1 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION 2 DOCKET NO. 080317-EI 3 In the Matter of: 4 PETITION FOR RATE INCREASE BY TAMPA 5 ELECTRIC COMPANY. 6 7 8 9 VOLUME 15 10 Pages 2333 through 2455 11 12 ELECTRONIC VERSIONS OF THIS TRANSCRIPT ARE 13 A CONVENIENCE COPY ONLY AND ARE NOT THE OFFICIAL TRANSCRIPT OF THE HEARING, THE .PDF VERSION INCLUDES PREFILED TESTIMONY. 14 15 PROCEEDINGS: HEARING 16 CHAIRMAN MATTHEW M. CARTER, II BEFORE: 17 COMMISSIONER LISA POLAK EDGAR COMMISSIONER KATRINA J. McMURRIAN COMMISSIONER NANCY ARGENZIANO 18 COMMISSIONER NATHAN A. SKOP 19 Thursday, January 29, 2009 DATE: 20 PLACE: Betty Easley Conference Center 21 Room 148 4075 Esplanade Way 22 Tallahassee, Florida 23 REPORTED BY: JANE FAUROT, RPR Official FPSC Reporters 24 (850)413-6732(As heretofore noted.) 25 APPEARANCES: FLORIDA PUBLIC SERVICE COMMISSION

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PROCEEDINGS

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CHAIRMAN CARTER: We are back on the record. And when we left we were getting ready for -- I believe, Mr.

Wright, you're recognized.

MR. WRIGHT: Thank you, Mr. Chairman.

I do have a preliminary matter that relates to Mr. O'Donnell's testimony.

CHAIRMAN CARTER: You're recognized.

MR. WRIGHT: Thank you.

As Mr. O'Donnell represented in his prefiled testimony, he has prepared certain updated exhibits, four of the tables that were exhibits to his original testimony. I have conferred with staff counsel and also with counsel for Tampa Electric, and we are thinking -- we are in agreement that the most efficient way to proceed will simply be to have Mr. O'Donnell's testimony stay as it is and have it relate to the exhibits that were filed with that testimony.

Separately, we will offer into evidence, and the parties are not going to object, the updated tables.

CHAIRMAN CARTER: Okay.

MR. WRIGHT: If we were to go through and change the testimony, 12 numbers in the testimony would change, and I fear that would be tedious. So if it's okay with you, we'll do it the way I suggested. And, as I said, the parties have agreed

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1	to that. If you wanted us to update the testimony, we can do
2	it that way, as well.
3	CHAIRMAN CARTER: Mr. Moyle.
4	MR. MOYLE: I think we're fine with doing that. The
5	only question I would ask is can we have the exhibits, the
6	updated tables sooner rather than later.
7	MR. WRIGHT: You have them already. I already gave
8	them to you.
9	MR. MOYLE: Okay. Well, I can't put my hands on it.
10	MR. WRIGHT: Mr. Chairman, the updated exhibits were
11	filed and mailed, sir, to the parties on Monday, and e-mailed
12	served to the parties on Monday. Additionally actually, it
13	may have been Friday. I handed out hard copies to the parties
14	Tuesday morning. Not to you all, I just put not to the
15	Commissioners themselves, excuse me for the colloquiality. I
16	handed out copies to you and to the court reporter just now.
17	CHAIRMAN CARTER: Excellent. You may proceed.
18	MR. WRIGHT: Thank you.
19	The Florida Retail Federation calls Kevin W.
20	O'Donnell.
21	KEVIN W. O'DONNELL
22	was called as a witness on behalf of Florida Retail Federation,
23	and having been duly sworn, testified as follows:
24	DIRECT EXAMINATION

1	BY MR. W	RIGHT:
2	Q	Good afternoon, Mr. O'Donnell.
3	A	Good afternoon.
4	Q	You took the oath of witnesses this morning, did you
5	not?	
6	A	Yes, I did.
7	Q	And are you the same Kevin W. O'Donnell who prepared
8	and cause	ed to be filed in this case prefiled direct testimony
9	consistir	ng of 46 pages?
10	A	Yes, I am.
11	Q	Do you have any corrections or changes to that
12	testimony	?
13	A	No, I do not.
14	Q	If I were to ask the same questions contained in that
15	testimony	today, would your answers be the same?
16	A	Yes.
17	Q	And do you present and adopt this testimony as your
18	sworn tes	timony to the Florida Public Service Commission today?
19	A	Yes.
20		MR. WRIGHT: Mr. Chairman, if there are no
21	objection	s, I would request that Mr. O'Donnell's testimony be
22	entered i	nto the record as though read.
23		CHAIRMAN CARTER: The prefiled testimony of the
24	witness w	ill be entered into the record as though read.

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MR. WRIGHT: Thank you, Mr. Chairman.

1	BY MR. WRIGHT:
2	$oldsymbol{Q}$ Mr. O'Donnell, did you also prepare and cause to be
3	filed in this case what have now been identified as Exhibits
4	KWO-1 through KWO-6?
5	A Yes.
6	MR. WRIGHT: Mr. Chairman, for everyone's
7	convenience, those are identified in the Hearing Exhibit List
8	as Exhibits 74 through 79. I'd simply ask that they be
9	CHAIRMAN CARTER: Do you want to, at this point in
10	time, while we are talking on the exhibits, just go ahead and
11	give a number to this one, and we'll add it on to the back
12	end
13	MR. WRIGHT: Thank you, Mr. Chairman, that was my
14	very next thing.
15	CHAIRMAN CARTER: for identification purposes.
16	Commissioners, we have here, this will be Exhibit
17	Number 125, and it is the Mr. Wright, I'll have to rely on
18	you for a title. It's updated?
19	MR. WRIGHT: Yes. I'm trying to think of the right
20	words to use here.
21	CHAIRMAN CARTER: It's the one with the charts,
22	Commissioners.
23	MR. WRIGHT: Yes. Updated ROE results.
24	CHAIRMAN CARTER: Updated ROE results. Okay. Cool
25	(Exhibit 125 marked for identification.)

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MR. WRIGHT: Thank you. And as I mentioned, the original six exhibits that were filed with his testimony have been identified as Exhibits 74 through 79, and we have just identified 125. CHAIRMAN CARTER: And when we get to the exhibit phase, just remind me if I have a brain cramp, and make sure that we enter this in at the end of those series. MR. WRIGHT: Yes, sir. CHAIRMAN CARTER: Okay. You may proceed.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION DOCKET NO. 080317-EI, TAMPA ELECTRIC RATE PETITION

DIRECT TESTIMONY OF KEVIN W. O'DONNELL

1	Q.	PLEASE STATE YOUR NAME, POSITION, AND BUSINESS
2		ADDRESS FOR THE RECORD.
3	A.	My name is Kevin W. O'Donnell. I am President of Nova Energy
4		Consultants, Inc. My business address is 1350 Maynard Rd., Suite 101, Cary
5		North Carolina 27511.
6		
7	Q.	ON WHOSE BEHALF ARE YOU PRESENTING TESTIMONY IN
8		THIS PROCEEDING?
9	A.	I am testifying on behalf of the Florida Retail Federation (FRF) an association
10		of retail merchants active in many proceedings before the Florida Public
11		Service Commission (the PSC or the Commission). Many of FRF's members
12		take service from Tampa Electric Company (Tampa Electric or the Company).

A.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND RELEVANT EMPLOYMENT EXPERIENCE.

I have a Bachelor of Science in Civil Engineering from North Carolina State University and a Master of Business Administration from the Florida State University. I have worked in utility regulation since September 1984, when I joined the Public Staff of the North Carolina Utilities Commission. I left the NCUC Public Staff in 1991 and have worked continuously in utility consulting since that time, first with Booth & Associates, Inc. (until 1994), then as Director of Retail Rates for the North Carolina Electric Membership Corporation (1994-1995), and since then in my own consulting firm. I have been accepted as an expert witness on rate of return, cost of capital, capital

structure, and other regulatory issues in general rate cases, fuel cost proceedings, and other proceedings before the North Carolina Utilities Commission and the South Carolina Public Service Commission. In 1996, I testified before the U.S. House of Representatives, Committee on Commerce and Subcommittee on Energy and Power, concerning competition within the electric utility industry. Additional details regarding my education and work experience are set forth in Appendix A to my direct testimony.

Α.

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

The purposes of my testimony are to recommend a reasonable rate of return on common equity that Tampa Electric should be allowed in this proceeding, to provide analysis and recommendations regarding the correct capital structure to be used in setting Tampa Electric's rates, and to comment on the testimony of Tampa Electric's witnesses Murry and Abbott. In particular, I believe that Ms. Abbott's testimony provides no value to Tampa Electric's customers and accordingly, Tampa Electric should not be allowed to recover any of the \$290,000 in proposed fees and costs for her testimony. I also recommend that the \$116,000 in rate case expenses for the services of JM Cannell be denied as Ms. Cannell offers no testimony at all in this proceeding.

A.

Q. WHAT IS YOUR OPINION OF THE COMPANY'S REQUESTED REVENUE INCREASE IN THIS CASE?

I believe that Tampa Electric's requested revenue increase in this case is excessive and cannot be supported by the evidence put forward by the Company in its application or by the realities of relevant capital markets. To be specific, the Company's requested after-tax return on equity, which is a measure of its profitability, of 12.00% is excessive and not at all representative of current market conditions This conclusion is strongly confirmed by the fact that Tampa Electric faces very low risk as a regulated

1		monopoly company providing a product that is truly a necessity, with the very
2		great degree of revenue certainty that Tampa Electric enjoys. Similarly, the
3		Company's requested capital structure is not representative of the manner in
4		which Tampa Electric finances its rate base investment and is therefore
5		improper for use in this proceeding.
6		
7	Q.	PLEASE SUMMARIZE YOUR RECOMMENDATIONS IN THIS
8		CASE.
9	A.	My recommendations in this case are as follows:
10		1. the return on equity that Tampa Electric should be granted in this case
11		is in the range of 9.25% to 10.25% with a specific recommendation of 9.75%;
12		2. the capital structure that best reflects Tampa Electric's actual rate base
13		investment is the Company's 13-month average capital structure adjusted for
14		the proportionate use of the parent company's debt as equity in the
15		subsidiary's capital structure;
16		3. Tampa Electric's request to recover the rate case expenses associated
17		with Susan Abbott's testimony should be denied because Ms. Abbott's
18		testimony provides no value whatsoever to Tampa Electric's customers.
19		4. the requested rate case expenses of \$116,000 for JM Cannell should
20		also be denied as Ms. Cannell provides no recommendations in this case nor
21		even provides basic testimony.
22		
23	Q.	HOW IS YOUR TESTIMONY STRUCTURED?
24	A.	The remainder of my testimony is divided into nine sections as follows:
25		I. Economic and Legal Guidelines for Fair Rate of Return
26		II. Cost of Common Equity
27		A. DCF Analysis
8		B. Comparable Earnings Analysis
9		C. Return on Equity Recommendation
0		III. Capital Structure and Overall Rate of Return
		2 Testiment of Verin W. O'Dennell, CEA (FDE

1	IV. Review of Company Witness Murry's Testimony
2	V. Review of Company Witness Abbott's Testimony and Related Rate Case
3	Expenses
4	VI. Summary
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I. ECONOMIC AND REGULATORY POLICY GUIDELINES

FOR A FAIR RATE OF RETURN

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BRIEFLY DESCRIBE THE **ECONOMIC AND** Q. **PLEASE** 5 REGULATORY POLICY CONSIDERATIONS YOU HAVE TAKEN 6 INTO ACCOUNT IN DEVELOPING YOUR RECOMMENDATION 7 CONCERNING THE FAIR RATE OF RETURN THAT TAMPA 8 ELECTRIC SHOULD BE ALLOWED THE OPPORTUNITY TO 9

EARN. 10

A.

The theory of utility regulation assumes that public utilities are natural Historically, it was believed or assumed that it was more efficient for a single firm to provide a particular utility service than multiple firms. Even though deregulation for the procurement of natural gas and electric utility supplies is rapidly spreading, the delivery of these products to end-use customers will continue to be considered a natural monopoly for the foreseeable future. When it is deemed that a perceived natural monopoly does in fact exist, regulatory authorities regulate the service areas in which regulated utilities provide service, e.g. by assigning exclusive franchised territories to public utilities or by determining territorial boundaries where disputes arise (as in Florida), in order for these utilities to provide services more efficiently and at the lowest possible cost. In exchange for the protection of its monopoly service area, the utility is obligated to provide adequate service at a fair, regulated price.

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This naturally raises the question - what constitutes a fair price? generally accepted answer is that a prudently managed utility should be allowed to charge prices that allow the utility the opportunity to recover the reasonable and prudent costs of providing utility service and the opportunity to earn a fair rate of return on invested capital. This fair rate of return on

capital should allow the utility, under prudent management, to provide adequate service and attract capital to meet future expansion needs in its service area. Obviously, since public utilities are capital-intensive businesses, the cost of capital is a crucial issue for utility companies, their customers, and regulators. If the allowed rate of return is set too high, then consumers are burdened with excessive costs, current investors receive a windfall, and the utility has an incentive to overinvest. If the return is set too low, adequate service is jeopardized because the utility will not be able to raise new capital on reasonable terms. Since every equity investor faces a risk-return tradeoff, the issue of risk is an important element in determining the fair rate of return for a utility. Regulatory law and policy recognize that utilities compete with other forms in the market for investor capital. In the case of Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591 (1944), the U.S. Supreme Court recognized that utilities compete with other firms in the market for investor Historically, this case has provided legal and policy guidance concerning the return which public utilities should be allowed to earn: In that case, the U.S. Supreme Court specifically stated that:

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"...the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise so as to maintain credit and attract capital." (320 U.S. at 603)

II. COST OF COMMON EQUITY

A.

Q. PLEASE EXPLAIN HOW THE ISSUE OF DETERMINING AN
APPROPRIATE RETURN ON A UTILITY'S COMMON EQUITY
INVESTMENT FITS INTO A REGULATORY AUTHORITY'S
DETERMINATION OF FAIR, JUST, AND REASONABLE RATES
FOR THE UTILITY.

In Florida and in all regulatory jurisdictions, a utility's rates must be "fair, just, and reasonable." As noted above, regulation recognizes that utilities are entitled to an opportunity to recover the reasonable and prudent costs of providing service, and the opportunity to earn a fair rate of return on the capital invested in the utility's facilities, such as power plants, transmission lines, distribution lines, buildings, vehicles, and similar long-lived capital assets. Utilities obtain capital funding through a combination of borrowing (debt financing) and issuing stock. The allowed return on equity (ROE) is the amount that is appropriate for the utility's common stockholders to earn a fair return on the capital that they contribute to the utility when they buy its stock. If the regulatory authority sets the ROE too low, the stockholders will not have the opportunity to earn a fair return; if the regulatory authority sets the ROE too high, the customers will pay too much, and the resulting rates will be unfair and unreasonable

A.

Q. HOW DO REGULATORY AUTHORITIES GO ABOUT DETERMINING WHAT IS A FAIR RATE OF RETURN ON EQUITY?

Regulatory commissions and boards, as well as financial industry analysts, institutional investors, and individual investors, use different analytical models and methodologies to estimate/calculate reasonable rates of return on equity. Among the measures used are "Discounted Cash Flow" or "DCF" analysis and "Comparable Earnings Analysis." Sometimes a technique called

7 Testimony of Kevin O'Donnell, CFA (FRF)

the two most useful methodologies are DCF Analysis and the Company Earnings Analysis. A. Discounted Cash Flow (DCF) Analysis A. Discounted Cash Flow (DCF) Analysis CAN YOU PLEASE EXPLAIN THE DISCOUNTED CASH FLOW METHOD? A. Yes. The DCF method is a widely used method for estimating an invest required return on a firm's common equity. In my twenty-four year experience with the Public Staff of the North Carolina Utilities Commist and as a consultant, I have seen the DCF method used much more often any other method for estimating the appropriate return on common equity consumer advocate witnesses, utility witnesses and other intervenor witnesses have used the DCF method, either by itself or in conjunction with the methods such as the Comparable Earnings Method or the Capital Armonic Pricing Model (CAPM), in their analyses. The DCF method is based on the concept that the price which the investor willing to pay for a stock is the discounted present value or present worth what the investor expects to receive as a result of purchasing that stock.
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return to the investor is in the form of future dividends and price appreciate
However, price appreciation can be ignored since appreciation in price is
realized when the investor sells the stock. Therefore, the only income that
investor will receive from the company in which it invests is the dividence of the company in which it invests is the dividence of the company in which it invests is the dividence of the company in which it invests is the dividence of the company in which it invests is the dividence of the company in which it invests is the dividence of the company in which it invests is the dividence of the company in which it invests is the dividence of the company in which it invests is the dividence of the company in which it invests is the dividence of the company in which it invests is the dividence of the company in which it invests is the dividence of the company in which it invests is the dividence of the company in the comp
stream. Mathematically, the relationship is:
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Let D = dividends per share in the initial future period
g = expected growth rate in dividends k = cost of equity capital

P = price of asset (or present value of a future stream of dividends) This equation represents the amount (P) an investor will be willing to pay for a share of common equity with a given dividend stream over (t) periods. Reducing the formula to an infinite geometric series, we have: Solving for k yields: $k = \frac{D}{P + g}$ MR. O'DONNELL, DO INVESTORS IN UTILITY COMMON STOCKS Q. REALLY USE THE DCF MODEL IN MAKING INVESTMENT TAMPA ELECTRIC DECISIONS? Absolutely. Utility investors tend to be individuals or institutions interested in A. current income. The average stock investor interested in income will use the DCF to calculate how much funds he/she will receive relative to the initial investment, which is defined as the current dividend yield and the amount of funds that the investor can expect in the future from the growth in the dividend. Both of these components are central to the basic tenet of the DCF model that combines a dividend yield and a growth rate for dividends to derive the overall rate of return.

Q. HAVE YOU USED THE DCF MODEL IN ANALYZING COMMON STOCKS FOR INVESTMENT PURPOSES?

1	A.	Yes. I have used and continue to use the DCF method extensively in
2		analyzing common stocks for potential personal purchases as well as for
3		purchases contemplated for money management clients.

Although the DCF formula stated above may appear complicated, the DCF method is intuitively a very simple model to understand. To determine the total rate of return one expects from investing in a particular equity security, the investor adds the dividend yield which he or she expects to receive in the future to the expected growth in dividends over time. If the regulatory authority sets the rate at a fair level, the utility will be able to attract capital at a reasonable cost, without forcing the utility's customers to pay more than necessary to attract needed capital.

Unlike models such as the Capital Asset Pricing Model (CAPM) that are more theoretical and academic in nature, the DCF is grounded in solid practicality that is used by money managers and individual investors throughout the world on a daily basis.

Q. CAN YOU GIVE AN EXAMPLE?

Of course. If investors expect a current dividend yield of 6%, and also expect that dividends will grow at 4%, then the DCF model indicates that investors would buy the utility's common stock if it provided a return on equity of 10%.

Q. HAVE YOU PREPARED ANY ANALYSES USING THE DCF METHOD TO EVALUATE A FAIR RATE OF RETURN FOR TAMPA ELECTRIC COMPANY?

Yes, I have. First, I identified a group of 24 comparable companies and then proceeded to evaluate their current and projected dividend yields and growth.

The following discussion explains how I selected this population of

comparable companies and how I calculated what I believe to be the 1 appropriate rate of return on equity for the Florida PSC to use in determining 2 allowed revenues (revenue requirements) and consumer rates for Tampa 3 Electric. 5 I developed this group of comparable companies to ensure that the return on equity for Tampa Electric developed in this analysis is consistent with the 7 returns which can be obtained from similar equity investments in the open 8 market. 9 10 I was not able to perform a DCF analysis directly on Tampa Electric 11 Company since it is a subsidiary of TECO Energy, Inc. However, since TECO 12 Energy is publicly traded, I was able to perform a rate of return analysis on the 13 14 parent company. 15 PLEASE EXPLAIN HOW YOU SELECTED THESE 24 COMPANIES O. 16 FOR YOUR COMPARABLE GROUP 17 All of the companies in my comparable group are listed in The Value Line A. 18 Investment Survey "Electric Utility Industry" group. 19 20 A further screen I used in developing my comparable group was to include 21 only those companies in the comparable group that have an S&P Quality 22 Rating of a B. This quality rating is an appropriate screening method because 23 the S&P Quality Rating measures stability of earnings and dividends. The 24 parent company of Tampa Electric, TECO Energy, Inc., has an S&P Stock 25

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ratings of B.

Rating of B, so I chose to include only those companies that had S&P Stock

I also chose to exclude companies that either paid no dividend, had recently reinstated their dividends, had recently purchased another company, or were the subject of takeover discussions.

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A.

Q. WHAT DIVIDEND YIELD DO YOU THINK IS APPROPRIATE FOR USE IN THE DCF MODEL?

I have calculated the appropriate dividend yield by averaging the dividend yield expected over the next 12 months for each company, as reported by the Value Line Investment Survey. The period covered is from August 29, 2008, through November 21, 2008. To study the short-term as well as long-term movements in dividend yields, I examined the 13-week, 4-week, and 1-week dividend yields for the comparable group as well as TECO Energy. My results appear in O'Donnell Exhibit No. KWO-1 and show a dividend yield range of 4.9% to 5.4% for the comparable group and 5.4% to 6.7% for TECO Energy for the same 3 time periods that I examined.

As I am sure the Commission is aware, the stock market has been extremely volatile since the beginning of October. The reason for the wide range in the above-stated dividend yields is that the stock market has dropped rather dramatically thereby increasing the current, otherwise known as spot market, yields on utility investments. The good news is that utility investors are now recognizing higher dividend yields. The bad news is that the drop in the stock market is a sign that our economy is headed for tough economic times thereby putting a damper on future corporate earnings.

Q PLEASE EXPLAIN HOW YOU DEVELOPED THE DIVIDEND YIELD RANGES DISCUSSED ABOVE?

28 A. I developed the dividend yield range for the comparable group by averaging 29 each Company's dividend yield over the above-stated 13-week and 4-week periods as well as examining the most recent dividend yield reported by Value Line for each company.

A.

Q. HOW DID YOU DERIVE THE EXPECTED GROWTH RATE?

I used several methods in determining the growth in dividends that investors expect. The first method I used was an analysis commonly referred to as the "plowback ratio" method. If a company is earning a rate of return (r) on its common equity, and it retains a percentage of these earnings (b), then each year the earnings per share (EPS) are expected to increase by the product (br) of its earnings per share in the previous year. Therefore, br is a good measure of growth in dividends per share. For example, if a company earns 10% on its equity and retains 50% (the other 50% being paid out in dividends), then the expected growth rate in earnings and dividends is 5% (50% of 10%). To calculate a plowback for the comparable group, I used the following formula:

$$br (2007) + br (2008E) + br (2009E) + br (2011E-2013E Avg)$$

 $g = 4$

The plowback estimates for all companies in the comparable group can be obtained from The Value Line Investment Survey under the title "percent retained to common equity." O'Donnell Exhibit No. 3 lists the plowback ratios for each company in the comparable group. This exhibit contains one reference to "NMF" which is the abbreviation for "no meaningful figure". When "NMF" appears, a company's earnings were less than the dividend paid out, which means that the Company did not reinvest or "plowback" any earnings from that year's operations. For purposes of being conservative, I treated the "NMF" entries as a 0 for purposes of my analysis. The plowback method is a very useful tool for comparing the comparable group's growth rates on a recent historical basis as well as a short-term forecasted basis.

A key component in the DCF Method is the expected growth in dividends. In analyzing the proper dividend growth rate to use in the DCF Method, the analyst must consider how dividends are created. Since dividends cannot be paid out without the company first earning the paid out funds, earnings growth is a key element in analyzing the expected growth in dividends. Similarly, what remains in a company after it pays its dividend is reinvested, or "plowed back", into the company in order to generate future growth. As a result, book value growth is another element that, in my opinion, must be considered in analyzing a company's expected dividend growth. To analyze the expected growth in dividends, I believe the analyst should first examine the historical record of past earnings, dividends, and book value. Hence, the second method I used to estimate the expected growth rate was to analyze the historical 10-year and 5-year historical compound annual rates of change for earnings per share (EPS), dividends per share (DPS), and book value per share (BPS) as reported by Value Line.

<u>Value Line</u> is the most recognized investment publication in the industry and, as such, is used by professional money managers, financial analysts, and individual investors worldwide. A prudent investor examines all aspects of a Company's performance when making a capital investment decision. As such, it is only practical to examine historical growth rates for the company for which the analysis is being performed. The historical growth rates for the comparable group as well as TECO Energy can be seen in O'Donnell Exhibit No. KWO-1.

The third method I used was the <u>Value Line</u> forecasted compound annual rates of change for earnings per share, dividends per share, and book value per share.

The fourth method I used was the forecasted rate of change for earnings per share that analysts supplied to Charles Schwab & Co. This forecasted rate of change is not a forecast supplied by Charles Schwab & Co. but is, instead, a compilation of forecasts by industry analysts.

The details of my DCF results can be seen in O'Donnell Exhibit No. KWO-1 and a summary of these results can be found in O'Donnell Exhibit No. KWO-2.

Once I gathered all the above data, I examined the results as found in Exhibit Nos. KWO-1 and KWO-2. It is important, in my view, to attempt to understand the reasons why the various data results appear. For example, in the early 1980s, utilities were undergoing expansion of base load plants that caused earnings growth to slow substantially. However, in the early 1990s, most baseload plant construction had ended and utilities were flush with a good bit of cash thereby creating, for the most part, solid earnings growth. It is important, therefore, to understand current and past market conditions so the analyst can use his/her best judgment in determining the market expected dividend growth rate in the future.

Α.

Q. WHAT IS THE INVESTOR RETURN REQUIREMENT FROM THE DCF ANALYSIS?

As can be seen on O'Donnell Exhibit No. 2, the dividend yield for the three time frames studied ranges from 4.9% to 5.4% for the comparable group and 5.4% to 6.7% for TECO Energy. Given the recent drop in the stock market, I believe the dividend yield range should incorporate the recent price changes as well as the realization that fear has taken over strong fundamentals in today's marketplace.

To be specific, the most representative dividend yield for the comparable group is in the range of 4.9% to 5.4%. For TECO Energy, I believe the proper dividend yield to use in the DCF analysis is in the range of 6.00% to 6.50%. This dividend yield range represents the upper end of the wide range of dividend yields experienced by TECO Energy over the 13-week period of August 29, 2008 through November 21, 2008. The reason for the wide range in the TECO Energy dividend yields goes beyond the recent downturn in the stock market. On Oct. 30, 2008, TECO Energy announced third quarter results that were down from \$0.44 per share in 2007 to \$0.28 per share in 2008. These weak results were due to lower results in TECO Energy's non-regulated operations as well as a relatively mild summer season that depressed Tampa Electric's expected air conditioning load.

The TECO Energy stock price has fluctuated dramatically over the past year, from a high this summer near \$22 per share to a low of less than \$11 per share in mid-November. I believe investors are indicating that, on a longer term basis, TECO Energy must recover its earnings fundamentals. For this reason, investors have bid down the stock price thereby driving the dividend yield upward. Corresponding to the higher dividend yield is the realization that future dividend growth will be very constrained while TECO Energy solidifies its financial footing.

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In terms of the proper dividend growth rate to employ in this analysis, I believe that it is appropriate to examine the recent history of earnings and dividend growth to assess and provide the best estimate of the dividend growth that investors expect in the future. A quick examination of the 10-year and 5-year historical growth rates for the comparable group and TECO Energy show very vividly the problems in the electric industry over the past decade.

The future of the utility industry can, in my opinion, be described as "back to the future" in which utilities will expand their earnings by expanding and growing their rate base investments through large capital projects. Throughout the 1990s and earlier this decade, it was rare to see a general rate case for any utility in the southeastern U.S. Today, however, utilities across the country are coming in for rate cases at an increasing pace. The future holds much the same as numerous large power plant investments are currently being planned. Thus, it is reasonable to expect that the next ten years should look somewhat like the 1980s when utilities were involved in large generation construction projects.

Due in large part to the future expected capital expenditures of utilities throughout the country, I believe that investors have recognized, and embedded in their stock prices, that dividend growth in the short-term, meaning in the next ten years or less, must be less than earnings growth. As can be seen in O'Donnell Exhibit No. KWO-1, the comparable group's forecasted dividend growth rates are slightly less than the forecasted earnings growth rates, but the earnings growth rate for TECO Energy is more than double its expected dividend growth rate. On a long-term basis, however, earnings and dividends will grow more in-line with one another.

Due to the effects of fundamental changes that have occurred in the utility industry over the past ten years, I believe that it is proper to place more weight on forecasted figures than historical figures in estimating the cost of equity for TECO Energy and the comparable group. However, it is important to note that most of the forecasted Value Line figures contained in the attached O'Donnell Exhibit No. KWO-1 and O'Donnell Exhibit No. KWO-2 were published prior to the stock market meltdown that occurred in October, 2008. Since the stock market fall, the general conclusion is that our country is headed for a severe economic recession that may last for an extended time. As a result, I believe

that it is proper to use a lower growth rate in the DCF analysis to account for the expected drop in economic activity for TECO Energy as well as the comparable group and the entire United States economy. As we get closer to hearing in this case, I will update the entire analysis so as to give the Commission an up-to-date view of current investor return requirements. I believe that the proper growth rate range for the comparable group of companies to use in the DCF analysis is 4.0% to 4.5%. The 4.0% is particularly appropriate for the lower end of this range since it is approximately equal to the plowback ratio, which is a mix of near-term historical and forecasted earnings retention ratios, of the comparable group. I also believe that 4.5% is appropriate for the high end of the range as it is slightly lower than the group's Value Line average forecasted dividend growth rate thereby accounting for the slowdown in the US economy. Combining the comparable group's dividend yield range of 4.9% to 5.4% with the growth rate range of 4.0% to 4.5% produces a DCF range of 8.9% to 9.9%. Based on the results shown in O'Donnell Exhibits No. KWO-1 and KWO-2, I believe that investors are expecting TECO Energy's dividends to grow in the range of 3.25% to 3.75%. The 3.25% low end of the dividend growth rate range is close to the Value Line forecasted dividend growth rate. I believe that 3.75% is appropriate for the high-end of the growth rate range because it

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Combining the TECO Energy current dividend yield range of 6.00%% to 6.50% with the above-stated dividend growth rate range of 3.25% to 3.75% produces a DCF cost of equity range of 9.25% to 10.25%.

is approximately halfway between the Value line forecasted dividend growth

rate and the plowback growth rate of TECO Energy.

The above-stated comparable group and TECO Energy cost of equity ranges represent only one analysis I used in the examination of the proper cost of equity to apply in the current rate case.

B. Comparable Earnings Analysis

Q. MR. O'DONNELL, WOULD YOU PLEASE EXPLAIN WHY YOU PERFORMED A COMPARABLE EARNINGS ANALYSIS IN ADDITION TO YOUR DCF ANALYSIS?

A. Yes. The comparable earnings method provides investors with actual historical earned returns on common equity. Investors use this information as a guide to assess an investment's current required rate of return. I used the comparable earnings method in my analysis in this case to assess the reasonableness of my DCF results and to provide an independent methodological estimate of the return that investors would consider reasonable for Tampa Electric as the regulated electric company subsidiary of TECO Energy. It obviously makes economic common sense that the common stock shares of companies with comparable risks should yield very close to the same returns.

Q. WOULD YOU PLEASE EXPLAIN HOW YOU PERFORMED THE COMPARABLE EARNINGS ANALYSIS?

A. O'Donnell Exhibit No. KWO-4 presents a list of the earned returns on equity of the comparable group over the period of 2004 through 2007. As can be seen in this exhibit, the comparable companies' earned returns on equity have ranged from 8.3% in 2004 to a high of 9.7% in 2006. For TECO the highest return on equity over this four-year period was 14.1% in 2006 whereas the lowest return on equity, which was 10.7%, occurred in 2004. For the four-

1	year period of 2002 through 2006, the average feturn on equity was 5.0% for
2	the comparable group and 12.8% for TECO.
3	-
4	In addition to the above analysis of market earned returns on equity, I also
5	examined recently allowed returns on equity granted by utility state regulators
6	from around the country. Table 1 below shows what other states have granted
7	for allowed returns on equity for electric utilities from the period of July, 2007
8	through August, 2008.

Table 1: Authorized Returns

		Authorized		Date of
Company	Jurisdiction	ROE	Overall	Order
Entergy Arkansas,Inc.	AR	9.90%	N/A	06/15/2007
Arizona Public Service Company	AZ	10.75%	8.32%	06/28/2007
Potomac Electric Power Company	MD	10.00%	7.68%	07/19/2007
Georgia Power Company	GA	11.25%	N/A	12/18/2007
Duke Energy Carolinas	NC	11.00%	8.57%	12/20/2007
Wisconsin Electric Power				0.4.4.7.10.000
Company	WI	10.75%	8.33%	01/17/2008
Potomac Electric Power Company	DC	10.00%	7.96%	01/30/2008
Fitchburg Gas & Electric (Unitil)	MA	10.25%	8.38%	02/29/2008
Northern States Power Company	WI	10.75%	8.60%	01/08/2008
Central Vermont Public Service				
Co.	VT	10.71%	N/A	01/31/2008
Consolidated Edison of NY	NY	9.10%	7.30%	03/25/2008
Montana-Dakota Utilities Company	MT	10.25%	8.58%	04/23/2008
Hawaiian Electric Company	HI	10.70%	8.66%	05/01/2008
Consumers Energy	NY	10.70%	6.93%	06/10/2008
Orange and Rockland Utilities, Inc.	NY	9.10%	N/A	07/23/2008
Average		10.35%		

Source: Public Utilities Reports, Volume Nos. 258-266 as provided by the NC Utilities Commission in its "Quarterly Review" for the quarter ending March 31, 2008

As can be seen from the information above, the average allowed return on equity granted by state regulators for utilities operating in regulated states was, on average, 10.35%. Even more striking is that in only two of the fourteen cases were the utilities allowed a return of equal to or greater than 11%. Dr. Murry, however, recommends the Commission approve a 12.0% return on equity for Tampa Electric. When compared to returns approved in other states, Dr. Murry's recommendation of 12.0% is clearly and unequivocally excessive and unreasonable.

Q. WHAT CONCLUSIONS DO YOU DRAW FROM THE COMPARABLE EARNINGS ANALYSIS?

Given the slowdown in the Florida economy, the housing market decline, and the credit crunch, I believe that it is unrealistic to expect TECO's historical returns of-late to continue unabated in the future. In addition, state regulatory orders over the past year have granted vertically integrated electric utilities returns on equity of approximately 10.35%. Based on these findings, I believe the proper rate of return using a comparable earnings analysis is in the range of 9.5% to 10.5%. This rate of return range is very close to the return on equity range found appropriate through use of the DCF model.

A.

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2		C. Return on Equity Recommendation
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4	Q.	WHAT IS YOUR ESTIMATE OF THE COST OF EQUITY CAPITAL
5		FORTAMPA ELECTRIC?
6	A.	As I mentioned earlier, the results from my DCF Analysis resulted in an
7		investor return requirement range of 8.9% to 9.9% for the comparable group
8		and 9.25% to 10.25% for TECO Energy. The comparable earnings method
9		produces a return on equity in the range of 9.5% to 10.5%. Based on these
10		results, I believe the investor requirement range for TECO Energy is in the
11		range of 9.25%, which is the middle of the comparable group DCF range, to
12		10.25%, which is the high-end of the range for the TECO Energy DCF
13		analysis as well as the comparable earnings range.
14		
15		In determining the proper return on equity to recommend in this proceeding, it
16		is critical, in my opinion, to acknowledge that the utility industry is on a track
17		to return to its regulated roots and, hence, investors expect more modest future
18		growth rates. As a result of this return-to-the-basics mentality, I believe that
19		the proper return on equity to use for determining Tampa Electric's revenue
20		requirements and for setting Tampa Electric's rates in this proceeding is
21		9.75%, which is approximately in the middle of all the above-stated ranges.
22		This recommended return on equity of 9.75% is also very close to the average
23		return on equity granted by state utility commissions across the country from
24		July, 2007 through August, 2008.
25		
26	Q.	HOW DOES THIS 9.75% RATE OF RETURN COMPARE TO THE
27	Α,	RETURNS THAT MONEY MANAGERS NOW EXPECT TO EARN
<i>-</i> 1		AND ARTHUR ARTES STATES OF THE

ON LONG-TERM STOCK INVESTMENTS?

In my opinion, a 9.75% rate of return on an investment in a electric utility would be deemed fair and appropriate by most money managers and that determining Tampa Electric's revenue requirements and setting its rates on this basis would provide more than adequate incentives to investors to purchase TECO Energy's common stock at reasonable prices, thereby enabling Tampa Electric to obtain needed capital. As noted in my resumé, I also work as a senior financial analyst for a money management firm in New Jersey. In that role, I am often asked to examine market returns and risks. As a money manager, I can assure the Commission that most professional investors would be very pleased if their managed portfolios produced overall annual returns of 9.75% in todays investment climate. The stock market is down over 40% from its peak in late 2007. Investors are, naturally, very nervous about their stock investments. Of all the investment opportunities available, utility investments are considered some of the safest. In fact, Tampa Electric is an incredibly safe investment that, at the present time, can and does recover 60% to 70%% of its total expenses through pass-through clauses. The remaining costs are Tampa Electric's fixed costs, including debt service and return, and operating costs that are recovered through base rates, and the recovery of these costs is very secure and low-risk because of Tampa Electric's monopoly position as a provider of a necessity. If the remaining base-rate operating expenses were to get sufficiently high such that the Company needs more revenue to cover them, Tampa Electric also has the option of filing for a rate case to increase rates to cover these higher operating costs. As a result, earning 9.75% on a relatively risk-free investment in a solid utility such as Tampa Electric is a very attractive investment for anyone looking to maximize his or her returns while keeping risk at a minimum.

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III. CAPITAL STRUCTURE AND

OVERALL RATE OF RETURN

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Q. WHAT IS A CAPITAL STRUCTURE AND HOW WILL IT IMPACT THE REVENUES THAT TAMPA ELECTRIC OR ANY OTHER UTILITY IS SEEKING IN A RATE CASE?

A. The term "capital structure" refers to the relative percentage of debt, equity, and other financial components that are used to finance a company's investments.

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For simplicity purposes, there are basically three financing methods. The first method is to finance an investment with common equity, which essentially represents ownership in a company and its investments. Common equity returns, which take the form of dividends to stockholders, are not tax deductible which, on a pre-tax basis alone, makes this form of financing about more expensive than debt financing, for which interest is a tax-40% deductible expense of the company. The second form of corporate financing is preferred stock, which is normally used to a much smaller degree in capital structures. Dividend payments associated with preferred stock are not tax deductible. Corporate debt is the other major form of financing used in the corporate world. There are two basic types of corporate debt: long-term and short-term. Long-term debt is generally understood to be debt that matures in a period of more than one year. Short-term debt is debt that matures in less that one-year. Both long-term debt and short-term debt represents liabilities on the company's books that must be repaid prior to any common stockholders or preferred stockholders receiving a return on their investment.

In the current Tampa Electric case, the Company has also included other financing means such as deferred income taxes, customer deposits, and tax credit. The concept in including these items in the capital structure is that these funds are used by the Company in the provision of utility electric service and, as such, should be reflected in the utility's regulated capital structure.

A utility's total return is developed by multiplying the component percentages of its capital structure represented by the percentage ratios of the various forms of capital financing relative to the total financing on the company's books) by the cost rates associated with each form of capital and then summing the results over all of the capital components. When these percentage ratios are applied to various cost rates, a total after-tax rate of return is developed Since the utility must pay dividends associated with common equity and preferred stock with after-tax funds, the post-tax returns is then converted to a pre-tax return by grossing up the common equity and preferred stock returns for taxes. The final pre-tax return is then multiplied by the Company's rate base in order to develop the amount of money that customers must pay to the utility for its return on investment and tax payments associated with that investment.

From the above discussion, it is clear to see that costs to consumers are greater when the utility finances a higher proportion of its rate base investment with common equity and preferred stock versus long-term debt. However, long-term debt, which is first in-line for repayment, is more risky to the utility than is common equity due to the fact that debt is a contractual obligation as opposed to common equity where no obligations exist. As a result, regulators and the utility must balance off the needs of consumers, who desire low rates derived from the use of long-term debt, versus the desire of the utility to minimize the use of the more risky long-term debt.

1 MR. O'DONNELL, WHAT CAPITAL STRUCTURE IS TAMPA Q. 2 **ELECTRIC SEEKING IN THIS CASE?** 3 According to the testimony of Donald A. Murry and the Company's Minimum 4 A. Filing Requirements, the Company is seeking approval of the following 5 capital structure in this case: 6 7 38.22% Long-Term Debt 8 0.22% Short-Term Debt 9 2.84% **Customer Deposits** 10 0.24% Tax Credits 11 Deferred Income Taxes 8.28% 12 50.21% **Common Equity** 13 14 WHAT WOULD BE THE RESULTS OF ALLOWING TAMPA Q. 15 ELECTRIC TO SET ITS RATES ON THE BASIS OF THIS 16 HYPOTHETICAL CAPITAL STRUCTURE? 17 Allowing Tampa Electric's rates to be set using this capital structure would 18 A. cause customers to over-pay for Tampa Electric's true cost of capital by 19 forcing captive customers to pay for a hypothetical, non-existent capital 20 structure that does not, in my opinion, accurately reflect the way the Company 21 finances its rate base investment. The use of the Company proposed capital 22 structure would result in Tampa Electric's rates being grossly unfair, unjust, 23 and unreasonable. 24 25 PLEASE DESCRIBE WHY YOU BELIEVE TAMPA ELECTRIC'S Q. 26 REQUESTED CAPITAL STRUCTURE DOES NOT ACCURATELY 27 REFLECT THE COMPANY'S RATE BASE INVESTMENT? 28

Tampa Electric is a wholly-owned subsidiary of TECO Energy. Due to the parent/subsidiary relationship, there are no market forces that influence the shape of the Tampa Electric capital structure. As a result, TECO Energy can issue long-term debt on its consolidated balance sheet and then invest the funds into Tampa Electric and call it common equity. By doing so, TECO Energy can effectively create whatever capital structure it desires for Tampa Electric and its other subsidiaries.

Α.

Q. WHY SHOULD THE FLORIDA PUBLIC SERVICE COMMISSION BE CONCERNED ABOUT HOW TAMPA ELECTRIC FINANCES ITS RATE BASE INVESTMENT?

There are two reasons that the Commission should be concerned about how Tampa Electric finances its rate base investment. The first reason is that the cost of common equity is higher than the cost of long-term debt, so that a higher equity percentage will translate into higher costs to Tampa Electric's customers with no corresponding improvements in quality of service. Long-term debt is a financial promise made by the company and is carried as a liability on the company's books. Common stock is ownership in the company. Due to the nature of this investment, common stockholders require higher rates of return to compensate them for the extra risk involved in owning part of the company versus having a promissory note from the company.

The second reason the Commission should be concerned about Tampa Electric's capital structure is due to the tax treatment of debt versus common equity. Public corporations, such as TECO Energy, can write-off interest payments associated with debt financing. Corporations are not, however, allowed to deduct common stock dividend payments for tax purposes. All dividend payments must be made with after-tax funds, which are more

expensive than pre-tax funds. Since the regulatory process allows utilities to recover all expenses, including taxes, rates must be set so that the utility pays all its taxes and has enough left over to pay its common stock dividend. If a utility is allowed to use a capital structure for ratemaking purposes that is top-heavy in common stock, customers will be forced to pay the associated income tax burden, resulting in unfairly, unreasonably, and unnecessarily high rates. This will harm the economy of the utility's service area and violate the fundamental principles of utility regulation that rates must be fair but only high enough to support the utility's provision of safe, adequate, and reliable service at a fair price.

In my opinion, using Tampa Electric's requested capital structure in this proceeding will grant the utility unnecessarily and unreasonably high rates to cover tax payments for common equity that is not, in my view, truly an equity investment. In this particular case, TECO Energy, as the sole upstream owner of Tampa Electric, is attempting to use the regulatory process to force captive customers to pay rates higher than is necessary to support the Company's rate base investment. In utility regulation, a parent company's use of long-term debt as common equity in a regulated subsidiary is called double-leveraging.

On the unregulated side, there is no real problem with this practice because the unregulated subsidiaries are subject to competitive market discipline, but on the regulated side – i.e., for Tampa Electric Company and its customers – this practice is wholly inappropriate manipulation of the claimed capital structure to effectively arbitrage what is debt investment into equity returns, and the Commission should reject and prohibit such manipulation.

Even assuming that the Commission sets Tampa Electric's return on equity at 9.75% as I recommend, allowing the Company's rates to be set using its

1	proposed capital structure will violate principles of fair and reasonable
2	ratemaking by forcing customers to pay for equity capital that really doesn't
3	exist.
4	

DO YOU HAVE ANY EVIDENCE THAT TECO ENERGY IS Q. DOUBLE-LEVERAGING ITS REGULATED ASSET INVESTMENTS?

Yes. Below is a table that list the total common equity that TECO Energy, Inc. 7 A. had on its books as of Dec. 31, 2007 as well as the per books common equity 8 component for Tampa Electric and the other wholly-owned subsidiaries of 9 TECO Energy. 10

Table 2: Per Books Common Equity Positions

Company	Equity (\$)
TECO Energy, Inc.	\$2,017,045
Tampa Electric	\$1,532,687
Peoples Gas	\$268,286
Non-Regulated	\$819,265
Total Subsidiary Equity	\$2,620,238

5

As can be seen in the table above, the total common equity investment that TECO Energy CLAIMS exists in its subsidiaries, is approximately \$600 million GREATER than the total per books common equity of the parent company, TECO Energy, Inc. The above table clearly shows that TECO Energy is attempting to use its debt financing to create an illusion to the Commission that Tampa Electric has more equity in its capital structure than exists in reality. Allowing this illusion to determine Tampa Electric's revenue requirements would result in higher rates for consumers of Tampa Electric who are already struggling to pay high bills in an uncertain economy. Worse still, this burden would be forced upon the utility's captive customers based on purported costs of equity capital that is, at bottom, debt capital provided by TECO Energy bondholders.

A.

18 Q. DOES THE COMPANY EXPLAIN THIS DIFFERENCE IN EQUITY 19 COMPONENTS IN ITS PRE-FILED TESTIMONY?

Company Witness Gillette does not explicitly address the difference in the equity amounts of all the subsidiaries versus the amount found in the parent company. However, Mr. Gillette does claim that the \$404 million in debt found in the parent company capital structure is related to TECO Energy, Inc.'s failed investment in TPS merchant power business and was not infused

in equity into Tampa Electric. Mr. Gillette does not, however, specifically address why the sum of the subsidiary equity amounts are greater than the parent company equity amount.

5

A.

Q. MR. O'DONNELL, WHAT CAPITAL STRUCTURE DO YOU RECOMMEND FOR USE IN THIS PROCEEDING?

In keeping with Commission Rule 25-14.004, I recommend that the Commission adjust the Tampa Electric 13-month average capital structure as of Dec. 31, 2009 to account for a proportionate amount of long-term debt in the parent company capital structure that should be accounted for as long-term debt and not common equity in the Tampa Electric capital structure. That capital structure and associated cost rates are as follows:

Table 3: Recommended Capital Structure

Component	Ratio (%)	Cost Rate (%)
Long-Term Debt	44.68%	6.81%
Short-Term Debt	0.22%	4.63%
Customer Deposits	2.84%	6.07%
Tax Credits	0.24%	8.28%
Deferred Inc. Taxes	8.27%	0.00%
Common Equity	44.00%	9.75%
- 1. 7	100.00%	

In my opinion, the TECO Energy capital structure that I recommend in this proceeding is more transparent to investors and to the Commission, reflects the manner in which the utility actually finances its rate base investment, prevents consumers from paying high equity returns on non-existent equity capital, and prevents customers from paying income taxes that are not in reality paid by Tampa Electric in the provision of electric service in Florida.

1		My recommended return on equity and capital structure can be seen in Exhibit
2		KWO-5.
3		
4	Q.	WHAT IS THE OVERALL RATE OF RETURN ON INVESTMENT
5		THAT THE COMMISSION SHOULD APPLY USING YOUR
6		RECOMMENDED RATE OF RETURN ON EQUITY AND YOUR
7		RECOMMENDED ADJUSTMENTS TO TAMPA ELECTRIC'S
8		CAPITAL STRUCTURE?
9	A.	My recommended overall rate of return on investment is 7.52%
10		

1		IV. REVIEW OF COMPANY WITNESS MURRY'S
2		TESTIMONY
3		
4	Q.	WHAT METHODS DID DR. MURRY USE IN HIS ANALYSIS OF THE
5		COST OF EQUITY FOR TAMPA ELECTRIC?
6	A.	Dr. Murry used the DCF model and the Capital Asset Pricing Model (CAPM)
7		in his return on equity analysis of Tampa Electric.
8		
9	Q.	WHAT ARE THE PRIMARY DIFFERENCES BETWEEN YOUR
10		APPLICATION OF THE DCF MODEL AND DR. MURRY'S
11		APPLICATION OF THE DCF?
12	A.	One difference between Dr. Murry and myself is that Dr. Murry uses
13		forecasted earnings growth estimates as the primary source of dividend
14		growth in the DCF model whereas I use a more global approach that examines
15		historical and forecasted growth in earnings, dividends, and book value. In my
16		opinion, investors are competent enough to understand that dividend growth,
17		which is the basis for the DCF model, originates from earnings growth and
18		book value growth. Hence, it is only logical to examine all of these factors in
19		the determination of the proper growth rate to use in the DCF model. By
20		doing so, investors can and do recognize and understand that such a range will
21		include high growth rates and low growth rates. Investors use all this
22		information in determining the price they are willing to pay for the stock and,
23		hence, the underlying investor return requirement using the DCF model.
24		
25		The largest single difference, however, between Dr. Murry and myself is how
26		we treat the results from our respective DCF analyses In my opinion, Dr.
27		Murry, in his prefiled testimony, indicates a predetermined preference for a
28		higher return on equity than can be justified in this proceeding. Support for
29		my opinion is found on pp. 38-39 of Dr. Murry's testimony when he states: 34 Testimony of Kevin W. O'Donnell, CFA (FRF)

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If a DCF-based cost of common equity, even if realistically developed, becomes the allowed return for a regulated utility, this will not provide enough cushion as the realized return will be sufficient to attract and maintain capital.

Given that consumers in Florida must pay higher rates for Dr. Murry's "cushion", I don't believe it would be proper for the Commission to recognize Dr. Murry's application of the DCF model in this case. Put another way, I believe it is simply wrong to ask consumers struggling to stay in their homes with plummeting values to pay higher rates so that Tampa Electric can have a "cushion" built into its profits through the cost of equity granted by this Commission. Many residential customers and families living in the real world do not have such a "cushion." School boards and local governments in Florida do not have a "cushion" and retail merchants operating in today's marketplace certainly do not have the "cushion" to which Dr. Murry argues for Tampa Electric in this case.

Another difference between Dr. Murry and myself is that Dr. Murry does not perform a rate of return analysis specifically on TECO Energy. Dr. Murry openly admits that he does not think it is appropriate to perform a rate of return analysis on TECO Energy. To be specific, Dr. Murry states:

The risks associated with the recent financial difficulties of TECO Energy are not relevant to measuring the cost of capital of Tampa Electric. Consequently, I did not use the market-based calculations of the cost of capital of TECO Energy and the financial information of TECO Energy had little bearing on my analysis. (p. 23 of direct testimony)

Q. DO YOU AGREE WITH DR. MURRY THAT THE FINANCIAL ASPECTS OF TECO ENERGY ARE NOT RELEVANT IN THIS PROCEEDING?

No. Investing in TECO Energy is largely synonymous in investing in Tampa Α. Electric. Dr. Murry would like to ignore the fact that TECO's past financial difficulties are not relevant to Tampa Electric, but the two entities are inextricably linked. Approximately 75% of the common equity found in the TECO Energy, Inc. reported capital structure comes from the common equity of Tampa Electric. One simply cannot invest in TECO Energy without investing in Tampa Electric, and one can only invest in Tampa Electric by investing in TECO Energy.

Both in terms of the appropriate capital structure and return on equity to use in this proceeding, the Company is attempting to use hypothetical values.. Florida electric customers should not be asked to pay higher costs that are based on "theory" when real values are available from the Company.

Q. MR. O'DONNELL, WHY DO YOU NOT USE THE CAPM IN DETERMINING RETURNS ON EQUITY IN UTILITY REGULATORY PROCEEDINGS?

18 A. The CAPM is a model that essentially compares market returns to fixed19 income yields to arrive at a forecasted return on equity. The underlying
20 assumption of the CAPM is that calculated risk premiums stay relatively
21 constant over time. Unlike Dr. Murry, I have found such assumptions to be
22 unrealistic and extremely naïve.

Current economic conditions are vastly different from conditions that existed in the marketplace since 1926, which is the start date of the risk premium analysis used by Dr. Murry. For example, from the end of WWII until the mid-1990s, the United States economy was generally seen as the dominant market in the world. Today, however, China, Japan, and India are all making strong economic strides that are threatening our dominance in world markets.

Testimony of Kevin W. O'Donnell, CFA (FRF)

1	Dr. Murry's risk premium model, by definition and specification, ignores the
2	changing world markets.
3	
4	Furthermore, the equity risk premium of 7.1% employed by Dr. Murry
5	incorporates only a subset of historical returns and, in my opinion, is a gross
6	exaggeration of what financial analysts expect in future market returns. In
7	2004, Dr. Jeremy J. Siegel from the University of Pennsylvania published a
8	paper for the Chartered Financial Analysts Institute Conference Proceedings
	entitled "The Long-Run Equity Risk Premium." In this study, Dr. Siegel
9	examined stock and bond market return returns from 1802 through 2003. Over
10	
11	this extended period of time, the real return on common stocks was 6.8%
12	whereas the real return on long-term government bonds was 3.5% thereby
13	producing a risk-premium of 3.3%. Dr. Siegel summarized his conclusions by
14	stating:
15 16 17 18 19 20 21 22 23 24 25 26 27 28	This is a lower return world because the P/E for equities is justifiably higher than it has been historically, which implies lower long-term real equity returns. Siegel's constant of a 6.5-7 percent return equity returns problem will not hold for all future periods. Investors probably will receive closer to 5 percent. Nevertheless, the real equity risk premium will still be roughly 3 percent. Investors will certainly seek other higher yielding real assets, but of the three major asset classes – stocks, bonds, and real estate – all are probably going to realize lower return that their historical averages. Consequently, equities still offer an attractive premium for long-term investors.
29	Also in 2004, Mr. Robert D. Arnott, editor of the Financial Analysts Journal,
30	wrote an article entitled "The Meaning of a Slender Risk Premium." Mr.
31	Arnott concluded his piece by stating that
32	
33 34	The risk premium rules of thumb we've relied on are shaky. Indeed, the risk premium is a skinny hook to hang our future

sh	ould v	ty on. Should ve look more latter is by f	e aggres	ssively	for oth	ner paths to		
_			0			1 • 1	7.10/	

As a financial analyst, the use of a risk premium as high as 7.1% is, in my opinion, nonsensical given the current world markets. It might make some simplistic sense to pick a period of time over which to study equity risk premiums, but it is imperative that the analyst performing the study consider current market conditions. The world we live in today is vastly different than the world we have experienced over the past 200 years. Ignoring this fact will lead the analyst to erroneous conclusions that, in the current case, will cause consumers in Florida to overpay for electric service thereby harming the

Florida economy.

Q. ARE YOU AWARE OF ANY STATE REGULATORY COMMISSION THAT HAS BEEN CRITICAL OF THE USE OF THE CAPM?

17 A. Yes. In 1991, the North Carolina Utilities Commission made the following statement in Docket No. G-21, Sub 293 and 295:

The commission is further convinced of the inadvisability of relying on CAPM results due to the same flaw in the traditional risk premium method: the time period over which one calculates an equity risk differential can greatly alter the results for no theoretically explainable reason.

Q. HOW DOES THE CAPM ATTEMPT TO CAPTURE COMPANY-SPECIFIC RISK?

A. The CAPM uses a beta variable to measure the risk of the company studied relative to the market. In my view, this beta is highly subjective and can only be used with the utmost care. Since the beta is calculated with historical returns relative to market returns, it is very possible, and in fact quite likely,

that sudden changes in a company's stock price will not be captured in the beta thereby producing meaningless answers. If, for example, the beta used in the analysis was calculated over an extended time period, such as how Value Line calculates its beta, and then a company suddenly encountered severe financial problems, the CAPM would produce meaningless results as the calculated return on equity would be grossly low.

An example of the problem with beta can be seen in the situation involving Countrywide Financial, which is the world's largest independent residential mortgage lender and service company, in 2007. Countrywide has symbolically become the poster child for the credit meltdown that has now occurred in the marketplace thereby setting off recession worries for the entire country. The August 24, 2007 edition of Value Line stated that Countrywide's stock price fell 54% since its May, 2007 report. However, even with this price decline, the calculated beta for Countrywide was just 1.15 meaning that Countrywide was only 15% more risky than the overall stock market. Given the collapse of the credit markets due, in large part, to risky mortgages created by companies the likes of Countrywide, it is hard to believe that Countrywide's beta could have been was just 1.15. Of course, this nonsensical financial situation was borne out later when Bank of American acquired Countrywide. Applying the Countrywide beta of 1.15 in a CAPM in the summer of 2007 would have provided a ludicrous answer and very bad investment guidance.

Q. HOW DOES THE DCF CAPTURE SUCH A SUDDEN CHANGE IN THE MARKET PRICE OF A STOCK?

A. Since the DCF can incorporate daily fluctuations in stock prices via the dividend yield, it can capture sudden price movements and ongoing risk changes of a company. The CAPM relies on extensive historical data on

which to calculate the beta. As such, it simply cannot capture sudden risk movements.

Q. DO YOU HAVE ANY BASELINE COMPARISON OF DR. MURRY'S COST OF EQUITY RECOMMENDATION IN THIS CASE?

A. Yes, as noted previously, the average return on equity granted by various state commissions across the country was approximately 10.35% over the past year.

Dr. Murry's recommendation of a 12.0% return on equity is grossly out-of-line with what state commissions around the United States are granting regulated utilities.

As another comparison, I urge the Commission to look at other investment opportunities available to conservative investors that are primarily seeking income. As of this writing, on November 24, 2008, 30-year US Treasury bonds, which are widely recognized as the yardstick for long-term risk-free investments, are currently yielding less than 4.0%,. The return on equity that I am recommending in this case is well more than double the yield on these ultra-safe 30-year bonds. Given the fact that Tampa Electric has very little risk, it is easy to see that, relative to fixed income securities, a 9.75% return on equity is very attractive return for investors.

1		
2	V.	REVIEW OF COMPANY WITNESS ABBOTT'S TESTIMONY
3		AND RELATED RATE CASE EXPENSES
4		
5	Q.	HAVE YOU REVIEWED THE TESTIMONY OF TECO WITNESS
6		ABBOTT?
7	A.	Yes, I have.
8		
9	Q.	WHAT IS THE PURPOSE OF MS. ABBOTT'S TESTIMONY IN THIS
10		PROCEEDING?
11	A.	In her prefiled testimony, Ms. Abbott states that the purpose of her testimony
12		was to describe
13		
14		how rating agencies rate companies, the importance of
15 16		regulation to ratings, and the basis of Tampa Electric Company's ("Tampa Electric" or "company") current and
17		targeted ratings (p. 3 of direct testimony)
18 19		When one reads through Ms. Abbott's testimony, it is clear that Ms. Abbott is,
20		essentially testifying in support of the Company's requested return on equity
21		and its requested capital structure, without any independent analysis of these
22		issues and, thus, without any substantive contribution to the case.
23		
24	Q.	DO YOU AGREE WITH MS. ABBOTT'S CONCLUSIONS IN THIS
25		CASE?
26	A.	No. I believe that Ms. Abbott has misunderstood the purpose in utility
27		regulation. Ms. Abbott's testimony implies that Tampa Electric needs a
28		certain return on equity and capital structure in order to ensure the utility will
29		have a credit rating that she deems suitable for the Company's credit needs. I
30		do not agree with Ms. Abbott in that the Florida Public Service Commission

should set a rate of return based on a credit rating set by investment banks in

New York.

If this Commission, or any other utility commission in the United States, were to ever begin to set returns on equity based on credit standards, it would essentially be ceding its regulatory control to rating agencies which often, have substantial conflicts of interest. Furthermore, setting a return on equity to achieve a predetermined credit rating would, in my view, send a signal to utility executives that it is acceptable to take risks since the Commission is targeting a credit rating as opposed to granting the utility an OPPORTUNITY to earn its allowed rate of return.

Furthermore, I believe the Commission should examine the concept of exactly what Ms. Abbott is stating in her testimony. Ms. Abbott states that a 12.0% return on equity is needed in order for the utility to achieve a set credit rating in the marketplace. However, the cost of equity, on a pre-tax basis, is more than twice the cost of debt. Hence, Ms. Abbott is advocating that consumers pay higher rates to support an excessive return on equity so that the Company can achieve a lower cost of debt. Such a recommendation is similar to asking consumers to pay \$30,000 for a car that is worth \$15,000 so they can get a \$500 rebate from the manufacturer.

- Q, CAN YOU PROVIDE A NUMERICAL EXAMPLE TO SUPPORT
 YOUR CLAIM THAT CONSUMERS SHOULD NOT PAY FOR AN
 EXCESSIVE RETURN ON EQUITY TO JUSTIFY LOWER DEBT
 COSTS?
- 27 A. In the current case, the Company's cost of debt is 6.80%, its requested return 28 on equity is 12.0%, its equity ratio is 50.21%, and its rate base is about \$3.66 29 billion. Including income tax effects, for every 100 basis points in a higher

return on equity granted Tampa Electric in this case, consumers must pay approximately \$30 million more each year. However, if Tampa Electric experienced a decrease in its bond rating, the Company might pay an additional 50 basis point premium associated with a lower credit rating. The cost for an additional 50 basis points on the cost of debt for Tampa Electric would cost consumers an additional \$7.1 million. Hence, it is easy to see that Ms. Abbott's recommendation for consumers to pay a higher return on equity to obtain a lower cost of debt is simply illogical and would force Tampa Electric's customers to pay excessive, unjust rates for exactly the same service.

The reality of Ms. Abbott's recommendation is that the group that would benefit the most from a higher return on equity would be TECO executives and stockholders. Consumers, on the other hand, would suffer with unjustifiably higher rates to pay for an unreasonable return on equity.

Α.

Q. HOW DO YOU RECOMMEND THE COMMISSION TREAT THE TESTIMONY OF MS. ABBOTT?

In my opinion, I do not believe that consumers should pay for the testimony of Ms. Abbot. I have no issue at all with Tampa Electric absorbing Ms. Abbott's \$290,000 in fees for this case, but I do not agree with the Company seeking rate recovery of her fees. Ms. Abbott does not provide a rate of return nor a capital structure recommendation in this case. Instead, she simply supports the Company's requests. Of the \$290,000 in rate case fees requested for Ms. Abbott, the Company is also seeking \$20,000 for travel expenses. In my view, asking ratepayers to pay such huge consulting fees in today's dire economic conditions is simply wrong. The high flying days of excessive pay by Wall Street executives is, hopefully, behind us. Such rate case fees should

not be recovered from Tampa Electric customers who are struggling to make ends meet in very tough economic times.

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My recommendation is that the fees of Ms. Abbott be deducted from rate case expenses allowed for recovery by Tampa Electric in this proceeding.

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Q. DO YOU TAKE ISSUE WITH ANY OTHER RATE CASE EXPENSES REQUESTED BY TAMPA ELECTRIC IN THIS CASE?

Yes. According to item C-10 of the minimum filing requirements (MFRs), recovery of \$116,000 Tampa Electric is seeking "Analysis/Testimony/Discovery" of JM Cannell. According to this same MFR document, Ms. Cannell is to assist on the issue of "financial integrity." However, Ms. Cannell did not file any testimony. Furthermore, Ms. Abbott was retained by Tampa Electric for the same purpose of supporting the utility in regard to "financial integrity." Between Ms. Abbott and Ms. Cannell, Tampa Electric is seeking to recover \$406,000 from its customers to pay for its concern regarding "financial integrity." When one adds in the \$68,000 Tampa Electric is seeking for the testimony of Dr. Murry, the Company is seeking almost a half-million dollars from customers for Tampa Electric's and TECO Energy's chosen witnesses just to support TECO Energy's profit levels.

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I recommend to the Commission that is also disallow the \$116,000 in rate case expenses that Tampa Electric is seeking in this case to pay for the services of Ms. Cannell.

1		VI. <u>SUMMARY</u>
2		
3	Q.	MR. O'DONNELL, PLEASE SUMMARIZE YOUR TESTIMONY IN
4		THIS PROCEEDING.
5	A.	In the current proceeding, Tampa Electric is requesting this Commission to set
6		rates so that the Company can earn a 12.0% return on equity. In my opinion,
7		this requested return is excessive and cannot be supported by a logical
8		evaluation of current market returns as well as the returns that other state
9		regulators across the country are granting for their regulated utilities.
10		
11		I performed my cost of equity analysis using the DCF model as well as the
12		comparable earnings model. My conclusion is that 9.75% is the proper return
13		on equity to grant TECO in this proceeding.
14		
15		In evaluating the Company's requested capital structure, I found evidence of
16		double-leverage in Tampa Electric's capital structure, using parent (TECO
17		Energy) debt to create the appearance that the regulated utility's (Tampa
18		Electric) equity is significantly greater than it is in reality. As a result, I do not
19		believe the Company's requested capital structure is appropriate for use in this
20		proceeding. As an alternative, I recommend the Commission grant Tampa
21		Electric a total rate of return that is based on the capital structure of Tampa
22		Electric adjusted for the parent company's (TECO Energy) use of debt infused
23		as equity into Tampa Electric.
24		
25		I also recommend that the Commission deduct the fees of Company Witness
26		Abbott from rate case expenses associated in this proceeding. Ms. Abbott does
27		not provide any specific recommendations in this case. The sole purpose of
28		Ms. Abbott's testimony appears to be to support the testimony of other
29		Company witnesses. In my view, it is unconscionable to ask Florida 45 Testimony of Kevin W. O'Donnell, CFA (FRF)

1		ratepayers to pay \$290,000 in fees for Ms. Abbott's testimony that simply
2		supports positions taken by other company witnesses.
3		
4		Lastly, I recommend the Commission also disallow the \$116,000 in rate case
5		expenses requested by Tampa Electric for the service of JM Cannell. Ms
6		Cannell does not present any testimony in this proceeding nor does the
7		Company provide any evidence to support this requested rate case expense for
8		Ms. Cannell.
9		
10	Q.	DOES THIS COMPLETE YOUR TESTIMONY?
11	A.	Yes, it does.
12		

BY MR. WRIGHT:

2.2

Q Mr. O'Donnell, would you please summarize your testimony to the Commission.

A Yes, I will.

The purpose of my testimony before this Commission is to present my findings as to the proper overall rate of return for the Commission to employ in this proceeding as well as to review the testimonies of company Witnesses Murry and Abbott.

Return on equity. In determining the proper cost of equity to employ in this case, I used a discounted cash flow method as well as comparable earnings method. In the DCF analysis, I concluded in my prefiled testimony that the return on equity range proper for use in this proceeding was 9.25 percent to 10.25 percent. When I updated the analysis in preparation for this hearing, I found out, for the most part, the figures for the comparable group did not change. However, for TECO Energy the dividend yield rose, while the dividend growth rate expectations for the company actually fell. Hence, in sum, the return on equity range of 9.25 percent to 10.25 percent that I found appropriate using the DCF model in late November is still valid today.

Along with the DCF analysis, I also employed the comparable earnings method to assess the reasonableness of my DCF results. My conclusion using the comparable earnings method was that the return on equity appropriate for TECO was

in the range of 9.5 percent to 10.5 percent. Based on my analysis, I concluded that the proper rate of return on stockholder's equity to use in this proceeding is 9.75 percent.

Capital structure. I reviewed the company's requested capital structure for this proceeding and found that the capital structure did not reflect the manner in which the company financed its rate base investment. In my analysis of this issue, I concluded that Tampa Electric's capital structure was double leveraged. To eliminate the double leveraging, I adjusted the Tampa Electric 13-month average in capital structure as of December 31, 2009, to account for a proportionate amount of long-term debt in the parent company capital structure that should be treated as long-term debt and not common equity in the Tampa Electric capital structure.

Review of company Witness Murry's testimony. Doctor Murry and myself have some fundamental differences in the manner in which we have performed our respective analyses in this case. Doctor Murry did not perform a rate of return analysis for Tampa Electric's parent company, TECO Energy. I, on the other hand, did an analysis on the return on equity for TECO Energy. By not examining the return on equity of Tampa Electric's parent company, Doctor Murry has ignored the reality of the relationship between the subsidiary and the parent company.

Doctor Murry also used the capital asset pricing

model in his analysis. In his CAPM, Doctor Murry used a risk premium of 7.1 percent which, in my opinion, is unrealistic given the current financial climate. I also disagree with the use of the beta component in the CAPM. As I have shown in my testimony, a beta calculated on historical performance can produce nonsensical returns when a stock suddenly encounters severe financial problems.

Lastly, review of company Witness Abbott's testimony. In testimony, Ms. Abbott implies that Tampa Electric needs a certain rate of return on equity and capital structure in order to ensure the utility will have a specific credit rating. I disagree with such an assertion as doing so would send a signal to utility executives that risk taking is acceptable, since the Commission is targeting a set credit rating for the utility.

I have no problem whatsoever in Tampa Electric absorbing the cost of Ms. Abbott's testimony in this case. However, I do not believe it is appropriate for Tampa Electric to ask consumers to pay Ms. Abbott's \$290,000 fees in this case.

This completes my summary.

CHAIRMAN CARTER: Excellent timing.

MR. WRIGHT: Thank you, Mr. Chairman.

We tender Mr. O'Donnell for cross-examination.

CHAIRMAN CARTER: Ms. Christensen, you're recognized.

MS. CHRISTENSEN: Thank you. I just have, I think,

1	two brief inquiries, maybe a little bit more.
2	CROSS EXAMINATION
3	BY MS. CHRISTENSEN:
4	Q You stated that you had updated your analysis. I
5	just want to make sure that I understand your recommendation to
6	the Commission of 9.75 has not changed, is that correct?
7	A That's correct.
8	Q Okay. You also just addressed in your opening
9	statement that you believe Ms. Abbott's fee of \$290,000 should
10	not be allowed in rate case expense, is that correct?
11	A That's correct.
12	${f Q}$ Were you here when Ms. Abbott testified to her
13	previous fee arrangements for the Oklahoma case?
14	A No, but I have since heard some numbers regarding
15	that amount.
16	$oldsymbol{Q}$ Okay. Would you agree that if the Commission were to
17	determine that some fee for Ms. Abbott is reimbursable, that at
18	most it should be limited by what she received in the Oklahoma
19	case, which is approximately a \$4,000-a-month retainer and
20	approximately a \$20,000 fee for her testimony?
21	A I would agree that probably, in my opinion, would be
22	an upper limit.
23	MS. CHRISTENSEN: Okay. I have no further questions.
24	CHAIRMAN CARTER: Thank you.
25	Ms. Bradley.

1	MS. BRADLEY: No questions.	
2	CHAIRMAN CARTER: Thank you.	
3	Mr. Moyle.	
4	MR. MOYLE: Just a few, Mr. Chairman.	
5	CHAIRMAN CARTER: You're recognized.	
6	CROSS EXAMINATION	
7	BY MR. MOYLE:	
8	$oldsymbol{Q}$ Could I refer you to the Exhibit Number 4 of your	
9	direct testimony.	
10	CHAIRMAN CARTER: Is that KWO-4?	
11	MR. MOYLE: Yes, sir.	
12	BY MR. MOYLE:	
13	Q Page 1 of 1.	
14	A Yes, sir.	
15	${f Q}$ That exhibit did not change in the supplemental that	
16	you provided, correct?	
17	A Only to the extent that one company, UniSource, was	
18	restated by Value Line and they fell out of my comparable	
19	group. But other than that, no, I think all of those numbers	
20	should be the same. I haven't gone through and compared every	
21	single one, but they should be roughly the same.	
22	$oldsymbol{Q}$ And these companies represent the comparable group	
23	that you used for purposes of your calculation?	
24	A I'm sorry, can you repeat that?	
25	Q These companies represent the comparable group that	

1	you have used for the purposes of your calculations?	
2	A Yes.	
3	Q Other than a two-week period in September of 2008,	
4	are you aware of any of these companies having the inability to	
5	access the capital markets?	
6	A No.	
7	Q RRA, is that a reliable publication from your	
8	perspective?	
9	A Yes. I have definitely heard of them.	
10	Q Do you use them in terms of forming your opinions?	
11	$oldsymbol{\mathtt{A}}$ I have not in the past. I have been able to use	
12	other sources.	
13	$oldsymbol{Q}$ Okay. I was going to ask, if I could, show you an	
14	exhibit that staff put together yesterday. It is Exhibit 117,	
15	and I just want to confirm something or get your view on it. I	
16	think it's Page 7 of that exhibit.	
17	CHAIRMAN CARTER: You mean 117?	
18	MR. MOYLE: Yes. I'm sorry, it's Exhibit Number 117,	
19	which is staff's RRA late-filed exhibit.	
20	CHAIRMAN CARTER: What page are we on, Mr. Moyle?	
21	MR. MOYLE: It is Page 7 on my version. Before it	
22	there is a page there is a thing that says RRA in the	
23	right-hand corner, but it looks like Page 6 is in the left-hand	
24	corner.	
25	MR. BEASLEY: Mr. Chairman, I would object to this	

line of questioning as not relating to something contained in 1 Mr. O'Donnell's testimony. It's additional new testimony. 2 3 CHAIRMAN CARTER: Let's see where he's going with it first, okay? Just hold your objection. Let's just kind of see 4 5 where he's going with it, all right? MR. MOYLE: And I just have two questions. 6 7 BY MR. MOYLE: 8 With respect to the numbers in 2008, the common equity as a percentage of capital, is that number consistent 9 with your understanding of -- you're an expert, of equity 10 structures nationally? Do you see that at the bottom of the 11 12 page? 13 A 48.41 percent? 14 Yes, sir. Q 15 That is roughly approximate of what you see for A 16 utilities these days, yes. It's a little bit on the high end, 17 but it is within the ballpark. 18 MR. MOYLE: Okay. That's all I have, Mr. Chairman. 19 Thank you. 20 CHAIRMAN CARTER: Thank you. 21 MR. BEASLEY: Mr. Chairman, the concerns that we have 22 regarding Mr. O'Donnell's testimony are addressed in our 23 rebuttal testimony. In particular, the rebuttal testimony of 24 Doctor Murry beginning on Page 36, and consequently we will 25 rely on our rebuttal testimony in lieu of cross-examination.

1	CHAIRMAN CARTER: Thank you very kindly.
2	Commissioners? I will go to Commissioners, if
3	there is nothing from the bench right now, I will go to staff.
4	Staff, you're recognized.
5	MR. YOUNG: No questions.
6	CHAIRMAN CARTER: Anything further from the bench?
7	Okay.
8	Mr. Wright, redirect.
9	MR. WRIGHT: Thank you, Mr. Chairman. I just have
10	one question on redirect and it relates to Mr. Moyle's question
11	as to Page 7 of the Exhibit 117.
12	REDIRECT EXAMINATION
13	BY MR. WRIGHT:
14	Q Mr. O'Donnell, Mr. Moyle asked you about an equity
15	percentage at 48.41 percent. Is it your understanding that
16	that well, let me ask it this way. Do you know whether
17	would you interpret that to be the equity percent of investor
18	source capital or the equity percentage of all sources of
19	capital?
20	A I'm almost confident that that is only investor
21	source capital.
22	MR. WRIGHT: Thank you. And that is all the redirect
23	that I had, Mr. Chairman.
24	CHAIRMAN CARTER: Okay. Exhibits.
25	MR. WRIGHT: We would move 74 through 79, and 125.

1	CHAIRMAN CARTER: Any objection? Without objection,
2	show it done.
3	(Exhibit Numbers 74 through 79 and 125 admitted into
4	the record.)
5	CHAIRMAN CARTER: Okay. Thank you. You may excused
6	THE WITNESS: Thank you.
7	CHAIRMAN CARTER: Let's do this. Do we need to take
8	a moment for the company to get ready for rebuttal? Do you
9	guys need a minute?
10	MR. BEASLEY: We're ready to proceed.
11	CHAIRMAN CARTER: Okay. Let's roll. Call your
12	witness.
13	MR. BEASLEY: I call Doctor Murry.
14	CHAIRMAN CARTER: Donald A. Murry.
15	DONALD A. MURRY, Ph.D.
16	was called as a rebuttal witness on behalf of Tampa Electric
17	Company, and having been duly sworn, testified as follows:
18	DIRECT EXAMINATION
19	BY MR. BEASLEY:
20	$oldsymbol{Q}$ Doctor Murry, you have previously been sworn in this
21	proceeding, is that correct?
22	A Yes, I have.
23	$oldsymbol{Q}$ Doctor Murry, did you prepare and submit in this
24	proceeding a 46-page document entitled Rebuttal Testimony of
25	Donald A. Murry?

1	A I did.	
2	Q Do you any corrections to make to that testimony?	
3	A I have one number change.	
4	CHAIRMAN CARTER: Is your mike on, Doc? Now for the	
5	record, I'm sorry, just start over with that question just for	
6	record so we can get it on there.	
7	MR. BEASLEY: Yes, sir.	
8	BY MR. BEASLEY:	
9	Q Do you have any corrections to make to your rebuttal	
10	testimony?	
11	A I have one change. On Page 38, Line 2, there is a	
12	number at the end of the line and that number should be	
13	1.1 percent.	
14	Q And that's the only change to your testimony?	
15	$oldsymbol{\lambda}$ That's the only change, yes, sir.	
16	$oldsymbol{Q}$ If I were to ask you the questions contained in your	
17	rebuttal testimony, would your answers be the same as contained	
18	therein?	
19	A Yes, they would.	
20	MR. BEASLEY: Mr. Chairman, I would ask that Doctor	
21	Murry's rebuttal testimony be inserted into the record as	
22	though read.	
23	CHAIRMAN CARTER: The prefiled testimony of the	
24	witness will be inserted into the record as though read.	

TAMPA ELECTRIC COMPANY DOCKET NO. 080317-EI FILED: 12/17/08

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION 1 REBUTTAL TESTIMONY 2 OF 3 DR. DONALD A. MURRY, PH.D. 4 5 ON BEHALF OF TAMPA ELECTRIC COMPANY 6 7 Please state your name, business address, occupation, and Q. 8 employer. 9 My name is Donald A. Murry. My business address is 5555 A. 10 North Grand Blvd., Oklahoma City, Oklahoma 73112. 11 employed by C. H. Guernsey & Company as a Vice President 12 and Economist. 13 14 Did you previously submit direct testimony in this 15 Q. proceeding? 16 17 Yes. 18 Α. 19 What is the purpose of your rebuttal testimony? 20 Q. 21 My testimony is rebuttal testimony of the other three A. 22 witnesses that pre-filed cost of capital testimony in 23 24 this proceeding, namely Dr. J. Randall Woolridge, Mr. Kevin O'Donnell, and Mr. Tom Herndon. These witnesses 25

have a common fundamental flaw in their testimony; they 1 did not sufficiently adjust their testimonies for the 2 current financial market turmoil to compensate for the 3 changed and changing costs of common equity. 4 reason, I evaluated how the financial market turmoil would have affected their calculations if they had considered it in their testimonies. These witnesses 7 inadequately recognized the market changes, thereby 8 ignoring the Hope Natural Gas principle of determining 9 the alternative, competitive cost of investments 10 similar risk. Additionally, each of these witnesses 11 independently made methodological errors that resulted in 12 recommending a cost of common equity for Tampa Electric 13 proceeding that is lower than current, this in 14 alternative investments. 15

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Q. Have you prepared an exhibit supporting your rebuttal testimony?

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A. Yes I have. My Rebuttal Exhibit No.___ (DAM-2) was prepared under my direction and supervision. It consists of the following eight documents:

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Document No. 1 Historical Interest Rate Trends

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Document No. 2 Annual Yields of Baa-Rated Corporate

1	Document No. 3	2008 Ibbotson SBBI Valuation
2		Yearbook, Table 7-14: Size Effect
3		within Industries
4	Document No. 4	2008 Ibbotson SBBI Valuation
5		Yearbook, Chapter 4: CAPM Modified
6		for Firm Size
-	Document No. 5	
7	Document No. 5	
8		Comparison of As-Filed Growth Rates
9		to ValuePro Growth Rates
10	Document No. 6	Woolridge Electric Proxy Group,
11		Calculation of Discounted Cash Flow
12		Analysis
13	Document No. 7	Comparison Group of Kevin O'Donnell,
14		Comparison of DCF Results
15	Document No. 8	Comparable Electric Companies,
16		Updated Summary of Financial Analysis
17		
18	CURRENT MARKET CONDITIONS	5
19	Q. Can you characterize	e the salient changes to the financial
20	markets that Dr.	Woolridge, Mr. O'Donnell, and Mr.
21	Herndon have not ade	equately recognized?
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23	A. Yes. The recent a	nd ongoing breakdown of the U.S. and
24	global financial ma	rkets is of a magnitude unseen since
25	the 1930's. The i	mpacts of the breakdown include: the

meltdown of the housing and mortgage markets; significant slowdown in economic activity; a significant reduction in stock values - the index of S&P Electric Utilities is down 30 percent since June 30, significant increase in the cost of debt for corporations including utilities; unprecedented intervention by the Federal Reserve to increase liquidity in funding markets by hundreds of billions of dollars to stave off financial and economic catastrophe; the complete restructuring of investment banking industry; the an internationally coordinated emergency rate cut by the Federal Reserve on October 8th of 50 basis points to both the federal funds rate and the discount rate and on October 29th, additional 50 basis point reduction to both the federal funds rate and the discount rate; the nationalization of the cornerstones of the U.S. mortgage market, Fannie Mae and Freddie Mac; the bankruptcy (the largest in history) of Lehman Brothers, a major investment bank; billion bailout of Wall Street; the seizure or managed liquidation of several of the nation's largest banking institutions; and, the \$150 billion bailout of AIG, one of the nation's largest insurance companies.

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Q. Can you put the implications of these events into a broad perspective?

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1	A.	To put the magnitude of the calamity in perspective, it
2		is unclear, even after the extraordinary historic actions
3		taken by the Federal Reserve and U.S. Treasury, whether
4		such actions will be sufficient to restore confidence in
5		the financial markets and reestablish functional
6		efficiency in the near-term. Regardless, taken together,
7		these changing circumstances all point to current and
8		future stringent credit terms and increases in the cost
9		of debt and common equity. The current and forthcoming
10		markets are, and will be, structurally changed, and
11		undoubtedly, of higher risk for investors than the market
12		environment upon which Dr. Woolridge, Mr. O'Donnell, and
13		Mr. Herndon based their analyses and recommended returns.
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15	Q.	You mentioned "extraordinary" actions by the Federal

Reserve. To what actions were you referring?

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I was referring to actions that have occurred this fall, Α. including the following:

• On September 7th, through unprecedented interventions, the federal government effectively nationalized Fannie Mae and Freddie Mac in an attempt to strengthen the housing market and stabilize the financial system.

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September 14th, Federal Reserve the announced

initiatives to provide financial support and liquidity to the markets by expanding the collateral eligible for Primary Dealer Credit Facility and the Securities Lending Facility.

On September 16th, the Federal Reserve Board ("FRB") authorized the Federal Reserve Bank of New York to lend up to \$85 billion to AIG so it could sell certain parts of its businesses in an orderly fashion with less disruption to the economy. The amount for AIG was later increased an additional \$65 billion.

18th and 19th, the Federal September announced programs to inject hundreds of billions of dollars of liquidity into the financial system to alleviate pressures in the term funding markets.

• On September 21st, the FRB approved applications to allow Goldman Sachs and Morgan Stanley, both investment banks, to become bank holding companies.

• On September 22nd, the FRB announced the approval of a policy statement regarding "investments in banks and holding companies, minority interests, control" for purposes of the Bank Holding Company Act.

- On September 25th, the Federal Deposit Insurance Corporation ("FDIC") seized Washington Mutual Inc. ("WaMu"), the nation's largest savings and loan institution and sold its assets to J.P. Morgan. This was the largest bank seizure in U.S. history.
- On October 6th, the FRB announced it will pay interest on depository institutions' required and excess reserves and announced further substantial increases in the Term Auction Facility auctions. It also announced an exemption to allow limited bank purchases of assets from money market mutual funds.
- On October 8th, the Federal Open Market Committee ("FOMC") announced an emergency reduction in the federal funds rate of 50 basis points to 1.5 percent coordinated with other central banks. The Board of Governors approved a cut of 50 basis points in the discount rate to 1.75 percent. It was the first time in history that the FOMC coordinated a rate cut with other central banks.
- On October 29th, the FOMC lowered the federal funds rate an additional 50 basis points to 1.0 percent, and the Board of Governors lowered the discount rate an

additional 50 basis points to 1.25 percent. 1 November 25th, the FRB announced approval 3 American Express Company and American Express Travel 4 Related Services Company, Inc. to become bank holding 5 companies. 6 7 On November 23rd, the U.S. Treasury, the Federal 8 Reserve, and the FDIC issued a joint statement 9 announcing an agreement to provide Citigroup with 10 protection against unusually large losses on \$306 11 billion of loans and securities backed by residential 12 and commercial real estate and other such assets. 13 14 • On November 25th, the FRB announced the creation of the 15 Term Asset-Backed Securities Loan Facility under which 16 the Federal Reserve Bank of New York will lend up to 17 \$200 billion to facilitate the issuance of asset-backed 18 securities collateralized by student loans, auto loans, 19 credit card loans, and loan guarantees by the Small 20 Business Administration. 21 22 • Most recently, on November 26th, the FRB announced 23 approval for Bank of America to acquire Merrill Lynch & 24

Company.

Q. How have these efforts by the federal government affected the financial markets to date?

So far, the consequences have shown up primarily in the

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stabilization of the financial system (i.e. avoidance of complete collapse), and in providing more liquidity to the banking system and in lower costs for short-term investment vehicles and Treasury securities. A "flightto-quality" has lowered the yields on Treasury securities to historically low levels. For example, the yields on Treasury bills currently are below one-half of one percent (on December 9^{th} the Treasury sold \$30 billion of 4-week bills at zero percent interest for the first time ever) and the yield on the 30-year Treasury is 3.06 percent. Unfortunately, access to credit remains difficult for many borrowers and long-term corporate The average yield on rates have skyrocketed. corporate bonds for the week ending November 21st was 9.25 percent.

- Q. In your opinion, what is the significance of these events to this proceeding?
- A. Initially, and in the near term, the credit problems exacerbate capital formation, access to capital, and add

to the operating costs of utilities. For example, several major electric utilities have announced they are drawing down on lines of credit to have more cash on hand because of "uncertain market conditions". However, for determining the cost of common equity in this proceeding, significant events the and extraordinary actions undertaken by the federal government underscore increase in risk to participants in the capital markets. In just a few weeks, utilities' access to capital has become a significant risk from the standpoint of utility These events and actions highlight investors. increased risk to investors and demonstrate that the cost of permanent capital has risen. In an October 30, 2008 utility industry report, Sanford C. Bernstein & Co. analyst Hugh Wynne stated,

While the industry is hungry for cash, the costs of new debt issuance have increased markedly this year and spiked in the past month — potentially putting pressure on earnings until these higher capital costs can be recovered in future rate cases.¹

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Q. Can you explain further the relationship between the consequences of the government effort to increase liquidity in the short-term market and the cost of capital to utilities?

Hugh Wynne, "U.S. Utilities: Which Utilities Will Be Most Adversely Affected by the Credit Crisis," Sanford C. Bernstein & Co., LLC, October 30, 2008.

A. Long-term corporate bond rates, which are the competitive securities for utility bonds and common stock, have risen despite a drop in treasury yields. I have illustrated the recent changes between short-term and the long-term security costs in Document No. 1 of my rebuttal exhibit. This schedule clearly shows the changed relationship between long-term and short-term rates. As the graph in my schedule also shows, the spread between corporate bonds and 30-year U.S. Treasuries has approximately tripled since the beginning of the year.

Q. Although the cost of short-term debt has declined because of federal action, how has that affected the cost of permanent capital for electric utilities?

A. The decline in the cost of short-term debt has had no direct impact on electric utilities' cost of permanent capital. Instead, recent debt offerings by electric utilities reflect the higher capital costs of long-term securities. For example, on October 20th, Illinois Power issued \$400 million of 9.75 percent 10-year secured debt securities rated Baa3 by Moody's and BBB by Standard & Poor's. On October 16th, Pacific Gas and Electric offered \$600 million of 8.25 percent senior notes, due October 15, 2018, rated A3 by Moody's and BBB+ by Standard &

Poor's. On October 15th, Ohio Edison Co. issued \$275 million of 8.25 percent first mortgage bonds due October 15, 2038, rated BBB+ by Standard & Poor's and Baal by Moody's. On October 14th and 15th, PPL Electric Utilities Corp. entered into underwriting agreements consortium of banks for the sale of \$400 million of 7.125 percent senior secured bonds, due 2013 and rated A- by Standard & Poor's and А3 by Moody's. Corporate industrial bonds, rated BBB, are trading well over 9.00 These capital costs are significantly higher percent. than issues in previous months. Although these increased capital costs are obvious market signals, none of the testimonies that I am rebutting took them into account. The cost of these utility issues is consistent with the sharp increase in corporate bond rates illustrated previously in Document No. 1 of my rebuttal exhibit.

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Q. Did you put the current corporate bond rates into a historical prospective of interest rates?

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A. Yes, as I have illustrated in Document No. 2 of my rebuttal exhibit, the current corporate bond rates have returned to the levels that they were in the 1989-90 period.

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Q. How are the bond market rates relevant to the cost of 1 capital of Tampa Electric? 2 3 The interest rates of the BBB-rated, higher-cost bonds Α. 4 are relevant to the determination of the cost of equity 5 in this proceeding; Tampa Electric carries a Standard & 6 Poor's bond rating of BBB-, which is the bottom of the 7 investment grade range. Consequently, there is little 8 room for error regarding Tampa Electric's allowed return 9 on common equity and the resulting coverage ratios and 10 financial metrics. 11 12 13 Q. What is the relationship between this cost of recent debt issues and the cost of utilities' common stock? 14 1.5 Common stock is of higher risk and higher cost than debt 16 Α. instruments, which have contractual interest payments and 17 repayment of principal. A premium return over the cost 18 of a utility's debt is a measure of the cost of a 19 utility's common stock. The rising cost of debt puts 20 21 upward pressure on the cost of equities and reveals higher equity costs. 22 2.3 How will the market turmoil affect the 24 Q. common stock

equity investors of electric utilities?

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Α. The financial market turmoil and credit risks significant uncertainties that raise the perceived risks utility common stock investors. Notably, this increase in risk is behind the sharp decline in utility common equity prices and equity prices in general. course, these perceived investor risks come through the well-documented uncertainties in the financial markets, and this raises the cost of common equity. Additionally, the market events have created uncertainties in utility operations, which also increase the risks to equity For example, early in the market turmoil, spreads required by counterparties in the commodity markets increased, raising utilities' transaction costs. To equity investors, this is a risk of timely cost recovery. Entergy Services, Inc., for example, recognized this business risk in a policy announced on October 15th, as follows:

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In light of the current financial crisis, the potential effects on the overall economy, and the resulting uncertainty in our business and the related markets, all of which factors are likely to affect System resource needs and the evaluation of long-term resource acquisitions, Entergy Services Inc. ... is terminating all long-term resource procurements efforts at this time.²

 $^{^2}$ "Entergy halts buying long-term resources citing financial and economic uncertainty." http://www.snl.com, October 16, 2008.

Together, the market uncertainties and operational implications increase equity investor risks, and this, in turn, increases the cost of attracting and maintaining investment in utility common equity.

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Q. Do you expect longer-term consequences to the electric utility industry from the recent market turmoil?

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The utility sector is the third largest issuer of Α. debt behind governments and the finance industry. indicator that regulated utilities may be difficulty in raising permanent capital in the current markets is the drop in the volume of utility bond issuances. The volume has dropped by half, down from \$20.1 billion in the second quarter of 2008 to \$9.66 billion in the third quarter of 2008. The electric utility industry must raise capital to meet its service obligations. In a recent report by the NextGen Energy Council, dated September, 2008, and titled "Lights Out in 2009?" the authors noted, "...unless immediate substantial investments are made in baseload generation and transmission systems, the reliability jeopardy."3 country's electrical system will be in Additionally, electric utilities face increasing environmental compliance standards. renewable and

³ Lights Out in 2009? NextGen Energy Council, Management Information Systems, Inc., September 2008, Page 6.

Without an adequate allowed return that covers the serious risks facing a utility such as Tampa Electric and its investors, market conditions could undermine company's ability to finance its public service obligations at reasonable terms during a period essential infrastructure expansion.

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Q. Can you determine when investors' perceptions of risk will permit the price of utility common stock to return to levels that are closer to historical levels?

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Α. No. I think that the international financial markets and economies are currently unsettled, and it is too soon to predict future investor perceptions with any reliability. factors are still very significant market The level of confidence of borrowers and influencers. lenders is still not sufficient to increase trade, and all signs indicate that major world economies are in a recession. The outcomes of the federal programs to inject capital into banks or to backstop securities backed by non-performing mortgages and strengthen the balance sheets of the financial institutions are still uncertain. The internationalization of the financial crises may stifle foreign, as well as expatriate, capital from returning to the U. S. capital markets. These many

indeterminate factors affect equity investors' perceptions of risk, and this inevitably raises the cost of capital.

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IMPLICATIONS OF CURRENT MARKET CONDITIONS

Q. You stated that Dr. Woolridge, Mr. O'Donnell, and Mr. Herndon each missed the obvious signs that their recommended allowed returns were inadequate in the current market circumstances. Can you explain what you meant by that statement?

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The most obvious market signal that Dr. Woolridge's, Mr. O'Donnell's and Mr. Herndon's recommended allowed returns were inconsistent with current market conditions is the recent cost of long-term utility debt. As I stated previously, the coupon rates of recent electric utility generally have been issues approximately percent or more. Although the recent markets have been volatile, which makes a direct measure of the cost of common equity of utilities more difficult than in normal markets, the cost of these industrial and utility debt issues is a very reliable estimate of the cost of permanent utility capital. Surprisingly, none of these three cost capital witnesses of reported this fundamental, critical current market information. They apparently ignored it.

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Q. Why was the cost of these multiple utility bond issues important to Dr. Woolridge, Mr. O'Donnell, and Mr. Herndon?

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these debt issues are reliable market Α. The cost of the cost of permanent utility capital. estimates of Because common equity is relatively more risky than debt instruments, the cost of Tampa Electric's common equity must be somewhat greater than these debt costs. ignoring this current market information, each of these witnesses' recommended allowed returns were either less than the cost of debt, as in Mr. Herndon's case, or illogically, similar to the cost of debt, as in the cases of Dr. Woolridge and Mr. O'Donnell. These recommendations are so low that they do not pass the first test of the Hope and Bluefield standard of setting a return "commensurate with returns on investments in other enterprises having corresponding risks".

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REBUTTAL OF DR. J. RANDALL WOOLRIDGE

Q. You stated that Dr. Woolridge did not adequately address the changed market circumstances. Can you explain this statement?

Α. Dr. Woolridge prepared direct testimony that did not 1 adequately consider the consequences of the 2 financial and economic circumstances of the financial 3 market meltdown and the worldwide economic crises. 4 fact, significant portions of Dr. Woolridge's testimony 5 are virtually verbatim from previous rate cases in other 6 This only further indicates that he has not made 7 states. any special effort to address specific issues in this 8 docket. 9 10 How do you know that Dr. Woolridge did not adequately 11 Q. consider the consequences of the changed financial and 12 13 economic circumstances? 14 Although he dated his testimony November 26, 2008, the Α. 15 data that he used in his analysis primarily predate the 16 Updated data greatly alter the recent economic turmoil. 17 perspective, and I presume the conclusions, of 18 analysis. 19

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Q. Can you provide any specific instances Woolridge used data that predated the economic turmoil that might have altered the perspective of his analysis?

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Without having access to his work papers, Α. cannot

identify the data that he used at every stage of his analysis. However, from the data and statements provided in his testimony, I can identify a number of significant instances when he relied on data that predate economic turmoil. For example, at page 6, lines 11-12, stated, "Long-term capital cost rates for U. corporations are currently at their lowest level in more than four decades." This is a major predicate throughout his testimony, and it is factually, remarkably wrong. noted previously, the recent long-term bond rates have returned to levels where they were nearly two decades ago. Although he discussed risk premiums of common stock returns and government bond rates extensively, at place in Dr. Woolridge's testimony did he review consider the current utility market bond rates or current risk premiums. At several points in his testimony, the statements clearly represent an earlier period and are

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Q. Can you be more specific regarding some of the instances when Dr. Woolridge's statements indicate that he used information that is no longer relevant to this proceeding?

not relevant in this case.

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A. At several places in his testimony, his statements reveal

reflect clearly that they do not current market For example, at page 53, lines 18-19, he conditions. stated, "First as discussed above, current capital costs are low by historical standards, with interest rates at a low not seen since the 1960s." cyclical incredibly wrong and misleading in several ways. industrial and corporate interest rates are not "low by historical standards." Instead of being low, they have substantially increased. Second, calling the current liquidity crisis "cyclical" implies that it is a segment of a predictable trend. This is a grossly inadequate description of the unexpected, historic current market conditions. Third, despite extensive federal government efforts to provide liquidity to the credit markets, many corporations have found capital access very difficult and expensive.

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In yet another instance, at page 50, lines 14-16, when old study, he stated, discussing a nine-year implication of this development was that stock prices had increased higher than would be suggested historical relationship between valuation levels interest rates." This is an incredible statement light of the approximately 40 percent decline in common stock values over the past year; this statement

clearly from an earlier era. Similarly, he quoted a sixyear old McKinsey & Company study that applied to a much earlier, no longer relevant, economic period. He quoted from that study as follows:

We attribute this decline [in equity risk premiums] not to equities becoming less risky (the inflation-adjusted cost of equity has not changed) but to investors demanding higher returns in real terms on government bonds after the inflation shocks of the late 1970s and early 1980s. [Emphasis added.]

The conclusions in this citation, which obviously predates the 40 percent decline in common equity values over the past year, have no relevance to the common equities market of the past year. Dr. Woolridge has no analytical basis for using these outdated risk premiums to current Treasury rates as a current measure of the cost of common equity. From the start, his methodology has technical flaws.

Q. Can you be more specific regarding Dr. Woolridge's use of virtually verbatim text from previous rate cases that would indicate he has not sufficiently considered current market conditions in this docket?

Α. In previous testimonies, Dr. Woolridge has used Yes. virtually verbatim text regarding "Capital Costs Today's Markets," analysis of "Market-to-Book Ratios," "Economic Factors that have Affected the Cost of Equity for Public Utilities," and "Equity Risk Premiums." He filed these testimonies in October of 2006 and March of 2007. Obviously, market conditions have changed considerably since those dates. Dr. Woolridge's use of virtually verbatim analyses from earlier cases in regards to important issues in the determination of the current cost of equity for Tampa Electric is insufficient. He has adequately incorporated the impacts of the extraordinary current market conditions into his analysis.

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Q. Do you have any criticism of Dr. Woolridge's selection of his Electric Proxy Group as defined by his own selection criteria?

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A. Yes. Based on Dr. Woolridge's own selection criteria, he appeared to exclude four companies that he should have included and included one company that he should have excluded. He apparently erroneously left out Allegheny Energy, Portland General Electric Company, Sierra Pacific Resources, and Westar Energy, and selected Ameren.

⁴ For example, see "Application of Public Service Company of Oklahoma Corporation for an Adjustment in its Rates and Charges for Electric Service, Cause No. 200600285, filed March 2007, and Railroad Commission of Texas, Docket No. 9670, October 2006.

Why should he have included Allegheny Energy? Q. 1 2 Allegheny Energy appears to fit Dr. Woolridge's selection 3 Α. According to his source, AUS Utility Reports: 4 Investor's Edge, Allegheny Energy has 5 revenues of \$3.5 billion, and its regulated electric 6 revenues are 78 percent of operating revenues. 7 Standard & Poor's bond rating is BBB+ and Moody's bond 8 rating is Baa2. 9 10 Q. Portland General 11 Does Electric Company fit Dr. Woolridge's selection criteria? 12 13 Α. According to his source, AUS Utility Reports, 14 Portland General has revenues of \$1.8 billion of which 98 1.5 percent come from regulated electric utility operations. 16 Both Moody's and Standard & Poor's rate its bonds as 17 investment grade. 18 19 How does Sierra Pacific Resources fit his criteria? Q. 20 21 Sierra Pacific has operating revenues of \$3.5 billion of Α. 22 which 94 percent come from regulated electric utility 23 operations. According to AUS, Standard & Poor's rates 24

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its bonds BBB and Moody's rates them Baa3. I examined

the corporate credit ratings of Sierra Pacific, now NV Energy. Both Moody's and Standard & Poor's rate it less than investment grade.

Q. Did Dr. Woolridge overlook Westar Energy?

A. Yes. He apparently excluded it because his source, AUS

Utility Reports, incorrectly identified the ratio of regulated electric utility revenues of total revenues as 64 percent. Upon inspection of the latest Westar 10-Q, I measured it to be 89 percent.

Q. Why do you say that Dr. Woolridge should have excluded Ameren?

A. While AUS listed Ameren's bond rating as BBB (which is incorrect), Ameren's senior unsecured debt is BB+, below investment grade. Likewise, Moody's lists each of Ameren's regulated utility subsidiaries, Central Illinois Light Company, Central Illinois Public Service Company, and Illinois Power Company, at Bal, or below investment grade. This appears to be in violation of Dr. Woolridge's standard, at page 11, lines 3 and 4 of his direct testimony. He stated that his proxy group must have, "... an investment grade bond rating by Moody's and

Standard & Poor's." 1 2 Do you agree with Dr. Woolridge's recommendation for use 3 of an average historical capital structure? 5 Rather than using the capital structure expected to 6 Α. place during the period rates 7 set in this proceeding, Dr. Woolridge is recommending the average 8 capital structure from the years 2007 and 2008 9 (Woolridge, pg.12, line 19). Dr. Woolridge gives four 10 reasons why the average of the 2007 and 2008 capital 11 structures should be used: 12 13 1.) much more accurately reflects how the Company 14 has been financed in the past; 2) much more closely reflects the capitalizations of electric utility 15 companies; 3) does not include a number of uncertain 16 17 adjustments and equity injections, and; 4) much more reflects the company's capital structure as viewed 18 by investors (Woolridge, Pg.13, line 5). 19 20 21 However, upon close examination, Dr. Woolridge's reasoning is without merit. 22 23 is Dr. Woolridge's reasoning regarding the proper 24 Q. 25 capital structure without merit?

First, what is important is how the Company will finance Α. 1 the rate base during the period when rates will be in 2 effect, and not how it financed the rate base in the 3 Second, the Company's proposed capital structure 4 is reasonable both in relation to other electric utility 5 companies and in light of the increased risks associated 6 with the global financial crises. The equity ratios for 7 the proxy groups of electric utilities for 2007 and 2008 8 range up to 60.7 percent for Dr. Woolridge's proxy group 9 and up to 55.6 percent for my proxy group, indicating the 10 Company's proposed equity ratio falls within the range of 11 both proxy groups. 12

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Q. Does the literature for regulatory finance support your position?

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A. Yes. In a report on capital structure prepared by the Public Utility Research Center ("PURC") at the University of Florida for the Commission, Brigham, Gapenski, and Aberwald concluded:

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major conclusion is that capital decisions, within the range over which most utilities operate, have negligible effects on revenue requirements. Operating decisions, on the hand, do have major other can and effects.

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Therefore, capital structure decisions should focused on insuring that financial constraints do not hinder operations.⁵

Therefore, as described in the PURC report, it is important that capital structure constraints financial flexibility. This is especially important during times of both financial market stress and access to capital constraints as is being currently experienced. Consequently, Dr. Woolridge's recommendation regarding the Company's proposed capital structure lacks merit, is ill advised, and should be rejected.

- Q. Ιn addition of to Dr. Woolridge's use outdated information because of the changing market circumstances, do you have any more technical concerns with his prefiled testimony?
- Yes, I do. Among these concerns are his use of geometric Α. rather than arithmetic averages to represent expected returns, his miscomprehension of the importance of the size adjustment in a CAPM analysis, his misrepresentation of the market growth rates, and internally inconsistent, contradictory positions regarding market volatility and

Brigham, Gapenski, and Aberwald, "Effects of Capital Structure on Utilities' Costs of Capital and Revenue Requirements, Public Utility Research Center, University of Florida, 1986.

risk. He also incorrectly interpreted several aspects of my testimony.

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Q. What is wrong with using geometric means when calculating risk premiums, as Dr. Woolridge did in his testimony?

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Although geometric means are appropriate growth measures A. when determining the necessary rate of growth from one level to another, Dr. Woolridge is wrong to use it to represent investor expectations. The arithmetic average is the unbiased measure of the expected value of repeated observations of a random variable: this is similar to the investors' expectations of future returns. words, an arithmetic average is an approximation of the probability distribution of return expectations investors. However, the geometric average is the single constant rate measuring the difference in the actual returns over a period of time. This is obviously not the same thing as the returns that investors would expect when evaluating a prospective investment. Consequently, because he averaged these biased geometric mean estimates into his risk premium calculations, his entire risk premium analysis is biased and not useful for determining the cost of capital of a utility for purposes of ratemaking. In the same vein, at page 76, lines 13 to

15, he incorrectly criticized my use of the arithmetic mean in my CAPM analysis for precisely the same reason.

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Q. Was Dr. Woolridge correct when he stated that a size adjustment was inappropriate for a CAPM analysis?

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Α. In fact, I was surprised that he would make this No. assertion after my explanation in my direct testimony, at page 55, line 11 to page 58, line 12, and additionally, my citation of some of the extensive literature regarding the empirical findings of a size bias in the CAPM. light of the more recent findings regarding CAPM size bias, I was also surprised that Dr. Woolridge would cite Annie Wong's 1993 article from the Midwest Journal of Finance. She reported in this article that she failed to find a size bias in utilities. Document No. 3 of my rebuttal exhibit shows a table from Ibbotson verifying that more recent, reputable empirical studies show that smaller utilities generally earn returns on the order of 3.02 percent higher than larger utilities. These higher returns reflect the higher risk associated with smaller firms relative to larger firms. As I stated in my direct testimony, I applied the size adjustment as estimated by in а manner consistent with, Ibbotson's recommendation for a CAPM analysis of an electric utility

to compensate for the bias inherent in this method. As an illustration that this CAPM size adjustment applies to calculations of cost of equity of regulated utilities, I have included, as Document No. 4 of my rebuttal exhibit, the example calculation from Ibbotson's empirical work showing how to apply the size adjustment in a CAPM calculation for an electric utility. stated in my direct testimony, this is the size adjustment method that I followed.

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Q. Dr. Woolridge claimed that you adjusted your cost of capital recommendation for flotation and market pressure.
Is this correct?

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Α. In fact, at page 29, line 21, and page 30, line 22, I specifically stated that I did not apply these adjustments in my analysis. Dr. Woolridge apparently took my testimony out of context. Ιn mу testimony, I pointed out the importance of understanding the theoretical basis of the DCF methodology and noted that it produces a marginal cost of capital estimate. That is, it produces a marginal cost rather than an average estimate of the cost of capital. This becomes critically important when applying the DCF in a situation such as determining the cost of capital for setting

future utility rates. In my testimony, I noted that many analysts commonly apply such factors as flotation and market pressure adjustments in a real word situation to compensate, at least in part, for the marginal cost nature of the DCF. I did not apply such factors in my analysis, as I explained in my direct testimony; however, I took into account the theoretical, marginal cost basis of the DCF methodology.

Q. What is wrong with the growth rates Dr. Woolridge used in his DCF model?

A. His growth rate value of 4.5 percent for his comparable companies in Exhibit JRW-10, page 1 of 6, is low, especially when compared to other growth rates available to him for these companies. In fact, the growth rates that he used in his DCF are lower than the growth rates posted for the same companies on a website for which Dr. Woolridge identifies that he is the managing director, www.valuepro.net.⁶

Q. How do the growth rates reported in the website, www.valuepro.net, compare to the growth rates for Dr. Woolridge's comparable companies?

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A. As illustrated in Document No. 5 of my rebuttal exhibit,

⁶ Dr. Woolridge states in Appendix A of his direct testimony that he is "a founder and a managing director of www.valuepro.net - stock valuation [sic] website."

the growth rates of nine of his thirteen comparable companies, as posted on this website, are higher than the growth rates that Dr. Woolridge used in his DCF analysis of these companies. Specifically, as my rebuttal exhibit document shows, the growth rates that he used in his DCF analysis average 4.5 percent. By comparison, the www.valuepro.net website, for which Dr. Woolridge is the managing director, reports average earnings growth rates for these same companies of 6.4 percent.

Q. Did you analyze how the growth rates in Dr. Woolridge's website, www.valuepro.net, would change his DCF calculation if he had used them instead of the ones that he used in his direct testimony?

A. Yes. I took the current dividend yields he filed in Exhibit JRW-10, page 2 of 6, and combined them with the www.valuepro.net growth rates. By only changing the growth rates, his DCF common stock equity results, as shown in Document No. 6 of my rebuttal exhibit, would have been 11.9 percent.

Q. How did he change his growth rate calculation methodology?

- In previous cases (Texas Railroad Commission, Docket No. Α. 1 9670, Kentucky PSC Case No. 2006-00464, and OCC Cause No. 2 200600285), Dr. Woolridge selected YAHOO! 3 Reuters, and Zack's as the sources for his "Analysts 4 Projected EPS Growth Rate Estimates". In this case, he 5 used only Zack's and chose Bloomberg instead of the other 6 two. In addition, Dr. Woolridge left out the calculation 7 of a mean average growth as he did in previous cases. If 8 he had done that calculation in this case, his average 9 growth would be higher. The average for Zacks is 6.93 10 11 percent, and the average for Bloomberg is 9.48 percent; both are significantly higher than the 6.13 percent he 12 reported on Exhibit JRW-10, page 5 of 6. 13
 - Q. Please explain what you meant when you said Dr. Woolridge's analysis of market volatility and risk premiums was internally inconsistent and contradictory.

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A. On page 9, line 10 of his testimony, Dr. Woolridge states, "To assess the impact of recent market volatility on the equity risk premium and the equity cost rate, one must look to the volatility of stocks relative to bonds."

Dr. Woolridge then presents a study he conducted that concludes, "Current market conditions suggest that stock volatility is high relative to bonds." (Woolridge, pg.

10, line 9) However, in various other places in his testimony, he contradicts this conclusion regarding common stock volatility and states that risk premiums have narrowed, and capital costs have declined. on Page 9, line 1 of his testimony, example, Woolridge says, "In sum, the relatively low interest rates in today's market as well as the lower risk premiums required by investors indicate that capital costs for U.S. companies are the lowest in decades." In a similar vein, on page 48, line 1, Dr. Woolridge states, "As discussed above in the development of the expected market return, stock prices are relatively high at the present time in relation to earnings and dividends, and interest rates are relatively low." In this statement, Dr. Woolridge has the current relationship between common equity values, which have declined considerably, and debt

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Q. How do Dr. Woolridge's misperceptions of current market conditions appear to affect his conclusions?

costs, which have increased sharply, exactly backwards.

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A. Dr. Woolridge's risk premium and CAPM analysis, and consequently, his resulting conclusions, are out of touch with current market realities. First, as cited previously, interest rates for corporations, including

utilities, have risen substantially. Second, prices have fallen dramatically, indicating that the cost of capital for the market, in general, and for utilities, in particular, has increased, not decreased. Third, Dr. Woolridge stated that he determined in his own study that the volatility of stocks has increased relative to bonds; this indicates a higher risk premium for stocks relative to bonds. Finally, comparing Dr. Woolridge's expected market return of 8.90 percent (Woolridge, pg.47, line 16) to the current yield on 30-year Treasury bonds percent as of 12/4/08), which is Dr. Woolridge's usual practice, (Woolridge, pg. 49, line 8) indicates a risk premium well above the 4.56 percent risk premium used in his CAPM analysis. Consequently, Dr. Woolridge's CAPM analysis is unsound, does not reflect current market conditions, and should be ignored for the purpose of setting the required return on equity in this docket.

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REBUTTAL OF MR. KEVIN O'DONNELL

Q. What issues in Florida Retail Federation Witness Kevin O'Donnell's testimony do you wish to rebut?

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A. Mr. O'Donnell's DCF analysis contains several serious, mechanical flaws. In addition, he incorrectly implies that actual allowed returns are valid estimates of

current costs of capital.

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Q. Do you have any comments regarding Mr. O'Donnell's Discounted Cash Flow analysis?

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Although in some critical methodological areas Mr. Α. O'Donnell and I agree, I believe that his analytical missteps have affected his analysis. For example, he correctly relies primarily on financial analysts' forecasts as representative of the information considered by potential investors and as the growth rates in his DCF Furthermore, although Mr. O'Donnell considered the recent precipitous drop in values common stock, he nevertheless has placed too emphasis on historical financial performance. also used a methodologically flawed "plowback" method for estimating growth rates. These misspecifications of his methodology are probably the reason he misinterpreted my comments concerning use of the DCF.

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Q. Why should Mr. O'Donnell have placed less emphasis on historical growth rates in his DCF model?

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A. Schedule KWO-2 shows that many of the historical growth rates used by Mr. O'Donnell in his DCF analysis are

either equal to zero or negative. The average of the "Historical Growth Rate" in that schedule is These growth rates cannot represent the comparative cost of capital of a healthy, comparable electric utility, should be the standard for determining prospective, future cost of capital of Tampa Electric. Comparing the negative historical average growth rates to the forecasted growth rate of +7.3 percent, in his schedule KWO-2, shows how misleading using the historical rates can be relative to the returns investors actually expect.

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Q. What is wrong with the "plowback" method for calculating the growth rate used by Mr. O'Donnell?

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The projected plowback method used by Mr. O'Donnell Α. illogically requires him to estimate the future returns on equity of his comparable companies in order calculate a growth rate of earnings, which in turn, he uses to estimate future returns for his comparable companies. With this circularity, the plowback method cannot be a serious estimate of investors' earnings growth expectations. Ιt is little more than an incomplete exercise in arithmetic. Additionally, O'Donnell neglected to include growth from external

financing through the issuance of new equity. So, in addition to using a flawed method, he understated investors' expectations of returns.

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Q. Did you perform a DCF calculation using the source data that both you and Mr. O'Donnell consider relevant?

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Yes. I used the current dividend yields and both the Α. Value Line EPS growth rates and the Schwab Forecasted growth rates from Mr. O'Donnell's Schedule KWO-1 calculate a DCF cost of common equity that should have been available to him. I have shown these calculations in Document No. 7 of my rebuttal exhibit. schedule illustrates, the average current yield for Mr. O'Donnell's comparable group is 5.4 percent. The average Value Line EPS growth rate is 5.6 percent, and the average Schwab forecasted growth rate is 7.4 percent. The recalculation of Mr. O'Donnell's DCF estimate, using a market yield and these two growth rates from his Schedule KWO-1, produces a result ranging from 11.0 to 12.8 percent for his comparable group. Notably, the midpoint of these calculations is 11.9 percent.

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Q. You stated that because of his misspecifications of the DCF, Mr. O'Donnell misrepresented some of your comments

about the DCF methodology. Is that correct?

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Α. Yes. At page 35, lines 7 to 17, Mr. O'Donnell commented on my reference to many analysts applying a cushion to calculated DCF results because it produces a marginal cost measure of the cost of capital. By definition, a marginal cost measure of the cost of capital will not be sufficient to attract capital much of the time. Only an average cost of capital would provide a reasonable assurance. I explained in my direct testimony that many analysts apply specific adjustments to account for the marginal cost measure of the DCF. Consequently, O'Donnell's comments about "cushions" in the market place and for school boards, local governments, and retailers are not only analytically wrong, but also border on being silly.

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Q. How did Mr. O'Donnell incorrectly apply authorized returns in his analysis?

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A. At page 21, he presented a table of authorized returns on common equity. These decisions cover the period from June 15, 2007 to July 23, 2008. Of course, the data used in these decisions all predate the decisions themselves by a number of months. Consequently, these decisions

cannot represent current market conditions, and they are not relevant to this proceeding.

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REBUTTAL OF MR. TOM HERNDON

Q. You stated that Mr. Herndon did not recognize current market conditions in recommending his allowed return for Tampa Electric in this proceeding. Can you explain that statement?

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Α. Mr. Herndon recommended an allowed return of 7.50 percent for Tampa Electric, which is less than the current cost of utility debt. This non-market recommended allowed return is so low relative to the costs of competitive, alternative investments in current markets that it has no value in this proceeding. It fails to meet the most basic economic principles as expressed in the regulatory standards set out in the U.S. Supreme Court's Hope and Bluefield cases. As I explained earlier and in my direct testimony, from page 9, line 18 to page 10 line 6, the Hope and Bluefield decisions specified that an allowed return should be equal to returns on alternative investments in companies of equivalent risk.

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Q. Can you understand from his testimony why Mr. Herndon would recommend an allowed return on common equity for

Tampa Electric that is so much below current market costs?

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Α. No, I cannot. I can determine that he is factually wrong regarding his assumption about current cost of corporate debt and the level of interest rates. For example, from page 6, line 23 to page 7, line 1, he stated, "...interest rates are at an all time low and no sign of increases are in sight." As I discussed earlier, the current market facts directly contradict this statement. Furthermore, as I stated, a number of utilities have reported credit difficulties contrary to his statement that "...raising debt and equity capital should not be overly problematical" (Page 8, lines 15-16). Another instance when Mr. Herndon indicated that he ignored the current cost of corporate debt and equity appears on page 15, lines 10-18 of his direct testimony. He illogically used the current 30-year bond rate as a basis to justify his recommended allowed return of 7.5 percent for the higher Electric. risk common stock equity Tampa of Additionally, I believe that Mr. Herndon may have misinterpreted the nature of the return on common stock equity for Tampa Electric in this proceeding, and this could account for why he recommended a return that was even less than current debt costs.

[&]quot;Direct Testimony of Tom Herndon, page 15, lines 11 through 18.

Q. How did Mr. Herndon misinterpret the nature of the return on common stock equity?

A. At page 14, lines 18 to 22, he stated,

The reason that I believe that a fair rate of return would use 7.5% as the midpoint is that for investors to reach the 8+% target requires a considerable equity allocation - typically over 60% of the portfolio would have to be invested in equities.

This is revealing at several levels. First, a return on a mixed portfolio of debt and equity investments is not a relevant standard for setting an allowed return on common equity for a utility in ratemaking. Mr. Herndon appears to accept a 7.5 percent return as reasonable for a mixed portfolio, but this is not a reasonable return for the high-risk common equity component of that portfolio. Second, he also recognizes that in order to achieve that return in current markets, a major portion of that portfolio must be invested in equities earning a higher return than the average return for the portfolio. Stated differently, Mr. Herndon is admitting that a 7.5 percent return on common equity is lower than the expected common equity return in the portfolio. Portfolio returns are not appropriate for estimating the cost of common equity

of a utility and is supported by neither regulatory
precedent, nor financial theory. For these reasons
alone, Mr. Herndon's recommended allowed return on common
equity for Tampa Electric must be disregarded.

Q. Did Mr. Herndon assume other factors affecting Tampa Electric's cost of common stock that you believe might have caused him to reach such a low return?

A. Yes. I believe that his discussion of the risks to Tampa Electric on pages 9 to 13 is very misleading. It does not accurately represent the risks of an electric utility, in general, and Tampa Electric, in particular. For example, virtually all electric utilities have adjustment clauses for the recovery of some costs. These clauses do not set Tampa Electric apart from other utilities considered by investors. While adjustment clauses are common and essential for utilities operating in a volatile market environment, they do not remove all of the risks of revenue recovery.

Q. Do the testimonies of Dr. Woolridge, Mr. O'Donnell and Mr. Herndon cause you to recede from your recommended allowed return on equity of 12.0 percent for Tampa Electric?

Not in the least. In fact, current market conditions, overlooked by these witnesses, further bolster the case for the equity return I have recommended. The marketbased calculations have generally increased since I made my recommendation, because of the rising costs of capital to private corporations. Some of these increases were very significant. I have illustrated these changes in Document No. 8 of my rebuttal exhibit. This document takes into account more current market prices, which responses to current market conditions, plus the current financial information that

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Given the market turmoil and the increase in market-based Q. cost of capital estimates, are you recommending a higher allowed return than you previously recommended?

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At this time, I am not recommending an increase in Α. my recommended allowed return of 12.0 percent because of continued market uncertainties. Although the risks to investors obviously have increased precipitously market prices demonstrate this, markets remain unsettled and the effectiveness and speed of the federal programs and market adjustments are still very problematical. Nonetheless, these calculations emphasize that

market uncertainties cannot be ignored in a serious analysis of market costs. They show the market misconceptions and analytical inadequacies of intervener witnesses. Finally, these results prove that the recommended allowed returns of Dr. Woolridge, O'Donnell and Mr. Herndon, which are, at best, only equivalent with debt costs, are not realistic measures of the cost of common equity of Tampa Electric.

Does this complete your rebuttal testimony? Q.

Yes. It does. Α.

BY MR. BEASLEY:

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Q Doctor Murry, did you prepare and submit the exhibit that accompanies your rebuttal testimony that has been marked Exhibit Number 81 for the hearing, and it's also identified as Exhibit DAM-2?

- A I did.
- **Q** Do you have any corrections to make to that exhibit?
- **A** I do not.
 - **Q** Thank you. Do you have a summary of your testimony?
 - A I do.
 - Q Please summarize your rebuttal.
 - A Good afternoon, Commissioners.

My rebuttal testimony responds to arguments made by OPC's, the Florida Retail Federation's, and FIPUG's witnesses who prefiled cost of capital testimony in this proceeding:

Namely, Doctor J. Randall Woolridge, Mr. Kevin O'Donnell, and Mr. Tom Herndon.

Aside from basic flaws in their overall analysis which I address, these witnesses have not sufficiently addressed the current financial market turmoil to compensate for the change in changing costs of common equity. They all ignore the Hope Natural Gas principle of determining the alternative competitive cost of investments of similar risk.

Additionally, each of these witnesses independently made methodological errors that resulted in recommending a cost

of common equity for Tampa Electric in this proceeding that is substantially lower than current alternative investments. The testimonies of Doctor Woolridge, Mr. O'Donnell, and Mr. Herndon did not cause me to change my recommended allowed return on equity of 12 percent for Tampa Electric. In fact, current market conditions further bolster the case for the equity return I've recommended.

The market-based calculations have generally increased since I made my recommendation because of the rising cost of capital to corporations. Some of these increases are very significant. My rebuttal testimony considers more current market prices which represent investor responses to current market conditions plus the current financial information that is available to investors.

In spite of the market turmoil and the increase in the market-based cost of capital estimates, I'm not recommending an increase in my recommended allowed return of 12 percent because of continued market uncertainties. Although the risks to investors obviously have increased precipitously and market prices demonstrate this, markets remain unsettled and the effectiveness and speed of the federal programs and market adjustments are still very problematical. Nonetheless, these calculations emphasize that these market uncertainties cannot be ignored in a serious analysis of market costs. They show the market misconceptions and analytical inadequacies of

1 the intervenor witnesses. 2 Finally, these results prove that the recommended 3 allowed returns of Doctor Woolridge, Mr. O'Donnell, and Mr. 4 Herndon, which are at best only equivalent with the current debt costs, are not realistic measures of the cost of common 5 6 equity of Tampa Electric. 7 This concludes my summary. 8 MR. BEASLEY: We tender Doctor Murry for questions. 9 CHAIRMAN CARTER: Thank you. Excellent timing. Ms. Christensen, you're recognized. 10 11 MS. CHRISTENSEN: No questions. 12 CHAIRMAN CARTER: Mr. Moyle. 13 MR. MOYLE: I just have one question. 14 CROSS EXAMINATION 15 BY MR. MOYLE: 16 Doctor Murry, you would agree that the ROE trend 17 nationally has trended downward, would you not, in recent 18 years? 19 The actual market return? 20 No, I'm sorry, the ROEs. The ROEs awarded throughout 21 the country in the last few years, that they have trended 22 downward. 23 Well, one has to define that. And I'm not quite sure

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I understand the nature of the question. I cannot answer that

directly positively because I know in the last three years the

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average of the RRA, and we talked about those here, the average 1 2 of the RRA allowed returns has been approximately flat, 3 although there has been a slight increase during that period of 4 corporate bond rates. 5 MR. MOYLE: May I approach, Mr. Chairman? Sure. 6 CHAIRMAN CARTER: 7 MR. MOYLE: I just want to refer you to the Staff 8 Exhibit 117. 9 CHAIRMAN CARTER: Okay. 10 MR. MOYLE: Page 4. THE WITNESS: And as I think I just indicated, in the 11 12 last three years even this shows that they have been approximately flat. In 2006 they were 1039; in 2007 they were 13 1030; and in 2008 they are 1042. During that same period, the 14 15 corporate BAA bond rates increased slightly in that three-year 16 period. BY MR. MOYLE: 17 Okay. So the statement -- you would disagree 18 O 19 slightly with their statement set forth in here where they say 20 that since 1990 authorized ROEs have generally trended 21 downward, you would be in disagreement? No, I'm not in disagreement with that. Since 1990 22 Α 23 they have trended downward, because 1990 was a period of high 24 debt cost.

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That's all I have.

MR. MOYLE:

1	CHAIRMAN CARTER: Thank you.
2	Mr. Wright. I was looking at my sheet here.
3	MR. WRIGHT: Thank you, Mr. Chairman.
4	CHAIRMAN CARTER: I was looking at my paper here.
5	MR. WRIGHT: Thank you, Mr. Chairman. I just have a
6	very few questions of Doctor Murry.
7	CHAIRMAN CARTER: You're recognized.
8	CROSS EXAMINATION
9	BY MR. WRIGHT:
10	Q Good afternoon, Doctor Murry.
11	A Good afternoon.
12	${f Q}$ If I could just ask you to look at Document Number 8,
13	which is on Bates-stamped Page 56 of your rebuttal exhibit,
14	please.
15	A What page did you say it is in my rebuttal?
16	Q Bates-stamped 56 on the bottom, Document Number 8 of
17	your rebuttal.
18	A I don't have a Bates-stamped documents, I'm sorry.
19	$oldsymbol{Q}$ Oh. Well, it is Document Number 8 of your Exhibit
20	DAM-2.
21	A Oh, Document 8 of my exhibit.
22	Q Yes, sir.
23	A I have that, yes, sir.
24	CHAIRMAN CARTER: For the record now, so we will all
25	be on one page, you are saying this is DAM-2, is that what you
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1 said? 2 MR. WRIGHT: Yes, sir. And it is probably Exhibit 81. 3 4 CHAIRMAN CARTER: Okay. MR. WRIGHT: Yes, it is 81. 5 You may proceed. Thank you. 6 CHAIRMAN CARTER: 7 Thank you, Mr. Chairman. MR. WRIGHT: BY MR. WRIGHT: 8 Just a quick predicate question regarding this table. 9 Do I understand correctly that this table is essentially 10 comparable to what was Document Number 22 in your prefiled 11 12 direct testimony? 13 Yes, as I understand the question. Thank you. In your CAPM, Capital Asset Pricing Model 14 Q 15 results in your rebuttal exhibit, Document Number 8, what did you use as a Treasury Bond rate as the predicate risk free rate 16 17 for the analysis? I think that is the 20-year bond rate in that 18 A 19 analysis. 20 Q Do you recall what the interest rate was on that? 21 You are talking about associated with Document 8? A 22 Yes, sir. Q 23 I don't believe I have that with me. There was, of A

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course, a decline in that period between the time I wrote the

original testimony, I guess, in July and the rebuttal in

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1	August. There would have been a decline in the federal rate
2	because of the Federal Reserve activities, but I don't think I
3	have that number.
4	MR. WRIGHT: Mr. Chairman, I'd like to request a
5	late-filed exhibit that just shows that number. It would be
6	comparable to a value shown in Document 20 of his direct
7	testimony.
8	CHAIRMAN CARTER: Mr. Willis, any problem with that?
9	Oh, sorry.
10	MR. BEASLEY: No, sir, we do not.
11	CHAIRMAN CARTER: Okay. Commissioners, for our
12	records that would be Number 126, late-filed.
13	MR. WRIGHT: Simply, I would call it using the same
14	nomenclature as in his direct testimony, Risk-free Return used
15	in CAPM Analysis, Rebuttal.
16	THE WITNESS: To make sure I understand the request,
17	you're asking for the rate that was used, and that came from
18	the Federal Reserve. I think it's H-15, I think they call it,
19	and I can provide the document that was the original document
20	that that came from.
21	MR. WRIGHT: That's fine. Just so we are completely
22	clear, on Document 20 of your direct exhibit you have a column
23	headed risk free return, and in your direct testimony that
24	number was 4.60 percent.

THE WITNESS: That is correct, and that came from

1	that same source.
2	MR. WRIGHT: Yes, sir. And I'm asking for the number
3	that went into producing the results shown in your Document
4	Number 8.
5	THE WITNESS: Yes, sir. I just want to make sure I
6	am providing what you are asking for. I will provide the
7	Federal Reserve document.
8	MR. WRIGHT: And I appreciate it.
9	And, Mr. Chairman, with that, that is all the cross I
10	have. Thank you.
11	CHAIRMAN CARTER: See how easy that was.
12	MR. WRIGHT: Yes, sir.
13	CHAIRMAN CARTER: Commissioners, I'm going to go to
14	Mr. Twomey before going to the bench.
15	Mr. Twomey, any questions?
16	MR. TWOMEY: I have no questions, Mr. Chairman.
17	CHAIRMAN CARTER: Commissioners, any questions from
18	the bench?
19	Staff?
20	MR. YOUNG: No questions. I think you might have
21	overlooked Ms. Bradley, though.
22	CHAIRMAN CARTER: Oh, I did? I'm sorry, Ms. Bradley.
23	MS. BRADLEY: That's okay. I had stepped out for a
24	second, but I have no questions. Thank you.
25	CHAIRMAN CARTER: Thank you.

1	Redirect.
2	MR. BEASLEY: No redirect, sir.
3	CHAIRMAN CARTER: No redirect. Okay.
4	And the exhibit is Number 81. Any objection?
5	Without objection, show it done.
6	(Exhibit Number 81 admitted into the record.)
7	MR. BEASLEY: Thank you.
8	CHAIRMAN CARTER: And we will be admitting as a
9	late-filed as requested by Mr. Wright, Exhibit Number 126.
10	Without objection, show it done.
11	MR. WILLIS: Mr. Chairman, I have one item I would
12	like to address.
13	CHAIRMAN CARTER: You're recognized.
14	MR. WILLIS: Mr. Chairman, last night we posed an
15	objection to questions that were posed by Ms. Bradley for the
16	Attorney General's Office. She proffered three questions and
17	answers. That material had not gone into the record because
18	our objection was sustained. However, at this juncture we are
19	withdrawing our objection.
20	CHAIRMAN CARTER: Okay. See; I love it when a plan
21	comes together. Thank you so kindly. Duly noted for the
22	record.
23	Anything else from any of the parties?
24	Let me just say, Commissioners, and to the parties
25	here that for such a time as this the grand architect of the

universe saw fit to bring us all together, and I think that we rose to the occasion. There was some highs, there were some lows, but through it all we all kept focused on the process, and that's what is most important about is that I think I talked to Mr. Wright is that I don't know if you remember, I grew up, or I used to be a member of the Jaycees, and part of our pledge was that we are a nation of laws, not of men. And I think that the founding fathers expounded that far better than I ever could.

But I do want to thank all of the lawyers from all sides, both from the company, from the intervenors. I want to thank the witnesses, those who traveled from near and far.

Some we made accommodations for because we are not so draconian that we don't understand that people have family and other commitments. I want to thank you for respecting the admonitions of the Chair and working together with us.

To my Commissioners, my fellow Commissioners, I want to thank you for giving up your time to just kind of plod on through it and do what we needed to do without breaks. Mr.

Moyle may have coined a phrase about a biological break, but I do appreciate you going above and beyond the call of duty.

Staff, are there any final matters? I know we need to get our schedule, so you're recognized.

MR. YOUNG: Yes, sir. Before we get to the schedule, sir, staff would recommend that all late-filed exhibits be due

on February 5th, 2009.

CHAIRMAN CARTER: Any problem with that from any of the parties? And the late-filed exhibits will be -- they are admitted, so we don't have to go through the whole process of whether or not they are objected to. We have already talked about those, so does that give anybody heartburn about the date?

You may proceed.

MR. YOUNG: All right. Giving some critical dates. Hearing transcripts were daily copies. All parties should have received them. Briefs are due on February 17th, 2009. Staff recommendation on revenue requirements and rate issues are due -- will be filed on March 5th, 2009. Post-hearing agenda on March 17th, 2009. Recommendation on rate design issues will be on March 26th, 2009. Post-hearing agenda on April 7th, 2009, and the order will be issued on April 27th, 2009.

CHAIRMAN CARTER: And before staff finishes, let me just say to the parties, again, Commissioner Argenziano, I like your bang for the buck, but certainly the bang for the buck composite exhibit, as soon as possible let's get that and share that among the parties. Staff, get yours to the parties. You parties get yours to each other, and get it to us, and we will review that. But I do want to make sure that everyone knows it, so I don't want anybody to be surprised or anything like that. So let's try to work within the schedule that we have

got with those dates and all like that. I do want to make sure that everyone gets it. Ms. Christensen. MS. CHRISTENSEN: Just one notation on the late-filed exhibits. I have no objection to them coming into the record assuming that they are what was described here today, but if something were to be in them that was outside of what I think the parameters of what --CHAIRMAN CARTER: Your objection will be preserved. MS. CHRISTENSEN: Okay. CHAIRMAN CARTER: No problem. Anything else for the good of the order? MR. YOUNG: No, sir. CHAIRMAN CARTER: With that, we are adjourned. (The hearing concluded at 1:25 p.m.)

1 2 STATE OF FLORIDA 3 CERTIFICATE OF REPORTER 4 COUNTY OF LEON 5 I, JANE FAUROT, RPR, Chief, Hearing Reporter Services 6 Section, FPSC Division of Commission Clerk, do hereby certify that the foregoing proceeding was heard at the time and place 7 herein stated. 8 IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this 9 transcript constitutes a true transcription of my notes of said 10 proceedings. 11 I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative 12 or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in 13 the action. 14 DATED THIS 30th day of January, 2009. 15 16 ANE FAUROT, RPR 17 Official FPSC Hearings Reporter (850) 413-673218 19 20 21 22 23 24