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Witness: James H. Vander Weide
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Case No. ER-2011-0004
Date Testimony Prepared: April 2011

Before the Public Service Commission of the State of Missouri

Surrebuttal Testimony

of

James H. Vander Weide, Ph.D.

April 2011

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DR. JAMES H. VANDER WEIDE
ON BEHALF OF
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION

SURREBUTTAL TESTIMONY
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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.

A. My name is James H. Vander Weide. I am Research Professor of Finance and Economics at Duke University, the Fuqua School of Business. I am also President of Financial Strategy Associates, a firm that provides strategic and financial consulting services to business clients. My business address is 3606 Stoneybrook Drive, Durham, North Carolina 27705.

Q. ARE YOU THE SAME JAMES H. VANDER WEIDE WHO PROVIDED DIRECT AND REBUTTAL TESTIMONY BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION ("COMMISSION") IN THIS PROCEEDING?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. I have been asked by The Empire District Electric Company ("Empire" or "the Company") to review the rebuttal testimony filed in this proceeding by the Staff of the Commission ("Staff").

Q. WHAT TOPICS DO YOU ADDRESS IN YOUR SURREBUTTAL TESTIMONY?

A. I address Staff's rebuttal comments regarding: (1) my comparable companies; (2) DCF growth rates; (3) the use of forecasted interest rates; (4) updated DCF results; and (5) my risk premium studies.

Q. IS THERE ANYTHING IN THE STAFF'S REBUTTAL TESTIMONY THAT WOULD CAUSE YOU TO CHANGE YOUR RECOMMENDED 10.6 PERCENT COST OF EQUITY FOR EMPIRE?

A. No. After reviewing the Staff rebuttal testimony, I continue to recommend that Empire be allowed an opportunity to earn a return on equity of 10.6 percent.

II. COMPARABLE COMPANIES

Q. WHY DO ECONOMISTS ESTIMATE A COMPANY'S COST OF EQUITY FROM COMPARABLE COMPANY DATA RATHER THAN SOLELY FROM MARKET DATA FOR THE COMPANY OF INTEREST?

A. Economists estimate a company's cost of equity from market data for comparable companies because the result of applying cost of equity methods such as the discounted cash flow ("DCF"), risk premium, and Capital Asset Pricing Model ("CAPM") to a single company is highly uncertain. However, as I explain in my rebuttal testimony, the uncertainty in estimating the cost of equity by applying cost of equity models to a single company can be significantly reduced by applying cost of equity models to a relatively large group of comparable risk companies. Intuitively, any over- and under-estimate of the cost of equity that arises from the application of cost of equity methods to a single company is averaged out by applying the methods to a larger group of comparable risk companies.

Q. WHAT PROXY GROUP OF ELECTRIC UTILITIES DO YOU USE FOR THE PURPOSE OF ESTIMATING EMPIRE'S COST OF EQUITY?

A. I use the group of twenty electric utilities shown in Schedule JVW-1 of my direct testimony.

Q. WHAT CRITERIA DO YOU USE TO SELECT PROXY COMPANIES?

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

Q. DOES STAFF AGREE WITH YOUR COMPARABLE COMPANY SELECTION CRITERIA?

A. No. Staff claims that I should have required that my comparable companies have at least seventy percent of revenues from regulated electric operations and be included in the Edison Electric Institute's ("EEI's") regulated utility category (Staff Rebuttal at 8).

Q. WHY DOES STAFF BELIEVE THAT THE CRITERION THAT COMPARABLE COMPANIES HAVE AT LEAST SEVENTY PERCENT REVENUES FROM REGULATED ELECTRIC OPERATIONS IS IMPORTANT?

A. Staff believes that this criterion is important because, in its opinion, the objective is to select a comparable group of "pure play" electric utilities:

> The Staff believes the objective of selecting a comparable group is to find companies that are as "pure play" as possible. "Pure play" means that the comparable company is confined, as much as possible, to the operation that is the subject of the cost-of capital study. (Staff Rebuttal at 11.)

Q. DO YOU AGREE WITH STAFF'S ASSERTION THAT THE PURPOSE OF COMPARABLE COMPANY SELECTION CRITERIA IS TO FIND COMPANIES THAT ARE AS "PURE PLAY" AS POSSIBLE?

A. No. The purpose of comparable company selection criteria is to select the largest possible group of comparable risk companies that have sufficient data to estimate the cost of equity. The emphasis on comparable risk is important because investors require the same rate of return on investments in the target company as on other investments of comparable risk. The emphasis on having as large a proxy group as possible is important because, as discussed above, the uncertainty of the results from applying cost of equity methods to a small group of companies can be reduced by applying cost of equity methods to a relatively large group of comparable risk companies.

Q. DOES STAFF PROVIDE ANY EVIDENCE THAT ELECTRIC UTILITIES WITH LESS THAN SEVENTY PERCENT REVENUES FROM REGULATED ELECTRIC OPERATIONS ARE MORE RISKY THAN ELECTRIC UTILITIES WITH GREATER THAN SEVENTY PERCENT REVENUES FROM REGULATED ELECTRIC OPERATIONS?

A. No.

Q. DO YOU PROVIDE EVIDENCE IN YOUR REBUTTAL TESTIMONY THAT THE VALUE LINE ELECTRIC UTILITIES WITH LESS THAN SEVENTY PERCENT REVENUES FROM REGULATED ELECTRIC OPERATIONS, IN FACT, HAVE APPROXIMATELY THE SAME RISK AS THE VALUE LINE

ELECTRIC UTILITIES WITH GREATER THAN SEVENTY PERCENT REVENUES FROM REGULATED ELECTRIC OPERATIONS?

A. Yes. I demonstrate in my rebuttal testimony that the electric utilities that Staff excludes because they have less than seventy percent revenues from regulated electric operations have the same average risk, as measured by Value Line Safety Rank and Standard & Poor's bond ratings, as those companies that Staff includes because they have greater than seventy percent revenues from regulated electric operations (see Vander Weide Rebuttal at 6 and Rebuttal Schedule JVW-2).

Q. STAFF ALSO CLAIMS THAT YOU SHOULD HAVE EXCLUDED ELECTRIC UTILITIES THAT EEI CLASSIFIES AS "MOSTLY REGULATED" RATHER THAN AS "REGULATED."[1] DO YOU PROVIDE EVIDENCE IN YOUR REBUTTAL TESTIMONY REGARDING THE RELATIVE RISKS OF EEI'S "MOSTLY REGULATED" AND "REGULATED" ELECTRIC UTILITY COMPANIES?

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1 As described in my rebuttal testimony, EEI classifies its electric utility members into three groups based on its estimate of the percentage of a company's total assets that are regulated. The three groups include: (1) "regulated" utilities--regulated assets greater than 80 percent of total assets; (2) "mostly regulated"--regulated assets between 50 percent and 80 percent of total assets; and (3) "diversified"--regulated assets less than 50 percent of total assets. Both with regard to Staff's requirement that its proxy group have at least seventy percent revenues from regulated electric operations and be classified as "regulated" by EEI, Staff fails to recognize that it is quite difficult to quantify the percentage of a company's business that is "regulated." Ideally, one would measure percent regulated versus percent non-regulated based on the market values of a company's regulated and non-regulated businesses. However, since a company's individual business segments are not market traded, there is no market value for these business segments. Although an analyst might attempt to quantify "percent regulated" and "percent unregulated" using accounting variables such as assets or revenues as a substitute for market values, these accounting categories are imperfect because the accounting for regulated assets and revenues is likely not comparable from one company to another, and accounting values are imperfect indicators of market values.

A. Yes. I demonstrate in my rebuttal testimony that the electric utilities in EEI's "mostly regulated" category have the same average Value Line Safety Rank and Standard & Poor's bond rating as the electric utilities in EEI's "regulated" category (Vander Weide at 7 and Rebuttal Schedule JVW-1).

Q. HOW DOES THE AVERAGE RISK OF YOUR COMPARABLE GROUP OF TWENTY ELECTRIC UTILITIES COMPARE TO THE AVERAGE RISK OF STAFF'S PROXY GROUP OF TEN ELECTRIC UTILITIES?

A. As I discuss in my rebuttal testimony, my comparable group of twenty electric utilities has the same investment risk as Staff's proxy group of ten electric utilities. For example, the average S&P bond rating for both my large proxy electric group and Staff's smaller group of electric companies is BBB+, and the average Value Line Safety Rank for both groups is 2.

Q. WHAT CONCLUSION DO YOU DRAW FROM THE EVIDENCE THAT STAFF'S ADDITIONAL SELECTION CRITERIA RELATING TO PERCENT OF REGULATED ELECTRIC REVENUES AND EEI CATEGORY DO NOT REDUCE THE RISK OF STAFF'S PROXY GROUP COMPARED TO YOUR COMPARABLE GROUP?

A. I conclude that the Commission should rely on my proxy group to estimate Empire's cost of equity. As I have demonstrated, my proxy group has similar investment risk, but includes a significantly larger sample of companies than Staff's proxy group. Since one can obtain more accurate estimates of the cost of equity by using a larger sample of comparable risk companies, the Commission should rely on my proxy companies to estimate Empire's cost of equity.

III. DCF MODEL GROWTH RATE

Q. THE DCF COST OF EQUITY DEPENDS ON ESTIMATES OF THE DIVIDEND YIELD AND INVESTORS' GROWTH EXPECTATIONS. HOW DO YOU ESTIMATE INVESTORS' GROWTH EXPECTATIONS IN YOUR DCF ANALYSES?

A. I use the average analysts' estimates of future earnings per share ("EPS") growth reported by I/B/E/S Thomson Reuters.

Q. WHY DO YOU USE THE AVERAGE ANALYSTS' EPS GROWTH RATE FORECASTS REPORTED BY I/B/E/S THOMSON REUTERS?

A. I use the I/B/E/S growth forecasts because my studies indicate that the analysts' growth forecasts are more highly correlated with stock prices than other indicators of future growth. This result is consistent with the hypothesis that investors use analysts' growth forecasts in making stock buy and sell decisions.

Q. DOES STAFF AGREE WITH YOUR USE OF THE AVERAGE ANALYSTS' EPS GROWTH FORECAST IN THE DCF MODEL AS A PROXY FOR INVESTORS' GROWTH EXPECTATIONS?

A. No. Staff argues that the average analysts' growth forecast is unsustainable in the long run (Staff Rebuttal at 9).

Q. WHAT IS STAFF'S ESTIMATE OF THE LONG RUN SUSTAINABLE GROWTH RATE FOR ELECTRIC UTILITIES?

A. Staff claims that the long run sustainable growth rate for electric utilities is currently 3.5 percent. Staff arrives at its estimate of long-term growth by

examining data on the rolling ten-year average growth rates in DPS, EPS, and BPS for Central region electric utilities from 1968 through 1999.

Q. DO YOU AGREE WITH STAFF'S RELIANCE ON THE ROLLING TEN-YEAR AVERAGE GROWTH RATES IN DPS, EPS, AND BPS FOR CENTRAL REGION ELECTRIC UTILITIES FOR THE YEARS 1968 TO 1999 TO ESTIMATE INVESTORS' EXPECTATIONS OF LONG RUN GROWTH IN THE DCF MODEL?

A. No. As discussed above and in my direct and rebuttal testimonies, the DCF model requires the growth forecasts of investors, and my studies indicate that investors use the analysts' EPS growth forecasts to forecast long-run future growth in the DCF model. In addition, historical growth rates are strongly influenced by accounting adjustments and one-time write-offs that do not relate to a company's expected future growth.

Q. DOES STAFF PROVIDE ANY EVIDENCE THAT INVESTORS SHARE ITS VIEW OF THE LONG RUN SUSTAINABLE GROWTH FOR ELECTRIC UTILITIES?

A. No. Staff simply states its own opinion regarding long-run utility growth and ignores the evidence that utility stock prices are highly correlated with analysts' EPS growth rates.

Q. DOES THE DCF MODEL REQUIRE THE GROWTH EXPECTATIONS OF INVESTORS OR STAFF'S ESTIMATE OF LONG RUN SUSTAINABLE GROWTH?

A. The DCF model requires the growth expectations of investors rather than Staff's estimate of long run sustainable growth. Since investors' growth rates

determine stock prices, if Staff believes it should use a sustainable growth rate that is less than investors' growth expectations, for consistency, Staff should also reduce the stock price in its DCF model.

Q. DO YOU HAVE EVIDENCE THAT INVESTORS USE THE ANALYSTS' GROWTH FORECASTS IN MAKING STOCK BUY AND SELL DECISIONS?

A. Yes. I report such evidence in my direct testimony at pages 25 - 26.

Q. WHAT CONCLUSIONS DO YOU DRAW FROM THE EVIDENCE THAT INVESTORS USE THE ANALYSTS' GROWTH FORECASTS IN MAKING STOCK BUY AND SELL DECISIONS?

A. I conclude that the analysts' growth forecasts used in my DCF analyses are reasonable estimates of investors' long run growth expectations. In consequence, the Commission should rely on my DCF results rather than Staff's DCF results in estimating Empire's cost of equity.

IV. FORECASTED INTEREST RATES

Q. YOUR RISK PREMIUM APPROACHES REQUIRE AN ESTIMATE OF THE YIELD TO MATURITY ON A-RATED UTILITY BONDS, AND YOUR CAPM APPROACHES REQUIRE AN ESTIMATE OF THE YIELD TO MATURITY ON LONG-TERM TREASURY BONDS. HOW DO YOU ESTIMATE THESE YIELDS TO MATURITY IN THIS PROCEEDING?

A. I estimate these yields to maturity using forecasted interest rates on A-rated utility bonds and long-term Treasury bonds.

Q. DOES STAFF AGREE WITH YOUR USE OF FORECASTED INTEREST RATES TO ESTIMATE THE INTEREST RATE COMPONENT OF YOUR RISK PREMIUM AND CAPM METHODS?

A. No. Staff claims that my use of forecasted interest rates in this proceeding: (1) is unnecessary because current bond yields already reflect investors' expectations of future interest rates; and (2) is inconsistent with my use of current stock prices in my DCF approach (Staff Rebuttal at 5).

Q. DO CURRENT BOND YIELDS ALREADY "REFLECT INVESTORS' EXPECTATIONS CONCERNING FUTURE INTEREST RATES"?

A. I am uncertain what Staff means by the word "reflect" in the context of its statement (see Staff Rebuttal at 5). However, if Staff is using the word "reflect" to mean that the current yield on a twenty-year bond is the best forecast of the yield on twenty-year bonds issued one year from now, then Staff's statement is undoubtedly incorrect. For example, if an investor purchases a twenty-year bond on January 1, 2011, the yield on the bond must be approximately equal to the expected yield on a sequence of one-year bonds purchased on January 1 of each year from 2011 to 2031. However, if the investor purchases a twenty-year bond on January 1, 2012, the yield on that bond must be approximately equal to the expected yield on a sequence of one-year bonds purchased on January 1 of each year from 2012 to 2032. Because the two bonds do not cover the same time periods, the yield on the twenty-year bond purchased in 2011 is not the best forecast of the yield on the twenty-year bond purchased in 2012.

Q. IS THE USE OF FORECASTED INTEREST RATES IN YOUR RISK PREMIUM STUDIES INCONSISTENT WITH YOUR USE OF CURRENT STOCK PRICES IN YOUR DCF APPROACH?

A. No. Although one could, in principle, forecast the DCF cost of equity, such a forecast would require not only a forecast of future stock prices, but also a forecast of future dividends and future growth rates as of a future point in time. I do not know of any source for obtaining such data. In contrast, sources such as Blue Chip, Bloomberg, and Value Line are available to obtain forecasted interest rate data.

Q. STAFF RECALCULATES COST OF EQUITY ESTIMATES FOR YOUR RISK PREMIUM AND CAPM METHODS USING HISTORICAL INTEREST RATES AT JUNE 2010. DOES STAFF ALSO PROVIDE COST OF EQUITY ESTIMATES FOR THESE MODELS USING FEBRUARY 2011 DATA, AS THEY DID IN UPDATING DCF COST OF EQUITY RESULTS?

A. No.

Q. HOW DO INTEREST RATES AT FEBRUARY 2011 COMPARE TO INTEREST RATES AT JUNE 2010?

A. The average yield on A-rated utility bonds at February 2011 is 5.68 percent, compared to an average yield of 5.46 percent in June 2010. The average yield on 20-year Treasury bonds in February 2011 is 4.42 percent, compared to an average yield of 3.95 percent in June 2010.

V. STAFF'S UPDATED DCF RESULTS FOR VANDER WEIDE PROXY COMPANIES

Q. STAFF PRESENTS A DCF COST OF EQUITY BASED ON DATA THROUGH FEBRUARY 2011 USING THE PROXY GROUP IN YOUR DIRECT TESTIMONY, BUT ELIMINATING FOUR COMPANIES THAT ARE INVOLVED IN MERGER ACTIVITY, INCLUDING DUKE ENERGY,

PROGRESS ENERGY, NORTHEAST UTILITIES, AND NSTAR. DOES STAFF CORRECTLY REPRESENT YOUR PROXY COMPANY SELECTION CRITERIA RELATING TO COMPANIES INVOLVED IN MERGER ACTIVITY?

A. No. As stated in my direct testimony, I include all companies that "are not the subject of a merger offer that has not been completed." (Vander Weide direct at 27.) The electric utilities that fail to satisfy this criterion are Progress Energy and NSTAR.

Q. WHY DO YOU ELIMINATE COMPANIES THAT ARE THE SUBJECT OF A MERGER OFFER THAT HAS NOT BEEN COMPLETED?

A. A merger announcement generally increases the target company's stock price, but not the acquiring company's stock price. Analysts' growth forecasts for the target company, on the other hand, are necessarily related to the company as it currently exists. The use of a stock price that includes the growth-enhancing prospects of potential mergers in conjunction with growth forecasts that do not include the growth-enhancing prospects of potential mergers produces DCF results that tend to distort a company's cost of equity.

Q. ARE THERE ANY OTHER PROBLEMS WITH STAFF'S UPDATED DCF ANALYSIS?

A. Yes. Staff should have eliminated one outlier result equal to 5.9 percent, a result which is below the average 6.1 percent BBB-rated utility bond yield in

February 2011.[2] Because stocks are more risky than bonds, a DCF result which is less than the debt yield cannot be considered to be reliable.

Q. STAFF REPORTS AN UPDATED MARKET-WEIGHTED AVERAGE DCF RESULT EQUAL TO 10.0 PERCENT AND AN UPDATED SIMPLE AVERAGE DCF RESULT EQUAL TO 10.6 PERCENT. WHAT UPDATED DCF RESULT SHOULD STAFF HAVE OBTAINED?

A. Staff should have reported an updated DCF result equal to 10.6 percent on a market-weighted basis and 10.9 percent on a simple average basis (see Surrebuttal Schedule JVW-1).

Q. IN YOUR REBUTTAL TESTIMONY, YOU NOTE THAT THE COMMISSION STATED A PREFERENCE TO USE HISTORICAL GDP GROWTH FROM 1929 THROUGH 2008 PLUS AN INFLATION FACTOR TO DERIVE AN EXPECTED LONG-TERM ECONOMY GROWTH RATE OF 6.0 PERCENT. WHAT UPDATED MULTI-STAGE DCF RESULT WOULD STAFF HAVE OBTAINED IF IT HAD USED THE COMMISSION'S 6.0 PERCENT LONG-TERM GROWTH RATE RATHER THAN ITS OWN 3.5 PERCENT LONG-RUN GROWTH RATE?

A. The Staff would obtain an updated multi-stage DCF result of 10.7 percent (see Surrebuttal Schedule JVW-2).

VI. RISK PREMIUM STUDIES

Q. STAFF ALSO CRITICIZES THE COMPANIES INCLUDED IN YOUR EX ANTE AND EX POST RISK PREMIUM STUDIES. WITH RESPECT TO

[2] Staff's work papers show a result for Exelon equal to 6.5 percent. However, an error in the spreadsheet produced an incorrect result.

YOUR EX ANTE RISK PREMIUM ANALYSIS, STAFF ALLEGES THAT YOU MISTAKENLY INCLUDED RELIANT ENERGY IN YOUR ANALYSIS (STAFF REBUTTAL AT 12). IS STAFF CORRECT?

A. No. In Appendix 3, I state that I eliminate Reliant Energy (which was one of the Moody's electric utilities that formed my ex ante utility group) from my ex ante risk premium analysis because it divested its utility operations. However, in making this statement I intended to convey the information that I eliminate Reliant Energy from my analysis only after Reliant had divested its utility operations as a result of the restructuring of the electric utility industry in Texas in 2002. Reliant Energy is properly in my analysis until mid-2002 because it had substantial traditional utility operations until that time.

Q. STAFF ALSO ALLEGES THAT THE RESULTS OF YOUR EX ANTE RISK PREMIUM ANALYSIS WOULD BE TWENTY-TWO BASIS POINTS LOWER IF RELIANT WERE ELIMINATED FROM YOUR GROUP. IS STAFF CORRECT?

A. No. Reliant, one of a group of twenty-two companies in my analysis, is in my study for only thirty-four periods out of the 130 months of my study at June 2010. The ex ante risk premium estimate of the cost of equity, 10.9 percent, is unchanged if Reliant is not included in the group.

Q. WITH RESPECT TO YOUR EX POST RISK PREMIUM ANALYSIS, STAFF ALLEGES THAT YOUR ANALYSIS INAPPROPRIATELY INCLUDES AES AND NRG. DOES YOUR EX POST ANALYSIS INCLUDE DATA ON AES AND NRG?

A. No. As described in my direct testimony, Exhibit JVW-5 and Appendix 4, my ex post risk premium analysis is based on data for the historical Standard & Poor's Utilities Index for the period 1937 through 2001, and thereafter on data for the publicly-traded electric utilities included in the Edison Electric Institute index, the EEI Stock Index. Neither AES nor NRG is among the electric utilities included in the historical Standard & Poor's Utilities Index in the period 1937 – 2001, and neither company is included in the EEI Stock Index.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes, it does.

SURREBUTTAL SCHEDULE JVW-1
CORRECTED STAFF UPDATED DISCOUNTED CASH FLOW RESULTS

LINE NO.	COMPANY	D_0	P_0	GROWTH	COST OF EQUITY
1	Dominion Resources	0.458	43.532	6.82%	11.4%
2	Duke Energy	0.245	17.762	4.67%	10.6%
3	Consol. Edison	0.600	49.410	4.18%	9.4%
4	Hawaiian Elec.	0.310	23.883	7.00%	12.8%
5	Alliant Energy	0.425	37.430	5.38%	10.1%
6	NextEra Energy	0.500	53.043	5.79%	9.9%
7	Northeast Utilities	0.275	32.481	7.95%	11.6%
8	PG&E Corp.	0.455	46.810	6.21%	10.5%
9	Pinnacle West Capital	0.525	41.372	6.15%	11.8%
10	Portland General	0.260	22.355	5.89%	11.0%
11	SCANA Corp.	0.485	41.202	4.72%	9.7%
12	Southern Co.	0.455	37.917	5.23%	10.4%
13	TECO Energy	0.205	17.927	6.67%	11.8%
14	UIL Holdings	0.432	30.337	3.17%	9.2%
15	Wisconsin Energy	0.520	59.488	8.07%	11.3%
16	Westar Energy	0.320	25.468	7.86%	13.4%
17	Xcel Energy Inc.	0.253	23.648	6.07%	10.7%
18	Market-weighted Average				10.6%
19	Average				10.9%

Notes: Data are from Staff Rebuttal Work Papers. Updated data for Duke Energy and Northeast Utilities are from Thomson Reuters.

d_0 = Most recent quarterly dividend.

d_1, d_2, d_3, d_4 = Next four quarterly dividends, calculated by multiplying the last four quarterly dividends per Value Line by the factor (1 + g).

P_0 = Average of the monthly high and low stock prices during the three months ending February 2011 per Thomson Reuters.

g = I/B/E/S forecast of future earnings growth February 2011 from Thomson Reuters.

k = Cost of equity using the quarterly version of the DCF model.

$$k = \frac{d_1(1+k)^{.75} + d_2(1+k)^{.50} + d_3(1+k)^{.25} + d_4}{P_0} + g$$

SURREBUTTAL SCHEDULE JVW-2
UPDATED MULTI-STAGE DCF RESULTS
USING THE COMMISSION LONG-TERM GROWTH RATE

COMPANY	STOCK PRICE	FIRST-STAGE GROWTH	IRR	DIVIDEND	TERMINAL GROWTH
Dominion Resources	43.532	6.82%	10.8%	1.83	6.0%
Duke Energy	17.762	4.67%	11.2%	0.98	
Consol. Edison	49.410	4.18%	10.4%	2.40	
Exelon Corp.	41.837	0.76%	9.3%	2.10	
Hawaiian Elec.	23.883	7.00%	12.0%	1.24	
Alliant Energy	37.430	5.38%	10.6%	1.70	
NextEra Energy	53.043	5.79%	9.9%	2.00	
Northeast Utilities	32.481	7.95%	10.3%	1.10	
PG&E Corp.	46.810	6.21%	10.2%	1.82	
Pinnacle West Capital	41.372	6.15%	11.4%	2.10	
Portland General	22.355	5.89%	10.9%	1.04	
SCANA Corp.	41.202	4.72%	10.5%	1.94	
Southern Co.	37.917	5.23%	10.8%	1.82	
TECO Energy	17.927	6.67%	11.1%	0.82	
UIL Holdings	30.337	3.17%	10.7%	1.73	
Wisconsin Energy	59.488	8.07%	10.5%	2.08	
Westar Energy	25.468	7.86%	12.2%	1.28	
Xcel Energy Inc.	23.648	6.07%	10.6%	1.01	
Average			10.7%		

Notes: = Data from Staff work papers per Thomson Reuters.
Dividend = Most recent annualized dividend.
Price = Average of the monthly high and low stock prices during the three months ending February 2011 per Thomson Reuters
First-stage Growth = I/B/E/S forecast of future earnings growth February 2011 from Thomson Reuters
Terminal Growth = Estimate of long-term GDP growth over the period 1929 – 2008 per Commission Report and Order in ER 2010-0036, May 28, 2010, para. 15.

AFFIDAVIT OF JAMES H. VANDER WEIDE

STATE OF NORTH CAROLINA)
) ss
COUNTY OF DURHAM)

On the 27 day of April, 2011, before me appeared James H. Vander Weide, to me personally known, who, being by me first duly sworn, states that he is Research Professor of Finance and Economics at the Fuqua School of Business of Duke University and also President of Financial Strategy Associates and acknowledges that he has read the above and foregoing document and believes that the statements therein are true and correct to the best of his information, knowledge and belief.

James H. Vander Weide
James H. Vander Weide

Subscribed and sworn to before me this 27 day of April, 2011

Amy C. Knudsen
Notary Public

My commission expires: 2/29/2012

AMY C. KNUDSEN
Notary Public
Person County
N.C.