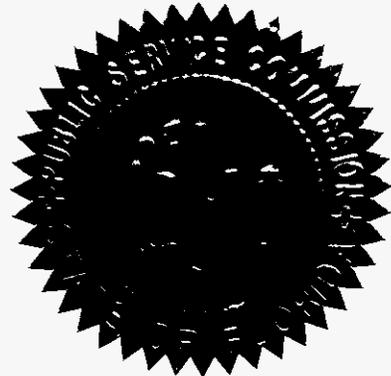


BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

PETITION FOR INCREASE IN DOCKET NO. 090079-EI
RATES BY PROGRESS ENERGY
FLORIDA, INC.

PETITION FOR LIMITED PROCEEDING DOCKET NO. 090144-EI
TO INCLUDE BARTOW REPOWERING
PROJECT IN BASE RATES, BY
PROGRESS ENERGY FLORIDA, INC.

PETITION FOR EXPEDITED APPROVAL DOCKET NO. 090145-EU
OF THE DEFERRAL OF PENSION
EXPENSES, AUTHORIZATION TO
CHARGE STORM HARDENING EXPENSES
TO THE STORM DAMAGE RESERVE, AND
VARIANCE FROM OR WAIVER OF
RULE 25-6.0143(1)(C), (D), AND
(F), F. A. C., BY PROGRESS
ENERGY FLORIDA, INC.



VOLUME 17

Pages 2342 through 2470

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THE OFFICIAL TRANSCRIPT OF THE HEARING,
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PROCEEDINGS: HEARING

COMMISSIONERS
PARTICIPATING: CHAIRMAN MATTHEW M. CARTER, II
COMMISSIONER LISA POLAK EDGAR
COMMISSIONER KATRINA J. McMURRIAN
COMMISSIONER NANCY ARGENZIANO
COMMISSIONER NATHAN A. SKOP

DATE: Friday, September 25, 2009

DOCUMENT NUMBER-DATE

10069 SEP 30 8

FLORIDA PUBLIC SERVICE COMMISSION

FPSC-COMMISSION CLERK

1 TIME: Concluded at 1:16 p.m.
2 PLACE: Betty Easley Conference Center
3 Room 148
4 4075 Esplanade Way
 Tallahassee, Florida
5 REPORTED BY: LINDA BOLES, RPR, CRR
 Official FPSC Reporter
6 (850) 413-6734
7 PARTICIPATING: (As heretofore noted.)
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I N D E X

WITNESSES

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EXHIBITS

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246 JVW-15	2467	2467
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P R O C E E D I N G S

1
2 (Transcript follows in sequence from
3 Volume 16.)

4 **CHAIRMAN CARTER:** We are back on the record.
5 And when we left, we were getting ready for the rebuttal
6 testimony for Dr. Vander Weide.

7 Did I get your name right, Doctor?

8 **THE WITNESS:** Vander Weide.

9 **CHAIRMAN CARTER:** Vander Weide. Am I close?

10 **THE WITNESS:** You're close.

11 **CHAIRMAN CARTER:** Thank you. I just hope to
12 be marginally, you know, competent, you know.

13 Mr. Walls.

JAMES H. VANDER WEIDE

14
15 was called as a witness on behalf of Progress Energy
16 Florida and, having been duly sworn, testified as
17 follows:

DIRECT EXAMINATION

18
19 **BY MR. WALLS:**

20 **Q.** Dr. Vander Weide, do you realize that you're
21 still under oath?

22 **A.** Yes, I do.

23 **Q.** And have you filed rebuttal testimony and
24 exhibits in this proceeding?

25 **A.** Yes, I have.

1 **Q.** And do you have your prefiled rebuttal
2 testimony and exhibits with you?

3 **A.** Yes, I do.

4 **Q.** Do you have any changes to make to your
5 prefiled rebuttal testimony?

6 **A.** Yes. I have two simple changes. In response
7 to the errata that were filed by Dr. Woolridge, two
8 numbers will change in my testimony. These are two
9 times that I refer to numbers in his testimony. And
10 since he changed his testimony, I need to change my, the
11 numbers that I have as references to his testimony.

12 The first is on Page 13, Line 8. I refer to,
13 there's a sentence that begins, "Dr. Woolridge obtains a
14 DCF result of 10.3 percent." Dr. Woolridge has changed
15 that number to 10.0 percent.

16 And then the second one is on Page 36 (sic.),
17 Line 5. I have a table there which summarized Dr.
18 Woolridge's discounted cash flow and Capital Asset
19 Pricing Model results. It had read that his discounted
20 cash flow results were from 10.3 to 10.5 percent. With
21 the change that he made to the lower end of his DCF
22 results, the range is from 10.0 to 10.5 percent.

23 Those are the only changes that I have.

24 **Q.** And, Dr. Vander Weide, if I asked you the same
25 questions in your prefiled rebuttal testimony today,

1 would you give the same answers?

2 **A.** Yes, I would.

3 **MR. WALLS:** We request that Dr. Vander Weide's
4 prefiled rebuttal testimony be entered into the record
5 as if it was read.

6 **CHAIRMAN CARTER:** The prefiled testimony of
7 the witness will be inserted into the record as though
8 read.

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**REBUTTAL TESTIMONY OF
JAMES H. VANDER WEIDE, PH.D.**

1

2

I. INTRODUCTION AND SUMMARY

3

Q. What is your name and business address?

4

A. My name is James H. Vander Weide. My business address is 3606 Stoneybrook Drive, Durham, North Carolina.

5

6

7

Q. Are you the same James H. Vander Weide who previously provided direct testimony filed on March 20, 2009?

8

9

A. Yes, I am.

10

11

Q. What is the purpose of your rebuttal testimony?

12

A. I have been asked by Progress Energy Florida ("PEF") to review the direct testimony and cost of capital recommendation of Dr. J. Randall Woolridge.

13

14

Dr. Woolridge's testimony is presented on behalf of the Florida Office of Public Counsel.

15

16

17

Q. Do you have any exhibits to your rebuttal testimony?

18

A. Yes. I have prepared or sponsored the preparation of the following exhibits to my testimony:

19

20

- Exhibit No. ____ (JVW-15), Comparison of Bond Ratings and Safety

21

Ranks for Woolridge and Vander Weide Proxy Companies;

- 1 • Exhibit No. ___ (JWV-16), Dr. Woolridge's DCF Analysis Results Using
2 Mean Analysts' Growth Estimates;
- 3 • Exhibit No. ___ (JWV-17), Updated Summary of Discounted Cash Flow
4 Analysis for Value Line Electric Companies; and
- 5 • Exhibit No. ___ (JWV-18), Research Literature that Studies the Efficacy
6 of Analysts' Earnings Forecasts.

7 These exhibits are true and accurate to the best of my knowledge.

8

9 **Q. Is there anything in the testimony of Dr. Woolridge that causes you to change**
10 **your recommended cost of equity for PEF?**

11 A. No.

12 **II. REBUTTAL OF DR. WOOLRIDGE**

13 **Q. What is Dr. Woolridge's recommended rate of return on equity for PEF?**

14 A. Dr. Woolridge recommends that PEF be allowed to earn a rate of return on equity
15 equal to 9.75 percent.

16

17 **Q. What areas of Dr. Woolridge's testimony will you address in your rebuttal**
18 **testimony?**

19 A. I will address Dr. Woolridge's: (1) proxy companies; (2) discounted cash flow
20 ("DCF") analysis; (3) rejection of analysts' growth forecasts; (4) Capital Asset
21 Pricing Model ("CAPM") analysis; (5) comments on the relationship between
22 utility rates of return on equity and their market-to-book ratios; and (6) comments
23 on my direct testimony.

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A. Dr. Woolridge's Proxy Companies

Q. What criteria does Dr. Woolridge use to select his proxy company group?

A. Dr. Woolridge selects companies that are listed as electric utilities in both AUS Utility Reports and The Value Line Investment Survey, have at least 75 percent of revenues from regulated electric utility services; have operating revenues less than \$15 billion; have an investment-grade bond rating by Standard & Poor's and Moody's, and have a three-year history of paying dividends with no dividend cuts [Woolridge at 15].

Q. What is the purpose of proxy selection criteria?

A. The purpose of proxy selection criteria is to identify the largest possible group of comparable risk companies that have sufficient data to reliably apply cost of equity methodologies such as the DCF, CAPM, and risk premium.

Q. Why is it desirable to choose a relatively large group of comparable risk companies?

A. It is desirable to choose a relatively large group of comparable risk companies because the estimate of the cost of equity obtained from applying cost of equity methodologies to a single company is uncertain. Cost of equity methodologies such as the DCF, CAPM, and risk premium, require estimates of quantities such as growth rates, betas, and expected risk premiums that necessarily involve a degree of uncertainty. However, the uncertainty in estimating the cost of equity by applying cost of equity methodologies to a single company can be significantly

1 reduced by applying cost of equity models to a relatively large group of
2 comparable risk companies. Intuitively, any over- and under-estimate of the cost
3 of equity that arises from the application of cost of equity methods to a single
4 company is averaged out by applying the methods to a larger group of comparable
5 risk companies.

6 In addition, the choice of a relatively small group of proxy companies
7 requires a great deal of judgment. When an analyst like Dr. Woolridge applies
8 judgment to select a small group of companies, he or she may be tempted to
9 choose a set of selection criteria that produce a desired result. The analyst can
10 eliminate the possibility of selection bias by starting with the largest possible
11 group of comparable risk companies and eliminating only those companies with
12 insufficient data to estimate the cost of equity.

13
14 **Q. Do Dr. Woolridge's proxy selection criteria produce the largest possible**
15 **group of comparable risk companies that have sufficient data to reliably**
16 **apply cost of equity methodologies?**

17 A. No. Dr. Woolridge's proxy selection criteria eliminate a large number of utilities
18 that most investors would consider to be of comparable risk to PEF. For example,
19 Dr. Woolridge's requirement that each proxy company must have at least
20 75 percent of revenues from regulated electric utility operations eliminates 11
21 Value Line electric utilities that are widely considered to be comparable in
22 investment risk to PEF, Dominion, Consolidated Edison, Exelon, FPL Group,
23 Pepco Holdings, SCANA, Sempra Energy, TECO Energy, Vectren, Wisconsin

1 Energy, and Westar Energy. In addition, Dr. Woolridge's selection criteria allow
2 him to include several small electric utilities that have insufficient data to reliably
3 estimate the cost of equity.

4
5 **Q. Do you have evidence that the 11 companies Dr. Woolridge eliminates as a**
6 **result of his greater than 75 percent regulated electric revenue criterion are**
7 **widely considered to be comparable in investment risk to PEF?**

8 A. Yes. As shown in the table below, using Dr. Woolridge's own data, the 11
9 eliminated companies have an average Standard & Poor's bond rating of A-, an
10 average Moody's bond rating in the range A2 to A3, and an average Value Line
11 Safety Rank of 2. Based on Dr. Woolridge's data, Progress Energy has an
12 Standard & Poor's bond rating of A-, a Moody's bond rating of A2,¹ and an
13 average Value Line Safety Rank of 2. In addition, I note that the distribution of
14 bond ratings for companies in this group generally falls in the A range.

¹ See Exhibit JRW-4, page 1 of 1. I base this comparative analysis on the data provided by Dr. Woolridge because these are the data that Dr. Woolridge uses in selecting his proxy companies. As I note later in my rebuttal, the AUS bond rating data used by Dr. Woolridge are not correct in many instances. When the bond rating information is corrected, the 11 eliminated companies are still similar in risk to PEF and Progress Energy. I provide Standard & Poor's bond ratings and Value Line Safety Ranks for my comparable companies in my direct testimony as of the time of my studies in my Exhibit ___ (JVW-1), page 2.

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Table 1
Electric Companies Eliminated from Woolridge Proxy Group
because <75% Revenues from Regulated Electric Utility Operations
(but Included in Vander Weide Proxy Group)²

COMPANY	S&P BOND RATING	S&P (NUMERICAL)	MOODY'S BOND RATING	MOODY'S (NUMERICAL)	VALUE LINE SAFETY RANK ³
Dominion Resources	A	4	A3	5	2
Consolidated Edison	A-	5	A1	3	1
Exelon Corporation	A-	5	A3	5	1
FPL Group	A	4	Aa3	2	1
Pepeco Holdings	A-	5	Baa1	6	3
SCANA	A-	5	A2	4	2
SEMPRA Energy	A+	3	A1	3	2
TECO Energy	BBB	7	Baa2	7	3
Vectren Corporation	A	4	A3	5	2
Wisconsin Energy	A-	5	Aa3	2	2
Westar Energy	BBB-	8	Baa2	7	2
Average	A-	5.0	A2 - A3	4.5	1.9

5

6
7

Distribution of Bond Ratings
Electric Companies Eliminated from Woolridge Proxy Group

RATING	NO. OF COMPANIES	MOODY'S RATING	NO. OF COMPANIES
AA-	0	Aa3	2
A+	1	A1	2
A	3	A2	1
A-	5	A3	3
BBB+	0	Baa1	1
BBB	1	Baa2	2
BBB-	1	Baa3	0
BB+	0	Ba2	0
NR	0	NR	0

8
9

² See Exhibit JRW-4, page 1 of 1. I base this comparative analysis on the data provided by Dr. Woolridge because these are the data that Dr. Woolridge uses in selecting his proxy companies.
³ The Value Line Investment Analyzer, August 22, 2009. I provide Standard & Poor's bond ratings and Value Line Safety Ranks for my comparable companies in my direct testimony as of the time of my studies in my Exhibit (JVW-1), page 2.

1 Q. **Does Dr. Woolridge implement his criterion that a company must have at**
2 **least 75 percent revenues from regulated electric service correctly?**

3 A. No. Dr. Woolridge included PG&E Corporation in his proxy group, even though
4 it has less than 75 percent revenues from regulated electric services (see Dr.
5 Woolridge's Exhibit JRW-4, page 1 of 1).

6
7 Q. **You note that Dr. Woolridge also requires that his proxy companies have less**
8 **than \$15 billion in operating revenues. What Value Line electric utilities fail**
9 **to meet Dr. Woolridge's criterion that the company has less than \$15 billion**
10 **in revenues?**

11 A. The four Value Line electric utilities eliminated by Dr. Woolridge's criterion that
12 the company must have less than \$15 billion in revenues are Dominion
13 Resources, Exelon Corporation, FPL Group, and Southern Company.

14
15 Q. **Do you have evidence that the four companies Dr. Woolridge eliminates as a**
16 **result of his less than \$15 billion in revenue criterion are widely considered to**
17 **be comparable in investment risk to PEF and Progress Energy?**

18 A. Yes. As shown below, using Dr. Woolridge's own data, the four companies
19 eliminated by his less than \$15 billion in revenue criterion have an average
20 Standard & Poor's bond rating of A, an average Moody's bond rating of A2, and
21 an average Value Line Safety Rank of 1.0.

1 A. No. Dr. Woolridge fails to include several companies, including Empire District
2 Electric, Hawaiian Electric, Portland General, and Pinnacle West, even though
3 these companies satisfy his selection criteria.⁶

4
5 **Q. What criteria do you use to select proxy companies?**

6 A. I select all the companies in Value Line's electric company groups that: (1) paid
7 dividends during every quarter of the last two years; (2) did not decrease
8 dividends during any quarter of the past two years; (3) had at least three analysts
9 included in the I/B/E/S average growth forecast; (4) have an investment-grade
10 bond rating and a Value Line Safety Rank of 1, 2, or 3; and (5) are not the subject
11 of a merger offer that has not been completed.

12
13 **Q. Do you have any evidence that your proxy group is a reasonable proxy for
14 the risk of investing in PEF?**

15 A. Yes. Based on data from Standard & Poor's and Value Line, my proxy group of
16 electric companies has the same average S&P bond rating as PEF, BBB+, and the
17 same Value Line Safety Rank, 2, as Progress Energy.⁷ These data indicate that

⁶ See Woolridge Exhibit JRW-4, page 1 of 1 and the AUS Utility Reports provided in Dr. Woolridge's work papers. According to the AUS Utility Report, Empire, Hawaiian Electric, Pinnacle West, and Portland General have electric revenues equal to 86 percent, 98 percent, 95 percent, and 98 percent, respectively; each company has an investment-grade bond rating; each company has total revenues less than \$15 billion; each company has a long-term growth estimate on Zacks.com. With regard to PG&E, as shown in Woolridge Exhibit JRW-4, the company has electric revenues of 74 percent; thus, according to Dr. Woolridge's selection criterion, PG&E should not be in his proxy group.

⁷ The average Standard & Poor's bond rating is different from that noted above because I obtain the Standard & Poor's bond ratings directly from Standard & Poor's. In addition, some bond ratings
(continued . . .)

1 my proxy group of companies is a reasonable proxy for the risk of investing in
2 PEF.

3
4 **Q. Dr. Woolridge claims that your proxy group is “slightly riskier” than his
5 proxy group [Woolridge at 16]. Do you agree with his assessment?**

6 A. No. In fact, based on recent data from Standard & Poor’s, Moody’s, and Value
7 Line, my proxy group is demonstrably less risky than Dr. Woolridge’s proxy
8 group. First, using Dr. Woolridge’s data, my proxy group has slightly higher
9 Standard & Poor’s and Moody’s bond ratings, and slightly higher Value Line
10 Safety Ranks than Dr. Woolridge’s proxy group. In addition, my group does not
11 include any companies that have below-investment-grade bond ratings; and my
12 companies on average are larger and more widely followed in the investment
13 community than the companies in Dr. Woolridge’s proxy group.

14
15 **Q. Dr. Woolridge claims that your proxy group has greater variability of bond
16 ratings than his proxy group [Woolridge at 16]. Is his assertion correct?**

17 A. No. Using the most recent Standard & Poor’s and Moody’s data, as summarized
18 in the tables below, my proxy group has less variability in bond ratings than Dr.

(... continued)

and Value Line Safety Ranks for my companies have changed since the time of my studies described in my direct testimony. My conclusion that my proxy group on average is similar in risk to PEF and Progress Energy is confirmed both by the data available at the time of my direct testimony and by current data for these companies. Further, I provide an updated DCF analysis using current market data and the set of electric companies that currently meet my proxy company selection criteria.

1 Woolridge's proxy group. [Supporting data are shown in Exhibit No. ___(JVW-
2 15)].

3 **Table 3**
4 **Distribution of Bond Ratings**
5 **in Woolridge Proxy Group**

S&P RATING	NO. OF COMPANIES	MOODY'S RATING	NO. OF COMPANIES
A+	1	A1	0
A	0	A2	1
A-	1	A3	0
BBB+	4	Baa1	4
BBB	6	Baa2	5
BBB-	1	Baa3	4
BB+	1	Ba1	0
BB	0	Ba2	1
NR	1	NR	0
Total	15		15

6 **Table 4**
7 **Distribution of Bond Ratings**
8 **in Vander Weide Proxy Group**

S&P BOND RATING	NO. OF COMPANIES	MOODY'S BOND RATING	NO. OF COMPANIES
A+	0	A1	0
A	2	A2	1
A-	5	A3	2
BBB+	6	Baa1	7
BBB	7	Baa2	7
BBB-	4	Baa3	7
BB+	0	Ba1	0
BB	0	Ba2	0
NR	0	NR	0
Total	24		24

9
10
11
12 **Q. Does your proxy group also have less variability than Dr. Woolridge's proxy
13 group with regard to the Value Line Safety Rank?**

14 **A. Yes (see table below).**

Table 5
Distribution of Value Line Safety Ranks

Woolridge Proxy Group

VALUE LINE SAFETY RANK	NO. OF COMPANIES
1	1
2	7
3	7
Total	15

Vander Weide Proxy Group

VALUE LINE SAFETY RANK	NO. OF COMPANIES
1	4
2	11
3	8
Total	24

1
2
3
4
5
6

8 **Q. Why should the Commission accept your comparable company group instead of Dr. Woolridge's?**

10 A. The Commission should accept my proxy group rather than Dr. Woolridge's
11 proxy group because my proxy group: (1) is more comparable in risk to PEF and
12 Progress Energy; (2) provides more reliable results since it is based on a larger set
13 of companies; (3) contains companies that are more widely followed in the
14 investment community; and (4) does not contain companies with non-investment
15 grade bond ratings.

17 **Q. What DCF results do you obtain in your direct testimony for your proxy
18 companies?**

19 A. I obtain an average DCF result of 12.3 percent for my proxy companies, as
20 reported in my direct testimony in Exhibit__ (JVW-1).

1

2

B. Dr. Woolridge's DCF Model

3

Q. Does Dr. Woolridge use the DCF model to estimate PEF's cost of equity?

4

A. Yes, he does.

5

6

Q. What cost of equity results does Dr. Woolridge obtain from his application of his DCF model?

7

8

A. Dr. Woolridge obtains a DCF result of ^{10.0}~~10.3~~ percent for his proxy group of 15 electric utilities and 10.5 percent for my proxy group of 24 electric utilities.

9

10

11

Q. What DCF Model does Dr. Woolridge use to estimate PEF's cost of equity?

12

A. Dr. Woolridge uses an annual DCF model of the form, $k = D_0(1+.5g)/P_0 + g$,

13

where k is the cost of equity, D_0 is the first period dividend, P_0 is the current stock price, and g is the average expected future growth in the company's earnings and dividends.

14

15

16

17

Q. What are the basic assumptions of Dr. Woolridge's annual DCF model?

18

A. Dr. Woolridge's annual DCF model is based on the assumptions that: (1) a

19

company's stock price is equal to the present value of the future dividends

20

investors expect to receive from their investment in the company; (2) dividends

21

are paid annually; (3) dividends, earnings, and book values are expected to grow

22

at the same constant rate forever; and (4) the first dividend is received one year

23

from the date of the analysis.

24

1 **Q. Do you agree with Dr. Woolridge's use of an annual DCF model to estimate**
2 **PEF's cost of equity?**

3 A. No. Dr. Woolridge's annual DCF model is based on the assumption that
4 companies pay dividends only at the end of each year. Since Dr. Woolridge's
5 proxy companies all pay dividends quarterly, Dr. Woolridge should have used the
6 quarterly DCF model to estimate PEF's cost of equity.

7
8 **Q. Why is it unreasonable to use an annual DCF model to estimate the cost of**
9 **equity for companies that pay dividends quarterly?**

10 A. It is unreasonable to apply an annual DCF model to companies that pay dividends
11 quarterly because: (1) the DCF model is based on the assumption that a
12 company's stock price is equal to the present value of the expected future
13 dividends associated with investing in the company's stock; and (2) the annual
14 DCF model cannot be derived from this assumption when dividends are paid
15 quarterly.⁸

16
17 **Q. Does Dr. Woolridge acknowledge that one must recognize the assumptions of**
18 **the DCF model when estimating the model's inputs?**

⁸ I note that Staff also uses a quarterly DCF model to estimate the cost of equity in Florida. See Memorandum Dated May 20, 2009, Docket No. 090006-WS, regarding the annual reestablishment of authorized range of return on common equity for water and wastewater utilities.

1 A. Yes. Dr. Woolridge states, "In general, one must recognize the assumptions
2 under which the DCF model was developed in estimating its components (the
3 dividend yield and expected growth rate)." [Woolridge at 35.]
4

5 **Q. Recognizing your disagreement with Dr. Woolridge's use of an annual DCF
6 model, did Dr. Woolridge apply the annual DCF model correctly?**

7 A. No. Dr. Woolridge's annual DCF model is based on the assumption that
8 dividends will grow at the same constant rate forever. Under the assumption that
9 dividends will grow at the same constant rate forever, the cost of equity is given
10 by the equation, $k = D_0 (1 + g) / P_0 + g$, where D_0 is the current annualized
11 dividend, P_0 is the stock price, and g is the expected constant annual growth rate.
12 Thus, the correct first period dividend in the annual DCF model is the current
13 annualized dividend multiplied by the factor, $(1 + \text{growth rate})$. Instead, Dr.
14 Woolridge uses the current annualized dividend multiplied by the factor $(1 + 0.5$
15 $\text{times growth rate})$ as the first period dividend in his DCF model. This incorrect
16 procedure, apart from other errors in his methods, causes him to underestimate
17 PEF's cost of equity.

18
19 **Q. How does Dr. Woolridge estimate the expected future growth component of
20 the DCF cost of equity?**

21 A. Dr. Woolridge considers Value Line data on historical growth rates in earnings,
22 dividends, and book value, as well as Value Line data on projected growth rates in
23 earnings, dividends, and book value. For most of his proxy companies, Value

1 Line's average historical growth rates are significantly less than its projected
2 growth rates. Dr. Woolridge also considers analysts' forecasts of future growth
3 provided by First Call, Reuters, and Zacks, and internal growth estimates based
4 on Value Line's estimates of retention ratios and rates of return on book equity.
5 Dr. Woolridge's final estimate of the growth rate that investors expect for his
6 proxy companies is an average of Value Line's historical growth rates, Value
7 Line's projected growth rates, Dr. Woolridge's internal growth rates, and his
8 reported analysts' growth rates.

9
10 **Q. Do you agree with Dr. Woolridge's use of historical growth rates to estimate**
11 **investors' expectation of future growth in the DCF model?**

12 **A.** No. Historical growth rates are inherently inferior to analysts' forecasts because
13 analysts' forecasts already incorporate all relevant information regarding
14 historical growth rates and also incorporate the analysts' knowledge about current
15 conditions and expectations regarding the future. My studies, described in my
16 direct testimony at pp. 32 – 33, indicate that investors use analysts' earnings
17 growth forecasts in making stock buy and sell decisions rather than historical or
18 internal growth rates such as those presented by Dr. Woolridge.

19
20 **Q. How do Value Line's projected growth rates for Dr. Woolridge's proxy**
21 **group of electric utilities compare to Value Line's historical growth rates for**
22 **these companies?**

1 A. Value Line's projected growth rates are approximately 200 basis points higher
2 than its historical growth rates for Dr. Woolridge's proxy companies (see
3 Woolridge Exhibit __JRW-10, pp. 3 - 4).

4
5 **Q. What is the internal growth method of estimating the growth component for
6 the DCF method?**

7 A. The internal growth method estimates expected future growth by multiplying a
8 company's retention ratio, "b," times its expected rate of return on equity, "r."
9 Thus, "g = b x r," where "b" is the percentage of earnings that are retained in the
10 business and "r" is the expected rate of return on equity.

11
12 **Q. Do you agree with the internal growth method for estimating growth in the
13 DCF model?**

14 A. No. The internal growth method is logically circular because it requires an
15 estimate of the expected rate of return on equity, "r," in order to estimate the cost
16 of equity using the DCF model. Yet, for regulated companies such as PEF, the
17 allowed rate of return on equity is set equal to the cost of equity.

18
19 **Q. What rate of return on equity does Dr. Woolridge assume in his calculation
20 of expected growth using his internal growth method?**

21 A. Dr. Woolridge uses a rate of return on equity in the range 11.0 percent to
22 11.3 percent (Woolridge Exhibit __JRW-10, p. 4.)

23

1 **Q. Is it reasonable to assume that Dr. Woolridge's proxy companies will earn a**
2 **rate of return on equity in the range 11.0 percent to 11.3 percent when he is**
3 **recommending that they be allowed to earn only a return of 9.75 percent?**

4 A. No. Investors are well aware that electric utilities are regulated by rate of return
5 regulation. If investors truly believed that the utilities' cost of equity were equal
6 to Dr. Woolridge's recommended 9.75 percent, they would forecast that the
7 utilities would earn 9.75 percent on equity. Thus, Dr. Woolridge's recommended
8 9.75 percent rate of return on equity is inconsistent with his assumed 11.0 percent
9 to 11.3 percent earned rate of return on equity for his proxy companies.

10
11 **Q. Does Dr. Woolridge's internal growth method recognize that, in addition to**
12 **growth from retained earnings, the companies in his proxy group can also**
13 **grow by issuing new equity at prices above book value?**

14 A. No. Dr. Woolridge's internal growth method underestimates the expected future
15 growth of his proxy companies because it neglects the possibility that the
16 companies can also grow by issuing new equity at prices above book value. Since
17 many of the proxy companies are selling at prices in excess of book value, and
18 Value Line forecasts that many of them will issue new equity over the next
19 several years, Dr. Woolridge's failure to recognize the "external" component of
20 future growth causes him to underestimate his proxy companies' expected future
21 growth. This is particularly important at this point in time when the electric
22 utility industry is expected to undertake substantial infrastructure investments and
23 to finance part of this expansion through the capital markets.

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Q. Does Dr. Woolridge's internal growth method recognize that Value Line's reported rates of return on equity generally understate each company's average rate of return on equity for the year?

A. No. Dr. Woolridge fails to recognize that Value Line calculates its reported rates of return on equity by dividing a company's net income by end of year equity, whereas most financial analysts calculate a company's rate of return on equity by dividing net income by the average equity for the year. In the general case where a company's equity is increasing, Value Line's reported ROEs will understate the average ROE for the year.

Q. Do you agree with Dr. Woolridge's use of analysts' growth forecasts to estimate the expected growth component of his DCF model?

A. Yes. As discussed in my direct testimony, I recommend the use of analysts' growth forecasts for the purpose of estimating the expected growth component of the DCF model. I have conducted extensive studies that demonstrate that stock prices are more highly correlated with analysts' growth rates than with either historical growth rates or the internal growth rates considered by Dr. Woolridge.

Q. What growth rates does Dr. Woolridge obtain from First Call, Reuters, and Zacks?

A. Dr. Woolridge obtains a median growth rate of 6.1 percent for both his proxy group and my proxy group (see Woolridge Exhibit __ JRW-10, p. 5). However,

1 the average growth forecast for Dr. Woolridge's proxy group is 6.9 percent, and
2 for my proxy group, 6.3 percent.

3
4 **Q. What DCF result would Dr. Woolridge have obtained for his proxy**
5 **companies if he had relied entirely on the average growth rates of First Call,**
6 **Reuters, and Zacks?**

7 A. Dr. Woolridge reports an average dividend yield of 5.2 percent for his proxy
8 group and 5.5 percent for my proxy group. The average analyst growth rate for
9 his proxy group is 6.9 percent, and for my proxy group, 6.3 percent. Adding these
10 dividend yields to the analysts' growth rates, and using Dr. Woolridge's
11 (incorrect) $\frac{1}{2}$ g multiplier, produces DCF results for the two proxy groups in the
12 range 12.0 percent to 12.2 percent. If one correctly implements the annual DCF
13 model using a full year of growth, one obtains average DCF results in the range
14 12.2 percent to 12.5 percent. [See Exhibit ___ (JWV-16)]. I also note that neither
15 of these calculations includes a flotation cost allowance, and that the Commission
16 typically includes a flotation cost allowance of approximately 25 to 50 basis
17 points.⁹

18

⁹ In the recent TECO Order, the Commission states, "We have traditionally recognized a reasonable adjustment for flotation costs in the determination of the investor-required ROE. . . . such adjustments have typically been on the order of 25 to 50 basis points." Order No. PSC-09-0283-FOF-EI, Docket No. 080317-EI, April 30, 2009, at 44. In addition, I note that Staff typically uses a flotation cost of allowance of four percent in both DCF and CAPM models to estimate the cost of equity for water utilities in Florida. See Memorandum Dated May 20, 2009, Docket No. 090006-WS, regarding the annual reestablishment of authorized range of return on common equity for water and wastewater utilities.

1 **Q. Have you also calculated DCF results for a group of electric utilities that**
2 **currently meet your proxy selection criteria?**

3 A. Yes. The market-weighted average DCF result for the companies that currently
4 meet my proxy selection criteria is 11.5 percent, and the simple average result is
5 12.3 percent. If the two highest and lowest results are eliminated from the group,
6 the market-weighted average DCF result is 12.0 percent and the simple average
7 result is 12.3 percent. (See Exhibit ___(JVW-17.)

8

9 **C. Dr. Woolridge's Rejection of Analysts' Growth**
10 **Forecasts**

11 **Q. How do you recommend estimating the future growth component in the DCF**
12 **model?**

13 A. As described in my written evidence, I recommend using the analysts' forecasts
14 published by I/B/E/S Thomson Reuters.

15

16 **Q. Why do you believe that the analysts' forecasts of earnings growth are more**
17 **accurate indicators of investors' growth expectations than the historical and**
18 **internal growth data provided by Dr. Woolridge?**

19 A. Security analysts analyze the prospects of companies and forecast earnings. They
20 take into account all available historical and current data plus any additional
21 information that is available, such as changes in projected capital expenditures,
22 regulatory climate, industry restructuring, regulatory rulings, or changes in the
23 competitive environment. The performance of security analysts is measured
24 against their ability to weigh the above factors, to predict earnings growth, and to

1 communicate their views to investors. Financial research indicates that securities
2 analysts are influential, their forecasts are more accurate than simple extrapolation
3 of past growth, and, most importantly, the consensus of their forecasts is
4 impounded in the current structure of market prices. This is a key result, since a
5 proper application of the DCF model requires the matching of stock prices and
6 investors' growth expectations.

7
8 **Q. Are analysts' forecasts readily available?**

9 A. Yes. An important part of the analysts' job is getting their views across to
10 investors. Major investment firms send out monthly reports with their earnings
11 forecasts, and institutional investors have direct access to analysts. Individual
12 investors can get the same forecasts through their investment advisors or online.
13 Studies reported in the academic literature indicate that recommendations based
14 on these forecasts are relied on by investors. Indeed, because analysts' forecasts
15 are perceived by investors as being useful, there are services which offer analysts'
16 forecasts on all major stocks. I/B/E/S and Zack's are some of the providers of
17 these data. I recommend use of the I/B/E/S growth rates because they have been:
18 (1) shown to be highly correlated with stock prices; (2) widely studied in the
19 finance literature; and (3) widely available to investors for many years.

20
21 **Q. Is it your contention that analysts make perfectly accurate predictions of**
22 **future earnings growth?**

1 A. No. Forecasting earnings growth, for either the short-term or long-term, is very
2 difficult. This statement is consistent with the fact that stocks, unlike high-quality
3 bonds, are risky investments whose returns are highly uncertain. Though
4 analysts' forecasts are not perfectly accurate, they are better than either retention
5 growth rates or historical growth in predicting stock prices. One would expect
6 this result, given that analysts have all the past data plus current information. The
7 important consideration is: what growth rates do investors use to value a stock?
8 Financial research suggests that the analysts' growth forecasts are used by
9 investors and therefore most related to stock prices.

10
11 **Q. Does the observation that analysts' growth forecasts are inherently uncertain**
12 **imply that investors should ignore analysts' growth forecasts in making stock**
13 **buy and sell decisions?**

14 A. No. Because growth forecasts have a significant influence on a company's stock
15 price, investors have a great incentive to use the best available forecasts of a
16 company's growth prospects, even if these growth forecasts are inherently
17 uncertain. In this regard, the investor's situation is similar to the situation of a
18 pilot who is flying across the country. Although the pilot recognizes that weather
19 forecasts are inherently uncertain, he or she has a strong incentive to obtain the
20 best available forecasts of cross-country weather patterns before taking off.

21
22 **Q. Have you done research on the appropriate use of analysts' forecasts in the**
23 **DCF model?**

1 A. Yes. As described in my direct testimony, I prepared a study in conjunction with
2 Willard T. Carleton, Professor of Finance Emeritus at the University of Arizona,
3 on why analysts' forecasts are the best estimate of investors' expectations of
4 future long-term growth. This study is described in a paper entitled "Investor
5 Growth Expectations and Stock Prices: the Analysts versus History," published
6 in the Spring 1988 edition of *The Journal of Portfolio Management*. My studies
7 indicate that the analysts' forecasts of future growth are superior to historically-
8 oriented growth measures and retention growth measures in predicting a firm's
9 stock price.

10
11 **Q. Please summarize the results of your study.**

12 A. First, we performed a correlation analysis to identify the historically oriented
13 growth rates which best described a firm's stock price. Then we did a regression
14 study comparing the historical and retention growth rates to the consensus
15 analysts' forecasts. In every case, the regression equations containing the average
16 of analysts' forecasts statistically outperformed the regression equations
17 containing the historical and retention growth estimates. These results are
18 consistent with those found by Cragg and Malkiel, the early major research in this
19 area (John G. Cragg and Burton G. Malkiel, *Expectations and the Structure of*
20 *Share Prices*, University of Chicago Press, 1982). These results are also
21 consistent with the hypothesis that investors use analysts' forecasts, rather than
22 historically oriented growth calculations, in making stock buy and sell decisions.
23 They provide overwhelming evidence that the analysts' forecasts of future growth

1 are superior to historically oriented growth measures in predicting a firm's stock
2 price.

3

4 **Q. Has your study been updated to include more recent data?**

5 A. Yes. Researchers at State Street Financial Advisors updated my study using data
6 through year-end 2003. Their results continue to confirm that analysts' growth
7 forecasts are superior to historical and retention growth measures in predicting a
8 firm's stock price.

9

10 **Q. Does Dr. Woolridge agree with your assessment that analysts' growth**
11 **forecasts should be used to estimate the future growth component of the DCF**
12 **model?**

13 A. No. Dr. Woolridge argues that analysts' growth forecasts should not be used to
14 estimate the future growth component of the DCF model because, in his opinion,
15 it is well known that analysts' growth forecasts are overly optimistic [Woolridge
16 at 39].

17

18 **Q. Have you reviewed the research literature on the properties of analysts'**
19 **growth forecasts?**

20 A. Yes, I have reviewed the articles identified in Exhibit ____ (JVV-18).

21

22 **Q. What basic questions does the research literature on analysts' forecasts**
23 **address?**

1 A. The research literature on analysts' growth forecasts addresses three basic
2 questions: (1) Are analysts' forecasts superior to historical growth extrapolations
3 in their ability to forecast future earnings per share? (2) Is the correlation between
4 changes in analysts' EPS growth forecasts and stock prices greater than the
5 correlation between historical earnings growth rates and stock prices? and (3) Are
6 analysts' growth forecasts overly optimistic?

7
8 **Q. How do researchers test whether analysts' growth forecasts are more**
9 **accurate than forecasts based on historical growth extrapolations?**

10 A. I have identified at least eight published research studies dating from 1972 to
11 2006 that compare the accuracy of analysts' growth forecasts to the accuracy of
12 forecasts based on historical extrapolations. Typically, these research studies
13 follow several basic steps: (1) gather data on historical earnings per share for a
14 large sample of firms over a reasonably long historical period of time; (2) gather
15 data on actual earnings per share growth rates for the same firms over a
16 subsequent future time period; (3) apply statistical forecasting techniques to
17 determine the best model for forecasting future earnings growth based on
18 historical growth data; (4) gather data on analysts' growth forecasts for the study
19 period; (5) calculate the difference between the actual growth rate and the
20 forecasted growth rate for both the best statistical forecasting model and the
21 analysts' forecasts; (6) determine whether there is a significant difference between
22 the forecasting errors of the statistical forecasting model and the forecasting errors
23 of analysts' EPS growth forecasts; and (7) if the errors from the analysts' EPS

1 growth forecasts are less than the errors from the statistical forecasting techniques
2 and the difference is statistically significant, conclude that analysts provide
3 superior forecasts to the forecasts obtained by statistical forecasting techniques.
4 The main differences between the studies reported in the literature relate to the
5 time period studied, the size of the database, and the statistical techniques used to
6 forecast future earnings growth based on historical earnings data.

7
8 **Q. What are the general conclusions of the research literature regarding the**
9 **accuracy of analysts' growth forecasts compared to the accuracy of growth**
10 **forecasts based on historical growth extrapolations?**

11 A. Seven of the eight articles strongly support the hypothesis that analysts' forecasts
12 provide better predictions of future earnings growth than statistical models based
13 on historical earnings, and one of the articles neither supports nor rejects this
14 hypothesis (see Table 10 below). These articles strongly support the conclusion
15 that analysts' EPS growth forecasts are better proxies for investor growth
16 expectations than historical growth rates.

TABLE 6
ARTICLES THAT STUDY WHETHER ANALYSTS' FORECASTS
OR HISTORICAL GROWTH EXTRAPOLATIONS
ARE BETTER PREDICTORS OF EPS GROWTH

<i>Author (Date)</i>	<i>Support Historical</i>	<i>Support Analysts</i>
Elton and Gruber (1972)	Neutral	Neutral
Brown and Rozeff (1978)	No	Yes
Crichfield, Dyckman, and Lakonishok (1978)	No	Yes
Givoly and Lakonishok (1984)	No	Yes
Brown, Hagerman, Griffin, and Zmijewski (1987)	No	Yes
Newbold, Zumwalt, and Kannan (1987)	No	Yes
Brown, Richardson, and Schwager (1987)	No	Yes
Banker and Chen (2006)	No	Yes

5

6 **Q. Why is the correlation between analysts' EPS growth forecasts and stock**
7 **prices a significant issue in the research literature on analysts' growth**
8 **forecasts?**

9 A. If analysts' EPS growth forecasts are good proxies for investor growth
10 expectations, one would expect that changes in analysts' growth forecasts would
11 have a significant impact on stock prices. The impact of changes in analysts'
12 growth expectations on stock prices can be estimated using standard statistical
13 regression techniques.

14

15 **Q. What are the general conclusions of the research literature regarding the**
16 **correlation between changes in analysts' EPS forecasts and stock prices?**

17 A. I have identified at least seven published research studies that use regression
18 techniques to test whether the impact of changes in analysts' growth forecasts on
19 stock prices is sufficiently strong to justify the conclusion that analysts' EPS
20 growth forecasts are good proxies for investor growth expectations. All these
21 studies find that changes in analysts' growth forecasts have a large and

1 statistically significant impact on changes in stock prices. Five of these studies
 2 also test whether the impact of analysts' growth forecasts on stock prices is
 3 stronger than the impact of historical and/or retention growth rates on stock
 4 prices. These studies find that changes in analysts' growth forecasts have a
 5 significantly stronger impact on stock prices than changes in historical and/or
 6 retention earnings growth rates. In summary, financial research strongly supports
 7 the conclusion that analysts' growth forecasts are the best proxies for investor
 8 growth expectations.

9 **TABLE 7**
 10 **ARTICLES THAT STUDY THE RELATIONSHIP**
 11 **BETWEEN ANALYSTS' GROWTH FORECASTS AND STOCK PRICES**

<i>Author (Date)</i>	<i>Support Historical</i>	<i>Support Analysts</i>
Malkiel (1970)	No	Yes
Malkiel and Cragg (1970)	No	Yes
Elton, Gruber, and Gultekin (1981)		Yes
Fried and Givoly (1982)		Yes
Vander Weide and Carleton (1988)	No	Yes
Gordon, Gordon, and Gould (1989)	No	Yes
Timme and Eisemann (1989)	No	Yes

12
 13 **Q. What are the general conclusions of the research literature regarding the**
 14 **claim that analysts' forecasts are overly optimistic?**

15 **A.** A review of available research evidence strongly supports the hypothesis that
 16 analysts' growth forecasts are not optimistic. I have reviewed nine articles that
 17 address whether analysts' growth forecasts are overly optimistic. At least seven
 18 of the nine articles reviewed find no evidence that analysts' growth forecasts are
 19 overly optimistic. Two articles find evidence of optimism, but also conclude that
 20 optimism is declining significantly over time. Of these two studies, one finds that

1 analysts' forecasts for the Standard & Poor's 500 are pessimistic for the last four
2 years of the study.

3 **TABLE 8**
4 **ARTICLES THAT STUDY WHETHER ANALYSTS' FORECASTS**
5 **ARE BIASED TOWARD OPTIMISM**

<i>Author (Date)</i>	<i>Conclusion</i>
Crichfield, Dyckman, and Lakonishok (1978)	Unbiased
Elton, Gruber, and Gultekin (1984)	Unbiased
Givoly and Lakonishok (1984)	Unbiased
Brown (1997)	Declining optimism
Keane and Runkle (1998)	Unbiased
Abarbanell and Lehavy (2003)	Unbiased
Ciccone (2005)	Pessimistic
Clarke, Ferris, Jayaraman, and Lee (2006)	Unbiased
Yang and Mensah (2006)	Unbiased

6
7 **Q. What is the most important contribution of the more recent research**
8 **literature on the accuracy of analysts' forecasts?**

9 **A.** The most important contribution of more recent research is to identify substantial
10 statistical difficulties in earlier research studies that caused some of these studies
11 to unwittingly accept the hypothesis of optimism when no optimism was present.
12 For example, recent studies recognize that the results of earlier studies are heavily
13 influenced by the presence of large unexpected accounting write-offs and special
14 accounting charges at a small number of sample companies. Unexpected
15 accounting write-offs and special charges have a potentially dramatic impact on
16 conclusions concerning analysts' bias because analysts' forecasts intentionally
17 exclude the impact of accounting write-offs and special charges, whereas actual
18 earnings include these items. Thus, a comparison of analysts' forecasts premised
19 on normalized earnings (that is, earnings that exclude the impact of accounting

1 write-offs and special charges) to reported earnings that include the negative
2 effect of accounting write-offs and special charges will bias the results in favor of
3 concluding that analysts are optimistic. Recent studies demonstrate that, once the
4 distorting effect of unexpected accounting write-offs and special charges are
5 removed from the analysis, there is no evidence that analysts' EPS growth
6 forecasts are optimistic.

7 Recent research also highlights the potential impact of high correlation in
8 analysts' forecast errors on study conclusions. Analysts' forecast errors tend to be
9 highly correlated because unexpected industry and economy-wide shocks, such as
10 unexpected increases in oil prices or terrorist attacks, have similar effects on all
11 firms in the same industry. However, the relevant statistical tests of optimism are
12 based on the assumption that analysts' forecast errors are independent, that is, the
13 tests assume that the correlation of the analyst errors is zero. Once the statistical
14 tests of optimism are adjusted to account for the high correlation in forecast errors
15 that generally characterize the data, evidence supports the hypothesis that
16 analysts' EPS growth forecasts are unbiased, and hence not optimistic.

17
18 **Q. Dr. Woolridge argues that analysts face potential conflicts of interest**
19 **between their companies' research operations and underwriting operations.**
20 **Has the New York Stock Exchange ("NYSE") and the National Association**
21 **of Securities Dealers ("NASD") addressed the issue of analysts' potential**
22 **conflicts of interest?**

1 A. Yes. Beginning in the early 2000s, the NYSE and NASD implemented a series of
2 rule changes that address potential conflicts of interest. Specifically, they:

3 Imposed structural reforms to increase analyst independence, including
4 prohibiting investment banking personnel from supervising analysts or
5 approving research reports;

6 Prohibited offering favorable research to induce investment banking
7 business;

8 Prohibited research analysts from receiving compensation based on a
9 specific investment banking transaction;

10 Required disclosure of financial interests in covered companies by the
11 analyst and the firm;

12 Imposed quiet periods for the issuance of research reports after securities
13 offerings managed or co-managed by a member;

14 Restricted personal trading by analysts;

15 Required disclosure in research reports of data and price charts that help
16 investors track the correlation between an analyst's rating and the stock's
17 price movements; and

18 Required disclosure in research reports of the distribution of buy/hold/sell
19 ratings and the percentage of investment banking clients in each category.¹⁰

20

21 **Q. What is your overall conclusion regarding the use of analysts' growth**
22 **forecasts as proxies for investors' growth expectations?**

23 A. Contrary to Dr. Woolridge's assessment that analysts' growth forecasts should not
24 be used in the DCF model because they are well known to be optimistic, I find
25 that the research literature provides strong support for the conclusion that:
26 (1) analysts' EPS growth forecasts are not optimistic; and (2) analysts' EPS
27 growth forecasts are reasonable proxies for investor growth expectations, while
28 the historical growth extrapolations and retention growth rates used by Dr.

¹⁰ "Joint Report by NASD and the NYSE on the Operation and Effectiveness of the Research Analyst Conflict of Interest Rules," December 2005, p. 5.

1 Woolridge are not. Furthermore, Dr. Woolridge's concerns regarding analysts'
2 potential conflicts of interest have been fully addressed by rule changes
3 implemented by the NYSE and NASD in the early 2000s. In addition, Dr.
4 Woolridge fails to recognize that the DCF model requires the growth forecasts of
5 investors, whether accurate or not. In this regard, it is helpful to keep in mind that
6 investors would not pay for analysts' growth forecasts if they did not find them to
7 be helpful in making stock buy and sell decisions. Similarly, the NYSE and
8 NASD would not have taken steps to address conflicts of interest if investors did
9 not rely on analysts' forecasts in making investment decisions.

11 D. Dr. Woolridge's Capital Asset Pricing Model

12 Q. What is the CAPM?

13 A. The CAPM is an equilibrium model of expected returns on risky securities in
14 which the expected or required return on a given risky security is equal to the
15 risk-free rate of interest plus the security's "beta" times the market risk premium:

$$16 \quad \textit{Expected return} = \textit{Risk-free rate} + (\textit{Security beta} \times \textit{Market risk premium}).$$

17 The risk-free rate in this equation is the expected rate of return on a risk-free
18 government security, the security beta is a measure of the company's risk relative
19 to the market as a whole, and the market risk premium is the premium investors
20 require to invest in the market basket of all securities compared to the risk-free
21 security.

22
23 Q. How does Dr. Woolridge use the CAPM to estimate PEF's cost of equity?

1 A. The CAPM requires estimates of the risk-free rate, the company-specific risk
2 factor, or beta, and either the required return on an investment in the market
3 portfolio, or the risk premium on the market portfolio compared to an investment
4 in risk-free government securities. For the risk-free rate, Dr. Woolridge uses the
5 recent average 4.5 percent yield on 30-year Treasury bonds [Woolridge at 45]; for
6 the company-specific risk factor or beta, Dr. Woolridge uses the current Value
7 Line beta for each company [Woolridge at 45]; and for the required return or risk
8 premium on the market portfolio, Dr. Woolridge employs the average
9 4.37 percent risk premium he obtains from his review of the risk premium
10 literature [Woolridge at 56].

11
12 **Q. What CAPM result does Dr. Woolridge obtain for his proxy companies?**

13 A. Dr. Woolridge obtains a CAPM result of 7.6 percent for his proxy group and a
14 result of 7.7 percent for my proxy group.

15
16 **Q. Is either 7.6 percent or 7.7 percent a reasonable estimate of PEF's cost of
17 equity?**

18 A. No. These cost of equity results are approximately equal to the 7.72 percent
19 average yield on Moody's Baa-rated utility bonds over the last year. Since an
20 investment in a company's equity is significantly more risky than an investment
21 in its bonds, a company's cost of equity should be significantly higher than its
22 cost of debt.

23

1 Q. Does Dr. Woolridge recognize that the results of his CAPM analysis are
2 unreasonably low?

3 A. Yes. Dr. Woolridge reports the results of his DCF and CAPM studies in his
4 testimony at page 57 as follows:

METHODOLOGY	RANGE
Discounted Cash Flow	10.3-10.5% 10.0 - 10.5%
Capital Asset Pricing Model	7.6-7.7%

5
6 From these results, Dr. Woolridge concludes that PEF's cost of equity is in the
7 range 9.5 percent to 10.0 percent, with a midpoint of 9.75 percent. Since Dr.
8 Woolridge's CAPM results are approximately 200 basis points lower than the
9 midpoint of his recommended range of results, Dr. Woolridge must agree that a
10 CAPM result of 7.6 percent or 7.7 percent is unreasonably low.

11
12 Q. Do you agree with Dr. Woolridge's application of the CAPM?

13 A. No. I agree with Dr. Woolridge that his CAPM results are below a reasonable
14 range of estimates of PEF's cost of equity.

15
16 Q. Why do you believe that the CAPM produces unreasonably low cost of
17 equity results for electric utilities at this time?

18 A. I believe there are two reasons why the CAPM produces unreasonably low cost of
19 equity results for electric utilities at this time. First, as a result of the economic
20 crisis, the U.S. Treasury has kept interest rates on Treasury securities low as part
21 of its effort to stimulate the economy. The efforts of the U. S. Treasury to keep
22 interest rates low has significantly increased the spread between the risk-free rate,

1 as measured by the yield on Treasury debt, and the cost of utility debt, as
2 measured by the Moody's yields on public utility bonds. Since the cost of equity
3 for public utilities moves more in line with utility debt than with government debt
4 yields, the CAPM, which relates the cost of equity to the yield on government
5 debt, understates the utility cost of equity. In addition, the betas of utilities are
6 currently approximately 0.70, and the CAPM tends to underestimate the cost of
7 equity for companies whose equity beta is less than 1.0 and to overestimate the
8 cost of equity for companies whose equity beta is greater than 1.0.

9
10 **Q. Can you briefly summarize the evidence that the CAPM underestimates the**
11 **required returns for securities or portfolios with betas less than 1.0 and**
12 **overestimates required returns for securities or portfolios with betas greater**
13 **than 1.0?**

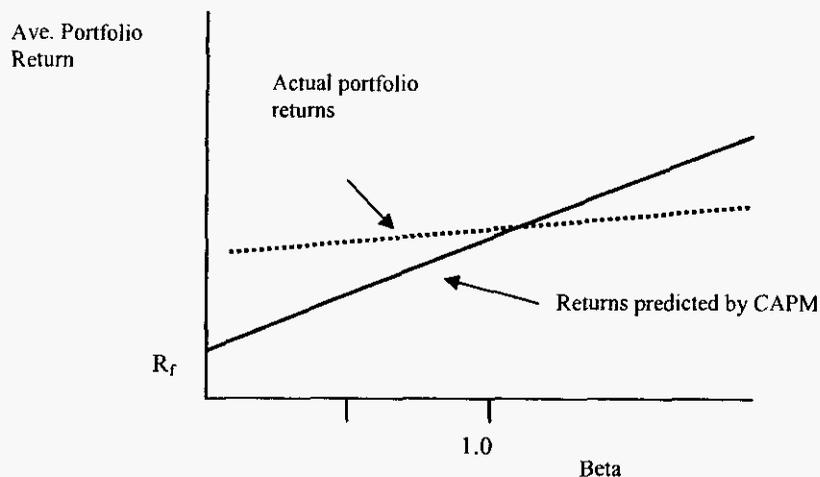
14 **A.** Yes. The CAPM conjectures that security returns increase with increases in
15 security betas in line with the equation

$$16 \quad ER_i = R_f + \beta_i [ER_m - R_f],$$

17 where ER_i is the expected return on security or portfolio i , R_f is the risk-free rate,
18 $ER_m - R_f$ is the expected risk premium on the market portfolio, and β_i is a measure
19 of the risk of investing in security or portfolio i . If the CAPM correctly predicts
20 the relationship between risk and return in the marketplace, then the realized
21 returns on portfolios of securities and the corresponding portfolio betas should lie
22 on the solid straight line with intercept R_f and slope $[R_m - R_f]$ shown below.

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Figure 1
Average Returns Compared to Beta
for Portfolios Formed on Prior

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Financial scholars have found that the relationship between realized returns and betas is inconsistent with the relationship posited by the CAPM. As described in Fama and French (1992) and Fama and French (2004), the actual relationship between portfolio betas and returns is shown by the dotted line in the figure above. Although financial scholars disagree on the reasons why the return/beta relationship looks more like the dotted line in the figure than the solid line, they generally agree that the dotted line lies above the solid line for portfolios with betas less than 1.0 and below the solid line for portfolios with betas greater than 1.0. Thus, in practice, scholars generally agree that the CAPM underestimates portfolio returns for companies with betas less than 1.0, and overestimates portfolio returns for portfolios with betas greater than 1.0.

1 Q. **What conclusions do you reach from your review of the literature on the**
2 **CAPM to predict the relationship between risk and return in the**
3 **marketplace?**

4 A. I conclude that the financial literature strongly supports the proposition that the
5 CAPM underestimates the cost of equity for companies such as public utilities
6 with betas less than 1.0. Since the CAPM significantly underestimates the cost of
7 equity for companies with betas less than 1.0, and both Dr. Woolridge's and my
8 proxy companies have betas that are significantly less than 1.0, I further conclude
9 that the Commission should give little or no weight to the results of the CAPM at
10 this time.

11

12 **E. Dr. Woolridge's Comments on the Relationship**
13 **between Utilities' Rates of Return on Equity and their**
14 **Market-to-Book Ratios**

15 Q. **Does Dr. Woolridge discuss the relationship between rates of return equity,**
16 **the cost of equity, and market-to-book ratios in his testimony?**

17 A. Yes. Dr. Woolridge asserts that a market-to-book ratio above 1.0 indicates that a
18 company is earning more than its cost of equity:

19 As such, the relationship between a firm's return on equity, cost of
20 equity, and market-to-book ratio is relatively straightforward. A
21 firm that earns a return on equity above its cost of equity will see
22 its common stock sell at a price above its book value. Conversely,
23 a firm that earns a return on equity below its cost of equity will see
24 its common stock sell at a price below its book value. [Woolridge
25 at 28.]
26

27 Q. **Dr. Woolridge reports the results of three regression analyses that he believes**
28 **support his claim that: (1) companies with market-to-book ratios greater**

1 **than 1.0 are earning more than their costs of equity; (2) companies with**
2 **market-to-book ratios equal to 1.0 are earning their costs of equity; and**
3 **(3) companies with market-to-book ratios less than 1.0 are earning less than**
4 **their costs of equity [Woolridge at 28]. Do Dr. Woolridge's regression**
5 **analyses provide any support for Dr. Woolridge's claim?**

6 A. No. Dr. Woolridge's regression analyses do not support his claim. Dr.
7 Woolridge claims that the cost of equity for electric utilities like PEF is
8 9.75 percent. Of the 54 electric utilities in his market-to-book graph, 28 have
9 ROEs less than 9.75 percent. However, 21 of these 28 companies—with ROEs
10 less than Dr. Woolridge's 9.75 recommended cost of equity—have market-to-
11 book ratios exceeding 1.0. The average ROE for these companies is 7.3 percent,
12 and the average market-to-book is 1.13. These data clearly contradict Dr.
13 Woolridge's claim that companies earning less than their cost of equity will have
14 market-to-book ratios of less than 1.0.

15
16 **Q. Are you surprised by Dr. Woolridge's evidence that most electric, gas, and**
17 **water utilities have market-to-book ratios greater than 1.0, even if they are**
18 **earning ROEs less than their cost of equity?**

19 A. No. According to the DCF model, a company's stock price is equal to the present
20 value of the company's *expected* future dividends, which, in turn, depend on its
21 *expected* future ROEs. Thus, market-to-book ratios greater than 1.0, at best,
22 imply that investors expect the company to earn more than its cost of equity at
23 some time in the future. There is nothing in the DCF model that allows the

1 analyst to draw inferences about the relationship between a company's historical
2 ROE and its cost of equity from evidence on market-to-book ratios.

3
4 **F. Rebuttal of Dr. Woolridge's Comments on Vander Weide**
5 **Direct Testimony**

6 **Q. What issues does Dr. Woolridge have regarding your estimate of PEF's cost**
7 **of equity?**

8 A. Dr. Woolridge disagrees with my: (1) proxy companies; (2) quarterly DCF
9 model; (3) reliance on analysts' growth forecasts; (4) risk premium estimates;
10 (5) allowance for flotation costs; and (6) financial leverage adjustment
11 [Woolridge at 62].

12 **1. Proxy Companies**

13 **Q. What proxy companies do you use to estimate PEF's cost of equity?**

14 A. I use the proxy group of Value Line electric utilities shown in Schedule 1 of my
15 direct testimony.

16
17 **Q. Why does Dr. Woolridge disagree with your choice of proxy companies?**

18 A. Dr. Woolridge claims that my proxy group is unreasonable because it includes
19 companies such as Dominion, SCANA, and Vectren that receive a relatively low
20 percentage of revenues from electric operations and companies such as Southern
21 Company, with operating revenues greater than \$15 billion [Woolridge at 63].

22
23 **Q. Why do Dominion, SCANA, and Vectren receive a relatively low percentage**
24 **of revenues from electric utility operations?**

1 A. Dominion, SCANA, and Vectren receive a relatively low percentage of revenues
2 from electric utility operations because they are combination utilities that also
3 have significant revenues from natural gas utility operations.

4
5 **Q. Does your inclusion of Dominion, SCANA, and Vectren increase the risk of**
6 **your proxy group relative to either PEF or Dr. Woolridge's proxy group of**
7 **electric companies?**

8 A. No. As shown in Exhibit ___ (JWV-1) of my direct testimony, Dominion,
9 SCANA, and Vectren each has a Standard & Poor's bond rating of A- and Value
10 Line Safety Rank of 2.¹¹

11
12 **Q. Does the inclusion of these companies in your proxy group increase your**
13 **DCF result for your proxy companies?**

14 A. No. Dominion has an above average result and SCANA and Vectren have below
15 average results, and their inclusion in my group has an insignificant impact on the
16 average DCF result for the group.

17
18 **Q. Which companies in your proxy group have operating revenues greater than**
19 **\$15 billion?**

20 A. The companies in my proxy group that have operating revenues greater than \$15
21 billion include Dominion, Exelon, FPL Group, and Southern Company.

¹¹ SCANA's bond rating was lowered to BBB+ on April 22, 2009.

1

2 **Q. Does your inclusion of companies such as Dominion, Exelon, FPL Group,**
3 **and Southern Company, with operating revenues greater than \$15 billion**
4 **increase the risk of your proxy group relative to PEF or to Dr. Woolridge's**
5 **proxy group?**

6 A. No. To the contrary, the inclusion of these companies reduces the risk of my
7 proxy group. Specifically, as shown in Exhibit __ (JVW-1), page 2 of 2,
8 Dominion has an S&P bond rating of A-, a Value Line Safety Rank of 2; Exelon
9 has an S&P bond rating of BBB+ and a Value Line Safety Rank of 1;¹² FPL
10 Group has an S&P bond rating of A and a Value Line Safety Rank of 1; and
11 Southern Company has an S&P bond rating of A and a Value Line Safety Rank
12 of 1. The average S&P bond rating for my entire proxy group is BBB+ and the
13 average Value Line Safety Rank is 2.

14

15 **Q. Does the inclusion of these companies increase your DCF result?**

16 A. No. The inclusion of these four companies has an insignificant impact on my
17 average DCF result. Moreover, there are good reasons to include these companies
18 since they represent a significant part of the market for public utility stocks.

19

20

2. Quarterly DCF Model

21

Q. What are Dr. Woolridge's criticisms of your DCF studies?

¹² Exelon's Standard & Poor's bond rating was lowered to BBB on October 21, 2008.

1 A. Dr. Woolridge claims that I should: (1) use the annual rather than the quarterly
2 DCF model to estimate PEF's cost of equity; (2) use a combination of historical
3 and analysts' growth rates to estimate the growth component of the DCF model;
4 (3) include no adjustment for flotation costs; (4) use equal weighting to calculate
5 my average DCF results; and (5) give less weight to my DCF results in arriving at
6 my cost of equity recommendation.

7
8 **Q. What is the major difference between the quarterly DCF model which you
9 use and the annual DCF model employed by Dr. Woolridge?**

10 A. The major difference is that my quarterly DCF model is based on the realistic
11 assumption that dividends are paid quarterly, while Dr. Woolridge's annual DCF
12 model is based on the unrealistic assumption that dividends are paid once at the
13 end of each year.

14
15 **Q. Why do you use the quarterly rather than the annual DCF model to estimate
16 PEF's cost of equity?**

17 A. As I discuss in my direct testimony, the DCF model assumes that a company's
18 stock price is equal to the present discounted value of all expected future
19 dividends. Since the companies in my proxy group all pay dividends quarterly,
20 the current market price that investors are willing to pay reflects the expected
21 quarterly receipt of dividends. Therefore, a quarterly DCF model must be used to
22 estimate the cost of equity for these firms. The quarterly DCF model differs from
23 the annual DCF model in that it expresses a company's price as the present

1 discounted value of a quarterly stream of dividend payments. The annual DCF
2 model is only a correct expression for the present discounted value of future
3 dividends if dividends are paid once at the end of each year.
4

5 **Q. Why does Dr. Woolridge disagree with your application of the quarterly**
6 **DCF model?**

7 A. Dr. Woolridge argues first that an early proponent of the DCF model, Dr. Myron
8 Gordon, stated that "the appropriate dividend yield adjustment for growth in the
9 DCF model is the expected dividend for the next quarter multiplied by four."
10 [Woolridge at 64.] Second, Dr. Woolridge argues that Professor Bower has stated
11 that the conventional DCF calculation does produce a downwardly-biased
12 estimate of the cost of equity, but the annual DCF model provides the most
13 appropriate estimate of the utility's required return on rate base. [Woolridge at
14 65.]

15
16 **Q. Is Dr. Gordon's statement in favor of an annual DCF model a reasonable**
17 **justification for use of the annual DCF model in this proceeding?**

18 A. No. Although Dr. Gordon was certainly a major early proponent of the DCF
19 model, this does not imply that Dr. Gordon is correct in his arguments regarding
20 the quarterly DCF model. As shown in my Appendix 1 (filed with my direct
21 testimony), there can be no doubt that, when dividends are paid quarterly, the
22 quarterly DCF model must be used to estimate the cost of equity.
23

1 **Q. Do you agree with Dr. Bower's statement that the annual DCF calculation is**
2 **a downwardly-biased estimate of the market cost of equity when companies**
3 **pay dividends quarterly?**

4 A. Yes. That is why I use the quarterly DCF model to estimate the cost of equity in
5 this proceeding.

6
7 **Q. Do you agree with Dr. Bower's argument that the annual DCF model is the**
8 **appropriate measure of the required rate of return on rate base?**

9 A. No. As discussed in my direct testimony, I believe that it is important to measure
10 the cost of equity for the proxy companies correctly, and then to adjust the cost of
11 equity for differences between the financial risk reflected in the cost of equity of
12 the proxy companies and the financial risk implied by the utility's rate making
13 capital structure.

14

15 **3. Analysts' Growth Forecasts**

16 **Q. Dr. Woolridge also criticizes your use of analysts' growth rates in your DCF**
17 **model. Why do you use analysts' growth rates to estimate the growth**
18 **component of the DCF model?**

19 A. I use analysts' growth rates because my studies indicate that the analysts' growth
20 rates are highly correlated with stock prices. This evidence provides strong
21 support for the conclusion that investors use analysts' growth rates in making
22 stock buy and sell decisions, and thus the analysts' growth rates should be used to
23 estimate the growth component of the DCF model.

24

1 **Q. Does Dr. Woolridge agree with your statistical studies of the relationship**
2 **between analysts' growth rates and stock prices?**

3 A. No. Dr. Woolridge has four criticisms of my statistical studies of the relationship
4 between analysts' growth rates and stock prices. First, he argues that my
5 statistical study is outdated. Second, he argues that my study is misspecified
6 because I used a "linear approximation" to the DCF model rather than a modified
7 version of the DCF model. Third, he argues that I did not use both historical and
8 analysts' forecasted growth rates in the same regression. Fourth, he argues that I
9 did not perform any tests to determine if the difference between historic and
10 projected growth measures is statistically significant.

11
12 **Q. Do you agree with Dr. Woolridge's assertion that your statistical analysis of**
13 **the relationship between analysts' growth rates and stock prices is outdated?**

14 A. No. As discussed in my direct testimony, my study was updated in August 2004.
15 The updated study continues to support the conclusion that the analysts' growth
16 rates are more highly correlated with stock prices than historical measures such as
17 those employed by Dr. Woolridge. Furthermore, Dr. Woolridge ignores other
18 studies that have corroborated my results.

19
20 **Q. Do you agree with Dr. Woolridge's criticism that your DCF model is**
21 **misspecified because you used a "linear approximation" to the DCF model**
22 **rather than a modified version of the DCF model?**

1 A. No. Most regression analyses are based on the assumption that the relationship
2 between the variables being studied is linear. As part of my studies, I tested
3 whether the linear assumption was sufficiently close to provide reliable estimates
4 of the model parameters. Applying a first order Taylor-series approximation to
5 the DCF equation, I found that the first order, or linear, approximation was
6 sufficiently close to the true equation to justify using linear regression analysis to
7 study the relationship between price/earnings ratios and growth rates.

8
9 **Q. Why did you not use a combination of historical and analysts' growth rates
10 in the same regression?**

11 A. I did not use a combination of historical and analysts' growth rates in the same
12 regression because there are an infinite number of such combinations which could
13 be tested. My studies indicate that the relationship between analysts' forecasts
14 and stock prices is so strong compared to the relationship between historical
15 growth rates and stock prices that there would be little advantage to combining
16 historical growth rates with analysts' forecasts to predict stock prices.

17
18 **Q. Is there a statistically significant difference between historical and projected
19 growth measures in explaining stock prices in your statistical study?**

20 A. Yes. The difference in performance of historical and projected growth rates is
21 both statistically significant and dramatic.

22

1 Q. **Dr. Woolridge claims in his testimony, “It is well known that the EPS**
2 **forecasts of Wall Street securities analysts are overly optimistic and**
3 **upwardly biased.” [Woolridge at 66.] Is he correct?**

4 A. No. Contrary to Dr. Woolridge’s claim, the academic literature presents
5 compelling evidence that analysts’ EPS forecasts are unbiased—that is, neither
6 optimistic nor pessimistic. As discussed above, I have reviewed nine articles that
7 address whether analysts’ growth forecasts are overly optimistic. At least seven
8 of the nine articles reviewed find no evidence that analysts’ growth forecasts are
9 overly optimistic. Two find evidence of optimism, but also conclude that
10 optimism is declining significantly over time. Of these two studies, one finds that
11 analysts’ forecasts for the S&P 500 are pessimistic for the last four years of the
12 study.

13
14 Q. **Does some of the later research explain why some earlier studies in the**
15 **literature conclude that analysts’ EPS growth forecasts are optimistic?**

16 A. Yes. Articles by Abarbanell and Lehavy (2003) and Keane and Runkle (1998)
17 recognize that the results of earlier studies are heavily influenced by the presence
18 of large unexpected accounting write-offs and special accounting charges at a
19 small number of sample companies. Analysts’ forecasts intentionally exclude the
20 impact of accounting write-offs and special charges because such one-time write-
21 offs and special charges are inherently unpredictable. Unexpected accounting
22 write-offs and special charges have a potentially dramatic impact on conclusions
23 concerning analysts’ bias because actual earnings include these items whereas

1 analysts' normalized forecasts exclude them. Thus, a comparison of analysts'
2 forecasts premised on normalized earnings (that is, earnings that exclude the
3 impact of accounting write-offs and special charges) to reported earnings that
4 include the negative effect of accounting write-offs and special charges will bias
5 the results in favor of concluding that analysts are optimistic. These studies
6 demonstrate that, once the distorting effect of unexpected accounting write-offs
7 and special charges are removed from the analysis, there is no evidence that
8 analysts' EPS growth forecasts are optimistic.

9 This research also highlights the potential impact of high correlation in
10 analysts' forecast errors on study conclusions. Analysts' forecast errors tend to
11 be highly correlated because unexpected industry and economy-wide shocks,
12 such as unexpected increases in oil prices or terrorist attacks, have similar
13 effects on all firms in the same industry. However, typical statistical tests of
14 optimism (such as R-squares and t-statistics) are based on the assumption that
15 analysts' forecast errors are independent, that is, the tests assume that the
16 correlation of the analyst errors is zero. Once the statistical tests of optimism
17 are adjusted to account for the high correlation in forecast errors that generally
18 characterize the data, evidence supports the hypothesis that analysts' EPS
19 growth forecasts are unbiased, and hence not optimistic.

20
21 **Q. Dr. Woolridge also discusses his study of the relationship between analysts'**
22 **forecasted growth rates and subsequently achieved growth rates [Woolridge**
23 **at 66 – 68]. Do you have any criticisms of his study?**

1 A. Yes. First, Dr. Woolridge apparently makes no attempt to screen his data for
2 companies that have only one or two analysts' growth forecasts or for companies
3 that have outlier growth forecasts. Although my studies indicate that analysts'
4 growth forecasts are highly correlated with stock prices for large publicly-traded
5 companies that are followed by at least three analysts, they may not be highly
6 correlated for many of the small companies contained in the I/B/E/S data base that
7 have fewer than three analysts' growth estimates and that have outlier growth
8 forecasts. Second, Dr. Woolridge makes no attempt to correct for the statistical
9 problems in studies of analysts' forecasts. For example, Dr. Woolridge makes no
10 attempt to adjust his data for the impact on earnings of unexpected accounting
11 write-offs and special charges. Further, Dr. Woolridge fails to adjust for the high
12 correlation in analysts' forecast errors across companies. Financial researchers
13 have conclusively demonstrated that there is no evidence of analysts' optimism in
14 data sets that are properly adjusted for the impact of one-time accounting write-
15 offs and the correlation in analysts' forecasts errors across companies.¹³

16
17 **Q. Dr. Woolridge also discusses the results of his study of the relationship**
18 **between analysts' forecasts for utilities and the utilities' subsequent achieved**
19 **earnings growth rates. Do you have any comments on his study?**

¹³ See Jeffery Abarbanell and Reuven Lehavy, "Biased Forecasts or Biased Earnings? The Role of Reported Earnings in Explaining Apparent Bias and Over/underreaction in Analysts' Earnings Forecasts," *Journal of Accounting and Economics*, 36 (2003) 105 – 146; Stephen J. Ciccone, "Trends in Analyst Earnings Forecast Properties," *International Review of Financial Analysis*, 14 (2005) 1 – 22.

1 A. Yes. First, Dr. Woolridge has misspecified the time frame of his analysts'
2 earnings growth forecasts. In his study, Dr. Woolridge claims that he compares
3 an analysts' forecast made in a particular quarter to the company's realized
4 earnings growth rate in the same quarter four years hence. In making this
5 comparison, Dr. Woolridge fails to recognize that the time frame of the analysts'
6 growth forecast is an indefinite, long-run period that may differ from one analyst
7 to another. Dr. Woolridge has provided no evidence that analysts' growth
8 estimates were intended to forecast actual results for a period exactly four years
9 hence. Second, Dr. Woolridge has not distinguished between normalized and
10 non-normalized earnings. The analysts' forecasts are generally intended to be
11 normalized earnings growth forecasts, meaning that they are forecasts of earnings
12 in the absence of extraordinary events and one-time write-offs. It is likely that a
13 good deal of the forecast deviations in Dr. Woolridge's sample are due to
14 extraordinary events and one-time write-offs rather than to problems with the
15 analysts' forecasts of normalized earnings.

16 **4. Risk Premium**

17
18 **Q. What is the risk premium approach to estimating the cost of equity?**
19 A. The risk premium approach is based on the principle that investors expect to earn
20 a return on an equity investment in PEF that reflects a "premium" over and above
21 the return they expect to earn on an investment in a portfolio of long-term bonds.
22 This equity risk premium compensates equity investors for the additional risk they
23 bear in making equity investments versus bond investments. Using the risk

1 premium approach, the cost of equity is given by the following equation: cost of
2 equity = interest rate plus risk premium.

3
4 **Q. How did you estimate the interest rate component of the risk premium**
5 **approach?**

6 A. I estimated the interest rate component of the risk premium approach using the
7 yield to maturity on A-rated utility bonds.

8
9 **Q. Does Dr. Woolridge have any criticisms of your use of the yield to maturity**
10 **on A-rated utility bonds to estimate the interest rate component of the risk**
11 **premium approach?**

12 A. Yes. Dr. Woolridge argues that my use of the yield to maturity on A-rated utility
13 bonds inflates the required return on equity because long-term utility bonds are
14 not risk free, that is, they are subject to both interest rate risk and credit risk
15 [Woolridge at 76].

16
17 **Q. Do you agree with Dr. Woolridge's criticism of your use of the yield to**
18 **maturity on A-rated utility bonds to estimate the interest rate component of**
19 **the risk premium approach?**

20 A. No. Dr. Woolridge fails to recognize that the risk premium approach does not
21 require that the interest rate be "risk free." Indeed, the only requirement of the
22 risk premium approach is that the same interest rate be used to estimate the
23 interest rate component as is used to estimate the risk premium component. Since

1 the risk premium approach suggests that the cost of equity equals (the interest
2 rate) plus (the required return on equity minus the interest rate), the cost of equity
3 should be approximately the same in a risk premium analysis, no matter what
4 interest rate is used as the benchmark interest rate. Thus, use of the interest rate
5 on A-rated utility bonds in a risk premium analysis will produce a higher interest
6 rate component than use of a government bond interest rate, but this difference
7 will be offset by the correspondingly lower risk premium. The lower risk
8 premium arises because the difference between the return on equity and yield on
9 A-rated utility bonds is less than the difference between the return on equity and
10 the yield on long-term government bonds.

11
12 **Q. Why do you use the yield on A-rated utility bonds rather than the yield on**
13 **Treasury bonds in your risk premium studies?**

14 **A.** I use the yield on A-rated utility bonds rather than the yield on Treasury bonds in
15 my risk premium studies because I believe that utility bond yields are better
16 indicators of utilities' cost of equity than Treasury bond yields. First, because the
17 U.S. dollar is the major currency for international trade, foreign governments tend
18 to hold their currency reserves in U.S. Treasury bonds. Indeed, foreign investors
19 now hold approximately 55 percent of U.S. Treasury debt.¹⁴ Thus, Treasury bond

¹⁴ Report to the Secretary of the Treasury from the Treasury Borrowing Advisory Committee of the Securities Industry and Financial Markets Association, February 4, 2009.
<http://www.ustreas.gov/press/releases/tg10.htm>

1 yields are highly sensitive to changes in international economic conditions,
2 whereas the U.S. utilities' cost of equity is not.

3 Second, since U.S. Treasuries are considered to be the safest investment in
4 the world, investors across the world tend to flock to investments in U.S.
5 Treasuries at times of widespread global economic turmoil. In such periods of
6 turmoil, the required return on risky investments such as utility bonds and stocks
7 increases while the yield on U.S. Treasury bonds declines.

8 Third, yields on U.S. Treasury bonds are highly sensitive to efforts by the
9 Federal Reserve to stimulate the economy. Although most Federal Reserve
10 monetary policy operations are conducted using short-term U. S. Treasury bills,
11 yields on long-term Treasury bonds frequently move in the same direction as
12 yields on short-term Treasury bills. In addition, the Federal Reserve has recently
13 begun to purchase long-term Treasury bonds in an effort to further reduce long-
14 term Treasury yields.

15 Fourth, to the extent that there are economic developments that are
16 specific to the utility industry, such as changes in environmental regulations and
17 energy policy, such factors will be reflected both in utility bond yields and the
18 utility cost of equity, but not in U.S. Treasury bond yields. Thus, that utility bond
19 yields reflect utility-specific risks is an argument for—not an argument against—
20 the use of utility bond yields to indicate changes in the utility cost of equity.

21
22 **Q. How do you estimate the risk premium component of the risk premium**
23 **approach?**

1 A. I estimate the risk premium component of the risk premium approach in two
2 ways. First, I estimate the difference between the DCF cost of equity for a proxy
3 group of companies over the previous 111 months and the concurrent yield to
4 maturity on A-rated utility bonds in those months, and then adjust the average risk
5 premium to account for changes in interest rates. This estimate is my "ex ante
6 risk premium approach." Second, I estimate the risk premium from an historical
7 study of stock and bond returns over the period 1937 to the present. This second
8 risk premium approach is my "ex post risk premium approach."

9
10 **Q. Why does Dr. Woolridge criticize your ex ante risk premium approach?**

11 A. Dr. Woolridge criticizes my ex ante risk premium approach because it relies on
12 analysts' forecasts to estimate the required return on equity using the DCF model.

13
14 **Q. Have you addressed this criticism elsewhere in this rebuttal testimony?**

15 A. Yes, I have. (See Section II, C above.)

16
17 **Q. Does Dr. Woolridge agree with your use of historical stock and bond returns
18 to estimate the equity risk premium?**

19 A. No. Dr. Woolridge states:

20 There are a number of flaws in using historic returns over long
21 time periods to estimate expected equity risk premiums. These
22 issues include: (a) biased historic bond returns; (b) the arithmetic
23 versus the geometric mean return; (c) the large error in measuring
24 the equity risk premium using historical returns; (d) unattainable
25 and biased historic stock returns; (e) company survivorship bias;
26 (f) the "peso problem—U.S. stock market survivorship bias;" (g)
27 market conditions today are significantly different than the past;

1 and (h) changes in risk and return in the markets. [Woolridge at
2 78.]

3

4 **Q. Why does Dr. Woolridge believe that historical bond returns are biased?**

5 A. Dr. Woolridge states:

6 Historic bond returns are biased downward as a measure of
7 expectancy because of capital losses suffered by bondholders in
8 the past. As such, risk premiums derived from this data are biased
9 upwards. [Woolridge at 79.]

10

11 **Q. Do you agree with Dr. Woolridge's statement that historical bond returns are
12 biased downward because of capital losses suffered by past bond investors?**

13 A. No. Because of capital gains and losses, historical bond returns may be higher or
14 lower than what investors expected at the time they purchased the bonds. During
15 the period since 1982, for example, historical bond returns have been biased
16 upward as a measure of expectancy because of the large capital gains achieved by
17 bondholders over this period. However, over the entire period considered in my
18 ex post risk premium study (from 1937 to the present), capital gains and losses on
19 bonds have approximately offset each other, and consequently there is no
20 significant bias as a result from either capital gains or losses.

21

22 **Q. What is the difference between an arithmetic and a geometric mean return?**

23 A. An arithmetic mean return is an additive return that is calculated by summing the
24 achieved return in each time period and dividing the total by the number of
25 periods. In contrast, the geometric mean return is a multiplicative return that is
26 calculated in two steps. First, one calculates the product of (1 plus the return) in

1 each period of the study. Second, one calculates the n^{th} root of this product and
 2 subtracts 1 from the result. Thus, if there are two periods, and r_1 and r_2 are the
 3 returns in periods one and two, respectively, the arithmetic mean is calculated
 4 from the equation: $a_m = (r_1 + r_2) \div 2$. The geometric mean is calculated from the
 5 equation,

$$a_g = [(1 + r_1) \times (1 + r_2)]^{.5} - 1.$$

6
 7
 8 **Q. Please describe Dr. Woolridge's concern regarding the use of geometric
 9 versus arithmetic mean returns.**

10 A. Dr. Woolridge believes that my ex post risk premium study is biased because I
 11 calculate the expected risk premium using the arithmetic mean of past returns,
 12 whereas he believes I should have calculated the expected risk premium using the
 13 geometric mean of past returns.

14
 15 **Q. Is Dr. Woolridge's criticism valid?**

16 A. No. As explained in Ibbotson[®] SBBI[®] Valuation Edition 2009 Yearbook
 17 (SBBI[®]), the arithmetic mean return is the best approach for calculating the return
 18 investors expect to receive in the future:

19 The equity risk premium data presented in this book are arithmetic
 20 average risk premia as opposed to geometric average risk premia.
 21 The arithmetic average equity risk premium can be demonstrated
 22 to be most appropriate when discounting future cash flows. For
 23 use as the expected equity risk premium in either the CAPM or the
 24 building block approach, the arithmetic mean or the simple
 25 difference of the arithmetic means of stock market returns and
 26 riskless rates is the relevant number. This is because both the
 27 CAPM and the building block approach are additive models, in
 28 which the cost of capital is the sum of its parts. The geometric

average is more appropriate for reporting past performance, since it represents the compound average return. [SBBI® at 59.]

1 A discussion of the importance of using arithmetic mean returns in the context of
2 CAPM or risk premium studies is contained in my direct testimony,
3 Exhibit ___ (JWV-5), "Using the Arithmetic Mean to Estimate the Cost of Equity
4 Capital."

5
6 **Q. Dr. Woolridge claims that "the U. S. Securities and Exchange Commission**
7 **requires equity mutual funds to report historical return performance using**
8 **geometric mean and not arithmetic mean returns." [Woolridge at 80.] Does**
9 **this observation demonstrate that the risk premium should be estimated**
10 **using geometric mean returns rather than arithmetic mean returns?**

11 **A.** No. As discussed above, I agree that historical performance should be measured
12 using the geometric mean rather than the arithmetic mean. However, as I
13 demonstrate in Exhibit ___ (JWV-5), in estimating the cost of equity, it is essential
14 to use the arithmetic mean return because it is only the arithmetic mean return that
15 will make an initial investment grow to the expected investment value at the end
16 of the investment horizon. Thus, for an investment with an uncertain outcome,
17 the arithmetic mean is the best measure of the forward looking expected risk
18 premium.

19
20 **Q. Dr. Woolridge also criticizes your ex post risk premium study because it is**
21 **based on "unattainable and biased historic stock returns." [Woolridge at**
22 **p. 81.] Is he correct?**

1 A. No. Dr. Woolridge bases his allegation on the assumption that stock index returns
2 such as those reported by Ibbotson are “unattainable to investors.” Dr.
3 Woolridge’s assumption is false: investors, in fact, can attain the returns achieved
4 by stock indices simply by purchasing the stock index.

5
6 **Q. Do you agree with Dr. Woolridge’s criticism that your ex post risk premium
7 study is characterized by “survivorship bias”? [Woolridge 82]**

8 A. No. Survivorship bias refers to problems that might arise when data for
9 companies that have failed are excluded from the sample. However, with regard
10 to the U.S. markets that I study, survivorship bias is not a major issue. First, over
11 the period 1937 to the present, there have been relatively few companies in the
12 S&P 500 and the S&P Utilities that have failed. Second, the S&P 500 includes
13 the return on a stock until the day it is dropped from the index, and the effect of a
14 company being dropped from the S&P 500 is generally anticipated by the market
15 well in advance of the delisting. Thus, survivorship is not a material issue with
16 respect to U.S. stocks.

17
18 **Q. What does Dr. Woolridge mean when he refers to the “peso problem”?**

19 A. Dr. Woolridge uses the term “peso problem” to refer to the fact that U.S. investors
20 have earned higher returns on stock investments than investors in other countries
21 because the U.S. economy has not suffered many of the same economic calamities
22 as the economies of other countries. This criticism of the use of U. S. stock
23 returns in risk premium studies might be appropriate if one were attempting to

1 estimate the expected rates of return on non-U. S. stocks. However, for U. S.
2 stocks, since there is no indication that the U. S. will suffer the economic
3 calamities of other countries, such as hyper-inflation or military invasion, there is
4 no reason why the returns on U. S. stocks would be biased upward. As
5 Morningstar states with respect to "survivorship bias" and the closely-related
6 "peso problem":

7 While the survivorship bias evidence may be compelling on a
8 worldwide basis, one can question its relevance to a purely U.S.
9 analysis. If the entity being valued is a U.S. company, then the relevant
10 data set should be the performance of equities in the U.S. market.
11 [SBB^I® at 65.]

12
13 **Q. On p. 83 of his testimony, Dr. Woolridge criticizes your use of historical risk**
14 **premiums on the grounds that "market conditions today are significantly**
15 **different than in the past." What is the basis of Dr. Woolridge's concern**
16 **regarding "current market conditions"?**

17 A. Dr. Woolridge is concerned that, since price/earnings ratios are high, and interest
18 rates are at historic lows, stock returns in the future may be significantly less than
19 they have been in the past. [Woolridge at p. 83.]

20
21 **Q. Is this a reasonable basis on which to reject the use of historical risk**
22 **premium data?**

23 A. No. Price/earnings ratios are not unusually high at present, and there is no
24 compelling evidence that price/earnings ratios are unreasonably high in light of
25 current interest rate conditions in the capital markets. Dr. Woolridge also fails to
26 understand that my study involves the difference between stock returns and bond

1 returns, and bond returns may be more sensitive to interest rates than stock
2 returns. Thus, if anything, low interest rates, according to his logic, should imply
3 that risk premiums would increase in the future, not decrease.

4
5 **Q. Dr. Woolridge's final criticism of your ex post risk premium study is that the**
6 **equity risk premium has declined in recent years. Did you present any**
7 **evidence in your direct testimony relating to this issue?**

8 A. Yes. I presented evidence on pp. 45 – 46 of my direct testimony that there has
9 been no significant trend in equity risk premiums over time. Since the time of my
10 direct testimony, the Ibbotson® SBBI® 2009 Yearbook has been published, which
11 agrees with my finding that there has been no significant trend in equity risk
12 premiums over time:

13 The significance of this evidence is that the realized equity risk
14 premium next year will not be dependent on the realized equity
15 risk premium from this year. That is, there is no discernable
16 pattern in the realized equity risk premium—it is virtually
17 impossible to forecast next year's realized risk premium based on
18 the premium of the previous year. For example, if this year's
19 difference between the riskless rate and the return on the stock
20 market is higher than last year's, that does not imply that next
21 year's will be higher than this year's. It is as likely to be higher as
22 it is lower. The best estimate of the expected value of a variable
23 that has behaved randomly in the past is the average (or arithmetic
24 mean) of its past values. [SBBI® at 61.]

25
26 **Q. Dr. Woolridge claims that his market risk premium estimate is reasonable**
27 **because it is consistent with the 6.62 percent long-term forecasted return on**
28 **the S&P 500 published in February 2009 by the Federal Reserve Bank of**

1 **Philadelphia's Survey of Professional Forecasters [Woolridge at 52]. Is the**
2 **Survey of Professional Forecasters a reliable source of cost of equity**
3 **estimates?**

4 A. No. The economists included in the survey are macro economists who are
5 primarily concerned with forecasting factors such as GDP growth, inflation rates,
6 unemployment rates, job growth, and other macro economic indicators. The
7 6.62 percent forecast of the long-term expected return on the S&P 500 is
8 inherently unrealistic as an estimate of the required return on the S&P 500
9 because this expected return as of February 2009 is significantly less than the
10 7.74 percent average yield on Baa-rated utility bonds at February 2009. Since
11 equity investments in the S&P 500 are more risky than investments in Baa-rated
12 utility bonds, the required rate of return, or cost of equity, on the S&P 500 must
13 certainly be greater than the yield to maturity on Baa-rated utility bonds.

14
15 **Q. Dr. Woolridge also claims that his risk premium estimate is reasonable**
16 **because it is consistent with the risk premium estimate found in the Graham**
17 **Harvey survey of Chief Financial Officers in June 2009 [Woolridge at 54 –**
18 **55]. Do you agree that surveys of business managers provide useful**
19 **information on the expected market risk premium?**

20 A. No. Surveys of business managers provide little or no information on the
21 expected market risk premium because: (1) managers have no incentive to take
22 the survey seriously; (2) their responses are not typically based on market
23 transactions or actual investment decisions; (3) their responses may reflect what

1 they think the investigator wants to hear; and (4) the response rate is frequently
2 low. In addition, Dr. Woolridge fails to recognize that Graham and Harvey
3 comment that their survey responders frequently use hurdle rates for making
4 investment decisions that exceed their estimates of excess returns on the S&P
5 500.¹⁵

7 **5. Flotation Costs and Market Weighting**

8 **Q. Why do you include an adjustment for flotation costs in your DCF analysis?**

9 A. I include an adjustment for flotation costs because, without such an adjustment,
10 PEF would not be able to recover all the costs it incurs to finance its investments
11 in electric plant and equipment.

12
13 **Q. Does PEF issue equity in the capital markets?**

14 A. No. Although PEF does not issue equity in the capital markets, its parent must
15 issue equity to provide PEF the necessary financing to make investments in its
16 electric utility operations in Florida. If the parent is not able to recover its
17 flotation costs through PEF's rates, it will have no incentive to invest in PEF.

18
19 **Q. Does Dr. Woolridge agree with your flotation cost adjustment?**

¹⁵ Graham and Harvey confirm that CEO responses to their survey are not typically based on market transactions or actual investment decisions when they state, "Often their [the CFO's] 10-year risk premium is supplemented so that the company's hurdle rate exceeds their expected excess return on the S&P 500." John Graham and Campbell Harvey, "The Long-Run Equity Risk Premium," Sep. 9, 2005, p. 6.

1 A. No. Dr. Woolridge claims that a flotation cost adjustment is inappropriate
2 because: (1) the company has not presented any evidence that it actually incurs
3 flotation costs when it issues new equity; and (2) it is frequently asserted that a
4 flotation cost adjustment is required to prevent dilution of the company's existing
5 shareholders, but existing shareholders cannot suffer dilution as long as the
6 company's stock price is above book value.

7
8 **Q. Do you agree with Dr. Woolridge's assertion that the company did not
9 provide any evidence that it incurs flotation costs when it issues new equity?**

10 A. No. In Appendix 3 of my direct testimony, I present evidence that all companies
11 incur flotation costs when they issue new equity securities, that flotation costs
12 represent approximately five percent of the company's pre-issue stock price, and
13 that the company will not be able to earn a fair rate of return on its investment if it
14 does not recover its flotation costs.

15
16 **Q. Do you justify flotation costs on the grounds that flotation costs are required
17 to prevent dilution of existing shareholders?**

18 A. No. I justify flotation costs on the grounds that the company will not be able to
19 earn a fair rate of return if it does not recover the flotation costs it incurs when it
20 issues new equity. My flotation cost adjustment is unrelated to the company's
21 market-to-book ratio.

22

1 **Q. What weighting do you use to arrive at an average DCF result for your proxy**
2 **group of companies?**

3 A. As shown in Exhibit No. ___ (JVW-1) of my direct testimony, I calculate average
4 DCF results using market value weighting. I note that if I had used simple
5 weighting, my average DCF result would have been slightly higher, 12.4 percent.

6
7 **Q. Why do you use market value weighting to calculate the average DCF result**
8 **for your proxy company group?**

9 A. I use market value weighting to calculate the average DCF result for my proxy
10 companies because the purpose of my cost of equity analyses is to measure
11 investors' expected rate of return on a portfolio of electric utility stocks. The
12 expected rate of return on a portfolio of stocks is best calculated using market
13 value weights for the companies in the portfolio. However, as noted above, the
14 simple average DCF result for my proxy companies is slightly higher than the
15 market-weighted average DCF result.

16
17 **Q. Dr. Woolridge criticizes the use of market value weighting for the electric**
18 **companies because it "gives the greatest weight to the companies that are**
19 **significantly larger than PEF." [Woolridge at 63.] Do you agree with Dr.**
20 **Woolridge's assertion that you should have given more weight to the DCF**
21 **results of small utilities?**

22 A. No. Since analysts' growth forecasts are uncertain, DCF results for companies
23 with more analysts' growth forecasts, which are typically the larger companies,

1 are generally more reliable than DCF results for smaller companies with fewer
2 analyst's growth forecast. In addition, a higher weight for large utilities is
3 justified on the grounds that the larger utilities represent a significantly larger
4 share of the portfolios of the average investor.

5 **6. Financial Risk Adjustment**

6 **Q. How do financial market participants measure risk?**

7 A. Under the assumption that the probability distribution of returns is symmetric, *i.e.*,
8 centered on the mean return, financial market participants generally measure risk
9 by the forward-looking variance of return on investment.

10
11 **Q. Does the forward-looking variance of an investor's return on a stock
12 investment in a company depend on the company's capital structure?**

13 A. Yes. The forward-looking variance of an investor's return depends on the
14 company's debt to equity ratio, where both debt and equity are measured in terms
15 of market values, not book values.

16
17 **Q. What is the meaning of the term, "financial risk"?**

18 A. Economists use the term, "financial risk" to refer to the contribution of the firm's
19 capital structure, *i.e.*, its debt to equity ratio, to the forward-looking variance of
20 return on the firm's stock.

21

1 **Q. Does financial risk reflect the market values of debt and equity in a**
2 **company's capital structure or the book values of debt and equity in a**
3 **company's capital structure?**

4 A. Financial risk measures the contribution of the company's capital structure to the
5 forward-looking variance of return on the company's stock, and the forward-
6 looking variance depends on the market values of debt and equity in the
7 company's capital structure, not the book values.¹⁶ Thus, financial risk reflects
8 the market values of debt and equity in a company's capital structure, not the
9 book values.

10
11 **Q. Is PEF recommending that its weighted average cost of capital in this**
12 **proceeding be calculated based on the market values of debt and equity in its**
13 **capital structure?**

14 A. No. Consistent with previous regulatory practice, PEF is recommending that its
15 weighted average cost of capital be based on the book values of debt and equity in
16 its capital structure.

17
18 **Q. Is the financial risk associated with PEF's recommended capital structure**
19 **measured in the same way as the financial risk associated with the capital**
20 **structures of your proxy companies?**

¹⁶ See, for example, Richard A. Brealey, Stewart C. Myers, and Franklin Allen, *Principles of Corporate Finance*, 8th ed., McGraw-Hill, 2006.

1 A. No. The financial risk of my proxy companies is reflected in their market value
2 capital structures, while PEF is recommending that a book value capital structure
3 be used for the purpose of setting rates. Thus, the financial risk of my proxy
4 companies is measured by their market value capital structures, while PEF's
5 financial risk is measured by its book value capital structure.

6
7 **Q. How did you adjust your cost of equity results for your comparable**
8 **companies to reflect the difference between the market's perception of the**
9 **financial risk of your proxy companies and the financial risk reflected in**
10 **PEF's recommended capital structure?**

11 A. As described in my direct testimony (see pp. 52 – 54), I adjusted the cost of equity
12 results for my comparable companies by equating the after-tax weighted average
13 cost of capital of my proxy companies to the after-tax weighted average cost of
14 capital of PEF. In this procedure, I used market-value capital structure weights
15 for my comparable companies because the cost of capital for these companies is
16 based on market values, and I used book value weights for PEF because the
17 recommended cost of capital for PEF in this proceeding is based on book values.

18
19 **Q. Does Dr. Woolridge agree with your financial risk adjustment?**

20 A. No. Dr. Woolridge claims that my financial risk adjustment is unjustified
21 because: (1) a market-to-book ratio above 1.0 indicates that a company is earning
22 more than its cost of equity; (2) there is no change in the company's leverage;
23 (3) financial publications report capital structures based on book values; and

1 (4) no other commissions have accepted using a market value capital structure to
2 calculate the allowed rate of return. [Woolridge at 90.]

3
4 **Q. Do you agree that a market-to-book ratio greater than 1.0 indicates that a
5 company is earning more than its cost of equity?**

6 A. No. As discussed above, Dr. Woolridge's own study shows that 28 of the 54
7 electric utilities in his market-to-book study have ROEs less than 9.75 percent
8 (Dr. Woolridge's recommended return on equity). However, 21 of these 28
9 companies have market-to-book ratios exceeding 1.0. The average ROE for these
10 companies is 7.3 percent, and the average market-to-book is 1.13. These data
11 clearly contradict Dr. Woolridge's claim that a company's market-to-book ratio is
12 an indicator of whether a company is earning more than its cost of equity.

13
14 **Q. Does your financial risk adjustment assume a "change" in a company's
15 leverage?**

16 A. No. As discussed above, my financial risk adjustment reflects the difference in
17 the financial risk between the capital structures of the proxy companies and the
18 company's ratemaking capital structure. It is unclear what Dr. Woolridge refers
19 to when he notes a "change" in capital structure.

20
21 **Q. Does the observation that financial publications report capitalization on a
22 book value basis undermine the validity of your financial risk adjustment?**

1 A. No. The validity of my financial risk adjustment is based on the widely-
2 recognized observation that the variance of an investor's portfolio returns depends
3 on the market values of the securities in the portfolio, not on the book values of
4 the securities in the portfolio. The truth of the statement that variance of return
5 depends on market values is recognized both in academia and the marketplace. In
6 addition, investors have no difficulty in calculating market value capital structures
7 from publicly available information.

8
9 **Q. Dr. Woolridge claims that in response to OPC Data Request 4-163, you**
10 **stated that you "could not identify any proceeding" in which you have**
11 **testified "in which the regulatory commission had adopted" your "leverage**
12 **adjustment." [Woolridge at 90.] Does Dr. Woolridge correctly characterize**
13 **your response?**

14 A. No. I stated that I do not maintain records of regulatory decisions or a list of all
15 cases in which commissions have accepted my recommendations. However, I
16 noted that I was generally aware that financial adjustments similar to that which I
17 propose have been adopted in Pennsylvania and Canada, and that many states use
18 market value capital structures to determine utility property taxes.

19 Furthermore, I am also aware that market value capital structures have
20 been used to set allowed rates of return in numerous telecommunications cases in
21 which I have participated since 1996, including the *Virginia Arbitration*
22 *Proceeding* in which my 12.95 percent overall cost of capital recommendation

1 was accepted and a Michigan docket in which my 75 percent equity market value
2 capital structure recommendation has been accepted.¹⁷

3

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

5 **A.** Yes, it does.

¹⁷ Memorandum Opinion and Order, *Petition of AT&T Communications of Virginia Inc., Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia Corporation Commission Regarding Interconnection Disputes With Verizon Virginia Inc.*, 18 FCC Rcd 17722 ¶ 94 (2003) (“*Virginia Arbitration Order*”). In this proceeding, the Wireline Competition Bureau of the FCC, accepting Verizon’s proposal, finds that the appropriate capital structure component of the weighted average cost of capital should be based on the market values of debt and equity, stating, “we give no weight to the portion of AT&T/WorldCom’s proposal that is based on incumbent LECs’ book value capital structure.” See Order at ¶¶ 103-104. See also, Michigan Public Service Commission Order, *In the matter, on the Commission’s own motion, to review the total element long run incremental costs and the total service long run incremental costs for Verizon North Inc., and Contel of the South, Inc., D/B/A Verizon North Systems, to provide telecommunications services*, Case No. U-15210, March 18, 2009. “The Commission is not persuaded that Verizon’s capital structure should be based on book value. The Commission agrees with the Staff and adopts Verizon’s proposed capital structure of 75% equity and 25% debt.” Order at 17.

1 **BY MR. WALLS:**

2 Q. And, Dr. Vander Weide, do you have a summary
3 of your prefiled rebuttal testimony?

4 A. Yes, I do.

5 Q. And will you please provide that summary to
6 the Commission?

7 A. Yes.

8 The purpose of my rebuttal testimony is to
9 address the cost of capital recommendations of OPC
10 witness Dr. J. Randall Woolridge.

11 Dr. Woolridge recommends that PEF be allowed
12 to earn a rate of return on equity equal to
13 9.75 percent. My rebuttal testimony points out several
14 flaws in Dr. Woolridge's testimony.

15 First, Dr. Woolridge's proxy selection
16 criteria eliminate a large number of utilities that most
17 investors would consider to be comparable in risk to
18 PEF. In addition, his selection criteria, criteria
19 allow him to include several small electric utilities
20 that have insufficient data to reliably estimate the
21 cost of equity.

22 The Commission should accept my proxy group
23 rather than Dr. Woolridge's proxy group because it is
24 more comparable in risk to PEF and Progress Energy,
25 because it provides a reliable set of results that are

1 based on larger companies, because it contains companies
2 that are more widely followed in the investment
3 community, and because it does not contain companies
4 with noninvestment grade bond ratings.

5 I further do not agree with Dr. Woolridge's
6 annual discounted cash flow model, because it is based
7 on the assumption that the companies pay dividends only
8 at the end of the year. Since his proxy companies all
9 pay dividends quarterly, he should have used the
10 quarterly DCF model to estimate PEF's cost of equity.
11 In the annual DCF model the first dividend is equal to
12 the current annualized dividend multiplied by the factor
13 one plus the growth rate.

14 Instead, Dr. Woolridge multiplied the current
15 annualized dividend by the factor one plus one-half
16 times the growth rate. This incorrect procedure, apart
17 from other errors in his methods, causes him to
18 underestimate PEF's cost of equity.

19 While I recommend using analysts' forecasts to
20 estimate future growth, Dr. Woolridge uses historical
21 and internal growth data. My studies indicate that
22 analysts' forecasts of future growth are more highly
23 correlated with stock prices than are historical and
24 internal growth data. This study that I coauthored was
25 published in the *Journal of Portfolio Management*.

1 Dr. Woolridge fails to recognize that the DCF
2 model requires the growth forecasts of investors,
3 whether accurate or not. In this regard, it is helpful
4 to keep in mind that investors would not pay for
5 analysts' growth forecasts if they did not find them
6 helpful in making stock buy and sell decisions.

7 I also find that Dr. Woolridge uses an
8 unreasonable CAPM estimate of PEF's cost of equity. In
9 fact, his CAPM results are approximately 200 basis
10 points lower than the midpoint of his recommended range
11 of results. Thus he must agree that his CAPM analysis
12 is unreasonably low.

13 Further, Dr. Woolridge reports the results of
14 three regression analyses that he believes support his
15 claim on the relationship between utility rates of
16 return on equity and their market-to-book ratios.
17 However, his own market data clearly contradict his
18 claim that companies earning less than their cost of
19 equity will have market-to-book ratios of less than 1.
20 Thus his regression analysis does not support his claim.

21 For these reasons and the reasons described in
22 my rebuttal testimony, the Commission should reject
23 Dr. Woolridge's recommendation that PEF be allowed to
24 earn a rate of return on equity equal to 9.75 percent.
25 This is simply inaccurate and wrong.

1 This concludes my summary, and I am happy to
2 answer any questions that you may have.

3 **MR. WALLS:** We tender Dr. Vander Weide for
4 cross.

5 **CHAIRMAN CARTER:** Mr. Rehwinkel.

6 **MR. REHWINKEL:** Thank you, Mr. Chairman.

7 **CROSS EXAMINATION**

8 **BY MR. REHWINKEL:**

9 **Q.** Good morning. Good afternoon. I always get
10 it wrong. Good afternoon, Dr. Vander Weide.

11 **A.** Good afternoon.

12 **Q.** My name is Charles Rehwinkel with the Office
13 of Public Counsel. And I believe I spoke briefly with
14 you the other night?

15 **A.** Yes.

16 **Q.** Certainly not as long as some of the others
17 did.

18 **A.** Yes.

19 **Q.** And I hope to keep it that way.

20 What I would like to do is ask you some
21 questions about earnings per share growth rate
22 forecasts.

23 **A.** Yes. That would be fine.

24 **Q.** In your DCF you do rely, do you not, on
25 analysts' projected EPS growth rate forecasts as well as

1 your measure of sustainable growth; is that correct?

2 **A.** In my direct testimony I do not rely on a
3 measure of sustainable growth. I rely only on the
4 analysts' growth forecasts. And I, I don't recall
5 whether I -- I don't believe I do any DCF calculations
6 with anything other than analyst growth rates.

7 **Q.** Okay. In those analysts' growth rates, or
8 projected earnings per share or EPS growth rates, you
9 use First Call; is that one source?

10 **A.** I use what's called as IBES, I-B-E-S.

11 **Q.** Okay. What about Zacks?

12 **A.** I do not use Zacks for the reasons stated in
13 my testimony.

14 **Q.** What about Value Line?

15 **A.** I do not use Value Line.

16 **Q.** Okay. So you don't even consult Zacks?

17 **A.** I have found over the years that the numbers
18 from Zacks are very close to those from IBES. They are
19 both analyst forecasts. I don't have any objection to
20 the use of Zacks' forecasts. I have just found from my
21 studies that -- well, the IBES forecasts were available
22 for a longer period of time, and at the time I
23 originally did my studies, my statistical analysis, I
24 found that the IBES growth forecasts were highly
25 correlated with stock prices, whereas historical and

1 retention growth rates were not. And so I've relied on
2 the IBES growth rates ever since.

3 Q. Okay. You don't have any problems with Zacks
4 though; right?

5 A. No, I don't.

6 MR. REHWINKEL: Okay. Mr. Chairman, at this
7 point I would like to pass out an exhibit for
8 cross-examination purposes.

9 CHAIRMAN CARTER: Absolutely.

10 MR. REHWINKEL: And I guess I need a number.

11 CHAIRMAN CARTER: Do you need a number? Okay.
12 That would be 291.

13 MR. REHWINKEL: And this would be, I guess we
14 should call this Zacks PGN Analyst Estimates. Is that
15 too long?

16 CHAIRMAN CARTER: That's fine.

17 (Exhibit 291 marked for identification.)

18 MR. REHWINKEL: Okay. I think on the cover
19 page it says PEF, but it should say PGN.

20 CHAIRMAN CARTER: PGN?

21 MR. REHWINKEL: Yes, sir.

22 CHAIRMAN CARTER: Okay. Hang on one second,
23 Mr. Rehwinkel. Let everyone get a copy here.

24 (Pause.)

25 MR. REHWINKEL: Okay. I think everyone has

1 the exhibit.

2 **CHAIRMAN CARTER:** Okay. You may proceed.

3 **BY MR. REHWINKEL:**

4 **Q.** Dr. Vander Weide, just the, the services that
5 I asked you about earlier, including IBES and Zacks and
6 First Call and Value Line, they compile EPS projections
7 of Wall Street analysts for different future time
8 periods; is that correct?

9 **A.** Yes.

10 **Q.** Okay. And I've asked -- if I could ask you to
11 refer to what's been identified as Exhibit 291. And is
12 this an, is this a type of analyst report from Zacks
13 that you would be familiar with?

14 **A.** I have seen these. I don't, I don't use them
15 regularly, but I have, I have seen them.

16 **Q.** Okay. And at the top under the company name
17 it says Progress Energy, Inc. (PGN); correct?

18 **A.** Yes.

19 **Q.** Okay. This is in the upper left-hand side
20 there. Now underneath the, the company name, underneath
21 the heading Analyst Estimates, the report provides
22 earnings estimates that are labeled quarterly -- current
23 quarterly estimate, next quarter estimate, current year
24 estimate, next year estimate, expected earnings growth
25 and expected sales growth; is that correct?

1 **A.** I believe that is.

2 **Q.** Okay. And can you tell me, is it correct that
3 these are the average earnings per share estimates for
4 these different time periods?

5 **A.** Yes, they are.

6 **Q.** Okay. Now is it correct that it shows for the
7 current quarter 1.19? And let me ask you this, do you
8 understand these to be in terms of dollars?

9 **A.** Yes.

10 **Q.** Okay. So for the current quarter, 1.19; for
11 the next quarter, .52; for the, for the current year,
12 3.03; and for the next year, 3.20; is that correct?

13 **A.** Yes.

14 **Q.** Okay. And we can refer to these as EPS
15 estimates?

16 **A.** Yes. These are estimates for various quarters
17 in 2009 and 2010. I use longer term growth forecasts
18 than these.

19 **Q.** Okay. Now the expected earnings growth figure
20 that is used for purposes of DCF is a percent growth
21 figure; correct?

22 **A.** Yes, that's correct.

23 **Q.** Okay. Now if you were gathering data to
24 develop a DCF equity cost rate for PEF, would you use
25 any of these projected EPS estimates as opposed to the

1 expected EPS growth rates?

2 **A.** No, I would not.

3 **Q.** Okay. And is that because you're interested
4 in long-term growth numbers?

5 **A.** That's -- yes, that certainly is one of the
6 reasons.

7 **Q.** Okay. So you were to use the expected EPS
8 growth rate figure from this page; correct? And I say
9 this page. I'm talking about Exhibit 291.

10 **A.** Well, I think, just to be clear, I use the
11 IBES growth rate.

12 **Q.** I understand. But if what you had access to
13 was this Zacks, the number that comports with your
14 methodology would be the expected EPS growth rate;
15 correct?

16 **A.** Yes. And I would of course do it for a group
17 of comparable companies rather than just for Progress
18 Energy.

19 **Q.** Okay. And would you also not use the
20 projected EPS growth rate figure for the next five
21 years?

22 **A.** Yes, I would.

23 **Q.** And you do not use the other EPS quarter or
24 annual estimates that are on this page; is that correct?

25 **A.** I don't even see -- are you referring to a

1 line that says "other," or are you --

2 Q. Well, I'm saying any of the other --

3 A. Any other?

4 Q. Yes.

5 A. No, I would not. I would use only the
6 five-year growth rate.

7 Q. Okay. Thank you. In your rebuttal testimony,
8 and I think -- well, let me ask you this. If you could
9 turn to your rebuttal testimony on Page 30. In, in your
10 rebuttal and in support of the idea that analysts' EPS
11 growth rate forecasts are not biased, you cite several
12 studies that are shown in the table on this page;
13 correct?

14 A. Yes.

15 Q. Okay. And if I could ask you to turn to Page,
16 well, to, I'm sorry, your Exhibit JW -- JW-18, if you
17 would. I think that's the right one.

18 A. Yes, I'm there.

19 Q. Is, about halfway down the page, and I don't
20 know if I'm pronouncing it right, but it's spelled
21 C-I-C-C-O-N-E. Is it Ciccone?

22 A. That's -- I've never had to pronounce it
23 before, but that's how I would do it, I guess.

24 Q. All right. I think you and I will agree on
25 that then. Is that the study that is referred to on

1 Table 8, trends in analysts' earnings for forecast
2 properties?

3 A. That's, that's one of -- you mean on Page 8,
4 did you say, or on Page --

5 Q. I'm sorry. Yeah.

6 A. On Table 8, Page 30?

7 Q. Yeah. Is that the same Ciccone study that is
8 referenced with 2005?

9 A. Yes.

10 Q. Okay. Do you have, do you have a copy of that
11 study with you?

12 A. No, I do not.

13 Q. Okay. Does that study deal with five-year
14 forecasts or quarterly forecasts?

15 A. I believe it deals with quarterly forecasts.

16 Q. Okay. Would you agree that the study
17 conclusion says that the pessimism associated with
18 profit firms is astonishing, near the end of the sample
19 period, that almost three-quarters of the quarterly
20 forecasts for profit firms are pessimistic?

21 A. That sounds familiar, but I haven't, I don't
22 have it in front of me. If you have a copy, I would be
23 happy to indicate whether I agree with that's what it
24 says.

25 Q. I do not have a copy. I was asking if that

1 sounded familiar to you, or if you thought that's what
2 it might say.

3 **A.** Well, as, as you recall, I cited over 20
4 articles here that had to do with, with analysts and
5 supporting my position. It's kind of hard for me to
6 remember what was said in each, in each one of them.

7 **MR. REHWINKEL:** Okay. Mr. Chairman, those are
8 all the questions I have for Dr. Vander Weide on
9 rebuttal.

10 Thank you, Doctor.

11 **CHAIRMAN CARTER:** Thank you, Mr. Rehwinkel.

12 Good morning, Mr. Moyle.

13 **MR. MOYLE:** Good morning, Mr. Chairman. I do
14 have, have some questions.

15 **CROSS EXAMINATION**

16 **BY MR. MOYLE:**

17 **Q.** Good morning, Doctor.

18 **A.** Good morning. Or good afternoon. Either,
19 either one.

20 **Q.** You live in Durham, North Carolina; correct?

21 **A.** That is correct.

22 **Q.** And there's a saying sometimes in the South
23 about, you know, whenever you can, you try to say
24 something nice about somebody. Have you ever heard that
25 saying?

1 **A.** Yes, I have.

2 **Q.** Okay. And I want to give you that opportunity
3 with respect to Dr. Woolridge. You know him to be a
4 well-qualified professional expert, do you not?

5 **A.** Yes.

6 **Q.** Okay. And with respect to his testimony,
7 you're, you're rebutting it. While you all may have
8 some disagreements about judgment, you don't necessarily
9 question whether he did the math correctly on any of the
10 models that he used; correct?

11 **A.** I'm not, I'm not sure what you mean by "did
12 the math correctly." I, I do disagree with him on his
13 discounted cash flow model, that if you started from the
14 assumption, the basic assumption that the stock price is
15 the present value of the expected future dividends, I
16 disagree that one would arrive mathematically at the, at
17 the, the equation that he uses to estimate the DCF cost
18 of equity.

19 In particular, he uses the first dividend
20 times one plus one-half the growth rate, and you can't
21 derive that mathematically from the assumptions of the
22 DCF model, nor can you even derive an annual equation
23 from the assumption that the price is equal to the
24 present value of the quarterly payment of dividends.

25 **Q.** All right. You would agree that Dr. Woolridge

1 used similar tools in the ROE toolbox to make his
2 judgment about the ROE, correct, the CAPM?

3 A. Yes.

4 Q. The discounted cash flow?

5 A. Yes.

6 Q. Okay. And, and there's a section in your
7 rebuttal testimony that I just wanted to make sure I
8 wasn't reading it incorrectly. If you would turn to
9 Page 4, Line 7.

10 You state, and I quote, "When an analyst like
11 Dr. Woolridge applies judgment to select a small group
12 of companies, he or she may be tempted to choose a set
13 of selection criteria that produce a desired result."

14 I understand you have a disagreement with
15 respect to Dr. Woolridge's decision to cull some of the
16 proxy companies; correct?

17 A. That's correct.

18 Q. But you don't -- you're not suggesting that
19 Dr. Woolridge as an expert had a predetermined result
20 and then did an analysis to meet a predetermined result,
21 are you?

22 A. Absolutely not. If I thought that, I would
23 have said it.

24 Q. Okay. And I interpreted this, because it, you
25 know, says "he or she," that maybe this was something

1 that was put in other testimony. Is that right?

2 Because Dr. Woolridge -- you know Dr.
3 Woolridge, do you not?

4 A. I do. This is just a general statement. It,
5 it, if I thought that, as I just suggested, if I thought
6 that he had chosen the selection criteria to produce the
7 desired result, I would have said that directly. I was
8 making a general statement here about the possibility
9 that one might be tempted to do that.

10 Q. Okay. But, but you don't believe that
11 Dr. Woolridge did that or was even tempted to do that?

12 A. I have no evidence that he did.

13 Q. Okay. Thank you for clarifying that point.

14 Let's talk for a minute about the point that I
15 think you were getting to, which is the selection of
16 comparable risk companies. You disagree with how
17 Dr. Woolridge selected comparable risk companies;
18 correct?

19 A. Yes.

20 Q. And part of that disagreement is, is that you,
21 you threw a wider net and Dr. Woolridge threw a smaller
22 net, in effect, to come up with proxy companies;
23 correct?

24 A. Yes. That would be one way to characterize
25 it. I had specific objections as well.

1 **Q.** All right. And I want to talk about those
2 just because I think they're important. I mean, you
3 would agree that this return on equity issue is a, is a
4 key issue in this case; correct?

5 **A.** Yes.

6 **Q.** And even though at the end of the day I think
7 the, the difference between the proxy groups that you
8 chose, Dr. Woolridge comes up with a, you know, a 10.3
9 and you come up with a 10.5 -- two-tenths of a, of a
10 percent or 20 basis points equals approximately
11 \$10 million in this case. Do you know that?

12 **A.** Let me go back to, to something you said at
13 the beginning of your question. You said I came up with
14 a 10.5? I don't believe that's correct.

15 **Q.** And I pulled that number. I can refer it to
16 you, but it was on the results of one of these, one of
17 these models that you come up with. I had it on Page
18 12. You know, let me, let me just strike that and move
19 on.

20 The -- we talked about this a little bit on
21 the direct. And, you know, I know, I know you want to
22 get back to Durham, people have been out a long time, so
23 we will try to run through it in a quick fashion. If
24 you can answer yes or no, please do so. If you need to
25 explain, feel you need to explain, please do so.

1 But you would agree that, that the purpose of
2 doing the proxy group is to try to compare companies of
3 similar risk; correct?

4 **A.** I can't answer simply correct or not. I
5 would -- it would have to be similar on average. Not
6 each one has to be similar in risk.

7 **Q.** On, on Page 3 of your testimony --

8 **A.** Yes.

9 **Q.** -- at Line 13 and 12, you state, quote, "The
10 purpose of proxy selection criteria is to identify the
11 largest possible group of comparable risk companies."
12 And you go on to say "that have sufficient data." And I
13 guess I wanted to focus on comparable risk companies.
14 You would agree that comparable risk companies is
15 important; correct?

16 **A.** Yes. And to clarify, the comparable group has
17 to be comparable on average.

18 **Q.** Okay. And you would also agree that the model
19 reliability results are reduced if your inputs into your
20 model are running companies that are dissimilar to the
21 company that you're trying to make a judgment about;
22 correct?

23 **A.** No. I want to be clear that it's not the
24 inclusion of one company that might be dissimilar. It's
25 that the companies be similar on average. There are,

1 there's actually no company that's perfectly similar to
2 the company whose cost of equity is being estimated.
3 And so some companies might be slightly more risky, some
4 might be slightly less risky, but the companies, my goal
5 is to find a set of companies that are comparable in
6 risk on average, and that's what I've done.

7 Q. Okay. And all I'm trying to get you to do is
8 acknowledge that the model is better to the extent that
9 you're putting in companies that have more similarities
10 as compared to putting in companies that, that have
11 fewer similarities; correct?

12 A. No. I wouldn't agree with that because I
13 don't understand how you're interpreting the word
14 "similarities."

15 Q. All right. Well, let me use this example.
16 Let's say that your proxy group included companies like
17 Apple Computer, Microsoft, Medtronic and UPS, all
18 publicly traded companies. If you put those companies
19 and say another ten companies into your model and ran
20 it, the results would not be nearly as reliable as the
21 results of the model that you ran with proxy companies
22 that you selected who have regulated electric utilities
23 as part of their operations; correct?

24 A. I don't know whether it would or would not,
25 because I haven't looked at those companies. The goal

1 is to find companies that are comparable in risk. It
2 seems to me that you would be more likely to find
3 companies with comparable risk if you started with the
4 Value Line electric utilities, and so that's where I
5 began.

6 But as far as I understand the fair rate of
7 return standard, it really doesn't matter what industry
8 they're in or what percent of their, of their revenues
9 are regulated. It is only required that they be
10 comparable in risk.

11 Q. Yes, sir. And with respect to trying to make
12 judgments about comparability of risk, wouldn't you
13 agree it's easier to try to ascertain comparable risk
14 companies if they are operating in the same business as
15 each other?

16 A. If -- not necessarily. It would, it would --
17 I, I felt that one ought to begin with companies in the
18 electric utility industry. I would not define the same
19 business as being, having the same percentage of
20 regulated revenues from electric service.

21 Q. And I wasn't, I wasn't going to regulated
22 revenues yet. I was just trying to stay back from that
23 and just talk in general about sectors. And I don't
24 think that we're able to agree, if I understand it, that
25 I was thinking that you would agree, yes, for the

1 purposes of my analysis I ought to get companies that
2 are in the same sector, the sector of generating
3 electricity.

4 **A.** I misunderstood your question then. If your,
5 if your, if your question is are, would it be more
6 likely that companies in the electric utility industry
7 as classified by Value Line would be a good place to
8 start, I would certainly say yes to that.

9 **Q.** Okay. And so after you start there -- I mean,
10 for your analysis you didn't go beyond that. You didn't
11 look at companies in the high tech sector, did you?

12 **A.** No, I did not.

13 **Q.** Okay. And then, so just to understand, you
14 picked companies that are in the electric sector. Now
15 wouldn't you agree that if the -- you would agree that
16 the goal is to try to get as close as you can to an
17 apples to apples comparison between the company that
18 you're being asked to recommend an ROE for and then
19 other, other companies; correct?

20 **A.** The goal is to have companies that, that,
21 whose average risk is the same or is similar to that of
22 the company whose, whose rates are being regulated.

23 **Q.** Okay. And in order to do that, it helps to go
24 through and, and conduct an examination of the company
25 that you're being asked to render an opinion about

1 compared to other, other companies in the electric
2 energy sector; correct?

3 **A.** It, it helps to, to look at some risk aspects.
4 But the final test is, is in the results. If -- I
5 looked at the Value Line safety ranks for my set of
6 companies and I looked at the S&P bond ratings for my
7 set of companies. And the average S&P bond rating and
8 the average Value Line safety rank were exactly equal to
9 Progress Energy's.

10 **Q.** All right. Hypothetically let's assume that
11 Value Line was not out there. Let's assume you didn't
12 have these, these institutions that aggregate
13 information and compile information and you were kind of
14 on your own, but you could still do the analysis, could
15 you not, that you, that your testimony identifies, the
16 CAPM, the DCF? You would just have to go to the
17 individual companies and, and pull the information;
18 correct?

19 **A.** Well, it would be a significantly more
20 difficult job to do that because these companies are
21 highly regarded in the, both S&P and Value Line are
22 highly regarded in the financial community. And the
23 goal is to look at companies that investors view as
24 similar risk. And they would certainly have the, they
25 would certainly have in mind the information from Value

1 Line and Standard & Poor's. The average investor
2 wouldn't have information on what my opinion or what the
3 result of my study was of these risks because I don't
4 produce that on a regular basis.

5 Q. Yes, sir. And my question simply was, you
6 could do the analysis, could you not?

7 A. I could, but it wouldn't be as, as meaningful.

8 Q. And it wouldn't be as easy because you'd have
9 to go dig the information from each company.

10 A. That's correct.

11 Q. And I think now that we've agreed that it
12 makes sense to compare companies in the electric
13 industry sector, I would, I would also ask you to agree
14 that it makes sense to try to do a further narrowing or
15 culling so that you are comparing companies similarly
16 situated to Progress Energy Florida for the purposes of
17 the analysis.

18 A. I don't understand what you mean by "similarly
19 situated."

20 Q. Well, do you know what the total revenues are
21 for PEF and its parent company?

22 A. I'm generally familiar with it. I don't
23 recall right at this instance. And I don't think I have
24 that information in front of me. I know it's in the,
25 it's in the mid -- for PEF, my guess is that it's

1 \$4 billion, and I'm guessing for Progress it's about
2 8 billion annually, but I don't have a precise number in
3 front of me.

4 Q. Okay. And, and let's assume it's 8,
5 8 billion. To the extent that that -- you would agree
6 that total, total revenues is an important component of
7 the financial health of a company; correct?

8 A. Well, I thought you were going to end it with
9 is it an important component in measuring their risk?
10 It's an important component to measuring their
11 profitability. The point is that those factors, such as
12 total revenues and percent regulated revenues, are
13 already considered by Value Line in estimating the
14 safety rate and by S&P in estimating the bond rating.
15 So there is no reason to make any further analysis of
16 what their revenues are, and it's not even clear that
17 revenues themselves are, are, are related to risk.

18 Q. My question simply was would you agree that
19 revenues, that total revenues are an important
20 consideration in determining the financial condition of
21 a company? And I know for my law firm that that's an
22 important consideration. But you, can you not answer
23 that yes or no for me?

24 A. I would have to answer it no.

25 Q. And the reason would be because there are

1 other factors that you would need to consider in
2 addition to the income; correct?

3 **A.** Well, you didn't say income. You said
4 revenues. And revenues are quite different from income.
5 You can have high revenues but have negative income.
6 And the issue with regard to comparable companies is
7 revenue is a measure of risk. And I haven't seen any
8 studies that have shown, convinced me or even attempted
9 to convince me that revenues are a measure of risk.

10 **Q.** Do you believe that -- and you started to get
11 into it a little bit before. You're aware that
12 Dr. Woolridge used a, a refining criteria of eliminating
13 companies that exceed 15 billion in revenues; correct?

14 **A.** Yes.

15 **Q.** And, and you disagree with that refinement.

16 **A.** Yes. In fact, I demonstrated that that
17 refinement only eliminated companies that everyone would
18 agree is similar, are similar in risk. So they didn't
19 lead to a more comparable group, they just led to fewer
20 companies. If you -- I believe I indicated that that
21 criteria eliminated four companies, all of which had A
22 bond ratings, three of which had Value Line safety ranks
23 of 1, and one of which had a Value Line safety rank of
24 2, indicating that these are, are safe companies. So
25 they didn't do anything to enhance the comparability of

1 the companies.

2 Q. And one of the companies eliminated was FP&L
3 Group; correct?

4 A. Yes.

5 Q. Okay. And, again, I just want to continue the
6 discussion about trying to compare similar, similar
7 companies. You did not do any kind of an analysis to
8 look into FP&L Group to try to determine what other
9 business units they may have within the company;
10 correct?

11 A. That's correct. And the reason is that Value
12 Line and Standard & Poor's are certainly capable of
13 doing that when they determine what their bond rating is
14 and what their safety ranking is. And since the goal is
15 to determine a group of companies whose risk on average
16 is comparable to that of the company whose rates are
17 being established, I, I let Value Line and S&P do that,
18 do that ranking of risk because that would be more
19 likely to be the information that was considered by
20 investors.

21 Q. Okay. So your -- and for the purposes of your
22 analysis, you didn't do any kind of independent
23 investigation. So if I had to ask you questions about
24 FPL investments and telecommunication companies or
25 anything like that, you wouldn't have --

1 **A.** I'm generally familiar with FPL. I know that
2 they have some investments in, in wind generation, for
3 example. But the point is, is that the financial
4 community considers them to be electric utilities that
5 have comparable risks to Progress Energy.

6 **Q.** Do you know what percentage of their revenues
7 are generated by FPL, the regulated utility?

8 **A.** No. I don't have that information in front of
9 me.

10 **Q.** And you didn't consider that information as
11 part of your analysis that you've done for this
12 Commission, correct, in terms of the percentage of
13 revenues derived from regulated electric utility
14 operations?

15 **A.** Well, if -- no, not in my direct testimony.
16 In my rebuttal testimony I did consider whether percent
17 regulated revenues, as, as used by Dr. Woolridge,
18 improved the comparability of his companies --

19 **Q.** Right. And you --

20 **A.** And I found that it did not.

21 **Q.** And you're aware that Dr. Woolridge in his
22 analysis, he eliminated companies -- or he was looking
23 for companies in his proxy that had at least 75 percent
24 of revenues coming from regulated utility operations;
25 correct?

1 **A.** Yes. That's what he did.

2 **Q.** Okay. Let me direct your attention -- we had
3 a discussion the other day a little bit about, you know,
4 the view of investors and utility analysts, and I had
5 asked you your view about if, if you wanted the best
6 information about ROE, you know, maybe, maybe you could
7 get people who are investing money or analysts and get
8 their, get their view on it. And I wanted to explore
9 with you just for a minute an analogy that, that you use
10 on Page 23, Line 18.

11 **A.** Of my direct or rebuttal?

12 **Q.** Rebuttal.

13 And just to preface it, you would agree that,
14 you believe that in the context of talking about
15 historical projections versus, I'm sorry, historical
16 information versus future projections, Doctor -- you
17 criticized Dr. Woolridge for his reliance on historical
18 information; correct?

19 **A.** To be specific, it's not correct as a general
20 statement. I refer specifically to his historical, his
21 use of historical information with regard to growth, the
22 use of historical earnings information as opposed to
23 forecasted information.

24 **Q.** Right. And I think the point that I got from
25 your, from your testimony was is that you believe that

1 analysts and investors who are active in the market
2 probably provide a better perspective on that, on that
3 issue; correct?

4 **A.** I believe that the IBES average long-term
5 earnings growth estimates are more highly correlated
6 with stock prices than other available growth estimates,
7 and thus that, that they are more likely to represent
8 the growth expectations of investors than historical
9 growth estimates.

10 **Q.** All right. Let me just ask you to, refer you
11 to Page 16, Line 12. And I'm going to read into the
12 record. "Historical growth rates are inherently
13 inferior to analysts' forecasts because analysts'
14 forecasts already incorporate all relevant information
15 regarding historical growth rates and also incorporate
16 the analysts' knowledge about current conditions and
17 expectations regarding the future." Is that your
18 testimony?

19 **A.** Yes.

20 **Q.** Okay. And the, the reference you use on Page
21 23 to the pilot flying across the country, do you see
22 that?

23 **A.** Yes.

24 **Q.** I wanted just to explore that with you for,
25 for a minute.

1 If, hypothetically if you had a pilot who
2 served 25 years in the Navy or the Air Force and flew
3 fighter jets and was now a pilot and regularly and
4 routinely flying and that pilot was preparing to take a
5 trip across the country, and what you were trying to
6 ascertain was how that, how that flight across the
7 country would go, and you had that pilot who I just
8 described to you as one source of information, and the
9 other source of information was someone who, who worked
10 on an Air Force base and was friends with a lot of
11 pilots and talked to a lot of pilots and was involved in
12 discussions with the pilots but had never really flown
13 an airplane or been in the left-hand seat, wouldn't you
14 agree that your better source of information in that
15 context would be to, to go to the pilot?

16 **A.** Would you clarify what you mean, "how that
17 flight would go"?

18 **Q.** Flying from Tallahassee to San Francisco.

19 **A.** And you want, you want the length of time that
20 the flight would take, or you want the direction that it
21 would take, or what, what aspect of the flight?

22 **Q.** I want as much information as I can. I want
23 to have a safe flight. I want to make sure it's a safe
24 flight, and I want to, to understand the weather
25 conditions, how much fuel, the altitude and all the

1 things that are important to making that flight. And
2 who would I, do you believe, be better off going to to
3 try to get that information, the Navy pilot or, or the
4 person who, you know, who's never left the base but is
5 talking to the Navy pilots?

6 **A.** Well, there's no doubt that I would prefer to
7 have a pilot actually flying the plane than, than
8 somebody who had never flown before. On the other hand,
9 if we're talking about a weather forecast, I don't think
10 the pilot would be the best person to get for the
11 weather forecast. That would be an expert in the
12 weather.

13 **Q.** So, so as we sit here today, you can't tell me
14 who you would rely on in that context?

15 **A.** Well, you didn't define for me, rely on in
16 what regard?

17 **Q.** Assume, assume it's everything related to
18 operations. Weather is excluded.

19 **A.** In terms of flying, operating and flying the
20 plane, I would prefer to have the pilot operate and fly
21 the plane.

22 **Q.** But that analogy necessarily wouldn't extend
23 over to, to the analysis of return on equity with
24 investors and analysts who follow companies, as compared
25 to others who may offer views related to theoretical

1 models?

2 **A.** I'm, I'm not getting your analogy and how, how
3 it relates to the use of analysts' growth rates. With
4 regard to analysts' growth rates, I have conducted
5 extensive tests to determine which growth rates are more
6 highly correlated with stock prices. One would expect
7 that the growth rates that are more, that cause stock
8 prices to move would be the growth rates that represent
9 the views of investors who are making stock buy and sell
10 decisions.

11 And my studies hence give strong support for
12 the fact that investors' growth rates are best captured
13 by the growth forecasts of analysts. And the DCF model
14 undoubtedly requires the growth forecasts of investors,
15 and so that's, that's the ones, those are the ones that
16 I've used.

17 **MR. MOYLE:** A couple more lines, Mr., Mr.
18 Chairman.

19 **BY MR. MOYLE:**

20 **Q.** Page 12, Line 10. You're telling the
21 Commission why you believe that they should accept your,
22 your comparable company group instead of Mr.,
23 Mr. Woolridge's. And I think we've already established
24 that Mr. Woolridge excluded some, some companies because
25 of earning more than 15 billion; correct?

1 **A.** Yes.

2 **Q.** And also because of the fact that the
3 companies had less than 75 percent of their revenues
4 being, being produced from regulated utilities; correct?

5 **A.** Yes.

6 **Q.** Okay. And in response to the question why
7 should the Commission accept your comparable group
8 instead of Mr., Dr. Woolridge's, you provide four
9 answers. You say yours is more comparable in risk to
10 PEF and Progress Energy; correct?

11 **A.** Yes.

12 **Q.** But, but that statement doesn't really tell
13 why they're more, more comparable. That's just an
14 assertion; correct?

15 **A.** That's assertion backed by evidence that I
16 provide in my rebuttal testimony.

17 **Q.** The second one, you say it provides more
18 reliable results since it's based on a larger set of
19 companies. Do you know how many companies are in
20 Dr. Woolridge's proxy group?

21 **A.** A smaller set than are in mine.

22 **Q.** Do you know how many?

23 **A.** My recall is that it was about 15.

24 **Q.** Okay. And for the purposes of conducting an
25 analysis, is that a sufficient, sufficient number so

1 that the results of the analysis are not invalid?

2 **A.** It would depend on the circumstances. There
3 are times when, if you had, if you didn't have more
4 companies of comparable risk, you, you would have to use
5 the best evidence you have. But if you have, if you do
6 have available more companies that are, that are proven
7 to be of similar risk, as I have proven that mine are,
8 then I would suggest you ought to use the group that has
9 the most companies.

10 **Q.** Have you ever run any of your, the models that
11 are in your testimony using 15 or fewer companies?

12 **A.** No. As I've indicated, I prefer to use --
13 once I've identified companies that are comparable in
14 risk, and I have, then I would prefer to use the larger
15 sample of companies.

16 **Q.** Right. And my question was, in all of the
17 years that you've been doing this, your testimony is
18 you've never run any of the DCF, the CAPM models, you've
19 never run those models using 15 or fewer proxy
20 companies?

21 **A.** No. That's, that's a different statement. I
22 have used a smaller group of companies when those were
23 the only -- when that was the largest set of companies
24 that, of comparable risk that were available. But if I
25 knew that there were more companies of comparable risk

1 available, I can't recall ever using, intentionally
2 using a smaller group than a larger group that was, that
3 was comparable in risk.

4 Q. Yes, sir. And I would assume at some point
5 that if you had two companies, the reliability of the
6 model may be seriously questioned because you don't have
7 enough diversity; is that correct?

8 A. Yes.

9 Q. Okay. So to the extent that, that you have
10 15, that doesn't necessarily render the model results
11 invalid; correct?

12 A. No. In fact, I didn't say, I didn't say they
13 were invalid. I only suggested that I -- if given the
14 choice between using my comparable group or using his,
15 that I would recommend the Commission use mine. In
16 fact, I've also presented evidence that if Dr. Woolridge
17 had used analyst growth rates, he would have, he would
18 have obtained estimates, if he had relied on them alone,
19 he would have obtained estimates in the range 12 to
20 12.5 percent, which is in the same range that I, that I
21 do.

22 Q. So let me talk about the next reason that,
23 that you believe it's more appropriate for this
24 Commission to accept your judgment than Dr. Woolridge's.
25 You indicate that, that another reason to accept yours

1 is because yours contain companies that are more widely
2 followed in the investment community.

3 **A.** Yes.

4 **Q.** You would agree that Dr. Woolridge similarly
5 uses companies that are followed in the investment
6 community; correct? If you can just answer yes or no,
7 that would be great.

8 **A.** He uses -- yes, he does use companies that are
9 followed in the investment community. But some of his
10 companies, such as Central Vermont Public Service, and
11 I'm looking at his Exhibit 4, Central Vermont Public
12 Service has \$341 million in operating revenue. A
13 company with \$341 million of operating revenue is not
14 going to be widely followed in the investment community.
15 In fact, it's likely not even to be, have a great deal
16 of liquidity in the market for stock. It's going to be
17 infrequently traded. And so I wouldn't consider a
18 company as small as Central Vermont.

19 And there's also in that group ALLETE, which
20 has 792 million, and UIL Holdings. There are four
21 companies in that list that have revenues under a
22 billion dollars.

23 **Q.** Those companies are traded publicly, are they
24 not?

25 **A.** They are traded publicly, but they're not

1 widely followed.

2 Q. And there's markets for those, for those
3 companies; correct?

4 A. There are markets, but there aren't any
5 analysts that follow those companies. In fact, all of
6 those would have failed my criteria that they be
7 followed by at least three analysts.

8 Q. Right. And I think we had a discussion --

9 **CHAIRMAN CARTER:** Mr. Moyle -- hang on,
10 Mr. Moyle, before you go further. I, Linda is willing
11 to push on, depending on where we are, and she's been
12 with us all morning, our court reporter. I don't want
13 to push on if we're going to continue a long time, and
14 obviously I want everyone to have an opportunity to do
15 what they need to do. But if we're close, we can push
16 on. Otherwise we'll go ahead on and take our break.
17 And I know you --

18 **MR. MOYLE:** I don't want to be the, be the
19 holdup on it.

20 **CHAIRMAN CARTER:** No. No. No. No. You take
21 your time. But I'm just saying I want to, I got to,
22 because I've got her and I've got the guys in the back
23 working on our system with the, working with the Florida
24 Channel and all like that, so I've got several
25 considerations to make.

1 And plus, Mr. Lavia, you have cross, don't
2 you?

3 **MR. LAVIA:** We're not going to have any cross,
4 Mr. Chairman.

5 **CHAIRMAN CARTER:** Staff, do you have cross?

6 **MS. FLEMING:** We have 15 questions, which
7 should go fairly quickly.

8 **COMMISSIONER ARGENZIANO:** Mr. Chair?

9 **CHAIRMAN CARTER:** Commissioner Argenziano.

10 **COMMISSIONER ARGENZIANO:** I'm sorry. Excuse
11 me. I'm having a hard time hearing right now for some
12 reason. The volume seems to have dropped.

13 **CHAIRMAN CARTER:** I'm going to ask Chris to
14 increase the volume, Commissioner. We've been having
15 problems all week with the microphones.

16 **COMMISSIONER ARGENZIANO:** Thank you.

17 **CHAIRMAN CARTER:** And what I was saying is I
18 was trying to get the feel for it. You know, we've been
19 normally taking our break from 1:15 -- 1:00 to 2:15, and
20 Linda has been doing all the court reporting this
21 morning. And rather than to bring in another court
22 reporter, if we're close, we can go ahead and push
23 through it. If we're not close, I'll have to make
24 arrangements to bring in an outside court reporter to
25 pick up.

1 **MR. MOYLE:** I think we're close.

2 **CHAIRMAN CARTER:** You think we're close?

3 **MR. MOYLE:** Yeah.

4 **CHAIRMAN CARTER:** Okay. Well, let's -- Linda,
5 can we just continue?

6 Mr. Moyle, you're recognized. You may
7 proceed.

8 **BY MR. MOYLE:**

9 **Q.** Doctor, we were having a discussion. You have
10 criticized Dr. Woolridge because of some publicly traded
11 companies that are out there but their revenues are,
12 are, are small.

13 Now with respect to companies that have
14 revenues over, over 15 billion, that's not an issue;
15 correct? That wasn't an issue for you?

16 **A.** Not in my mind it's not an issue, no.

17 **Q.** And but the other companies, it's an issue
18 just because they're not followed by analysts; correct?

19 **A.** They're not followed by analysts, and so we
20 would, they wouldn't have very reliable growth rate
21 estimates.

22 **Q.** Right. But with respect to the fundamental
23 operations of the company, that information could be
24 obtained. It's just it can't be obtained easily because
25 analysts don't follow it; correct?

1 **A.** Yes.

2 **Q.** And then the final reason you say that your,
3 your comparable company group is better than
4 Dr. Woolridge's is because his contained a couple of
5 companies with noninvestment grade bond ratings;
6 correct?

7 **A.** Yes.

8 **Q.** Okay. And I'm trying to understand whether
9 having companies in the proxy group that have
10 noninvestment bond ratings, those companies would have
11 greater risk; correct?

12 **A.** They would have greater risk, but it's very --
13 as I cite in my rebuttal testimony, it's much more
14 difficult to estimate the cost of equity for companies
15 that are in financial distress.

16 **Q.** Yes, sir. And just, to the extent that they
17 have greater risk, if I understand the economic theory,
18 those companies would require a higher return on equity,
19 would they not?

20 **A.** Yes, they would, in theory. But the problem
21 is we couldn't measure what their required return was
22 because it's very difficult to estimate the cost of
23 equity for companies in financial distress.

24 **Q.** And to the extent that companies with greater
25 risk were included in a proxy group, wouldn't that tend

1 to, to drive the return on equity number upward rather
2 than downward?

3 **A.** No. Because although in theory it would raise
4 the cost of equity, in practice it could do, it could
5 either raise it or lower it because we would have a very
6 difficult time estimating the cost of equity for
7 companies who are in financial distress.

8 **Q.** Let me direct your attention to Page 31. Down
9 at the bottom you were asked a question about what I
10 perceive to be conflict of interest; correct?

11 **A.** Yes.

12 **Q.** All right. And there's a concern with respect
13 to conflicts of interest about companies that are
14 providing both research services and underwriting
15 services; correct?

16 **A.** There was a concern, and that's what I was
17 discussing here.

18 **Q.** Okay. And with respect to analysts, I mean, a
19 lot of your testimony deals with analysts, do you
20 believe that analysts should own stock in companies that
21 they follow and provide advice for?

22 **A.** I don't have an opinion on that.

23 **MR. MOYLE:** Okay. That's all I have, Mr.
24 Chairman.

25 **CHAIRMAN CARTER:** Thank you, Mr. Moyle.

1 Staff.

2 **MS. FLEMING:** Thank you.

3 **CROSS EXAMINATION**

4 **BY MS. FLEMING:**

5 Q. Good afternoon, Dr. Vander Weide. How are
6 you?

7 A. Good afternoon.

8 Q. In your rebuttal testimony you updated your
9 group of electric companies that were contained in your
10 proxy group; is that correct?

11 A. Yes.

12 Q. And so, that being said then, your proxy
13 company has changed, the group of electric companies in
14 your proxy group have changed from the time you filed
15 your direct testimony to the time you filed your
16 rebuttal testimony; correct?

17 A. It is correct, and let me explain. This --
18 I'm not redoing the cost studies that I used to make my
19 recommendation. Those are contained in my direct
20 testimony. And I'm not updating my cost of equity.
21 What I'm doing is using this in rebuttal of
22 Dr. Woolridge to, to see what result he would have
23 gotten if, at approximately the same time as, as his
24 testimony, if he had selected the comparable companies
25 appropriately and used the analyst growth rates.

1 **Q.** Okay. Thank you. In your Exhibit JVW-17,
2 that contains the listing of your updated proxy group;
3 is that correct?

4 **A.** Yes.

5 **Q.** And as part of your rebuttal testimony, you
6 updated the result of your discounted cash flow or DCF
7 analysis; is that correct?

8 **A.** Yes.

9 **Q.** In looking at your JVW-17, the market weighted
10 average discounted cash flow result for your updated
11 proxy group is 11.5 percent; is that correct?

12 **A.** Yes, it is.

13 **Q.** And previously with your proxy group that you
14 had in your direct testimony, it was 12.3 percent; is
15 that correct?

16 **A.** Yes.

17 **Q.** So as a result of your updated proxy group,
18 you, your result has decreased from 12.3 percent to
19 11.5 percent; correct?

20 **A.** Just for the, for using the market weighted
21 average, as I've indicated, in both cases the market
22 weighted average was slightly less than the, than the
23 average, and so I also provided other, the other
24 indicators. And the results come in at about the same
25 range of results as for my direct testimony.

1 **Q.** Okay. And you included flotation costs in
2 your recommended return on equity; is that correct?

3 **A.** Yes.

4 **Q.** And the adjustment for flotation costs
5 included in your analysis compares to approximately, or
6 equates to approximately 25 basis points; is that
7 correct?

8 **A.** Yes.

9 **MS. FLEMING:** Mr. Chairman, at this time I
10 would like staff to pass out an exhibit and have it
11 identified as the next hearing exhibit, which I believe
12 is 292?

13 **CHAIRMAN CARTER:** Okay. 292. Short title?

14 **MS. FLEMING:** Moody's July 2009 Report.

15 **CHAIRMAN CARTER:** Okay. That's fine.

16 (Exhibit 292 marked for identification.)

17 Does everyone have one? You may proceed.

18 **BY MS. FLEMING:**

19 **Q.** Dr. Vander Weide, have you had a chance to
20 look at this briefly?

21 **A.** Not recently.

22 **Q.** Okay. Are you familiar with this report?

23 **A.** Yes. I believe I've seen it.

24 **Q.** And you would agree that this is the Moody's
25 July 2009 report; is that correct?

1 **A.** Yes.

2 **Q.** And the title of this document is U.S.
3 Regulated Electric Utilities, Six-Month Update; is that
4 correct?

5 **A.** Yes.

6 **Q.** Could I please have you turn to Page 2 of the
7 report?

8 **A.** Yes. I'm there.

9 **Q.** The first paragraph under Overview, could I
10 please have you read that into the record?

11 **A.** Yes. "All the evidence we have seen suggests
12 that the fundamental credit outlook for the electric
13 utility sector will remain stable over the next 12 to 18
14 months. While most industrial sectors have negative
15 sector outlooks to date, we continue to view regulated
16 utilities as relatively well insulated, although not
17 immune, from economic and financial market turmoil.
18 Regulation provides a key material benefit to the
19 sector's overall credit profile, and we believe
20 regulators will provide timely recovery of prudently
21 incurred costs and investments over the near term. We
22 have long held that regulators would rather regulate
23 financially healthy companies than imperiled ones and
24 that utilities maintain effective constituency outreach
25 efforts."

1 **Q.** Dr. Vander Weide, do you agree with the
2 information you just read?

3 **A.** I was just reading it. Let me now read it for
4 that purpose.

5 (Pause.)

6 Generally, yes, generally I do. It's a
7 relative statement. Utility stock prices declined,
8 declined significantly during the financial turmoil of
9 the last 12 to 18 months. They haven't recovered as
10 much since things began to improve in March. I
11 generally agree that, that regulators would rather
12 regulate financial, financially healthy companies than
13 imperiled ones, and that they would, they would be given
14 an opportunity to recover prudently incurred costs and
15 investments.

16 **Q.** So overall generally you agree with the
17 statement that you've read?

18 **A.** Yes.

19 **Q.** Thank you. Could I now have you turn to Page
20 3 of this document? And could you please read into the
21 record the first paragraph under the heading Utilities
22 Remain Well Positioned Within Rating Category, please?

23 **A.** Yes. "Of all the factors affecting U.S.
24 electric utility ratings, we have long considered
25 regulatory support perhaps the most critical driver. We

1 continue to believe regulators prefer to oversee
2 financially healthy utilities, and certainly for the
3 near term we believe the sector will continue to enjoy
4 reasonably good regulatory support. Our focus remains
5 fixed on cash flow, not on authorized returns on equity.
6 We also remain more interested in written regulatory
7 orders, not initial indications from utilities,
8 regulatory staff, intervenors or administrative law
9 judges (although they may offer some hint about the
10 likely rulings)."

11 **Q.** Okay. In the third sentence of this paragraph
12 that you read, this statement indicates that the focus
13 remains, and our focus, meaning Moody's focus, remains
14 fixed on cash flow, not on authorized returns on equity;
15 correct?

16 **A.** Yes. Well, I think both our, both cash flow
17 is very important and so is the authorized return on
18 equity.

19 **Q.** So is this statement saying that Moody's is
20 more concerned overall about cash flow than a
21 commission's decision on the authorized ROE?

22 **A.** Well, the two are related to each other. If,
23 if the utility has a higher ROE, they would normally
24 have a higher cash flow. I think what Moody's is saying
25 is that if, if whatever the ROE is, is authorized, if it

1 doesn't produce higher cash flow, if it's, if it's
2 mainly in, in, in accruals or accounting items that do
3 not affect cash flow, that that would be viewed less
4 favorably than the same ROE that produces actual cash
5 flows to the company.

6 **Q.** But you would agree that the article still
7 states that our focus remains fixed on cash flow, not on
8 authorized returns on equity; is that correct?

9 **A.** Yes. That's a, that's a correct reading of
10 that sentence.

11 **MS. FLEMING:** Okay. We have no further
12 questions.

13 **CHAIRMAN CARTER:** Mr. Moyle.

14 **MR. MOYLE:** And, you know, we've had this
15 discussion before, but the answer about what, what -- he
16 was, you know, saying here's what I think Moody's is
17 thinking. I mean, that's purely speculative. If you
18 have a document in front of you that says what the
19 company is thinking, you know, for him to come in and
20 say, well, here's what I think they really mean, I mean,
21 it's the classic, you know, hearsay speculative type
22 thing, and I would ask that that answer to the question
23 be stricken.

24 **CHAIRMAN CARTER:** Well, without ruling,
25 Mr. Moyle, I think that the, the document speaks for

1 itself and we'll give it the weight it deserves. I
2 think it's fairly obvious. I mean, even in my simple
3 South Georgia mind it makes sense to me. I can
4 interpret it. Okay.

5 Anything further from -- staff, you completed
6 your cross?

7 Commissioners, anything from the bench?

8 Redirect?

9 **MR. WALLS:** No redirect.

10 **CHAIRMAN CARTER:** Exhibits?

11 **MR. WALLS:** Yes. We would move --

12 **CHAIRMAN CARTER:** Turn your microphone on.

13 Chris, can you give a little volume to
14 Mr. Walls?

15 Mr. Walls, you're recognized.

16 **MR. WALLS:** Yes. We would move into evidence
17 Exhibits JVW-15 through JVW-18, which were identified as
18 Numbers 246 to 249.

19 **CHAIRMAN CARTER:** Are there any objections?

20 Without objection, show it done.

21 (Exhibits 246 through 249 marked for
22 identification and admitted into the record.)

23 Let's go to the back pages. Mr. Rehwinkel.

24 **MR. REHWINKEL:** Public Counsel moves 291.

25 **CHAIRMAN CARTER:** Are there any objections?

1 **MR. WALLS:** No objection.

2 **CHAIRMAN CARTER:** Without objection, show it
3 done.

4 (Exhibit 291 admitted into the record.)
5 Staff, 292?

6 **MS. FLEMING:** Staff would ask that 292 be
7 moved into the record.

8 **CHAIRMAN CARTER:** Are there any objections?
9 Without objection, show it done.

10 (Exhibit 292 admitted into the record.)

11 Anything further for this witness now that
12 he's completed direct and rebuttal? Anything further
13 for this witness?

14 I'm not going to mess up your name again,
15 Doctor, just to say have a nice flight. You're excused.

16 **THE WITNESS:** Thank you very much. It was a
17 pleasure being here.

18 **MR. REHWINKEL:** We want him to call back and
19 tell us how the flight went though.

20 **CHAIRMAN CARTER:** Yeah. Let me do this. We
21 did get done early, and I appreciate the parties working
22 together, and I appreciate staff.

23 I know you guys normally have a little
24 get-together with staff. I don't mean that in a social
25 sense, because obviously there's a lot of work involved,

1 but to get together with staff and kind of determine our
2 next outlay of the landscape.

3 So without further ado, let me let you guys do
4 that, and we'll see you on Monday at 9:30.

5 (Hearing concluded at 1:16 p.m.)

6 (Transcript continues in sequence with Volume

7)

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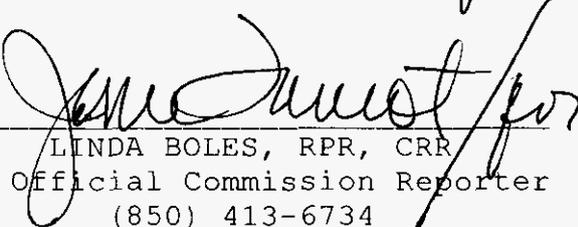
CERTIFICATE OF REPORTER

I, LINDA BOLES, RPR, CRR, Official Commission Reporter, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorneys or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 30th day of September, 2009.


LINDA BOLES, RPR, CRR
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