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July 16, 2009

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Ms. Ann Cole, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Re: Docket Nos. 080677-EI & 090130-EI

Dear Ms. Cole:

Enclosed for filing, on behalf of the Citizens of the State of Florida, are the original and 15 copies of the Direct Testimony of J. Randall Woolridge.

Please indicate the time and date of receipt on the enclosed duplicate of this letter and return it to our office.

Sincerely,

Joseph A. McGlothlin
Associate Public Counsel

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FLORIDA POWER & LIGHT COMPANY

DOCKET NO. 080677-EI & 090130-EI

Direct Testimony of
Dr. J. Randall Woolridge

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LIST OF EXHIBITS

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JRW-2	Interest Rates
JRW-3	The Credit Crisis and Capital Cost Rates
JRW-4	Summary Financial and Risk Statistics for Proxy Group
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JRW-10	DCF Study
JRW-11	CAPM Study
JRW-12	Summary of FP&L's Equity Cost Rate Approaches and Results
JRW-13	Summary Financial and Risk Statistics for Dr. Avera's Proxy Group
JRW-14	Analysis of EPS Growth Rate Forecasts
JRW-15	GDP and S&P 500 Growth Rates

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DIRECT TESTIMONY

OF

J. Randall Woolridge

On Behalf of the Office of Public Counsel

Before the

Florida Public Service Commission

Docket Nos. 080677-EI and 090130-EI

Q. PLEASE STATE YOUR FULL NAME, ADDRESS, AND OCCUPATION.

A. My name is J. Randall Woolridge. My business address is 120 Haymaker Circle, State College, PA 16801. I am a Professor of Finance and the Goldman, Sachs & Co. and Frank P. Smeal Endowed University Fellow in Business Administration at the University Park Campus of the Pennsylvania State University. I am also the Director of the Smeal College Trading Room and President of the Nittany Lion Fund, LLC. A summary of my educational background, research, and related business experience is provided in Appendix A.

I. SUBJECT OF TESTIMONY AND SUMMARY OF RECOMMENDATIONS

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

1 A. I have been asked by the Florida Office of Public Counsel (“OPC”) to provide
2 an opinion as to the overall fair rate of return or cost of capital for the Florida
3 Power & Light Company ("FP&L" or "Company") and to evaluate FP&L’s rate
4 of return testimony in this proceeding.

5

6 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

7 A. First I will review my cost of capital recommendation for FP&L, and review the
8 primary areas of contention between FP&L’s rate of return position and OPC.
9 Second, I provide an assessment of capital costs in today’s capital markets.
10 Third, I discuss my proxy group of electric utility companies for estimating the
11 cost of capital for FP&L. Fourth, I present my recommendations for the
12 Company’s capital structure and debt cost rate. Fifth, I discuss the concept of
13 the cost of equity capital, and then estimate the equity cost rate for FP&L.
14 Finally, I critique Company’s rate of return analysis and testimony. I have a
15 table of contents just after the title page for a more detailed outline.

16 **Q. PLEASE REVIEW YOUR RECOMMENDATIONS REGARDING THE**
17 **APPROPRIATE RATE OF RETURN FOR FP&L.**

18 A. I have developed a capital structure for FP&L that reflects the Company’s
19 prospective capitalization used by investors. Even with my adjustments, this
20 capital structure has a considerably higher equity component than the
21 capitalizations of most electric utility companies. I have adjusted FP&L’s debt
22 cost rate to reflect current market interest rates. I have applied the Discounted

1 Cash Flow Model (“DCF”) and the Capital Asset Pricing Model (“CAPM”) to
2 a proxy group of publicly-held electric utility companies (“Electric Proxy
3 Group”). Based on market conditions and FPL’s low risk profile due to its
4 high common equity ratio, my analysis indicates an equity cost rate of 9.50%
5 is appropriate for FP&L. Using my capital structure and debt and equity cost
6 rates, I am recommending an overall rate of return of 6.17% for the test year
7 2010. These findings are summarized in Exhibit JRW-1.

8 **Q. PLEASE SUMMARIZE THE PRIMARY ISSUES REGARDING RATE**
9 **OF RETURN IN THIS PROCEEDING.**

10 A. The Company’s proposed cost of capital is provided in MFR Schedule D. My
11 analysis reveals that the Company’s recommended capital structure has a
12 common equity ratio of 59.62%, which is well in excess of the common
13 equity ratios of electric utility companies. In its analysis the Company’s
14 includes imputed debt of \$950 million in its adjusted capital structure as a
15 means of justifying its extremely high common equity ratio. In my testimony,
16 I show that the imputed debt is unwarranted, and serves to mask a very high
17 equity ratio. Even my recommended capital structure, which reflects the
18 capitalization of FP&L as viewed by investors, has a higher common equity
19 ratio than the capitalizations of electric utility companies. I have also adjusted
20 the Company’s proposed debt cost rate to reflect market interest rates.

21 FP&L witness Dr. William E. Avera provides the Company’s
22 proposed common equity cost rate. Dr. Avera's equity cost rate estimate is in

1 the 12.0% to 13.0% range. I have recommended an equity cost rate of 9.50%
2 for FP&L. One key element of my recommendation is the recognition that I
3 give to the very high common equity ratio of FP&L relative to the publicly-
4 held electric utilities used to develop an equity cost rate.

5 Both Dr. Avera and I have applied the DCF and the CAPM approaches
6 to groups of publicly-held electric utility companies. Dr. Avera has also used
7 an Expected Earnings approach to estimate an equity cost rate for FP&L. Dr.
8 Avera employs a proxy group that includes several companies which receive a
9 low percentage of revenues from regulated electric utility operations. I
10 demonstrate that FP&L's risk is below the average of Dr. Avera's utility
11 proxy group. Dr. Avera also employs the equity cost rate results for an
12 inappropriate proxy group of non-utility companies. With respect to the
13 application of the DCF model, the major area of disagreement is the expected
14 DCF growth rate. Dr. Avera relies exclusively on the earnings per share
15 ("EPS") growth rate forecasts of Wall Street analysts and *Value Line* for his
16 DCF growth rate. I demonstrate that there is an upward bias to these growth
17 rate forecasts.

18 The CAPM approach requires an estimate of the risk-free interest rate,
19 beta, and the equity risk premium. The primary error in Dr. Avera's CAPM is
20 his equity risk premium of 10.0%. I provide evidence that: (1) this equity risk
21 premium is based on an expected stock market return that is not reflective of
22 current market fundamentals; (2) this expected stock market return is based on
23 an expected EPS growth rate that is not reasonable given prospective

1 economic and earnings growth; and (3) the equity risk premium is well above
2 the equity risk premiums used in the real world of finance. On the other hand,
3 I use a market risk premium which (1) uses alternative approaches to
4 estimating a market premium and (2) employs the results of over thirty studies
5 and surveys of the market risk premium. As I note, my market risk premium
6 is consistent with the market risk premiums (1) discovered in recent academic
7 studies by leading finance scholars, (2) employed by leading investment banks
8 and management consulting firms, and (3) that result from surveys of financial
9 forecasters and corporate CFOs.

10 Finally, Dr. Avera's Expected Earnings approach is subject to a number
11 of errors and does not provide reliable estimates of the Company's cost of equity
12 capital. Furthermore, this methodology, which is not market-based, has not been
13 used by regulatory commissions for years as an equity cost rate approach.

14 In the end, the most significant areas of disagreement in measuring
15 FP&L's cost of capital are: (1) the appropriate capital structure, and whether
16 the imputation of debt is appropriate to justify a high common equity ratio in a
17 utility rate case; (2) FP&L's short-term and long-term debt cost rates; (3) the
18 appropriate proxy group to use in estimating an equity cost rate for FP&L, and
19 the riskiness of FP&L relative to the proxy group; (4) the use of the earnings
20 per share growth rates of Wall Street analysts to measure expected DCF
21 growth; (5) the measurement and magnitude of the equity risk premium used
22 in a CAPM approach; and (6) whether or not an adjustment is needed to
23 account for flotation costs.

1

2

II. CAPITAL COSTS IN TODAY'S MARKETS

3

Q. PLEASE DISCUSS CAPITAL COSTS IN U.S. MARKETS.

4

A. Long-term capital cost rates for U.S. corporations are a function of the required returns on risk-free securities plus a risk premium. The risk-free rate of interest is the yield on long-term U.S Treasury yields. The yields on ten-year U.S. Treasury bonds are provided on page 1 of Exhibit JRW-2 from 1953 to the present. These yields peaked in the early 1980s and have generally declined since that time. In the summer of 2003 these yields hit a 60-year low at 3.33%. They subsequently increased and fluctuated between the 4.0% and 5.0% levels over the next four years in response to ebbs and flows in the economy. Ten-year Treasury yields began to decline in mid-2007 at the beginning of the current financial crisis. In 2008 Treasury yields declined to below 3.0% as a result of the expansion of the mortgage and sub-prime market credit crisis, the turmoil in the financial sector, the government bailout of financial institutions, and the economic recession. Overall, these economic developments led investors to seek out low risk investments. This 'flight to quality' in the fixed income market has driven Treasury yields to historically low levels.

20

Panel B on page 1 of Exhibit JRW-2 shows the differences in yields between ten-year Treasuries and Moody's Baa rated bonds since the year 2000. This differential primarily reflects the additional risk required by bond

21

22

1 investors for the risk associated with investing in corporate bonds. The
2 difference also reflects, to a much lesser degree, yield curve changes over
3 time. The Baa rating is the lowest of the investment grade bond ratings for
4 corporate bonds. The yield differential hovered in the 2.0% to 3.0% area
5 until 2005, declined to 1.5% until late 2007, and then increased significantly
6 in response to the current financial crisis. This differential peaked at 6.0% in
7 November of 2008, at the height of the financial crisis, due to tightening in
8 credit markets which increased corporate bond yields and the 'flight to
9 quality' which decreased treasury yields. The differential has declined over
10 the past several months.

11 As noted, the risk premium is the return premium required by investors
12 to purchase riskier securities. As illustrated in Panel B of Exhibit JRW-2, the
13 risk premium required by investors to buy corporate bonds is observable
14 based on yield differentials in the markets. The equity risk premium is the
15 return premium required to purchase stocks as opposed to bonds. The equity
16 risk premium is not readily observable in the markets (as are bond risk
17 premiums) since expected stock market returns are not readily observable. As
18 a result, equity risk premiums must be estimated using market data. There are
19 alternative methodologies to estimating the equity risk premium, and the
20 alternative approaches and equity risk premium results are subject to much
21 debate. One way to estimate the equity risk premium is to compare the mean
22 returns on bonds and stocks over long historical periods. Measured in this
23 manner, the equity risk premium has been in the 5-7 percent range. But

1 studies by leading academics indicate the forward-looking equity risk
2 premium is in the 4.0 percent range.

3
4 **Q. PLEASE DISCUSS THE FINANCIAL CRISIS AND THE RESPONSE**
5 **OF THE U.S. GOVERNMENT.**

6 A. The mortgage crisis, subprime crisis, credit crisis, economic recession and the
7 restructuring of financial institutions has had tremendous global economic
8 implications. This issue first surfaced in the summer of 2007 as a mortgage
9 crisis. It expanded into the subprime area in late 2008 and led to the collapse
10 of certain financial institutions, notably Bear Stearns, in the first quarter of
11 2008. Commodity and energy prices peaked and then began to decline in the
12 summer of 2008 as the crisis in the financial markets spread to the global
13 economy. The turmoil in the financial sector peaked in September with the
14 failure of several large financial institutions, Bank of America's buyout of
15 Merrill Lynch, and the government takeover of Fannie Mae and Freddie Mac.

16 The spillover to the economy has been ongoing. According to the
17 National Bureau of Economic Research, the economy slipped into a recession
18 in the 4th quarter of 2007 and remains there. The unemployment rate has
19 increased steadily and was at 9.5% in June of 2009. Certain industries -
20 especially those tied to discretionary spending, commodities, and industrial
21 goods - have been especially hard hit. Inflationary pressures--which were tied
22 to global growth and increases in commodity prices until mid-2008-- largely
23 disappeared in late 2008 and early 2009. A barrel of oil, which was nearly

1 \$150 in mid-2008, declined to the \$30 range and now has increased to almost
2 \$70. Other commodity prices also peaked last year, bottomed out in the first
3 quarter of 2009, and now have rebounded. The stock market bottomed out in
4 early March, and has increased some 20% since that time. The increase in
5 commodity and energy prices and the stock market since the first quarter of
6 this year provides evidence that the worst of the financial crisis and economic
7 recession is over.

8 In response to the market crisis, the Federal Reserve took
9 extraordinary steps in an effort to stabilize capital markets. Most significantly,
10 the Fed has opened its lending facilities to numerous banking and investment
11 firms to promote credit markets. As a result, the balance sheet of the Federal
12 Reserve has grown by hundreds of billions of dollars in support of the
13 financial system. The federal government has taken a series of measures to
14 shore up the economy and the markets. The Troubled Asset Relief Program
15 (“TARP”) is aimed at providing over \$700B in government funds into the
16 banking system in the form of equity investments. The federal government
17 has spent billions bailing out a number of prominent financial institutions,
18 including AIG, Citigroup, and Bank of America. The government is also
19 moving to bail out other industries, most notably the auto industry. Earlier
20 this year, President Obama’s signed into law his \$787B economic stimulus,
21 which includes significant tax cuts and government spending aimed at
22 creating jobs and turning around the economy.

23 In summary, the Federal Reserve and government have taken never-

1 before seen actions and have provided or will provide extraordinary sums of
2 money in various ways to rescue the economy, certain industries, and the
3 credit markets.

4
5 **Q. PLEASE DISCUSS THE RESPONSE OF THE FINANCIAL MARKETS**
6 **TO THE ACTIONS OF THE U.S. GOVERNMENT.**

7 A. In response to the financial crisis, United States (“U. S.”) Treasury Rates
8 declined to levels not seen since the 1950s. This reflects the ‘flight to quality’
9 in the credit markets, as investors have sought out low risk investments. The
10 credit market for corporate and utility debt has experienced higher rates due to
11 the credit crisis. The short-term credit markets were initially hit with credit
12 issues, leading to the demise of several large financial institutions. The
13 primary indicator of the short-term credit market is the 3-month London
14 Interbank Offered Rate (“LIBOR”) rate. LIBOR peaked in the third quarter of
15 2008 at 4.75%. It has declined to below 1.0% as the short-term credit markets
16 have opened up and Treasury rates have continued to decline.

17 The long-term credit market has remained tighter, but has improved
18 significantly over the first half of 2009. The credit crisis is associated with
19 concerns among credit providers – mainly financial institutions – in terms of
20 making loans and investing in bonds due to the overleveraging and perceived
21 weakness of the economy. Panel A of page 1 of Exhibit JRW-3 provides the
22 yields on A, BBB+, and BBB rated public utility bonds. These yields peaked
23 in November and have since declined by over 150 basis points. For example,

1 the yields on 'A' rated utility bonds, which peaked at over 7.50% in
2 November of 2008, have declined to below 6.0% in recent weeks. Panel B of
3 Exhibit JRW-3 provides the yield spreads on A, BBB+, and BBB rated public
4 utility bonds relative to Treasury bonds. These yield spreads increased
5 dramatically in the third quarter during the peak of the financial crisis and
6 have since decreased by about 200 basis points.

7 Thus, the yields and yield spreads have declined in response to the
8 federal government's unprecedented actions in response to the financial crisis.
9 Public utility debt in particular has found favor with fixed income investors.
10 Pages 2 and 3 of Exhibit JRW-3 contain an article from the *Wall Street*
11 *Journal* which highlights the fact that the market for the bonds of utilities
12 came back significantly in early 2009. In particular, the article highlights the
13 fact that utility bonds are viewed as a 'safe haven' in the current market and
14 that yields on utility bonds declined significantly and bond issuances picked
15 up early in 2009. It quotes from the CFO of Progress Energy, who says:

16 "People have turned the page on 2008 and spreads have come down
17 for people like us," said Mark Mulhern, Progress Energy's chief
18 financial officer.

19
20 In sum, it appears that the massive government spending and Federal
21 Reserve actions have had an effect on the credit markets. The Obama
22 administration is clearly committed to bringing the economy around. The
23 worst of the credit crisis appears to be over. The short-term credit market has
24 loosened up considerably. LIBOR rates peaked in the fall and have declined.

1 Likewise, the long-term credit market has loosening and credit spreads have
2 declined significantly. In addition, the stock market has rebounded from its
3 lows in March of this year.

4
5 **Q. PLEASE PROVIDE YOUR ASSESSMENT OF THE IMPACT OF**
6 **RECENT CAPITAL MARKET CONDITIONS ON THE VOLATILITY**
7 **OF STOCKS AND BONDS.**

8 A. To assess the effect of recent capital market volatility on the equity risk
9 premium and the equity cost rate, one must look at the volatility of stocks
10 relative to bonds. To compare the volatility of stocks and bonds, one must
11 standardize the volatility measure. This is normally done by dividing the
12 volatility measure, the standard deviation, by the mean. This standardized
13 volatility measure is known as the Coefficient of Variation (“CV”).

14 I have performed an analysis of the volatility of stocks relative to
15 bonds since 2000. I have used the S&P 500 and the Bear Sterns Bond Price
16 Index (“BSBPI”) to compute the CV using a twenty-two day mean and
17 standard deviation. A twenty-two day period approximates one month of
18 trading. In Panel C of Exhibit JRW-3, page 4, I have graphed the CV for the
19 S&P 500 and the BSBPI since the year 2000. In association with the
20 unprecedented economic events in the third quarter of 2008, there is a
21 dramatic increase in the volatility of stocks and a not so dramatic increase in
22 the volatility of bonds. After the September – October time frame, stock
23 volatility declined significantly while bond volatility increased. In the first

1 quarter of 2009, there was another increase in the volatility of stocks relative
2 to bonds. However, stock volatility has declined over the past two months.
3 Panel D of page 4 of Exhibit JRW-3 shows the ratio of the CV(Stock
4 CV)/CV(Bond CV). Hence, this graph shows the standardized volatility of
5 stocks relative to bonds. Higher levels of this ratio represent time periods
6 when stock volatility is high relative to bond volatility, and low levels of this
7 ratio occur during time periods when stock volatility is low relative to bonds.
8 As such, the volatility of stocks relative to bonds has declined over the past
9 two months, suggesting that the markets have settled somewhat compared to
10 the third quarter of 2008 and the first quarter of 2009.

11 **Q. HAVE LEADING FINANCIAL PRACTITIONERS WEIGHED IN ON**
12 **THE IMPACT OF THE FINANCIAL CRISIS ON THE COST OF**
13 **EQUITY CAPITAL?**

14 A. Yes. McKinsey & Co., recognized as the leading management consulting
15 firm in the world, recently published a study entitled "Why the Crisis Hasn't
16 Shaken the Cost of Capital." In the study, the authors contend the financial
17 crisis has not significantly changed the firm's long-term estimate of the equity
18 risk premium, which is in the 3.5 to 4 percent range. McKinsey develops an
19 equity risk premium based on the price level of the S&P 500, GDP growth,
20 and corporate profits. In summing up their analysis of the impact of the
21 financial crisis on S&P 500, GDP growth, and corporate profits, they

1 conclude: “Taking all these factors into account, we think there has been no
2 significant change in the long-term cost of equity capital.¹”
3

4 III. PROXY GROUP SELECTION

5
6 **Q. PLEASE DESCRIBE YOUR APPROACH TO DEVELOPING A FAIR**
7 **RATE OF RETURN RECOMMENDATION FOR FP&L.**

8 A. To develop a fair rate of return recommendation for FP&L, I have evaluated
9 the return requirements of investors on the common stock of a proxy group of
10 publicly-held electric utility companies.

11 **Q. PLEASE DESCRIBE YOUR PROXY GROUP OF ELECTRIC**
12 **UTILITY COMPANIES.**

13 A. My proxy group consists of ten electric utility companies. This group includes
14 companies that meet the following criteria: (1) listed as an electric utility or
15 combination gas and electric utility by *AUS Utility Reports*, (2) regulated
16 electric revenues must be at least 70% of total revenues; (3) revenues of at
17 least \$5B; (4) current data available in the Standard Edition of the *Value Line*
18 *Investment Survey*; (5) an investment grade bond rating by Moody’s and/or
19 Standard & Poor’s; and (6) an annual dividend history of three years, with no
20 rumored or actual dividend cuts.

¹Richard Dobbs, Bin Jang, and Timothy Koeller, “Why the Crisis Hasn’t Shaken the Cost of Capital,” *McKinsey Quarterly* (December 2008), p. 6.

1 Summary financial statistics for the proxy group are listed in Exhibit
2 JRW-4. The average operating revenues, net plant, and market capitalization for
3 the Electric Proxy Group are \$12,936.9M and \$23,503.9, respectively. On
4 average, the group receives 84% of revenues from regulated electric utility
5 operations, has an 'A-' S&P bond rating, a common equity ratio of 40%, an
6 earned return on common equity of 12.2%, and sells at a market-to-book ratio of
7 1.3X. Compared to this group, FP&L's revenues and net plant are slightly
8 smaller than the group. The Company's S&P and Moody's bond rating and pre-
9 tax interest coverage are higher than the average for the Electric Proxy Group.
10 Most significantly, FP&L's common equity ratio of 57% is much higher than the
11 average for the group, which is only 40%. Overall, especially due to the much
12 higher common equity ratio, and in addition due to the higher pre-tax interest
13 coverage ratio and bond ratings, FP&L appears to be somewhat less risky than
14 the group. On the other hand, FP&L's parent, FPL Group, is more similar to the
15 Electric Proxy Group in terms of common equity ratio. But, FPL Group does
16 have a slightly higher pre-tax interest coverage and bond ratings.

17 18 **IV. CAPITAL STRUCTURE RATIOS AND DEBT COST RATES**

19 **Q. WHAT IS THE RECOMMENDED CAPITAL STRUCTURE OF THE**
20 **COMPANY?**

21 A. The Company's claimed recommended capital structure, based on investor
22 provided capital, is shown in Panel A of page 1 of Exhibit JRW-5. The

1 Company is requesting a capital structure consisting 1.10% short-term debt,
2 43.11% long-term debt, and a 55.76% common equity. However, this capital
3 structure includes \$950 million of “imputed debt.” As discussed at length
4 later in my testimony, imputed debt is a non-GAAP adjustment to the capital
5 structure of the company. As such, it is an adjustment not found in the
6 company’s financial statements and SEC filings. Panel B of page 1 of Exhibit
7 JRW-5 shows FP&L’s recommended capital structure, based on investor
8 provided capital, without the imputed debt. Therefore, FP&L is actually
9 requesting a capital structure (based on investor provided capital) consisting
10 1.18% short-term debt, 39.20% long-term debt, and 59.62% common equity.

11 **Q. IS THE COMPANY’S RECOMMENDED CAPITAL STRUCTURE**
12 **APPROPRIATE FOR RATEMAKING PURPOSES?**

13 A. No. This capital structure is not appropriate for three reasons. First, the
14 capital structure includes an actual common equity ratio (59.62%) which is
15 much higher than the common equity ratios of electric utility companies.
16 Second, the company has attempted to claim that its recommended capital
17 structure includes a common equity ratio of 55.76%. This claim is based on
18 incorrectly including the \$950 million in imputed debt. Third, the Company’s
19 recommended capital structure includes more common equity than is
20 projected for the Company.

1 **Q. BEFORE DISCUSSING YOUR RECOMMENDED CAPITAL**
2 **STRUCTURE, PLEASE REVIEW THE CAPITAL STRUCTURES FOR**
3 **FP&L AND ITS PARENT COMPANY, FPL GROUP.**

4 A. In panels C and D of Exhibit JRW-5, page 1, the average capitalization ratios
5 for FP&L and FPL Group are shown over the past five years. These ratios
6 highlight the fact that FPL Group employs much more debt and much less
7 equity than FP&L. Hence, FPL Group has a higher degree of financial risk
8 than FP&L. These ratios also show that FPL Group finances its other
9 businesses, such as NextEra Energy Resources, with more debt than FP&L.

10 **Q. PLEASE DISCUSS THE CAPITAL STRUCTURE RATIOS OF YOUR**
11 **ELECTRIC PROXY GROUP.**

12 A. The capital structures for the Electric Proxy Group are shown in Panel E of
13 Exhibit JRW-5. The average capitalization ratios for the group over the past
14 four quarters are 8.50% short-term debt, 50.59% long-term debt, 0.88%
15 preferred stock, and a 40.03% common equity. These ratios indicate that: (1)
16 the Electric Proxy Group has, on average, a much lower common equity ratio
17 and higher financial risk than FP&L; and (2) the average capitalization of the
18 Electric Proxy Group is similar to FP&L's parent, FPL Group.

19 **Q. WHAT CAPITAL STRUCTURE RATIOS ARE YOU EMPLOYING**
20 **FOR FP&L?**

21 A. Panel F (page 2) of Exhibit JRW-5 provides FP&L projected actual
22 capitalization for the years 2009 and 2010 based on investor provided capital.

1 These figures represent the projected capitalizations per the company books,
2 and therefore these are the figures that investors would have access to and use.
3 The average capitalization ratios are 3.76% short-term debt, 41.80% long-term
4 debt, and a 54.43% common equity. While these capitalization ratios include
5 a much higher common equity ratio than the Electric Proxy Group, they are a
6 much more realistic view of the expected capitalization of the company as
7 viewed by investors.

8 **Q. YOU HAVE REFERRED SEVERAL TIMES TO THE DIFFERING**
9 **EQUITY RATIOS OF YOUR PROXY UTILITY GROUP, FPL**
10 **GROUP, AND FLORIDA POWER & LIGHT COMPANY. PLEASE**
11 **ELABORATE ON THE SIGNIFICANCE OF THE AMOUNT OF**
12 **EQUITY THAT IS INCLUDED IN AN ELECTRIC UTILITY'S**
13 **CAPITAL STRUCTURE.**

14 A. An electric utility's decision as to the amount of equity capital it will
15 incorporate in its capital structure involves fundamental trade-offs relating to
16 the amount of financial risk the firm carries, the overall revenue requirements
17 its customers are required to bear through the rates they pay, and the return on
18 equity that investors will require.

19
20 **Q. PLEASE DISCUSS A UTILITY'S USE OF USING DEBT VERSUS**
21 **EQUITY TO MEET ITS CAPITAL NEEDS.**

22 A. Utilities satisfy their capital needs through a mix of equity and debt. Because
23 equity capital is more expensive than debt, the issuance of debt enables a

1 utility to raise more capital with a given commitment of dollars than it could
2 raise with just equity. Debt is therefore a means of “leveraging” capital
3 dollars. However, as the amount of debt in the capital structure increases, its
4 financial risk increases and the risk of the utility perceived by equity investors
5 also increases. Significantly for this case, the converse is also true. As the
6 amount of debt in the capital structure decreases, the financial risk decreases.
7 The required return on equity capital is a function of the amount of overall
8 risk that investors perceive, including financial risk in the form of debt.
9

10 **Q. WHY IS THIS RELATIONSHIP IMPORTANT TO THE UTILITY’S**
11 **CUSTOMERS?**

12 A. Just as there is a direct correlation between the utility’s authorized return on
13 equity and the utility’s revenue requirements (the higher the return, the greater
14 the revenue requirement), there is a direct correlation between the amount of
15 equity in the capital structure and the revenue requirements the customers are
16 called on to bear. Again, equity capital is more expensive than debt. Not only
17 does equity command a higher cost rate, it also adds more to the income tax
18 burden that ratepayers are required to pay through rates. As the equity ratio
19 increases, the utility’s revenue requirements increase and rates paid by
20 customers increase. If the proportion of equity is too high, rates will be higher
21 than they need to be. For this reason, the utility’s management must pursue a
22 capital acquisition strategy that results in the proper balance in the capital
23 structure.

1

2

Q. HOW HAVE ELECTRIC UTILITIES TYPICALLY STRUCK THIS BALANCE?

3

4

A. Due to regulation and the essential nature of its output, an electric utility is exposed to less business risk than other companies that are not regulated. This means that an electric utility can reasonably carry relatively more debt in its capital structure than can most unregulated companies. Typically, one may see equity ratios for electric utilities range from the 40% to 50% range. As I stated earlier, the average amount of common equity in the average capital structure of the utilities in my proxy group is 42%. In my experience, this value is typical for large electric utilities. It is also significant that FPL Group has significantly less equity in its capital structure—i.e., is significantly more leveraged—than is its subsidiary, FPL.

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Q. TURNING TO FPL'S PROPOSED CAPITAL STRUCTURE, HOW DOES FPL'S EQUITY RATIO RELATE TO THIS DISCUSSION?

16

17

A. FPL's real equity ratio is 59.62%. I have made adjustments to reflect the sources of capital that future investors will see. Even with those adjustments, FPL's common equity ratio is 54.43%.

18

19

20

21

Q. DO YOU BELIEVE THAT EQUITY RATIOS IN THE RANGE OF 54-59% ARE APPROPRIATE FOR FPL?

22

23

A. I believe that even as adjusted FPL's equity ratio is higher than would be

1 warranted by its risk profile.

2

3 **Q. GIVEN YOUR VIEW THAT FPL'S EQUITY RATIO IS HIGHER**
4 **THAN IS WARRANTED BY ITS RISK PROFILE, WHAT SHOULD**
5 **THE COMMISSION DO IN THIS RATEMAKING PROCEEDING?**

6 A. When a regulated electric utility's actual capital structure contains too high an
7 equity ratio, the options are: (1) to impute a more reasonable capital structure
8 and reflect the imputed capital structure in revenue requirements; or (2) to
9 recognize the downward impact that an unusually high equity ratio will have
10 on financial risk of a utility and authorize a lower common equity cost rate.

11

12 **Q. PLEASE ELABORATE ON THIS "DOWNWARD IMPACT."**

13 A. As I stated earlier, there is a direct correlation between the amount of debt in a
14 utility's capital structure and the risk that an equity investor will associate
15 with that utility. A relatively lower proportion of debt translates into a lower
16 required return on equity, all other things being equal. Stated differently, a
17 utility cannot expect to "have it both ways." Specifically, a utility cannot
18 maintain an unusually high equity ratio and not expect to have the resulting
19 lower risk reflected in its authorized return on equity. The fundamental
20 relationship between the lower risk and the appropriate authorized return
21 should not be ignored.

22

23 **Q. OF THE TWO OPTIONS FOR ADDRESSING AN**

1 **INAPPROPRIATELY HIGH EQUITY RATIO, WHICH HAVE YOU**
2 **EMPLOYED IN THIS CASE?**

3 A. I have used the “real” equity ratio of 54.43%. Concurrently, I have taken into
4 account the relatively lower financial risk of FPL that is associated with this
5 high equity ratio in my recommendation that the Commission authorize a
6 return on equity of 9.50%.

7
8 **Q. PLEASE SUMMARIZE YOUR RECOMMENDED CAPITAL**
9 **STRUCTURE FOR RATEMAKING PURPOSES**

10 A. My recommended capital structure for ratemaking purposes is provided in
11 Panel G (page 2) of Exhibit JRW-5. I have included the per books amounts of
12 customer deposits, deferred income tax, and investment tax credits from
13 FP&L Schedule D-1A along with my recommended amounts of short-term
14 and long-term debt and common equity.

15 **Q. WHY IS YOUR RECOMMENDED CAPITAL STRUCTURE MORE**
16 **APPROPRIATE FOR FP&L?**

17 A. My recommended capital structure is more appropriate for three reasons: (1)
18 FP&L’s proposed capital structure ratios do not reflect the actual
19 capitalization of FP&L or FPL Group; (2) FP&L’s proposed capital structure
20 ratios do not reflect the capitalization of electric utility companies; and (3)
21 FP&L’s proposed capital structure is not based on the company book figures
22 but reflects a number of adjustments, most notably imputed debt. My capital

1 structure much more accurately reflects the Company's capital structure as
2 viewed by investors.

3
4 **Q. WHAT SHORT-TERM AND LONG-TERM DEBT COST RATES ARE**
5 **YOU USING IN THE COST OF CAPITAL FOR FP&L?**

6 A. I am employing the Company's projected short-term and long-term debt cost
7 rates for 2009. These figures reflect current market interest rates and are not
8 based on speculative forecasts of interest rates. The short-term and long-term
9 debt cost rates are 2.27% and 5.14% and are based on company provided
10 figures.

11
12 **V. THE COST OF COMMON EQUITY CAPITAL**

13 **A. Overview**

14 **Q. WHY MUST AN OVERALL COST OF CAPITAL OR FAIR RATE OF**
15 **RETURN BE ESTABLISHED FOR A PUBLIC UTILITY?**

16 A. In a competitive industry, the return on a firm's common equity capital is
17 determined through the competitive market for its goods and services. Due to
18 the capital requirements needed to provide utility services, however and to the
19 economic benefit to society from avoiding duplication of these services, some
20 public utilities are monopolies. It is not appropriate to permit monopoly
21 utilities to set their own prices because of the lack of competition and the
22 essential nature of the services. Thus, regulation seeks to establish prices that
23 are fair to consumers and at the same time are sufficient to meet the operating

1 and capital costs of the utility (i.e., provide an adequate return on capital to
2 attract investors).

3 **Q. PLEASE PROVIDE AN OVERVIEW OF THE COST OF CAPITAL IN**
4 **THE CONTEXT OF THE THEORY OF THE FIRM.**

5 A. The total cost of operating a business includes the cost of capital. The cost of
6 common equity capital is the expected return on a firm's common stock that
7 the marginal investor would deem sufficient to compensate for risk and the
8 time value of money. In equilibrium, the expected and required rates of return
9 on a company's common stock are equal.

10 Normative economic models of the firm, developed under very
11 restrictive assumptions, provide insight into the relationship between firm
12 performance or profitability, capital costs, and the value of the firm. Under
13 the economist's ideal model of perfect competition where entry and exit is
14 costless, products are undifferentiated, and there are increasing marginal costs
15 of production, firms produce up to the point where price equals marginal cost.
16 Over time, a long-run equilibrium is established where price equals average
17 cost, including the firm's capital costs. In equilibrium, total revenues equal
18 total costs, and because capital costs represent investors' required return on
19 the firm's capital, actual returns equal required returns and the market value
20 and the book value of the firm's securities must be equal.

21 In the real world, firms can achieve competitive advantage due to
22 product market imperfections. Most notably, companies can gain competitive

1 advantage through product differentiation (adding real or perceived value to
2 products) and by achieving economies of scale (decreasing marginal costs of
3 production). Competitive advantage allows firms to price products above
4 average cost and thereby earn accounting profits greater than those required to
5 cover capital costs. When these profits are in excess of that required by
6 investors, or when a firm earns a return on equity in excess of its cost of
7 equity, investors respond by valuing the firm's equity in excess of its book
8 value.

9 James M. McTaggart, founder of the international management
10 consulting firm Marakon Associates, has described this essential relationship
11 between the return on equity, the cost of equity, and the market-to-book ratio
12 in the following manner:²

13 Fundamentally, the value of a company is determined
14 by the cash flow it generates over time for its owners,
15 and the minimum acceptable rate of return required by
16 capital investors. This "cost of equity capital" is used
17 to discount the expected equity cash flow, converting it
18 to a present value. The cash flow is, in turn, produced
19 by the interaction of a company's return on equity and
20 the annual rate of equity growth. High return on equity
21 (ROE) companies in low-growth markets, such as
22 Kellogg, are prodigious generators of cash flow, while
23 low ROE companies in high-growth markets, such as
24 Texas Instruments, barely generate enough cash flow to
25 finance growth.

26 A company's ROE over time, relative to its cost of
27 equity, also determines whether it is worth more or less
28 than its book value. If its ROE is consistently greater
29 than the cost of equity capital (the investor's minimum
30 acceptable return), the business is economically

² James M. McTaggart, "The Ultimate Poison Pill: Closing the Value Gap," *Commentary* (Spring 1988), p. 2.

1 profitable and its market value will exceed book value.
2 If, however, the business earns an ROE consistently
3 less than its cost of equity, it is economically
4 unprofitable and its market value will be less than book
5 value.

6 As such, the relationship between a firm's return on equity, cost of
7 equity, and market-to-book ratio is relatively straightforward. A firm that
8 earns a return on equity above its cost of equity will see its common stock sell
9 at a price above its book value. Conversely, a firm that earns a return on
10 equity below its cost of equity will see its common stock sell at a price below
11 its book value.

12 **Q. PLEASE PROVIDE ADDITIONAL INSIGHTS INTO THE**
13 **RELATIONSHIP BETWEEN RETURN ON EQUITY AND MARKET-**
14 **TO-BOOK RATIOS.**

15 A. This relationship is discussed in a classic Harvard Business School case study
16 entitled "A Note on Value Drivers." On page 2 of that case study, the author
17 describes the relationship very succinctly:³

18 For a given industry, more profitable firms – those able
19 to generate higher returns per dollar of equity – should
20 have higher market-to-book ratios. Conversely, firms
21 which are unable to generate returns in excess of their
22 cost of equity should sell for less than book value.

<i>Profitability</i>	<i>Value</i>
<i>If ROE > K</i>	<i>then Market/Book > 1</i>
<i>If ROE = K</i>	<i>then Market/Book = 1</i>
<i>If ROE < K</i>	<i>then Market/Book < 1</i>

³ Benjamin Esty, "A Note on Value Drivers," Harvard Business School, Case No. 9-297-082, April 7, 1997.

1 To assess the relationship by industry, as suggested above, I have
2 performed a regression study between estimated return on equity and market-
3 to-book ratios using natural gas distribution, electric utility and water utility
4 companies. I used all companies in these three industries which are covered
5 by *Value Line* and who have estimated return on equity and market-to-book
6 ratio data. The results are presented in Panels A-C of Exhibit JRW-6. The
7 average R-squares for the electric, gas, and water companies are 0.65, 0.60,
8 and 0.92.⁴ This demonstrates the strong positive relationship between ROEs
9 and market-to-book ratios for public utilities. This means that utilities with
10 higher expected ROEs sell at higher market-to-book ratios.

11
12 **Q. WHAT ECONOMIC FACTORS HAVE AFFECTED THE COST OF**
13 **EQUITY CAPITAL FOR PUBLIC UTILITIES?**

14 A. Exhibit JRW-7 provides indicators of the equity cost rates for the Electric
15 Proxy Group over the past decade. Page 1 shows the monthly yields on long-
16 term 'A' rated public utility bonds. These yields peaked in the early 2000s at
17 over 8.0%, declined to about 5.0% in 2005, and rose to 6.0% in 2007. They
18 stayed in that 6.0% range until the third quarter of 2008 when they spiked to
19 almost 8.0%. They have since retreated to the 6.0% range again.

⁴ R-square measures the percent of variation in one variable (e.g., market-to-book ratios) explained by another variable (e.g., expected return on equity). R-squares vary between zero and 1.0, with values closer to 1.0 indicating a higher relationship between two variables.

1 Page 2 provides the dividend yields for the Electric Proxy Group over
2 the past decade. These yields peaked in 2000 at 5.0%, declined to the 3.3% as
3 of 2007, and increased in 2008 to 3.9%.

4 Average earned returns on common equity and market-to-book ratios
5 for the group are given on page 3 of Exhibit JRW-7. Over the past decade,
6 earned returns on common equity have been in the 8.0%-12.0% range. The
7 average ROE has gradually risen in recent years and peaked at 12.0% in 2008.
8 Over the past decade, the average market-to-book ratios for this group have
9 been between 1.20 to 2.0. As of 2008, the average market-to-book for the
10 group was 1.75.

11 **Q. WHAT FACTORS DETERMINE INVESTORS' EXPECTED OR**
12 **REQUIRED RATE OF RETURN ON EQUITY?**

13 A. The expected or required rate of return on common stock is a function of
14 market-wide, as well as company-specific, factors. The most important
15 market factor is the time value of money as indicated by the level of interest
16 rates in the economy. Common stock investor requirements generally
17 increase and decrease with like changes in interest rates. The perceived risk
18 of a firm is the predominant factor that influences investor return requirements
19 on a company-specific basis. A firm's investment risk is often separated into
20 business and financial risk. Business risk encompasses all factors that affect a
21 firm's operating revenues and expenses. Financial risk results from incurring
22 fixed obligations in the form of debt in financing its assets.

1 **Q. HOW DOES THE INVESTMENT RISK OF ELECTRIC UTILITY**
2 **COMPANIES COMPARE WITH THAT OF OTHER INDUSTRIES?**

3 A. Due to the essential nature of their service as well as their regulated status,
4 public utilities are exposed to a lesser degree of business risk than other, non-
5 regulated businesses. The relatively low level of business risk allows public
6 utilities to meet much of their capital requirements through borrowing in the
7 financial markets, thereby incurring greater than average financial risk.
8 Nonetheless, the overall investment risk of public utilities is below most other
9 industries.

10 Exhibit JRW-8 provides an assessment of investment risk for 100
11 industries as measured by beta, which according to modern capital market
12 theory is the only relevant measure of investment risk that need be of concern
13 for investors. These betas come from the *Value Line Investment Survey* and
14 are compiled by Aswath Damodaran of New York University.⁵ The study
15 shows that the investment risk of public utilities is relatively low. The
16 average beta for electric utilities of 0.88 is in the bottom twenty percent of all
17 industries and well below the *Value Line* average of 1.24. As such, the cost of
18 equity for the electric utility industry is among the lowest of all industries in
19 the U.S.

20 **Q. HOW CAN THE EXPECTED OR REQUIRED RATE OF RETURN ON**
21 **COMMON EQUITY CAPITAL BE DETERMINED?**

⁵ They may be found on the Internet at [http:// www.stern.nyu.edu/~adamodar](http://www.stern.nyu.edu/~adamodar).

1 A. The costs of debt and preferred stock are normally based on historical or book
2 values and can be determined with a great degree of accuracy. The cost of
3 common equity capital, however, cannot be determined precisely and must
4 instead be estimated from market data and informed judgment. This return to
5 the stockholder should be commensurate with returns on investments in other
6 enterprises having comparable risks.

7 According to valuation principles, the present value of an asset equals
8 the discounted value of its expected future cash flows. Investors discount
9 these expected cash flows at their required rate of return that, as noted above,
10 reflects the time value of money and the perceived riskiness of the expected
11 future cash flows. As such, the cost of common equity is the rate at which
12 investors discount expected cash flows associated with common stock
13 ownership.

14 Models have been developed to ascertain the cost of common equity
15 capital for a firm. Each model, however, has been developed using restrictive
16 economic assumptions. Consequently, judgment is required in selecting
17 appropriate financial valuation models to estimate a firm's cost of common
18 equity capital, in determining the data inputs for these models, and in
19 interpreting the models' results. All of these decisions must take into
20 consideration the firm involved as well as current conditions in the economy
21 and the financial markets.

1 **Q. HOW DO YOU PLAN TO ESTIMATE THE COST OF EQUITY**
2 **CAPITAL FOR THE COMPANY?**

3 A. I rely primarily on the DCF model to estimate the cost of equity capital.
4 Given the investment valuation process and the relative stability of the utility
5 business, I believe that the DCF model provides the best measure of equity
6 cost rates for public utilities. It is my experience that this Commission has
7 traditionally relied on the DCF method. I have also performed a CAPM
8 study, but I give these results less weight because I believe that risk premium
9 studies, of which the CAPM is one form, provide a less reliable indication of
10 equity cost rates for public utilities.

11 **B. Discounted Cash Flow Analysis**

12 **Q. DESCRIBE THE THEORY BEHIND THE TRADITIONAL DCF**
13 **MODEL.**

14 A. According to the DCF model, the current stock price is equal to the discounted
15 value of all future dividends that investors expect to receive from investment
16 in the firm. As such, stockholders' returns ultimately result from current as
17 well as future dividends. As owners of a corporation, common stockholders
18 are entitled to a pro-rata share of the firm's earnings. The DCF model
19 presumes that earnings that are not paid out in the form of dividends are
20 reinvested in the firm so as to provide for future growth in earnings and
21 dividends. The rate at which investors discount future dividends, which
22 reflects the timing and riskiness of the expected cash flows, is interpreted as

1 the market's expected or required return on the common stock. Therefore, this
2 discount rate represents the cost of common equity. Algebraically, the DCF
3 model can be expressed as:

$$4 \quad P = \frac{D_1}{(1+k)^1} + \frac{D_2}{(1+k)^2} + \dots + \frac{D_n}{(1+k)^n}$$

7 where P is the current stock price, D_n is the dividend in year n, and k is the
8 cost of common equity.
9

10 **Q. IS THE DCF MODEL CONSISTENT WITH VALUATION**
11 **TECHNIQUES EMPLOYED BY INVESTMENT FIRMS?**

12 A. Yes. Virtually all investment firms use some form of the DCF model as a
13 valuation technique. One common application for investment firms is called
14 the three-stage DCF or dividend discount model ("DDM"). The stages in a
15 three-stage DCF model are discussed below. This model presumes that a
16 company's dividend payout progresses initially through a growth stage, then
17 proceeds through a transition stage, and finally assumes a steady-state stage.
18 The dividend-payment stage of a firm depends on the profitability of its
19 internal investments, which, in turn, is largely a function of the life cycle of
20 the product or service. These stages are depicted in the graphic in Exhibit
21 JRW-9.⁶

⁶ This description comes from William F. Sharp, Gordon J. Alexander, and Jeffrey V. Bailey, *Investments* (Prentice-Hall, 1995), pp. 590-91.

1 1. Growth stage: Characterized by rapidly expanding sales, high profit
2 margins, and abnormally high growth in earnings per share. Because of
3 highly profitable expected investment opportunities, the payout ratio is low.
4 Competitors are attracted by the unusually high earnings, leading to a decline
5 in the growth rate.

6 2. Transition stage: In later years increased competition reduces profit
7 margins and earnings growth slows. With fewer new investment
8 opportunities, the company begins to pay out a larger percentage of earnings.

9 3. Maturity (steady-state) stage: Eventually the company reaches a
10 position where its new investment opportunities offer, on average, only
11 slightly attractive returns on equity. At that time its earnings growth rate,
12 payout ratio, and return on equity stabilize for the remainder of its life. The
13 constant-growth DCF model is appropriate when a firm is in the maturity stage
14 of the life cycle.

15 In using this model to estimate a firm's cost of equity capital,
16 dividends are projected into the future using the different growth rates in the
17 alternative stages, and then the equity cost rate is the discount rate that equates
18 the present value of the future dividends to the current stock price.

19 **Q. HOW DO YOU ESTIMATE STOCKHOLDERS' EXPECTED OR**
20 **REQUIRED RATE OF RETURN USING THE DCF MODEL?**

1 the DCF model, the current dividend payment and stock price are directly
2 observable. However, the primary problem and controversy in applying the
3 DCF model to estimate equity cost rates entails estimating investors' expected
4 dividend growth rate.

5 **Q. WHAT FACTORS SHOULD ONE CONSIDER WHEN APPLYING**
6 **THE DCF METHODOLOGY?**

7 A. One should be sensitive to several factors when using the DCF model to
8 estimate a firm's cost of equity capital. In general, one must recognize the
9 assumptions under which the DCF model was developed in estimating its
10 components (the dividend yield and expected growth rate). The dividend
11 yield can be measured precisely at any point in time, but tends to vary
12 somewhat over time. Estimation of expected growth is considerably more
13 difficult. One must consider recent firm performance, in conjunction with
14 current economic developments and other information available to investors,
15 to accurately estimate investors' expectations.

16 **Q. PLEASE DISCUSS EXHIBIT JRW-10.**

17 A. My DCF analysis is provided in Exhibit JRW-10. The DCF summary is on
18 page 1 of this Exhibit, and the supporting data and analysis for the dividend
19 yield and expected growth rate are provided on the following pages of the
20 Exhibit.

1 **Q. WHAT DIVIDEND YIELDS ARE YOU EMPLOYING IN YOUR DCF**
2 **ANALYSIS FOR THE PROXY GROUP?**

3 A. The dividend yields on the common stock for the companies in the Electric
4 Proxy Group are provided on page 2 of Exhibit JRW-10 for the six-month
5 period ending July 2009. For the DCF dividend yields for the group, I am
6 using the average of the six month and July 2009 dividend yields. The table
7 below shows these dividend yields.

8

Proxy Group	6-Month Average Dividend Yield	July 2009 Dividend Yield	DCF Dividend Yield
Electric Proxy Group	4.9%	4.5%	4.7%

9

10 **Q. PLEASE DISCUSS THE APPROPRIATE ADJUSTMENT TO THE**
11 **SPOT DIVIDEND YIELD.**

12 A. According to the traditional DCF model, the dividend yield term relates to the
13 dividend yield over the coming period. As indicated by Professor Myron
14 Gordon, who is commonly associated with the development of the DCF model
15 for popular use, this is obtained by: (1) multiplying the expected dividend
16 over the coming quarter by 4 and (2) dividing this dividend by the current
17 stock price to determine the appropriate dividend yield for a firm, that pays
18 dividends on a quarterly basis.⁷

⁷ *Petition for Modification of Prescribed Rate of Return*, Federal Communications Commission, Docket No. 79-05, Direct Testimony of Myron J. Gordon and Lawrence I. Gould at 62 (April 1980).

1 In applying the DCF model, some analysts adjust the current dividend
2 for growth over the coming year as opposed to the coming quarter. This can
3 be complicated because firms tend to announce changes in dividends at
4 different times during the year. As such, the dividend yield computed based
5 on presumed growth over the coming quarter as opposed to the coming year
6 can be quite different. Consequently, it is common for analysts to adjust the
7 dividend yield by some fraction of the long-term expected growth rate.

8 The appropriate adjustment to the dividend yield is further
9 complicated in the regulatory process when the overall cost of capital is
10 applied to a projected rate base. The net effect of this application is an
11 overstatement of the equity cost rate estimate derived from the DCF model.
12 In the context of the constant-growth DCF model, both the adjusted dividend
13 yield and the growth component are overstated. The overstatement results
14 from applying an equity cost rate computed using current market data to a
15 future or test-year-end rate base which includes growth associated with the
16 retention of earnings during the year. In other words, an equity cost rate times
17 a future, yet to be achieved rate base, results in an inflated dividend yield and
18 growth rate.

19 **Q. GIVEN THIS DISCUSSION, WHAT ADJUSTMENT FACTOR WILL**
20 **YOU USE FOR YOUR DIVIDEND YIELD?**

21 A. I will adjust the dividend yield by one-half (1/2) the expected growth so as to
22 reflect growth over the coming year.

1 **Q. PLEASE DISCUSS THE GROWTH RATE COMPONENT OF THE**
2 **DCF MODEL.**

3 A. There is much debate as to the proper methodology to employ in estimating
4 the growth component of the DCF model. By definition, this component is
5 investors' expectation of the long-term dividend growth rate. Presumably,
6 investors use some combination of historical and/or projected growth rates for
7 earnings and dividends per share and for internal or book value growth to
8 assess long-term potential.

9 **Q. WHAT GROWTH DATA HAVE YOU REVIEWED FOR THE PROXY**
10 **GROUP?**

11 A. I have analyzed a number of measures of growth for companies in the proxy
12 group. I have reviewed *Value Line's* historical and projected growth rate
13 estimates for earnings per share ("EPS"), dividends per share ("DPS"), and
14 book value per share ("BVPS"). In addition, I have utilized the average EPS
15 growth rate forecasts of Wall Street analysts as provided by Yahoo First Call,
16 Reuters, and Zacks. These services solicit five-year earnings growth rate
17 projections from securities analysts and compile and publish the means and
18 medians of these forecasts. Finally, I have also assessed prospective growth as
19 measured by prospective earnings retention rates and earned returns on
20 common equity.

21 **Q. PLEASE DISCUSS HISTORICAL GROWTH IN EARNINGS AND**
22 **DIVIDENDS AS WELL AS INTERNAL GROWTH.**

1 A. Historical growth rates for EPS, DPS, and BVPS are readily available to
2 virtually all investors and presumably an important ingredient in forming
3 expectations concerning future growth. However, one must use historical
4 growth numbers as measures of investors' expectations with caution. In some
5 cases, past growth may not reflect future growth potential. Also, employing a
6 single growth rate number (for example, for five or ten years), is unlikely to
7 accurately measure investors' expectations due to the sensitivity of a single
8 growth rate figure to fluctuations in individual firm performance as well as
9 overall economic fluctuations (i.e., business cycles). However, one must
10 appraise the context in which the growth rate is being employed. According
11 to the conventional DCF model, the expected return on a security is equal to
12 the sum of the dividend yield and the expected long-term growth in dividends.
13 Therefore, to 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 Internally generated growth is a function of the percentage of earnings
17 retained within the firm (the earnings retention rate) and the rate of return
18 earned on those earnings (the return on equity). The internal growth rate is
19 computed as the retention rate times the return on equity. Internal growth is
20 significant in determining long-run earnings and therefore, dividends.
21 Investors recognize the importance of internally generated growth and pay
22 premiums for stocks of companies that retain earnings and earn high returns
23 on internal investments.

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Q. WHY ARE YOU NOT RELYING EXCLUSIVELY ON THE EPS FORECASTS OF WALL STREET ANALYSTS IN ARRIVING AT A DCF GROWTH RATE FOR THE PROXY GROUP?

A. There are several issues with using the EPS growth rate forecasts of Wall Street analysts as DCF growth rates. First, the appropriate growth rate in the DCF model is the dividend growth rate, not the earnings growth rate. Nonetheless, over the very long-term, dividend and earnings will have to grow at a similar growth rate. Therefore, in my opinion, consideration must be given to other indicators of growth, including prospective dividend growth, internal growth, as well as projected earnings growth. Second, and most significantly, it is well-known that the EPS growth rate forecasts of Wall Street securities analysts are overly optimistic and upwardly biased. Hence, using these growth rates as a DCF growth rate will provide an overstated equity cost rate. This issue is discussed at length in the section of this testimony in which I comment on Dr. Avera’s testimony.

Q. PLEASE DISCUSS THE HISTORICAL GROWTH OF THE COMPANIES IN THE ELECTRIC PROXY GROUP AS PROVIDED IN THE VALUE LINE INVESTMENT SURVEY.

A. Historic growth rates for the companies in the group, as published in the *Value Line Investment Survey*, are provided on page 3 of Exhibit JRW-10. Due to the presence of outliers among the historic growth rate figures, both the mean

1 and medians are used in the analysis.⁸ The historical growth measures in EPS,
2 DPS, and BVPS for the Electric Proxy Group, as measured by the means and
3 medians, range from 1.5% to 7.4%, with an average of 4.0%.

4
5 **Q. PLEASE SUMMARIZE VALUE LINE'S PROJECTED GROWTH**
6 **RATES FOR THE COMPANIES IN THE ELECTRIC PROXY**
7 **GROUP.**

8 A. *Value Line's* projections of EPS, DPS, and BVPS growth for the companies in
9 the proxy group are shown on page 4 of Exhibit JRW-10. As above, due to
10 the presence of outliers, both the mean and medians are used in the analysis.
11 For the Electric Proxy Group, the central tendency measures range from 4.5%
12 to 6.0%, with an average of 5.3%.

13 Also provided on page 4 of Exhibit JRW-10 is prospective internal
14 growth for the proxy group as measured by *Value Line's* average projected
15 retention rate and return on shareholders' equity. As noted above, internal
16 growth is significant in a primary driver of long-run earnings growth. For the
17 Electric Proxy Group, the average prospective internal growth rate is 5.6%.

18 **Q. PLEASE ASSESS GROWTH FOR THE PROXY GROUP AS**
19 **MEASURED BY ANALYSTS' FORECASTS OF EXPECTED 5-YEAR**
20 **EPS GROWTH.**

⁸ Outliers are observations that are much larger or smaller than the majority of the observations that are being evaluated.

1 A. Yahoo First Call, Reuters, and Zacks collect, summarize, and publish Wall
2 Street analysts' five-year EPS growth rate forecasts for the companies in the
3 proxy group. These forecasts are provided for the companies in the proxy
4 group on page 5 of Exhibit JRW-10. The median of the analysts' projected
5 EPS growth rates for the Electric Proxy Group is 6.3%.⁹

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7 **Q. PLEASE SUMMARIZE YOUR ANALYSIS OF THE HISTORICAL**
8 **AND PROSPECTIVE GROWTH OF THE PROXY GROUP.**

9 A. Page 6 of Exhibit JRW-10 shows the summary DCF growth rate indicators for
10 the proxy group. The average of the growth rate indicators is 5.2%. Giving
11 greater weight to the projected growth rate indicators and to prospective
12 internal growth, an expected DCF growth rate in the 5.5% range is reasonable
13 for the Electric Proxy Group.

14 **Q. BASED ON THE ABOVE ANALYSIS, WHAT ARE YOUR**
15 **INDICATED COMMON EQUITY COST RATES FROM THE DCF**
16 **MODEL FOR THE GROUP?**

17 A. My DCF-derived equity cost rate for the group is:

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$$\text{DCF Equity Cost Rate (k)} = \frac{D}{P} + g$$

⁹ Since there is considerable overlap in analyst coverage between the three services, and not all of the companies have forecasts from the different services, I have averaged the expected five-year EPS growth rates from the three services for each company to arrive at an expected EPS growth rate by company.

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DCF Equity Cost Rate

	Dividend Yield	½ Growth Adjustment	DCF Growth Rate	Equity Cost Rate
Electric Proxy Group	4.7%	1.0275	5.50%	10.33%

These results are summarized on page 1 of Exhibit JRW-10.

C. Capital Asset Pricing Model Results

Q. PLEASE DISCUSS THE CAPITAL ASSET PRICING MODEL (“CAPM”).

A. The CAPM is a risk premium approach to gauging a firm’s cost of equity capital. According to the risk premium approach, the cost of equity is the sum of the interest rate on a risk-free bond (R_f) and a risk premium (RP), as in the following:

$$k = R_f + RP$$

The yield on long-term Treasury securities is normally used as R_f . Risk premiums are measured in different ways. The CAPM is a theory of the risk and expected returns of common stocks. In the CAPM, two types of risk are associated with a stock: firm-specific risk or unsystematic risk, and market or systematic risk, which is measured by a firm’s beta. The only risk that investors receive a return for bearing is systematic risk.

According to the CAPM, the expected return on a company’s stock, which is also the equity cost rate (K), is equal to:

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$$K = (R_f) + \beta * [E(R_m) - (R_f)]$$

Where:

- K represents the estimated rate of return on the stock;
- $E(R_m)$ represents the expected return on the overall stock market. Frequently, the ‘market’ refers to the S&P 500;
- (R_f) represents the risk-free rate of interest;
- $[E(R_m) - (R_f)]$ represents the expected equity or market risk premium—the excess return that an investor expects to receive above the risk-free rate for investing in risky stocks; and
- $Beta$ —(β) is a measure of the systematic risk of an asset.

To estimate the required return or cost of equity using the CAPM requires three inputs: the risk-free rate of interest (R_f), the beta (β), and the expected equity or market risk premium $[E(R_m) - (R_f)]$. R_f is the easiest of the inputs to measure – it is the yield on long-term Treasury bonds. β , the measure of systematic risk, is a little more difficult to measure because there are different opinions about what adjustments, if any, should be made to historical betas due to their tendency to regress to 1.0 over time. And finally, an even more difficult input to measure is the expected equity or market risk premium ($E(R_m) - (R_f)$). I will discuss each of these inputs below.

- Q. PLEASE DISCUSS EXHIBIT JRW-11.**
- A. Exhibit JRW-11 provides the summary results for my CAPM study. Page 1 shows the results, and the following pages contain the supporting data.
- Q. PLEASE DISCUSS THE RISK-FREE INTEREST RATE.**

1 A. The yield on long-term U.S. Treasury bonds has usually been viewed as the
2 risk-free rate of interest in the CAPM. The yield on long-term U.S. Treasury
3 bonds, in turn, has been considered to be the yield on U.S. Treasury bonds
4 with 30-year maturities. However, when the Treasury's issuance of 30-year
5 bonds was interrupted for a period of time in recent years, the yield on 10-year
6 U.S. Treasury bonds replaced the yield on 30-year U.S. Treasury bonds as the
7 benchmark long-term Treasury rate. Ten-year Treasury yields began to
8 decline in mid-2007 at the beginning of the financial crisis, and fell below
9 3.0% as the housing and sub-prime mortgage crises led to an overall credit
10 crisis and economic recession. These rates bottomed out in December of 2008
11 and have increased since that time as prospects for an economic recovery have
12 increased.

14 **Q. WHAT RISK-FREE INTEREST RATE ARE YOU USING IN YOUR**
15 **CAPM?**

16 A. The U.S. Treasury began to issue the 30-year bond in the early 2000s as the
17 U.S. budget deficit increased. As such, the market has once again focused on
18 its yield as the benchmark for long-term capital costs in the U.S. As of July
19 6, 2009, as shown on page 2 of Exhibit JRW-11, the rates on 10- and 30- U.S.
20 Treasury Bonds were 3.55% and 4.38%, respectively. Given this recent trend
21 of increasing 30-year Treasury yields, I believe that a long-term Treasury rate
22 in the 4.50% is reasonable for the near future. I will use this as the risk-free
23 rate, or R_f , in my CAPM.

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Q. WHAT BETAS ARE YOU EMPLOYING IN YOUR CAPM?

A. Beta (β) is a measure of the systematic risk of a stock. The market, usually taken to be the S&P 500, has a beta of 1.0. The beta of a stock with the same price movement as the market also has a beta of 1.0. A stock whose price movement is greater than that of the market, such as a technology stock, is riskier than the market and has a beta greater than 1.0. A stock with below average price movement, such as that of a regulated public utility, is less risky than the market and has a beta less than 1.0. Estimating a stock's beta involves running a linear regression of a stock's return on the market return.

As shown on page 3 of Exhibit JRW-11, the slope of the regression line is the stock's β . A steeper line indicates the stock is more sensitive to the return on the overall market. This means that the stock has a higher β and greater than average market risk. A less steep line indicates a lower β and less market risk.

Numerous online investment information services, such as Yahoo! and Reuters, provide estimates of stock betas. Usually these services report different betas for the same stock. The differences are usually due to: (1) the time period over which the β is measured; and (2) any adjustments that are made to reflect the fact that betas tend to regress to 1.0 over time. In estimating an equity cost rate for the proxy group, I am using the betas for the companies as provided in the *Value Line Investment Survey*. As shown on

1 page 3 of Exhibit JRW-11, the average beta for the companies in Electric
2 Proxy Group is 0.70.

3 **Q. PLEASE DISCUSS THE ALTERNATIVE VIEWS REGARDING THE**
4 **EQUITY RISK PREMIUM.**

5 A. The equity or market risk premium - $(E(R_m) - R_f)$ - is equal to the expected
6 return on the stock market (e.g., the expected return on the S&P 500 $(E(R_m))$)
7 minus the risk-free rate of interest (R_f) . The equity premium is the difference
8 in the expected total return between investing in equities and investing in
9 “safe” fixed-income assets, such as long-term government bonds. However,
10 while the equity risk premium is easy to define conceptually, it is difficult to
11 measure because it requires an estimate of the expected return on the market.

12 **Q. PLEASE DISCUSS THE ALTERNATIVE APPROACHES TO**
13 **ESTIMATING THE EQUITY RISK PREMIUM.**

14 A. Page 4 of Exhibit JRW-11 highlights the primary approaches to, and issues in,
15 estimating the expected equity risk premium. The traditional way to measure
16 the equity risk premium was to use the difference between historical average
17 stock and bond returns. In this case, historical stock and bond returns, also
18 called ex post returns, were used as the measures of the market’s expected
19 return (known as the ex ante or forward-looking expected return). This type
20 of historical evaluation of stock and bond returns is often called the “Ibbotson
21 approach” after Professor Roger Ibbotson who popularized this method of
22 using historical financial market returns as measures of expected returns.

1 Most historical assessments of the equity risk premium suggest an equity risk
2 premium of 5-7 percent above the rate on long-term U.S. Treasury bonds.
3 However, this can be a problem because: (1) ex post returns are not the same
4 as ex ante expectations, (2) market risk premiums can change over time,
5 increasing when investors become more risk-averse and decreasing when
6 investors become less risk-averse, and (3) market conditions can change such
7 that ex post historical returns are poor estimates of ex ante expectations.

8 The use of historical returns as market expectations has been criticized
9 in numerous academic studies.¹⁰ The general theme of these studies is that the
10 large equity risk premium discovered in historical stock and bond returns
11 cannot be justified by the fundamental data. These studies, which fall under
12 the category “Ex Ante Models and Market Data,” compute ex ante expected
13 returns using market data to arrive at an expected equity risk premium. These
14 studies have also been called “Puzzle Research” after the famous study by
15 Mehra and Prescott in which the authors first questioned the magnitude of
16 historical equity risk premiums relative to fundamentals.¹¹

17 **Q. PLEASE PROVIDE A SUMMARY OF THE EQUITY RISK PREMIUM**
18 **STUDIES.**

19 A. Derrig and Orr (2003), Fernandez (2007), and Song (2007) have completed
20 the most comprehensive reviews to date of the research on the equity risk

¹⁰ The problems with using ex post historical returns as measures of ex ante expectations will be discussed at length later in my testimony.

¹¹ R. Mehra and Edward Prescott, “The Equity Premium: A Puzzle,” *Journal of Monetary Economics* (1985).

1 premium.¹² Derrig and Orr's study evaluated the various approaches to
2 estimating equity risk premiums as well as the issues with the alternative
3 approaches and summarized the findings of the published research on the
4 equity risk premium. Fernandez examined four alternative measures of the
5 equity risk premium – historical, expected, required, and implied. He also
6 reviewed the major studies of the equity risk premium and presented the
7 summary equity risk premium results. Song provides an annotated
8 bibliography and highlights the alternative approaches to estimating the equity
9 risk summary.

10 Page 5 of Exhibit JRW-11 provides a summary of the results of the
11 primary risk premium studies reviewed by Derrig and Orr, Fernandez, and
12 Song. In developing page 5 of Exhibit JRW-11, I have categorized the studies
13 as discussed on page 4 of Exhibit JRW-11. I have also included the results of
14 the “Building Blocks” approach to estimating the equity risk premium,
15 including a study I performed, which is presented below. The Building Blocks
16 approach is a hybrid approach employing elements of both historic and ex
17 ante models.

18 **Q. PLEASE DISCUSS YOUR DEVELOPMENT OF AN EQUITY RISK**
19 **PREMIUM COMPUTED USING THE BUILDING BLOCKS**
20 **METHODOLOGY.**

¹² Richard Derrig and Elisha Orr, “Equity Risk Premium: Expectations Great and Small,” Working Paper (version 3.0), Automobile Insurers Bureau of Massachusetts, (August 28, 2003), Pablo Fernandez, “Equity Premium: Historical, Expected, Required, and Implied,” IESE Business School Working Paper, (2007), and Zhiyi Song, “The Equity Risk Premium: An Annotated Bibliography,” CFA Institute, (2007).

1 A. Ibbotson and Chen (2003) evaluate the ex post historical mean stock and bond
2 returns in what is called the Building Blocks approach.¹³ They use 75 years of
3 data and relate the compounded historical returns to the different fundamental
4 variables employed by different researchers in building ex ante expected
5 equity risk premiums. Among the variables included were inflation, real EPS
6 and DPS growth, ROE and book value growth, and price-earnings (“P/E”)
7 ratios. By relating the fundamental factors to the ex post historical returns, the
8 methodology bridges the gap between the ex post and ex ante equity risk
9 premiums. Ilmanen (2003) illustrates this approach using the geometric
10 returns and five fundamental variables – inflation (“CPI”), dividend yield
11 (“D/P”), real earnings growth (“RG”), repricing gains (“PEGAIN”) and return
12 interaction/reinvestment (“INT”).¹⁴ This is shown on page 7 of Exhibit JRW-
13 11. The first column breaks the 1926-2000 geometric mean stock return of
14 10.7% into the different return components demanded by investors: the
15 historical U.S. Treasury bond return (5.2%), the excess equity return (5.2%),
16 and a small interaction term (0.3%). This 10.7% annual stock return over the
17 1926-2000 period can then be broken down into the following fundamental
18 elements: inflation (3.1%), dividend yield (4.3%), real earnings growth
19 (1.8%), repricing gains (1.3%) associated with higher P/E ratios, and a small
20 interaction term (0.2%).

¹³ Roger Ibbotson and Peng Chen, “Long Run Returns: Participating in the Real Economy,” *Financial Analysts Journal*, (January 2003).

¹⁴ Antti Ilmanen, Expected Returns on Stocks and Bonds,” *Journal of Portfolio Management*, (Winter 2003), p. 11.

1 **Q. HOW ARE YOU USING THIS METHODOLOGY TO DERIVE AN EX**
2 **ANTE EXPECTED EQUITY RISK PREMIUM?**

3 A. The third column in the graph on page 7 of Exhibit JRW-11 shows current
4 inputs to estimate an ex ante expected market return. These inputs include the
5 following:

6 CPI – To assess expected inflation, I have employed expectations of the short-
7 term and long-term inflation rate. Long term inflation forecasts are available
8 in the Federal Reserve Bank of Philadelphia’s publication entitled *Survey of*
9 *Professional Forecasters*.¹⁵ This survey of professional economists has been
10 published for almost 50 years. While this survey is published quarterly, only
11 the first quarter survey includes long-term forecasts of gross domestic product
12 (“GDP”) growth, inflation, and market returns. In the first quarter 2009
13 survey, published on February 13, 2009, the median long-term (10-year)
14 expected inflation rate as measured by the CPI was 2.4% (see page 8 of
15 Exhibit JRW-11).

16 The University of Michigan’s Survey Research Center surveys consumers on
17 their short-term (one-year) inflation expectations on a monthly basis. As
18 shown on page 9 of Exhibit JRW-11, the current short-term expected inflation
19 rate is 2.8%.

¹⁵Federal Reserve Bank of Philadelphia, *Survey of Professional Forecasters*, (February 13, 2009). The *Survey of Professional Forecasters* was formerly conducted by the American Statistical Association (“ASA”) and the National Bureau of Economic Research (“NBER”) and was known as the ASA/NBER survey. The survey, which began in 1968, is conducted each quarter. The Federal Reserve Bank of Philadelphia, in cooperation with the NBER, assumed responsibility for the survey in June 1990.

1 As a measure of expected inflation, I will use the average of the long-term
2 (2.4%) and short-term (2.8%) inflation rate measures, or 2.6%.

3
4 D/P – As shown on page 10 of Exhibit JRW-11, the dividend yield on the
5 S&P 500 has decreased gradually over the past decade. Today, it is below its
6 average of 4.3% over the 1926-2000 time period. The S&P dividend yield
7 bottomed out at less than 1.4% in 2000. Currently, as shown on page 10 of
8 Exhibit JRW-11, the S&P 500 dividend yield is 2.5%. I will use this figure in
9 my ex ante risk premium analysis.

10 RG – To measure expected real growth in earnings, I use the historical real
11 earnings growth rate for the S&P 500 and the expected real GDP growth. The
12 S&P 500 was created in 1960. It includes 500 companies which come from
13 ten different sectors of the economy. On page 11 of Exhibit JRW-11, real
14 EPS growth is computed using the CPI as a measure of inflation. The real
15 growth figure over 1960-2008 period for the S&P 500 is 2.3%.

16 The second input for expected real earnings growth is expected real
17 GDP growth. The rationale is that over the long-term, corporate profits have
18 averaged a relatively consistent 5.50% of U.S. GDP.¹⁶ Real GDP growth,
19 according to McKinsey, has averaged 3.5% over the past 80 years. Expected
20 GDP growth, according to the Federal Reserve Bank of Philadelphia's *Survey*
21 *of Professional Forecasters*, is 2.6% (see page 8 of Exhibit JRW-11).

¹⁶Marc. H. Goedhart, et al, "The Real Cost of Equity," *McKinsey on Finance* (Autumn 2002), p.14.

1 Given these results, I will use 2.50%, for real earnings growth.
2 PEGAIN – PEGAIN is the repricing gain associated with an increase in the
3 P/E ratio. It accounted for 1.3% of the 10.7% annual stock return in the
4 1926-2000 period. In estimating an ex ante expected stock market return, one
5 issue is whether investors expect P/E ratios to increase from their current
6 levels. The P/E ratios for the S&P 500 over the past 25 years are shown on
7 page 10 of Exhibit JRW-11. The run-up and eventual peak in P/Es in the year
8 2000 is very evident in the chart. The average P/E declined until late 2006,
9 and then increased, primarily due to the decline in EPS as a result of the
10 financial crisis and the recession. As shown on page 10 of Exhibit JRW-11,
11 the average P/E for the S&P 500 as of May 31, 2009 was 127.48.

12 Given the current economic and capital markets environment, I do not
13 believe that investors expect even higher P/E ratios. Therefore, a PEGAIN
14 would not be appropriate in estimating an ex ante expected stock market
15 return. The current P/E for the S&P 500 is well above the average historical
16 S&P 500 P/E ratio of approximately 16.0. Hence, investors are not likely to
17 expect to get stock market gains from lower interest rates and higher P/E
18 ratios.

19
20 **Q. GIVEN THIS DISCUSSION, WHAT IS YOUR EX ANTE EXPECTED**
21 **MARKET RETURN AND EQUITY RISK PREMIUM USING THE**
22 **“BUILDING BLOCKS METHODOLOGY”?**

1 A. My expected market return is represented by the last column on the right in
2 the graph entitled “Decomposing Equity Market Returns: The Building
3 Blocks Methodology” set forth on page 7 of Exhibit JRW-11. As shown, my
4 expected market return of 7.60% is composed of 2.60% expected inflation,
5 2.50% dividend yield, and 2.50% real earnings growth rate.

6 **Q. GIVEN THAT THE HISTORICAL COMPOUNDED ANNUAL**
7 **MARKET RETURN IS IN EXCESS OF 10%, WHY DO YOU BELIEVE**
8 **THAT YOUR EXPECTED MARKET RETURN OF 7.60% IS**
9 **REASONABLE?**

10 A. As discussed above, in the development of the expected market return, stock
11 prices are still high at the present time in relation to earnings and dividends,
12 and interest rates are relatively low. Hence, it is unlikely that investors are
13 going to experience high stock market returns due to higher P/E ratios and/or
14 lower interest rates. In addition, as shown in the decomposition of equity
15 market returns, whereas the dividend portion of the return was historically
16 4.3%, the current dividend yield is only 2.5%. Due to these reasons, lower
17 market returns are expected for the future.

18 **Q. IS YOUR EXPECTED MARKET RETURN OF 7.60% CONSISTENT**
19 **WITH THE FORECASTS OF MARKET PROFESSIONALS?**

20 A. Yes. In the first quarter 2009 *Survey of Financial Forecasters*, published on
21 February 13, 2009 by the Federal Reserve Bank of Philadelphia, the mean

1 long-term expected return on the S&P 500 was 6.62% (see page 8 of Exhibit
2 JRW-11).

3
4 **Q. IS YOUR EXPECTED MARKET RETURN CONSISTENT WITH THE**
5 **EXPECTED MARKET RETURNS OF CORPORATE CHIEF**
6 **FINANCIAL OFFICERS (CFOs)?**

7 A. Yes. John Graham and Campbell Harvey of Duke University conduct a
8 quarterly survey of corporate CFOs. The survey is a joint project of Duke
9 University and *CFO Magazine*. In the June 2009 survey, the mean expected
10 return on the S&P 500 over the next ten years was 7.31%.¹⁷

11 **Q. GIVEN THIS EXPECTED MARKET RETURN, WHAT IS YOUR EX**
12 **ANTE EQUITY RISK PREMIUM USING THE BUILDING BLOCKS**
13 **METHODOLOGY?**

14 A. As shown on page 2 of Exhibit JRW-11, the current 30-year U.S. Treasury
15 yield is 4.38%. My ex ante equity risk premium is simply the expected
16 market return from the Building Blocks methodology minus this risk-free rate:

17
18 Ex Ante Equity Risk Premium = 7.60% - 4.38% = 3.22%

19
20 **Q. GIVEN THIS DISCUSSION, HOW ARE YOU MEASURING AN**
21 **EXPECTED EQUITY RISK PREMIUM IN THIS PROCEEDING?**

¹⁷ The survey results are available at www.cfosurvey.org.

1 A. As discussed above, page 5 of Exhibit JRW-11 provides a summary of the
2 results of the equity risk premium studies that I have reviewed. These include
3 the results of: (1) the various studies of the historical risk premium, (2) ex ante
4 equity risk premium studies, (3) equity risk premium surveys of CFOs,
5 Financial Forecasters, and academics, and (4) the Building Block approaches
6 to the equity risk premium. There are results reported for over thirty studies,
7 and the average equity risk premium is 4.36%.

8 **Q. SOME OF THE EQUITY RISK PREMIUM STUDIES THAT YOU USE**
9 **IN YOUR EQUITY RISK PREMIUM STUDY DATE BACK INTO THE**
10 **EARLY 2000S. IF YOU ELIMINATE THE OLDER STUDIES, HOW**
11 **DOES THAT AFFECT YOUR EQUITY RISK PREMIUM?**

12 A. In developing my equity risk premium study, I have used all equity risk
13 premium studies and surveys I could identify that were published over the past
14 decade and that provided an equity risk premium estimate. Since some of
15 these studies were published in the early 2000s at the market peak, one could
16 argue that these results are not as relevant today. However, I must add that
17 most of these studies used data over long periods of time (as long as fifty
18 years of data) and so they were not estimating an equity risk premium as of a
19 point in time (e.g., the year 2001). Nonetheless, to assess as to whether the
20 studies published in the early 2000s significantly affect my equity risk
21 premium results, on page 6 of Exhibit JRW-11 I have reconstructed page 5 of
22 Exhibit JRW-11, but I have eliminated all studies published before 2005.

1 The average for this subset of studies is 4.35%. Therefore, eliminating the
2 earlier studies does not have a significant impact on my equity risk premium
3 estimate.

4 **Q. IS YOUR EX ANTE EQUITY RISK PREMIUM CONSISTENT WITH**
5 **THE EQUITY RISK PREMIUMS USED BY CFOS?**

6 A. Yes. In the previously referenced June 2009 CFO survey conducted by *CFO*
7 *Magazine* and Duke University, the expected 10-year equity risk premium
8 was 4.11%.

9 **Q. IS YOUR EX ANTE EQUITY RISK PREMIUM CONSISTENT WITH**
10 **THE EX ANTE EQUITY RISK PREMIUMS OF PROFESSIONAL**
11 **FORECASTERS?**

12 A. Yes. The financial forecasters in the previously referenced Federal Reserve
13 Bank of Philadelphia survey project both stock and bond returns. As shown
14 on page 8 of Exhibit JRW-11, the mean long-term expected stock and bond
15 returns were 6.62% and 4.68%, respectively. This provides an ex ante equity
16 risk premium of 1.94%.

17 **Q. IS YOUR EX ANTE EQUITY RISK PREMIUM CONSISTENT WITH**
18 **THE EQUITY RISK PREMIUMS USED BY THE LEADING**
19 **CONSULTING FIRMS?**

20 A. Yes. McKinsey & Co. is widely recognized as the leading management
21 consulting firm in the world. It published a study entitled "The Real Cost of

1 Equity” in which the McKinsey authors developed an ex ante equity risk
2 premium for the U.S. In reference to the decline in the equity risk premium,
3 as well as what is the appropriate equity risk premium to employ for corporate
4 valuation purposes, the McKinsey authors concluded the following:

5 We attribute this decline not to equities becoming less
6 risky (the inflation-adjusted cost of equity has not
7 changed) but to investors demanding higher returns in
8 real terms on government bonds after the inflation
9 shocks of the late 1970s and early 1980s. We believe
10 that using an equity risk premium of 3.5 to 4 percent in
11 the current environment better reflects the true long-
12 term opportunity cost of equity capital and hence will
13 yield more accurate valuations for companies.¹⁸

14 **Q. HAS MCKINSEY RECENTLY REAFFIRMED ITS OPINION ON THE**
15 **EQUITY RISK PREMIUM IN LIGHT OF THE FINANCIAL**
16 **TURMOIL OF THE LAST TWO YEARS?**

17 A. Yes. As previously discussed, McKinsey has recently published a study in
18 which they reaffirm their estimate of the equity risk premium in light of the
19 financial turmoil of the past two years.¹⁹

20 **Q. WHAT EQUITY COST RATES ARE INDICATED BY YOUR CAPM**
21 **ANALYSIS?**

22 A. The results of my CAPM study for the proxy group are provided below.
23

¹⁸ Marc H. Goedhart, et al, “The Real Cost of Equity,” *McKinsey on Finance* (Autumn 2002), p. 15.

¹⁹ Richard Dobbs, Bin Jang, and Timothy Koeller, “Why the Crisis Hasn’t Shaken the Cost of Capital,” *McKinsey Quarterly* (December 2008), p. 1-6.

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$$K = (R_f) + B * [E(R_m) - (R_f)]$$

	Risk-Free Rate	Beta	Equity Risk Premium	Equity Cost Rate
Electric Proxy Group	4.75%	0.70	4.36%	7.6%

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These results are summarized on page 1 of Exhibit JRW-11.

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D. Equity Cost Rate Summary

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Q. PLEASE SUMMARIZE YOUR EQUITY COST RATE STUDY.

6

A. The results for my DCF and CAPM analyses for the proxy group of electric utility companies are indicated below:

7

	DCF	CAPM
Electric Proxy Group	10.3%	7.6%

8

Q. GIVEN THESE RESULTS, WHAT IS YOUR ESTIMATED EQUITY COST RATE FOR THE GROUP?

9

10

A. Given these results, I conclude that the appropriate equity cost rate for Electric Proxy Group in the 7.6%-10.3% range. The midpoint of this range is 9.0%. In my opinion, this wide range reflects the uncertainty and volatility in today's capital markets. In recognition of this uncertainty and volatility, I believe that an equity cost rate in the upper end of this range is appropriate at this time. Therefore, in my opinion, the relevant range is 9.50% to 10.25%. Within this range, and recognizing the relative low financial risk of FP&L, I believe that an equity cost rate of 9.50% is an appropriate equity cost rate for FP&L.

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VI. CRITIQUE OF FP&L'S RATE OF RETURN TESTIMONY

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Q. PLEASE EVALUATE THE COMPANY'S RATE OF RETURN POSITION.

A. The Company's proposed rate of return is inflated due to an inappropriate capital structure and overstated debt and equity cost rates. The debt cost rate was previously discussed. I will now discuss the errors in the proposed capital structure and with Dr. Avera's equity cost rate analysis.

A. Capital Structure

Q. WHAT IS THE COMPANY'S PROPOSED CAPITAL STRUCTURE?

A. The Company's claimed recommended capital structure, based on investor provided capital, includes 1.10% short-term debt, 43.11% long-term debt, and a 55.76% common equity. However, this capital structure includes \$950 million in imputed debt. This is not actual debt, and its does not appear on the Company's financial statements provided by the Company to investors. FP&L's recommended capital structure, based on investor provided capital and without the imputed debt, actually consists of 1.18% short-term debt, 39.20% long-term debt, a 59.62% common equity.

Q. WHY IS THE COMPANY'S PROPOSED CAPITAL STRUCTURE NOT APPROPRIATE FOR FP&L FOR RATEMAKING PURPOSES?

A. This capital structure is not appropriate for ratemaking purposes for FP&L for several reasons: (1) the capital structure includes an actual common equity

1 ratio (59.62%) which is much higher than the common equity ratios of electric
2 utility companies; (2) the company has included imputed debt in its adjusted
3 capital structure to make it appear that it is requesting a capital structure with
4 a common equity ratio of 55.76%; and (3) the Company's recommended
5 capital structure includes more common equity than is projected for the
6 Company.

7 **Q. PLEASE HIGHLIGHT THE DIFFERENCE IN THE CAPITAL**
8 **STRUCTURES OF FP&L AND ITS PARENT COMPANY, FPL**
9 **GROUP.**

10 A. Panels C and D of Exhibit JRW-5 shows the average capitalization ratios for
11 FP&L and FPL Group, respectively over the past five years. These ratios
12 highlight the fact that FPL Group employs much more debt and much less
13 equity than FP&L. Hence, FPL Group has a much higher degree of financial
14 risk than FP&L.

15 **Q. PLEASE DISCUSS THE CAPITAL STRUCTURE RATIOS OF YOUR**
16 **ELECTRIC PROXY GROUP.**

17 A. The average capitalization ratios for my Electric Proxy Group are 8.50%
18 short-term debt, 50.59% long-term debt, 0.88% preferred stock, and a 40.03%
19 common equity. These ratios indicate that FP&L has a much higher common
20 equity ratio than other electric utilities as indicated by the Electric Proxy
21 Group.

1 **Q. ARE THE CAPITAL STRUCTURE RATIOS OF DR. AVERA'S**
2 **PROXY GROUP SIMILAR TO THOSE OF FP&L?**

3 A. No. As discussed below, the average common equity ratio for the Dr. Avera's
4 proxy group is ten percentage points below FP&L's 2008 year-end common
5 equity ratio (47% vs. 57%).

6 **Q. PLEASE SUMMARIZE YOUR ISSUES WITH THE CAPITAL**
7 **STRUCTURE RECOMMENDED BY FP&L.**

8 A. First, FP&L's proposed capital structure ratios do not reflect the actual
9 capitalization of FP&L or FPL Group. Second, FP&L's proposed capital
10 structure ratios do not reflect the capitalization of electric utility companies.
11 Third, FP&L's proposed capital structure is not based on the company book
12 figures but reflects a number of adjustments, most notably imputed debt.

13
14 **Q. PLEASE REVIEW THE COMPANY'S ADJUSTED CAPITAL**
15 **STRUCTURE THAT INCLUDES IMPUTED DEBT.**

16 A. To make the Company's recommended capital structure appear more reasonable,
17 FP&L has imputed \$950 million in debt and included it in its "adjusted capital
18 structure." This is shown in Exhibit AP-7, page 1. Mr. Pimentel has increased
19 FP&L's debt by \$950 million to account for the Company's Purchased Power
20 Agreements ("PPAs"). The \$950 million is computed by multiplying a risk
21 factor of 25% to the present value of the Company's capacity contracts. In
22 computing credit rating metrics, S&P applies such a risk factor ranging from 0%
23 to 100% which is intended to reflect the risk of recovery of the PPA payments.

1 However, S&P does not indicate how the risk factor that ranges from 0% to
2 100% is determined. Given a recovery mechanism for PPA payments, the
3 financial condition of an electric utility company is not impaired by entering into
4 these contracts. Hence, providing incremental revenues through a higher equity
5 ratio and a higher overall rate of return is unnecessary and would result in an
6 unwarranted revenue benefit to the utility. I have identified several flaws in the
7 adjustment.

8
9 Risk Factor

10 Given the methodology for imputing debt from PPAs, the risk factor is
11 extremely important. FP&L has presumed that a risk factor of 25% is
12 appropriate for the Company. However, S&P does not indicate how the risk
13 factor that ranges from 0% to 100% is determined. Hence, the S&P risk factor
14 for imputing debt is not well defined and cannot be assessed in this situation.
15 Given the Commission's support for the collection of long-term contractual
16 payments, the risk of non-recovery appears to be extremely low (perhaps even
17 zero percent). Hence, a risk factor as high as 25% seems out of line. But, given
18 the lack of guidance from S&P, it is impossible to properly assess the risk factor
19 in this situation.

20 In addition, as opposed to S&P, Moody's appears to recognize some of
21 the benefits of PPAs and looks at them in a more positive manner. For example,
22 Moody's states:²⁰

²⁰ Moody's Rating Methodology: Global Regulated Electric Utilities, March 2005, page 10.

1 “If a utility enters into a PPA for the purpose of providing an assured
2 supply and there is reasonable assurance that regulators will allow the
3 costs to be recovered in regulated rates, Moody’s may view the PPA as
4 being most akin to an operating cost. In this circumstance, there most
5 likely will be no imputed adjustment to the obligations of the utility.”
6

7 In other words, under this scenario Moody’s would rate the risk factor at 0% and
8 there would be no imputed debt.
9

10 S&P Adjustments are Not GAAP Accounting

11 Even if debt were imputed by S&P from a PPA (assuming a risk factor greater
12 than 0%), no changes would be made to the company’s GAAP financial
13 statements. Hence, investors would not see the impact of S&P’s adjustment. In
14 addition, the Company does not incur a liability on its GAAP-based financial
15 statements for the PPAs. Furthermore, given a regulatory-mandated recovery
16 method for the payments, investors should be indifferent to a utility entering into
17 a PPA.
18

19 From a Regulatory Perspective, PPA Payments are Unlike Debt

20 In a regulatory setting, a utility is given the ‘opportunity to earn’ its cost of debt
21 as well as its overall cost of capital through the ratemaking process. Given the
22 many uncertainties associated with revenues and expenses between rate cases,
23 there is no guarantee that the overall cost of debt can be earned. However, with
24 long-term PPAs, the timely and certain recovery of fixed payments is assured.
25 That is, PPA costs do not feature the uncertainty associated with the ‘opportunity

1 to earn' as do debt payments. In sum, given S&P's lack of guidance on the risk
2 factor, the Commission's support for the collection of payments for PPAs, the
3 notion that these are not GAAP adjustments that are not recorded as liabilities on
4 the books of the company, and the fact that, from a regulatory perspective, PPA
5 payments are unlike debt, the PPA adjustment to the Company's capital
6 structure is inappropriate.

7
8 **B. Equity Cost Rate**

9
10 **Q. PLEASE REVIEW DR. AVERA'S EQUITY COST RATE**
11 **APPROACHES.**

12 A. Dr. Avera uses a proxy group of electric companies as well as a proxy group of
13 non-utility companies and employs DCF, CAPM, and Expected Earnings equity
14 cost rate approaches.

15
16 **Q. PLEASE SUMMARIZE DR. AVERA'S EQUITY COST RATE**
17 **RESULTS.**

18 A. Dr. Avera's equity cost rate estimates for FP&L are summarized in Panel A of
19 Exhibit JRW-12. Based on these figures, he concludes that the appropriate
20 equity cost rate for the Company is in the range of 12.0% to 13.0%%.

21
22 **Q. PLEASE DISCUSS YOUR ISSUES WITH DR. AVERA'S**
23 **RECOMMENDED EQUITY COST RATE.**

1 A. Dr. Avera's proposed return on common equity is too high primarily due to: (a)
2 some of the companies in his utility proxy group, as well as his use of a non-
3 utility proxy group; (b) an excessive adjustment to the dividend yield and an
4 inflated growth rate in his DCF approach; (c) overstated equity risk premium
5 estimates in his CAPM approach; (d) an ROE adjustment for flotation costs; and
6 (e) a flawed Expected Earnings approach.

7
8 Proxy Groups

9
10 **Q. PLEASE DISCUSS THE PROBLEM WITH DR. AVERA'S UTILITY**
11 **PROXY GROUP.**

12 A. Dr. Avera's utility proxy group includes a number of companies that are not
13 appropriate because their operating revenues are from sources other than
14 regulated electric utility services. Page 1 of Exhibit JRW-13 provides summary
15 financial and capitalization statistics for Dr. Avera's utility proxy group. The
16 average percentage of revenues from regulated electric utility service is only
17 62%. In addition, several companies are outliers on this issue. These companies,
18 and their percentages of regulated electric revenues, include: Integrys- 10%,
19 MDU Resources - 4%, and Vectren - 22%. In addition, the average bond rating
20 indicates that the group has more risk than FP&L. The average Moody's bond
21 rating is A2, while FP&L's bond rating is A1. However, the big issue is the
22 common equity ratio. The average common equity ratio for the group is 47%, a
23 full ten percentage points below FP&L's 57% common equity ratio.

1 **Q. PLEASE DISCUSS THE PROBLEM WITH DR. AVERA'S NON-**
2 **UTILITY PROXY GROUP.**

3 A. Dr. Avera has estimated an equity cost rate for FP&L using a proxy group of 66
4 non-utility companies. These companies are listed in Exhibit WEA-9. This
5 group includes such companies as Abbott Labs, Coca-Cola, General Mills,
6 Hewlett Packard, IBM, Johnson & Johnson, McDonald's, Medtronic, Microsoft,
7 and NIKE. While many of these companies are large and successful, their lines
8 of business are vastly different from the electric utility business and they do not
9 operate in a highly regulated environment. As such, the non-utility group is not
10 an appropriate proxy for FP&L, and therefore the equity cost rate results for this
11 group should be ignored.

12
13 DCF Approach

14
15 **Q. PLEASE SUMMARIZE DR. AVERA'S DCF ESTIMATES.**

16 A. On pages 42-56 of his testimony and in Exhibits WEA-7 – WEA-10, Dr. Avera
17 develops an equity cost rate by applying a DCF model to his utility and non-
18 utility proxy groups. In the traditional DCF approach, the equity cost rate is the
19 sum of the dividend yield and expected growth. For the DCF growth rate, Dr.
20 Avera uses four measures of projected EPS growth – the projected EPS growth
21 of Wall Street analysts as compiled by Thompson and Zack's, *Value Line*
22 projected EPS growth, and the sum of internal ("br") and external ("sv") growth.
23 Dr. Avera's DCF results are summarized in Panel B of Exhibit JRW-12. The

1 range of DCF results for his utility proxy group is 10.6%-11.5% and for his non-
2 utility proxy group is 12.9%-13.4%.

3
4 **Q. PLEASE EXPRESS YOUR CONCERNS WITH DR. AVERA'S DCF**
5 **STUDY.**

6 A. I have several issues with Dr. Avera's DCF equity cost rate. These are the utility
7 and non-utility proxy groups, and the DCF growth rate measures. The errors in
8 the proxy groups were discussed above. The DCF growth rate measures are
9 reviewed below.

10
11 **Q. PLEASE CRITIQUE DR. AVERA'S DCF GROWTH RATE MEASURES.**

12
13 A. Dr. Avera employs four different DCF growth rate measures - the projected
14 EPS growth of Wall Street analysts as compiled by IBES, First Call, and Zack's
15 in addition to *Value Line* projected EPS growth, and a sustainable growth rate as
16 measured by the sum of internal ("br") and external ("sv") growth.

17
18 **Q. PLEASE INITIALLY DISCUSS DR. AVERA'S EXCLUSIVE**
19 **RELIANCE ON THE PROJECTED EPS GROWTH RATES OF WALL**
20 **STREET ANALYSTS AND VALUE LINE.**

21 A. It seems highly unlikely that investors today would rely exclusively on the
22 forecasts of securities analysts and ignore historical growth in arriving at
23 expected growth. It is well known in the academic world that the EPS
24 forecasts of securities analysts are overly optimistic and biased upwards. In

1 addition, as I show below, *Value Line*'s EPS forecasts are excessive and
2 unrealistic.

3
4 **Q. PLEASE REVIEW THE BIAS IN ANALYSTS' GROWTH RATE**
5 **FORECASTS.**

6 A. Analysts' growth rate forecasts are collected and published by Zacks, First Call,
7 IBES, and Reuters. These services retrieve and compile EPS forecasts from
8 Wall Street analysts. These analysts come from both the sell side (Merrill Lynch,
9 Paine Webber) and the buy side (Prudential Insurance, Fidelity).

10 The problem with using these forecasts to estimate a DCF growth rate
11 is that the objectivity of Wall Street research has been challenged, and many
12 have argued that analysts' EPS forecasts are overly optimistic and biased
13 upwards. To evaluate the accuracy of analysts' EPS forecasts, I have
14 compared actual 3-5 year EPS growth rates with forecasted EPS growth rates
15 on a quarterly basis over the past 20 years for all companies covered by the
16 I/B/E/S data base. In Panel A of page 1 of Exhibit JRW-14, I show the
17 average analysts' forecasted 3-5 year EPS growth rate with the average actual
18 3-5 year EPS growth rate. Because of the necessary 3-5 year follow-up period
19 to measure actual growth, the analysis in this graph only: (1) covers forecasted
20 and actual EPS growth rates through 1999 and (2) includes only companies
21 that have 3-5 years of actual EPS data following the forecast period.

22 The following example shows how the results can be interpreted. For
23 the 3-5-year period prior to the first quarter of 1999, analysts had projected an

1 EPS growth rate of 15.13%, but companies only generated an average annual
2 EPS growth rate over the 3-5 years of 9.37%. This projected EPS growth rate
3 figure represented the average projected growth rate for over 1,510
4 companies, with an average of 4.88 analysts' forecasts per company. For the
5 entire twenty-year period of the study, for each quarter there were on average
6 5.60 analysts' EPS projections for 1,281 companies. Overall, my findings
7 indicate that forecast errors for long-term estimates are predominantly
8 positive, which indicates an upward bias in growth rate estimates. The mean
9 and median forecast errors over the observation period are 143.06% and
10 75.08%, respectively. The forecast errors are negative for only eleven of the
11 eighty quarterly time periods: five consecutive quarters starting at the end of
12 1995 and six consecutive quarters starting in 2006. As shown in the figure
13 below, the quarters with negative forecast errors were for the 3-5 year periods
14 following earnings declines associated with the 1991 and 2001 economic
15 recessions in the U.S. Overall, there is evidence of a persistent upward bias in
16 long-term EPS growth forecasts.

17 The post-1999 period has seen the boom and then the bust in the stock
18 market, an economic recession, 9/11, and the Iraq war. Furthermore, and
19 highly significant in the context of this study, we have also had the New York
20 State investigation of Wall Street firms and the subsequent Global Securities
21 Settlement in which nine major brokerage firms paid a fine of \$1.5B for their
22 biased investment research.

23 To evaluate the impact of these events on analysts' forecasts, the graph

1 below provides the average 3-5-year EPS growth rate projections for all
2 companies provided in the I/B/E/S database on a quarterly basis from 1988 to
3 2007. In Panel B of page 1 of Exhibit JRW-14, no comparison is made to
4 actual EPS growth rates. Hence, these results are for a larger sample of firms
5 since companies do not drop out from the database due to mergers,
6 acquisitions, bankruptcies, and the like. Analysts' forecasts for EPS growth
7 were higher for this larger sample of firms, with a more pronounced run-up
8 and then decline around the stock market peak in 2000. The average projected
9 growth rate hovered in the 14.5%-17.5% range until 1995 and then increased
10 dramatically over the next five years to 23.3% in the fourth quarter of the year
11 2000. Forecasted EPS growth has since declined to the 15.0% range.

12
13 **Q. WHAT IMPACT HAVE NEW STOCK MARKET AND REGULATORY**
14 **DEVELOPMENTS HAD ON ANALYSTS' EPS GROWTH RATE**
15 **FORECASTS?**

16 A. Analysts' EPS growth rate forecasts have subsided somewhat since the stock
17 market peak of 2000. In addition, the apparent conflict of interest within
18 investment firms with investment banking and analysts operations was
19 addressed in the Global Analysts Research Settlements ("GARS"). GARS, as
20 agreed upon on April 23, 2003 between the SEC, NASD, NYSE and ten of the
21 largest U.S. investment firms, includes a number of regulations that were
22 introduced to prevent investment bankers from pressuring analysts to provide
23 favorable projections. Nonetheless, despite the new regulations, analysts'

1 EPS growth rate forecasts have not significantly changed and continue to be
2 overly-optimistic. Analysts' long-term EPS growth rate forecasts before and
3 after the GARS, are about two times the level of historic GDP growth.
4 Furthermore, as discussed later in my testimony, historic growth in GDP and
5 corporate earnings has been in the 7% range.

6 Finally, these observations are supported by a *Wall Street Journal*
7 article entitled "Analysts Still Coming Up Rosy – Over-Optimism on Growth
8 Rates is Rampant – and the Estimates Help to Buoy the Market's Valuation."
9 The following quote provides insight into the continuing bias in analysts'
10 forecasts:

11 Hope springs eternal, says Mark Donovan, who
12 manages Boston Partners Large Cap Value Fund. "You
13 would have thought that, given what happened in the
14 last three years, people would have given up the ghost.
15 But in large measure they have not."

16 These overly optimistic growth estimates also show
17 that, even with all the regulatory focus on too-bullish
18 analysts allegedly influenced by their firms' investment-
19 banking relationships, a lot of things haven't changed:
20 Research remains rosy and many believe it always
21 will.²¹

22
23 **Q. IS THE BIAS IN ANALYSTS' GROWTH RATE FORECASTS**
24 **GENERALLY KNOWN IN THE MARKETS?**

²¹ Ken Brown, "Analysts Still Coming Up Rosy – Over-Optimism on Growth Rates is Rampant – and the Estimates Help to Buoy the Market's Valuation." *Wall Street Journal*, (January 27, 2003), p. C1.

1 A. Yes. Page 2 of Exhibit JRW-14 provides a recent article published in the *Wall*
2 *Street Journal* that discusses the upward bias in analysts' EPS growth rate
3 forecasts.

4 **Q. ARE ANALYSTS' EPS GROWTH RATE FORECASTS LIKEWISE**
5 **UPWARDLY BIASED FOR ELECTRIC UTILITY COMPANIES?**

6 A. Yes. To evaluate whether analysts' EPS growth rate forecasts are upwardly
7 biased for electric utility companies, I conducted a study similar to the one
8 described above using a group of electric utility companies. The results are
9 shown on page 3 of Exhibit JRW-14. The projected EPS growth rates have
10 declined from about six percent in the 1990s to about five percent in the
11 2000s. As shown, the achieved EPS growth rates have been volatile. Overall,
12 the upward bias in EPS growth rate projections is not as pronounced for
13 electric utility companies it is for all companies. Over the entire period, the
14 average quarterly 3-5 year projected and actual EPS growth rates are 4.59%
15 and 2.90%, respectively. These results are consistent with the results for
16 companies in general -- analysts' projected EPS growth rate forecasts are
17 upwardly-biased for utility companies.

18

19 **Q. ARE VALUE LINE'S GROWTH RATE FORECASTS SIMILARLY**
20 **UPWARDLY BIASED?**

21 A. Yes. *Value Line* has a decidedly positive bias to its earnings growth rate
22 forecasts as well. To assess *Value Line*'s earnings growth rate forecasts, I used

1 the *Value Line Investment Analyzer*. The results are summarized on page 4 of
2 Exhibit JRW-14. I initially filtered the database and found that *Value Line* has
3 3-5 year EPS growth rate forecasts for 2,619 firms. As shown in Panel A, The
4 average projected EPS growth rate was 13.28%. This is high given that the
5 average historical EPS growth rate in the U.S. is about 7%. A major factor
6 seems to be that *Value Line* only predicts negative EPS growth for 123
7 companies. This is less than five percent of the companies covered by *Value*
8 *Line*. Given the ups and downs of corporate earnings, this is unreasonable.

9 To put this figure in perspective, I screened the *Value Line* companies to
10 see what percent of companies covered by *Value Line* had experienced negative
11 EPS growth rates over the past five years. As shown in Panel B, *Value Line*
12 reported a five-year historic growth rate for 2,281 companies and the average 5-
13 year historic growth rate was 14.12%. *Value Line* reported negative historic
14 growth for 421 firms, which represent 18.46% of these companies.

15 These results indicate that *Value Line*'s EPS forecasts are excessive and
16 unrealistic. It appears that the analysts at *Value Line* are similar to their Wall
17 Street brethren in that they are reluctant to forecast negative earnings growth.

18
19 **Q. PLEASE DISCUSS THE ISSUE INVOLVING DR. AVERA'S**
20 **SUSTAINABLE GROWTH ANALYSIS.**

21 A. Dr. Avera's sustainable growth rate analysis, as found in Exhibit WEA-7 for
22 the utility proxy group, indicates an average growth rate for the group of 5.7%
23 (column F of WEA-3). The primary error with his approach is that his

1 sustainable growth rate figure of 5.7% is higher than the average *Value Line*'s
2 projected BVPS growth rate, which is only 4.9% (see page 5 of Exhibit JRW-
3 14). This suggests that his methodology is flawed, in that it produces higher
4 sustainable growth rates (using *Value Line* data) than the sustainable growth
5 that *Value Line* actually is forecasting.

6
7 **Q. PLEASE SUMMARIZE YOUR ASSESSMENT OF DR. AVERA'S DCF**
8 **GROWTH RATE.**

9 A. Dr. Avera's DCF equity cost rate is overstated because he has relied so
10 heavily on the upwardly biased EPS growth rate forecasts of Wall Street analysts
11 and *Value Line*. In addition, his sustainable growth rate methodology is flawed,
12 since it produces higher sustainable growth rates (using *Value Line* data) than
13 the sustainable growth that *Value Line* actually is forecasting.

14
15 CAPM Analysis

16
17 **Q. PLEASE DISCUSS DR. AVERA'S CAPM.**

18 A. On pages 56 to 61 and Exhibits WEA-11 and WEA-12, Dr. Avera applies the
19 CAPM method to his utility and non-utility proxy groups. His results are
20 summarized in Panel C of Exhibit JRW-12.

21
22 **Q. WHAT ARE THE ERRORS IN DR. AVERA'S CAPM ANALYSIS?**

23 A. There are two flaws with Dr. Avera's CAPM analysis: (1) his use of the non-

1 utility proxy group; and (2) his equity risk premium of 10.0%.

2
3 **Q. PLEASE DISCUSS DR. AVERA'S NON-UTILITY PROXY GROUP.**

4
5 A. As noted above, Dr. Avera's non-utility proxy group is not an appropriate group
6 to estimate an equity cost rate for FP&L. In the application of the CAPM, the
7 average beta for the non-utility group (0.83) is somewhat above that of the
8 average for the utility proxy group (0.73).

9
10 **Q. PLEASE REVIEW DR. AVERA'S EQUITY OR MARKET RISK**
11 **PREMIUM IN HIS CAPM APPROACH.**

12 A. The primary problem with Dr. Avera's CAPM analysis is the size of the market
13 or equity risk premium. Dr. Avera develops an expected market risk premium of
14 10.0% by: (1) applying the DCF model to the S&P 500 to get an expected
15 market return; and (2) subtracting the risk-free rate of interest. Dr. Avera's
16 estimated market return of 13.2% for the S&P 500 equals the sum of the
17 dividend yield of 3.4% and expected EPS growth rate of 9.6%. The expected
18 EPS growth rate is the average of the expected EPS growth rates from IBES,
19 First Call, Zacks, and *Value Line*. The primary error in this approach is his
20 expected DCF growth rate. As previously discussed, the expected EPS
21 growth rates of Wall Street analysts and *Value Line* are upwardly biased.
22 Therefore, as explained below, this produces an overstated expected market
23 return and equity risk premium.

1 **Q. BEYOND YOUR PREVIOUS DISCUSSION OF THE UPWARD BIAS**
2 **IN WALL STREET ANALYSTS' AND *VALUE LINE*'S EPS GROWTH**
3 **RATE FORECASTS, WHAT OTHER EVIDENCE CAN YOU**
4 **PROVIDE THAT THE DR. AVERA'S S&P 500 GROWTH RATE IS**
5 **EXCESSIVE?**

6 A. A long-term EPS growth rate of 9.6% is inconsistent with economic and
7 earnings growth in the U.S. The long-term economic and earnings growth
8 rate in the U.S. has been only about 7%. I have performed a study of the
9 growth in nominal GDP, S&P 500 stock price appreciation, and S&P 500 EPS
10 and DPS growth since 1960. The results are provided on page 1 of Exhibit
11 JRW-15, and a summary is given in the table below.

12 **GDP, S&P 500 Stock Price, EPS, and DPS Growth**
13 **1960-Present**

Nominal GDP	7.20%
S&P 500 Stock Price Appreciation	5.88%
S&P 500 EPS	6.56%
S&P 500 DPS	5.68%
Average	6.33%

14
15 These results offer compelling evidence that a long-run growth rate of in the
16 6%-7% is appropriate for companies in the U.S. By comparison, Dr. Avera's
17 long-run growth rate projection of 9.6% is clearly not realistic. These
18 estimates suggest that companies in the U.S. would be expected to: (1)
19 increase their growth rate of EPS by 50% in the future and (2) maintain that
20 growth indefinitely in an economy that is expected to grow at about one half

1 his projected growth rates. Such a scenario is not economically feasible or
2 reasonable.

3
4 **Q. PLEASE PROVIDE A SUMMARY ASSESSMENT OF DR. AVERA'S**
5 **EQUITY RISK PREMIUM OF 10.0% DERIVED USING AN**
6 **EXPECTED MARKET RETURN OF 13.2%.**

7 A. Dr. Avera's equity risk premium derived from an expected market return of
8 13.2% is inflated and does not reflect current market fundamentals or
9 prospective economic and earnings growth. As previously discussed, at the
10 present time stock prices (relative to earnings and dividends) are high while
11 interest rates are low. Major stock market upswings that produce above
12 average returns tend to occur when stock prices are low and interest rates are
13 high. Thus, current market conditions do not suggest above-average expected
14 market return. Consistent with this observation, the financial forecasters in the
15 Federal Reserve Bank of Philadelphia survey expect a market return of 6.80%
16 over the next ten years. In addition, the *CFO Magazine* – Duke University
17 Survey of over 500 CFOs published in June of 2009 shows an expected return
18 on the S&P 500 of 7.31% over the next ten years.

19
20 **Q. TO CONCLUDE THIS DISCUSSION, PLEASE SUMMARIZE DR.**
21 **AVERA'S MARKET RISK PREMIUM AND CAPM RESULTS IN**
22 **LIGHT OF THE EVIDENCE ON RISK PREMIUMS IN TODAY'S**
23 **MARKETS.**

1 A. Dr. Avera's market risk premium of 10.0% is well in excess of the equity risk
2 premium estimates discovered in recent academic studies by leading finance
3 scholars and is especially out of touch with the real world of finance.
4 Investment banks, consulting firms, and CFOs use the equity risk premium
5 concept every day in making financing, investment, and valuation decisions.
6 The results of studies and surveys from the real world of finance indicate an
7 equity risk premium in the 4% to 5% percent range and not in the 10% percent
8 range.

9

10 Expected Earnings Approach

11

12 **Q. PLEASE DISCUSS DR. AVERA'S EXPECTED EARNINGS**
13 **ANALYSIS.**

14

15 A. In pages 61-63 of his testimony and Exhibit WEA-13, Dr. Avera estimates an
16 equity cost rate of 11.7% for the Company employing an approach he calls the
17 Expected Earnings ("EE") approach. His methodology simply involves using
18 the expected ROE for the companies in his utility proxy group as estimated by
19 *Value Line*. This approach is fundamentally flawed for several reasons. First,
20 these results include the profits associated with the unregulated operations of
21 the utility proxy group. As previously noted, the unregulated operations are
22 significant for several of the utility proxy companies. More importantly, since
23 Dr. Avera has not evaluated the market-to-book ratios for these companies, he
24 cannot indicate whether the past and projected returns on common equity are

1 above or below investors' requirements. These returns on common equity are
2 excessive if the market-to-book ratios for these companies are above 1.0.

3
4 Flotation Costs

5
6 **Q. PLEASE DISCUSS DR. AVERA'S ADJUSTMENT FOR FLOTATION**
7 **COSTS.**

8 A. Dr. Avera claims that an upward adjustment to the equity cost rate is
9 necessary for flotation costs. This adjustment factor is erroneous for several
10 reasons. First, the Company has not identified any actual flotation costs for
11 the Company. Therefore, the Company is requesting annual revenues in the
12 form of a higher return on equity for flotation costs that have not been
13 identified. Second, it is commonly argued that a flotation cost adjustment
14 (such as that used by the Company) is necessary to prevent the dilution of the
15 existing shareholders. In this case, a flotation cost adjustment is justified by
16 reference to bonds and the manner in which issuance costs are recovered by
17 including the amortization of bond flotation costs in annual financing costs.
18 However, this is incorrect for several reasons:

19 (1) If an equity flotation cost adjustment is similar to a debt flotation cost
20 adjustment, the fact that the market-to-book ratios for electric utility
21 companies are over 1.3X actually suggests that there should be a flotation cost
22 reduction (and not increase) to the equity cost rate. This is because when (a) a
23 bond is issued at a price in excess of face or book value, and (b) the difference

1 between market price and the book value is greater than the flotation or
2 issuance costs, the cost of that debt is lower than the coupon rate of the debt.
3 The amount by which market values of electric utility companies are in excess
4 of book values is much greater than flotation costs. Hence, if common stock
5 flotation costs were exactly like bond flotation costs, and one was making an
6 explicit flotation cost adjustment to the cost of common equity, the adjustment
7 would be downward;

8 (2) If a flotation cost adjustment is needed to prevent dilution of existing
9 stockholders' investment, then the reduction of the book value of stockholder
10 investment associated with flotation costs can occur only when a company's
11 stock is selling at a market price at/or below its book value. As noted above,
12 electric utility companies are selling at market prices well in excess of book
13 value. Hence, when new shares are sold, existing shareholders realize an
14 increase in the book value per share of their investment, not a decrease;

15 (3) Flotation costs consist primarily of the underwriting spread or fee and not
16 out-of-pocket expenses. On a per share basis, the underwriting spread is the
17 difference between the price the investment banker receives from investors
18 and the price the investment banker pays to the company. Hence, these are
19 not expenses that must be recovered through the regulatory process.
20 Furthermore, the underwriting spread is known to the investors who are
21 buying the new issue of stock, who are well aware of the difference between
22 the price they are paying to buy the stock and the price that the Company is
23 receiving. The offering price which they pay is what matters when investors

1 decide to buy a stock based on its expected return and risk prospects.
2 Therefore, the company is not entitled to an adjustment to the allowed return
3 to account for those costs; and
4 (4) Flotation costs, in the form of the underwriting spread, are a form of a
5 transaction cost in the market. They represent the difference between the
6 price paid by investors and the amount received by the issuing company.
7 Whereas the Company believes that it should be compensated for these
8 transactions costs, they have not accounted for other market transaction costs
9 in determining a cost of equity for the Company. Most notably, brokerage fees
10 that investors pay when they buy shares in the open market are another market
11 transaction cost. Brokerage fees increase the effective stock price paid by
12 investors to buy shares. If the Company had included these brokerage fees or
13 transaction costs in their DCF analysis, the higher effective stock prices paid
14 for stocks would lead to lower dividend yields and equity cost rates. This
15 would result in a downward adjustment to their DCF equity cost rate.

16
17 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

18 A. Yes.

CERTIFICATE OF SERVICE
DOCKET NO. 080677-EI & 090130-EI

I HEREBY CERTIFY that a copy of the foregoing Public Version of the Direct Testimony of J. Randall Woolridge has been furnished by U.S. Mail on the 16th day of July, 2009.

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<p>Bill McCollum/ Cecila Bradley Office of Attorney General The Capitol – PL01 Tallahassee, FL 32399-1050</p>		<p style="text-align: right;"><i>Joseph A. McGlothlin</i> Joseph A. McGlothlin Associate Public Counsel</p>

Appendix A
Educational Background, Research, and Related Business Experience
J. Randall Woolridge

J. Randall Woolridge is a Professor of Finance and the Goldman, Sachs & Co. and Frank P. Smeal Endowed Faculty Fellow in Business Administration in the College of Business Administration of the Pennsylvania State University in University Park, PA. In addition, Professor Woolridge is Director of the Smeal College Trading Room and President and CEO of the Nittany Lion Fund, LLC.

Professor Woolridge received a Bachelor of Arts degree in Economics from the University of North Carolina, a Master of Business Administration degree from the Pennsylvania State University, and a Doctor of Philosophy degree in Business Administration (major area-finance, minor area-statistics) from the University of Iowa. At Iowa he received a Graduate Fellowship and was awarded membership in Beta Gamma Sigma, a national business honorary society. He has taught Finance courses at the University of Iowa, Cornell College, and the University of Pittsburgh, as well as the Pennsylvania State University. These courses include corporation finance, commercial and investment banking, and investments at the undergraduate, graduate, and executive MBA levels.

Professor Woolridge's research has centered on the theoretical and empirical foundations of corporation finance and financial markets and institutions. He has published over 35 articles in the best academic and professional journals in the field, including the *Journal of Finance*, the *Journal of Financial Economics*, and the *Harvard Business Review*. His research has been cited extensively in the business press. His work has been featured in the *New York Times*, *Forbes*, *Fortune*, *The Economist*, *Financial World*, *Barron's*, *Wall Street Journal*, *Business Week*, *Washington Post*, *Investors' Business Daily*, *Worth Magazine*, *USA Today*, and other publications. In addition, Dr. Woolridge has appeared as a guest to discuss the implications of his research on CNN's *Money Line*, CNBC's *Morning Call* and *Business Today*, and Bloomberg Televisions' *Morning Call*.

Professor Woolridge's popular stock valuation book, *The StreetSmart Guide to Valuing a Stock* (McGraw-Hill, 2003), was released in its second edition. He has also co-authored *Spinoffs and Equity Carve-Outs: Achieving Faster Growth and Better Performance* (Financial Executives Research Foundation, 1999) as well as a textbook entitled *Applied Principles of Finance* (Kendall Hunt, 2006). Dr. Woolridge is a founder and a managing director of www.valuepro.net - a stock valuation website.

Professor Woolridge has also consulted with and prepared research reports for major corporations, financial institutions, and investment banking firms, and government agencies. In addition, he has directed and participated in over 500 university- and company- sponsored professional development programs for executives in 25 countries in North and South America, Europe, Asia, and Africa.

Dr. Woolridge has prepared testimony and/or provided consultation services in the following cases:

Pennsylvania: Dr. Woolridge has prepared testimony on behalf of the Pennsylvania Office of Consumer Advocate in the following cases before the Pennsylvania Public Utility Commission; Bell Telephone Company (R-811819), Peoples Natural Gas Company (R-832315), Pennsylvania Power Company (R-832409), Western Pennsylvania Water Company (R-832381), Pennsylvania Power Company (R-842740), Pennsylvania Gas and Water Company (R-850178), Metropolitan Edison Company (R-860384), Pennsylvania Electric Company (R-860413), North Penn Gas Company (R-860535), Philadelphia Electric Company (R-870629), Western Pennsylvania Water Company (R-870825), York Water Company (R-870749), Pennsylvania-American Water Company (R-880916), Equitable Gas Company (R-880971), the Bloomsburg Water Co. (R-891494), Columbia Gas of Pennsylvania, Inc. (R-891468), Pennsylvania-American Water Company (R-90562), Breezewood Telephone Company (R-901666), York Water Company (R-901813), Columbia Gas of Pennsylvania, Inc. (R-901873), National Fuel Gas Corporation (R-911912), Pennsylvania-American Water Company (R-911909), Borough of Media Water Fund (R-912150), UGI Utilities, Inc. - Electric Utility Division (R-922195), Dauphin Consolidated Water Supply Company - General Waterworks of

Appendix A
Educational Background, Research, and Related Business Experience
J. Randall Woolridge

Pennsylvania, Inc. (R-932604), National Fuel Gas Corporation (R-932548), Commonwealth Telephone Company (I-920020), Conestoga Telephone and Telegraph Company (I-920015), Peoples Natural Gas Company (R-932866), Blue Mountain Consolidated Water Company (R-932873), National Fuel Gas Corporation (R-942991), UGI - Gas Division (R-953297), UGI - Electric Division (R-953534), Pennsylvania-American Water Company (R-973944), Pennsylvania-American Water Company (R-994638), Philadelphia Suburban Water Company (R-994868;R-994877;R-994878; R-9948790), Philadelphia Suburban Water Company (R-994868), Wellsboro Electric Company (R-00016356), Philadelphia Suburban Water Company (R-00016750), National Fuel Gas Corporation (R-00038168), Pennsylvania-American Water Company (R-00038304), York Water Company (R-00049165), Valley Energy Company (R-00049345), Wellsboro Electric Company (R-00049313), National Fuel Gas Corporation (R-00049656), T.W. Phillips Gas and Oil Co. (R-00051178), PG Energy (R-00061365), City of Dubois Water Company (Docket No. R-00050671), R-00049165), York Water Company (R-00061322), Emporium Water Company (R-00061297), Pennsylvania-American Water Company (R-00072229),

New Jersey: Dr. Woolridge prepared testimony for the New Jersey Department of the Public Advocate, Division of Rate Counsel: New Jersey-American Water Company (R-91081399J), New Jersey-American Water Company (R-92090908J), and Environmental Disposal Corp. (R-94070319).

Alaska: Dr. Woolridge prepared testimony for Attorney General's Office of Alaska: Golden Heart Utilities, Inc. and College Utilities Corp. (Water Public Utility Service TA-29-118 and Sewer Public Utility Service TA-82-97), Anchorage Water and Wastewater Utility (TA-106-122).

Arizona: Dr. Woolridge prepared testimony for Utility Division staff of the Arizona Corporation Commission, Arizona Public Service Company (Docket No. E-01345A-06-0009).

Hawaii: Dr. Woolridge prepared testimony for the Hawaii Office of the Consumer Advocate: East Honolulu Community Services, Inc. (Docket No. 7718).

Delaware: Dr. Woolridge prepared testimony for the Delaware Division of Public Advocate: Artesian Water Company (R-00-649). Dr. Woolridge prepared testimony for the staff of the Public Service Commission: Artesian Water Company (R-06-158).

Ohio: Dr. Woolridge prepared testimony for the Ohio Office of Consumers' Council: SBC Ohio (Case No. 02-1280-TP-UNC R-00-649), Cincinnati Gas & Electric Company (Case No. 05-0059-EL-AIR), Dominion East Ohio Company (Case No. 07-829-GA-AIR), Cleveland Electric Illuminating Company and Toledo Edison Company (Case No. 08-935-EL-SSO), Columbia Gas of Ohio, Inc. (Case No. 08-0072-GA-AIR), and Columbus Southern Power Company (Case No. 08-917-EL-SSO).

Texas: Dr. Woolridge prepared testimony for the Atmos Cities Steering Committee: Mid-Texas Division of Atmos Energy Corp. (Docket No. 9670).

New York: Dr. Woolridge prepared testimony for the County of Nassau in New York State: Long Island Lighting Company (PSC Case No. 942354).

Florida: Dr. Woolridge prepared testimony for the Office of Public Counsel in Florida: Florida Power & Light Co. (Docket No. 050045-EL), Tampa Electric Company (Docket No 080317-EI), Peoples Gas Company (Docket No 080318-GU).

Appendix A
Educational Background, Research, and Related Business Experience
J. Randall Woolridge

Indiana: Dr. Woolridge prepared testimony for the Indiana Office of Utility Consumer Counsel (OUCC) in the following cases: Southern Indiana Gas and Electric Company (IURC Cause No. 43111 and IURC Cause No. 43112).

Oklahoma: Dr. Woolridge prepared testimony for the Oklahoma Industrial Energy Companies (OIEC) in the following cases: Public Service Company of Oklahoma (Cause No. PUD 200600285), Oklahoma Gas & Electric Company (Cause No. PUD 200700012).

Connecticut: Dr. Woolridge prepared testimony for the Office of Consumer Counsel in Connecticut: United Illuminating (Docket No. 96-03-29), Yankee Gas Company (Docket No. 04-06-01), Southern Connecticut Gas Company (Docket No. 03-03-17), the United Illuminating Company (Docket No. 05-06-04), Connecticut Light and Power Company (Docket No. 05-07-18), Birmingham Utilities, Inc. (Docket No. 06-05-10), Connecticut Water Company (Docket No. 06-07-08), Connecticut Natural Gas Corp. (Docket No. 06-03-04), Aquarion Water Company (Docket No. 07-05-09), Yankee Gas Company (Docket No. 06-12-02), Connecticut Light and Power Company (Docket No. 07-07-01), and the United Illuminating Company (Docket No. 08-07-03).

California: Dr. Woolridge prepared testimony for the Office of Ratepayer Advocate in California: San Gabriel Valley Water Company (Docket No. 05-08-021), Pacific Gas & Electric (Docket No. 07-05-008), San Diego Gas & Electric (Docket No. 07-05-007), Southern California Edison (Docket No. 07-05-003), California-American Water Company (Docket No. 08-05-003), Golden State Water Company (Docket No. 08-05-004), and California Water Service Company (Docket No. 08-05-002).

South Carolina: Dr. Woolridge prepared testimony for the Office of Regulatory Staff in South Carolina: South Carolina Electric and Gas Company (Docket No. 2005-113-G), Carolina Water Service Co. (Docket No. 2006-87-WS), Tega Cay Water Company (Docket No. 2006-97-WS), United Utilities Companies, Inc. (Docket No. 2006-107-WS).

Missouri: Dr. Woolridge prepared testimony for the Department of Energy in Missouri: Kansas City Power & Light Company (CASE NO. ER-2006-0314). Dr. Woolridge prepared testimony for the Office of Attorney General of Missouri: Union Electric Company (CASE NO. ER-2007-0002).

Kentucky: Dr. Woolridge prepared testimony for the Office of Attorney General in Kentucky: Kentucky-American Water Company (Case No. 2004-00103), Union Heat, Light, and Power Company (Case No. 2004-00042), Kentucky Power Company (Case No. 2005-00341), Union Heat, Light, and Power Company (Case No. 2006-00172), Atmos Energy Corp. (Case No. 2006-00464), Columbia Gas Company (Case No. 2007-00008), Delta Natural Gas Company (Case No. 2007-00089), Kentucky-American Water Company (Case No. 2007-00143).

Washington, D.C.: Dr. Woolridge prepared testimony for the Office of the People's Counsel in the District of Columbia: Potomac Electric Power Company (Formal Case No. 939).

Washington: Dr. Woolridge consulted with trial staff of the Washington Utilities and Transportation Commission on the following cases: Puget Energy Corp. (Docket Nos. UE-011570 and UG-011571); and Avista Corporation (Docket No. UE-011514).

Kansas: Dr. Woolridge prepared testimony on behalf of the Kansas Citizens' Utility Ratepayer Board in the following cases: Western Resources Inc. (Docket No. 01-WSRE-949-GIE), UtiliCorp (Docket No. 02-UTCG701-CIG), and Westar Energy, Inc. (Docket No. 05-WSEE-981-RTS).

Appendix A
Educational Background, Research, and Related Business Experience
J. Randall Woolridge

Utah: Dr. Woolridge prepared testimony on behalf of the Utah Committee on Consumer Services (CCS) in the following case: Questar Gas Company (Docket No. No. 07-057-13).

FERC: Dr. Woolridge has prepared testimony on behalf of the Pennsylvania Office of Consumer Advocate in the following cases before the Federal Energy Regulatory Commission: National Fuel Gas Supply Corporation (RP-92-73-000) and Columbia Gulf Transmission Company (RP97-52-000).

Vermont: Dr. Woolridge prepared testimony for the Department of Public Service in the Central Vermont Public Service (Docket No. 6988) and Vermont Gas Systems, Inc. (Docket No. 7160).

Exhibit JRW-1**Florida Power & Light Company****Cost of Capital****Weighted Average Cost of Capital - Regulatory Capital Structure**

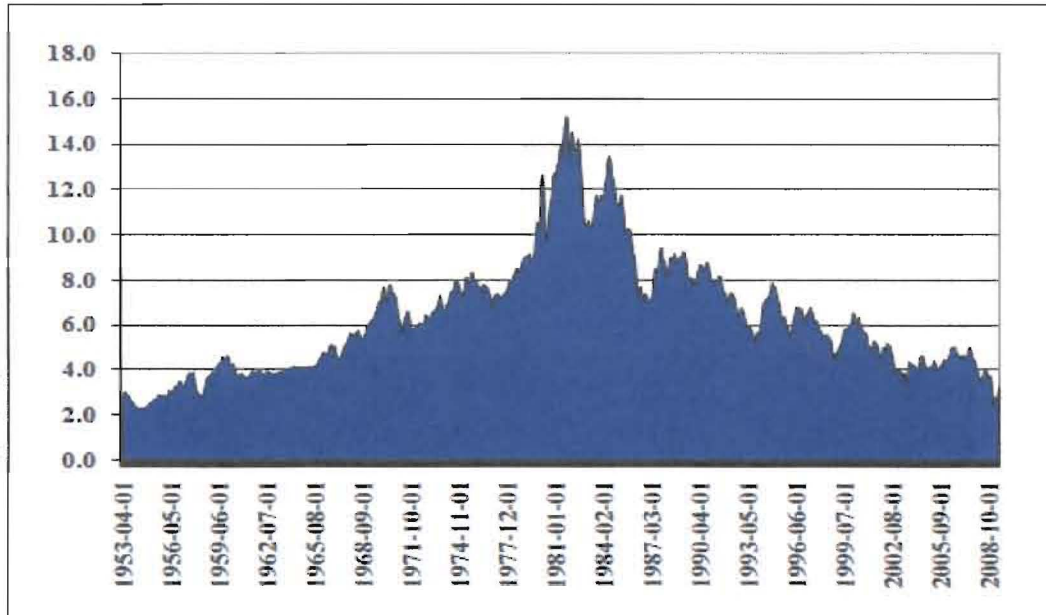
Capital Source	Capitalization Ratio	Cost Rate	Weighted Cost Rate
Short Term Debt	3.03%	2.27%	0.07%
Long-Term Debt	33.67%	5.14%	1.73%
Customer Deposits	3.02%	5.98%	0.18%
Common Equity	43.84%	9.50%	4.16%
Investment Tax Credits	0.31%	7.41%	0.02%
Deferred Income Taxes	16.14%	0.00%	0.00%
Total Capital	100.00%		6.17%

Weighted Average Cost of Capital - Conventional Capital Structure

Capital Source	Capitalization Ratio	Cost Rate	Weighted Cost Rate
Short Term Debt	3.76%	2.27%	0.09%
Long-Term Debt	41.80%	5.14%	2.15%
Common Equity	54.43%	9.50%	5.17%
Total	100.00%		7.41%

Exhibit JRW-2

Panel A
Ten-Year Treasury Yields
1953-Present



Source: <http://research.stlouisfed.org/fred2/data/GS10.txt>

Panel B
Long-Term Moody's Baa Yields Minus Ten-Year Treasury Yields
2000-Present

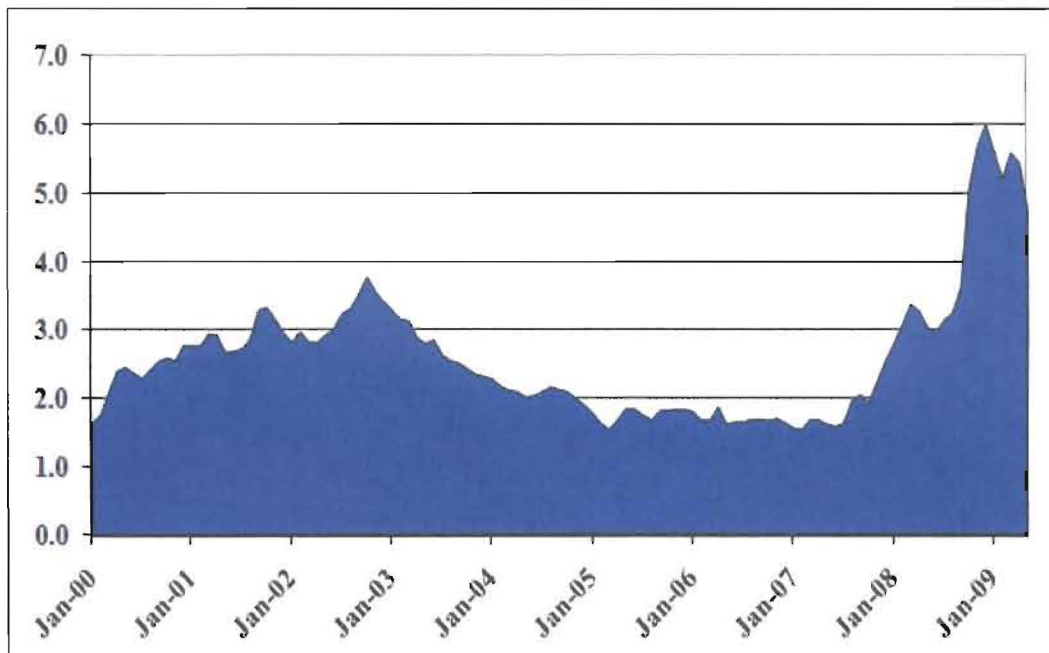
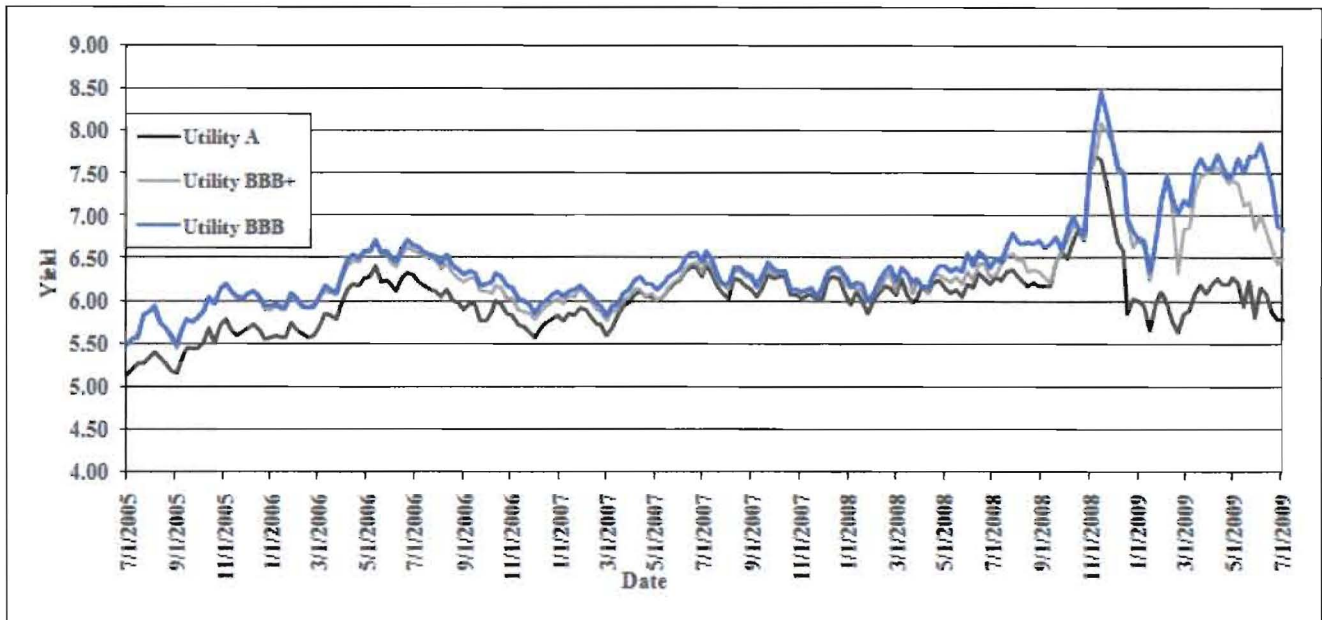


Exhibit JRW-3
 Panel A
 Thirty-Year Public Utility Yields



Panel B
 Thirty-Year Public Utility Yield Spread Over Treasuries

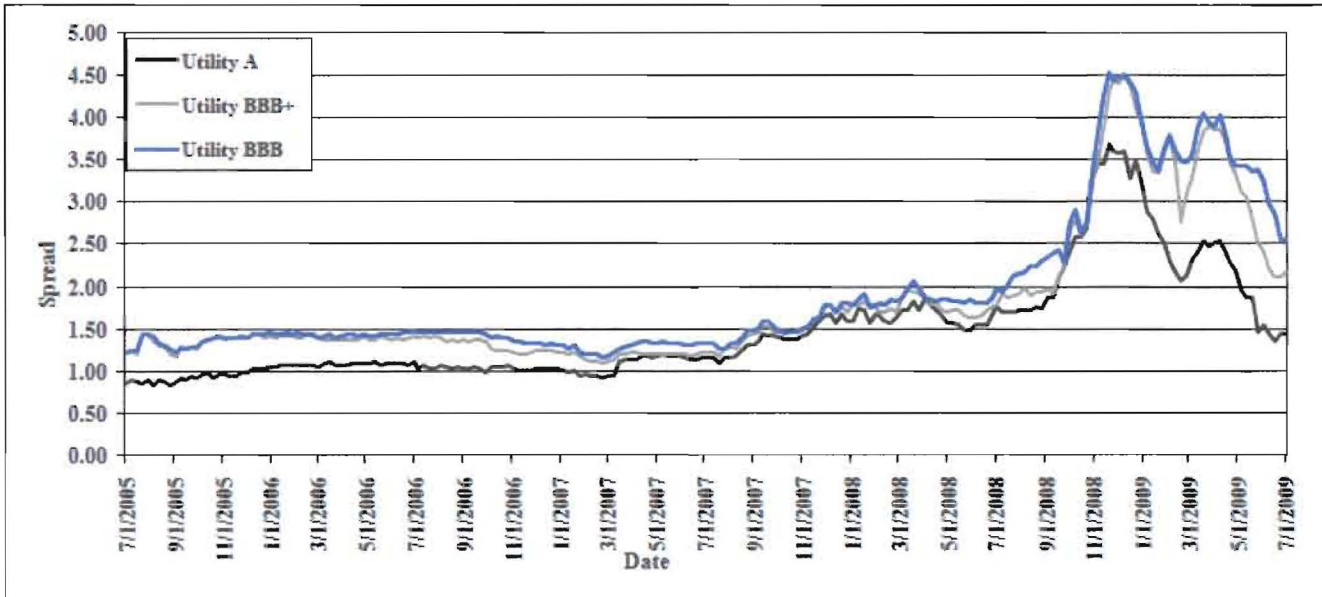


Exhibit JRW-3
 Bonds a Bright Spot for Utilities in '08

THE WALL STREET JOURNAL.

JANUARY 13, 2009

Bonds a Bright Spot for Utilities in '08
 Debt Issuance Rose 34% as Investors Shunned Commercial Paper, Stocks
 By REBECCA SMITH

Even as credit markets seized last year, the utility industry achieved a noteworthy feat: It sold more bonds than it had in years.

Utilities with investment-grade credit ratings sold \$47 billion of corporate bonds last year, 34% more than the \$35 billion issued in 2007 and 77% more than the \$26.5 billion of 2006.

The 2008 increase marked one of the few bright spots in the overall bond market, which registered a decline in issuance of nearly 35%, to \$645 billion from \$987 billion in 2007, according to Thomson SDC.



PacifiCorp's Huntington Power Plant in Huntington, Utah

Reuters

Utilities are the third-largest debt issuers after government and finance, requiring a steady supply of cash to build power plants, pipelines and transmission lines and to meet tightening environmental requirements. When credit markets tanked last autumn, many utilities were hurt as market valuations tumbled amid investor fears that demand for their services would decline and that they would have difficulty raising the large sums of money they require, at least at affordable rates.

Some of Heftiest Utility Bond Sales

2008 sales rose. So did spreads

Date priced	Company	Total size (billions)	Interest rate	Spread to U.S. Treasuries ¹ (oct. pts)
Sept. 3, '08	Oncor Electric Delivery	\$1.5	5.950%	3.05
June 11, '08	Florida Power	1.5	5.650	1.63
April 1, '08	Consolidated Edison of N.Y.	1.2	5.850	2.30
Jan. 5, '09	PacifiCorp	1.0	5.500	3.10
Nov. 22, '08	Duke Energy Carolinas	0.9	5.750	3.45
Nov. 17, '08	Sempra Energy	0.75	8.900	6.70
Nov. 4, '08	Virginia Electric & Power	0.7	8.875	4.56
May 15, '08	NiSource Finance	0.7	6.150	2.92
March 19, '08	Commonwealth Edison	0.7	5.800	2.45
March 25, '08	MidAmerican Energy	0.65	5.750	2.25

Source: Thomson SDC

¹ Based on first portion of issuance

The full-year issuance for utilities is encouraging, analysts said, because it shows a vital sector of the economy has adapted to changing conditions and is getting the money it needs to support basic operations as well as fund expansion.

Utilities will be critical players in President-elect Barack Obama's economic-stimulus plan, particularly in efforts to modernize the nation's electric grid and to triple the amount of energy garnered from renewable sources in

coming years.

Exhibit JRW-3
Bonds a Bright Spot for Utilities in '08

Key to that effort is the ability of utilities to finance big infrastructure projects. Steve Tulip, a managing director in debt capital markets for Goldman Sachs Group, says utilities stood out in a stormy credit landscape. "The flight to quality clearly has benefited the power sector," Mr. Tulip said. "Investors are looking for safe havens."

Utilities leaned on the bond market last year partly out of desperation because commercial paper markets came unglued and they were unable, in some cases, to refinance short-term notes. Meantime, sagging stock market valuations made equity issuance unattractive. Bonds offered a better way for companies to secure stable money and garner some measure of protection against what could be a rough 2009.

"We expect a choppy economy," said Bill Johnson, chief executive of Progress Energy Inc., a utility that operates in the Carolinas and Florida that sold \$600 million of bonds Jan. 8. It hopes that will be sufficient to tide it over until 2010. "It felt good to get that one off the table," he said.

The 10-year bonds carried a coupon rate of 5.3%, substantially less than the 7.5% to 8% rate executives felt they might have to swallow, based on prevailing rates in mid- to late-December.

"People have turned the page on 2008 and spreads have come down for people like us," said Mark Mulhern, Progress Energy's chief financial officer.

Pepco Holdings Inc. did three \$250-million bond issuances in November and December for its three utilities, including sales of five-year, 10-year and 30-year bonds. Though the spreads to comparable U.S. Treasuries were high -- such as the 4.12 percentage point spread for 10-year bonds issued by Atlantic City Electric -- the actual coupon rates "weren't bad," said Chief Financial Officer Paul Barry. Interest rates were 7.75% for the Atlantic City Electric issuance and 6.4% and 6.5% on two other issues.

Higher financing costs for utilities could put pressure on customer rates if they continue long enough. That is because financing costs typically are a pass-through expense, though there sometimes is a lag between when costs are incurred and when they get folded into rates. That lag can be a drag on utility earnings.

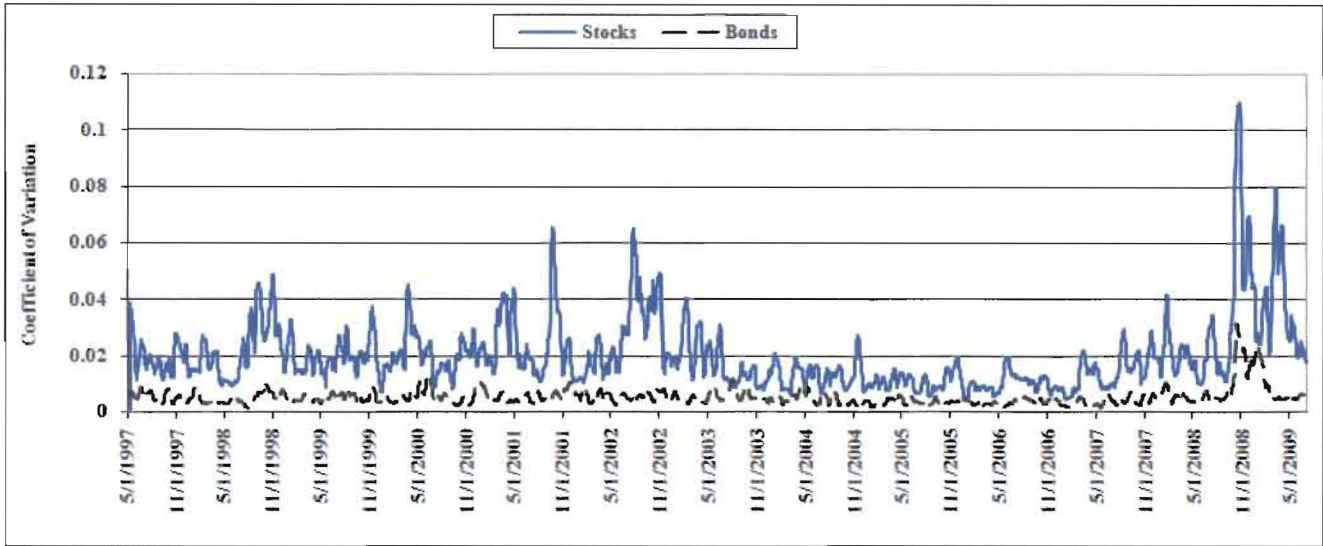
The financing cost, expressed as a "spread," or an amount above the interest rates for U.S. Treasury notes of similar duration, widened to about five to eight percentage points by the end of 2008 from two or three percentage points at the beginning of the year. The actual interest rates paid to bond purchasers, called the coupon rates, didn't rise to unbearable levels because Treasury interest rates fell.

In the fourth quarter, issuance by investment-grade utilities topped \$10 billion. In 2008, utilities widened their share of total U.S. investment-grade bond issuance to 7% from 4% in 2007 and 3% in 2006.

Total bond issuance by financial firms, such as commercial banks and investment banks, skidded 52% to \$322 billion from \$676 billion in 2007 and \$686 billion in 2006. For nonfinancial firms, with utilities excluded, total issuance held steady at \$275 billion for 2008 and 2007, up from \$217 billion in 2006.

Exhibit JRW-3

Panel C
Coefficient of Variation
S&P 500 Price CV and Bear Sterns Bond Price Index CV



Panel D
Coefficient of Variation
S&P 500 Price CV/Bear Sterns Bond Price Index CV

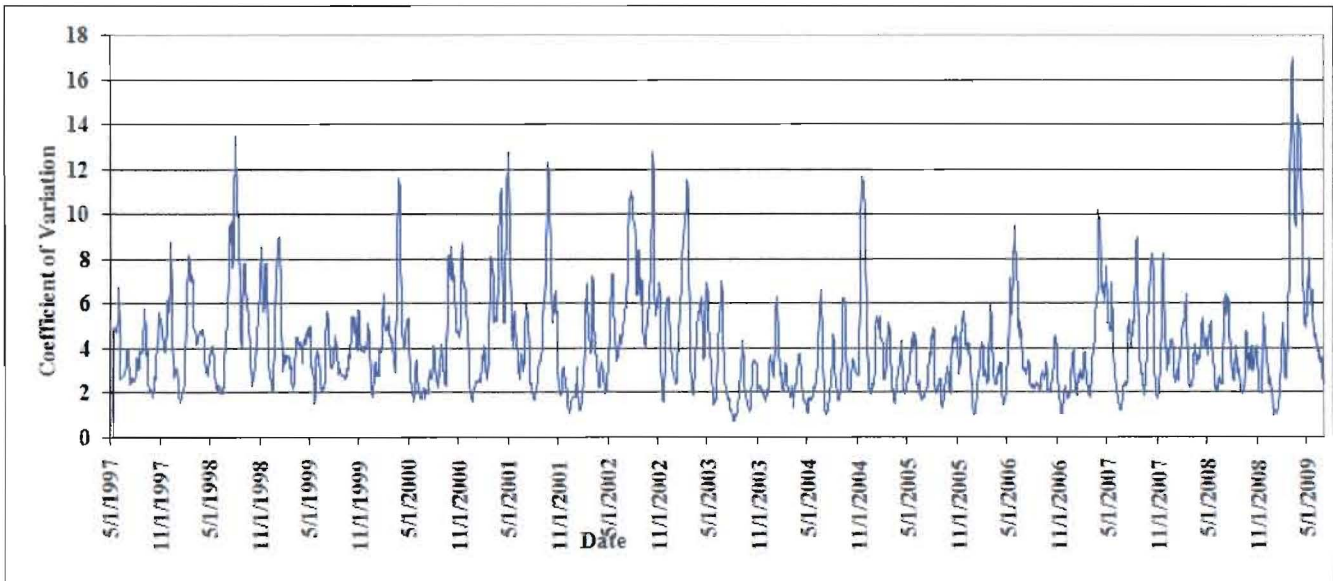


Exhibit JRW-4
Florida Power & Light Company
Summary Financial Statistics for Electric Proxy Group

Electric Proxy Group

	Operating Revenue (\$mil)	Percent Elec Revenue	Net Plant (\$mil)	S&P Bond Rating	Moody's Bond Rating	Pre-Tax Interest Coverage	Primary Service Area	Common Equity Ratio	Return on Equity	Market to Book Ratio
1 American Electric Power Co. (NYSE-AEP)	14,431.0	94	33,251.0	BBB	Baa1	3.0	11 States	37	11.4	0.93
2 Edison International (NYSE-EIX)	13,841.0	80	19,321.0	A	A2	3.9	CA	44	14.3	0.95
3 Entergy Corporation (NYSE-ETR)	13,018.1	77	22,619.7	A-	Baa2	4.3	AK,LA,MS,TX	41	14.7	1.68
4 FirstEnergy Corporation (NYSE-FE)	13,684.0	89	18,207.0	BBB	Baa2	4.0	OH,PA,NJ	36	14.6	1.35
5 FPL Group, Inc. (NYSE-FPL)	16,680.0	70	33,053.0	A	A1	3.6	FL	41	13.4	1.84
6 Northeast Utilities (NYSE-NU)	5,873.6	81	8,313.5	BBB+	Baa1	2.3	CT,NH,MA	41	7.6	0.97
7 PG&E Corporation (NYSE-PCG)	14,326.0	74	26,923.0	BBB+	A3	3.1	CA	47	11.8	1.36
8 Progress Energy Inc. (NYSE-PGN)	9,535.0	98	18,636.0	A-	A2	3.1	NC,SC,FL	45	9.7	1.13
9 Southern Company (NYSE-SO)	17,110.0	99	36,767.7	A	A2	4.1	GA,AL,FL,MS	39	14.4	1.66
10 Xcel Energy Inc. (NYSE-XEL)	10,870.3	79	17,947.5	A-	A3	2.9	CO,MN,WI,ND,SD,MI	45	9.8	1.11
Mean	12,936.9	84	23,503.9	A-	A3	3.4		42	12.2	1.30

Data Source: AUS Utility Reports, June 2009; Service Area, and Pre-Tax Interest Coverage is from Value Line Investment Survey.

Florida Power & Light	11,649.0	100	18,783.0	A	A1	4.6	FL	57	10.3	
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Data Source: 2008 FP&L Financial Statements

Exhibit JRW-5
Florida Power & Light Company
Capital Structure Ratios

Panel A - FP&L's Recommended Capitalization Ratios - Investor Provided Capital - With Imputed Debt

Capital	Capitalization Ratios	Capitalization Ratios
Short Term Debt	161,857	1.10%
Long-Term Debt	6,327,047	43.14%
Common Equity	8,178,980	55.76%
Total Capital*	14,667,884	100.00%

* Includes \$950M adjustment for PPAs
 Source: Testimony of Mr. Pimentel

Panel B - FP&L's Recommended Capitalization Ratios - Investor Provided Capital - Without Imputed Debt

Capital	Capitalization Ratios	Capitalization Ratios
Short Term Debt	161,857	1.18%
Long-Term Debt	5,377,787	39.20%
Common Equity	8,178,980	59.62%
Total Capital*	13,718,624	100.00%

* Excludes \$950M adjustment for PPAs
 Source: Testimony of Mr. Pimentel

Panel C - FP&L's Year-End Capital Structure Per Books - 2004-2008

Capital	2004	2005	2006	2007	2008	Average
Short Term Debt	10.74%	11.59%	5.09%	8.27%	7.31%	8.60%
Long-Term Debt	24.22%	28.08%	34.03%	36.16%	35.62%	31.62%
Common Equity	65.04%	60.33%	60.88%	55.56%	57.07%	59.78%
Total Capital	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Panel D - FPL Group's Year-End Capital Structure Per Books - 2004-2008

Capital	2004	2005	2006	2007	2008	Average
Short Term Debt	9.94%	13.42%	12.32%	9.90%	11.31%	11.37%
Long-Term Debt	46.45%	42.09%	43.08%	46.17%	48.09%	45.17%
Common Equity	43.61%	44.50%	44.60%	43.94%	40.61%	43.45%
Total Capital	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Panel E - Average Capital Structure Ratios of Electric Proxy Group (Including Short-Term Debt)

Capital	3/31/09	12/31/08	9/30/08	6/30/08	Average
Short Term Debt	7.82%	8.91%	8.86%	8.40%	8.50%
Long-Term Debt	51.30%	50.63%	50.47%	49.95%	50.59%
Preferred Stock	0.85%	0.85%	0.86%	0.97%	0.88%
Common Equity	40.03%	39.61%	39.82%	40.68%	40.03%
Total Capital	100.00%	100.00%	100.00%	100.00%	100.00%

Source: Page 3 of Exhibit JRW-5

Exhibit JRW-5
Florida Power & Light Company
Capital Structure Ratios

Panel F - FP&L's Year-End Capitalization - Per Books - 2009 - 2010

Capital	2009	2010	Average
Short Term Debt	710,087	549,207	629,647
Long-Term Debt	6,312,418	7,670,689	6,991,554
Common Equity	8,648,116	9,559,882	9,103,999
Total Capital	15,670,621	17,779,778	16,725,200
Capital	2009	2010	Average
Short Term Debt	4.53%	3.09%	3.76%
Long-Term Debt	40.28%	43.14%	41.80%
Common Equity	55.19%	53.77%	54.43%
Total Capital	100.00%	100.00%	100.00%

Source: MFR D-2 Work Papers

Panel G - OPC Recommended Capital Structure for FP&L

Capital	Capitalization Amounts	Capitalization Ratios
Short Term Debt	629,647	3.03%
Long-Term Debt	6,991,554	33.67%
Customer Deposits	626,383	3.02%
Common Equity	9,103,999	43.84%
Investment Tax Credits	63,939	0.31%
Deferred Income Taxes	3,351,931	16.14%
Total Capital	20,767,453	100.0%

Source: Schedule D-1A, MFR D-2 Work Papers, all numbers, per books

Capital Structure Investor Sources Only:

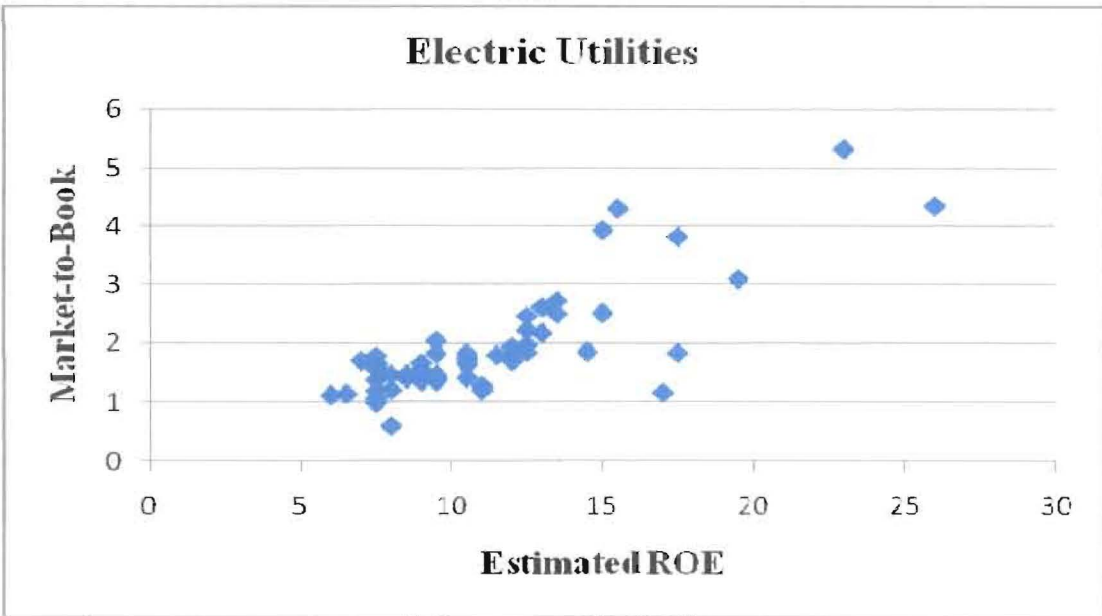
Long Term Debt	3.76%
Short Term Debt	41.80%
Common Equity	54.43%
Total	100.00%

Exhibit JRW-5
Florida Power & Light Company
Capital Structure Ratios with Short-Term Debt
Electric Proxy Group

	3/31/09	12/31/08	9/30/08	6/30/08		3/31/09	12/31/08	9/30/08	6/30/08
AEP					AEP				
Short Term Debt	3,094,000	2,423,000	1,984,000	2,265,000	Short Term Debt	10.27%	8.46%	7.03%	7.97%
Long-Term Debt	16,078,000	15,536,000	15,325,000	15,532,000	Long-Term Debt	53.39%	54.22%	54.29%	54.64%
Preferred Stock					Preferred Stock	0.00%	0.00%	0.00%	0.00%
Common Equity	10,940,000	10,693,000	10,917,000	10,631,000	Common Equity	36.33%	37.32%	38.68%	37.40%
Total	30,112,000	28,652,000	28,226,000	28,428,000	Total	100.00%	100.00%	100.00%	100.00%
EIX					EIX				
Short Term Debt	2,002,000	2,501,000	2,163,000	1,296,000	Short Term Debt	8.12%	9.73%	9.02%	6.14%
Long-Term Debt	11,975,000	11,863,000	10,710,000	9,535,000	Long-Term Debt	48.58%	46.17%	44.68%	45.16%
Preferred Stock	907,000	907,000	907,000	907,000	Preferred Stock	3.68%	3.53%	3.78%	4.30%
Common Equity	9,768,000	10,424,000	10,188,000	9,374,000	Common Equity	39.62%	40.57%	42.51%	44.40%
Total	24,652,000	25,695,000	23,968,000	21,112,000	Total	100.00%	100.00%	100.00%	100.00%
ETR					ETR				
Short Term Debt	738,062	706,853	369,284	913,205	Short Term Debt	3.53%	3.45%	1.57%	4.58%
Long-Term Debt	11,215,692	11,517,382	14,894,748	11,413,669	Long-Term Debt	53.68%	56.18%	63.24%	57.18%
Preferred Stock	311,033	311,029	311,023	311,019	Preferred Stock	1.49%	1.52%	1.32%	1.56%
Common Equity	8,630,406	7,966,592	7,976,923	7,322,805	Common Equity	41.30%	38.86%	33.87%	36.69%
Total	20,895,193	20,501,856	23,551,978	19,960,698	Total	100.00%	100.00%	100.00%	100.00%
FE					FE				
Short Term Debt	4,541,000	4,873,000	4,901,000	5,116,000	Short Term Debt	20.19%	21.90%	21.42%	22.30%
Long-Term Debt	9,697,000	9,100,000	8,674,000	8,603,000	Long-Term Debt	43.12%	40.89%	37.92%	37.50%
Preferred Stock					Preferred Stock	0.00%	0.00%	0.00%	0.00%
Common Equity	8,250,000	8,283,000	9,301,000	9,221,000	Common Equity	36.69%	37.22%	40.66%	40.20%
Total	22,488,000	22,256,000	22,876,000	22,940,000	Total	100.00%	100.00%	100.00%	100.00%
FPL					FPL				
Short Term Debt	3,484,000	4,523,000	4,554,000	4,468,000	Short Term Debt	11.31%	14.95%	15.56%	15.97%
Long-Term Debt	15,317,000	14,051,000	13,188,000	12,895,000	Long-Term Debt	49.73%	46.44%	45.05%	46.09%
Preferred Stock					Preferred Stock	0.00%	0.00%	0.00%	0.00%
Common Equity	11,999,000	11,681,000	11,534,000	10,614,000	Common Equity	38.96%	38.61%	39.40%	37.94%
Total	30,800,000	30,255,000	29,276,000	27,977,000	Total	100.00%	100.00%	100.00%	100.00%
NU					NU				
Short Term Debt	655,421	774,102	622,648	177,184	Short Term Debt	6.56%	8.15%	6.77%	2.01%
Long-Term Debt	5,875,179	5,702,099	5,560,685	5,703,694	Long-Term Debt	58.83%	60.04%	60.45%	64.67%
Preferred Stock					Preferred Stock	0.00%	0.00%	0.00%	0.00%
Common Equity	3,456,072	3,020,312	3,015,981	2,939,456	Common Equity	34.61%	31.80%	32.78%	33.33%
Total	9,986,672	9,496,513	9,199,314	8,820,334	Total	100.00%	100.00%	100.00%	100.00%
PCG					PCG				
Short Term Debt	759,000	1,257,000	2,301,000	756,000	Short Term Debt	3.43%	5.83%	11.05%	4.29%
Long-Term Debt	10,705,000	10,254,000	9,126,000	7,721,000	Long-Term Debt	48.38%	47.57%	43.82%	43.79%
Preferred Stock	258,000	258,000	258,000	258,000	Preferred Stock	1.17%	1.20%	1.24%	1.46%
Common Equity	10,404,000	9,787,000	9,139,000	8,897,000	Common Equity	47.02%	45.40%	43.89%	50.46%
Total	22,126,000	21,556,000	20,824,000	17,632,000	Total	100.00%	100.00%	100.00%	100.00%
PGN					PGN				
Short Term Debt	1,286,000	1,543,000	895,000	1,613,000	Short Term Debt	5.68%	7.15%	4.43%	7.76%
Long-Term Debt	12,014,000	11,159,000	10,389,000	10,393,000	Long-Term Debt	53.03%	51.72%	51.42%	49.97%
Preferred Stock	93,000	93,000	93,000	93,000	Preferred Stock	0.41%	0.43%	0.46%	0.45%
Common Equity	9,261,000	8,780,000	8,827,000	8,700,000	Common Equity	40.88%	40.70%	43.69%	41.83%
Total	22,654,000	21,575,000	20,204,000	20,799,000	Total	100.00%	100.00%	100.00%	100.00%
SO					SO				
Short Term Debt	1,040,790	878,000	1,076,285	947,837	Short Term Debt	3.20%	2.80%	3.21%	3.19%
Long-Term Debt	17,805,963	16,816,000	18,697,834	15,582,929	Long-Term Debt	54.83%	53.65%	55.73%	52.51%
Preferred Stock	374,496	374,496	374,496	374,496	Preferred Stock	1.15%	1.19%	1.12%	1.26%
Common Equity	13,252,708	13,276,000	13,404,056	12,770,473	Common Equity	40.81%	42.36%	39.95%	43.03%
Total	32,473,957	31,344,496	33,552,671	29,675,735	Total	100.00%	100.00%	100.00%	100.00%
XEL					XEL				
Short Term Debt	953,865	1,089,561	1,384,437	1,534,615	Short Term Debt	5.88%	6.67%	8.51%	9.83%
Long-Term Debt	8,010,693	8,072,490	7,825,158	7,485,934	Long-Term Debt	49.38%	49.42%	48.10%	47.97%
Preferred Stock	104,980	104,980	104,980	104,980	Preferred Stock	0.65%	0.64%	0.65%	0.67%
Common Equity	7,154,062	7,068,721	6,953,320	6,479,450	Common Equity	44.10%	43.27%	42.74%	41.52%
Total	16,223,600	16,335,752	16,267,895	15,604,979	Total	100.00%	100.00%	100.00%	100.00%
					Summary				
					Short Term Debt	7.82%	8.91%	8.86%	8.40%
					Long-Term Debt	51.30%	50.63%	50.47%	49.95%
					Preferred Stock	0.85%	0.85%	0.86%	0.97%
					Common Equity	40.03%	39.61%	39.82%	40.68%
					Total	100.00%	100.00%	100.00%	100.00%

Exhibit JRW-6

Panel A



Panel B

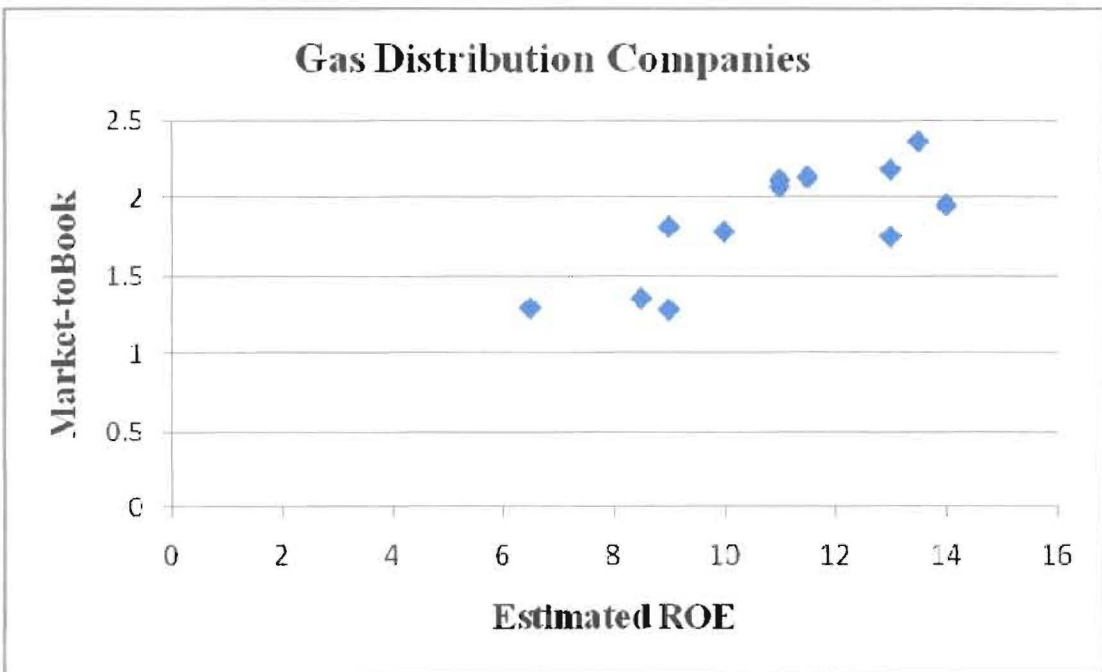
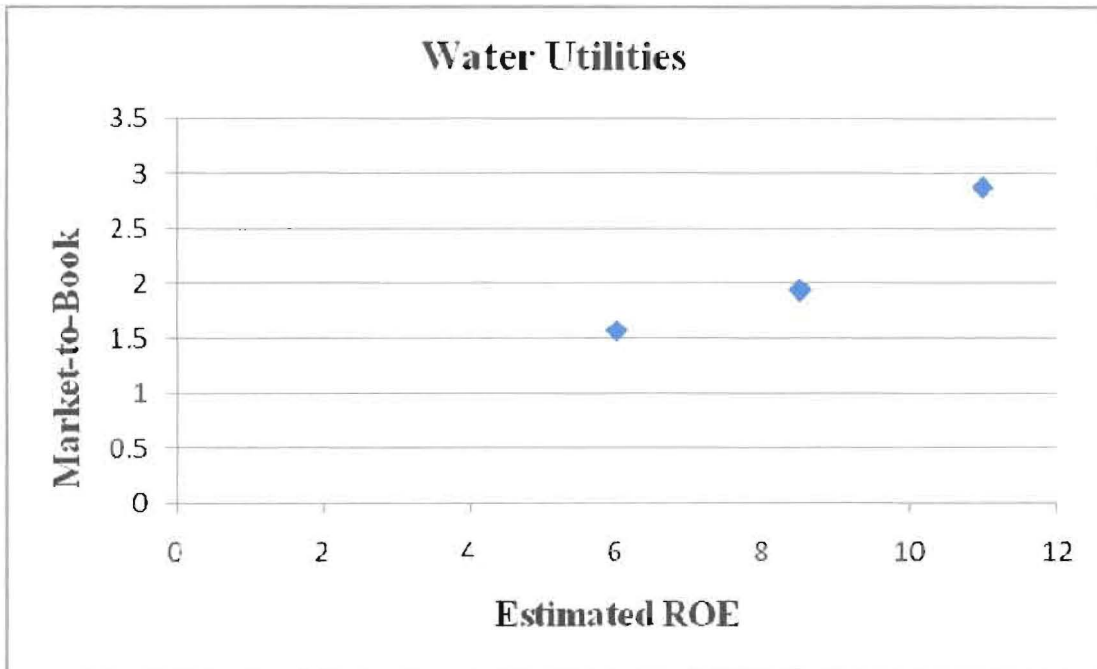


Exhibit JRW-6

Panel C



R-Square = .92, N=4.

Exhibit JRW-7
Long-Term 'A' Rated Public Utility Bonds

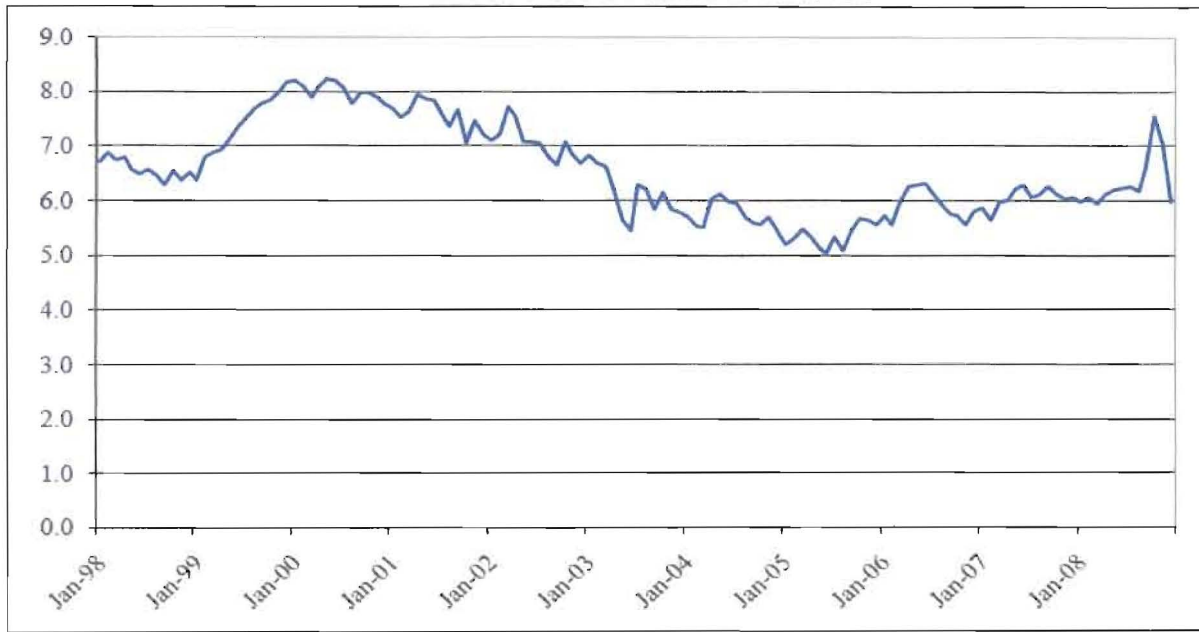
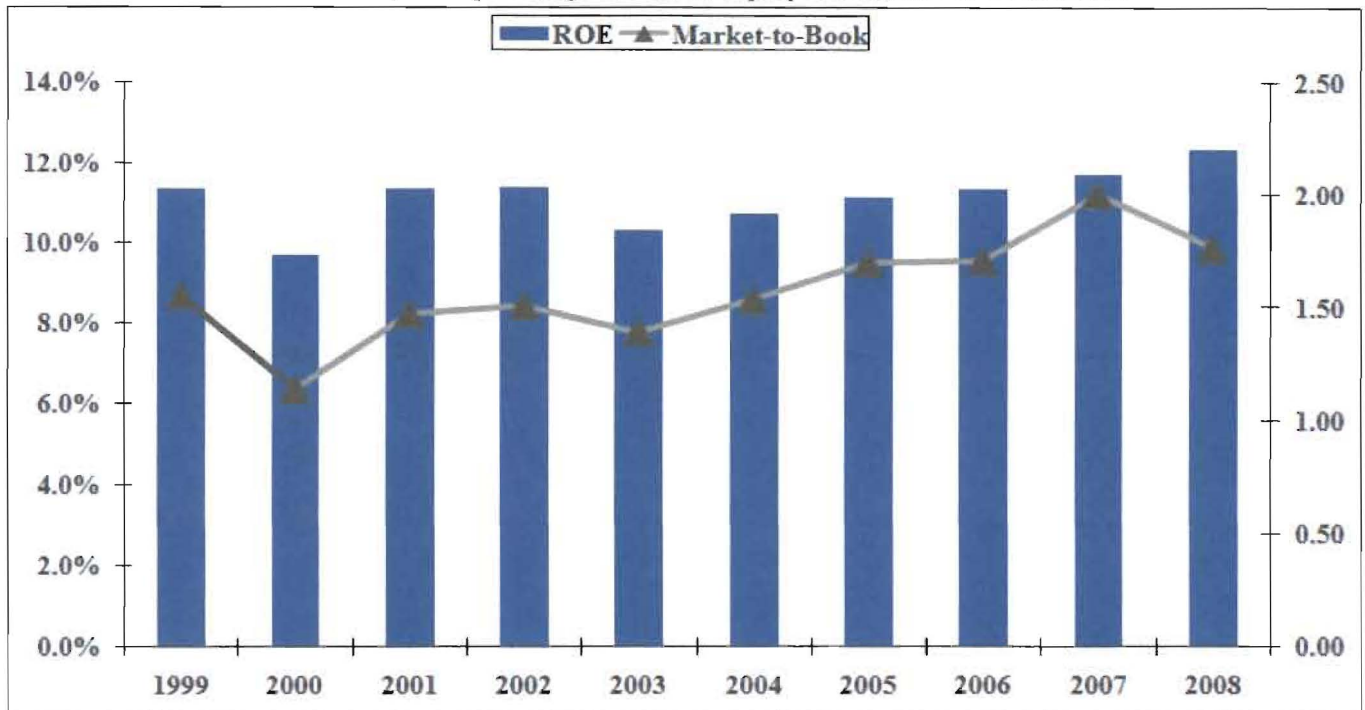


Exhibit JRW-7
Electric Proxy Group Average Dividend Yield



Data Source: *Value Line Investment Survey*.

Exhibit JRW-7
Electric Proxy Group Average Return on Equity and Market-to-Book Ratios



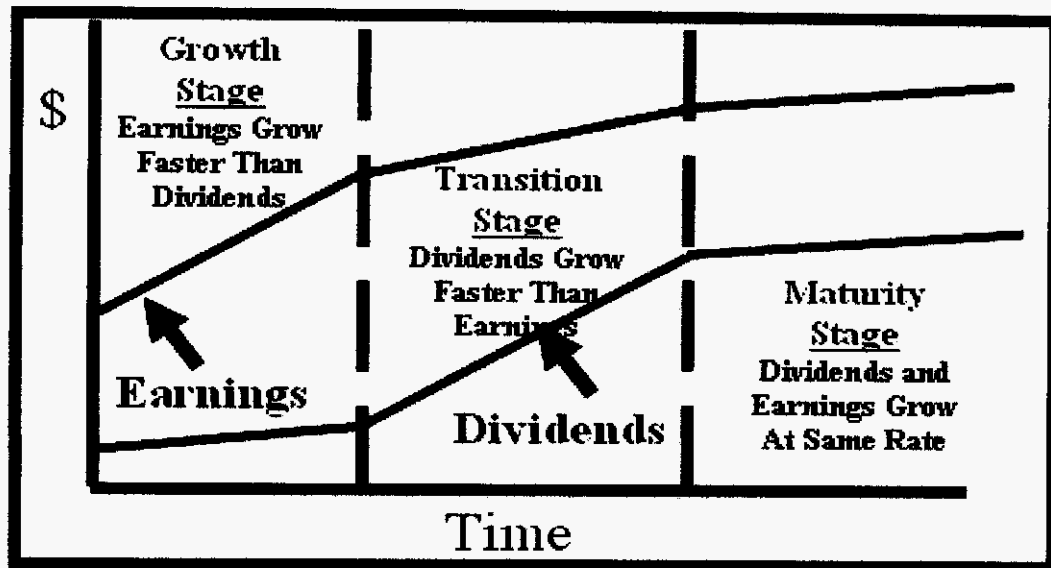
Data Source: *Value Line Investment Survey.*

Exhibit JRW-8

Industry Average Betas

Industry Name	No.	Beta	Industry Name	No.	Beta	Industry Name	No.	Beta
Public/Private Equity	10	2.08	Homebuilding	32	1.36	Trucking	33	1.17
Coal	18	1.98	R.E.I.T.	144	1.35	Medical Supplies	252	1.17
Steel (Integrated)	14	1.96	Petroleum (Integrated)	25	1.34	Drug	342	1.16
Semiconductor	122	1.81	Manuf. Housing/RV	18	1.32	Newspaper	16	1.16
Semiconductor Equip	16	1.78	Retail Automotive	16	1.31	Air Transport	44	1.15
Steel (General)	20	1.71	Electronics	173	1.31	Apparel	53	1.14
Hotel/Gaming	68	1.70	Investment Co.(Foreign)	16	1.31	Office Equip/Supplies	26	1.11
Metals & Mining (Div.)	78	1.69	Maritime	56	1.30	Environmental	79	1.11
Entertainment	84	1.66	Computers/Peripherals	125	1.29	Medical Services	160	1.10
Power	66	1.63	Furn/Home Furnishings	34	1.29	Household Products	26	1.08
Auto Parts	54	1.56	Aerospace/Defense	66	1.27	Healthcare Information	29	1.05
Oilfield Svcs/Equip.	112	1.56	Financial Svcs. (Div.)	296	1.27	Retail Building Supply	8	1.01
Cable TV	25	1.56	Packaging & Container	33	1.27	Retail Store	38	1.01
Metal Fabricating	35	1.56	Chemical (Basic)	19	1.26	Toiletries/Cosmetics	23	0.95
Wireless Networking	57	1.54	Retail (Special Lines)	155	1.26	Beverage	41	0.95
E-Commerce	54	1.50	Restaurant	68	1.26	Pharmacy Services	19	0.94
Telecom. Equipment	110	1.49	Biotechnology	108	1.25	Insurance (Prop/Cas.)	78	0.91
Auto & Truck	20	1.49	Railroad	15	1.25	Bank (Midwest)	39	0.91
Heavy Construction	14	1.48	Diversified Co.	113	1.25	Reinsurance	11	0.91
Precision Instrument	90	1.47	Petroleum (Producing)	188	1.24	Oil/Gas Distribution	19	0.89
Entertainment Tech	33	1.45	Publishing	27	1.24	Water Utility	16	0.86
Human Resources	31	1.44	Shoe	19	1.23	Bank (Canadian)	8	0.86
Advertising	30	1.43	Utility (Foreign)	5	1.23	Grocery	14	0.84
Telecom. Services	140	1.43	Computer Software/Svcs	322	1.22	Educational Services	34	0.84
Precious Metals	75	1.41	Canadian Energy	12	1.22	Investment Co.	17	0.83
Internet	208	1.41	Information Services	34	1.22	Electric Util. (Central)	24	0.82
Recreation	64	1.41	Chemical (Diversified)	33	1.21	Food Processing	109	0.80
Funeral Services	6	1.41	Paper/Forest Products	38	1.20	Electric Utility (West)	16	0.79
Building Materials	52	1.39	Natural Gas (Div.)	34	1.20	Electric Utility (East)	26	0.74
Machinery	124	1.39	Industrial Services	167	1.20	Food Wholesalers	18	0.73
Property Management	17	1.38	Chemical (Specialty)	88	1.18	Bank	477	0.71
Electrical Equipment	83	1.37	Foreign Electronics	10	1.18	Tobacco	12	0.71
Securities Brokerage	32	1.37	Insurance (Life)	35	1.17	Natural Gas Utility	25	0.69
Data Source: http:// www.stern.nyu.edu/~adamodar .						Thrift	234	0.66
						Total Market	6870	1.19

Exhibit JRW-9
Three-Stage DCF Model



Source: William F. Sharpe, Gordon J. Alexander, and Jeffrey V. Bailey, Investments (Prentice-Hall, 1995), pp. 590-91.

Exhibit JRW-10

**Florida Power & Light Company
Discounted Cash Flow Analysis**

Electric Proxy Group

Dividend Yield*	4.7%
Adjustment Factor	<u>1.0275</u>
Adjusted Dividend Yield	4.83%
Growth Rate**	<u>5.50%</u>
Equity Cost Rate	10.3%

* Page 2 of Exhibit JRW-10

** Based on data provided on pages 3, 4, 5, and
6 of Exhibit JRW-10

Exhibit JRW-10

**Florida Power & Light Company
Monthly Dividend Yields**

Electric Proxy Group

Company	Feb	Mar	Apr	May	June	July	Mean
American Electric Power Co. (NYSE-AEP)	5.2%	5.4%	5.9%	6.1%	6.6%	5.2%	5.7%
Edison International (NYSE-EIX)	3.9%	4.4%	4.3%	4.5%	4.4%	4.0%	4.3%
Entergy Corporation (NYSE-ETR)	3.8%	4.3%	4.4%	4.5%	4.1%	3.7%	4.1%
FirstEnergy Corporation (NYSE-FE)	4.5%	4.6%	5.7%	5.6%	6.0%	4.2%	5.1%
FPL Group, Inc. (NYSE-FPL)	3.6%	3.6%	3.8%	3.7%	3.5%	3.5%	3.6%
Northeast Utilities (NYSE-NU)	3.7%	3.8%	4.4%	4.5%	4.6%	3.8%	4.1%
PG&E Corporation (NYSE-PCG)	4.2%	4.4%	4.7%	4.5%	4.7%	4.1%	4.4%
Progress Energy Inc. (NYSE-PGN)	6.6%	6.6%	7.0%	7.2%	7.3%	6.3%	6.8%
Southern Company (NYSE-SO)	4.8%	5.4%	5.5%	5.6%	6.2%	4.7%	5.4%
Xcel Energy Inc. (NYSE-XEL)	5.3%	5.3%	5.2%	5.2%	5.5%	5.2%	5.3%
Mean	4.6%	4.8%	5.1%	5.1%	5.3%	4.5%	4.9%

Exhibit JRW-10

Florida Power & Light Company
DCF Equity Cost Growth Rate Measures
Value Line Historic Growth Rates

Electric Proxy Group

Company	<i>Value Line</i> Historic Growth					
	Past 10 Years			Past 5 Years		
	Earnings	Dividends	Book Value	Earnings	Dividends	Book Value
American Electric Power Co. (NYSE-AEP)	-0.5%	-4.0%	NA	0.0%	-6.0%	2.5%
Edison International (NYSE-EIX)	7.0%	1.5%	6.0%	13.5%	0.0%	14.5%
Entergy Corporation (NYSE-ETR)	9.5%	4.5%	4.0%	10.5%	13.0%	3.0%
FirstEnergy Corporation (NYSE-FE)	7.5%	3.0%	5.0%	12.5%	6.5%	3.0%
FPL Group, Inc. (NYSE-FPL)	7.0%	5.5%	7.0%	9.5%	7.0%	8.0%
Northeast Utilities (NYSE-NU)	NA	3.5%	1.0%	3.0%	8.5%	2.0%
PG&E Corporation (NYSE-PCG)	4.5%	0.5%	1.5%	26.5%	0.0%	18.0%
Progress Energy Inc. (NYSE-PGN)	-0.5%	2.5%	5.5%	-6.5%	2.0%	2.5%
Southern Company (NYSE-SO)	3.0%	2.0%	1.5%	4.0%	3.0%	5.5%
Xcel Energy Inc. (NYSE-XEL)	-2.5%	-4.0%	-0.5%	1.0%	-4.0%	1.0%
Mean	3.9%	1.5%	3.4%	7.4%	3.0%	6.0%
Median	4.5%	2.3%	4.0%	6.8%	2.5%	3.0%
				Average of Mean and Median = 4.0%		

Data Source: *Value Line Investment Survey*.

Exhibit JRW-10

Florida Power & Light Company
DCF Equity Cost Growth Rate Measures
Value Line Projected Growth Rates

Electric Proxy Group

Company	Value Line			Value Line		
	Projected Growth			Internal Growth		
	Est'd. '06-'08 to '12-'14			Return on	Retention	Internal
	Earnings	Dividends	Book Value	Equity	Rate	Growth
American Electric Power Co. (NYSE-AEP)	3.0%	3.0%	5.0%	10.5%	46.0%	4.8%
Edison International (NYSE-EIX)	3.5%	4.5%	7.0%	11.0%	66.0%	7.3%
Entergy Corporation (NYSE-ETR)	6.0%	6.5%	6.5%	14.0%	54.0%	7.6%
FirstEnergy Corporation (NYSE-FE)	4.0%	4.5%	4.5%	14.0%	50.0%	7.0%
FPL Group, Inc. (NYSE-FPL)	10.0%	6.0%	8.5%	13.5%	60.0%	8.1%
Northeast Utilities (NYSE-NU)	8.0%	6.5%	5.0%	8.5%	49.0%	4.2%
PG&E Corporation (NYSE-PCG)	6.5%	7.5%	6.5%	12.5%	50.0%	6.3%
Progress Energy Inc. (NYSE-PGN)	6.0%	1.0%	2.0%	9.5%	28.0%	2.7%
Southern Company (NYSE-SO)	4.5%	4.0%	5.5%	14.0%	34.0%	4.8%
Xcel Energy Inc. (NYSE-XEL)	6.5%	3.0%	4.5%	10.5%	46.0%	4.8%
Mean	5.8%	4.7%	5.5%	11.8%	48.3%	5.7%
Median	6.0%	4.5%	5.3%	11.8%	49.5%	5.5%
Average of Mean and Median Figures =	5.3%				Average =	5.6%

Data Source: Value Line Investment Survey.

Exhibit JRW-10

Florida Power & Light Company
DCF Equity Cost Growth Rate Measures
Analysts Projected EPS Growth Rate Estimates

Electric Proxy Group

Company	Yahoo First Call	Zack's	Reuters	Average
American Electric Power Co. (NYSE-AEP)	3.44%	5.00%	6.00%	4.81%
Edison International (NYSE-EIX)	2.05%	6.30%	5.35%	4.57%
Entergy Corporation (NYSE-ETR)	9.02%	7.30%	8.82%	8.38%
FirstEnergy Corporation (NYSE-FE)	6.67%	7.30%	6.00%	6.66%
FPL Group, Inc. (NYSE-FPL)	9.57%	9.10%	9.40%	9.36%
Northeast Utilities (NYSE-NU)	7.54%	8.40%	6.84%	7.59%
PG&E Corporation (NYSE-PCG)	7.03%	6.90%	6.66%	6.86%
Progress Energy Inc. (NYSE-PGN)	5.54%	4.80%	5.32%	5.22%
Southern Company (NYSE-SO)	5.36%	5.00%	5.36%	5.24%
Xcel Energy Inc. (NYSE-XEL)	6.38%	5.20%	5.92%	5.83%
Mean	6.3%	6.5%	6.6%	6.5%
Median	6.5%	6.6%	6.0%	6.2%
Average				6.3%

Data Sources: www.zacks.com, <http://quote.yahoo.com>, www.investor.reuters.com.

Exhibit JRW-10

Florida Power & Light Company
DCF Growth Rate Indicators

Electric Proxy Group

Growth Rate Indicator	Growth Rate
Historic Value Line Growth in EPS, DPS, and BVPS	4.0%
Projected <i>Value Line</i> Growth in EPS, DPS, and BVPS	5.4%
Internal Growth ROE * Retention Rate	5.6%
Projected EPS Growth from Bloomberg and Zacks	6.3%
Average of Historic and Projected Growth Rates	5.2%

Exhibit JRW-11

**Florida Power & Light Company
Capital Asset Pricing Model**

Electric Proxy Group

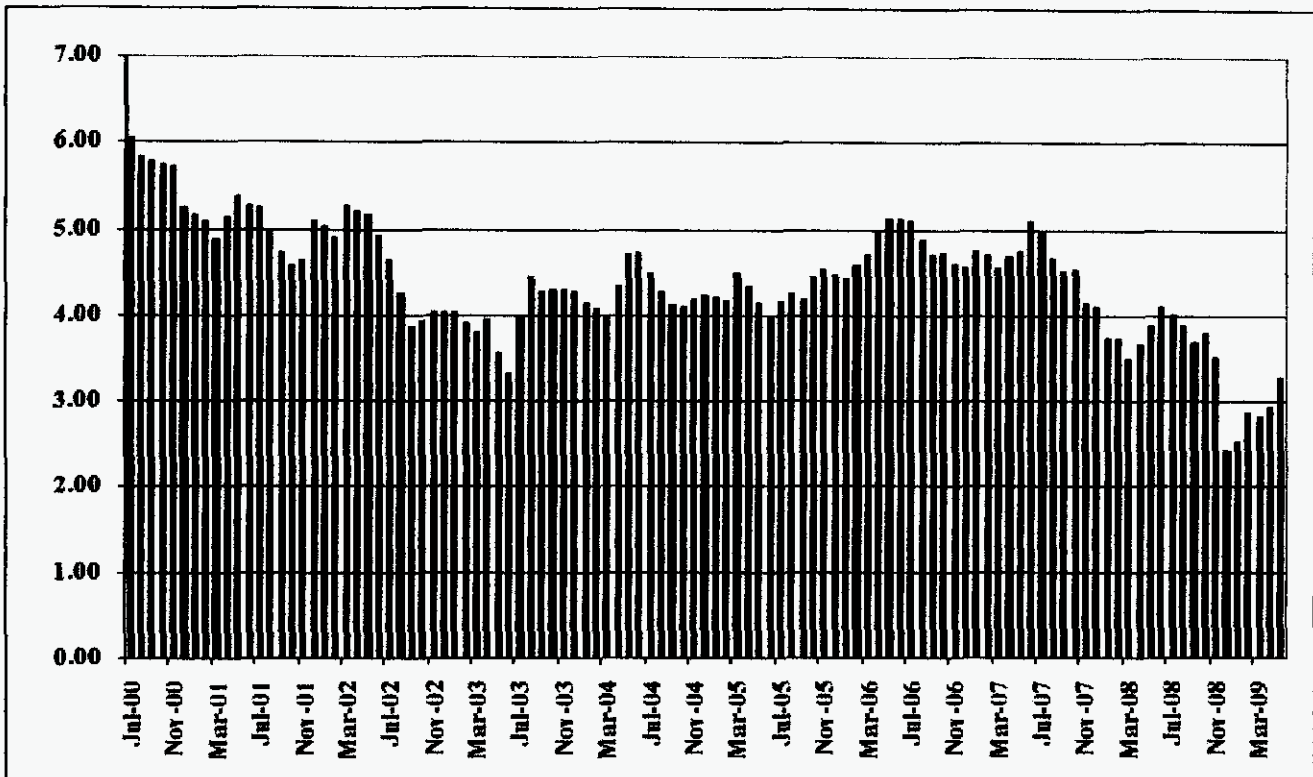
Risk-Free Interest Rate	4.50%
Beta*	0.70
Ex Ante Equity Risk Premium**	4.36%
CAPM Cost of Equity	7.6%

* See page 3 of Exhibit JRW-11

** See pages 5 and 6 of Exhibit JRW-11

Exhibit JRW-11

Panel A
 Ten-Year U.S. Treasury Yields
 January 2000-May 2009

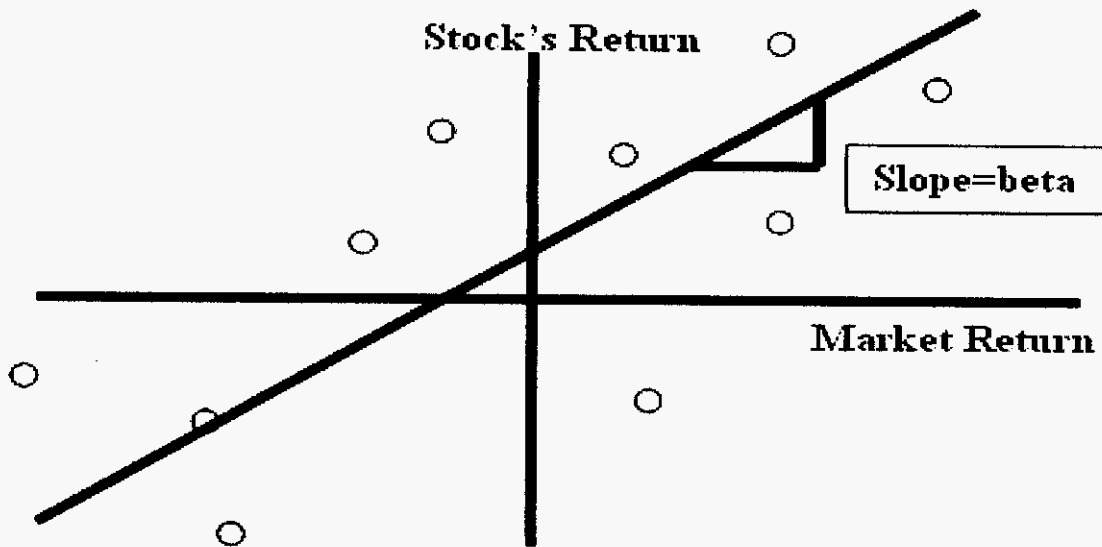


Panel B
 Current Rates

U.S. Treasuries

	COUPON	MATURITY DATE	CURRENT PRICE/YIELD
3-MONTH	0.000	10/08/2009	0.18 / .18
6-MONTH	0.000	01/07/2010	0.28 / .28
12-MONTH	0.000	07/01/2010	0.45 / .46
2-YEAR	1.125	06/30/2011	100-10+ / .96
3-YEAR	1.875	06/15/2012	101-04½ / 1.48
5-YEAR	2.625	06/30/2014	100-31 / 2.42
7-YEAR	3.250	06/30/2016	100-17+ / 3.16
10-YEAR	3.125	05/15/2019	96-16½ / 3.55
30-YEAR	4.250	05/15/2039	97-24½ / 4.38

Panel A
Calculation of Beta



Panel B
Electric Proxy Group

Company	Beta
American Electric Power Co. (NYSE-AEP)	0.75
Edison International (NYSE-EIX)	0.80
Entergy Corporation (NYSE-ETR)	0.70
FirstEnergy Corporation (NYSE-FE)	0.85
FPL Group, Inc. (NYSE-FPL)	0.75
Northeast Utilities (NYSE-NU)	0.70
PG&E Corporation (NYSE-PCG)	0.60
Progress Energy Inc. (NYSE-PGN)	0.65
Southern Company (NYSE-SO)	0.55
Xcel Energy Inc. (NYSE-XEL)	0.65
Mean	0.70

Data Source: *Value Line Investment Survey.*

Exhibit JRW-11

Risk Premium Approaches

	Historical Ex Post Excess Returns	Surveys	Ex Ante Models and Market Data
Means of Assessing the Equity-Bond Risk Premium	Historical average is a popular proxy for the ex ante premium – but likely to be misleading	Investor and expert surveys can provide direct estimates of prevailing expected returns/premiums	Current financial market prices (simple valuation ratios or DCF-based measures) can give most objective estimates of feasible ex ante equity-bond risk premium
Problems/Debated Issues	Time variation in required returns and systematic selection and other biases have boosted valuations over time, and have exaggerated realized excess equity returns compared with ex ante expected premiums	Limited survey histories and questions of survey representativeness. Surveys may tell more about hoped-for expected returns than about objective required premiums due to irrational biases such as extrapolation.	Assumptions needed for DCF inputs, notably the trend earnings growth rate, make even these models' outputs subjective. The range of views on the growth rate, as well as the debate on the relevant stock and bond yields, leads to a range of premium estimates.

Source: Antti Ilmanen, "Expected Returns on Stocks and Bonds," *Journal of Portfolio Management*, (Winter 2003).

Exhibit JRW-11

**Florida Power & Light Company
Capital Asset Pricing Model
Equity Risk Premium**

Category	Study Authors	Publication Date	Time Period Of Study	Methodology	Return Measure	Range		Midpoint of Range	Mean	Average	
						Low	High				
Historical Risk Premium											
	Ibbotson	2009	1926-2008	Historical Stock Returns - Bond Returns	Arithmetic				5.60%		
					Geometric				3.90%		
	Bate	2008	1900-2007	Historical Stock Returns - Bond Returns	Geometric				4.50%		
	Shiller	2006	1926-2005	Historical Stock Returns - Bond Returns	Arithmetic				7.00%		
					Geometric				5.50%		
	Damodoran	2006	1926-2005	Historical Stock Returns - Bond Returns	Arithmetic				6.70%		
					Geometric				5.10%		
	Siegel	2005	1926-2005	Historical Stock Returns - Bond Returns	Arithmetic				6.10%		
					Geometric				4.60%		
	Dimson, Marsh, and Staunton	2006	1900-2005	Historical Stock Returns - Bond Returns	Arithmetic				5.50%		
	Goyal & Welch	2006	1872-2004	Historical Stock Returns - Bond Returns					4.77%		
	AVERAGE									5.39%	
Ex Ante Models (Puzzle Research)											
	Claus Thomas	2001	1985-1998	Abnormal Earnings Model					3.00%		
	Arnott and Bernstein	2002	1810-2001	Fundamentals - Div Yld + Growth					2.40%		
	Constantinides	2002	1872-2000	Historical Returns & Fundamentals - P/D & P/E					6.90%		
	Cornell	1999	1926-1997	Historical Returns & Fundamental GDP/Earnings		3.50%	5.50%	4.50%	4.50%		
	Easton, Taylor, et al	2002	1981-1998	Residual Income Model					5.30%		
	Fama French	2002	1951-2000	Fundamental DCF with EPS and DPS Growth		2.55%	4.32%		3.44%		
	Harris & Marston	2001	1982-1998	Fundamental DCF with Analysts' EPS Growth					7.14%		
	Best & Byrne	2001									
	McKinsey	2002	1962-2002	Fundamental (P/E, D/P, & Earnings Growth)		3.50%	4.00%		3.75%		
	Siegel	2005	1802-2001	Historical Earnings Yield	Geometric				2.50%		
	Grabowski	2006	1926-2005	Historical and Projected		3.50%	6.00%	4.75%	4.75%		
	Maheu & McCurdy	2006	1885-2003	Historical Excess Returns, Structural Breaks,		4.02%	5.10%	4.56%	4.56%		
	Bostock	2004	1960-2002	Bond Yields, Credit Risk, and Income Volatility		3.90%	1.30%	2.60%	2.60%		
	Bakshi & Chen	2005	1982-1998	Fundamentals - Interest Rates					7.31%		
	Donaldson, Kamstra, & Kramer	2006	1952-2004	Fundamental, Dividend yld., Returns, & Volatility		3.00%	4.00%	3.50%	3.50%		
	Campbell	2008	1982-2007	Historical & Projections (D/P & Earnings Growth)		4.10%	5.40%		4.75%		
	Best & Byrne	2001	Projection	Fundamentals - Div Yld + Growth					2.00%		
	Fernandez	2007	Projection	Required Equity Risk Premium					4.00%		
	DeLong & Magin	2008	Projection	Earnings Yield - TIPS					3.22%		
	Damodoran	2009	Projection	Fundamentals - Implied from FCF to Equity Model					6.43%		
	Social Security										
	Office of Chief Actuary		1900-1995								
	John Campbell	2001	1860-2000	Historical & Projections (D/P & Earnings Growth)	Arithmetic	3.00%	4.00%	3.50%	3.50%		
			Projected for 75 Years		Geometric	1.50%	2.50%	2.00%	2.00%		
	Peter Diamond	2001	Projected for 75 Years	Fundamentals (D/P, GDP Growth)		3.00%	4.80%	3.90%	3.90%		
	John Shoven	2001	Projected for 75 Years	Fundamentals (D/P, P/E, GDP Growth)		3.00%	3.50%	3.25%	3.25%		
	AVERAGE									4.12%	
Surveys											
	Survey of Financial Forecasters	2009	10-Year Projection	About 50 Financial Forecasters					1.94%		
	Duke - CFO Magazine Survey	2009	10-Year Projection	Approximately 500 CFOs					4.11%		
	Welch - Academics	2008	30-Year Projection	Random Academics		5.00%	5.74%	5.37%	5.94%		
	Fernandez - Academics	2009	Long-Term	Fernandez - Academics				6.50%			
	AVERAGE									4.00%	
Building Block											
	Ibbotson and Chen	2009	1926-2008	Historical Supply Model (D/P & Earnings Growth)	Arithmetic			5.73%	4.68%		
					Geometric			3.62%			
	Woolridge		2009	Current Supply Model (D/P & Earnings Growth)					3.22%		
	AVERAGE									3.95%	
OVERALL AVERAGE										4.36%	

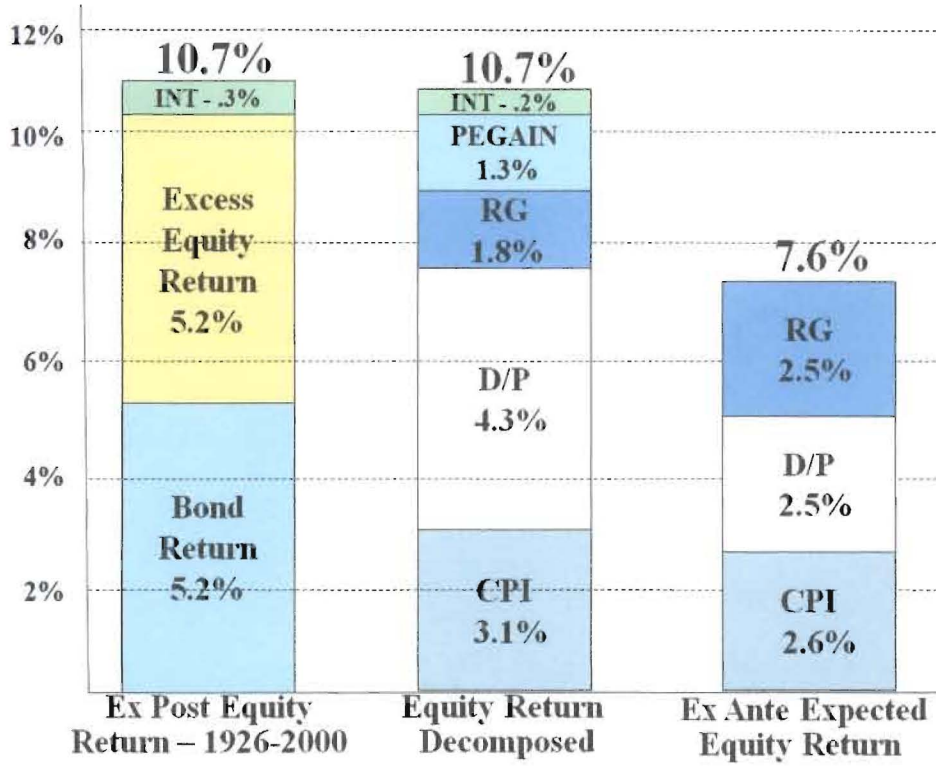
Exhibit JRW-11

Florida Power & Light Company
Capital Asset Pricing Model
Equity Risk Premium

Category	Study Authors	Publication Date	Time Period Of Study	Methodology	Return Measure	Range		Midpoint of Range		Average
						Low	High	Mean	Mean	
Historical Risk Premium										
	Ibbotson	2009	1926-2008	Historical Stock Returns - Bond Returns	Arithmetic					5.60%
	Bate	2008	1900-2007	Historical Stock Returns - Bond Returns	Geometric					3.90%
					Geometric					4.50%
	AVERAGE									4.67%
Ex Ante Models (Puzzle Research)										
	Campbell	2008	1982-2007	Historical & Projections (D/P & Earnings Growth)		4.10%	5.40%			4.75%
	DeLong & Magin	2008	Projection	Earnings Yield - TIPS						3.22%
	Damodoran	2009	Projection	Fundamentals - Implied from FCF to Equity Model						6.43%
	AVERAGE									4.80%
Surveys										
	Survey of Financial Forecasters	2009	10-Year Projection	About 50 Financial Forecasters						1.94%
	Duke - CFO Magazine Survey	2009	10-Year Projection	Approximately 500 CFOs						4.11%
	Welch - Academics	2008	30-Year Projection	Random Academics		5.00%	5.74%	5.37%		5.94%
	Fernandez - Academics	2009	Long-Term	Fernandez - Academics				6.50%		
	AVERAGE									4.00%
Building Block										
	Ibbotson and Chen	2009	1926-2008	Historical Supply Model (D/P & Earnings Growth)	Arithmetic			5.73%		4.68%
					Geometric			3.62%		
	Woolridge		2009	Current Supply Model (D/P & Earnings Growth)						3.22%
	AVERAGE									3.95%
OVERALL AVERAGE										4.35%

Exhibit JRW-11

Florida Power & Light Company
Decomposing Equity Market Returns
The Building Blocks Methodology



Source: Antti Ilmanen, "Expected Returns on Stocks and Bonds," *Journal of Portfolio Management*, (Winter 2003).

Exhibit JRW-11

Florida Power & Light Company

2009 Survey of Professional Forecasters

Philadelphia Federal Reserve Bank

Long-Term Forecasts

Table Seven

LONG-TERM (10 YEAR) FORECASTS

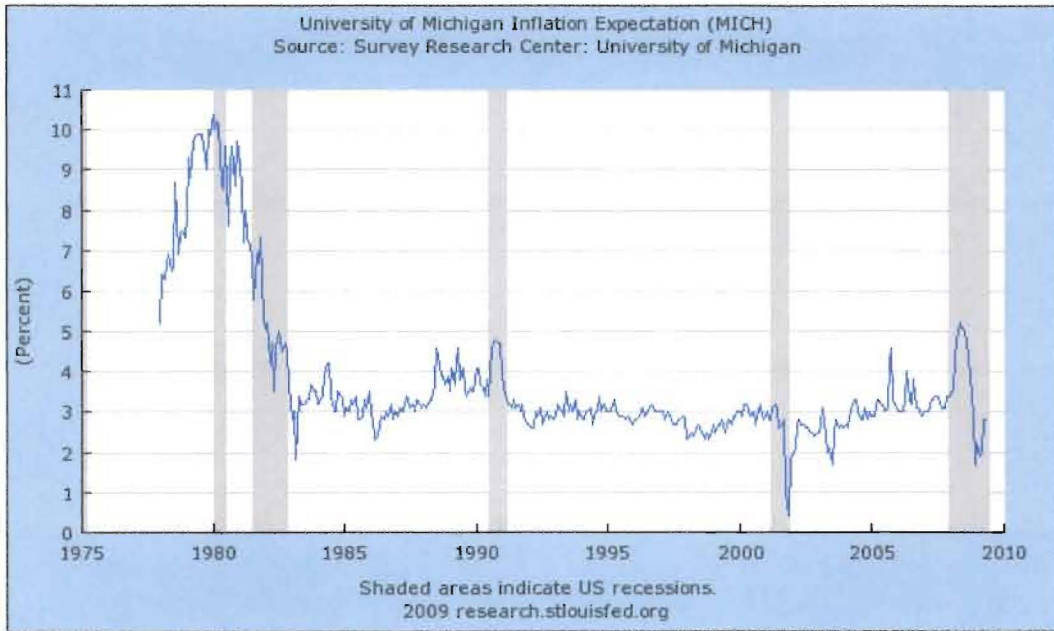
<u>SERIES: CPI INFLATION RATE</u>		<u>SERIES: REAL GDP GROWTH RATE</u>	
STATISTIC		STATISTIC	
MINIMUM	1.130	MINIMUM	2.000
LOWER QUARTILE	2.000	LOWER QUARTILE	2.300
MEDIAN	2.400	MEDIAN	2.560
UPPER QUARTILE	2.750	UPPER QUARTILE	2.800
MAXIMUM	3.800	MAXIMUM	3.750
MEAN	2.410	MEAN	2.580
STD. DEV.	0.600	STD. DEV.	0.380
N	39	N	37
MISSING	4	MISSING	6
<u>SERIES: PRODUCTIVITY GROWTH</u>		<u>SERIES: STOCK RETURNS (S&P 500)</u>	
STATISTIC		STATISTIC	
MINIMUM	1.200	MINIMUM	2.400
LOWER QUARTILE	1.700	LOWER QUARTILE	5.000
MEDIAN	1.900	MEDIAN	6.500
UPPER QUARTILE	2.000	UPPER QUARTILE	8.000
MAXIMUM	3.000	MAXIMUM	11.400
MEAN	1.900	MEAN	6.620
STD. DEV.	0.380	STD. DEV.	2.030
N	34	N	29
MISSING	9	MISSING	14
<u>SERIES: BOND RETURNS (10-YEAR)</u>		<u>SERIES: BILL RETURNS (3-MONTH)</u>	
STATISTIC		STATISTIC	
MINIMUM	2.000	MINIMUM	1.100
LOWER QUARTILE	4.250	LOWER QUARTILE	2.500
MEDIAN	4.850	MEDIAN	3.000
UPPER QUARTILE	5.100	UPPER QUARTILE	4.000
MAXIMUM	6.000	MAXIMUM	5.100
MEAN	4.680	MEAN	3.190
STD. DEV.	0.820	STD. DEV.	0.940
N	32	N	32
MISSING	11	MISSING	11

Source: Philadelphia Federal Reserve Bank, Survey of Professional Forecasters, February 13, 2009.

Exhibit JRW-11

Florida Power & Light Company

University of Michigan Survey Research Center
Expected Short-Term Inflation Rate

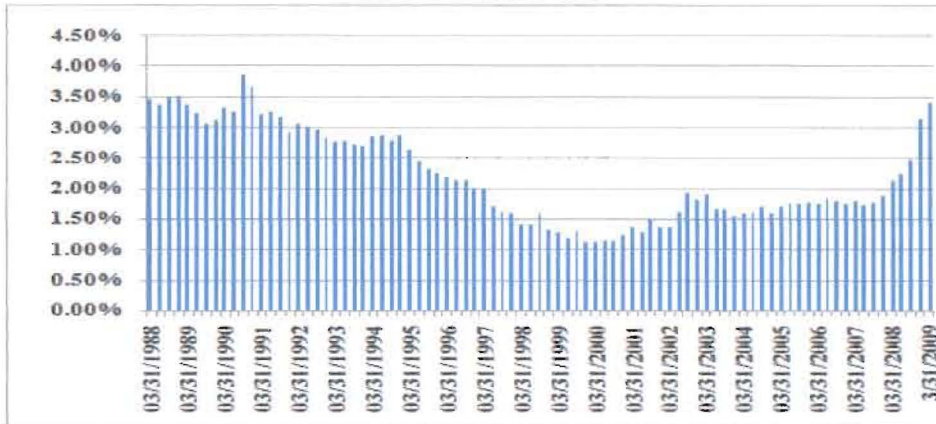


Data Source: <http://research.stlouisfed.org/fred2/series/MICH?cid=98>

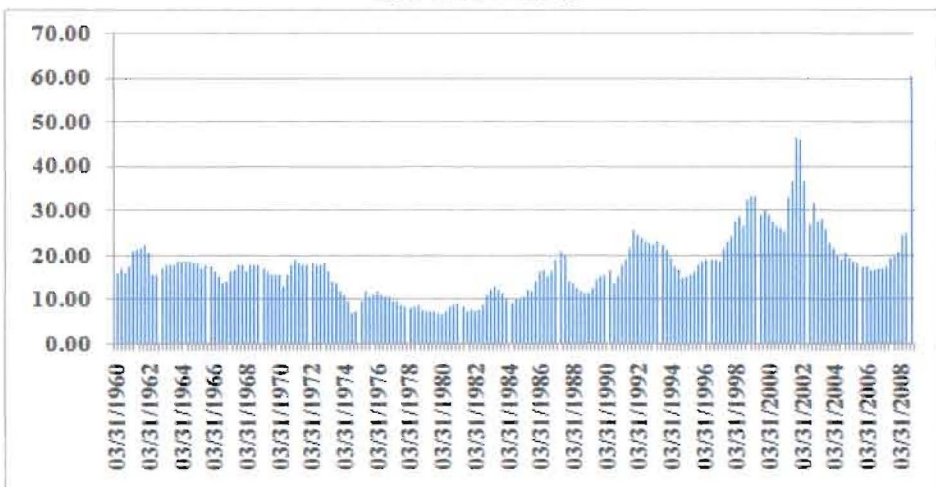
Exhibit JRW-11

Florida Power & Light Company
Decomposing Equity Market Returns
The Building Blocks Methodology

S&P 500 Dividend Yield



S&P 500 PE Ratios



Current S&P 500 Dividend Yield and P/E Ratio

S&P 500 Statistics
As of May 29, 2009

Total Market Value (\$ Billion)	8,035
Mean Market Value (\$ Million)	16,070
Median Market Value (\$ Million)	6,490
Weighted Ave. Market Value (\$ Million)	67,881
Largest Cos. Market Value (\$ Million)	342,702
Smallest Cos. Market Value (\$ Million)	458
Median Share Price (\$)	28.00
P/E Ratio*	127.48
Indicated Dividend Yield (%)	2.47
NM - Not Meaningful	

*Based on As Reported Earnings.

Data Source: www.standardandpoors.com.

Exhibit JRW-11

Florida Power & Light Company

CAPM

Real S&P 500 EPS Growth Rate

Year	S&P 500 EPS	Annual Inflation CPI	Inflation Adjustment Factor	Real S&P 500 EPS	
1960	3.10	1.48		3.10	
1961	3.37	0.07	1.01	3.35	
1962	3.67	1.22	1.02	3.59	
1963	4.13	1.65	1.04	3.99	
1964	4.76	1.19	1.05	4.55	
1965	5.30	1.92	1.07	4.97	
1966	5.41	3.35	1.10	4.90	
1967	5.46	3.04	1.14	4.80	
1968	5.72	4.72	1.19	4.81	
1969	6.10	6.11	1.26	4.83	10-Year
1970	5.51	5.49	1.34	4.13	2.89%
1971	5.57	3.36	1.38	4.04	
1972	6.17	3.41	1.43	4.33	
1973	7.96	8.80	1.55	5.13	
1974	9.35	12.20	1.74	5.37	
1975	7.71	7.01	1.86	4.14	
1976	9.75	4.81	1.95	4.99	
1977	10.87	6.77	2.08	5.22	
1978	11.64	9.03	2.27	5.13	
1979	14.55	13.31	2.57	5.66	10-Year
1980	14.99	12.40	2.89	5.18	2.30%
1981	15.18	8.94	3.15	4.82	
1982	13.82	3.87	3.27	4.23	
1983	13.29	3.80	3.40	3.91	
1984	16.84	3.95	3.53	4.77	
1985	15.68	3.77	3.66	4.28	
1986	14.43	1.13	3.70	3.90	
1987	16.04	4.41	3.87	4.15	
1988	22.77	4.42	4.04	5.64	
1989	24.03	4.65	4.22	5.69	10-Year
1990	21.73	6.11	4.48	4.85	-0.65%
1991	19.10	3.06	4.62	4.14	
1992	18.13	2.90	4.75	3.81	
1993	19.82	2.75	4.88	4.06	
1994	27.05	2.67	5.01	5.40	
1995	35.35	2.54	5.14	6.88	
1996	35.78	3.32	5.31	6.74	
1997	39.56	1.70	5.40	7.33	
1998	38.23	1.61	5.48	6.97	
1999	45.17	2.68	5.63	8.02	10-Year
2000	52.00	3.39	5.82	8.93	6.29%
2001	44.23	1.55	5.92	7.48	
2002	47.24	2.38	6.06	7.80	
2003	54.15	1.88	6.17	8.77	
2004	67.01	3.26	6.37	10.51	5-Year
2005	68.32	3.42	6.60	10.35	3.00%
2006	81.96	2.54	6.77	12.11	
2007	87.51	4.08	7.04	12.43	
2008	65.39	0.09	7.05	9.28	
Data Source: http://pages.stern.nyu.edu/~adamodar/				Real EPS Growth	2.3%

Panel A

Summary of Dr. Avera's Equity Cost Rate Approaches and Results

Approach	Utility Proxy Group	Non- Utility Proxy Group
DCF	10.6% - 11.5%	12.9% - 13.4%
CAPM	10.50%	11.50%
Expected Earnings	11.70%	12.51%
Average	11.10%	12.40%

Panel B

Summary of Dr. Avera's DCF Results

	Utility Proxy Group	Non- Utility Proxy Group
Average Adjusted Dividend Yield	4.03%	
Growth*	6.00%	
DCF Result	10.03%	

* Expected EPS Growth from V-Line, Thompson, Zacks, and br+sv

Panel C

Summary of Dr. Avera's CAPM Results

	Utility Proxy Group	Non- Utility Proxy Group
Risk-Free Rate	3.20%	3.20%
Beta	0.73	0.83
Market Risk Premium	10.00%	10.00%
CAPM Result	10.50%	11.50%

Panel E

Summary of Dr. Avera Comparable Earnings Results

	CE
Historical ROEs	14.60%
Forecasted ROEs	12.80%
Average	13.70%

Exhibit JRW-13
Florida Power & Light Company
Summary Financial Statistics for Avera Proxy Group

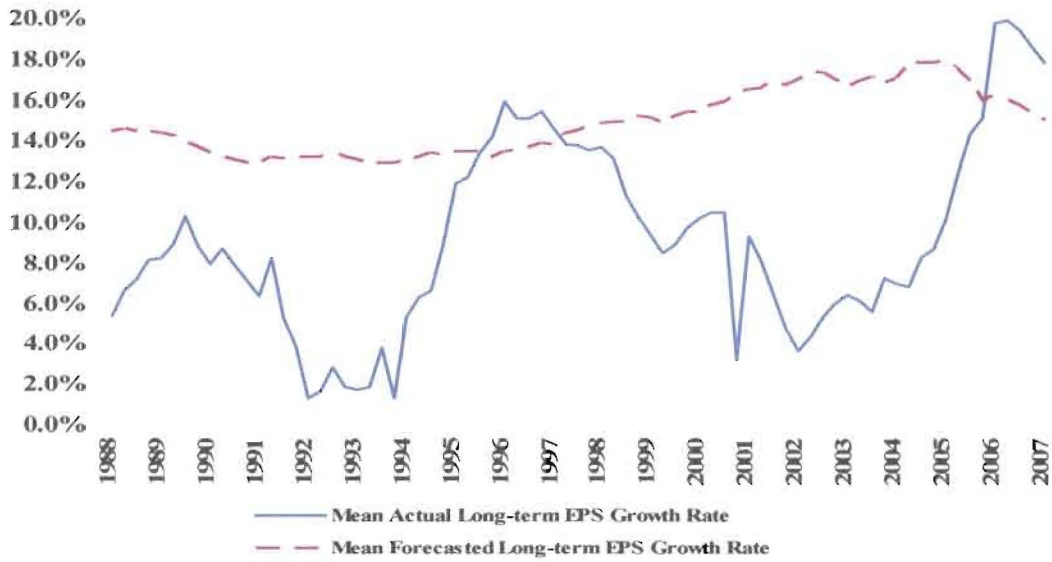
Avera Proxy Group								
Company	Operating Revenue (\$mil)	Percent Elec Revenue	Net Plant (\$mil)	S&P Bond Rating	Moody's Bond Rating	Common Equity Ratio	Return on Equity	Market to Book Ratio
ALLETE, Inc. (NYSE-ALE)	792.5	89	1,435.2	A-	NR	57	13.4	105
Alliant Energy Corporation (NYSE-LNT)	3,639.6	67	5,572.9	A-	A2	57	16.7	98
Consolidated Edison, Inc. (NYSE-ED)	13,429.0	64	21,206.0	A-	A1	47	10.9	105
Dominion Resources, Inc. (NYSE-D)	16,679.0	43	23,353.0	A	A3	40	10.5	184
Duke Energy Corporation (NYSE-DUK)	13,182.0	73	34,505.0	A	A3	58	7.0	89
FPL Group, Inc. (NYSE-FPL)	16,680.0	70	33,053.0	A	A1	41	13.4	195
Integrus Energy Group (NYSE-TEG)	13,259.4	10	4,790.7	A-	A1	54	5.6	77
MDU Resources Group, Inc. (NYSE-MDU)	4,975.4	4	3,711.8	A-	A2	59	14.1	147
NSTAR (NYSE-NST)	3,397.6	79	4,429.7	AA-	A1	38	10.6	188
OGE Energy Corp. (NYSE-OGE)	3,682.6	52	5,446.3	BBB+	Baa1	42	14.1	139
PG&E Corporation (NYSE-PCG)	14,326.0	74	26,923.0	BBB+	A3	47	11.8	146
Portland General Electric (NYSE-POR)	1,759.0	98	3,440.0	A	Baa1	52	6.9	85
Progress Energy Inc. (NYSE-PGN)	9,535.0	98	18,636.0	A-	A2	45	9.7	113
SCANA Corporation (NYSE-SCG)	5,128.0	44	8,443.0	A-	A2	40	10.2	119
SEMPRA Energy (NYSE-SRE)	9,596.0	47	17,208.0	A+	A1	52	12.4	144
Southern Company (NYSE-SO)	17,110.0	99	36,767.7	A	A2	39	14.4	183
Vectren Corporation (NYSE-VVC)	2,377.8	22	2,768.5	A	A3	47	11.7	139
Wisconsin Energy Corporation (NYSE-WEC)	4,395.4	62	8,600.4	A-	Aa3	41	10.9	139
Xcel Energy Inc. (NYSE-XEL)	10,870.3	79	17,947.5	A-	A3	45	9.8	118
AVERAGE	8,674.5	62	14,644.1	A-	A2	47	11.3	132

Data Source: AUS *Utility Reports*, July 2009.

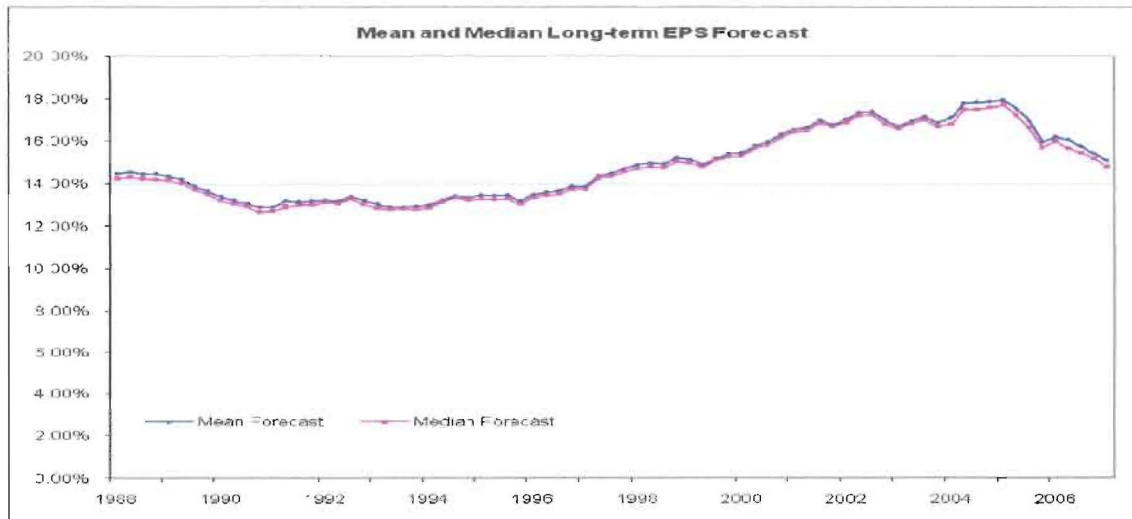
Florida Power & Light	11,649.0	100	18,783.0	A	A1	57	10.3	
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Data Source: 2008 FP&L Financial Statements

Panel A
Long-Term Forecasted Versus Actual EPS Growth Rates
1988-2007



Panel B
Long-Term Forecasted EPS Growth Rates
1988-2007



Source: Patrick J. Cusatis and J. Randall Woolridge, "The Accuracy of Analysts' Long-Term Earnings Per Share Growth Rate Forecasts," (July, 2008).

THE WALL STREET JOURNAL.

Study Suggests Bias in Analysts' Rosy Forecasts

By ANDREW EDWARDS

March 21, 2008; Page C6

Despite an economy teetering on the brink of a recession -- if not already in one -- analysts are still painting a rosy picture of earnings growth, according to a study done by Penn State's Smeal College of Business.

The report questions analysts' impartiality five years after then-New York Attorney General Eliot Spitzer forced analysts to pay \$1.5 billion in damages after finding evidence of bias.

"Wall Street analysts basically do two things: recommend stocks to buy and forecast earnings," said J. Randall Woolridge, professor of finance. "Previous studies suggest their stock recommendations do not perform well, and now we show that their long-term earnings-per-share growth-rate forecasts are excessive and upwardly biased."

The report, which examined analysts' long-term (three to five years) and one-year per-share earnings expectations from 1984 through 2006 found that companies' long-term earnings growth surpassed analysts' expectations in only two instances, and those came right after recessions.

Over the entire time period, analysts' long-term forecast earnings-per-share growth averaged 14.7%, compared with actual growth of 9.1%. One-year per-share earnings expectations were slightly more accurate: The average forecast was for 13.8% growth and the average actual growth rate was 9.8%.

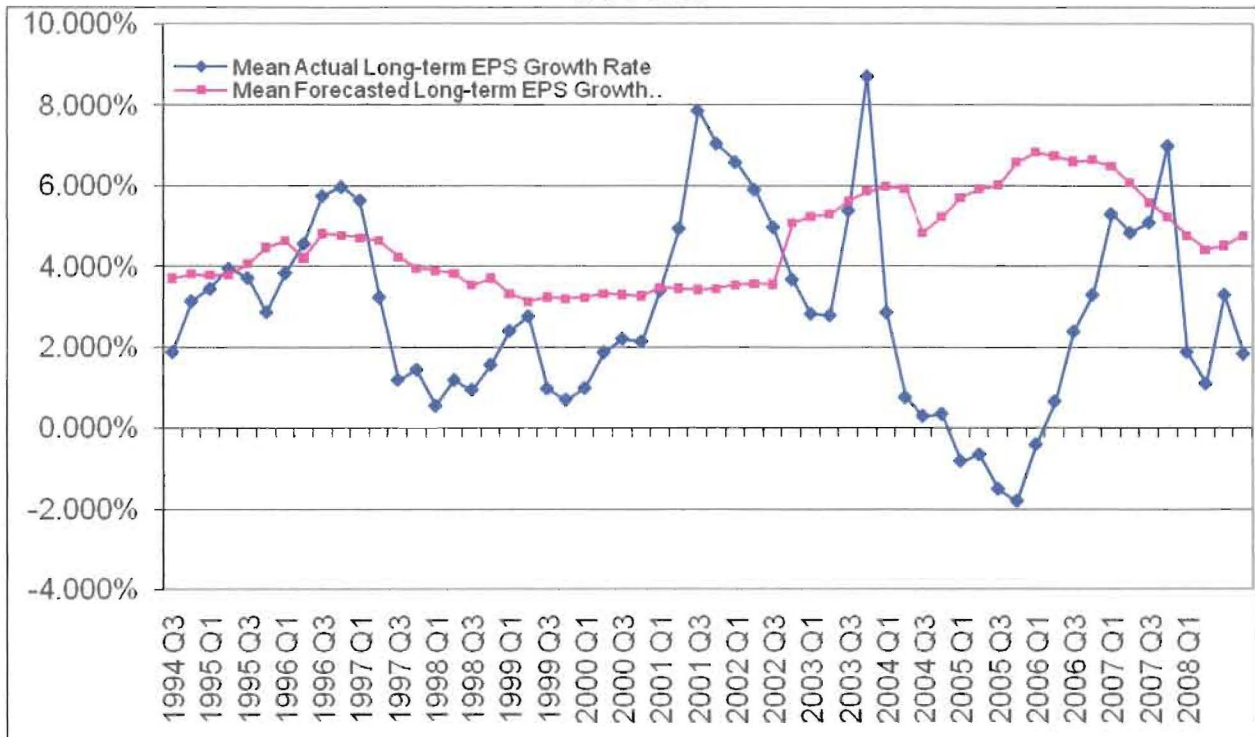
"A significant factor in the upward bias in long-term earnings-rate forecasts is the reluctance of analysts to forecast" profit declines, Mr. Woolridge said. The study found that nearly one-third of all companies experienced profit drops over successive three-to-five-year periods, but analysts projected drops less than 1% of the time.

The study's authors said, "Analysts are rewarded for biased forecasts by their employers, who want them to hype stocks so that the brokerage house can garner trading commissions and win underwriting deals."

They also concluded that analysts are under pressure to hype stocks to generate trading commissions, and they often don't follow stocks they don't like.

Write to Andrew Edwards at andrew.edwards@dowjones.com

**Long-Term Forecasted Versus Actual EPS Growth Rates
Electric Utility Companies
1994-2008**



Data Source: IBES

Panel A

Value Line 3-5 year EPS Growth Rate Forecasts

	Average Projected EPS Growth rate	Number of Negative EPS Growth Projections	Percent of Negative EPS Growth Projections
2,619 Companies	13.28%	124	4.73%

Panel B

Historical Five-Year EPS Growth Rates for Value Line Companies

	Average Historical EPS Growth rate	Number with Negative Historical EPS Growth	Percent with Negative Historical EPS Growth
2,281 Companies	14.12%	421	18.46%

Source: *Value Line Investment Analyzer*, January 2009.

Exhibit JRW-14

Florida Power & Light Company
DCF Equity Cost Growth Rate Measures
Value Line Projected Growth Rates

Company	Electric Proxy Group <i>Value Line</i>			<i>Value Line</i>		
	Projected Growth			Internal Growth		
	Est'd. '06-'08 to '12-'14			Return on Equity	Retention Rate	Internal Growth
	Earnings	Dividends	Book Value			
ALLETE, Inc. (NYSE-ALE)	-1.0%	3.0%	3.5%	9.0%	28.0%	2.5%
Alliant Energy Corporation (NYSE-LNT)	4.5%	7.0%	4.0%	10.5%	36.0%	3.8%
Consolidated Edison, Inc. (NYSE-ED)	2.5%	1.0%	4.0%	15.0%	45.0%	6.8%
Dominion Resources, Inc. (NYSE-D)	8.0%	7.0%	7.5%	15.0%	45.0%	6.8%
Duke Energy Corporation (NYSE-DUK)	5.0%	0.0%	-0.5%	8.0%	22.0%	1.8%
FPL Group, Inc. (NYSE-FPL)	10.0%	6.0%	8.5%	13.5%	60.0%	8.1%
Integrus Energy Group (NYSE-TEG)	5.5%	1.5%	1.0%	8.5%	25.0%	2.1%
MDU Resources Group, Inc. (NYSE-MDU)	5.0%	6.0%	7.5%	12.0%	68.0%	8.2%
NSTAR (NYSE-NST)	8.0%	5.5%	5.5%	14.5%	39.0%	5.7%
OGE Energy Corp. (NYSE-OGE)	4.5%	3.0%	7.0%	11.5%	49.0%	5.6%
PG&E Corporation (NYSE-PCG)	6.5%	7.5%	6.5%	12.5%	50.0%	6.3%
Portland General Electric (NYSE-POR)	5.5%	7.0%	3.0%	9.0%	43.0%	3.9%
Progress Energy Inc. (NYSE-PGN)	6.0%	1.0%	2.0%	9.5%	28.0%	2.7%
SCANA Corporation (NYSE-SCG)	4.0%	3.0%	4.5%	10.5%	39.0%	4.1%
SEMPRA Energy (NYSE-SRE)	5.0%	8.5%	8.0%	12.0%	63.0%	7.6%
Southern Company (NYSE-SO)	4.5%	4.0%	5.5%	14.0%	34.0%	4.8%
Vectren Corporation (NYSE-VVC)	5.5%	3.0%	6.0%	10.0%	33.0%	3.3%
Wisconsin Energy Corporation (NYSE-WEC)	8.0%	13.5%	6.0%	12.0%	52.0%	6.2%
Xcel Energy Inc. (NYSE-XEL)	6.5%	3.0%	4.5%	10.5%	46.0%	4.8%
Mean	5.4%	4.8%	4.9%	11.4%	42.4%	5.0%
Median	5.5%	4.0%	5.5%	11.5%	43.0%	4.8%
Average of Mean and Median Figures =		5.0%			Average =	4.9%

Data Source: *Value Line Investment Survey*.

Growth Rates
GNP, S&P 500 Price, EPS, and DPS

	GDP	S&P 500	Earnings	Dividends	
1960	526.4	58.11	3.10	1.98	
1961	544.7	71.55	3.37	2.04	
1962	585.6	63.1	3.67	2.15	
1963	617.7	75.02	4.13	2.35	
1964	663.6	84.75	4.76	2.58	
1965	719.1	92.43	5.30	2.83	
1966	787.8	80.33	5.41	2.88	
1967	832.6	96.47	5.46	2.98	
1968	910.0	103.86	5.72	3.04	
1969	984.6	92.06	6.10	3.24	
1970	1038.5	92.15	5.51	3.19	
1971	1127.1	102.09	5.57	3.16	
1972	1238.3	118.05	6.17	3.19	
1973	1382.7	97.55	7.96	3.61	
1974	1500.0	68.56	9.35	3.72	
1975	1638.3	90.19	7.71	3.73	
1976	1825.3	107.46	9.75	4.22	
1977	2030.9	95.1	10.87	4.86	
1978	2294.7	96.11	11.64	5.18	
1979	2563.3	107.94	14.55	5.97	
1980	2789.5	135.76	14.99	6.44	
1981	3128.4	122.55	15.18	6.83	
1982	3255.0	140.64	13.82	6.93	
1983	3536.7	164.93	13.29	7.12	
1984	3933.2	167.24	16.84	7.83	
1985	4220.3	211.28	15.68	8.20	
1986	4462.8	242.17	14.43	8.19	
1987	4739.5	247.08	16.04	9.17	
1988	5103.8	277.72	22.77	10.22	
1989	5484.4	353.4	24.03	11.73	
1990	5803.1	330.22	21.73	12.35	
1991	5995.9	417.09	19.10	12.97	
1992	6337.7	435.71	18.13	12.64	
1993	6657.4	466.45	19.82	12.69	
1994	7072.2	459.27	27.05	13.36	
1995	7397.7	615.93	35.35	14.17	
1996	7816.9	740.74	35.78	14.89	
1997	8304.3	970.43	39.56	15.52	
1998	8747.0	1229.23	38.23	16.20	
1999	9268.4	1469.25	45.17	16.71	
2000	9817.0	1320.28	52.00	16.27	
2001	10128.0	1148.09	44.23	15.74	
2002	10469.6	879.82	47.24	16.08	
2003	10960.8	1111.91	54.15	17.88	
2004	11685.9	1211.92	67.01	19.41	
2005	12433.9	1248.29	68.32	22.38	
2006	13194.7	1418.3	81.96	25.05	
2007	13841.3	1468.36	87.51	27.73	
2008		903.25	65.39	28.05	Average
Growth	7.20%	5.88%	6.56%	5.68%	6.33%

Data Sources: GDPA - <http://research.stlouisfed.org/fred2/categories/106>S&P 500, EPS and DPS - <http://pages.stern.nyu.edu/~adamodar/>