BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION

DOCKET NO. 040206-EI
FLORIDA POWER & LIGHT COMPANY

IN RE: FLORIDA POWER & LIGHT COMPANY'S PETITION TO DETERMINE NEED FOR TURKEY POINT UNIT 5 ELECTRICAL POWER PLANT

DIRECT TESTIMONY & EXHIBIT OF:

WILLIAM A. AVERA

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF WILLIAM E. AVERA

DOCKET NO. 04____-EI

March 8, 2004

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.

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 United States Navy, I entered the doctoral program in economics at the University of North Carolina at Chapel Hill. Upon receiving my Ph.D., 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 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 cases on a variety of financial and economic issues. Since leaving the PUCT, I have been engaged as a consultant. I have participated in a wide range of assignments involving utility-related matters on behalf of utilities, industrial customers, municipalities, and regulatory commissions. I have previously testified before the Federal Energy Regulatory Commission (FERC), 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 30 states, including the Florida Public Service Commission (the Commission or FPSC).

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 serve as an outside director of the 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 in programs 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 also have served on the Board of Directors of the North Carolina Society of Financial Analysts. 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 also have served as an officer of various other professional organizations and societies. A resume containing the details of my experience and qualifications is attached as Document WEA-1.

Q. What is the purpose of your testimony?

A. As a result of its resource planning process, Florida Power & Light Company (FPL or the Company) has identified the need for additional firm capacity in the amount of approximately 1,066 megawatts (MW) in 2007 to meet its targeted reserve margin. FPL selected from among a number of self-build options a capacity addition at its Turkey Point plant as its next planned generating unit (NPGU) to meet that need. FPL subsequently issued its 2003 Request for Proposals (RFP) to solicit competitive power supply alternatives to compare to its NPGU and identify the option for new resources that best serves the needs of FPL's customers. In connection with the final economic evaluation of individual proposals, the RFP provides for an equity adjustment to recognize the impact of purchased power contracts on FPL's financial position for obligations of more than three years.

The purpose of my testimony is to explain the impact that power purchase contracts have on FPL's financial leverage and present to the FPSC the method FPL is proposing to account for these impacts in the economic evaluation of capacity alternatives under the RFP.

Q. Are you sponsoring an exhibit in this case?

A. Yes. It consists of Document No. WEA-1, Resume of William E. Avera.

Q. Please summarize the basis for your conclusions concerning the issues on which you are testifying in this hearing.

A. As is common and generally accepted in my field of expertise, I have accessed and used information from a variety of sources. I am familiar with the organization, finances, and operations of FPL through my participation in prior proceedings before the FPSC, including the Martin/Manatee need case (Docket No. 020262-EI) and the FPSC's last review of FPL's rates (Docket No. 001148-EI). I also reviewed information relating specifically to my opinions in this proceeding, including bond rating agency reports, prior regulatory proceedings and orders, and articles in the trade press. 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 are your conclusions regarding the impact of purchased power contracts on FPL's financial position?

A. Investors regard purchased power contracts as off-balance-sheet obligations that increase the financial leverage of the purchaser. To maintain bond ratings and financial flexibility, utilities must offset the debt equivalent of purchased power obligations by increasing the equity component of the capital structure from what it would otherwise be. The impact of imputed debt from purchased power obligations has been recognized in past orders of the Commission and bond rating agency reports. Considering the cost of additional equity that is

required to offset the debt equivalent of purchased power commitments is consistent with FPSC orders and the treatment afforded these obligations by the major rating agencies. FPL's equity adjustment calculation, which considers both the costs of the debt equivalent imposed by purchased power contracts and the potential offset provided by other mitigating factors, reasonably accomplishes this adjustment.

II. BACKGROUND

Q. How do these long-term purchased power commitments impact FPL's financial leverage?

A. While purchased power resource strategies do not involve direct capital investment, they nonetheless have financial implications that must be considered to allow for a meaningful comparison between supply alternatives. When a utility enters a contract for firm, long-term purchased power, the associated fixed cost components imply additional financial risks because the fixed charges associated with purchased power contracts are akin to those associated with other financial obligations, such as long-term debt. FPL's existing power purchase agreements, along with any proposals submitted in response to its RFP, obligate the Company to make certain capacity and minimum contractual payments. As a result, these commitments are equivalent to an off-balance sheet liability, and incorporating the debt

equivalent of obligations under purchased power contracts would have the effect of increasing financial leverage.

Q. Have these attributes of purchased power been recognized by the financial community?

A. Yes. The implications of purchased power commitments for a utility's financial risks have been repeatedly cited by major bond rating agencies. As early as 1990, Moody's Investors Service (Moody's) recognized the financial risk imposed by the off-balance-sheet liabilities associated with purchased power and the resulting erosion of the utility's financial flexibility (*Electric Utility Week*, October 8, 1990). Similarly, Standard & Poor's Corporation (S&P) observed in a 1992 ratings report for FPL that "a utility incurs certain risks when entering into a long-term contract with fixed-cost capacity component" (*CreditWeek*, April 6, 1992). 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. (pp. 1-2)

More recently, in reviewing its evaluation of the credit implications of

purchased power, S&P reaffirmed its position that such agreements are "debt-like in nature" and that the increased financial risk must be considered in evaluating a utility's credit risks ("'Buy Versus Build': Debt Aspects of Purchased-Power Agreements", *Utilities & Perspectives*, May 12, 2003).

Because the capacity and minimum contractual payment obligations under power purchase agreements are analogous to those associated with traditional debt financing, investors consider these commitments in evaluating FPL's financial risks. Accordingly, incorporating the debt equivalent of FPL's obligations under its purchased power contracts in the Company's capital structure would have the effect of increasing its financial leverage.

Q. What implications do relatively greater amounts of purchased power have for a utility's financial flexibility?

A. Because investors perceive additional financial risks with obligations under purchased power contracts, as reliance on these sources increases, the utility must offset the associated debt equivalent by incorporating a higher equity component in the capital structure to neutralize the effect on leverage. 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 3, 1998 report in *RatingsDirect*, 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 obligation, and has maintained a higher amount of equity capital on the balance sheet to counter this off-balance-sheet debt obligation. (p. 2)

More recently, S&P noted that it "includes about $1.3 billion as a debt equivalent" because of FPL's purchased power obligations (*Research: FPL Group, Inc.*, Oct. 21, 2003). Absent financial policies that recognize the leverage implicit in purchased power contracts, the associated investment risks would place downward pressure on utilities' creditworthiness and debt ratings and the greater leverage implied by a lower common equity ratio would increase investors' required rate of return for both debt and equity securities.

Apart from the immediate impact the debt-equivalent portion of purchased power costs has on the utility's financial risk, heavy fixed charges also reduce ongoing financial flexibility, and the utility may face other uncertainties, such as potential replacement power costs in the event of supply disruption. Moreover, investors' focus on the financial ramifications and other uncertainties of purchased power is magnified as the utility's reliance on purchased power increases. The 1,066 MW increase in purchased power contemplated under FPL's RFP would constitute a greater than 40 percent

increase in the Company's firm purchased power capacity, which totaled approximately 2,400 MW for 2002 (*2003 Request for Proposals (RFP)*, Attachment 1).

Q. Is it appropriate to consider these financial implications in an economic evaluation of power supply alternatives?

A. Yes. To conduct a meaningful economic comparison between buying power and self-build options, it is necessary to recognize the financial risks associated with power purchase contracts. Otherwise, the analyses will not reflect the true cost of entering into purchased power agreements and any comparison of the economics between alternative proposals will be flawed. S&P noted that "(u)tilities need to take these 'financial externalities' into account so that buy and build options are evaluated on a level playing field" (*CreditWeek*, May 24, 1993) and emphasized the importance of reflecting the financial realities associated with purchased power commitments in any economic analyses of competitive options (*CreditWeek*, November 1991). S&P recently confirmed that an evaluation of the financial risks associated with purchased power commitments is necessary "to allow for more meaningful comparisons with utilities that build generation" (*Utilities & Perspectives*, May 12, 2003).

Q. What other indications confirm the need to properly consider the financial impacts of purchased power commitments?

A. Investors are aware of the impact that purchased power can have on a utility's investment risks. As S&P observed in 1993 (*CreditWeek*, May 24, 1993), the financial impact of purchased power directly influences credit standing and financial flexibility:

> Over the past few years, several ratings have been lowered due to purchased power obligations. In other cases, S&P did not raise ratings. Still others are lower than they might otherwise be owing to purchased power liabilities.

In the wake of recent turmoil in the electric power industry, bond rating agencies and investors are continuing to scrutinize debt levels. For those firms with higher leverage, this intense focus can lead not only to ratings downgrades, but also to reduced access to capital and increased borrowing costs. The Wall Street Journal reported ("Rating Agencies Crack Down on Utilities", p. C1, December 19, 2001) that even firms with stock prices at recent lows may be forced to issue new common equity in adverse markets 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 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, especially during times of stress:

> All the belt tightening spells bad news for the 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.

Q. Has the FPSC previously recognized the impact that purchased power contracts have on the utility's finances?

A. Yes. Rule 25-22.081(7), F.A.C., relating to the contents of a petition for determination of need, specifically requires utilities to address the cost impact of purchases on their capital structure:

> If the generation addition is the result of a purchased power agreement between an investor-owned utility and a nonutility

> generator, the petition shall include a discussion of the potential for increases or decreases in the utility's cost of capital, the effect of the seller's financing arrangements on the utility's system reliability, any competitive advantage the financing arrangements may give the seller and the seller's fuel supply adequacy.

In past decisions, the FPSC has acknowledged that an equity adjustment is appropriate to address the capital structure impact associated with purchase alternatives. For example, in connection with Florida Power Corporation's petition for approval to construct the Hines Unit 2 power plant, the FPSC recognized an adjustment for the debt equivalent of purchased power options, noting in Order No. PSC-01-0029-FOF-EI (January 5, 2001) that:

> We find that for long-term debt, we should allow some consideration of imputed debt. Imputed debt is an actual consideration by bond rating agencies. We note that we have allowed limited consideration of imputed debt in past cases.

Similarly, in Docket No. 990249-EG, Standard Offer Contract for Florida Power & Light Company, the FPSC concluded that "(w)e find it is appropriate to include an equity adjustment when determining FPL's proposed standard offer contract payments" (*Order No. PSC-99-1713-TRF-EG*, September 2,

1999). While the Commission chose not to address the broader policy issue of who should bear the incremental cost of additional equity to compensate for purchased power contracts, the FPSC recognized (*Ibid.* at p. 7-8) that:

> Buying power increases the utility's fixed charges, which, in turn, can reduce financial flexibility. Standard & Poor's (S&P) notes that, "regardless of whether a utility buys or builds, adding capacity means incurring risk." ... In including this equity adjustment, FPL is reflecting the cost, in the form of less financial flexibility, that is imposed on electric utilities with purchased power contracts.

Moreover, the FPSC continues to recognize the financial leverage implicit in purchased power contracts in the approach used for surveillance reporting requirements. The current Revenue Sharing Agreement in effect for FPL included in Order No. PSC-02-0501-AS-EI, April 11, 2002, incorporates by reference the following provision from the Stipulation and Settlement approved by the Commission in 1999 (*Order No. PSC-99-0519-AS-EI*, March 17, 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.

Similarly, in a recent memorandum regarding FPL's proposed standard offer contract (*Memorandum*, Docket No. 031093-EQ, Feb. 5, 2004), the FPSC's Division of Economic Regulation concluded that "staff believes it is appropriate for FPL to make an equity adjustment as proposed in the determination of capacity payments in its Standard Offer Contract." Staff affirmed FPL's calculations based on S&P's current methodology, with the FPSC subsequently confirming at its February 17, 2004 Agenda Conference that it would be appropriate for the Company to make an equity adjustment.

Q. Does the Commission's decision in the Martin/Manatee need case (Docket No. 020262-EI) also support consideration of the equity adjustment in this case?

A. Yes. While the FPSC declined to recognize the application of an equity adjustment in evaluating alternatives to self-build options in FPL's last need case, the Commission expressly confirmed that "consideration of an equity adjustment is appropriate" (*Order No. PSC-02-1743-FOF-EI*).

Q. What is your understanding of why the Commission declined to adopt FPL's proposed equity adjustment in the Martin/Manatee proceeding?

A. The Commission determined there was not sufficient evidence concerning the

potential impact of other factors associated with purchased power that might serve to mitigate a portion of the additional financial costs imposed by the debt equivalent of long-term supply contracts. Thus, while the FPSC expressed "particular concern" regarding the need to examine the presence *or absence* of mitigating factors, the Commission recommended that a case-by-case examination of the entire circumstances surrounding the equity adjustment be considered in subsequent proceedings (*Id.*).

Q. Does FPL's proposed equity adjustment specifically account for other factors that might mitigate the financial costs associated with entering into purchased power contracts?

A. Yes. The equity adjustment mechanism proposed by FPL (RFP, Appendix C) specifically captures the impact of mitigating factors in two ways. First, "the presence or amount of other factors which financial rating agencies may take into account in mitigation of the equity adjustment" (*Order No. PSC-02-1743-FOF-EI*) are already incorporated into S&P's methodology. As explained in greater detail subsequently, calculation of the debt equivalent associated with purchase power obligations depends in part on an assigned "risk factor", which reflects the rating agency's overall assessment of the risks that a utility assumes when purchasing power under contract. While the most significant attribute in establishing this risk factor is the risk of recovering the costs of purchased power, S&P's review encompasses "a qualitative analysis of market, operating, and regulatory risks" (CreditWeek, May 24, 1993). S&P

noted that its current assessment "takes several variables into consideration, including the economics of the power and regulatory treatment" (*Utilities & Perspectives*, May 12, 2003). Examples of these qualitative economic and regulatory factors were identified in S&P's 1993 publication and are displayed in the following table:

Category	**Risk Factor**
Market	Need for Power
	Economics
Operating	Performance Standards
	Reliability
	Dispatchability
	Control Over Maintenance
	Flexibility and Diversity
Regulatory	Preauthorized
	Regulatory Recovery Mechanism
	Regulatory Out Clause

Thus, in establishing its overall risk factor, S&P has already considered a host of "qualitative risk mitigators" (*CreditWeek*, May 24, 1993) that serve to offset the financial costs of purchased power contracts and these offsetting factors are incorporated into FPL's equity adjustment.

Second, FPL's application of the equity adjustment specifically includes provisions to quantify the potential offsetting impact of two mitigating factors – completion security and performance security. As detailed in Appendix C to the RFP, FPL's equity adjustment incorporates offsetting credits to the financial costs of purchased power contracts. These credits are designed to account for quantifiable differences between the delivery and performance risks of purchased power versus self-build options. Thus, in addition to the

mitigation already built into the risk factor used to quantify the equity adjustment, FPL has included specific, quantitative adjustments to capture two broad categories of potential mitigation.

Q. Does the equity adjustment somehow depend on the assumption that entering into a purchased power agreement would lead to a change in bond ratings?

A. No. A utility's credit ratings are established based on a plethora of qualitative and quantitative factors. While investors clearly recognize that the debt equivalent of purchased power obligations has a quantifiable impact on financial risks and reduces a utility's financial flexibility, the incremental investment risk may not rise to the level necessary to prompt a revision to the utility's bond ratings. Indeed, because FPL's financial policies have explicitly recognized the leverage implicit in purchased power contracts, it would come as no surprise that some increment of additional purchased power could be accommodated without immediate negative actions on the part of bond rating agencies.

Regardless of whether additional purchased power triggers a change in bond ratings, every additional obligation increases the Company's leverage. Recognizing the equity adjustment is necessary, not to measure the potential change in bond ratings, but simply to account for quantifiable cost differences between power supply alternatives. The incremental costs that are associated

with additional financial leverage arising from purchased power contracts are one such difference that has been recognized by the investment community and the FPSC.

III. EQUITY ADJUSTMENT

Q. Please describe the methodology used by S&P to reflect the financial impact of purchased power obligations.

A. While other rating agencies have expressed similar concerns regarding the financial impacts of purchased power commitments, S&P is largely unique in having a defined quantitative analysis to account for the additional risks associated with these contractual commitments. This methodology begins by quantifying the potential off-balance sheet obligation attributable to long-term power purchase contracts. The first step in this process involves calculating the net present value of the remaining capacity payments over the life of the agreement, determined using a discount rate of 10 percent.

Next, S&P evaluates the characteristics of a utility's purchased power contracts, placing 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. Within the S&P analytical framework, this difference in the relative debt characteristics of purchased power obligations is accommodated using a risk spectrum ranging from 0 to 100 percent. This risk factor represents the proportion of the

obligations' net present value to be considered off-balance sheet debt. For example, if S&P determines that the risk factor for a specific purchased power contract is 50 percent, S&P considers 50 percent of the net present value of the related capacity payments as a debt equivalent and adds this to reported obligations.

As noted earlier, in determining the risk factor S&P considers a variety of qualitative factors related to the purchased power contract. Previously, contracts that were relatively more firm in terms of their delivery and payment obligations were generally considered more debt-like than others. However, in a May 12, 2003, report ("'Buy Versus Build': Debt Aspects of Purchased-Power Agreements," *Utilities & Perspectives*), S&P explained that it had revised its approach to recognize significant structural changes in the electric power industry. Rather than evaluating the likelihood of payment under purchased power contracts, S&P has revised its assessment to place particular emphasis on the method under which the utility recovers of purchased power costs. For example, assuming adequate regulatory treatment, S&P now assigns a 50 percent risk factor where payments under long-term purchased power commitments are included in a utility's base rates. S&P concluded (*Utilities & Perspectives*, May 12, 2003) that a risk factor as low as 30 percent could be justified for utilities with supportive regulation that recover purchased power costs via a fuel adjustment clause (FAC), as opposed to base rates:

For utilities in supportive regulatory jurisdictions with a precedent for timely and full cost recovery of fuel and purchased power costs, a risk factor of as low as 30% could be used.

Q. Please describe the method FPL has proposed to reflect the greater financial leverage associated with purchased power in its economic evaluation under the RFP.

A. Consistent with the fact that investors view some portion of a utility's capacity payment obligations as the equivalent of debt on the balance sheet, FPL's quantitative analyses reflect an equity adjustment to incorporate the additional costs associated with the greater equity that would be required to rebalance its capital structure.

For each year under the proposal, the cumulative net present value of the remaining annual demand charges was calculated using the same 10 percent discount rate utilized by S&P. To arrive at the debt equivalent portion of these demand charges in each year, this cumulative net present value is multiplied by a risk factor of 30 percent. This corresponds to the lowest factor specified by S&P for an integrated utility that recovers purchased power costs through a FAC and is identical to the risk factor applied to FPL by S&P in its own analysis (*Research: FPL Group, Inc.*, Oct. 21, 2003). To offset the greater financial leverage associated with this obligation, FPL must replace a portion

of this off-balance-sheet debt with equity, calculated as the product of the debt equivalent and a 55 percent equity ratio. The incremental cost associated with this rebalancing is then computed by multiplying the amount of capital implicitly shifted from debt to equity by the difference between the pre-tax cost of the two capital sources. Thus, the equity adjustment represents the incremental costs in each year that would be required to hold FPL's financial leverage constant in the face of the higher off-balance-sheet liabilities attributable to the purchased power proposals. These annual costs are then converted to a present value using the weighted average after-tax cost of debt and equity capital. A detailed illustration of the method described above is contained in Appendix C to the RFP.

Finally, as indicated earlier, FPL's equity adjustment also includes specific provisions to offset the costs required to rebalance the Company's capital structure by mitigation offered through the completion and performance security. These factors, which are designed to accommodate measurable differences in delivery and performance risk between purchased power and self-build options, are in addition to qualitative factors considered by S&P in its evaluation of the risk factor used to determine the debt equivalent of purchased power obligations.

Q. Is the methodology underlying the equity adjustment proposed by FPL consistent with the S&P approach adopted in prior FPSC proceedings?

A. Yes. The equity adjustment calculation employed by FPL is directly analogous to the methodology used by S&P in its analyses of FPL's credit standing. S&P's focus remains primarily on balance sheet adjustments designed to recognize the credit implications of heightened financial risks associated with purchased power, while FPL's adjustment quantifies the implicit costs of rebalancing between debt and equity to offset these risks. The methodology used by FPL to measure the off-balance-sheet obligation associated with purchase power obligations is identical to S&P's approach. Further, but for the additional consideration of specific mitigating factors, FPL's proposed equity adjustment methodology is the same as that approved by the FPSC in Order Nos. PSC-01-0029-FOF-EI and PSC-99-1713-TRF-EG discussed earlier.

Q. What capital structure and component costs of debt and equity are incorporated in FPL's proposed calculation of the equity adjustment?

A. FPL's equity adjustment is developed based on the assumption that the capital structure is rebalanced to maintain a 55 percent equity ratio after reflecting the impact of imputed debt from off-balance sheet obligations (adjusted equity ratio). In computing the associated costs implicit in this rebalancing, the equity adjustment assumes a rate of return on common equity of 11.0 percent and an incremental debt cost of 6.4 percent.

Q. Do you believe these assumptions are reasonable for purposes of an economic evaluation of purchased power alternatives?

A. Yes. The 55 percent adjusted common equity ratio incorporated in calculating the equity adjustment is consistent with FPL's current and historical adjusted capital structure. Further, the current Revenue Sharing Agreement arising from the stipulation in Docket No. 001148-EI retained the adjusted capital structure for surveillance reporting requirements specified under the terms of the prior agreement that expired in April 2002. This prior agreement also embodied a 55.83 percent surveillance cap on the adjusted common equity ratio.

With respect to the component costs of debt and equity, a 6.4 percent incremental cost of debt is generally consistent with the current yields on public utility bonds. Meanwhile, under the terms of the current Revenue Sharing Agreement, FPL no longer has a benchmark authorized return on equity range for the purpose of addressing earnings levels. Nevertheless, the 11.0 percent cost of equity is the return specified in the order approving the current Revenue Sharing Agreement "to be used for all other purposes" (*Order No. PSC-02-0501-AS-EI*).

Q. Does FPL's evaluation properly account for the impact of its self-build options on the Company's finances?

A. Yes. The cost of financing FPL's self-build options is incorporated into the

Company's evaluation through the capital structure and component costs of financing, just as FPL has proposed to evaluate purchased power alternatives. FPL assumes the same capital structure of 55 percent equity / 45 percent long-term debt – and the same component costs of debt and equity – in evaluating its self-build options. Because FPL uses identical assumptions to capture the financing impact of its self-build options, the Company's evaluation is neutral between self-build and purchased power alternatives.

Q. Does the equity adjustment incorporate any provision to reflect the relative credit quality of the individual counterparties?

A. No. The terms of FPL's RFP explicitly contemplate that counterparties will maintain an investment grade bond rating or an equivalent guarantee for new construction proposals. In addition, the relative strength of the proposer is considered in determining the type of credit support to be provided (*i.e.*, cash, letter of credit, or guarantee). Accordingly, in conducting the analyses used to quantify the equity adjustment, no modifications were made to incorporate project sponsor risk differences. Nonetheless, the financial wherewithal of the counterparty may impact the risks faced by FPL, especially in extreme instances. As S&P observed (*CreditWeek*, November 1991):

> (H)ighly leveraged NUGs [non-utility generators] are inherently less creditworthy than less leveraged NUGs. And their financial health may affect their reliability.

The risk spectrum used to calculate the equity adjustment reflects the relative debt characteristics of the off-balance sheet liability associated with a purchased power contract. As such, it is distinct from any assessment of the financial viability of a specific counterparty or that entity's ability to actually meet the provisions of the agreement.

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

A. Yes, it does.

WILLIAM E. AVERA

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Summary of Qualifications

Ph.D. in economics and finance; Chartered Financial Analyst (CFA ®) designation; extensive expert witness testimony before courts, alternative dispute resolution panels, regulatory agencies and legislative committees; lectured in executive education programs around the world on ethics, investment analysis, and regulation; undergraduate and graduate teaching in business and economics; appointed to 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 (over 100 entities valued), estimation of damages, statistical and industry studies. Provide strategy advice and educational services in public and private sectors, 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 utilities. Testified in major rate cases and appeared before legislative committees and served as Chief Economist for 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, 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; 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, Staff Subcommittee on Economics and National Association of Regulatory Utility Commissioners (NARUC); Appointed to NARUC 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, 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, State of Wisconsin Investment Board, 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, in addition to Texas state agencies 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

Testified in nearly 200 cases before regulatory agencies addressing 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, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Hawaii, Idaho, Illinois, Indiana, Kansas, Maryland, Michigan, Missouri, Nevada, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Texas, Virginia, Washington, West Virginia, and Wisconsin.

Testified in over 30 cases before federal and state courts, arbitration panels, and alternative dispute tribunals (over 60 depositions given) regarding damages, valuation, antitrust liability, fiduciary duties, and other economic and financial issues.

Board Positions and Other Professional Activities

Audit Committee and Outside Director, Georgia System Operations Corporation (electric system operator for member-owned electric cooperatives in Georgia); Chairman, Board of Print Depot, Inc. and FINCAP, Inc.; Co-chair, Synchronous Interconnection Committee, appointed by Governor George Bush and Public Utility Commission of Texas; Operator of AAA Ranch, a certified organic producer of agricultural products; Appointed to Organic Livestock Advisory Committee by Texas Agricultural Commissioner Susan Combs; Appointed by Texas Railroad Commissioners to study group for *The UP/SP Merger: An Assessment of the Impacts on the State of Texas; A*ppointed by

Hawaii Public Utilities Commission to team reviewing affiliate relationships of Hawaiian Electric Industries; Chairman, Energy Task Force, Greater Austin-San Antonio Corridor Council; 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 Board.

Community Activities

Board Member, Sustainable Food Center; Chair, Board of Deacons, Finance Committee, and Elder, Central Presbyterian Church of Austin; Founding Member, Orange-Chatham County (N.C.) Legal Aid Screening Committee.

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 (advanced to second class petty officer).

Bibliography

Monographs

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

"Definition of Industry Ethics and Development of a Code" and "Applying Ethics in the Real World," in *Good Ethics: The Essential Element of a Firm's Success*, Association for Investment Management and Research (1994)

"On the Use of Security Analysts' Growth Projections in the DCF Model," with Bruce H. Fairchild in *Earnings Regulation Under Inflation*, J. R. Foster and S. R. Holmberg, eds. Institute for Study of Regulation (1982)

An Examination of the Concept of Using Relative Customer Class Risk to Set Target Rates of Return in Electric Cost-of-Service Studies, with Bruce H. Fairchild, Electricity Consumers Resource Council (ELCON) (1981); portions reprinted in *Public Utilities Fortnightly* (Nov. 11, 1982)

"Usefulness of Current Values to Investors and Creditors," *Research Study on Current-Value Accounting Measurements and Utility*, George M. Scott, ed., Touche Ross Foundation (1978)

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Articles

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"Liquidity, Exchange Listing, and Common Stock Performance," with John C. Groth and Kerry Cooper, *Journal of Economics and Business* (Spring 1985); reprinted by National Association of Security Dealers

"The Energy Crisis and the Homeowner: The Grief Process," *Texas Business Review* (Jan.–Feb. 1980); reprinted in *The Energy Picture: Problems and Prospects*, J. E. Pluta, ed., Bureau of Business Research (1980)

"Use of IFPS at the Public Utility Commission of Texas," *Proceedings of the IFPS Users Group Annual Meeting* (1979)

"Production Capacity Allocation: Conversion, CWIP, and One-Armed Economics," *Proceedings of the NARUC Biennial Regulatory Information Conference* (1978)

"Some Thoughts on the Rate of Return to Public Utility Companies," with Bruce H. Fairchild in *Proceedings of the NARUC Biennial Regulatory Information Conference* (1978)

"A New Capital Budgeting Measure: The Integration of Time, Liquidity, and Uncertainty," with David Cordell in *Proceedings of the Southwestern Finance Association* (1977)

"Usefulness of Current Values to Investors and Creditors," in *Inflation Accounting/Indexing and Stock Behavior* (1977)

"Consumer Expectations and the Economy," *Texas Business Review* (Nov. 1976)

"Portfolio Performance Evaluation and Long-run Capital Growth," with Henry A. Latané in *Proceedings of the Eastern Finance Association* (1973)

Book reviews in *Journal of Finance* and *Financial Review*. Abstracts for *CFA Digest*. Articles in *Carolina Financial Times*.

Selected Papers and Presentations

"The Who, What, When, How, and Why of Ethics", San Antonio Financial Analysts Society (Jan. 16, 2002). Similar presentation given to the Austin Society of Financial Analysts (Jan. 17, 2002)

"Ethics for Financial Analysts," Sponsored by Canadian Council of Financial Analysts: delivered in Calgary, Edmonton, Regina, and Winnipeg, June 1997. Similar presentations given to Austin Society of Financial Analysts (Mar. 1994), San Antonio Society of Financial Analysts (Nov. 1985), and St. Louis Society of Financial Analysts (Feb. 1986)

"Cost of Capital for Multi-Divisional Corporations," Financial Management Association, New Orleans, Louisiana (Oct. 1996)

"Ethics and the Treasury Function," Government Treasurers Organization of Texas, Corpus Christi, Texas (Jun. 1996)

"A Cooperative Future," Iowa Association of Electric Cooperatives, Des Moines (December 1995). Similar presentations given to National G & T Conference, Irving, Texas (June 1995), Kentucky Association of Electric Cooperatives Annual Meeting, Louisville (Nov. 1994), Virginia, Maryland, and Delaware Association of Electric Cooperatives Annual Meeting, Richmond (July 1994), and Carolina Electric Cooperatives Annual Meeting, Raleigh (Mar. 1994)

"Information Superhighway Warnings: Speed Bumps on Wall Street and Detours from the Economy," Texas Society of Certified Public Accountants Natural Gas, Telecommunications and Electric Industries Conference, Austin (Apr. 1995)

"Economic/Wall Street Outlook," Carolinas Council of the Institute of Management Accountants, Myrtle Beach, South Carolina (May 1994). Similar presentation given to Bell Operating Company Accounting Witness Conference, Santa Fe, New Mexico (Apr. 1993)

"Regulatory Developments in Telecommunications," Regional Holding Company Financial and Accounting Conference, San Antonio (Sep. 1993)

"Estimating the Cost of Capital During the 1990s: Issues and Directions," The National Society of Rate of Return Analysts, Washington, D.C. (May 1992)

"Making Utility Regulation Work at the Public Utility Commission of Texas," Center for Legal and Regulatory Studies, University of Texas, Austin (June 1991)

"Can Regulation Compete for the Hearts and Minds of Industrial Customers," Emerging Issues of Competition in the Electric Utility Industry Conference, Austin (May 1988)

"The Role of Utilities in Fostering New Energy Technologies," Emerging Energy Technologies in Texas Conference, Austin (Mar. 1988)

"The Regulators' Perspective," Bellcore Economic Analysis Conference, San Antonio (Nov. 1987)

"Public Utility Commissions and the Nuclear Plant Contractor," Construction Litigation Superconference, Laguna Beach, California (Dec. 1986)

"Development of Cogeneration Policies in Texas," University of Georgia Fifth Annual Public Utilities Conference, Atlanta (Sep. 1985)

"Wheeling for Power Sales," Energy Bureau Cogeneration Conference, Houston (Nov. 1985).

"Asymmetric Discounting of Information and Relative Liquidity: Some Empirical Evidence for Common Stocks" (with John Groth and Kerry Cooper), Southern Finance Association, New Orleans (Nov. 1982)

"Used and Useful Planning Models," Planning Executive Institute, 27th Corporate Planning Conference, Los Angeles (Nov. 1979)

"Staff Input to Commission Rate of Return Decisions," The National Society of Rate of Return Analysts, New York (Oct. 1979)

"Electric Rate Design in Texas," Southwestern Economics Association, Fort Worth (Mar. 1979)

"Discounted Cash Life: A New Measure of the Time Dimension in Capital Budgeting," with David Cordell, Southern Finance Association, New Orleans (Nov. 1978)

"The Relative Value of Statistics of Ex Post Common Stock Distributions to Explain Variance," with Charles G. Martin, Southern Finance Association, Atlanta (Nov. 1977)

"An ANOVA Representation of Common Stock Returns as a Framework for the Allocation of Portfolio Management Effort," with Charles G. Martin, Financial Management Association, Montreal (Oct. 1976)

"A Growth-Optimal Portfolio Selection Model with Finite Horizon," with Henry A. Latané, American Finance Association, San Francisco (Dec. 1974)

"An Optimal Approach to the Finance Decision," with Henry A. Latané, Southern Finance Association, Atlanta (Nov. 1974)

"A Pragmatic Approach to the Capital Structure Decision Based on Long-Run Growth," with Henry A. Latané, Financial Management Association, San Diego (Oct. 1974)

"Multi-period Wealth Distributions and Portfolio Theory," Southern Finance Association, Houston (Nov. 1973)

"Growth Rates, Expected Returns, and Variance in Portfolio Selection and Performance Evaluation," with Henry A. Latané, Econometric Society, Oslo, Norway (Aug. 1973)