September 30, 2001 Form-10Q Reports

(a) Includes debt equivalent of off balance sheet liabilities identified by S&P.
(b) No financial statements are available for the electric utility divisions of Duke Energy and MDU Resources Group.
(c) Capital structure ratios for Southwestern Public Service were excluded in calculating the average for present purposes.

APPENDIX A

QUALIFICATIONS OF WILLIAM E. AVERA

WILLIAM E. AVERA

FINCAP, INC.
Financial Concepts and Applications
Economic and Financial Counsel

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Austin, Texas 78751
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Summary of Qualifications

Ph.D. in economics and finance; Chartered Financial Analyst (CFA) designation; extensive expert witness testimony before courts, regulatory agencies, alternative dispute resolution panels, and legislative committees throughout the U.S. and Canada. Testimony on economic and financial issues, including antitrust, damages, cost of capital, and business valuation. Lectured in executive education programs around the world; undergraduate and graduate teaching in business and economics; leadership positions in government, industry, academia, and the military.

Employment

Principal, FINCAP, Inc. (Sep. 1979 to present)	Financial, economic and policy consulting to business and government. Perform business and public policy research, cost/benefit analyses and financial modeling, valuation of businesses, estimation of damages, and industry studies. Provide counseling and educational services, participate in negotiations, and serve as expert witness before regulatory agencies, legislative committees, arbitration panels, and courts.
Director, Economic Research Division, Public Utility Commission of Texas (Dec. 1977 to Aug. 1979)	Responsible for research and testimony preparation on rate of return, rate structure, and econometric analysis dealing with energy, telecommunications, water and sewer. Testified in major rate cases and appeared before legislative committees as Chief Economist for regulatory agency. Administered state and federal grant funds. Communicated frequently with political leaders and representatives from consumer groups, media, and investment community.
Manager, Financial Education, International Paper Company New York City (Feb. 1977 to Nov. 1977)	Directed corporate education programs in accounting, finance, and economics. Developed course materials, recruited and trained instructors, maintained liaison within the company and with academic institutions.

Prepared operating budget and designed financial controls for corporate professional development program.

Lecturer in Finance,
The University of Texas at Austin
(Sep. 1979 to May 1981)
Assistant Professor of Finance,
(Sep. 1975 to May 1977)

Taught graduate and undergraduate courses in financial management and investment theory. Conducted research in business and public policy. Named Outstanding Graduate Business Professor and received various administrative appointments.

Assistant Professor of Business,
University of North Carolina at Chapel Hill
(Sep. 1972 to Jul. 1975)

Taught in BBA, MBA, and Ph.D. programs. Created project course in finance, Financial Management for Women, and participated in developing Small Business Management sequence. Organized the North Carolina Institute for Investment Research, a group of financial institutions that supported academic research. Faculty advisor to the Media Board, which funds student publications and broadcast stations.

Education

Ph.D., Economics and Finance,
University of North Carolina at Chapel Hill
(Jan. 1969 to Aug. 1972)

Elective courses included financial management, public finance, monetary theory, and econometrics. Awarded the Stonier Fellowship by the American Bankers' Association and University Teaching Fellowship. Taught statistics, macroeconomics, and microeconomics.

Dissertation: *The Geometric Mean Strategy as a Theory of Multiperiod Portfolio Choice*

B.A., Economics,
Emory University, Atlanta, Georgia
(Sep. 1961 to Jun. 1965)

Active in extracurricular activities, president of the Barkley Forum (debate team), Emory Religious Association, and Delta Tau Delta chapter. Individual awards and team championships at national collegiate debate tournaments.

Professional Associations

Received Chartered Financial Analyst (CFA) designation in 1977.

Former Professional Association Positions: Vice President for Membership, Financial Management Association President, Austin Chapter of Planning Executives Institute Board of

Directors, North Carolina Society of Financial Analysts Candidate Curriculum Committee, Association for Investment Management and Research Executive Committee of Southern Finance Association Vice Chair, Subcommittee on Economics and National Association of Regulatory Utility Commissioners (NARUC) Appointed to NARUC's Technical Subcommittee. on the National Energy Act.

Teaching in Executive Education Programs

University-Sponsored Programs: Central Michigan University, Duke University, Louisiana State University, National Defense University, National University of Singapore, Texas A&M University, University of Kansas, University of North Carolina, University of Texas.

Business- and Government-Sponsored Programs: Advanced Seminar on Earnings Regulation, American Public Welfare Association, Association for Investment Management and Research, Congressional Fellows Program, Cost of Capital Workshop, Electricity Consumers Resource Council, Financial Analysts Association of Indonesia, Financial Analysts Review at Albuquerque, Denver, Raleigh and Salt Lake City, Financial Analysts Seminar at Northwestern University, Governor's Executive Development Program of Texas, Louisiana Association of Business and Industry, National Association of Purchasing Management, National Association of Tire Dealers, Planning Executives Institute, School of Banking of the South, Stock Exchange of Thailand, Texas Association of State Sponsored Computer Centers, Texas Bankers' Association, Texas Bar Association, Texas Savings and Loan League, Texas Society of CPAs, Tokyo Association of Foreign Banks, Union Bank of Switzerland, U.S. Department of State, U.S. Navy, U.S. Veterans Administration, and major corporations.

Presented papers for Mills B. Lane Lecture Series at the University of Georgia and Heubner Lectures at the University of Pennsylvania. Taught graduate courses in finance and economics in evening program at St. Edward's University in Austin from January 1979 through 1998.

Expert Witness Testimony

Testimony before administrative agencies addressed cost of capital, rate design, and other economic and financial issues.

Federal Agencies: Federal Communications Commission, Federal Energy Regulatory Commission, Surface Transportation Board, Interstate Commerce Commission, and the Canadian Radio-Television and Telecommunications Commission.

State Regulatory Agencies: Alaska, Arkansas, California, Colorado, Connecticut, Delaware, Hawaii, Idaho, Illinois, Indiana, Kansas, Maryland, Missouri, Nevada, New Mexico, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Texas, Virginia, Washington, West Virginia, and Wisconcin.

Testimony before federal and state courts, arbitration panels, and alternative dispute resolutions involving damages, valuation, antitrust liability, fiduciary duties, and other economic and financial issues.

Other Professional Activities

Board Member, Georgia System Operations Corporation (electric system operator for Oglethorpe Power Corporation) Co-chair, Synchronous Interconnection Committee, appointed by Governor George Bush and Public Utility Commission of Texas Appointed to Organic Livestock Advisory Committee by Texas Agricultural Commissioner Susan Combs Appointed to research team for Texas Railroad Commission study, *The UP/SP Merger: An Assessment of the Impacts on the State of Texas* Member of team appointed by Hawaii Public Utilities Commission to review affiliate relationships of Hawaiian Electric Industries Consultant to Public Utility Commission of Texas on cogeneration policy and other matters Consultant to Public Service Commission of New Mexico on cogeneration policy Evaluator of Energy Research Grant Proposals for Texas Higher Education Coordinating.

Community Activities

Board Member, Sustainable Food Center Chairman, Energy Task Force, Greater Austin-San Antonio Corridor Council Chair, Board of Deacons, Finance Committee, and Elder, Central Presbyterian Church of Austin Founding Director, Orange-Chatham County Legal Aid.

Military

Captain, U.S. Naval Reserve (retired after 28 years service) Commanding Officer, Naval Special Warfare (SEAL) Engineering Support Unit Officer-in-charge of SWIFT patrol boat in Vietnam Enlisted service as weather analyst.

Bibliography

Monographs

Ethics and the Investment Professional (video, workbook, and instructor's guide) and *Ethics: Challenge Today* (video), Association for Investment Management and Research (AIMR) (1995).

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