EXHIBIT

Exhibit No.:	
Issue(s):	Return on Equity
Witness/Type of Exhibit:	Schafer/Rebuttal
Sponsoring Party:	Public Counsel
Case No.:	ER-2014-0351

REBUTTAL TESTIMONY

OF

LANCE C. SCHAFER

Submitted on Behalf of the Office of the Public Counsel

EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2014-0351

March 9, 2015

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of The Empire District Electric Company for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company's Missouri Service Area.	))))	Case No. ER-2014-0351

AFFIDAVIT OF LANCE SCHAFER

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Lance Schafer, of lawful age and being first duly sworn, deposes and states:

1. My name is Lance Schafer. I am the Public Utility Financial Analyst for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

Lance Schafer
Public Utility Financial Analyst

Subscribed and sworn to me this 9th day of March 2015.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

JERENE A. BUCKMAN
My Commission Expires
August 23, 2017
Cole County
Commission #13754037

Jerene A. Buckman
Notary Public

My Commission expires August 23, 2017.

TABLE OF CONTENTS

REBUTTAL TESTIMONY

OF

LANCE C. SCHAFER

The Empire District Electric Company

Case No. ER-2014-0351

SECTION 1: INTRODUCTION AND STATEMENT OF PURPOSE

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Lance C. Schafer. My business address is P.O. Box 2230, Jefferson City, MO 65102.

Q. ARE YOU THE SAME LANCE C. SCHAFER WHO FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to the direct testimonies of Company witness Dr. James H. Vander Weide and Staff witness Shana Griffin. Specifically, I will address issues related to the witnesses' estimation of the Empire District Electric Company's allowed return on common equity.

Q. HAVE YOU PREPARED SCHEDULES IN SUPPORT OF YOUR TESTIMONY?

A. Yes. I have prepared five Schedules in support of my analysis that are attached to this testimony (Rebuttal Schedules LCS-1 through LCS-5). These schedules were prepared by me and are correct to the best of my knowledge and belief.

SECTION 2: EXECUTIVE SUMMARY

Q. PLEASE SUMMARIZE YOUR ANALYSIS OF DR. VANDER WEIDE'S RECOMMENDED RETURN ON COMMON EQUITY.

A. Dr. Vander Weide's results are unreasonably high because of the following factors:

1. Proxy-group selection criteria that do not adequately control for regulated electric operations, mergers and acquisitions, and unusual, non-operating charges;
2. The use of the quarterly version of the DCF model;
3. "Stale" stock prices;
4. Unreasonably high forecasted bond yields and Treasury rates;
5. Questionable risk premia in the Ex-Ante and Ex-Post Risk Premium methods;
6. An unfounded argument used to exclude CAPM results; and
7. Unreasonably high risk premia used in the CAPM.

I will explain these factors in detail in the proceeding section. The following table presents Dr. Vander Weide's original results and the results I have obtained by correcting for these factors, as explained in the next section:

Dr. Vander Weide		
Model	**Original Result**	**Corrected Result**
DCF	10%	9.09%
Ex-Ante Risk Premium	10.80%	9.60%
Ex-Post Risk Premium	10.70%	9.70%
CAPM (Historical)	9.90%	8.90%
CAPM (DCF)	10.20%	Reject
Range	10.0% to 10.8%	9.09% to 9.7%
Midpoint	10.50%	9.40%

The range and midpoint of my corrections of Dr. Vander Weide's results are higher than the range and midpoint (8.62% to 9.47%, midpoint 9.05%) that I recommend in my direct testimony. However, I believe the lower half of this corrected range should be emphasized owing to the concerns I will detail in the next section regarding Dr. Vander Weide's Ex-Ante Risk Premium and Ex-Post Risk Premium methods.

Q. PLEASE SUMMARIZE YOUR ANALYSIS OF STAFF'S RECOMMENDED RETURN ON COMMON EQUITY.

A. Rather than recommending a result calculated directly from her financial models, Staff analyst Shana Griffin calculated her final recommended allowed return on equity by first calculating the change in the cost of equity between the instant case and "Staff's cost of common equity estimates for Missouri's major electric utilities in 2012."[1] This calculated change in the cost of equity was applied to authorized ROEs from the 2012 rate cases of Ameren Missouri, Kansas City Power and Light, and KCPL Greater Missouri Operations

[1] See Staff's Cost of Service Report, p. 11, lines 13-14.

Company. Using this technique, Staff believes Empire's current allowed return on equity should be set between 9.25% and 9.75%, with a point estimate of 9.50%. For reasons I will explain later, I do not agree with this technique and, therefore, recommend that Staff's recommendation be discarded.

SECTION 3: OPC'S CONCERNS REGARDING DR. VANDER WEIDE'S COST-OF-COMMON-EQUITY ANALYSIS

DR. VANDER WEIDE'S PROXY GROUP

Q. HOW DID DR. VANDER WEIDE SELECT HIS PROXY GROUP?

A. Dr. Vander Weide started with all the companies in Value Line's groups of electric companies and selected those companies that:[2]

1. Paid dividends during every quarter of the last two years;
2. Did not decrease dividends during any quarter of the last two years;
3. Have an I/B/E/S long-term growth forecast;
4. Are not the subject of a merger offer that has not been completed; and
5. Have an investment-grade bond rating and a Value Line Safety Rank of 1, 2, or 3.

Q. WHAT CONCERNS DO YOU HAVE WITH DR. VANDER WEIDE'S PROXY GROUP SELECTION CRITERIA?

[2] See the Direct Testimony of Dr. Vander Weide, p. 34, lines 8-16.

A. First, Dr. Vander Weide's selection criteria do not ensure that the companies in his proxy group have a comparable amount of regulated activity to Empire. Empire receives 91% of its operating revenue from regulated electricity, yet Dr. Vander Weide includes in his proxy group several companies that receive more revenue from regulated gas than regulated electricity. For example, according to AUS Utility Reports[3], Integrys Energy receives 18% of its revenues from regulated electricity, but receives 38% of its revenues from regulated gas. Furthermore, since 56% of Integrys Energy's revenues come from regulated activity, 44% of its revenues come from non-regulated activity.

Q. IS THERE A STANDARD, ACCEPTED AMOUNT OF REGULATED ACTIVITY USED IN ESTABLISHING A PROXY GROUP FOR A REGULATED UTILITY COMPANY?

A. No, there is not. Each company has a different level of regulated activity. Therefore, this issue must be considered on a case-by-case basis. However, what is generally accepted is that, when establishing a proxy group, it is best to use a "pure-play" methodology.

Q. PLEASE DESCRIBE THE "PURE-PLAY" METHODOLOGY.

A. In his book "Regulatory Finance," Dr. Morin describes the pure-play approach as it pertains to specific business divisions and companies:

> A second approach is to identify publicly-traded companies that are most similar to the division and then apply the traditional techniques of DCF and CAPM to the proxy firms. The average cost of equity for these companies can be used as an estimate of equity cost for the division. For example, the average beta of a

[3] See AUS Utility Reports, February 2015.

> group of gas distribution utilities can be used as a proxy for a similar non-traded gas distribution utility's unobservable beta and used in the CAPM to infer that utility's cost of capital.[4]

The above citation applies to both business divisions (which operate 100% in a given industry) and individual companies that operate principally in one industry, as Empire does. Furthermore, when Dr. Morin presents a case study illustrating the formation of a proxy group for Georgia Power, not only does he limit the proxy group to electric utilities, but he further eliminates those electric utility companies whose fuel mixes are not similar to Georgia Power.[5] Dr. Morin thereby implies that the classification of two companies as electric utilities is not sufficient to ensure their comparability.

Q. WHAT DIFFICULTIES ARISE WHEN ATTEMPTING TO FIND "PURE-PLAY" COMPANIES?

A. One of the difficulties with this approach lies in finding companies that only operate in the line of business of the target company. As Dr. Morin states, "most companies, including utilities, are not perfectly homogeneous in risk and have multiple lines of business."[6]

Q. HOW DID YOU ADDRESS THIS DIFFICULTY WHEN YOU FORMED YOUR PROXY GROUP?

A. When forming my proxy group, I eliminated those electric utility companies that did not receive at least 70% of their revenues from regulated electricity. Since Empire receives

[4] Morin, Roger. *Regulatory Finance*. Arlington, Virginia. Public Utilities Reports, Inc., 1994. p. 348.
[5] *Ibid.*, p. 207.
[6] *Ibid.*, p. 351.

91% of its revenues from regulated electricity, I chose 70% as the threshold for the proxy group for two reasons: 1) to exclude those companies whose primary operations are not in regulated electricity and, therefore, are not comparable to Empire, and 2) to establish a threshold liberal enough to permit a robust proxy group.

Q. PLEASE LIST THOSE COMPANIES IN DR. VANDER WEIDE'S PROXY GROUP THAT DO NOT RECEIVE AT LEAST 70% OF THEIR REVENUES FROM REGULATED ELECTRICITY, AND PLEASE PROVIDE THE PERCENTAGES OF REVENUE ATTRIBUTABLE TO BOTH REGULATED ELECTRICITY AND GAS.

A. The following table presents those companies in Dr. Vander Weide's proxy group that I believe should be removed because they do not earn at least 70% of their revenues from regulated electricity:[7]

	% Revenues from Regulated Electricity	% Revenues from Regulated Gas
Black Hills	49%	44%
CMS Energy Corp.	62%	33%
DTE Energy	45%	16%
Integrys Energy	18%	38%
SCANA Corp.	53%	21%
Sempra Energy	32%	42%
UIL Holdings	48%	52%
Vectren Corp.	24%	36%
Wisconsin Energy	68%	30%

[7] Source: AUS Utility Reports, February 2015.

As shown above, four of the companies in Dr. Vander Weide's proxy group receive more of their revenues from regulated gas than they do from regulated electricity (Integrys Energy, Sempra Energy, UIL Holdings, and Vectren Corporation).

Admittedly, there is a degree of analyst discretion involved in choosing a threshold of revenues from regulated electricity when establishing a proxy group for a company such as Empire. However, not addressing this issue may result in the formation of a proxy group whose primary operations may be very different from that of the company under analysis.

Q. WHAT ADDITIONAL CONCERNS DO YOU HAVE WITH DR. VANDER WEIDE'S PROXY GROUP SELECTION CRITERIA?

A. Dr. Vander Weide excludes from his proxy group those companies that are currently subject to a merger that has not yet closed.[8] My concern is that Dr. Vander Weide has not specified a sufficiently long period of time to ensure the stability of financial data obtained from companies that have had recent involvement with mergers or acquisitions.

Mergers and acquisitions can result in changes in a company's operations that require time to normalize. For example, two of the companies in Dr. Vander Weide's proxy group currently are involved in a planned acquisition. Wisconsin Energy intends to acquire Integrys Energy in 2015 for roughly $5.7 billion in cash and stock.[9] In 2014, Wisconsin energy's revenues were roughly $4.9 billion; Integrys Energy's revenues for

[8] See the Direct Testimony of Dr. Vander Weide, p. 34, lines 13-14.
[9] Source: http://www.wsj.com/articles/wisconsin-energy-to-buy-integrys-for-5-71-billion-1403524143

the same year were roughly $4.1 billion.[10] The two companies combined would be the eighth-largest natural-gas distribution company in the U.S.[11]

Were analysts to use financial data from companies that recently have undergone a merger or acquisition, or that are the subject of a merger or acquisition, that data would reflect investor sentiment regarding the value of the merged or merging companies and the possible synergies that may be obtained via the merger or acquisition. For example, a company's stock price may increase (or decrease) based on investors' perception of the value of a merger or acquisition. If rate-of-return analysts then used those stock prices in discounted cash flow (DCF) models, the results of those models would in part reflect investors' perceptions of the merger or acquisition, producing higher results if investors viewed the merger or acquisition positively, or lower results if investors viewed the merger or acquisition negatively. Moreover, the effects of a merger or acquisition are not always immediately known, as projected synergies take some time to be realized. If, for example, investors believed that synergies from a merger would result in higher profitability, those investors might cause the price of the stock to increase. After time, if management proved incapable of realizing those projected synergies, the stock would potentially adjust downward. This is partly why I believe it is necessary to use a longer period of time for this criterion than Dr. Vander Weide has chosen to use.

Q. HOW DID YOU ACCOUNT FOR MERGERS AND ACQUISITIONS IN YOUR PROXY GROUP SELECTION CRITERIA?

[10] Source: www.morningstar.com
[11] See http://www.wsj.com/articles/cleco-to-be-bought-by-infrastructure-investor-group-for-3-4-billion-1413817141

A. For my proxy group, I selected only companies that have not been involved in a significant merger or acquisition that was announced within the last three years.[12]

Again, I acknowledge that this criterion depends upon the discretion of the analyst and that analysts may have differing opinions as to the appropriateness of the time period used to establish this criterion. For example, in the instant case, Staff analyst Shana Griffin lists the following criterion for her proxy group: "No significant merger or acquisition announced *recently*"[13] (emphasis added). This represents a slight change from Staff's position during Empire's last rate case, when Ms. Griffin (then Atkinson) used the following criterion: "[no] significant merger or acquisition announced in last 3 years."[14]

The choice of a three-year period helps to ensure that financial data used as inputs to financial models is indicative of a company's operating characteristics rather than temporary phenomena. For example, since beta (one of the key inputs to the CAPM model) is calculated over a multi-year period, it is reasonable to be concerned that this input may be affected by non-operating activity during this time.

Q. WHICH COMPANIES FROM DR. VANDER WEIDE'S PROXY GROUP DO YOU BELIEVE SHOULD BE REMOVED DUE TO MERGER AND ACQUISITION ACTIVITY?

A. The following table presents the companies I believe should be removed from Dr. Vander Weide's proxy group based on merger and/or acquisition activity:

[12] See the Direct Testimony of Mr. Schafer, p. 9, lines 6-10.
[13] See Staff's Cost of Service Report, p. 30, lines 17-18.
[14] See Staff's Cost of Service Report for ER-2012-0345, p. 28, lines 26-27.

Company	Reason for Exclusion
Cleco Corporation	Acquired by an investor group. Cleco entered into this deal on Oct. 20th, 2014.[15]
Dominion	Acquired Carolina Gas Transmission from Scana. Deal Closed February 2015.[16]
Duke Energy	Sold $2.8 billion of retail and ownership interest in 11 power plants to Dynegy in the fall of 2014. In addition, there was a merger, completed in July 2012, with Progress Energy[17]
Hawaiian Electric	Purchased by NextEra Energy in December of 2014.[18]
Integrys Energy	Acquisition target of Wisconsin Energy.[19]
NextEra Energy	Purchased Hawaiian Electric in December of 2014.[20]
Northeast Utilities (now "Eversource Energy")	Acquired NSTAR in April of 2012.[21]
OGE Energy	In 2013, OGE Energy formed a limited partnership with Centerpoint Energy, Inc. and Arclight Capital Partners, LLC; Enable Midstream Partners was created.[22]
Scana Corporation	Sold Carolina Gas Transmission to Dominion. Closed February 2015.[23]
Teco Holdings	Acquired New Mexico Gas Company in 2014.[24]
Wisconsin Energy	Planned Acquisition of Integrys Energy[25]

[15] http://investors.cleco.com/phoenix.zhtml?c=82212&p=irol-newsArticle&ID=1979148
[16] https://www.dom.com/corporate/news/news-releases/136969
[17] http://phx.corporate-ir.net/phoenix.zhtml?c=147906&p=irol-newsArticle_Print&ID=1960327
[18] http://www.nexteraenergy.com/news/contents/2014/120314.shtml
[19] http://www.wisconsinenergy.com/ieg/index.htm
[20] http://www.nexteraenergy.com/news/contents/2014/120314.shtml
[21] http://www.hartfordbusiness.com/article/20110425/PRINTEDITION/304259992/the-acquirer--after-merger-nu-to-pursue-aggressive-expansion-strategy
[22] Source: OGE Press release (http://phx.corporate-ir.net/phoenix.zhtml?c=106374&p=irol-newsArticle&ID=1880164)
[23] https://www.dom.com/corporate/news/news-releases/136969
[24] http://www.zacks.com/stock/news/146192/teco-energy-completes-new-mexico-gas-company-buy
[25] http://www.wisconsinenergy.com/ieg/index.htm

Q. DO YOU HAVE ANY FURTHER CONCERNS WITH DR. VANDER WEIDE'S PROXY GROUP?

A. Yes. Dr. Vander Weide's proxy group includes PG&E Corporation. According to Value Line's report on PG&E, the company has significant unresolved costs relating to the explosion of a pipeline in San Bruno, California:[26]

> All told, the company has incurred (or committed to do so) $2.7 billion in unrecovered costs. However, administrative law judges and the Safety and Enforcement Division of the California Public Utilities Commission (CPUC) are each recommending additional penalties that would raise the negative pretax impact on shareholders to more than $4.7 billion. The company is also facing an indictment from the federal government.

In light of these ongoing events, I do not believe PG&E's financial data, which has very likely been impacted by this atypical event, should be used to calculate Empire's cost of equity.

Q. PLEASE PRESENT DR. VANDER WEIDE'S PROXY GROUP BASED ON THE CHANGES YOU HAVE DETAILED ABOVE.

A. The following table lists the eight remaining companies of Dr. Vander Weide's proxy group based on the changes I have recommended:

[26] Source: Value Line's PG&E report from 1/31/2015.

Company	Ticker
Alliant Energy	LNT
Amer. Elec. Power	AEP
G't Plains Energy	GXP
Pinnacle West Capital	PNW
PNM Resources	PNM
Portland General	POR
Southern Co.	SO
Xcel Energy Inc.	XEL

Q. HOLDING ALL OTHER VARIABLES EQUAL, WHAT IMPACT DO YOUR RECOMMENDED CHANGES TO DR. VANDER WEIDE'S PROXY GROUP HAVE ON HIS RETURN-ON-EQUITY RESULTS?

A. Only one of the models that Dr. Vander Weide used to calculate his final recommended return on equity is affected by a change in the proxy group. The following table summarizes Dr. Vander Weide's original results and the results based on the revised proxy group:

Cost of Equity Model Results		
Model	Model Result	Revised Proxy Group Result
Discounted Cash Flow	10.0%	9.85%
Ex Ante Risk Premium	10.8%	10.80%
Ex Post Risk Premium	10.7%	10.70%
Average	**10.5%**	**10.45%**

As the table shows, only the results of the discounted cash flow model change as a result of the revised proxy group. The DCF results based on the revised proxy group are 15 basis points lower than the original result (10.0% - 9.85% = .15%) (See Rebuttal

Schedule LCS-1). The overall average decreases by 5 basis points (10.5% - 10.45% = .05%).

Q. DO YOU UTILIZE THE UPDATED PROXY GROUP IN THIS REBUTTAL TESTIMONY?

A. Initially, I will evaluate the results of Dr. Vander Weide's DCF model using his original proxy group. I will then return to the revised proxy group in order to evaluate the final impact of adopting my recommended proxy-group changes. Dr. Vander Weide's Ex-Ante and Ex-Post Risk Premium models are not affected by proxy-group changes. Furthermore, since the average beta estimate for Dr. Vander Weide's proxy group corresponds to the current industry average, I will not use the revised proxy group when analyzing his CAPM results.

DR. VANDER WEIDE'S CONSTANT-GROWTH DCF MODEL

Q. WHAT CONCERNS DO YOU HAVE ABOUT DR. VANDER WEIDE'S CONSTANT-GROWTH DCF MODEL?

A. First, Dr. Vander Weide's use of the quarterly DCF model unnecessarily inflates his result. Second, although Dr. Vander Weide filed his direct testimony at the end of August, his stock prices reflect a period that ends roughly three months before he filed his testimony.

Q. WHY IS DR. VANDER WEIDE'S USE OF THE QUARTERLY DCF MODEL INAPPROPRIATE?

A. The use of the quarterly DCF model unreasonably assumes that the electric utility company must increase dividend payments to compensate investors for the period of time remaining in the year *after* the dividend has been paid to the investor. The quarterly DCF model would be logical to use from the point of view of an investor who wants to calculate the return he or she would achieve taking into consideration the reinvestment of dividends received from the company. However, it is the investor's responsibility to reinvest the dividends that he or she receives. It is not the utility company's responsibility to continue compensating the investor for dividends it has already paid out.

Q. PLEASE PRESENT THE QUARTERLY DCF FORMULA THAT DR. VANDER WEIDE USES AND EXPLAIN HOW IT UNREASONABLY ASSUMES THAT DIVIDENDS SHOULD BE INCREASED TO ACCOUNT FOR THE PERIOD OF TIME REMAINING IN THE YEAR AFTER THE INVESTOR RECEIVES THEM.

A. In Dr. Vander Weide's Appendix-2, page 10 of 10, he presents his quarterly constant growth DCF formula as:

$$k = \frac{D_1^*}{P_0} + g$$

Where:

K = the cost of equity

P_0 = the price of the stock

g = the company's expected earnings growth

D_1 = (see below)

The difference between the annual DCF model and the quarterly DCF model is in the D_1* input. Dr. Vander Weide gives his formula for D_1* as follows:[27]

$$D_1^* = d_1 (1 + k)^{3/4} + d_2 (1 + k)^{1/2} + d_3 (1 + k)^{1/4} + d_4$$

In the above formula, d_1, d_2, d_3, and d_4 represent the dividends that the company will pay to investors over the coming year. According to Dr. Vander Weide, he has derived d_1, d_2, d_3, and d_4 (prior to their inclusion in the formula above) by taking the company's last four dividends and multiplying them by the factor 1+g, which means he has increased the previous year's dividends by the company's expected growth.[28] In other words, d_1, the forecasted dividend, will equal the dividend from 12 months earlier multiplied by 1+ the company's expected growth; d_2 will equal the dividend from 12 months before the payment of the forecasted dividend d_2, multiplied by 1+ the company's expected growth, and similarly for dividends d_3 and d_4. What is important to emphasize is that, according to Dr. Vander Weide[29], dividends d_1, d_2, d_3, and d_4 *already have been increased to reflect analysts' forecasts of the company's earnings growth.*

Returning to the formula Dr. Vander Weide uses for D_1*, explanation is necessary to understand why Dr. Vander Weide multiplies his dividends—which are already adjusted for the company's projected growth—by an additional growth factor.

[27] See the Direct Testimony of Dr. Vander Weide, Appendix-2, page 10 of 10.
[28] See the Direct Testimony of Dr. Vander Weide, p. 30, lines 1-6.
[29] See the Direct Testimony of Dr. Vander Weide, p. 30, lines 1-6.

Dr. Vander Weide's formula multiplies the first-quarter dividend, d_1, by the formula $(1+k)^{3/4}$. As a reminder, "k" equals the discount rate, or the company's cost of equity. The exponent ¾ in the equation $(1+k)^{3/4}$ represents the remaining three quarters of the year, because at the moment the investor receives the first-quarter dividend, three quarters remain until the end of the year. The $d_1(1+k)^{3/4}$ part of Dr. Vander Weide's formula literally stipulates that 1) the investor will receive a first-quarter dividend, d_1, that is equal to the first-quarter dividend from a year ago increased by 1+ the company's expected earnings growth, and 2) the company must increase d_1 based on how many quarters are left in the year after the investor receives the dividend.

The same concept applies to dividends d_2 and d_3, which are multiplied by $(1+k)^{1/2}$ and $(1+k)^{1/4}$, respectively. The exponent ½ in the formula $(1+k)^{1/2}$ increases the second quarter dividend to account for the fact that after the investor receives the second-quarter dividend, two quarters remain in the year. The exponent ¼ in the formula $(1+k)^{1/4}$ increases the third-quarter dividend to account for the fact that after the investor receives the third-quarter dividend, one quarter remains in the year. Finally, d_4 in Dr. Vander Weide's formula is not increased to reflect any remaining time in the year since it is paid at the end of the year.

The result of this is that Dr. Vander Weide's D_1* input is inflated to compensate investors for the rest of the year after a dividend is scheduled to be paid.

Q. SHOULD EMPIRE BE REQUIRED TO INCREASE A DIVIDEND IN ORDER TO COMPENSATE INVESTORS FOR THE REST OF THE YEAR AFTER THAT DIVIDEND IS SCHEDULED TO BE PAID?

A. Absolutely not. It is the investor's responsibility to reinvest received dividends—if he or she so chooses. In fact, requiring Empire to compensate investors for the time remaining in the year after a dividend is scheduled to be paid would allow investors to earn double the amount on that dividend that they would normally be able to earn. For example, if Empire were obligated to increase the first-quarter dividend paid to an investor to account for the three remaining quarters in the year, the investor effectively would have earned three quarters' worth of interest on that dividend the moment he or she received it. At that point, the investor could reinvest the first-quarter dividend, thus earning three more quarters' worth of interest by the end of the year.

Q. CAN THE IMPACT OF THE QUARTERLY FORMULA BE ISOLATED AND REMOVED FROM DR. VANDER WEIDE'S DCF RESULT WITHOUT CHANGING ANY OTHER ASPECT OF THE MODEL?

A. Yes. Holding all else equal (i.e., using Dr. Vander Weide's proxy group, stock prices, growth rates, etc.), removing the quarterly element from Dr. Vander Weide's DCF model results in a **9.84%** return on equity (See Rebuttal Schedule LCS-2). His original quarterly DCF result was **10%**. Therefore, the quarterly element unreasonably inflated Dr. Vander Weide's DCF result by **16 basis points** (10% - 9.84% = .16%).

Q. MOVING ON, YOU MENTIONED YOUR CONCERN THAT DR. VANDER WEIDE USED STOCK PRICES IN HIS DCF MODEL THAT WERE ROUGHLY THREE MONTHS OLD AT THE TIME HE FILED HIS TESTIMONY. PLEASE EXPLAIN.

A. Dr. Vander Weide calculated each proxy-group company's stock price by taking the average of the monthly high and low stock prices for the three-month period ending May, 2014.[30] Since Dr. Vander Weide's direct testimony was filed August 29th, 2014, the stock prices he used for his DCF model were roughly three to six months old at the time of the filing. In other words, since a three-month period of average stock prices was used, the concerned period began roughly six months before Dr. Vander Weide's testimony was filed.

Although I appreciate that financial models take time to construct and analyze, I believe that it is reasonable to expect that an analyst use stock prices that are more indicative of the prices at the time of filing.

Q. WHAT EFFECT DO UPDATED STOCK PRICES HAVE ON DR. VANDER WEIDE'S DCF RESULT?

A. First, I updated Dr. Vander Weide's stock prices to reflect the average of the monthly high and low stock prices for the three-month period ending July, 2014. In order to avoid perpetuating the unreasonable quarterly DCF element, I will present here the updated annual DCF result. With updated stock prices through July, 2014, and the removed quarterly element, Dr. Vander Weide's DCF result, holding all else equal (i.e., using his proxy group and growth rates), is **9.79%** (See Rebuttal Schedule LCS-3). The quarterly element and stale stock prices thus inflate Dr. Vander Weide's DCF result by **21 basis points** (10% - 9.79% = .21%).

[30] See the Direct Testimony of Dr. Vander Weide, p. 33, lines 9-12.

Second, for the sake of comparability, I updated Dr. Vander Weide's stock prices to correspond to the three-month period ending January 23rd, 2015. I chose this date because it corresponds to the date I used in my direct testimony and will therefore allow a consistent comparison to be made between our analyses. I also updated his proxy group's growth rates with data I retrieved from IBES (the source from which Dr. Vander Weide obtains his growth rates[31]) on February 10, 2015. The average proxy-group growth rate Dr. Vander Weide used in his original model was 6.06%. The average growth rate for the same proxy group as of February 10, 2015, was 5.98%.

Using updated stock prices and growth rates that correspond to the period of time I used for my direct testimony, and removing the quarterly element of Dr. Vander Weide's DCF model (and holding all else equal—i.e., using Dr. Vander Weide's original proxy group), the DCF result is **9.42%** (See Rebuttal Schedule LCS-4). The quarterly element and the difference in time periods that Dr. Vander Weide and I used to calculate our models' inputs thus account for **58 basis points** (10% - 9.42% = .58%).

Q. THUS FAR, YOU HAVE USED DR. VANDER WEIDE'S ORIGINAL PROXY GROUP IN YOUR ANALYSIS. WHAT EFFECT DOES THE REVISED PROXY GROUP HAVE ON DR. VANDER WEIDE'S DCF RESULT?

A. Using the revised proxy group in Dr. Vander Weide's DCF model from which I removed the quarterly element and updated the stock prices and growth rates to correspond to the period I used in my direct testimony, the DCF result is **9.09%**, or 91 basis points lower

[31] See the Direct Testimony of Dr. Vander Weide, p. 30, lines 15-18.

than Dr. Vander Weide's original result (10% - 9.09% = .91%)(See Rebuttal Schedule LCS-5).

Q. WHAT IS YOUR FINAL RECOMMENDATION REGARDING DR. VANDER WEIDE'S DCF RESULT?

A. First, the quarterly element of Dr. Vander Weide's DCF model should be rejected. Second, the revised proxy group should be adopted. Additionally, for comparative purposes, the version of Dr. Vander Weide's model that I have updated to reflect economic data available in January, 2015, should be used. Dr. Vander Weide's original result and the result based on these recommendations are summarized in the following table:

DCF Results	
Original	Revised Proxy Group; January 2015 updates; No Quarterly Element
10%	**9.09%**

DR. VANDER WEIDE'S EX-ANTE RISK PREMIUM METHOD

Q. WHAT CONCERNS DO YOU HAVE WITH DR. VANDER WEIDE'S EX-ANTE RISK PREMIUM METHOD?

A. First, Dr. Vander Weide uses an inappropriate yield on A-rated utility bonds. Second, he establishes an unreliable risk premium based on incomplete data.

Q. HOW DOES DR. VANDER WEIDE OBTAIN THE FORECASTED YIELD ON A-RATED UTILITY BONDS THAT HE USES IN HIS CALCULATION?

A. First, Dr. Vander Weide obtains forecasted yields for AAA-rated corporate bonds from two sources. Second, he identifies the current spread between AAA-rated corporate bonds and A-rated utility bonds. Finally, he adjusts the forecasted AAA-rated corporate bond yields by the current spread between AAA-rated corporate bonds and A-rated utility bonds and averages them to obtain a forecasted A-rated utility bond yield.

Q. WHAT CONCERNS DO YOU HAVE REGARDING HOW DR. VANDER WEIDE OBTAINED HIS FORECASTED YIELD ON A-RATED UTILITY BONDS?

A. I have two concerns regarding Dr. Vander Weide's calculation of the yield on A-rated utility bonds. First, Dr. Vander Weide does not identify the time period to which the forecasted yields on AAA-rated corporate bonds belong. Second, updated forecasts have changed significantly since the time Dr. Vander Weide filed his testimony.

Q. WHAT TIME PERIOD ARE THE FORECASTED YIELDS ON AAA-RATED CORPORATE BONDS THAT DR. VANDER WEIDE USES INTENDED TO COVER?

A. Returning to the EIA source document, I discovered that the forecasted rate from the EIA is for the year 2018.[32] Similarly, by looking at a recent Value Line Selection and Opinion

[32] See http://www.eia.gov/forecasts/aeo/er/tables_ref.cfm, table 20, Macroeconomic indicators.

report, the forecasted rate that Dr. Vander Weide obtained from Value Line must also have been from 2018, since the most current Value Line forecast ends at 2018.[33]

Q. IS IT REASONABLE TO USE THE 2018 FORECASTED AAA-RATED CORPORATE BOND YIELD TO ESTABLISH THE CURRENT COST OF EQUITY?

A. Dr. Vander Weide and I both have chosen to use forecasted rates in our analyses in order to account for the effects of the Federal Reserve's extraordinary quantitative easing program and the likely impending increase of interest rates by the Federal Reserve.[34] However, our use of forecasted rates differs in that I do not simply adopt the forecasted rate from a single period several years in the future. I account for the fact that there will be a transition between the current rate and the projected rate by averaging the rates from the forecast period.[35] Simply adopting 2018's forecasted rate does not take into account that rates are currently lower and expected to transition up to the forecasted rate over time.

Q. WHAT YIELD ON AAA-CORPORATE BONDS DID DR. VANDER WEIDE USE TO FORECAST THE YIELD ON A-RATED UTILITY BONDS?

A. He used an average yield from his two sources of 6.29%.

[33] See, for example, Value Line Selection and Opinion from November 21, 2014.
[34] See the Direct Testimony of Dr. Vander Weide, p. 39, lines 12-22, and p. 40, lines 1-3.; see the Direct Testimony of Mr. Schafer, p. 18, lines 1-4.
[35] See the Direct Testimony of Mr. Schafer, p. 30, lines 11-20.

Q. ARE THE FORECASTED YIELDS THAT DR. VANDER WEIDE USED STILL RELEVANT?

A. No. Value Line updated its forecast in November, 2014, and the forecasted yields on AAA-corporate bonds have changed considerably.[36] Value Line lists the 2018 forecasted yield as 5.5%, and the average over the Value-Line forecast period is 5.2%.[37] The EIA—the source of Dr. Vander Weide's second estimate—has not yet published its 2015 Annual Energy Outlook report, but the Survey of Professional Forecasters (a publication of the Federal Reserve Bank of Philadelphia) released a report on February 13th, 2015, that lists the median forecasted yields from 27 professional forecasters for AAA-rated corporate bonds until 2016. In that report, the median forecasted yield for AAA-rated corporate bonds for the year 2016 is 4.5%.[38]

Dr. Vander Weide's forecasted yield for AAA-rate bonds is 79 basis points higher than the highest updated estimate from Value Line—a source he himself uses (6.29% - 5.5% = .79%). The data I presented above from the Survey of Professional Forecasters indicate that there are a large number (27) of professional forecasters who believe that near-term yields will be even lower still.

Q. WHAT IS YOUR RECOMMENDATION REGARDING DR. VANDER WEIDE'S USE OF FORECASTED INTEREST RATES FOR AAA-RATED CORPORATE BONDS?

[36] See Value Line Selection and Opinion from November 21, 2014.
[37] Ibid.
[38] Source: Survey of Professional Forecasters, "First Quarter 2015". (http://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/)

A. The 6.29% yield on AAA-corporate bonds Dr. Vander Weide used to calculate the forecasted yield on A-rated utility bonds should be replaced with Value Line's updated 5.2% forecasted yield on AAA-rated corporate bonds. 5.2% is Value Line's forecast for the year 2016. 5.2% also happens to be the average of Value Line's forecasted yields for the years 2015-18.

Q. USING 5.2%, WHAT FORECASTED YIELD ON A-RATED UTILITY BONDS DO YOU OBTAIN?

A. Adding 10 basis points to the forecasted yield on AAA-rated corporate bonds[39] results in a forecasted yield for A-rated utility bonds of **5.3%.**

Q. MOVING ON, YOU ALSO STATED THAT YOU HAVE A CONCERN REGARDING THE RISK PREMIUM THAT DR. VANDER WEIDE CALCULATES FOR HIS EX-ANTE RISK PREMIUM METHOD. PLEASE EXPLAIN.

A. Dr. Vander Weide bases the risk premium for his ex-ante risk premium method "on studies of the DCF expected return on a proxy group of electric companies compared to the interest rate on Moody's A-rated utility bonds."[40] The proxy group of electric utility companies that Dr. Vander Weide uses are presented in his workpapers. The study begins in September of 1999 and ends in May of 2014.

[39] See the Direct Testimony of Dr. Vander Weide, p. 39, lines 1-4.
[40] See the Direct Testimony of Dr. Vander Weide, p. 37, lines 5-7.

Over the duration of the study, data from 22 electric companies are used. Each month's average of the DCF returns from these companies is presented in Dr. Vander Weide's Schedule JVW-2.

When I analyzed Dr. Vander Weide's workpapers relating to his study of DCF returns, I discovered that 27.5% of the total amount of possible data used to comprise the monthly DCF averages is blank[41]. The long gaps in information are more than likely due to mergers and acquisitions, but there are also short gaps in the data that have no immediate explanation. The stability of this group of electric companies appears all the more questionable considering that much of that 27.5% of missing data is towards the most recent end of the study. For example, for the first half of the study, an average of 20 companies contributed data that Dr. Vander Weide used to form the monthly averages from that period. However, for the second half, the average number of companies contributing data to the study drops to 12. In the last two years of the study, the average number of companies contributing data drops even further to 10.

Q. WHY IS THIS IMPORTANT?

A. Risk premiums are generally established in relation to large, stable measures of the market. For example, the measure of the market return in the CAPM is provided by a broad measure of the general market, such as the S&P 500 or NYSE indices. Dr. Vander Weide's historical CAPM uses returns on the S&P 500 index from 1926-2013 to establish the market return.[42] Dr. Vander Weide's DCF-Based CAPM uses the DCF cost

[41] See the workpapers of Dr. Vander Weide, excel tab "ExAnte ElecDCF May 2014"
[42] See the Direct Testimony of Dr. Vander Weide, p. 45, lines 16-18.

of equity for the S&P 500.[43] Dr. Vander Weide's ex-post risk premium analysis includes measures of both the S&P 500 and the S&P utilities stock indices—although I disagree with the assumption he has made in using them.[44]

Dr. Vander Weide's ex-ante risk premium approach uses a measure of the market return that is not only unstable, but that, at certain points in the study, is calculated with data from as few as 8 companies. This is only one third of the number of companies in Dr. Vander Weide's proxy group.

In light of the strong possibility that Dr. Vander Weide's DCF study is based on inconsistent and unreliable data, the results of his "study of the DCF expected returns on a proxy group of electric companies" should be viewed with considerable skepticism.

Q. WHAT RESULT IS OBTAINED BY UPDATING THE A-RATED UTILITY BOND YIELD USED IN DR. VANDER WEIDE'S EX-ANTE RISK PREMIUM METHOD?

A. Using the 5.3% forecasted yield and Dr. Vander Weide's calculated 4.4% risk premium,[45] the updated result is **9.7%.**

DR. VANDER WEIDE'S EX-POST RISK PREMIUM METHOD

Q. WHAT CONCERNS DO YOU HAVE WITH DR. VANDER WEIDE'S EX-POST RISK PREMIUM METHOD?

[43] *Ibid.*, p. 51, lines 10-16.
[44] *Ibid.*, p. 41, lines 8-16.
[45] See the Direct Testimony of Dr. Vander Weide, p. 38, lines 10-12.

A. First, I again recommend that Dr. Vander Weide's estimate of the yield on A-rated utility bonds be updated. Second, the risk premia that Dr. Vander Weide uses in his analysis are based upon unsupported opinion.

Q. IS YOUR RECOMMENDATION CONCERNING THE FORECASTED YIELD FOR A-RATED UTILITY BONDS THE SAME AS YOU DESCRIBED DURING YOUR ANALYIS OF THE EX-ANTE RISK PREMIUM?

A. Yes.

Q. MOVING ON, WHY DO YOU BELIEVE DR. VANDER WEIDE'S RISK PREMIA ARE BASED UPON UNSUPPORTED OPINION?

A. Dr. Vander Weide's ex-post risk premium is the average of two risk premia: one based on the historical (1937-2014) returns on the S&P 500 Index, and a second based on the historical returns (1937-2014) on the S&P Utilities Index.[46] To justify his choice of these two indices, Dr. Vander Weide states:

> I perform my ex post risk premium analysis on both the S&P 500 and the S&P Utilities Stock Indices because I believe electric energy companies today face risks that are somewhere in between the average risk of the S&P Utilities and the S&P Stock Indices over the years 1937 to 2014. Thus, I use the average of the two historically-based risk premiums as my estimate of the required risk premium for Empire in my ex post risk premium method.[47]

Not only is Dr. Vander Weide's statement unsupported, but data he presents in another part of his testimony contradicts his statement. When discussing the CAPM, Dr. Vander Weide states "...the average utility beta at the time of my studies is

[46] See the Direct Testimony of Dr. Vander Weide, p. 40, lines 5-22, and p. 41, lines 1-7.
[47] See the Direct Testimony of Dr. Vander Weide, p. 41, lines 11-16.

approximately 0.73, whereas the historical ratio of the utility risk premium to the S&P 500 risk premium is 0.87."[48] In other words, based on current utility betas, the level of risk as represented by beta is *not* in between the average risk of the S&P Utilities and the S&P Stock Indices during the period of 1937-2014. If utilities were currently facing that level of risk, the current average beta would be between 0.87 (the beta represented by the ratio of the utility risk premium to the S&P 500 risk premium that Dr. Vander Weide calculated) and 1.0 (the beta of the S&P 500 Index). Dr. Vander Weide instead identified the average beta at the time of his studies to be 0.73, far below the .935 beta implied by averaging the betas of the S&P Utilities and S&P 500 Indices. For this reason, Dr. Vander Weide's ex-post risk premium must be viewed with considerable skepticism.

Q. WHAT RESULT IS OBTAINED BY UPDATING THE A-RATED UTILITY BOND YIELD USED IN DR. VANDER WEIDE'S EX-ANTE RISK PREMIUM METHOD?

A. Adding Dr. Vander Weide's 3.9% and 4.7 % risk premia to the 5.3% forecasted yield for A-rated utility bonds produces a range of 9.2% to 10%, with a midpoint of **9.6%.**

DR. VANDER WEIDE'S CAPM

Q. WHAT CONCERNS DO YOU HAVE WITH DR. VANDER WEIDE'S CAPM?

A. I have the following concerns with Dr. Vander Weide's CAPM analysis:

[48] See the Direct Testimony of Dr. Vander Weide, p. 50, lines 12-14.

1. His argument that the CAPM underestimates the cost of equity is unfounded.
2. The long-term forecasted risk-free rate he uses is inappropriate.
3. The risk premia he uses for both his historical and DCF-based CAPM are exaggerated and produce inflated results.

Q. WHY IS DR. VANDER WEIDE'S ARGUMENT THAT THE CAPM UNDERESTIMATES THE COST OF EQUITY UNFOUNDED?

A. Dr. Vander Weide supports his argument by citing several well-known academic studies that show, in Dr. Vander Weide's own words, that "[…] the ***unadjusted*** CAPM tends to underestimate the cost of equity for companies whose equity beta is less than 1.0 […] [emphasis added]."[49] However, the beta inputs that Dr. Vander Weide obtained from Value Line and uses in his CAPM are ***adjusted*** betas. Value Line calculates a company's raw beta and then adjusts it with the following formula: $\beta_1 = .35 + .66(\beta_0)$.[50] Since Dr. Vander Weide's argument is in relation to the unadjusted CAPM, it is not applicable to the CAPM in which adjusted beta inputs are used.

Furthermore, the CAPM models that Dr. Vander Weide uses produce an average result of 10.05%,[51] which is higher than the DCF result he uses in his final calculation of Empire's return on equity. If he believed that 10.05% was an unreasonably low result that merited no consideration, he should also have questioned the even lower result of his DCF model.

[49] See the Direct Testimony of Dr. Vander Weide, p. 48, lines 1-9.
[50] This information was obtained directly from a Value Line.
[51] See the Direct Testimony of Dr. Vander Weide, p. 47, lines 9-11; p. 52, lines 4-5.

Q. MOVING ON, WHY IS THE LONG-TERM RISK FREE RATE THAT DR. VANDER WEIDE USES IN HIS CAPM PROBLEMATIC?

A. Dr. Vander Weide selects his long-term forecasted Treasury yield similarly to the way he chose his forecasted yield on A-rated utility bonds: he takes the estimate from several years into the future without considering the transition between the current rate and the long-term forecasted one. As I explained earlier, I also use forecasted rates, but I do not use the full forecasted rate from several years in the future.

Q. WHAT INTEREST RATE DOES DR. VANDER WEIDE USE, AND WHAT RATE DO YOU RECOMMEND?

A. Dr. Vander Weide used a 4.79% forecasted 20-year Treasury rate, which he obtained by adjusting long-term forecasted 10-year Treasury rates from Value Line and EIA to account for the current spread between 10- and 20-year Treasury securities.

Although EIA has not yet produced an update, Value Line has updated its forecast since the time Dr. Vander Weide filed his testimony. The average of the forecasted 10-year Treasury rates from 2015-2018 is 3.8%. Adjusting this figure by 53 basis points to reflect the 2014 average spread between 10-year and 20-year Treasury securities[52] results in a rate of **4.33%**.

[52] Data obtained from the St. Louis Federal Reserve.

Q. WHY DO YOU BELIEVE THE RISK PREMIA THAT DR. VANDER WEIDE USES IN HIS CAPM MODELS ARE EXAGGERATED AND PRODUCE INFLATED RESULTS?

A. First, the risk premium that Dr. Vander Weide uses in his historical CAPM is calculated by taking the 1926-2013 historical return on the S&P 500 and subtracting from it the corresponding *income return* on long-term government bonds. The income return reflects only the coupon payment, or interest rate, of the security. Investors, however, must purchase the security if they want to take advantage of the coupon payment. Therefore, the income return is not a viable option for investors and should not be used to calculate the risk premium in the CAPM.

Q. WHAT HISTORICAL CAPM RESULT DO YOU OBTAIN BY UPDATING THE RISK-FREE RATE AND REPLACING THE HISTORICAL INCOME RETURN ON LONG-TERM GOVERNMENT BONDS WITH THE HISTORICAL TOTAL RETURN ON GOVERNMENT BONDS?

A. **8.9%** (= 4.38% + .73 (6.2%)).

Q. WHAT CONCERN DO YOU HAVE WITH THE RISK PREMIUM DR. VANDER WEIDE USES IN HIS DCF-BASED CAPM?

A. First, Dr. Vander Weide calculates the estimated DCF return of only those companies in the S&P 500 that pay dividends.[53] However, the estimates of beta that he obtains from Value Line and applies to his DCF risk premium were not calculated based only on

[53] See the Direct Testimony of Dr. Vander Weide, Schedule JVW-8.

dividend-paying stocks. Value Line calculates each company's beta in relation to a broad measure of the market, the NYSE Index. Analysts typically will apply a beta calculated based on one index to the historical or forecasted returns of another index. However, Dr. Vander Weide has offered a subjective version of a measure of the broad market, which is potentially problematic considering that the estimates of beta he uses were not calculated in relation to his subjective measure.

Second, Dr. Vander Weide calculates the DCF return on his group of dividend-paying stocks by using the constant-growth DCF method. Dr. Vander Weide's resulting risk-premium estimate is unreasonably high because he uses analysts' 3-to-5 year growth estimates in perpetuity in his DCF model. As Pratt informs us in his book *Cost of Capital*, "these earnings growth estimates typically are for only the next two to five years; they are not perpetual. Therefore, *any use* of these forecasts in a single-stage DCF model must be tempered with a longer-term forecast" [emphasis added].[54] By using 3-to-5 year growth estimates in perpetuity, Dr. Vander Weide projects an average perpetual growth rate for his dividend-paying companies of 9.5%. This growth rate is over twice as high as the reliable, long-term estimates of U.S. nominal GDP growth that I used in my direct testimony (4.46%).[55]

Q. WHAT IS YOUR RECOMMENDATION REGARDING DR. VANDER WEIDE'S DCF-BASED CAPM?

A. The results obtained from this model should be rejected.

[54] Pratt, Shannon P. Cost of Capital. New York, New York: John Wiley & Sons, Inc. 1998. p. 100.
[55] See the Direct Testimony of Mr. Schafer, pp. 26-27.

SUMMARY OF CORRECTIONS TO DR. VANDER WEIDE'S RESULTS

Q. PLEASE PRESENT DR. VANDER WEIDE'S ORIGINAL RESULTS AND THE CORRECTED RESULTS BASED ON YOUR ANALYSIS.

A. The following table summarizes Dr. Vander Weide's original return-on-equity results and my updates:

Dr. Vander Weide		
Model	**Original Result**	**Corrected Result**
DCF	10%	9.09%
Ex-Ante Risk Premium	10.80%	9.60%
Ex-Post Risk Premium	10.70%	9.70%
CAPM (Historical)	9.90%	8.90%
CAPM (DCF)	10.20%	Reject
Range	10.0% to 10.8%	9.09% to 9.7%
Midpoint	10.50%	9.40%

Q. HOW DO THE CORRECTED RESULTS COMPARE TO THE RESULTS YOU PRESENTED IN YOUR DIRECT TESTIMONY?

A. The range and midpoint of the corrected results are higher than my corresponding range and midpoint (8.62% to 9.47%, midpoint 9.05%). I believe the lower half of this corrected range of Dr. Vander Weide's results should be emphasized owing to the concerns I raised regarding the Ex-Ante Risk Premium and Ex-Post Risk Premium methods.

SECTION 4: OPC'S CONCERNS REGARDING STAFF'S COST-OF-COMMON-EQUITY ANALYSIS

MS. GRIFFIN'S CALCULATION OF HER FINAL RECOMMENDED RETURN ON COMMON EQUITY

Q. HOW DID MS. GRIFFIN CALCULATE HER FINAL RECOMMENDATION?

A. In Staff's Cost of Service Report, Ms. Griffin states:[56]

> [...] Staff believes it is common practice for commissions to allow returns on equity that are higher than the costs of equity for utilities. Consequently, Staff's recommended allowed ROE is higher than Staff's estimate of Empire's cost of equity.

As a result, the technique Staff has adopted to calculate the allowed return on equity accounts for this perceived difference between the cost of equity and the allowed return on equity. Staff explains this technique as follows:

> Staff's expert financial analyst, Shana Griffin, has estimated Empire's cost of common equity by applying well-respected and widely-used methodologies to data derived from a carefully-assembled group of comparable companies. Staff then compared that cost of common equity to Staff's cost of common equity estimates for Missouri's major electric utilities in 2012, which was the last time the Commission authorized ROEs for any Missouri electric utility. To the extent Staff's comparison showed a relative change in the cost of equity since the Commission last authorized ROEs for Missouri's electric utilities, Staff recommends the Commission change the level of the allowed ROEs by a similar amount.[57]

Q. WHAT OTHER REASON DOES STAFF GIVE AS A BASIS FOR ADOPTING THIS TECHNIQUE?

A. Shana Griffin states:

[56] See Staff's Cost of Service Report, p. 14, lines 21-24.
[57] *Ibid.*, p. 11, lines 10-17.

> Being that the main issue the Commission had with Staff's cost of equity estimate in the last rate case was that it was just too low, which was primarily driven by Staff's use of a lower perpetual growth rate, the Commission should focus on the relative change in Staff's cost of equity estimate compared to 2012 rather than the absolute estimate.[58]

Q. DO YOU BELIEVE STAFF'S FINAL RECOMMENDATION SHOULD BE ACCEPTED?

A. No, I do not. Staff's proposed adjustment to the previous allowed ROEs based on the relative change in the cost of equity is not financial in nature, but rather based on the Commission's assessment that Staff's growth rates used in the past were "just too low" and Staff's belief that Commissions generally set allowed ROEs above the cost of capital. Basing a financial adjustment on the concern that past results were "just too low," or for that matter "just too high," does not provide the rigor required to recommend a reliable result. Moreover, if the Commission believes staff's estimates to be too low, there is no reason to believe that the Commission will find the relative change between two estimates it finds too low to be useful when setting the allowed ROE.

Q. DO YOU BELIEVE THAT THE PERPETUAL GROWTH RATES THAT STAFF USES ARE "JUST TOO LOW"?

A. Staff has conducted "an extensive amount of research on the actual realized growth rates of electric utilities over a 30-year period to estimate a 3.00% to 4.00% growth rate as a reasonable proxy for perpetual growth for the electric utility industry."[59] While I applaud

[58] Ibid., p. 23, lines 4-8.
[59] See Staff's Cost of Service Report, P. 36, lines 19-21.

Staff for conducting research in an area currently lacking in definitive studies, I do not believe that the current state of research on the subject has reached a level that would allow analysts to make a definitive statement. It is partly for this reason that I have adopted the FERC's opinion that full nominal GDP be used as a terminal growth rate.[60]

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes, it does.

[60] See the Direct Testimony of Mr. Schafer, p. 26, lines 1-11.

Dr. Vander Weide's Quarterly DCF Model with the Revised Proxy Group

Line	Company	May-14	May-14	Apr-14	Apr-14	Mar-14	Mar-14	DIV1	DIV2	DIV3	DIV4	d_1	d_2	d_3	Most Recent Quarterly Dividend (d_0)	Stock Price P_0	Dividend	Forecast of Future Earnings Growth	DCF Model Result
1	Alliant Energy	60.12	56.09	58.79	55.47	56.99	52.99	0.493	0.493	0.535	0.535	0.470	0.470	0.510	0.510	56.742	2.120	4.90%	8.6%
2	Amer. Elec. Power	54.06	50.82	54.64	49.99	50.95	48.31	0.513	0.524	0.524	0.524	0.490	0.500	0.500	0.500	51.462	2.154	4.79%	9.0%
3	Gt Plains Energy	27.28	24.97	27.52	26.19	27.19	25.63	0.228	0.242	0.242	0.242	0.217	0.230	0.230	0.230	26.463	0.986	5.25%	9.0%
4	Pinnacle West Capit	57.09	53.81	57.31	53.71	55.78	53.29	0.568	0.592	0.592	0.592	0.545	0.568	0.568	0.568	55.165	2.419	4.28%	8.7%
5	PNM Resources	29.22	26.19	28.50	26.70	27.25	25.46	0.179	0.179	0.201	0.201	0.165	0.165	0.185	0.185	27.220	0.789	8.39%	11.3%
6	Portland General	33.57	32.46	33.84	32.01	32.75	31.18	0.306	0.306	0.306	0.306	0.275	0.275	0.275	0.275	32.635	1.291	11.21%	15.2%
7	Southern Co.	45.45	42.55	46.81	43.18	44.00	41.59	0.525	0.525	0.525	0.544	0.507	0.507	0.507	0.525	43.930	2.187	3.64%	8.6%
8	Xcel Energy Inc.	32.37	29.83	32.18	30.10	30.77	29.40	0.282	0.293	0.293	0.313	0.270	0.280	0.280	0.300	30.773	1.217	4.49%	8.4%
9	Average																		**9.85%**

Dr. Vander Weide's Constant-Growth DCF Model - Quarterly Element Removed

Line	Company	May-14	May-14	Apr-14	Apr-14	Mar-14	Mar-14	DIV1	DIV2	DIV3	DIV4	d_1	d_2	d_3	Most Recent Quarterly Dividend (d_0)	Stock Price P_0	Dividend	Forecast of Future Earnings Growth	DCF Model Result
1	Alliant Energy	60.12	56.09	58.79	55.47	56.99	52.99	0.493	0.493	0.535	0.535	0.470	0.470	0.510	0.510	56.742	2.056	4.90%	8.5%
2	Amer. Elec. Power	54.06	50.82	54.64	49.99	50.95	48.31	0.513	0.524	0.524	0.524	0.490	0.500	0.500	0.500	51.462	2.085	4.79%	8.8%
3	Black Hills	60.38	55.23	59.08	56.46	59.05	55.20	0.407	0.407	0.417	0.417	0.380	0.380	0.390	0.390	57.567	1.648	7.00%	9.9%
4	Cleco Corp.	53.06	50.33	52.62	49.32	50.99	48.24	0.387	0.387	0.388	0.428	0.362	0.362	0.363	0.400	50.760	1.591	7.00%	10.1%
5	CMS Energy Corp.	30.43	28.70	30.53	28.93	29.44	27.62	0.272	0.272	0.288	0.288	0.255	0.255	0.270	0.270	29.275	1.119	6.58%	10.4%
6	Dominion Resources	73.00	68.18	73.75	68.79	71.52	67.59	0.597	0.597	0.636	0.636	0.563	0.563	0.600	0.600	70.471	2.466	6.02%	9.5%
7	DTE Energy	79.45	73.99	78.70	73.65	74.61	69.58	0.693	0.693	0.693	0.693	0.655	0.655	0.655	0.655	74.996	2.773	5.85%	9.6%
8	Duke Energy	74.78	69.73	75.13	70.11	71.36	68.10	0.813	0.813	0.813	0.813	0.780	0.780	0.780	0.780	71.535	3.251	4.19%	8.7%
9	G't Plains Energy	27.28	24.97	27.52	26.19	27.19	25.63	0.228	0.242	0.242	0.242	0.217	0.230	0.230	0.230	26.463	0.955	5.25%	8.9%
10	Hawaiian Elec.	24.40	23.04	25.39	23.46	25.65	24.39	0.320	0.320	0.320	0.320	0.310	0.310	0.310	0.310	24.388	1.280	3.20%	8.4%
11	Integrys Energy	61.61	56.86	62.43	59.01	59.83	55.62	0.704	0.704	0.704	0.704	0.680	0.680	0.680	0.680	59.226	2.815	3.50%	8.3%
12	ITC Holdings	37.95	36.33	37.92	36.10	37.41	33.69	0.143	0.160	0.162	0.162	0.126	0.142	0.143	0.143	36.566	0.627	13.24%	15.0%
13	NextEra Energy	100.35	94.22	101.50	93.28	96.13	89.81	0.701	0.701	0.770	0.770	0.660	0.660	0.725	0.725	95.882	2.942	6.23%	9.3%
14	Northeast Utilities	47.51	44.77	47.60	44.70	45.69	43.13	0.390	0.391	0.418	0.418	0.367	0.368	0.393	0.393	45.567	1.618	6.36%	9.9%
15	NorthWestern Corp.	48.49	45.49	48.93	46.60	47.86	44.77	0.410	0.410	0.410	0.432	0.380	0.380	0.380	0.400	47.023	1.663	8.00%	11.5%
16	OGE Energy	37.40	35.05	37.44	34.93	36.92	35.18	0.222	0.222	0.240	0.240	0.209	0.209	0.225	0.225	36.153	0.924	6.60%	9.2%
17	PG&E Corp.	45.99	42.85	46.11	42.30	44.97	41.57	0.484	0.484	0.484	0.484	0.455	0.455	0.455	0.455	43.963	1.937	6.44%	10.8%
18	Pinnacle West Capita	57.09	53.81	57.31	53.71	55.78	53.29	0.568	0.592	0.592	0.592	0.545	0.568	0.568	0.568	55.165	2.345	4.28%	8.5%
19	PNM Resources	29.22	26.19	28.50	26.70	27.25	25.46	0.179	0.179	0.201	0.201	0.165	0.165	0.185	0.185	27.220	0.759	8.39%	11.2%
20	Portland General	33.57	32.46	33.84	32.01	32.75	31.18	0.306	0.306	0.306	0.306	0.275	0.275	0.275	0.275	32.635	1.223	11.21%	15.0%
21	SCANA Corp.	53.83	50.44	53.71	50.35	51.39	48.18	0.530	0.530	0.549	0.549	0.507	0.507	0.525	0.525	51.316	2.159	4.60%	8.8%
22	Sempra Energy	100.69	96.58	99.81	95.15	97.48	92.81	0.674	0.674	0.674	0.706	0.630	0.630	0.630	0.660	97.087	2.727	6.95%	9.8%
23	Southern Co.	45.45	42.55	46.81	43.18	44.00	41.59	0.525	0.525	0.525	0.544	0.507	0.507	0.507	0.525	43.930	2.120	3.64%	8.5%
24	TECO Energy	18.11	16.90	18.45	16.93	17.23	16.20	0.235	0.235	0.235	0.235	0.220	0.220	0.220	0.220	17.303	0.939	6.68%	12.1%
25	UIL Holdings	37.33	35.05	37.85	35.93	38.97	34.37	0.456	0.456	0.456	0.456	0.432	0.432	0.432	0.432	36.583	1.824	5.58%	10.6%
26	Vectren Corp.	41.00	38.20	41.14	38.62	39.59	36.77	0.369	0.374	0.374	0.374	0.355	0.360	0.360	0.360	39.220	1.492	4.00%	7.8%
27	Wisconsin Energy	49.21	44.43	48.88	46.21	46.76	43.22	0.356	0.401	0.401	0.409	0.340	0.383	0.383	0.390	46.452	1.568	4.81%	8.2%
28	Xcel Energy Inc.	32.37	29.83	32.18	30.10	30.77	29.40	0.282	0.293	0.293	0.313	0.270	0.280	0.280	0.300	30.773	1.181	4.49%	8.3%
29	Average																		**9.84%**

Dr. Vander Weide's Constant-Growth DCF Model - Quarterly Element Removed; Stock Prices Updated Through July, 2014

Line	Company	Jul-14	Jul-14	Jun-14	Jun-14	May-14	May-14	DIV1	DIV2	DIV3	DIV4	d_1	d_2	d_3	Most Recent Quarterly Dividend (d_0)	Stock Price P_0	Dividend	Forecast of Future Earnings Growth	DCF Model Result
1	Alliant Energy	60.89	56.50	60.88	56.55	60.12	56.09	0.493	0.535	0.535	0.535	0.470	0.510	0.510	0.510	58.505	2.098	4.90%	8.5%
2	Amer. Elec. Power	55.91	51.96	55.94	51.60	54.06	50.82	0.513	0.524	0.524	0.524	0.490	0.500	0.500	0.500	53.382	2.085	4.79%	8.7%
3	Black Hills	62.13	52.70	61.41	57.02	60.38	55.23	0.407	0.407	0.417	0.417	0.380	0.380	0.390	0.390	58.145	1.648	7.00%	9.8%
4	Cleco Corp.	59.21	54.65	59.13	50.74	53.06	50.33	0.387	0.387	0.388	0.428	0.362	0.362	0.363	0.400	54.520	1.591	7.00%	9.9%
5	CMS Energy Corp.	31.20	28.87	31.23	28.97	30.43	28.70	0.272	0.288	0.288	0.288	0.255	0.270	0.270	0.270	29.900	1.135	6.58%	10.4%
6	Dominion Resources	71.62	67.58	71.70	67.06	73.00	68.18	0.597	0.597	0.636	0.636	0.563	0.563	0.600	0.600	69.857	2.466	6.02%	9.6%
7	DTE Energy	78.10	73.74	78.20	72.76	79.45	73.99	0.693	0.693	0.693	0.693	0.655	0.655	0.655	0.655	76.040	2.773	5.85%	9.5%
8	Duke Energy	74.48	70.81	74.39	68.81	74.78	69.73	0.813	0.813	0.813	0.813	0.780	0.780	0.780	0.780	72.167	3.251	4.19%	8.7%
9	G't Plains Energy	26.95	24.71	27.05	24.72	27.28	24.97	0.228	0.242	0.242	0.242	0.217	0.230	0.230	0.230	25.947	0.955	5.25%	8.9%
10	Hawaiian Elec.	25.38	23.44	25.62	23.63	24.40	23.04	0.320	0.320	0.320	0.320	0.310	0.310	0.310	0.310	24.252	1.280	3.20%	8.5%
11	Integrys Energy	71.10	65.51	71.35	56.46	61.61	56.86	0.704	0.704	0.704	0.704	0.680	0.680	0.680	0.680	63.815	2.815	3.50%	7.9%
12	ITC Holdings	37.22	35.03	38.43	34.26	37.95	36.33	0.143	0.160	0.162	0.162	0.126	0.142	0.143	0.143	36.537	0.627	13.24%	15.0%
13	NextEra Energy	102.46	93.80	102.51	94.19	100.35	94.22	0.701	0.701	0.770	0.770	0.660	0.660	0.725	0.725	97.922	2.942	6.23%	9.2%
14	Northeast Utilities	47.37	43.78	47.37	44.28	47.51	44.77	0.390	0.391	0.418	0.418	0.367	0.368	0.393	0.393	45.847	1.618	6.36%	9.9%
15	NorthWestern Corp.	52.70	46.21	52.49	47.28	48.49	45.49	0.410	0.410	0.432	0.432	0.380	0.380	0.400	0.400	48.777	1.685	8.00%	11.5%
16	OGE Energy	39.28	35.95	39.10	35.32	37.40	35.05	0.222	0.240	0.240	0.240	0.209	0.225	0.225	0.225	37.017	0.942	6.60%	9.1%
17	PG&E Corp.	48.09	44.65	48.64	45.27	45.99	42.85	0.484	0.484	0.484	0.484	0.455	0.455	0.455	0.455	45.915	1.937	6.44%	10.7%
18	Pinnacle West Capit	57.95	53.29	58.06	53.04	57.09	53.81	0.592	0.592	0.592	0.592	0.568	0.568	0.568	0.568	55.540	2.369	4.28%	8.5%
19	PNM Resources	29.94	25.64	29.33	27.60	29.22	26.19	0.179	0.201	0.201	0.201	0.165	0.185	0.185	0.185	27.987	0.780	8.39%	11.2%
20	Portland General	34.74	31.93	34.69	32.15	33.57	32.46	0.306	0.306	0.306	0.311	0.275	0.275	0.275	0.280	33.257	1.229	11.21%	14.9%
21	SCANA Corp.	53.89	50.78	53.88	49.51	53.83	50.44	0.530	0.530	0.549	0.549	0.507	0.507	0.525	0.525	52.055	2.159	4.60%	8.7%
22	Sempra Energy	104.90	99.60	105.25	98.32	100.69	96.58	0.674	0.674	0.706	0.706	0.630	0.630	0.660	0.660	100.890	2.759	6.95%	9.7%
23	Southern Co.	45.47	43.22	45.58	42.78	45.45	42.55	0.525	0.525	0.544	0.544	0.507	0.507	0.525	0.525	44.175	2.139	3.64%	8.5%
24	TECO Energy	18.48	17.42	18.53	17.11	18.11	16.90	0.235	0.235	0.235	0.235	0.220	0.220	0.220	0.220	17.758	0.939	6.68%	12.0%
25	UIL Holdings	38.89	35.11	38.82	35.35	37.33	35.05	0.456	0.456	0.456	0.456	0.432	0.432	0.432	0.432	36.758	1.824	5.58%	10.5%
26	Vectren Corp.	42.74	38.06	42.52	39.01	41.00	38.20	0.369	0.374	0.374	0.374	0.355	0.360	0.360	0.360	40.255	1.492	4.00%	7.7%
27	Wisconsin Energy	47.02	43.56	47.13	44.03	49.21	44.43	0.401	0.401	0.409	0.409	0.383	0.383	0.390	0.390	45.897	1.620	4.81%	8.3%
28	Xcel Energy Inc.	32.26	30.73	32.29	30.05	32.37	29.83	0.293	0.293	0.313	0.313	0.280	0.280	0.300	0.300	31.255	1.212	4.49%	8.4%
29	Average																		**9.79%**

Rebuttal Schedule LCS-3

Dr. Vander Weide's Constant-Growth DCF Model - Quarterly Element Removed; Stock Prices Updated Through January 23, 2015; Growth Rates Updated

Line	Company	Jan-15	Jan-15	Dec-14	Dec-14	Nov-14	Nov-14	DIV1	DIV2	DIV3	DIV4	d_1	d_2	d_3	Recent Quarterly Dividend (d_0)	Stock Price P_0	Dividend	Forecast of Future Earnings Growth	DCF Model Result
1	Alliant Energy	70.85	65.30	66.41	61.44	63.73	58.95	0.535	0.535	0.535	0.535	0.510	0.510	0.510	0.510	64.447	2.140	4.90%	8.2%
2	Amer. Elec. Power	64.90	59.97	60.48	56.32	59.84	55.01	0.525	0.525	0.525	0.557	0.500	0.500	0.500	0.530	59.420	2.133	5.05%	8.6%
3	Black Hills	55.59	49.21	55.07	49.82	57.17	50.14	0.417	0.417	0.417	0.417	0.390	0.390	0.390	0.390	52.833	1.669	7.00%	10.2%
4	Cleco Corp.	55.36	54.22	55.20	53.12	53.98	52.99	0.416	0.416	0.416	0.416	0.400	0.400	0.400	0.400	54.145	1.664	4.00%	7.1%
5	CMS Energy Corp.	37.66	34.65	35.04	32.40	33.46	31.27	0.288	0.288	0.288	0.288	0.270	0.270	0.270	0.270	34.080	1.153	6.73%	10.1%
6	Dominion Resources	80.89	75.33	77.51	71.34	74.59	69.15	0.636	0.636	0.636	0.636	0.600	0.600	0.600	0.600	74.802	2.544	6.02%	9.4%
7	DTE Energy	91.66	85.69	86.86	79.89	84.42	78.77	0.695	0.695	0.733	0.733	0.655	0.655	0.690	0.690	84.548	2.856	6.17%	9.5%
8	Duke Energy	89.29	82.61	84.21	78.51	83.90	78.55	0.817	0.817	0.833	0.833	0.780	0.780	0.795	0.795	82.845	3.301	4.79%	8.8%
9	G't Plains Energy	29.99	27.43	27.84	25.63	27.38	25.55	0.241	0.241	0.241	0.256	0.230	0.230	0.230	0.245	27.303	0.978	4.60%	8.2%
10	Hawaiian Elec.	34.00	32.95	33.84	26.87	28.49	27.04	0.320	0.320	0.320	0.320	0.310	0.310	0.310	0.310	30.532	1.282	3.35%	7.5%
11	Integrys Energy	82.69	76.79	77.84	71.51	74.12	68.82	0.714	0.714	0.714	0.714	0.680	0.680	0.680	0.680	75.295	2.856	5.00%	8.8%
12	ITC Holdings	44.00	39.94	40.46	37.38	40.67	36.82	0.159	0.159	0.181	0.181	0.143	0.143	0.163	0.163	39.878	0.679	11.02%	12.7%
13	NextEra Energy	110.84	105.19	106.79	99.57	105.94	94.70	0.772	0.772	0.772	0.772	0.725	0.725	0.725	0.725	103.838	3.087	6.44%	9.4%
14	Northeast Utilities	56.66	52.93	53.82	49.34	50.92	47.54	0.415	0.415	0.415	0.415	0.393	0.393	0.393	0.393	51.868	1.660	5.62%	8.8%
15	NorthWestern Corp.	59.71	55.26	55.58	52.02	54.42	49.52	0.428	0.428	0.428	0.428	0.400	0.400	0.400	0.400	54.418	1.713	7.05%	10.2%
16	OGE Energy	36.70	33.44	37.05	32.85	37.90	36.18	0.236	0.236	0.263	0.263	0.225	0.225	0.250	0.250	35.687	0.998	5.10%	7.9%
17	PG&E Corp.	59.10	53.06	53.87	48.96	51.46	44.88	0.495	0.495	0.495	0.495	0.455	0.455	0.455	0.455	51.888	1.980	8.79%	12.6%
18	Pinnacle West Capit	73.31	67.69	68.43	61.55	63.13	58.18	0.592	0.592	0.592	0.620	0.568	0.568	0.568	0.595	65.382	2.396	4.20%	7.9%
19	PNM Resources	31.60	29.30	30.00	27.41	29.62	27.23	0.203	0.203	0.203	0.203	0.185	0.185	0.185	0.185	29.193	0.813	9.86%	12.6%
20	Portland General	40.80	37.82	38.75	36.20	37.29	34.18	0.297	0.302	0.302	0.302	0.275	0.280	0.280	0.280	37.507	1.204	7.97%	11.2%
21	SCANA Corp.	63.98	59.70	60.28	55.83	57.11	51.98	0.553	0.553	0.553	0.553	0.525	0.525	0.525	0.525	58.147	2.212	5.35%	9.2%
22	Sempra Energy	116.30	108.92	112.93	104.75	114.50	104.75	0.710	0.710	0.710	0.710	0.660	0.660	0.660	0.660	110.358	2.841	7.63%	10.2%
23	Southern Co.	52.47	48.84	49.49	46.30	47.97	45.86	0.524	0.543	0.543	0.543	0.507	0.525	0.525	0.525	48.488	2.153	3.40%	7.8%
24	TECO Energy	21.75	20.07	20.25	18.89	20.17	18.83	0.236	0.236	0.236	0.236	0.220	0.220	0.220	0.220	19.993	0.942	7.08%	11.8%
25	UIL Holdings	47.62	43.28	43.90	39.25	42.56	39.10	0.455	0.455	0.455	0.455	0.432	0.432	0.432	0.432	42.618	1.821	5.39%	9.7%
26	Vectren Corp.	49.47	44.77	45.64	42.96	45.96	42.42	0.378	0.378	0.378	0.399	0.360	0.360	0.360	0.380	45.203	1.533	5.00%	8.4%
27	Wisconsin Energy	57.25	52.35	52.77	47.90	50.54	47.50	0.411	0.411	0.411	0.411	0.390	0.390	0.390	0.390	51.385	1.645	5.44%	8.6%
28	Xcel Energy Inc.	37.89	35.49	35.71	33.14	34.09	32.05	0.314	0.314	0.314	0.314	0.300	0.300	0.300	0.300	34.728	1.254	4.51%	8.1%
29	Average																	5.98%	**9.42%**

Rebuttal Schedule LCS-4

Dr. Vander Weide's Constant-Growth DCF Model - Quarterly Element Removed; Stock Prices Updated Through January 23, 2015; Growth Rates Updated; Revised Proxy Group

Line	Company	Jan-15	Jan-15	Dec-14	Dec-14	Nov-14	Nov-14	DIV1	DIV2	DIV3	DIV4	d_1	d_2	d_3	Most Recent Quarterly Dividend (d_0)	Stock Price P_0	Dividend	Forecast of Future Earnings Growth	DCF Model Result
1	Alliant Energy	70.85	65.30	66.41	61.44	63.73	58.95	0.535	0.535	0.535	0.535	0.510	0.510	0.510	0.510	64.447	2.140	4.90%	8.2%
2	Amer. Elec. Power	64.90	59.97	60.48	56.32	59.84	55.01	0.525	0.525	0.525	0.557	0.500	0.500	0.500	0.530	59.420	2.133	5.05%	8.6%
9	G't Plains Energy	29.99	27.43	27.84	25.63	27.38	25.55	0.241	0.241	0.241	0.256	0.230	0.230	0.230	0.245	27.303	0.978	4.60%	8.2%
18	Pinnacle West Capita	73.31	67.69	68.43	61.55	63.13	58.18	0.592	0.592	0.592	0.620	0.568	0.568	0.568	0.595	65.382	2.396	4.20%	7.9%
19	PNM Resources	31.60	29.30	30.00	27.41	29.62	27.23	0.203	0.203	0.203	0.203	0.185	0.185	0.185	0.185	29.193	0.813	9.86%	12.6%
20	Portland General	40.80	37.82	38.75	36.20	37.29	34.18	0.297	0.302	0.302	0.302	0.275	0.280	0.280	0.280	37.507	1.204	7.97%	11.2%
23	Southern Co.	52.47	48.84	49.49	46.30	47.97	45.86	0.524	0.543	0.543	0.543	0.507	0.525	0.525	0.525	48.488	2.153	3.40%	7.8%
28	Xcel Energy Inc.	37.89	35.49	35.71	33.14	34.09	32.05	0.314	0.314	0.314	0.314	0.300	0.300	0.300	0.300	34.728	1.254	4.51%	8.1%
29	Average																	5.56%	**9.09%**

Rebuttal Schedule LCS-5