

**BEFORE THE FLORIDA  
PUBLIC SERVICE COMMISSION**

**DOCKET NO. 080677-EI  
FLORIDA POWER & LIGHT COMPANY**

**IN RE: PETITION FOR RATE INCREASE BY  
FLORIDA POWER & LIGHT COMPANY**

**REBUTTAL TESTIMONY & EXHIBITS OF:**

**WILLIAM E. AVERA**

DOCUMENT NUMBER-DATE

08151 AUG-68

FPSC-COMMISSION CLEAR

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2                   **FLORIDA POWER & LIGHT COMPANY**

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5                   **AUGUST 6, 2009**

6  
7                   **INTRODUCTION**

8  
9   **Q.    Please state your name and business address.**

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

11  **Q.    Did you previously submit direct testimony in this proceeding?**

12  **A.    Yes, I did.**

13  **Q.    What is the purpose of your rebuttal testimony in this case?**

14  **A.    My purpose is to respond to the testimony of Mr. Richard A. Baudino, submitted**  
15 **on behalf of the South Florida Hospital and Healthcare Association and Dr. J.**  
16 **Randall Woolridge, submitted on behalf of the Office of Public Counsel (OPC)**  
17 **concerning a fair rate of return on equity (ROE) and regulatory capital structure**  
18 **for Florida Power & Light Company (FPL). In addition, I also respond to the**  
19 **capital structure recommendations of Mr. Jeffery Pollock, submitted on behalf of**  
20 **the Florida Industrial Power Users Group, the testimony of Daniel J. Lawton,**  
21 **submitted on behalf of OPC, regarding the impact of OPC's recommended excess**  
22 **reserve adjustment on FPL's financial integrity, as well as the testimony of**  
23 **Kimberly Dismukes, submitted on behalf of OPC, concerning the appropriate cost**

DOCUMENT NUMBER-DATE

1

08151 AUG-6 8

FPSC-COMMISSION CLERK

1 of capital to determine costs charged to FPL by FiberNet. I will also rebut the  
2 financial arguments of Mr. Thomas Saporito.

3 **Q. What is your conclusion regarding financial testimony you are rebutting?**

4 A. All of the witnesses I am rebutting recognize the financial strength of FPL and  
5 then propose ROEs, regulatory capital structures, and other adjustments that  
6 would undermine that strength. Indeed, the tenor of their testimony is that  
7 because FPL is so strong, the Florida Public Service Commission (FPSC) can  
8 allow returns at the lower end of the ranges indicated for other utilities, withdraw  
9 its support for FPL's conservative balance sheet, and adjust depreciation to  
10 decrease cash flow. These witnesses uniformly fail to consider that the financial  
11 strength of FPL is the result of the FPSC's long-standing policy of regulatory  
12 support, which includes a strong but reasonable equity ratio, that has protected  
13 customers and saved them money. FPL has been able to maintain the ability to  
14 raise capital and respond to challenges in the form of the raging storms in recent  
15 years. Though buffeted by massive hurricanes, gas market volatility, and financial  
16 turmoil, FPL has been able to borrow money at low rates that will benefit  
17 customers for years to come. FPL's balance sheet also pays off for customers  
18 when the company contracts for fuel as well as other commodities and services.  
19 The strong balance sheet also enhances FPL's ability to hedge risks on behalf of  
20 customers. FPL's financial strength also offsets the inherent risk of depending on  
21 natural gas and nuclear power as the predominant fuel sources, which have  
22 economic and environmental benefits for customers and the state of Florida.

1 As a result of the strategy of financial strength pursued by FPL and supported by  
2 the FPSC, customers have not seen a base rate increase since 1984 and enjoy rates  
3 that are below Florida and U.S. averages. Moreover, this strategy support's  
4 Florida's economic growth and recovery because current and potential customers  
5 can be confident that their electricity supplier is robust and resilient in the face of  
6 future challenges and uncertainties.

7  
8 The financial recommendations of the intervenor witnesses would be short-  
9 sighted in the extreme, sacrificing the long-term security and economy of  
10 customers for a temporary suppression of rates. There is no free lunch. If  
11 investors and bond rating agencies perceive that the FPSC has withdrawn its  
12 support for FPL's financial strength, they will reassess their risk evaluations  
13 upwards. The outcome would be higher borrowing costs and less financial  
14 flexibility for FPL. This loss of financial strength would expose FPL's customers  
15 to the vagaries of weather and markets to which FPL is uniquely subject due to its  
16 geographic location and energy mix.

17 **Q. How is your rebuttal testimony organized?**

18 A. The first three sections of my rebuttal discuss three fundamental fallacies that lead  
19 the intervenor witnesses to recommend unreasonably low ROE's, debt-laden  
20 capital structures, and depreciation policies that would undermine FPL's financial  
21 strength and harm customers' long-run interest. The final section summarizes the  
22 technical criticisms of the intervenor analyses that are detailed in Exhibit WEA-  
23 18.

1 **Q. What are the three fallacies in the rebutted testimony?**

2 A. The first of these fallacies is that it is possible to “**Have your cake and eat it**  
3 **too**”, wherein the rebutted witnesses use FPL’s past and present financial strength  
4 as the basis of recommendations that would destroy that very strength. The  
5 second fallacy is to “**Ignore the man behind the curtain**”, because Mr. Baudino  
6 and Dr. Woolridge argue that investors’ expected return on book equity should be  
7 ignored, even though these expected returns are directly comparable to the ROE  
8 that the FPSC will be allowing in this case. In fact, the returns on book equity  
9 reported in their testimonies reveal that their ROE recommendations are woefully  
10 inadequate to compensate investors in FPL. The third fallacy is that “**Utilities are**  
11 **an investment island**”, where Mr. Baudino and Dr. Woolridge reject my use of  
12 investors’ required returns from non-utility companies as a benchmark and argue  
13 that analyses should only look to utilities. In fact, FPL must compete with  
14 utilities and non-utilities to obtain capital, a reality recognized in the *Hope* and  
15 *Bluefield* cases.

16 **Q. Are you sponsoring an exhibit to your rebuttal testimony?**

17 A. Yes. I am sponsoring the following exhibit:

- 18       ▪ Exhibit WEA-18 – Rebuttal to Technical Arguments

19 **Q. What is the subject of Exhibit WEA-18?**

20 A. Exhibit WEA-18 presents a technical demonstration that my analyses are more  
21 reasonable, reliable, and relevant to FPL’s unique facts and circumstance than  
22 those presented by the intervenor witnesses. A main thrust of the exhibit is the  
23 proper application of the discounted cash flow (DCF) and Capital Asset Pricing

1 Model (CAPM) exclusively relied upon by both Mr. Baudino and Dr. Woolridge  
2 as the basis of their ROE recommendations. My testimony uses these same  
3 methods (as well as the expected earnings approach) applied to my Utility Proxy  
4 Group, as well as the DCF and CAPM applied to a Non-Utility Proxy Group.  
5 Exhibit WEA-18 details the differences in our proxy groups and the application of  
6 the DCF and CAPM to show why their analyses produce downward biased results

7 **Q. What is your conclusion regarding Intervenors' ROE and capital structure**  
8 **recommendations?**

9 A. Investors have many options for their funds and competition for investment  
10 dollars is intense. As documented in my rebuttal testimony, the cost of equity  
11 recommendations of Mr. Baudino and Dr. Woolridge are significantly downward-  
12 biased and out of touch the requirements of real-world investors in the capital  
13 markets. Considering investors' heightened awareness of the risks associated  
14 with the capital markets generally and the utility industry specifically, supportive  
15 regulation remains crucial to maintaining FPL's access to capital and ensuring the  
16 Company's continued ability to meet customer needs. The importance of  
17 regulatory support is magnified by the challenges inherent in FPL's service area  
18 and energy mix. Intervenors' recommendations would compromise these  
19 regulatory objectives and deny FPL the opportunity to earn its required rate of  
20 return. It would upset a strategy of financial strength that has been pursued by  
21 FPL with the support of the FPSC that has paid off for customers in low rates,  
22 reliable service, and the ability to weather hurricanes, energy market volatility and  
23 financial market turmoil.

1                   **I. THE “HAVE YOUR CAKE AND EAT IT TOO” FALLACY**

2

3   **Q.   How do the intervenor witnesses fall into this fallacy?**

4   A.   Mr. Baudino and Dr. Woolridge choose ROE estimates at the low end of their  
5       ranges predicated on their claim that FPL is a “low risk utility” based on its  
6       relatively high bond ratings and strong balance sheet (Baudino, p. 33, Woolridge,  
7       p. 59). An even more extreme recognition of FPL’s financial strength is  
8       recommended by Mr. Saporito, who advocates that the ROE be adjusted  
9       downward to the “4% to 6% range” which he documents to be in the range of  
10      risk-free returns (Saporito, p. 6).

11

12       As shown in my direct testimony and in Mr. Pimentel’s direct and rebuttal  
13      testimony, financial strength is a good thing for customers and is necessary to  
14      offset the inherent risks of FPL’s geographic location, energy mix, and exposure  
15      to hurricanes. Mr. Baudino, Dr. Woolridge, and Mr. Saporito leap to the  
16      conclusion that FPL is a “low risk utility” based only on financial risk measures  
17      and without consideration of the business risk of FPL’s operations. To make  
18      matters worse, Mr. Baudino and Dr. Woolridge recommend adjustments to FPL’s  
19      regulatory capital structure that would increase leverage by substituting debt for  
20      equity. Mr. Pollock also recommends that FPL’s capital structure be adjusted to  
21      include more debt and Mr. Lawton relies on FPL’s financial strength to argue that  
22      *adjusting depreciation rates to reduce cash flow could be absorbed by FPL.* The  
23      problem with these recommendations is that all of them would undermine FPL’s

1 financial strength. Therefore, the intervenor recommendations would destroy the  
2 very attribute that they rely upon for their recommendations.

3 **Q. Does FPL's financial strength depend on more than the amount of equity in**  
4 **the capital structure?**

5 A. Yes. As discussed in my direct testimony, investors and bond rating agencies are  
6 increasingly focused on the importance of regulatory support. In this regard, the  
7 FPSC has established a well-earned reputation of constructive regulation. If the  
8 FPSC were to deviate from this path, it would cause investors and bond rating  
9 agencies to reassess their risk perceptions of FPL. If the intervenors' positions  
10 were to be adopted, then the financial strength that has allowed FPL to save  
11 customers money and weather hurricanes, gas market volatility, and financial  
12 turmoil would be sapped. Making unwarranted adjustments to the capital structure  
13 or adopting an unreasonably low ROE would undoubtedly have a negative impact  
14 on investors' risk perceptions, and doing both would be outright alarming. The  
15 end result would be a loss of financial strength that would harm customers and  
16 expose them to higher costs and more uncertainty in the future.

17 **Q. Mr. Baudino and Mr. Lawton claim that their adjustments would not cause**  
18 **FPL's bond rating to fall. Should the FPSC accept their representations?**

19 A. No. It is illogical to presume that FPL's equity ratio and cash flow are  
20 "excessive" to maintain its current bond rating. First, if FPL's financial  
21 parameters exceed those necessary for a single-A rating, then the rating agencies  
22 would have already upgraded FPL. Second, the rating agencies clearly state that  
23 they look beyond the numbers to consider the individual risk profile of each



1 issuer. In my contact with rating agency personnel, they jealously guard their  
2 ability to depart from guidelines to reflect the risk of individual issuers. Given the  
3 recent embarrassments from the ratings of mortgage securities that triggered the  
4 financial meltdown, they are likely to be more, not less sensitive to individual  
5 issuer characteristics. The exercise that Mr. Baudino presents is nothing more  
6 than an attempt to second-guess the rating agencies based on their broad  
7 guidelines, which is both unreliable and speculative. As S&P very recently  
8 reiterated:

9 The ratings matrix indicative outcomes are what we typically  
10 observe – but are not meant to be precise indications or guarantees  
11 of future rating opinions. ... Moreover, our assessment of financial  
12 risk is not as simplistic as looking at a few ratios (Standard &  
13 Poor's Corporation. "Criteria Methodology: Business  
14 Risk/Financial Risk Matrix Expanded," *RatingsDirect* (May 27,  
15 2009).

16 **Q. Is there anything hidden or mysterious about the consideration of imputed**  
17 **debt from purchased power agreements (PPAs) by FPL?**

18 A. No. Contrary to the suggestion of Mr. Baudino (p. 36) and Dr. Woolridge (p. 16),  
19 the consideration of imputed debt is a long-standing issue before the FPSC. I  
20 have submitted testimony on imputed debt in the last two rate cases and in several  
21 capacity needs cases. Indeed, the FPSC stated in its recent TECO case that it was  
22 familiar with this issue from previous cases (Order No. PSC-09-0283-FOF-EI, p.  
23 36). I recognize that the imputed debt is not without controversy, but its

1 relationship to regulatory capital structure and the 55.8% equity ratio is well-  
2 established in Florida regulatory lore. Mr. Pimentel and I have both discussed  
3 why the adjustment is reasonable and necessary in this case.

4  
5 I find particularly disingenuous Dr. Woolridge's claim that the imputed debt  
6 should be rejected because it is not reported under Generally Accepted  
7 Accounting Principles (GAAP). Investors and rating agencies begin their  
8 analyses using accounting information prepared according to GAAP but then  
9 make adjustments as necessary to reflect underlying economic reality. Indeed,  
10 much of the Chartered Financial Analyst (CFA) curriculum is directed to making  
11 adjustments to GAAP numbers. Moreover, it is common in the regulatory arena  
12 to adjust GAAP numbers to comport with regulatory policies. For example, my  
13 first encounter with Dr. Woolridge was in an SBC Ohio case in 2004 where we  
14 both argued that the Public Utilities Commission of Ohio should use market value  
15 capital structures that deviate from GAAP in determining the weighted cost of  
16 capital for services provided to competitors. The Public Utilities Commission of  
17 Ohio, and ultimately the Federal Communications Commission and federal  
18 courts, agreed with us (Docket 02-1289-TP-UNC-2004). I recognize that the  
19 FPSC has the discretion to recognize or ignore imputed debt, but it should do so  
20 based on financial realities and regulatory policy, not merely because Dr.  
21 Woolridge invokes GAAP to tie the Commission's hands.

1           **II.     THE “IGNORE THE MAN BEHIND THE CURTAIN” FALLACY**

2

3   **Q.     What is the nature of this fallacy?**

4   A.     Both Mr. Baudino and Dr. Woolridge claim that returns earned on book value  
5           should be totally ignored because they have no relevance to the ROE that FPL  
6           should be allowed in this case and the focus should be completely on returns in  
7           the stock market. Yet the allowed ROE set by the FPSC will be applied to rate  
8           base not stock prices. If the focus is shifted to earned returns using data in my  
9           testimony or their testimony, the downward bias of Mr. Baudino and Dr.  
10          Woolridge’s ROE recommendation is all too apparent. Their position reminds me  
11          of the wizard in the classic movie *The Wizard of Oz* who implores Dorothy and  
12          here compatriots to pay no attention to the man behind the curtain.

13   **Q.     Dr. Woolridge (p.5) claims the earnings on book value approach “has not  
14           been used by regulatory commissions for years.” Is that your experience?**

15   A.     Not at all. While Dr. Woolridge is correct that this method predominated before  
16           the DCF model became fashionable with academic experts, I continue to  
17           encounter it around the country. Indeed, the Virginia State Corporation  
18           Commission (VSCC) is specifically required by statute (Code of Virginia at § 56-  
19           585) to consider the earned returns on book value of electric utilities in its region  
20           (including Florida). That methodology provides that the ROE allowed by the  
21           VSCC must be within a range governed by the average historical earned return on  
22           book equity for a peer group of regional utilities. Another example is Ms. Terri  
23           Carlock, the long-time financial analyst for the Idaho Public Utilities

1 Commission. She has consistently presented evidence on book earnings for  
2 decades, and Idaho regulators continue to confirm the relevance of return on book  
3 equity evidence.

4  
5 Perhaps the most ardent proponent of earned returns as a benchmark for fair ROE  
6 is David C. Parcell, who frequently appears as a witness for regulatory agencies  
7 and other intervenors. Mr. Parcell literally “wrote the book” for the Society of  
8 Utility and Regulatory Financial Analysts (*The Cost of Capital – A Practitioner’s*  
9 *Guide*, 1997 Edition). Mr. Parcell called the comparable earnings approach the  
10 “granddaddy” of cost of equity methods (p. 7-1). He also points out that the  
11 amount of subjective judgment required to implement this method is “minimal”,  
12 particularly when compared to the DCF and CAPM methods (p. 7-3). Mr. Parcell  
13 also notes that this method is “easily understood” and firmly anchored in the  
14 regulatory tradition of the *Bluefield* and *Hope* cases (p.. 7-3).

15 **Q. What does Dr. Woolridge’s testimony report for earned returns?**

16 A. Dr. Woolridge reports (p. 28) that the earned return on equity for his utility proxy  
17 group was 12.0 percent in 2008. In fact, the return on equity reflected on his  
18 Exhibit JRW-4 for his electric utility proxy group is 12.2 percent. Indeed, had Dr.  
19 Woolridge gone through the same exercise of averaging the mean and median that  
20 he applies to company data throughout the remainder of his testimony, the ROE  
21 result would be 12.4 percent. This book return estimate is an “apples to apples”  
22 comparison to his recommended ROE of 9.5 percent and the 12.5 percent that  
23 FPL has requested the FPSC to allow on rate base.

1 **Q. What would be the effect of authorizing a book return for FPL that is so far**  
2 **below the average earnings of the utilities Dr. Woolridge claims are**  
3 **comparable?**

4 A Plain and simple, FPL will find it difficult to compete for investors' capital and  
5 FPL would not be earning up to the Bluefield standard of comparable earnings:

6 A public utility is entitled to such rates as will permit it to earn on  
7 the value of the property which it employs for the convenience of  
8 the public equal to that generally being made at the same time and  
9 in the same general part of the country on investments in other  
10 business undertakings which are attended by corresponding risks  
11 and uncertainties. (*Bluefield Water Works & Improvement Co. v.*  
12 *Pub. Serv. Comm'n*, 262 U.S. 679 (1923))

13 **Q. What is the relevance of Dr. Woolridge's discussion of market-to-**  
14 **book ratios (pp. 25-27) to the deviation between his recommended**  
15 **ROE and the earnings of comparable utilities?**

16 A. Based on his testimony here and in previous cases, I understand that Dr.  
17 Woolridge is trying to argue that utility earnings are generally too high  
18 because the market-to-book ratios generally exceed one. He wants the  
19 FPSC to sacrifice FPL's financial strength to favor a theoretical ideal of  
20 market-to-book ratios equaling unity. The FPSC does not regulate utility  
21 stock market prices, and as will be discussed in Exhibit WEA-18, there are  
22 many leaps between his economic theory and reality. But if the theory is  
23 correct, then Dr. Woolridge is asking the FPSC to order a return that

1 would almost certainly lead to a capital loss on the value of FPL's  
2 investment. From an economic perspective, such an action would take the  
3 value of FPL's property without compensation, the kind of behavior that  
4 upset the American colonist against the English Crown.

5 **Q. How does Mr. Baudino dismiss returns on book equity?**

6 A. His answer is simply reflective of the "Ignore the man behind the screen" fallacy  
7 in stating:

8 Forecasted earned returns on book value **may** have nothing  
9 whatsoever to do with investors' required returns in the  
10 marketplace. For example, if earned returns on book equity exceed  
11 the market-based DCF return on equity, then investors **may** expect  
12 a company to earn more on book equity than the market-based  
13 required rate of return. Instead, I recommend that the Commission  
14 utilize a range of returns generated by the DCF model in setting  
15 FPL's cost of equity in this case. (pp. 55-56, emphasis supplied)

16  
17 I think Mr. Baudino is saying that the FPSC should ignore what utilities are  
18 expected to actually earn on book value in determining what comparable  
19 companies are (in the words of *Bluefield*) expected to earn on investments of  
20 "corresponding risks and uncertainties." In other words, ignore the actual  
21 earnings and look on the other side of the curtain to the returns being conjured up  
22 by his flawed application of the DCF model. I don't mean to suggest that the  
23 DCF model is not a valuable tool, but it is built upon assumptions and judgments

1 that should be checked against the simple and straightforward expected earnings  
2 approach that looks directly to book returns rather than through the lens of a  
3 financial model based on stock market prices.

### 4 5 **III. THE “UTILITIES ARE AN INVESTMENT ISLAND” FALLACY**

6  
7 **Q. What is the nature of this fallacy?**

8 A. Mr. Baudino and Dr. Woolridge dismiss out of hand my analysis of the cost of  
9 equity for non-utility firms based on the claim that utilities are profoundly  
10 different and therefore less risky from other companies in the economy. This  
11 view is not consistent with reality, investor behavior, or the *Bluefield* and *Hope*  
12 decisions. True enough, utilities are sheltered from competition, but they  
13 undertake other obligations and lose the ability to set their own prices and decide  
14 when to exit a market.

15  
16 My Non-Utility Proxy Group was screened to have corresponding risk indicators  
17 with FPL and is comprised of 66 of the best known and most stable corporations  
18 in America. While these companies do not have the regulatory protections that  
19 utilities have, neither do they bear the burdens of losing control over their prices,  
20 *undertaking the obligation to serve, and having to invest in infrastructure even in*  
21 *unfavorable market conditions (such as the present).* FPL can't relocate its  
22 service territory to an area less threatened by hurricanes and more convenient to  
23 fuel sources, postpone capital spending necessary to maintain reliability and

1 accommodate growth, or abandon customers when turmoil roils energy or capital  
2 markets. As I documented in my direct testimony, investors are becoming  
3 increasingly sensitive to the regulatory risk of utilities – and correspondingly the  
4 greater benefit from the even-handed reputation of the FPSC. Indeed Mr.  
5 Baudino quotes (p. 8) a May 29, 2009 Moody’s report that observes:

6           However, we are increasingly concerned with business and  
7           operating risks, which are not new but appear to be accelerating  
8           faster than previously understood.

9 **Q. Do utilities have to compete with non-regulated firms for capital?**

10 A. Most certainly. Mr. Baudino recognizes that the cost of capital is an opportunity  
11 cost based on the returns investors could realize by putting their money in other  
12 alternatives (p. 15), which according to Mr. Baudino include, “a utility stock,  
13 utility bond, mutual fund, money market fund or any other number of investment  
14 vehicles.” Clearly mutual funds invest in non-utilities, and the total money  
15 invested in utility stocks is only the tip of the iceberg of total common stock  
16 investment.

17 **Q. Does Dr. Woolridge apparently consider non-utility stock returns relevant to  
18 determining the cost of capital?**

19 A. Indeed he does. Dr. Woolridge cites many studies of past and expected stock  
20 market returns in his testimony, including a list of 30 studies included on Exhibit  
21 JRW-11. **Not one** of these studies is limited to utilities, and all include a  
22 predominance of non-utility common stocks, e.g., Standard & Poor’s 500 index.  
23 Moreover, while Dr. Woolridge references a study of industry betas done at New



1 York University (p. 29) that suggests utilities have lower risks than the average  
2 firm in the non-regulated sector, this establishes nothing more than the obvious;  
3 while some unregulated firms have higher risks than utilities, others have lower  
4 risks. As documented in my direct testimony and discussed further in Exhibit  
5 WEA-18, the firms in my Non-Utility Proxy Group are also in the lower ranges of  
6 risk as measured by objective, widely referenced benchmarks..

7 **Q. Would it be consistent with the *Bluefield* and *Hope* cases to disregard**  
8 **required returns for non-utility companies?**

9 A. No. The quote from the *Bluefield* case presented above refers to “business  
10 undertakings attended with comparable risks and uncertainties.” It does not  
11 restrict consideration to other utilities. Indeed, if the requirement is business in  
12 the same part of the country and the utility has the exclusive franchise, then the  
13 Court could only be referring to non-utility businesses and any nearby utilities.  
14 Similarly, the *Hope* case states:

15 By that standard the return to the equity owner should be  
16 commensurate with returns on investments in other enterprises  
17 having corresponding risks.

18 As in the *Bluefield* decision, there is no restriction of the other investments to  
19 utilities.

1 Indeed, in teaching regulatory policy I usually mention that in the early  
2 applications of the comparable earnings approach, utilities were explicitly  
3 eliminated due to a concern about circularity. In other words, soon after the *Hope*  
4 decision regulatory commissions did not want to get involved in circular logic by  
5 looking to the returns of utilities that were established by the same or a similar  
6 regulatory commission in the same geographic region. To avoid circularity,  
7 regulators looked only to the returns of non-utility companies. Incidentally, the  
8 requirement in the *Bluefield* case of restricting the comparable group to the  
9 geographic region is often overlooked in the academic literature, but the Virginia  
10 Code mentioned earlier is true to that directive by considering earned returns of  
11 utilities in the Southeastern region, including Florida. It is interesting to note that  
12 the utility proxy groups of Mr. Baudino and Dr. Woolridge only include two other  
13 utilities that operate in Florida, while virtually all of the firms in my Non-Utility  
14 Proxy Group have a significant presence in this state.

15 **Q. Does consideration of the results for the Non-Utility Proxy Group make the**  
16 **estimation of the cost of equity using the DCF model more reliable?**

17 A. Yes. The estimates of growth from the DCF model depend on analysts forecasts,  
18 or in the case of Dr. Woolridge, historical performance. It is possible for utility  
19 growth rates to be distorted by historical trends in the industry (e.g., deregulation)  
20 or the industry falling into favor or disfavor by analysts. The result of such  
21 distortions would be to bias the DCF estimates for utilities. Because the Non-  
22 Utility Proxy Group includes low risk companies from many industries, it

1 diversifies away any distortion that may be caused by the ebb and flow of  
2 enthusiasm for a particular sector.

3 **Q. Do you have any closing comments about the opposing witnesses' assessment**  
4 **of the relative risk of FPL?**

5 A. Yes. The statement of FPL Group's Mr. Hay that FPL is "best utility franchise in  
6 the nation" is cited repeatedly, particularly by Mr. Baudino. He and others  
7 apparently equate this statement with an admission that FPL is a low risk utility. I  
8 do not think this statement is equivalent to granting that FPL is low risk; rather, it  
9 reflects the pride that the company feels in its financial strength, reliable service,  
10 and ability to surmount the many challenges inherent in its service area and  
11 energy mix. I am reminded of the Navy SEALs that I encountered during my  
12 military service, who would say in the face of physical exertion and extreme  
13 danger, "We have the best job in the U.S. Navy." They definitely were not saying  
14 they had the least risky job in the Navy.

15

16 **IV. SUMMARY OF EXHIBIT WEA-18**

17

18 **Q. Please summarize the conclusions of Exhibit WEA-18.**

19 A. Exhibit WEA-18 examines the fallacies underlying the approaches and criticisms  
20 in the testimony of Mr. Baudino and Dr. Woolridge and demonstrates that the  
21 *analyses and conclusions presented in my direct testimony are more reasonable,*  
22 *reliable, and relevant with investors' and FPL's requirements. Specifically, my*

1 detailed response to the technical arguments raised by Mr. Baudino and Dr.  
2 Woolridge concluded:

- 3 • *The revenue test that Mr. Baudino and Dr. Woolridge used to define their*  
4 *proxy groups has no demonstrable relationship to comparable risk, only*  
5 *partially accounts for regulated operations, and is entirely subjective.*
- 6 • *Reference to my Non-Utility Proxy Group is entirely consistent with*  
7 *established regulatory principles and there is no objective evidence that*  
8 *these firms have higher investment risks than FPL or the firms in my*  
9 *Utility Proxy Group.*
- 10 • *The DCF results of Mr. Baudino and Dr. Woolridge do not reflect*  
11 *investors requirements because they either fail to focus on future*  
12 *expectations, rely on illogical inputs, and/or contain errors in the*  
13 *calculation of underlying growth rates.*
- 14 • *There is no basis for the contention that relying on security analysts'*  
15 *projected growth rates results in a biased DCF cost of equity or that*  
16 *dividend growth rates are likely to provide a superior guide to investors'*  
17 *expectations.*
- 18 • *Dr. Woolridge's CAPM analysis is incorrectly premised on stale,*  
19 *historical data that violates the assumptions of this method and produces*  
20 *results that are patently illogical in today's capital markets.*
- 21 • *The forward-looking estimate of the market rate of return used in my*  
22 *CAPM analysis is entirely consistent with the requirements of this*  
23 *approach and there is no basis to claim that it is overstated.*

- 1                   ● *The expected earnings approach applied in my direct testimony is entirely*  
2                   *consistent with established regulatory principles and provides a*  
3                   *meaningful guide to investors' required ROE.*
- 4                   ● *Flotation costs are a valid consideration in establishing the ROE for FPL*  
5                   *and there is no basis to ignore the impact of these legitimate costs.*
- 6                   ● *There is no basis to use Dr. Woolridge's recommended ROE as the basis*  
7                   *for the costs charged to FPL by FiberNet.*

8   **Q.   Does this conclude your rebuttal testimony?**

9   **A.   Yes.**

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

**FLORIDA POWER & LIGHT COMPANY**

**REBUTTAL TESTIMONY OF WILLIAM E. AVERA**

**DOCKET NO. 080667-EI**

**AUGUST 6, 2009**

**EXHIBIT WEA-18**

**REBUTTAL TO TECHNICAL ARGUMENTS**

**EXHIBIT WEA-18**  
**REBUTTAL TO TECHNICAL ARGUMENTS**

**TABLE OF CONTENTS**

1 PROXY GROUP REVENUE TEST IS UNSUPPORTED ..... 1

2 NO BASIS TO DISREGARD NON-UTILITY PROXY GROUP ..... 8

3 DCF RESULTS FAIL TO REFLECT INVESTORS' EXPECTATIONS..... 12

4 CRITICISMS OF ANALYSTS' GROWTH RATES ARE MISGUIDED ..... 20

5 DOWNWARD BIAS IN SUSTAINABLE DCF GROWTH RATES ..... 29

6 ILLOGICAL DATA UNDERLYING CAPM ANALYSES..... 32

7 EXPECTED EARNINGS METHOD IS AN ACCEPTED APPROACH ..... 52

8 NO BASIS TO IGNORE FLOTATION COSTS ..... 56

9 FPL'S SUPERIOR PERFORMANCE SHOULD BE CONSIDERED..... 62

10 OPC'S RECOMMENDED ROE SHOULD NOT BE APPLIED TO FIBERNET ..... 64

1 **Q. What is the purpose of this exhibit to your rebuttal testimony?**

2 A. The purpose of this exhibit is to rebut the key technical arguments made by Mr.  
3 Baudino and Dr. Woolridge concerning a fair ROE for FPL. In addition, I also  
4 demonstrate that their criticisms of my applications and conclusions are  
5 misguided and should be rejected.

6

7 **PROXY GROUP REVENUE TEST IS UNSUPPORTED**

8

9 **Q. Do you agree with Mr. Baudino and Dr. Woolridge that the source of a**  
10 **utility's revenues is a valid criteria in selecting a proxy group for FPL?**

11 A. No. Mr. Baudino selected proxy companies with at least 50 percent of their  
12 revenues from electric operations, while Dr. Woolridge argued for the elimination  
13 of companies if less than 70 percent of total revenues were attributable to electric  
14 utility service.<sup>1</sup> However, both witnesses failed to demonstrate how this  
15 subjective criterion translates into differences in the investment risks perceived by  
16 investors. As I amply demonstrated in my direct testimony,<sup>2</sup> a comparison of  
17 objective indicators demonstrates that investment risks for the firms in my proxy  
18 groups are relatively homogeneous and comparable to FPL. Moreover, there are  
19 significant errors and inconsistencies associated with the approach adopted by Mr.

---

<sup>1</sup> Baudino Direct at 19; Woolridge Direct at 14.

<sup>2</sup> Pages 39-41.



1 Baudino and Dr. Woolridge that justify rejecting their proposed proxy group  
2 criteria.

3 **Q. Did Mr. Baudino or Dr. Woolridge demonstrate a nexus between their**  
4 **subjective revenue criterion and objective measures of investment risk?**

5 A. No. Under the regulatory standards established by *Hope* and *Bluefield*, the salient  
6 criterion in establishing a meaningful proxy group to estimate investors' required  
7 return is relative risk, not the source of the revenue stream. Mr. Baudino and Dr.  
8 Woolridge presented no evidence to demonstrate a connection between the  
9 subjective revenue criterion that they employed and the views of real-world  
10 investors in the capital markets.

11

12 Moreover, due to differences in business segment definition and reporting  
13 between utilities, it is often impossible to accurately apportion financial measures,  
14 such as total revenues, between utility segments (*e.g.*, electric and natural gas) or  
15 regulated and non-regulated sources. As a result, even if one were to ignore the  
16 fact that there is no clear link between the source of a utility's revenues and  
17 investors' risk perceptions, it is generally not possible to accurately and  
18 consistently apply revenue-based criteria. In fact, other regulators have rebuffed  
19 these notions, with the Federal Energy Regulatory Commission (FERC) rejecting  
20 attempts to restrict a proxy group to companies based on sources of revenues. As  
21 FERC recently concluded:

1 This is inconsistent with Commission precedent in which we have  
2 rejected proposals to restrict proxy groups based on narrow  
3 company attributes.<sup>3</sup>

4 Similarly, FERC has specifically rejected arguments analogous to those of Mr.  
5 Baudino and Dr. Woolridge that utilities “should be excluded from the proxy  
6 group given the risk factors associated with its unregulated, non-utility business  
7 operations.”<sup>4</sup>

8 **Q. What objective evidence can be evaluated to confirm the conclusion that**  
9 **these subjective criteria are not synonymous with comparable risk in the**  
10 **minds of investors?**

11 A. Bond ratings are perhaps the most objective guide to utilities' overall investment  
12 risks and they are widely cited in the investment community and referenced by  
13 investors. While the bond rating agencies are primarily focused on the risk of  
14 default associated with the firm's debt securities, bond ratings and the risks of  
15 common stock are closely related. As noted in *Regulatory Finance: Utilities'*  
16 *Cost of Capital:*

17 Concrete evidence supporting the relationship between bond  
18 ratings and the quality of a security is abundant. ... The strong

---

<sup>3</sup> *Pepco Holdings, Inc.*, 124 FERC ¶ 61,176 at P 118 (2008) (footnote omitted).

<sup>4</sup> *Bangor Hydro-Elec. Co.*, 117 FERC ¶ 61,129 at PP 19, 26 (2006).

1                   association between bond ratings and equity risk premiums is well  
2                   documented in a study by Brigham and Shome (1982).<sup>5</sup>

3  
4                   Indeed, Mr. Baudino (p. 18) and Dr. Woolridge (Exhibit JRW-4) also reviewed the  
5                   bond ratings of the companies in their alternative proxy groups. Mr. Baudino (p.  
6                   16) testified that bond ratings are based on “detailed analyses of factors that  
7                   contribute to the risks of an investment” and “quantify the total risk of a  
8                   company.”

9  
10                  While credit ratings provide the most widely referenced benchmark for  
11                  investment risks, other quality rankings published by investment advisory services  
12                  and rating agencies also provide relative assessments of risk that are considered  
13                  by investors in forming their expectations. For example, Value Line’s Safety  
14                  Rank, which ranges from “1” (Safest) to “5” (Riskiest), is intended to capture the  
15                  total risk of a stock, and incorporates elements of stock price stability and  
16                  financial strength. Mr. Baudino (p. 21) stated that Value Line “probably  
17                  represents the most comprehensive and widely used of all investment information  
18                  services.”

19  
20                  As I noted in my direct testimony (p. 24), FPL has been assigned a corporate  
21                  credit rating of “A” by S&P. Meanwhile, the credit ratings for my proxy utilities

---

<sup>5</sup> Morin, Roger A., “Regulatory Finance: Utilities’ Cost of Capital,” *Public Utility Reports* (1994) at 81.

1 that would be excluded by Mr. Baudino and Dr. Woolridge based on their  
2 subjective revenue tests range from “BBB+” to “A-” and average “A-” and  
3 “BBB+”, respectively. Considering that credit ratings provide one of the most  
4 widely referenced benchmarks for investment risks, a comparison of this  
5 objective indicator demonstrates that the range of risks for the companies  
6 eliminated under the subjective criterion proposed by Mr. Baudino and Dr.  
7 Woolridge are entirely comparable to those of the other firms in my Utility Proxy  
8 Group. In fact, the credit ratings assigned to the firms included in the reference  
9 groups proposed by Mr. Baudino and Dr. Woolridge fall in an even wider range  
10 from “BBB” to “AA-”

11

12 Similarly, the Value Line Safety Rank assigned to the utilities in my proxy group  
13 that would have been excluded under the revenue tests proposed by Mr. Baudino  
14 and Dr. Woolridge ranged from “1” to “2”. This is identical to the balance of the  
15 Utility Proxy Group and generally comparable to the Safety Rank of “1” that  
16 Value Line has assigned to FPL’s parent, FPL Group. Meanwhile, the Value Line  
17 Safety Ranks for the reference groups proposed by Mr. Baudino and Mr.  
18 Woolridge fell in a wider range of “1” to “3”.

19 **Q. What do you conclude from the analysis of different independent, objective**  
20 **risk factors used by the investment community?**

21 A. Contrary to the allegations of Mr. Baudino, comparisons of objective, published  
22 indicators that incorporate consideration of a broad spectrum of risks, confirm that  
23 there is no link between the subjective test he applied to define his proxy groups

1 and the risk perceptions of investors. Similarly, Dr. Woolridge has presented no  
2 evidence to demonstrate any link between his proxy group criteria and investment  
3 risk. In other words, a comparison of these objective risk indicators demonstrates  
4 that there is no factual basis to distinguish between the risks that investors  
5 associate with FPL and those for the companies that Mr. Baudino and Dr.  
6 Woolridge would eliminate under their subjective revenue criteria.

7 **Q. What inconsistencies and errors are associated with the revenue tests**  
8 **proposed by Mr. Baudino and Dr. Woolridge?**

9 A. While Mr. Baudino and Dr. Woolridge screened all electric and combination  
10 electric and gas utilities followed by Value Line, their revenue tests were based  
11 solely on electric revenues and ignored the impact of gas utility operations. For  
12 example, despite the fact that Vectren Corporation reported in its 2008 Form 10-K  
13 Report that its regulated utility segment accounted for approximately 79 percent  
14 of total revenues, both Mr. Baudino and Dr. Woolridge excluded this firm under  
15 their revenues tests. Similarly, while Wisconsin Energy's utility segment posted  
16 2008 revenues equal to 99.9 percent of the total consolidated revenues, Dr.  
17 Woolridge eliminated this firm from his proxy group. Considering the similarities  
18 in the regulatory and business environments for regulated electric and gas utility  
19 operations, the failure of Mr. Baudino and Dr. Woolridge to incorporate gas utility  
20 revenues in implementing their test makes no sense.

21  
22 The subjective nature of the revenue criteria proposed by Mr. Baudino and Dr.  
23 Woolridge is further illustrated by the wide disparity between the thresholds

1 imposed by these respective witnesses. Apart from the absence of any objective  
2 evidence to link revenues with investors' risk perceptions, the fact that one  
3 witness would impose a 70 percent electric revenue criteria (Dr. Woolridge) while  
4 the other would set the bar at 50 percent (Mr. Baudino) reveals the lack of any  
5 underlying basis for their tests.

6  
7 In fact, Dr. Woolridge cannot seem to decide for himself what the correct cutoff  
8 should be. For example, in his November 2008 testimony in Case No. 080317-EI  
9 before the FPSC involving Tampa Electric Company, Dr. Woolridge argued to  
10 exclude companies with less than 75 percent of revenues attributable to electric  
11 operations. Similarly, Dr. Woolridge's artificial revenue threshold for his electric  
12 utility group here is inconsistent with his findings for gas utilities included in his  
13 analyses presented in Case No. 2008-00252 before the Kentucky Public Service  
14 Commission, where he testified that, on average, his gas utility group "receives  
15 68% of revenues from regulated gas operations."<sup>6</sup> If Dr. Woolridge finds it  
16 acceptable for certain gas utilities to have less than 68 percent of revenues from  
17 gas utility operations, why then did he exclude comparably situated electric  
18 utilities? Alternatively, why did he not hold gas utilities to the same 70 percent  
19 (or 75 percent ) revenue threshold imposed on his electric utility groups if this is a  
20 meaningful indicator of comparable risk? The answer, of course, is that Dr.  
21 Woolridge's revenue statistic has no demonstrable link to risk and his internal

---

<sup>6</sup> Direct Testimony of J. Randall Woolridge at p. 10, *An Adjustment of the Electric Rates, Terms, and Conditions of Louisville Gas and Electric*, Case No. 2008-00252.

1 inconsistency merely highlights the entirely subjective and baseless nature of his  
2 “test”.

3

4 **NO BASIS TO DISREGARD NON-UTILITY PROXY GROUP**

5

6 **Q. Do Mr. Baudino or Dr. Woolridge raise any meaningful criticisms regarding**  
7 **the use of your Non-Utility Proxy Group?**

8 A. No. Mr. Baudino simply noted (p. 50) that utilities “have protected markets ...  
9 enjoy full recovery of prudently incurred costs, and may increase their rates to  
10 cover increases in costs.” Based on this, Mr. Baudino summarily concluded,  
11 “Obviously, the non-utility companies have higher overall risk structures.”  
12 Similarly, Dr. Woolridge observed (p. 67) that my Non-Utility Proxy Group  
13 “includes such companies as Abbott Labs, Coca-Cola, General Mills, Hewlett  
14 Packard, IBM, Johnson & Johnson, McDonalds, Medtronic, Microsoft, and  
15 NIKE,” and concluded these companies are “vastly different” from utilities and  
16 do not operate in a “highly regulated environment.”<sup>7</sup>

17

18 In fact, however, the simple observation that a firm operates in non-utility  
19 businesses says nothing at all about the overall investment risks perceived by  
20 investors, which is the very basis for a fair rate of return. For example, consider  
21 (1) an electric utility operating in regulated markets that has experienced an

---

<sup>7</sup> Woolridge Direct at 60.

1 inability to recover the costs incurred to provide service, and (2) Wal-Mart Stores,  
2 Inc. (Wal-Mart), which faces competition on numerous fronts. Despite its lack of  
3 a regulated monopoly, with a double-A bond rating, the highest Value Line Safety  
4 Rank, and a beta of 0.65, the investment community would undoubtedly regard  
5 Wal-Mart as the less risky alternative.

6 **Q. Is there any merit to the view of Mr. Baudino and Dr. Woolridge that**  
7 **required returns for non-utility companies should be ignored?**

8 A. No. The implication that an estimate of the required return for firms in the  
9 competitive sector of the economy is not useful in determining the appropriate  
10 return to be allowed for rate-setting purposes is wrong. In fact, returns in the  
11 competitive sector of the economy form the very underpinning for utility ROEs  
12 because regulation purports to serve as a substitute for the actions of competitive  
13 markets. The Supreme Court has recognized that it is the degree of risk, not the  
14 nature of the business, which is relevant in evaluating an allowed ROE for a  
15 utility.<sup>8</sup>

16 Consistent with this view, Mr. Baudino noted (pp. 14-15) that the notion of  
17 “opportunity cost” underlies the Supreme Court’s economic standards, and that:

18 [O]ppportunity cost is measured by what she or he could have  
19 invested in as the next best alternative. That alternative could have  
20 been another utility stock, a utility bond, a mutual fund, a money

---

<sup>8</sup> *Fed. Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).



1           market fund, or any other number of investment vehicles.

2           (emphasis added)

3  
4           Similarly, Dr. Woolridge recognized (p. 30) that allowed returns to utility  
5           stockholders “should be commensurate with returns on investments in other  
6           enterprises having comparable risks.” As Mr. Baudino correctly observed, “The  
7           key determinant in deciding whether to invest, however, is based on comparative  
8           levels of risk,” and he concluded, “[T]he task for the rate of return analyst is to  
9           estimate a return that is equal to the return being offered by other risk-comparable  
10          firms.” In other words, Mr. Baudino granted that investors gauge their required  
11          returns from utilities against those available from non-utility firms of comparable  
12          risk. My reference to a comparable-risk Non-Utility Proxy Group is entirely  
13          consistent with the guidance of the Supreme Court and the principles outlined in  
14          Mr. Baudino’s and Dr. Woolridge’s own testimony.

15   **Q. Did either Mr. Baudino or Dr. Woolridge present any objective evidence to**  
16   **support their contention that your Non-Utility Proxy Group is riskier than**  
17   **FPL or your proxy group of electric utilities?**

18   **A.** No. Apart from sweeping generalizations about the risk differences between  
19   regulated and non-regulated companies, neither witness provided any support  
20   whatsoever for their contention. In fact, the objective risk measures specifically  
21   cited by Mr. Baudino and Dr. Woolridge as being relevant indicia of overall  
22   investment risks contradict their assertions. As noted earlier, Mr. Baudino  
23   testified that bond ratings reflect a detailed and comprehensive analysis of the key

1 factors contributing to a firm's overall investment risk, concluding (p. 16), "Bond  
2 ratings are tools that investors use to assess the risk comparability of firms."  
3 Contradicting Mr. Baudino's unsupported assertion (p. 50) that the companies in  
4 my Non-Utility Proxy Group "have higher overall risk structures," my direct  
5 testimony (p. 11 and Exhibit WEA-6) conclusively demonstrated that the average  
6 corporate credit rating for the Non-Utility Proxy Group of "A" is higher than the  
7 "A-" average for the Utility Proxy Group and identical that assigned to FPL.

8  
9 Similarly, Dr. Woolridge's evaluation of relative investment risks between electric  
10 utilities and other industry groups supports the comparability of my Non-Utility  
11 Proxy Group. Dr. Woolridge noted (p. 29) that under modern capital market  
12 theory, beta is the only relevant measure of investment risk, with his average beta  
13 value of 0.88 for the electric utility industry exceeding the 0.84 average beta for  
14 my Non-Utility Proxy Group. In fact, the review of objective indicators of  
15 investment risk presented in my direct testimony – which consider the impact of  
16 competition and market share – demonstrated that, if anything, the Non-Utility  
17 Proxy Group is less risky in the minds of investors than the common stock of  
18 electric utilities, and entirely comparable to FPL.

1                   **DCF RESULTS FAIL TO REFLECT INVESTORS' EXPECTATIONS**

2

3   **Q.    What are the fundamental differences between your DCF analysis and that of**  
4       **Dr. Woolridge?**

5    A.    There are four key distinctions between my DCF analysis and that of Dr.  
6        Woolridge: 1) whereas Dr. Woolridge incorporates historical results as being  
7        indicative of what investors expect, my analysis focuses directly on forward-  
8        looking data; 2) Dr. Woolridge discounts reliance on analysts' growth forecasts for  
9        earnings per share (EPS) as somehow biased, while my application of the DCF  
10       model recognizes that it is investors' *perceptions and expectations* that must be  
11       considered in applying the DCF model; 3) rather than looking to the capital  
12       markets for guidance as to investors' forward-looking expectations, Dr. Woolridge  
13       applies the DCF model based on his own personal views; and, 4) whereas my  
14       analysis explicitly excludes data that results in illogical cost of equity estimates,  
15       Dr. Woolridge essentially assumes that any resulting bias will be eliminated  
16       through averaging.

17   **Q.    Do you believe that the results of Dr. Woolridge's DCF analysis mirror**  
18       **investors' long-term expectations in the capital markets?**

19    A.    No. There is every indication that his DCF results are biased downward and fail  
20        to reflect investors' required rate of return. As I explained in my direct testimony  
21        (pp. 45-50), historical growth rates (such as those referenced by Dr. Woolridge to  
22        apply the DCF model) are colored by the structural changes and numerous  
23        challenges faced in the utility industry. Moreover, given recent financial trends in

1 the utility industry and the importance of earnings in determining future cash  
2 flows and stock prices, growth rates in dividends per share (DPS) and book value  
3 per share (BVPS) are not likely to be indicative of investors' long-term  
4 expectations. As a result, DCF estimates based on these growth rates do not  
5 capture investors' required rate of return for the industry.

6  
7 Consider Dr. Woolridge's reference to historical growth rates, for example. If past  
8 trends in EPS, DPS, and BVPS are to be representative of investors' expectations  
9 for the future, then the historical conditions giving rise to these growth rates  
10 should be expected to continue. That is clearly not the case for utilities, where  
11 structural and industry changes have led to declining dividends, earnings pressure,  
12 and, in many cases, significant write-offs. As Dr. Woolridge noted (p. 39):

13 [T]o best estimate the cost of common equity capital using the  
14 conventional DCF model, one must look to long-term growth rate  
15 expectations.

16  
17 While past conditions for utilities serve to depress historical growth measures,  
18 they are not representative of long-term expectations for the electric utility  
19 industry. Moreover, to the extent historical trends for electric utilities are  
20 meaningful, they are also captured in projected growth rates, such as those  
21 published by Value Line, IBES, First Call, and Zacks since securities analysts also  
22 routinely examine and assess the impact and continued relevance (if any) of  
23 historical trends.

1 **Q. Did Mr. Baudino also recognize the pitfalls associated with historical growth**  
2 **rates?**

3 A. Yes. Mr. Baudino noted (p. 22) that the analysis of investors' cost of equity "is a  
4 forward-looking process," and that historical growth rates "may not accurately  
5 represent investors expectations." Mr. Baudino concluded that analysts' forecasts  
6 "provide better proxies for the expected growth components in the DCF model  
7 than historical growth rates."

8 **Q. Is the downward bias inherent in historical growth measures for electric**  
9 **utilities evident in Dr. Woolridge's DCF analyses?**

10 A. Yes, it is. For example, consider the historical growth measures displayed on  
11 page 3 of Dr. Woolridge's Exhibit JRW-10. As shown there, approximately one-  
12 quarter of the individual historical growth rates reported by Dr. Woolridge for the  
13 companies in his electric proxy group were zero or negative, with almost one-half  
14 being 2.0 percent or less. Combining a growth rate of 2.0 percent with Dr.  
15 Woolridge's dividend yield of 4.7 percent implies a DCF cost of equity of  
16 approximately 6.7 percent. This implied cost of equity barely exceeds the average  
17 yield on public utility bonds reported by Moody's for June 2009 of approximately  
18 6.5 percent. Clearly, the risks associated with an investment in public utility  
19 common stocks exceeds those of long-term bonds. As Mr. Baudino noted (p. 24),  
20 "it is not plausible for investors to expect negative future growth rates for electric  
21 utilities," and Dr. Woolridge's historical growth measures result in a built-in  
22 downward bias to his DCF conclusions, which provide no meaningful information  
23 regarding the expectations and requirements of investors.

1   **Q. Did Dr. Woolridge make any effort to test the reasonableness of the**  
2   **individual growth estimates he relied on to apply the constant growth DCF**  
3   **model?**

4   **A. No.** Despite recognizing (p. 39) that “one must use historical growth numbers as  
5   measures of investors’ expectations with caution,” Dr. Woolridge simply  
6   calculated the average and median of the individual growth rates with no  
7   consideration for the reasonableness of the underlying data. In fact, many of the  
8   DCF cost of equity estimates implied by Dr. Woolridge’s application of this  
9   method make no economic sense.

10

11   For example, consider the 5-year historical BVPS growth rates included in Dr.  
12   Woolridge’s evaluation. As shown on page 3 of Exhibit JRW-10, the individual  
13   values for the firms in his proxy group ranged from 1.0 percent to 18.0 percent.  
14   Combining these growth rates referenced by Dr. Woolridge with his average  
15   dividend yield suggests a DCF cost of equity range of 5.7 percent to 22.7 percent.  
16   Clearly, DCF estimates that imply a cost of equity below the yield on public  
17   utility bonds or in excess of 20 percent violate economic logic and hardly  
18   represent an informed evaluation of investors’ expectations. Moreover, reliance  
19   on the median value for a series of illogical values does not correct for the  
20   inability of individual cost of equity estimates to pass fundamental tests of  
21   economic logic.

1 Q. Has Dr. Woolridge recognized the importance of evaluating model inputs in  
2 other forums?

3 A. Yes. As Dr. Woolridge noted in his testimony (Appendix A, p. 1), he is a founder  
4 and managing director *ValuePro*, which is an online valuation service largely  
5 based on application of the DCF model. *ValuePro* confirmed the importance of  
6 evaluating the reasonableness of inputs to the DCF model:

7 Garbage in, Garbage out! Like any other computer program, if the  
8 inputs into our Online Valuation Service are garbage, the resulting  
9 valuation also will be garbage.<sup>9</sup>

10

11 Unlike his approach here, Dr. Woolridge advised investors to use common sense  
12 in interpreting the results of valuation models, such as the DCF:

13 If a figure comes up for a certain input that is either highly  
14 implausible or looks wrong, indeed it may be. If a valuation is  
15 way out of line, figure out where the Service may have strayed on  
16 a valuation, and correct it. [*Id.*]

17

18 Given the fact that many of the growth rates relied on by Dr. Woolridge result in  
19 illogical cost of equity estimates, it is appropriate to take the same critical  
20 viewpoint when evaluating inputs to the DCF model in this proceeding.

---

<sup>9</sup> <http://www.valuepro.net/abtonline/abtonline.shtml>.

1 **Q. Do you agree with Mr. Baudino that you “erred” by ignoring Value Line’s**  
2 **DPS growth projections in your application of the DCF model?**

3 A. No. As I explained in my direct testimony (pp. 45-47), specific trends in dividend  
4 policies for utilities and evidence from the investment community fully supports  
5 my conclusion that earnings growth projections are likely to provide a superior  
6 guide to investors’ expectations. Indeed, while Mr. Baudino claims (p. 53) that  
7 reference to Value Line’s DPS growth rates for the firms in my Utility Proxy  
8 Group result in an average growth rate of approximately 5 percent, he failed to  
9 heed his own advice (p. 25) to evaluate the individual values. As shown on Mr.  
10 Baudino’s Exhibit\_\_ (RAB-11), the DPS growth rates referenced by Mr. Baudino  
11 ranged from 1.0 percent to 13.5 percent. But as Mr. Baudino testified (p. 25):

12 Including growth rates of 1% or less may understate expected  
13 growth for the comparison group. Regarding double-digit growth  
14 rates, it is highly unlikely that investors would expect such high  
15 growth rates over the long-run for utilities.

16 Moreover, I disagree with Mr. Baudino’s assertion (p. 52) that because Value  
17 Line’s projected DPS growth rates “are widely available to investors,” they can  
18 “reasonably be assumed to influence their expectation with respect to growth.”  
19 Value Line also publishes a wide variety of financial information, including  
20 growth rates in revenues and cash flows, but simply because a statistic is included  
21 in Value Line’s report does not mean that investors would rely on it in  
22 determining their growth expectations. Indeed, Value Line makes a number of



1 historical growth rates available to investors, including historical growth in DPS,  
2 which Mr. Baudino nevertheless recognized as implausible.

3 **Q. Do Mr. Baudino's projected DPS growth rates exhibit similar problems?**

4 A. Yes. As shown on page 1 of Mr. Baudino's Exhibit\_\_ (RAB-5), DPS growth rates  
5 for three of the firms in his reference group were equal to 1.0 percent or less, and  
6 his average dividend growth rate of 4.4 percent was over 160 basis points below  
7 the growth rate indicated from his review of analysts' earnings growth  
8 projections. This mirrors the trend towards a more conservative payout ratio for  
9 electric utilities and the need to conserve financial resources to provide a hedge  
10 against heightened uncertainties. However, while utilities have significantly  
11 altered their dividend policies in response to more accentuated business risks in  
12 the industry, this is not necessarily indicative of investors' long-term growth  
13 expectations. In fact, as discussed in my direct testimony and earlier in response  
14 to Dr. Woolridge, growth in earnings is far more likely to provide a meaningful  
15 guideline to investors' expected growth rate.

16 **Q. Do you agree that the screening criteria Mr. Baudino applied resulted in a**  
17 **reasonable growth estimate?**

18 A. No. While I certainly agree that it is appropriate to evaluate the reasonableness of  
19 inputs to the DCF model, I take issue with the specific criteria applied by Mr.  
20 Baudino. After a review of the individual growth rates for the companies in his  
21 reference group, Mr. Baudino speculated (p. 25) that no growth rate of 10 percent  
22 or above is reasonable. Mr. Baudino's "Method 3" results omitted all double-digit  
23 growth rates, as well as those below 1 percent.

1 But the growth expectations relevant to the DCF model are those of investors, not  
2 his personal assessment, and he has presented no meaningful evidence to support  
3 his claim that the growth expectations that investors build into current stock prices  
4 could never equal 10 percent or above. Moreover, while I agree with Mr. Baudino  
5 that growth rates below 1 percent cannot be considered reasonable, his criterion  
6 retains numerous other low-end growth estimates that produce illogical cost of  
7 equity estimates. For example, in his "Method 3" analysis, Mr. Baudino excluded  
8 the 10.0 percent Value Line EPS growth rate for FPL Group while retaining Value  
9 Line's 3.5 percent projected EPS growth rate for Edison International, Inc.  
10 (Edison). But adding Edison's 4.2 percent dividend yield (Exhibit\_\_ (RAB-4), p.  
11 1) to the 3.5 percent growth rate from Value Line results in an implied cost of  
12 equity of 7.7 percent, which falls far below a meaningful estimate of investors'  
13 required return for an electric utility. In other words, while Mr. Baudino was  
14 quick to discard growth estimates at the upper end of his range as being  
15 "excessive", he retained other low-end growth rates that are simply illogical.

16 **Q. Have other regulators approved DCF estimates based on growth rates that**  
17 **exceed single digits?**

18 **A.** Yes. For example, FERC recently approved a DCF cost of equity range with an  
19 upper bound of 15.9 percent, based on a consensus analyst growth estimate of  
20 10.0 percent.<sup>10</sup> Similarly, FERC approved an ROE zone of reasonableness of 9.21  
21 percent to 15.96 percent for the utility participants in the Midwest Independent

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<sup>10</sup> *Pepco Holding, Inc.*, 124 FERC ¶ 61,176 at ¶ 116 (2008).

1 Transmission System Operator, Inc., with the high-end of the DCF range being  
2 based on a growth rate of 11.00 percent.<sup>11</sup> These authorized DCF results  
3 contradict Mr. Baudino's suggestion that double-digit growth rates are *per se*  
4 illogical.

5  
6 **CRITICISMS OF ANALYSTS' GROWTH RATES ARE MISGUIDED**

7  
8 **Q. Please respond to Dr. Woolridge's criticisms regarding reliance on EPS**  
9 **growth projections in applying the DCF model.**

10 A. In applying the DCF model to estimate the cost of equity, the only relevant  
11 growth rate is the forward-looking expectations of investors that are captured in  
12 current stock prices. Dr. Woolridge's claim that analysts' estimates are not relied  
13 upon by investors is illogical given the reality of a competitive market for  
14 investment advice. If financial analysts' forecasts do not add value to investors'  
15 decision making, it would be irrational for investors to pay for these estimates.  
16 Similarly, those financial analysts who fail to provide reliable forecasts will lose  
17 out in competitive markets relative to those analysts whose forecasts investors  
18 find more credible. The reality that analyst estimates are routinely referenced in  
19 the financial media and in investment advisory publications implies that investors  
20 use them as a basis for their expectations.

21  

---

<sup>11</sup> *Midwest Independent Transmission System Operator, Inc.*, 99 FERC ¶ 63,011 at Appendix A (2002).

1 The continued success of investment services such as IBES and Value Line, and  
2 the fact that projected growth rates from such sources are widely referenced,  
3 provides strong evidence that investors give considerable weight to analysts'  
4 earnings projections in forming their expectations for future growth. Earnings  
5 growth projections of security analysts provide the most frequently referenced  
6 guide to investors' views and are widely accepted in applying the DCF model. As  
7 explained in *Regulatory Finance: Utilities' Cost of Capital*:

8 Because of the dominance of institutional investors and their  
9 influence on individual investors, analysts' forecasts of long-run  
10 growth rates provide a sound basis for estimating required returns.  
11 Financial analysts also exert a strong influence on the expectations  
12 of many investors who do not possess the resources to make their  
13 own forecasts, that is, they are a cause of  $g$  [growth]. ...  
14 Published studies in the academic literature demonstrate that  
15 growth forecasts made by securities analysts represent an  
16 appropriate source of DCF growth rates, are reasonable indicators  
17 of investor expectations and are more accurate than forecasts based  
18 on historical growth. ... Cragg and Malkiel (1982) presented  
19 detailed empirical evidence that the average analyst's expectation  
20 is more similar to expectations being reflected in the marketplace

1           than are historical growth rates, and that they represent the best  
2           possible source of DCF growth rates.<sup>12</sup>

3   **Q.   Does the fact that analysts' EPS projections may deviate from actual results**  
4       **hamper their use in applying the DCF model, as Dr. Woolridge contends?**

5   A.   No.  Investors, just like securities analysts and others in the investment  
6       community, do not know how the future will actually turn out.  They can only  
7       make investment decisions based on their best estimate of what the future holds in  
8       the way of long-term growth for a particular stock, and securities prices are  
9       constantly adjusting to reflect their assessment of available information.  While  
10      the projections of securities analysts may be proven optimistic or pessimistic in  
11      hindsight, this is irrelevant in assessing the expected growth that investors have  
12      incorporated into current stock prices, and any bias in analysts' forecasts –  
13      whether pessimistic or optimistic – is irrelevant if investors share analysts' views.  
14      While I did not rely solely on EPS projections in applying the DCF model (as  
15      shown on Exhibits WEA-8 and WEA-10, I also examined the “br+sv”, sustainable  
16      growth rates for the companies in my proxy groups), my evaluation clearly  
17      supports greater reliance on EPS growth rate projections than other alternatives.  
18      Moreover, there is every indication that expectations for earnings growth are  
19      instrumental in investors' evaluation and the fact that analysts' projections deviate  
20      from actual results provides no basis to ignore this relationship.

---

<sup>12</sup> Morin, Roger A., “Regulatory Finance: Utilities' Cost of Capital,” Public Utilities Reports, Inc. (1994) at 154-155.

1 Q. Do the selected articles referenced by Dr. Woolridge in support of his  
2 contention that analysts are overly optimistic paint a complete picture of the  
3 financial research in this area?

4 A. No. In contrast to Dr. Woolridge's assertions, peer-reviewed empirical studies do  
5 not uniformly support his contention that analysts' growth projections are  
6 optimistically biased. For example, a study reported in "Analyst Forecasting  
7 Errors: Additional Evidence" found no optimistic bias in earnings projections for  
8 large firms (market capitalization of \$500-\$3,000 million), with data for the  
9 largest firms (market capitalization > \$3,000 million) demonstrating a *pessimistic*  
10 bias.<sup>13</sup> Similarly, a 2005 article that examined analyst growth forecasts over the  
11 period 1990 through 2001 illustrated that Wall Street's forecasting is not  
12 inherently optimistic:

13 The pessimism associated with profit firms is astonishing. Near  
14 the end of the sample period, almost three quarters of the quarterly  
15 forecasts for profit firms are pessimistic.<sup>14</sup>

16  
17 Other research on this topic also concludes that there is no clear support for the  
18 contention that analyst forecasts contain upside bias:

19 Our examples do demonstrate how some widely held beliefs about  
20 analysts' proclivity to commit systematic errors (e.g., the common

---

<sup>13</sup> Brown, Lawrence D., "Analyst Forecasting Errors: Additional Evidence," *Financial Analysts Journal* (November/December 1997).

<sup>14</sup> Ciccone, Stephen, "Trends in analyst earnings forecast properties," *International Review of Financial Analysis*, 14:2-3 (2005).

1 belief that analysts generally produce optimistic forecasts) are not  
2 well supported by a broader analysis of the distribution of forecast  
3 errors. After four decades of research on the rationality of  
4 analysts' forecasts it is somewhat disconcerting that the most  
5 definitive statements observers and critics of earnings forecasters  
6 are willing to agree on are ones for which there is only tenuous  
7 empirical support.<sup>15</sup>

8  
9 More importantly, however, comparisons between forecasts of future growth  
10 expectations and the historical trend in actual earnings are largely irrelevant in  
11 evaluating the use of analysts' projections in the DCF model. For example, Dr.  
12 Woolridge references a paper he authored that reported that analysts' earnings  
13 growth rate estimates are overly optimistic, based on just such a historical  
14 comparison.<sup>16</sup> But as noted earlier, the investment community can only make  
15 decisions based on their best estimate of what the future holds in the way of long-  
16 term growth for a particular stock, and the fact that projections deviate from  
17 actual results says nothing about whether investors rely on analysts' estimates. In  
18 using the DCF model to estimate investors' required returns, the purpose is not to  
19 prejudge the accuracy or rationality of investors' growth expectations. Instead, to

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<sup>15</sup> Abarbanell, Jeffery and Reuven Lehavy, "Biased forecasts or biased earnings? The role of reported earnings in explaining apparent bias and over/under reaction in analysts earnings forecasts," *Journal of Accounting and Economics*, 36: 142 (2003).

<sup>16</sup> Woolridge, Randall J. and Custatis, Patrick, "The Accuracy of Analysts' Long-Term Earnings Per Share Growth Rate Forecasts" (January 24, 2008).

1 accurately estimate the cost of equity we must base our analyses on the growth  
2 expectations investors actually used in determining the price they are willing to  
3 pay for common stocks – even if we do not agree with their assumptions. Indeed,  
4 despite the findings of his research, Dr. Woolridge reportedly “remains somewhat  
5 puzzled that so many continue to put great weight in what [analysts] have to  
6 say.”<sup>17</sup> As Robert Harris and Felicia Marston noted in their article in *Journal of*  
7 *Applied Finance*:

8 ...Analysts’ optimism, if any, is not necessarily a problem for the  
9 analysis in this paper. If investors share analysts’ views, our  
10 procedures will still yield unbiased estimates of required returns  
11 and risk premia.<sup>18</sup>

12  
13 Similarly, there is no logical foundation for criticisms such as those raised by Dr.  
14 Woolridge that the purported upward bias of analysts’ growth rates limits their  
15 usefulness in applying the DCF model. If investors’ base their expectations on  
16 these growth rates, then they are useful in inferring investors’ required returns –  
17 even if the analysts’ forecasts prove to be wrong in hindsight.<sup>19</sup>

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<sup>17</sup> Boselovic, Len, “Study Finds Analysts’ Forecasts Have Been Too Sunny,” *Pittsburgh Post-Gazette* (Mar. 30, 2008).

<sup>18</sup> Harris, Robert S. and Marston, Felicia C., “The Market Risk Premium: Expectational Estimates Using Analysts’ Forecasts,” *Journal of Applied Finance* 11 (2001) at 8.

<sup>19</sup> I began my military career in the Navy in the weather office at a Naval Air Station. Using the best available methods then available, we provided pilots with weather forecasts for their flight plans. In hindsight we were not very accurate, but I do not recall any pilot ignoring our forecast in planning a mission. In finance, as in weather, no one knows the future. But no one can afford to ignore the best available forecasts.



1 Q. Is the \$1.5 billion settlement negotiated in 2002 by the Securities Exchange  
2 Commission and the New York Attorney General over stock research  
3 conflicts relevant to the present case?

4 A. No. Dr. Woolridge refers to this 6-year-old investigation (p. 70) in support of his  
5 decision to downplay analysts' growth rates in applying the DCF model. The  
6 Global Settlement of Conflicts of Interest Between Research and Investment  
7 Banking (Global Settlement) followed joint investigations by multiple regulators  
8 of allegations of undue influence of investment banking interests on securities  
9 research of sell-side analysts at brokerage firms.<sup>20</sup> In addition to monetary  
10 payments, the Global Settlement also required compliance with significant  
11 requirements that dramatically reformed their future practices. The firms were  
12 required to sever the links between research and investment banking, including  
13 prohibiting analysts from receiving compensation for investment banking  
14 activities, and prohibiting analysts' involvement in investment banking "pitches"  
15 and "roadshows." These important reforms included physically separating  
16 research and investment banking departments, eliminating any connections  
17 between research analysts' compensation and investment banking revenues,  
18 prohibiting research analysts from participating in efforts to solicit investment  
19 banking business, and creating and enforcing firewalls restricting interaction  
20 between investment banking and research. In addition, for a five-year period,

---

<sup>20</sup> The research in question did not pertain specifically to utilities; rather, it was largely related to allegations that stock prices were inflated by biased investment advice of affiliated brokerage firms in order to "spin" initial public offerings of stock.

1 each of the firms was required to contract with no fewer than three independent  
2 research firms to make independent research available to the firm's customers.

3  
4 Of course, the analysts' growth projections referenced in my testimony were  
5 developed years after these measures were instituted. In contrast to Dr.  
6 Woolridge's assertions, the reforms resulting from this 2003 settlement support  
7 greater – not less – reliance on analysts' forecasts. At the conclusion of the  
8 settlement, the New York Attorney General concluded that "[t]he wide-ranging  
9 structural reforms to firms' research operations will empower investors to use  
10 securities research in a practical and meaningful way when making investment  
11 decisions."<sup>21</sup> Similarly, a recent study reported in *Financial Analysts' Journal*  
12 concluded that buy-side analysts actually made more optimistic and less accurate  
13 forecasts than their counterparts on the sell-side.<sup>22</sup>

14 **Q Did Dr. Woolridge provide any meaningful support for his allegation (p. 73)**  
15 **that Value Line forecasts are “upwardly biased”?**

16 **A.** No. Dr. Woolridge asserted his belief (p. 73-74) that Value Line projections have  
17 “a decidedly positive bias,” based only on his personal belief that Value Line does  
18 not report a sufficient number of negative growth rates. But as Mr. Baudino noted  
19 (p. 24), negative growth rates are not likely to be representative of investors'  
20 expectations. Dr. Woolridge's personal opinions are irrelevant to a determination

---

<sup>21</sup> *Financial Industry Regulatory Authority*, News Release (Apr. 28, 2003).

<sup>22</sup> Groyberg, Boris, Paul Healy, and Craig Chapman, “Buy-Side vs. Sell-Side Analysts' Earnings Forecasts,” *Financial Analysts Journal* (July/August 2008).

1 of what investors expect. and, contrary to his conclusion, Value Line is a well-  
2 recognized source in the investment and regulatory communities. For example,  
3 *Cost of Capital – A Practitioners’ Guide*, published by the Society of Utility and  
4 Financial Analysts, noted that:

5 [A] number of studies have commented on the relative accuracy of  
6 various analysts’ forecasts. Brown and Rozeff (1978) found that  
7 Value Line was superior to other forecasts. Chatfield, Hein and  
8 Moyer (1990, 438) found, further “Value Line to be more accurate  
9 than alternative forecasting methods” and that “investors place the  
10 greatest weight on the forecasts provided by Value Line”.<sup>23</sup>

11  
12 Given the fact that Value Line is perhaps the most widely available source of  
13 information on common stocks, the projections of Value Line analysts provide an  
14 important guide to investors’ expectations.

15  
16 Moreover, in contrast to Dr. Woolridge’s unsupported assertion, the fact that Value  
17 Line is not engaged in investment banking or other relationships with the  
18 companies that it follows reinforces its impartiality in the minds of investors.

---

<sup>23</sup> Parcell, David C., “The Cost of Capital – A Practitioner’s Guide,” *Society of Utility and Regulatory Financial Analysts* (1997) at 8-28.

1 Indeed, Value Line was among the providers of “independent research” that  
2 benefited from the Global Settlement cited by Dr. Woolridge.<sup>24</sup>

3

4 **DOWNWARD BIAS IN SUSTAINABLE DCF GROWTH RATES**

5

6 **Q. Is there a downward bias inherent in Mr. Baudino’s and Dr. Woolridge’s**  
7 **application of the DCF model based on the internal, “br” growth rate?**

8 A. Yes. Mr. Baudino and Dr. Woolridge based their calculations of the internal,  
9 “br+sv” retention growth rate on data from Value Line, which reports end-of-  
10 period results. If the rate of return, or “r” component of the “br+sv” growth rate is  
11 based on end-of-year book values, such as those reported by Value Line, it will  
12 understate actual returns because of growth in common equity over the year. This  
13 downward bias, which has been recognized by regulators,<sup>25</sup> is illustrated in the  
14 table below.

15

16 Consider a hypothetical firm that begins the year with a net book value of  
17 common equity of \$100. During the year the firm earns \$15 and pays out \$5 in  
18 dividends, with the ending net book value being \$110. Using the year-end book  
19 value of \$110 to calculate the rate of return produces an “r” of 13.6 percent. As  
20 the FERC has recognized, however, this year-end return “must be adjusted by the

---

<sup>24</sup> Tsao, Amy, “The New Era of Indie Research,” *Business Week Online Edition* (June 12, 2003).

<sup>25</sup> See, e.g., *Southern California Edison Company*, Opinion No. 445 (Jul. 26, 2000), 92 FERC ¶ 61,070.

1 growth in common equity for the period to derive an average yearly return.”<sup>26</sup> In  
 2 the example below, this can be accomplished by using the average net book value  
 3 over the year (\$105) to compute the rate of return, which results in a value for “r”  
 4 of 14.3 percent. Use of the average rate of return over the year is consistent with  
 5 the theory of this approach to estimating investors’ growth expectations, and as  
 6 illustrated below, it can have a significant impact on the calculated retention  
 7 growth rate:

|                          |           |
|--------------------------|-----------|
| Beginning Net Book Value | \$100     |
| Earnings                 | <u>15</u> |
| Dividends                | 5         |
| Retained Earnings        | <u>10</u> |
| Ending Net Book Value    | \$110     |

  

| “b x r” Growth | <u>End-of Year</u> | <u>Average</u> |
|----------------|--------------------|----------------|
| Earnings       | \$ 15              | \$ 15          |
| Book Value     | <u>\$110</u>       | <u>\$105</u>   |
| “r”            | 13.6%              | 14.3%          |
| “b”            | <u>66.7%</u>       | <u>66.7%</u>   |
| “b x r” Growth | 9.1%               | 9.5%           |

8 Because Mr. Baudino and Dr. Woolridge did not adjust to account for this reality  
 9 in their analyses, the “internal” growth rates that they considered are downward-  
 10 biased.

11 **Q. What other consideration leads to a downward bias in Mr. Baudino’s and Dr.**  
 12 **Woolridge’s DCF analyses using internal, “br” growth?**

13 **A.** Mr. Baudino and Dr. Woolridge completely ignored the impact of additional  
 14 issuances of common stock in their analysis of the sustainable growth rate. Under  
 15 DCF theory, the “sv” factor is a component designed to capture the impact on

---

<sup>26</sup> *Id.*

1 growth of issuing new common stock at a price above, or below, book value. As  
2 noted by Myron J. Gordon in his 1974 study:

3 When a new issue is sold at a price per share  $P = E$ , the equity of  
4 the new shareholders in the firm is equal to the funds they  
5 contribute, and the equity of the existing shareholders is not  
6 changed. However, if  $P > E$ , part of the funds raised accrues to the  
7 existing shareholders. Specifically...[v] is the fraction of the funds  
8 raised by the sale of stock that increases the book value of the  
9 existing shareholders' common equity. Also, "v" is the fraction of  
10 earnings and dividends generated by the new funds that accrues to  
11 the existing shareholders.<sup>27</sup>

12  
13 In other words, the "sv" factor recognizes that when new stock is sold at a price  
14 above (below) book value, existing shareholders experience equity accretion  
15 (dilution). In the case of equity accretion, the increment of proceeds above book  
16 value ( $P > E$  in Professor Gordon's example) leads to higher growth because it  
17 increases the book value of the existing shareholders' equity. In short, the "sv"  
18 component is entirely consistent with DCF theory, and the fact that Mr. Baudino  
19 and Dr. Woolridge failed to consider the incremental impact on growth results in  
20 another downward bias to their "internal" growth rates.

21  

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<sup>27</sup> Gordon, Myron J., "The Cost of Capital to a Public Utility," MSU Public Utilities  
Studies (1974), at 31-32.

1                                    **ILLOGICAL DATA UNDERLYING CAPM ANALYSES**

2  
3    **Q.    What is the fundamental problem associated with Dr. Woolridge’s approach**  
4            **to applying the CAPM?**

5    A.    Like the DCF model, the CAPM is an *ex-ante*, or forward-looking model based  
6            on expectations of the future. As a result, in order to produce a meaningful  
7            estimate of investors’ required rate of return, the CAPM must be applied using  
8            data that reflects the expectations of actual investors in the market. However,  
9            while Dr. Woolridge recognized (P. 48) that “ex post returns are not the same as  
10           ex ante expectations” and noted that “market risk premiums can change over time;  
11           increasing when investors become more risk-averse,”<sup>28</sup> his application of the  
12           CAPM method was based entirely on *historical* – not projected – rates of return.

13           The primacy of current expectations was recognized by Morningstar:

14                    The cost of capital is always an expectational or forward-looking  
15                    concept. While the past performance of an investment and other  
16                    historical information can be good guides and are often used to  
17                    estimate the required rate of return on capital, the expectations of  
18                    future events are the only factors that actually determine cost of  
19                    capital.<sup>29</sup>

---

<sup>28</sup> Woolridge Direct at 38-39.

<sup>29</sup> Morningstar, *Ibbotson SBBI, 2008 Valuation Yearbook* at 23.

1           Because he failed to look directly at the returns investors are currently requiring  
2           in the capital markets, Dr. Woolridge's CAPM estimate significantly understates  
3           investors' required rate of return.

4   **Q.   Is there anything forward-looking about the academic studies referenced by**  
5   **Dr. Woolridge?**

6   A.   No. As Dr. Woolridge summarized (Exhibit JRW-11, p. 5), his CAPM analysis  
7           was based on risk premiums derived from various academic studies and other  
8           publications. Rather than looking directly at the returns investors might currently  
9           be requiring in today's capital markets, Dr. Woolridge predicated his CAPM study  
10          on a summary of *historical* results from selected sources in the academic and  
11          trade literature. These studies reflect historical data, not the current expectations  
12          of the future that form the basis of investors' required returns today. This critical  
13          distinction was recognized in a survey of risk premium research:

14                 The debate surrounding the equity risk premium arises because  
15                 theoretically such premia are concerned with the extent to which  
16                 risky stocks are "expected" to outperform a (relatively) safe  
17                 investment, whereas excess returns are estimated values of this  
18                 outperformance derived from observed data. The lack of consensus  
19                 regarding the true value of the equity risk premium arises from the  
20                 fact that expectations are unobservable hence can only be



1                   estimated, and that such estimates will vary over time depending,  
2                   in part at least, on the sample period used.<sup>30</sup>

3  
4                   In other words, instead of directly considering requirements in today's capital  
5                   markets, Dr. Woolridge is implicitly asserting that events and expectations for the  
6                   time periods covered by his subset of studies are more representative of what is  
7                   likely to occur going forward. This assertion runs counter to the assumptions  
8                   underlying the use of the CAPM to estimate investors' required return, which is a  
9                   purely forward-looking model. As Dr. Woolridge granted (p. 48), "The use of  
10                  historical returns as market expectations has been criticized in numerous  
11                  academic studies." Similarly, Mr. Baudino concluded (p. 31), "There is no real  
12                  support for the proposition that an unchanging, mechanically applied historical  
13                  risk premium is representative of current investor expectations and return  
14                  requirements.

15  
16                  Moreover, even if historical studies were relevant in this context, there are other  
17                  such studies of equity risk premiums published in academic journals that imply  
18                  required rates of return considerably in excess of those selected by Dr. Woolridge.  
19                  For example, a study of equity risk premiums over the period 1889 through 2000  
20                  reported in the *Financial Analysts' Journal* directly contradicted Dr. Woolridge's

---

<sup>30</sup> Oyefeso, Oluwatobi, "Would There Ever Be Consensus Value and Source of the Equity Risk Premium? A Review of the Extant Literature," *International Journal of Theoretical and Applied Finance*, Vol. 9, No. 2 (2006) 199-215.

1           assertion that investors are likely to anticipate sharp declines in the equity risk  
2           premium for U.S. stocks:

3                   Over the long term, the equity risk premium is likely to be similar  
4                   to what it has been in the past and returns to investment in equity  
5                   will continue to substantially dominate returns to investments in T-  
6                   bills for investors with a long planning horizon.<sup>31</sup>

7           Similarly, based on a study of *ex-ante* expected returns for a sample of S&P 500  
8           firms over the 1983-1998 period, a 2003 article in *Financial Management* found  
9           an expected market risk premium of 7.2 percent.<sup>32</sup>

10

11           In contrast to the conclusions that Dr. Woolridge draws from his review of  
12           selected studies, other researchers are less sanguine and recognize that the  
13           shortcomings of academic methods can produce results that deviate from  
14           investors' actual expectations and requirements:

15                   The above discussion suggests that the equity premium debate is  
16                   far from over, and that the use of excess returns as a proxy for such  
17                   premia, while convenient, may capture a substantial amount of

---

<sup>31</sup> Mehra, Ranjish, "The Equity Premium: Why Is It a Puzzle?," *Financial Analysts' Journal* (January/February 2003).

<sup>32</sup> Harris, R.S., Marston, F. C., Mishra, D. R., and O'Brian, T. J., "Ex Ante Cost of Equity Estimates of S&P 500 Firms: The Choice Between Global and Domestic CAPM," *Financial Management* (Autumn 2003) at Table I.

1 noise and be uncorrelated with equity risk premia particularly over  
2 the short-run.<sup>33</sup>

3 In fact, no selected historical study, or group of studies, is a substitute for an  
4 analysis of investors' current expectations in the capital markets, such as that  
5 incorporated in my CAPM analysis shown on Exhibits WEA-11 and WEA-12.

6 **Q. What is the second indication that the studies referenced by Dr. Woolridge do**  
7 **not reflect investors' expectations?**

8 A. Many of the results of the equity risk premium studies reported by Dr. Woolridge  
9 do not make economic sense. As shown on page 3 of Dr. Woolridge's Exhibit  
10 JRW-7, seventeen of the thirty-nine historical studies included in Dr. Woolridge's  
11 assessment found market equity risk premiums of 4.3 percent or below. But  
12 multiplying a market equity risk premium of 4.3 percent by Dr. Woolridge's beta  
13 of 0.70 for his proxy group, and combining the resulting 3.0 percent risk premium  
14 with his 4.5 percent risk-free rate, results in an indicated cost of equity of 7.5  
15 percent, which is only 100 basis points above the average yield that investors can  
16 earn by investing in utility bonds. As FERC recognized in its March 27, 2009  
17 decision in *Pioneer*, cost of equity estimates "within about 100 basis points above  
18 the cost of debt" are illogical outliers and should be given no weight.<sup>34</sup> By any  
19 objective measure, such results fall woefully short of required returns from an

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<sup>33</sup> Oyefeso, Oluwatobi, "Would There Ever Be Consensus Value and Source of the Equity Risk Premium? A Review of the Extant Literature," *International Journal of Theoretical and Applied Finance*, Vol. 9, No. 2 (2006) 199-215.

<sup>34</sup> *Pioneer Transmission, LLC*, 126 FERC ¶ 61,281 at P 94 (2009) ("*Pioneer*").

1 investment in common equity and confirm that Dr. Woolridge's CAPM cost of  
2 equity has little relation to the expectation of real-world investors.

3 **Q. Are the results of Dr. Woolridge's "building block" approach (p. 49-54) any**  
4 **more indicative of forward-looking, *ex-ante* expectations?**

5 A. No. Dr. Woolridge applied his "building block" approach based on backward-  
6 looking, historical data for certain key variables. For example, Dr. Woolridge  
7 noted (p. 52) that one key component of his estimated market return was based on  
8 "the *historical* real earnings growth rate for the S&P 500."

9 **Q. What evidence demonstrates that Dr. Woolridge's "building block" approach**  
10 **rests on a weak foundation?**

11 A. Dr. Woolridge based his "building block" analysis of the market equity risk  
12 premium on an article by Roger G. Ibbotson and Peng Chen, published in  
13 *Financial Analysts' Journal*. But Dr. Woolridge's conclusions differ markedly  
14 from those of the authors of the article on which his "building blocks" approach  
15 was based. Based on the results of their study, Ibbotson and Chen concluded that:

16 Our forecast of the equity risk premium is only slightly lower than  
17 the pure historical return estimate. We estimate the expected long-  
18 term equity risk premium ... to be about 6 percentage points  
19 arithmetically...<sup>35</sup>

20

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<sup>35</sup> Ibbotson, Roger G. and Peng Chen, "Long-Run Stock Returns: Participating in the Real Economy," *Financial Analysts' Journal* at 88 (January/February 2003).]

1           Meanwhile, Dr. Woolridge asserted that the methods outlined by Ibbotson and  
2           Chen currently suggest a market risk premium of approximately 3.1 percent (a 7.6  
3           percent expected return minus a risk-free rate of 4.5 percent). In other words, Dr.  
4           Woolridge is contending that the market equity risk premium has been cut  
5           virtually in half since the time Ibbotson and Chen published their study in early  
6           2003. Of course, there is no underlying capital market evidence for such a  
7           tremendous downward shift in the market equity risk premium at a time when  
8           investors' sensitivity to risk is widely understood to have increased dramatically.  
9           The fact that the results of Dr. Woolridge's "building blocks" approach cannot be  
10          reconciled to observable capital market trends or the results of the original study  
11          demonstrates the fatal flaws inherent in his method.

12  
13          Similarly, the 7.6 percent rate of return on the stock market as a whole that results  
14          from Dr. Woolridge's "building blocks" approach falls 190 basis points below his  
15          recommended ROE for FPL in this case, despite the fact that his beta values  
16          indicate a lower level of investment risk for utilities. This violates the risk-return  
17          tradeoff that is fundamental to finance and further illustrates the frailty of Dr.  
18          Woolridge's analyses.

19   **Q.**   **Does the *Survey of Professional Forecasters*, cited by Dr. Woolridge (p. 54),**  
20   **provide any meaningful corroboration or guidance as to investors' required**  
21   **rate of return?**

22   **A.**   No. The *Survey of Professional Forecasters* is not an investment advisory  
23   publication; nor is this report focused on serving as a resource for stock market

1 investors. Rather, this survey primarily targets broad indicators of  
2 macroeconomic performance, such as GDP and its components, unemployment  
3 rates, industrial production, and inflation. While the survey may provide a useful  
4 resource for policymakers and in general business planning, it is not widely  
5 referenced by investment professionals as a guide to stock market performance or  
6 routinely used in estimating investors' required rate of return.

7  
8 Indeed, according to Dr. Woolridge, the *Survey of Professional Forecasters*  
9 apparently predicts that equity returns for the S&P 500 will amount to 6.6 percent.  
10 Meanwhile, Moody's reported that the average yield on triple-B corporate bonds  
11 was 7.5 percent during June 2009.<sup>36</sup> Why would rational investors buy a basket  
12 of common stocks, and assume all the inherent risk, in exchange for an expected  
13 return that falls 90 basis points *below* the return they could earn with certainty by  
14 buying a bond? The answer, of course, is that rational investors would not.  
15 Considering that this 6.6 percent implied return falls 290 basis points below even  
16 Dr. Woolridge's downward biased 9.5 percent cost of equity recommendation for  
17 FPL, this result is clearly nonsensical. Similarly, Dr. Woolridge's reference (p.  
18 55) to a 7.31 percent market rate of return from a 2009 CFO survey implies a cost  
19 of equity to his utility group of approximately 6.5 percent, which is barely equal  
20 to current yields on long-term utility bonds.

---

<sup>36</sup> Moody's Investors Service, [www.credittrends.com](http://www.credittrends.com) (retrieved Dec. 4, 2008).

1 Q. What about Dr. Woolridge's reference (p. 57) to the risk premiums of  
2 "leading consulting firms"?

3 A. Dr. Woolridge's reference to a 2002 McKinsey & Co. study demonstrates the  
4 fallacy of his focus on selected historical information to apply the CAPM. As Dr.  
5 Woolridge noted, in an effort to explain their observations regarding the behavior  
6 of equity risk premiums, McKinsey & Co. concluded that equities had not become  
7 less risky. Rather, they surmised that investors' required returns on government  
8 bonds had increased due to concerns over the potential impacts of "inflation  
9 shocks." But just the opposite is true today. Long-term government bonds have  
10 been largely viewed as a safe haven as stock market volatility and a resulting  
11 "flight to quality" have driven bond yields sharply lower. Moreover, with the  
12 economy in decline and dramatic plunges in the prices of commodities, there is no  
13 evidence that an anticipated "inflation shock" similar to those of the 1970s would  
14 suggest a secular decline in the equity risk premium going forward. Considering  
15 that the historical premise underlying the conclusions of the McKinsey study does  
16 not reflect current capital market expectations, this reference provides no useful  
17 information in gauging investors' current required rates of return.

18  
19 Similarly, Dr. Woolridge's observation (p. 13) that McKinsey & Co. continues to  
20 advocate for an equity risk premium "in the 3.5 to 4 percent range" has no bearing  
21 on a reasonable ROE for FPL. Multiplying the midpoint of this range by Dr.  
22 Woolridge's 0.70 beta for his proxy group and adding his 4.5 percent risk-free  
23 rate results in a cost of equity estimate of 7.1 percent, which provides the

1 Commission with no meaningful information.

2 **Q. Dr. Avera, are you in any way alleging that all these studies and surveys are**  
3 **inherently flawed?**

4 A. No, not at all. The point that I am making is that there is more than one way to  
5 define and calculate an equity risk premium. The problem with Dr. Woolridge's  
6 approach is that, instead of looking directly at an equity risk premium based on  
7 current expectations – which is what is required in order to properly apply the  
8 CAPM – he undertakes an unrelated exercise of compiling a list of selected  
9 computations culled from the historical record. Average realized risk premiums  
10 computed over some selected time period may be an accurate representation of  
11 what was actually earned in the past, but they don't answer the question as to  
12 what risk premium investors were actually expecting to earn on a forward-looking  
13 basis during these same time periods. Similarly, calculations of the equity risk  
14 premium developed at a point in history – whether based on actual returns in prior  
15 periods or contemporaneous projections – are not the same as the forward-looking  
16 expectations of today's investors, which are premised on an entirely different set  
17 of capital market and economic expectations.

18  
19 Likewise, surveys of selected corporate executives or economists, or building  
20 blocks based on academic research, are not equivalent to investors' required  
21 returns in the coming period. Since the benchmark for a fair ROE requires that  
22 the utility be able to compete for capital in the current capital market, the relevant  
23 inquiry is to determine the return that real world investors in today's markets



1 require from FPL in order to compete for capital with other comparable risk  
2 alternatives. In short, while there are many potential definitions of the equity risk  
3 premium, the only relevant issue for application of the CAPM in a regulatory  
4 context is what return investors currently expect to earn on money invested today  
5 in the risky market portfolio versus the risk-free U.S. Treasury alternative. In  
6 contrast to Dr. Woolridge, my approach represents a straightforward and direct  
7 approach to answer this very question. As the old saying goes, "If all you have is  
8 a hammer, everything looks like a nail." All the pounding in the world will not  
9 turn the historical data cited by Dr. Woolridge into the forward-looking  
10 expectations required by the CAPM.

11 **Q. Are there other reasons why Dr. Woolridge's CAPM result falls below**  
12 **investors' forward-looking rate of return?**

13 A. Yes. Applying the CAPM by adding an historical risk premium to current  
14 Treasury bond yields, as Dr. Woolrdige has done, is complicated by the impact of  
15 the unprecedented financial crisis on investors' risk perceptions and required  
16 returns. Dr. Woolridge's backward-looking approach incorrectly assumes that  
17 investors' assessment of the relative risk differences, and their required risk  
18 premium, between Treasury bonds and common stocks is constant and equal to  
19 some historical average. At no time in recent history has the fallacy of this  
20 assumption been demonstrated more concretely.

21

22 As discussed in my direct testimony, while the required returns for common  
23 stocks and public utility bonds have moved sharply higher to compensate for

1 increased perceptions of risk, the yields on Treasury securities have fallen  
2 significantly or remained flat. This “flight to quality” has caused the spread  
3 between the yields on utility bonds and Treasury bonds to rise, as Dr. Woolridge  
4 granted (pp. 6-7). As documented in my direct testimony (Exhibit WEA-5),  
5 spreads between 20-year government bonds and triple-B utility bonds began to  
6 widen in mid-2007, with the disparity becoming more pronounced as the extent of  
7 the challenges facing the financial system and economy became increasingly clear  
8 to investors. During 2007, this yield spread averaged 121 basis points, versus 283  
9 basis point in 2009 year-to-date.

10 **Q. What does this imply with respect to Dr. Woolridge’s CAPM analysis?**

11 A. Because Dr. Woolridge’s analysis consisted of adding a fixed, historical risk  
12 premium to current yields on government bonds, it fails to account for the impact  
13 of the “flight to quality” and the significantly higher risk premiums over Treasury  
14 bonds that investors now require to hold utility bonds and common stocks. This  
15 is yet another indication that Dr. Woolridge’s results ignore the view of real-world  
16 investors in today’s capital markets and fail the standards underlying a fair rate of  
17 return, which require that the ROE allow FPL the opportunity to earn a return  
18 commensurate with other investments of comparable risk.

19 **Q. What other considerations result in a downward bias to Dr. Woolridge’s risk  
20 premium?**

21 A. As noted on page 5 of Dr. Woolridge’s Exhibit JRW-11, many of the historical  
22 studies included in his analysis reported equity risk premiums based on geometric  
23 averages. While both the arithmetic and geometric means are legitimate measures

1 of average return, they provide different information. Each may be used correctly,  
2 or misused, depending upon the inferences being drawn from the numbers. The  
3 geometric mean of a series of returns measures the constant rate of return that  
4 would yield the same change in the value of an investment over time. The  
5 arithmetic mean measures what the expected return would have to be each period  
6 to achieve the realized change in value over time.

7  
8 In estimating the cost of equity, the goal is to replicate what investors expect  
9 going forward, not to measure the average performance of an investment over an  
10 assumed holding period. When referencing realized rates of return in the past,  
11 investors consider the equity risk premiums in each year independently, with the  
12 arithmetic average of these annual results providing the best estimate of what  
13 investors might expect in future periods. *Regulatory Finance: Utilities' Cost of*  
14 *Capital* had this to say:

15 One major issue relating to the use of realized returns is whether to  
16 use the ordinary average (arithmetic mean) or the geometric mean  
17 return. *Only arithmetic means are correct for forecasting purposes*  
18 *and for estimating the cost of capital.* When using historical risk  
19 premiums as a surrogate for the expected market risk premium, the

1 relevant measure of the historical risk premium is the arithmetic  
2 average of annual risk premiums over a long period of time.<sup>37</sup>

3 Similarly, Morningstar concluded that:

4 For use as the expected equity risk premium in either the CAPM or  
5 the building block approach, the arithmetic mean or the simple  
6 difference of the arithmetic means of stock market returns and  
7 riskless rates is the relevant number. ... The geometric average is  
8 more appropriate for reporting past performance, since it  
9 represents the compound average return.<sup>38</sup>

10

11 I certainly agree that both geometric and arithmetic means are useful, since my  
12 Ph.D. dissertation was on the usefulness of the geometric mean.<sup>39</sup> But the issue is  
13 not whether both measures can be useful; it is which one best fits the use for a  
14 forward-looking CAPM in this case. One does not have to get deep into finance  
15 theory to see why the arithmetic mean is more consistent with the facts of this  
16 case. The Commission is not setting a constant return that FPL is guaranteed to  
17 earn over a long period. Rather, the exercise is to set an expected return based on  
18 test year data. In the real world, FPL's yearly return will be volatile, depending  
19 on a variety of economic and industry factors, and investors do not expect to earn

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<sup>37</sup> Morin, Roger A., "Regulatory Finance: Utilities' Cost of Capital," *Public Utilities Reports* (1994) at 275, (emphasis added).

<sup>38</sup> Morningstar, *Ibbotson S&P 500 Valuation Yearbook* at 77.

<sup>39</sup> William E. Avera, *The Geometric Mean Strategy as a Theory of Multiperiod Portfolio Choice* (1972).

1 the same return each year. The usefulness of the arithmetic mean for making  
2 forward-looking estimates was confirmed in *Quantitative Investment Analysis*  
3 (2007), one of the textbooks included in the study curriculum for the Chartered  
4 Financial Analyst designation, which concluded that the arithmetic mean is the  
5 appropriate measure when calculating an expected equity risk premium in a  
6 forward-looking context.<sup>40</sup> Just as importantly, by relying directly on  
7 expectations and estimates of investors' required rate of return, as incorporated in  
8 the CAPM analysis presented on my Exhibits WEA-11 and WEA-12, there is no  
9 need to debate the merits of geometric versus arithmetic means, since neither is  
10 required to apply this forward-looking approach.

11 **Q. What does this imply with respect to the conclusions of Dr. Woolridge's**  
12 **CAPM analysis?**

13 A. For a variable series, such as stock returns, the geometric average will always be  
14 less than the arithmetic average. Accordingly, Dr. Woolridge's reference to  
15 geometric average rates of return provides yet another element of systemic  
16 downward bias.

17 **Q. What about Dr. Woolridge's view that the market return used in your**  
18 **forward-looking CAPM analysis (Exhibits WEA-11 and WEA-12 ) is**  
19 **"excessive"?**

20 A. As explained earlier and in my direct testimony, I estimated the current equity risk  
21 premium by first applying the DCF model to estimate investors' current required

---

<sup>40</sup> DeFusco, Richard A., Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle, *Quantitative Investment Analysis*, John Wiley & Sons, Inc. (2007) at 128.

1 rate of return for the firms in the S&P 500 and then subtracting the yield on  
2 government bonds. Dr. Woolridge contends that this CAPM analysis is flawed  
3 because of an alleged upward bias in the analysts' growth estimates used to  
4 estimate investors' expected return on the S&P 500.

5  
6 The fallacy of these arguments was addressed earlier in my discussion of the  
7 growth rates used in the DCF model. Moreover, Dr. Woolridge also relied on  
8 analysts' estimates in applying the DCF model and, as indicated earlier, the use of  
9 forward-looking expectations in estimating the market risk premium is well  
10 accepted in the financial literature. For example, the table on page 4 of  
11 Dr. Woolridge's Exhibit JRW-11 noted that:

12 Current financial market prices (simple valuation ratios or DCF-  
13 based measures) can give most objective estimates of feasible ex  
14 ante equity-bond risk premium.

15  
16 I grant that my forward-looking CAPM approach produces an equity risk  
17 premium for the S&P 500 that is significantly higher than his unrealistic  
18 benchmarks. But rather than look backwards to a select subset of academic  
19 studies, or a "building blocks" risk premium based largely on historical data, as  
20 Dr. Woolridge advocates, my analysis appropriately focused on the expectations  
21 of actual investors in today's capital markets.

1 **Q. Apart from your earlier discussion, what other evidence indicates that the**  
2 **market return used in your CAPM analysis is not inflated?**

3 A. While Dr. Woolridge argues that the 9.6 percent expected growth rate and  
4 resulting 13.2 percent market return that I used to apply the CAPM are  
5 “overstated,” his own exhibits and sources contradict his personal view. Consider  
6 Exhibit JRW-15, for example, which presents historical earnings for the S&P 500.  
7 In 21 of the years included in Dr. Woolridge’s table, growth in earnings exceeded  
8 the 9.6 percent forward-looking estimate used to compute my market rate of  
9 return. Similarly, Morningstar reported that since 1926 the actual realized return  
10 on large-company stocks exceeded the 13.3 percent forward-looking estimate  
11 used in my CAPM analysis in half those years, in many cases by a considerable  
12 margin.<sup>41</sup>

13 **Q. Is there any reason that the growth rates used in a DCF analysis must be**  
14 **constrained by the overall growth of the economy, as Dr. Woolridge asserts**  
15 **(p. 77)?**

16 A. No. Dr. Woolridge suggested that it would be illogical for investors to expect  
17 long-term growth for market as a whole to exceed the rate of growth of the  
18 economy. The real issue here is not Dr. Woolridge’s sense of logic, but rather the  
19 expectations of investors. As a practical matter, investors do not look to that  
20 distant horizon where all companies must grow at the rate of the economy. Not  
21 only is it impossible to predict the distant future, it simply doesn't matter. In

---

<sup>41</sup> Morningstar, *Ibbotson SBBI 2008 Valuation Yearbook* at Table B-1.

1 terms of the DCF model, the present value of cash flows in far distant years –  
2 beyond the foreseeable future – is so small as to have little effect on investment  
3 decisions today.

4 **Q. Is there any merit to Mr. Baudino's argument that your analysis of the**  
5 **market rate of return should not have been limited solely to the dividend**  
6 **paying firms in the S&P 500?**

7 A. No. As Mr. Baudino recognized (pp. 17-18), under the constant growth form of  
8 the DCF model, investors' required rate of return is computed as the sum of the  
9 dividend yield over the coming year plus investors' long-term growth  
10 expectations. Because the dividend yield is a key component in applying the DCF  
11 model, its usefulness is hampered for firms that do not pay common dividends.  
12 Accordingly, my DCF analysis of the market rate of return properly focused on  
13 the dividend paying firms included in the S&P 500.

14  
15 Meanwhile, Mr. Baudino (p. 29) predicated his DCF analysis of the market rate of  
16 return on the companies followed by Value Line. Of these approximately 1,700  
17 companies, roughly 900 do not pay common dividends. In other words, over one-  
18 half of the companies that underpin Mr. Baudino's DCF analysis do not have the  
19 data necessary to implement this approach. Further, many of these firms are  
20 relatively small and lack a meaningful operating history. As a result, there is also  
21 greater uncertainty associated with estimating the future growth expectations that  
22 are central to the application of the DCF method. Taken together, these factors  
23 impugn the reliability of Mr. Baudino's market risk premium and confirm my



1 decision to restrict my analysis to the established, dividend paying firms in the  
2 S&P 500

3 **Q. Do the 5-year Treasury bills rates referenced by Mr. Baudino (p. 31) provide**  
4 **an appropriate basis to estimate the cost of equity using the CAPM?**

5 A. No. Common equity is a perpetuity and as a result, any application of the CAPM  
6 to estimate the return that investors require must be predicated on their  
7 expectations for the firm's long-term risks and prospects. This does not mean that  
8 every investor will buy and hold a particular common stock into perpetuity.  
9 Rather, it recognizes that even an investor with a relatively short holding period  
10 will consider the long-term, because of its influence on the price that he or she  
11 ultimately receives from the stock when it is sold. This is also the basic  
12 assumption underpinning the DCF model, which in theory considers the present  
13 value of all future dividends expected to be received by a share of stock.

14  
15 Shannon P. Pratt, a leading authority in business valuation and cost of capital,  
16 recognized in "Cost of Capital, Estimation and Applications," (1998) that the cost  
17 of equity is a long-term cost of capital and that the appropriate instrument to use  
18 in applying the CAPM is a long-term bond:

19 The consensus of financial analysts today is to use the 20-year U.S.  
20 Treasury yield to maturity as of the effective date of valuation for  
21 the following reasons:

- 22 • It most closely matches the often-assumed perpetual lifetime  
23 horizon of an equity investment.

- 1                   • The longest-term yields to maturity fluctuate considerably less  
2                   that short-term rates and thus are less likely to introduce  
3                   unwarranted short-term distortions into the actual cost of  
4                   capital.
- 5                   • People generally are willing to recognize and accept the fact  
6                   that the maturity risk is impounded into this base, or otherwise  
7                   risk-free rate.
- 8                   • It matches the longest-term bond over which the equity risk  
9                   premium is measured in the Ibbotson Associates data series. p.  
10                  60

11                 Similarly, in applying the CAPM Ibbotson Associates recognized that the cost of  
12                 equity is a long-term cost of capital and the appropriate interest rate to use is a  
13                 long-term bond yield:

14                         The horizon of the chosen Treasury security should match the  
15                         horizon of whatever is being valued. ... Note that the horizon is a  
16                         function of the investment, not the investor. If an investor plans to  
17                         hold a stock in a company for only five years, the yield on a five-  
18                         year Treasury note would not be appropriate since the company  
19                         will continue to exist beyond those five years.<sup>42</sup>

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<sup>42</sup> Ibbotson Associates, *2003 Yearbook* (Valuation Edition) at 53.

1 Accordingly, proper application of the CAPM should focus on long-term  
2 government bonds and Mr. Baudino's analysis based on 5-year Treasury notes  
3 should be ignored.

4

5 **EXPECTED EARNINGS METHOD IS AN ACCEPTED APPROACH**

6

7 **Q. Is there any basis for Mr. Baudino's and Dr. Woolridge's contention that the**  
8 **expected earnings is not a valid ROE benchmark?**

9 A. No. My expected earnings approach is predicated on the comparable earnings  
10 test, which developed as a direct result of the Supreme Court decisions in  
11 *Bluefield*<sup>43</sup> and *Hope*<sup>44</sup>. From my understanding as a regulatory economist, not as  
12 a legal interpretation, these cases required that a utility be allowed an opportunity  
13 to earn the same return as companies of comparable risk. The cases recognized  
14 that a utility must compete with other companies for capital. Unless the utility  
15 offers a return that is similar to that available from other opportunities of similar  
16 risk, capital will not be forthcoming to the utility. Moreover, if the utility  
17 investment is not earning what is available from other similar risk alternatives,  
18 then the utility is not earning its opportunity cost of capital.

19

20 Economists consider opportunity cost as the earnings forgone by not being  
21 invested in the next best opportunity. If a utility is not allowed to earn its

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<sup>43</sup> *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679 (1923).

<sup>44</sup> *Fed. Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

1 opportunity cost of capital, then the government is taking the value of the utility's  
2 capital without adequate compensation. The traditional comparable earnings test  
3 identifies a group of companies that are believed to be comparable in risk to the  
4 utility. Then the actual earnings of those companies on their investment are  
5 compared to the allowed return of the utility. The measure of return in the  
6 traditional comparable earnings test is taken from the accounting records of the  
7 comparable companies. It is also common to use reasonable projections of  
8 accounting earnings, such as those published by recognized investment advisory  
9 publications (e.g., Value Line). Since the earnings on book value equity as  
10 reported in companies' accounting records are similar to the allowed return on  
11 utility rate base, the two concepts of earnings are comparable so there can be an  
12 "apples to apples" comparison.

13 **Q. Is the traditional comparable earnings method an accepted approach to**  
14 **finding a fair rate of return on equity?**

15 A. Yes. In fact, a textbook prepared for the Society of Utility and Regulatory  
16 Analysts labels the comparable earnings approach the "granddaddy of cost of  
17 equity methods", and notes the comparable earning approach is based on the  
18 opportunity cost concept and consistent with both sound regulatory economics  
19 and the legal standards set forth in the landmark *Bluefield* and *Hope* cases.<sup>45</sup> I  
20 have used the comparable earnings approach in my consulting, teaching, and

---

<sup>45</sup> Parcell, David C., *The Cost of Capital—a Practitioner's Guide* (1997).

1 testimony for 35 years, and it has been widely referenced in regulatory decision-  
2 making.<sup>46</sup>

3 **Q. Do you agree with Mr. Baudino (pp. 55-56) and Dr. Woolridge (pp. 79-80)**  
4 **that it is necessary to examine market-to-book ratios in applying the**  
5 **expected earnings approach?**

6 A. No. Traditional applications of the expected earnings approach do not involve a  
7 market-to-book adjustment. I have never made a market-to-book adjustment, nor  
8 is such an adjustment recommended in recognized texts such as *Regulatory*  
9 *Finance: Utilities' Cost of Capital*.<sup>47</sup>

10 **Q. Is there a clear link between market-to-book ratios for electric utilities and**  
11 **allowed rates of return?**

12 A. No. Underlying Mr. Baudino's and Dr. Woolridge's criticism is the supposition  
13 that regulators should set a required rate of return to produce a market-to-book  
14 value of approximately 1.0. This is fallacious. For example, *Regulatory Finance:*  
15 *Utilities Cost of Capital* noted that:

16 The stock price is set by the market, not by regulators. The M/B  
17 ratio is the end result of regulation, and not its starting point. The  
18 view that regulation should set an allowed rate of return so as to

---

<sup>46</sup> For example, a NARUC survey reported that 19 regulatory jurisdictions cited the comparable earnings test as a primary method favored in determining the allowed rate of return. "Utility Regulatory Policy in the U.S. and Canada, 1995-1996," National Association of Regulatory Utility Commissioners (December 1996). In my experience, while a few Commissions have explicitly rejected comparable earnings, most regard it as a useful tool.

<sup>47</sup> Morin, Roger A., "Regulatory Finance: Utilities' Cost of Capital," *Public Utilities Reports, Inc.* (1994).

1 produce a M/B of 1.0, presumes that investors are masochistic.  
2 They commit capital to a utility with a M/B in excess of 1.0,  
3 knowing full well that they will be inflicted a capital loss by  
4 regulators. This is not a realistic or accurate view of regulation.<sup>48</sup>

5 With market-to-book ratios for most electric utilities above 1.0, Mr. Baudino and  
6 Dr. Woolridge are suggesting that, unless book value grows rapidly, regulators  
7 should establish equity returns that will cause share prices to fall. Given the  
8 regulatory imperative of preserving a utility's ability to attract capital, this would  
9 be a truly nonsensical result.

10 **Q. Is there anything unusual about a stock price exceeding book value?**

11 A. No. In fact the majority of stocks currently sell substantially above book value.  
12 For example, Value Line reports that, even after the unprecedented decline  
13 recently experienced in stock market prices, roughly 1,500 of the approximately  
14 1,700 stocks it follows (including utilities and other industries) sell for prices in  
15 excess of book value.<sup>49</sup>

16  
17 Moreover, regulators previously recognized the fallacy of relying on market-to-  
18 book ratios in evaluating cost of equity estimates. For example, the Presiding  
19 Judge in *Orange & Rockland* concluded, and the FERC affirmed that:

20 The presumption that a market-to-book ratio greater than 1.0 will  
21 destroy the efficacy of the DCF formula disregards the realities of

---

<sup>48</sup> *Id.* at 256.

<sup>49</sup> [www.valueline.com](http://www.valueline.com) (retrieved Jan. 23, 2009).

1           the market place principally because the market-to-book ratio is  
2           rarely equal to 1.0.<sup>50</sup>

3           The Initial Decision found that there was no support in Commission precedent for  
4           the use of market-to-book ratios to adjust market derived cost of equity estimates  
5           based on the DCF model and concluded that such arguments were to be treated as  
6           “academic rhetoric” unworthy of consideration.

7

8

### NO BASIS TO IGNORE FLOTATION COSTS

9

10   **Q.   Please respond to the argument that there is no basis for including a flotation**  
11   **cost adjustment.**

12   **A.   The need for a flotation cost adjustment to compensate for past equity issues is**  
13   **recognized in the financial literature. In a *Public Utilities Fortnightly* article, for**  
14   **example, Brigham, Aberwald, and Gapenski demonstrated that even if no further**  
15   **stock issues are contemplated, a flotation cost adjustment in all future years is**  
16   **required to keep shareholders whole, and that the flotation cost adjustment must**  
17   **consider total equity, including retained earnings.<sup>51</sup> Similarly, *Regulatory***  
18   ***Finance: Utilities' Cost of Capital* contains the following discussion:**

19                   Another controversy is whether the underpricing allowance should  
20                   still be applied when the utility is not contemplating an imminent

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<sup>50</sup> *Orange & Rockland Utilities, Inc.*, Initial Decision, 40 FERC ¶ 63,053, 1987 WL 118,352 (F.E.R.C.).

<sup>51</sup> Brigham, E.F., Aberwald, D.A., and Gapenski, L.C., “Common Equity Flotation Costs and Rate Making,” *Public Utilities Fortnightly*, May, 2, 1985.

1 common stock issue. Some argue that flotation costs are real and  
2 should be recognized in calculating the fair rate of return on equity,  
3 but only at the time when the expenses are incurred. In other  
4 words, the flotation cost allowance should not continue  
5 indefinitely, but should be made in the year in which the sale of  
6 securities occurs, with no need for continuing compensation in  
7 future years. This argument implies that the company has already  
8 been compensated for these costs and/or the initial contributed  
9 capital was obtained freely, devoid of any flotation costs, which is  
10 an unlikely assumption, and certainly not applicable to most  
11 utilities. ... The flotation cost adjustment cannot be strictly  
12 forward-looking unless all past flotation costs associated with past  
13 issues have been recovered. (p. 175)

14 **Q. Can you provide a simple numerical example illustrating why a flotation cost**  
15 **adjustment is necessary to account for past flotation costs?**

16 A. Yes. The following example demonstrates that investors will not have the  
17 opportunity to earn their required rate of return (*i.e.*, dividend yield plus expected  
18 growth) unless an allowance for past flotation costs is included in the allowed rate  
19 of return on equity. Assume a utility sells \$10 worth of common stock at the  
20 beginning of year 1. If the utility incurs flotation costs of \$0.48 (5 percent of the  
21 net proceeds), then only \$9.52 is available to invest in rate base. Assume that  
22 common shareholders' required rate of return is 11.5 percent, the expected  
23 dividend in year 1 is \$0.50 (*i.e.*, a dividend yield of 5 percent), and that growth is



1 expected to be 6.5 percent annually. As developed below, if the allowed rate of  
 2 return on common equity is only equal to the utility's 11.5 percent "bare bones"  
 3 cost of equity, common stockholders will not earn their required rate of return on  
 4 their \$10 investment, since growth will really only be 6.25 percent, instead of 6.5  
 5 percent:

| <u>Year</u>   | <u>Common Stock</u> | <u>Retained Earnings</u> | <u>Total Equity</u> | <u>Market Price</u> | <u>M/B Ratio</u> | <u>Allowed ROE</u> | <u>Earnings Per Share</u> | <u>Dividends Per Share</u> | <u>Payout Ratio</u> |
|---------------|---------------------|--------------------------|---------------------|---------------------|------------------|--------------------|---------------------------|----------------------------|---------------------|
| 1             | \$ 9.52             | \$ -                     | \$ 9.52             | \$10.00             | 1.050            | 11.50%             | \$ 1.09                   | \$ 0.50                    | 45.7%               |
| 2             | \$ 9.52             | \$ 0.59                  | \$10.11             | \$10.62             | 1.050            | 11.50%             | \$ 1.16                   | \$ 0.53                    | 45.7%               |
| 3             | \$ 9.52             | \$ 0.63                  | <u>\$10.75</u>      | <u>\$11.29</u>      | 1.050            | 11.50%             | <u>\$ 1.24</u>            | <u>\$ 0.56</u>             | 45.7%               |
| <b>Growth</b> |                     |                          | <b>6.25%</b>        | <b>6.25%</b>        |                  |                    | <b>6.25%</b>              | <b>6.25%</b>               |                     |

6 The reason that investors never really earn 11.5 percent on their investment in the  
 7 above example is that the \$0.48 in flotation costs initially incurred to raise the  
 8 common stock is not treated like debt issuance costs (*i.e.*, amortized into interest  
 9 expense and therefore increasing the embedded cost of debt), nor is it included as  
 10 an asset in rate base.

11 **Q. Can you illustrate how the flotation cost adjustment allows investors to be**  
 12 **fully compensated for the impact of past issuance costs?**

13 A. Yes. As discussed in my direct testimony, one method for calculating the flotation  
 14 cost adjustment is to multiply the dividend yield by a flotation cost percentage.  
 15 Thus, with a 5 percent dividend yield and a 5 percent flotation cost percentage,  
 16 the flotation cost adjustment in the above example would be approximately 25  
 17 basis points. As shown below, by allowing a rate of return on common equity of  
 18 11.75 percent (an 11.5 percent cost of equity plus a 25 basis point flotation cost

1 adjustment), investors earn their 11.5 percent required rate of return, since actual  
 2 growth is now equal to 6.5 percent:

| <u>Year</u>   | <u>Common Stock</u> | <u>Retained Earnings</u> | <u>Total Equity</u> | <u>Market Price</u> | <u>M/B Ratio</u> | <u>Allowed ROE</u> | <u>Earnings Per Share</u> | <u>Dividends Per Share</u> | <u>Payout Ratio</u> |
|---------------|---------------------|--------------------------|---------------------|---------------------|------------------|--------------------|---------------------------|----------------------------|---------------------|
| 1             | \$ 9.52             | \$ -                     | \$ 9.52             | \$10.00             | 1.050            | 11.75%             | \$ 1.12                   | \$ 0.50                    | 44.7%               |
| 2             | \$ 9.52             | \$ 0.62                  | \$10.14             | \$10.65             | 1.050            | 11.75%             | \$ 1.19                   | \$ 0.53                    | 44.7%               |
| 3             | \$ 9.52             | \$ 0.66                  | <u>\$10.80</u>      | <u>\$11.34</u>      | 1.050            | 11.75%             | <u>\$ 1.27</u>            | <u>\$ 0.57</u>             | 44.7%               |
| <b>Growth</b> |                     |                          | <b>6.50%</b>        | <b>6.50%</b>        |                  |                    | <b>6.50%</b>              | <b>6.50%</b>               |                     |

3  
 4 The only way for investors to be fully compensated for issuance costs is to  
 5 include an ongoing adjustment to account for past flotation costs when setting the  
 6 return on common equity. This is the case regardless of whether or not the utility  
 7 is expected to issue additional shares of common stock in the future.

8 **Q. Please respond to Mr. Baudino's and Dr. Woolridge's specific criticisms of**  
 9 **your flotation cost adjustment.**

10 **A.** First, while both Mr. Baudino and Dr. Woolridge suggest that flotation costs  
 11 should be ignored because my adjustment was not predicated on a precise  
 12 accounting for FPL, this belies the point of the adjustment. As discussed in my  
 13 direct testimony, in contrast to debt issuance costs, which are specifically  
 14 accounted for on the books of the utility, there is no comparable method for equity  
 15 flotation costs. The approach outlined in my direct testimony is supported by  
 16 recognized regulatory textbooks and based on research reported in the academic  
 17 literature, and the lack of a precise accounting of FPL's past issuance expenses  
 18 provides no basis to ignore a flotation cost adjustment.

19

1           Meanwhile, Dr. Woolridge mistakenly claims (p. 80) that a flotation cost  
2           adjustment “is necessary to prevent dilution of the existing shareholders.” In fact,  
3           a flotation cost adjustment is required in order to allow the utility the opportunity  
4           to recover the issuance costs associated with selling common stock. Dr.  
5           Woolridge’s observation about the level of market-to-book ratios may be factually  
6           correct, but it says nothing about whether or not a flotation cost adjustment is  
7           warranted for FPL. That market prices are above book value does not alter the  
8           fact that a portion of the capital contributed by equity investors is not available to  
9           earn a return because it is paid out as flotation costs. Even if FPL is not expected  
10          to issue additional common stock, a flotation cost adjustment is necessary to  
11          compensate for flotation costs incurred in connection with past issues of common  
12          stock.

13  
14          Dr. Woolridge’s argument (p. 81) that flotation costs “are not an out-of-pocket  
15          expense” is simply wrong. Dr. Woolridge apparently believes that if investors in  
16          past common stock issues had paid the full issuance price directly to FPL and FPL  
17          had then paid underwriters’ fees by issuing a check to its investment bankers, that  
18          flotation cost would be a legitimate expense. Dr. Woolridge’s observation merely  
19          highlights the absence of an accounting convention to properly accumulate and  
20          recover these legitimate and necessary costs.

1 With respect to Mr. Baudino's contention (p. 56-57) that flotation costs "are  
2 already accounted for in current stock prices," *Regulatory Finance: Utilities' Cost  
3 of Capital* has this to say:

4 A third controversy centers around the argument that the omission  
5 of flotation cost is justified on the grounds that, in an efficient  
6 market, the stock price already reflects any accretion or dilution  
7 resulting from new issuances of securities and that a flotation cost  
8 adjustment results in a double counting effect. The simple fact of  
9 the matter is that whatever stock price is set by the market, the  
10 company issuing stock will always net an amount less than the  
11 stock price due to the presence of intermediation and flotation  
12 costs. As a result, the company must earn slightly more on its  
13 reduced rate base in order to produce a return equal to that required  
14 by shareholders.<sup>52</sup>

15  
16 Similarly, the need to consider past flotation costs has been recognized in the  
17 financial literature, including sources that Mr. Baudino and Dr. Woolridge relied  
18 on in their testimony. Specifically, Ibbotson Associates concluded that:

19 Although the cost of capital estimation techniques set forth later in  
20 this book are applicable to rate setting, certain adjustments may be  
21 necessary. One such adjustment is for flotation costs (amounts that

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<sup>52</sup> Morin, Roger A., "Regulatory Finance: Utilities' Cost of Capital," *Public Utilities Reports, Inc.* (1994) at 174.

1                    must be paid to underwriters by the issuer to attract and retain  
2                    capital).<sup>53</sup>

3

4                    **FPL'S SUPERIOR PERFORMANCE SHOULD BE CONSIDERED**

5

6    **Q.    In evaluating the fair rate of return for FPL, is it appropriate to consider a**  
7                    **performance adder to recognize and encourage superior performance?**

8    A.    Yes. As discussed in greater detail in the testimony of FPL's witnesses, FPL has  
9                    distinguished itself in numerous measures of operating efficiency and  
10                    effectiveness while maintaining rates at relatively low levels. As a result,  
11                    consumers and the service area economy have benefited from a climate of  
12                    efficient and cost-effective operations, excellent customer service, and moderate  
13                    cost. Considering these results in establishing an ROE recognizes that FPL's  
14                    superior management continues to be instrumental in achieving these results.

15   **Q.    Do you agree with Mr. Baudino (pp. 34-35) that considering exemplary**  
16                    **performance would harm customers or violate regulatory standards?**

17   A.    No. Considering superior performance performance in establishing FPL's ROE is  
18                    entirely consistent with fostering an environment in which customers are assured  
19                    reliable service at reasonable rates and stockholders are fairly treated. Moreover,  
20                    an ROE that recognizes the successes of FPL's management is entirely consistent

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<sup>53</sup> Ibbotson Associates, *Stocks, Bonds, Bills, and Inflation, Valuation Edition, 2006 Yearbook*, at 35.

1 with the economic rational underlying traditional rate of return / rate base  
2 regulation.

3  
4 The goal of regulation is to achieve the same result that would prevail in a  
5 competitive market, where the actions of buyers and sellers serve to effectively  
6 regulate price and quality of service. In competitive markets, high-performing  
7 companies that combine outstanding service with reasonable prices are able to  
8 benefit from efficient operations by realizing higher rates of return for their  
9 shareholders. However, traditional regulation departs from this competitive  
10 market ideal when the prices charged by well-managed, efficient utilities that  
11 improve operations through productivity and other programs are lowered during  
12 rate proceedings, thereby lessening the incentive for exceptional performance. As  
13 FPL's witnesses document, the Company has provided customer benefits in the  
14 form of reliability, safe and efficient operations, customer satisfaction, and below-  
15 average rates. In keeping with these results, it is consistent with sound regulatory  
16 policy to allow FPL the opportunity to earn a rate of return above that of the  
17 average electric utility.

1                                   **OPC'S RECOMMENDED ROE SHOULD NOT BE**  
2   **APPLIED TO FIBERNET**

3  
4   **Q.   Do you agree with Ms. Dismukes that Dr. Woolridge's cost of capital should**  
5           **be used as the basis for the costs charged to FPL by FiberNet?**

6   **A.   No.  First, Dr. Woolridge's ROE and the resulting cost of capital is not an**  
7           **acceptable estimate of the overall rate of return for FPL for the reasons I have**  
8           **discussed above.  Moreover, the services being priced are telecommunications**  
9           **services, not electric utility services.  The risks and cost of capital for**  
10           **telecommunications services is generally regarded as higher than for electric**  
11           **utility services, particularly for competitive local exchange companies such as**  
12           **FiberNet.  This proposition is demonstrated by Dr. Woolridge's own testimony.**  
13           **As noted earlier, Dr. Woolridge relied on beta to evaluate the relative risks of the**  
14           **electric utility industry.  A review of Exhibit JRW-18 reveals that the average beta**  
15           **for the Telecommunications Services industry was 1.43, versus the 0.88 beta**  
16           **value cited by Dr. Woolridge for the electric utility industry and a beta of 1.00 for**  
17           **the overall market.  In other words, this comparison indicates that the risks**  
18           **associated with FiberNet are well in excess of those associated with electric**  
19           **utilities and far exceed those for the stock market as a whole.  As a result, apart**  
20           **from the downward-bias inherent in Dr. Woolridge's recommended overall rate of**  
21           **return for FPL, this cost of capital is entirely unrelated to the services provided by**  
22           **FiberNet and Ms. Dismukes' recommendation should be summarily rejected.**