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Witness: Shana Griffin
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MISSOURI PUBLIC SERVICE COMMISSION

**REGULATORY REVIEW DIVISION
UTILITY SERVICES – FINANCIAL ANALYSIS**

REBUTTAL TESTIMONY

OF

SHANA GRIFFIN

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2014-0351

*Jefferson City, Missouri
March 2015*

Staff Exhibit No. *208*
Date *4-14-15* Reporter *RF*
File No. *ER-2014-0351*

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SHANA GRIFFIN
THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-2014-0351

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1 It is clear from utility stock price valuation levels that the COE of utilities has
2 continued to decline. At the end of 2014, electric utility stocks were trading at record high
3 price-to-earnings (p/e) multiples. This is widely recognized by the investment community
4 and supports the lower implied-COE estimates derived from a straight-forward DCF analysis.
5 Although many witnesses are concerned as to whether the higher valuation levels are
6 sustainable, investors had these same concerns in 2012 when valuation levels were lower
7 than they are today. Consequently, Staff urges the Commission to recognize the current
8 lower cost of common equity environment by setting Empire's ROE commensurate with the
9 current capital market environment, which clearly demonstrates a decline in the COE since
10 the Commission last authorized ROEs for its electric utilities in 2012.

11 **DR. VANDER WEIDE'S COST OF COMMON EQUITY FOR EMPIRE**

12 Q. What COE did Dr. Vander Weide estimate for Empire in this case?

13 A. He provides a point estimate of 10.5 percent for the COE for his proxy
14 companies based on a range of 10.0 percent to 10.8 percent. Empire witness Ms. Kelly
15 Walters requests an allowed return on common equity (ROE) of 10.15% for purposes of
16 establishing the overall revenue requirement in this case. Ms. Walters explains in her direct
17 testimony that a requested ROE that is toward the low side of Dr. Vander Weide's
18 recommended range was chosen since this case is the beginning of back-to-back rate cases to
19 recover what are primarily environmental compliance costs.

20 Q. How did Dr. Vander Weide determine his point COE estimate?

21 A. Dr. Vander Weide's estimated COE of 10.5 percent is based on the
22 average of the following COE estimation methods: (1) DCF; (2) ex-ante risk premium; and
23 (3) ex-post risk premium. He estimated the COE using his historical capital asset pricing

1 model ("CAPM"); and his DCF-Based CAPM, but did not factor these results into his overall
2 recommendation. Dr. Vander Weide estimated Empire's COE to be 10.0 percent using his
3 DCF method, 10.8 percent using his ex-ante risk premium method, and 10.7 percent using his
4 ex-post risk premium method (mid-point of his range of 10.3 to 11.1 percent). Dr. Vander
5 Weide arrived at his final estimated COE for Empire of 10.5 percent by taking a simple
6 average of his DCF method (10.0 percent), his ex-ante risk premium method (10.8 percent)
7 and the midpoint of his ex-post risk premium method (10.7 percent).

8 Q. What was Dr. Vander Weide's estimate of Empire's COE in Empire's last rate
9 case, Case No. ER-2012-0345?

10 A. 10.6 percent.

11 Q. Since Empire's last rate case has the COE decreased more significantly than
12 the 10 basis point decrease recognized by the difference in Dr. Vander Weide's COE
13 estimates from the two cases?

14 A. Yes. In Staff's COS Report, Staff provides a substantial amount of evidence
15 that all capital costs have decreased for utilities, which includes the COE for utility
16 companies. Using Dr. Vander Weide's COE estimation methods, Staff will demonstrate that
17 an objective analysis will also clearly imply a more significant decline in the COE than the
18 10 basis points Dr. Vander Weide estimated.

19 Q. Did Dr. Vander Weide use the same methodologies in this case to estimate
20 Empire's COE as he did in Empire's last rate case?

21 A. Yes, except in the last rate case he performed a multi-stage DCF COE analysis
22 because the Commission had expressed a preference for this method. However, he gave no
23 weight to this estimate to his final recommendation in that case. He also did not use the same

1 proxy group in both cases. Dr. Vander Weide's proxy groups are difficult to compare from
2 case to case because one of his selection criterion for a company to be included in his proxy
3 group is dependent on whether the DCF results are consistent with what he believes to be fair
4 and reasonable based on arbitrary parameters. In order to be included in his proxy group a
5 company's DCF result must be greater than the forecasted bond yield for a company's bond
6 rating, but less than 16%.

7 Q. Can comparing the results from Empire's 2012 rate case to Empire's current
8 rate case provide an insight on the change in the COE?

9 A. Yes. Although Staff does not agree with many of the inputs Dr. Vander Weide
10 used in his COE estimation methods, comparing the results between the two cases can
11 provide insight on the change in the COE as long as the same proxy group is used for both
12 periods and the COE estimation methods are executed consistently in each period.

13 Q. Did you do this for the COE estimation methods Dr. Vander Weide applied to
14 his proxy groups?

15 A. Yes. However, I used a subset of companies from Dr. Vander Weide's proxy
16 groups in Empire's 2012 rate case and the current case. To form the subset of proxy group
17 companies, I combined Dr. Vander Weide's 2012 proxy group and 2014 proxy group and
18 then eliminated companies that would not allow a reliable representation of the change in
19 COE from Empire's last rate case to this case. I eliminated Cleco Corporation, Integrys
20 Corporation, Wisconsin Energy, Hawaiian Electric, NextEra Energy and PEPCO Holdings
21 from the subset of proxy group companies because these companies' stock prices
22 are currently being influenced by merger and acquisition activities. FirstEnergy was
23 excluded because it lowered its dividend. BlackHills was eliminated because there is no

1 current long-term growth estimate available. ITC Holdings and Vectren Corporation were
2 eliminated because Staff was unable to access a long-term growth estimate for these
3 companies for the end of April 2012. The final subset of companies is shown in
4 Schedule SG-2. Although Staff has concerns about the comparability of some of the
5 companies remaining in this subset of companies for purposes of providing an absolute COE
6 estimate, Staff's concerns are not as great for purpose of providing a reliable estimate of the
7 change in the COE since Dr. Vander Weide last sponsored testimony for Empire in 2012.

8 Because Dr. Vander Weide's direct testimony in 2012 used financial data consistent
9 with the time period the Commission evaluated for purposes of determining a fair and
10 reasonable allowed ROE for Ameren Missouri in Case No. ER-2012-0166 and Kansas City
11 Power & Light Company and KCP&L Greater Missouri Operations Company in Case Nos.
12 ER-2012-0174 and ER-2012-0175, respectively, Staff did not change any of the stock prices
13 Dr. Vander Weide used in his DCF analyses (both the constant-growth and multi-stage).
14 However, Staff used FactSet consensus 5-year earnings per share ("EPS") growth rate
15 estimates rather than the growth rates Dr. Vander Weide obtained from I/B/E/S Thomson
16 Reuters because Staff has access to this information for the 2012 and 2014 periods.

17 I also compared Dr. Vander Weide's Ex-Ante and Ex-Post risk premium methods
18 from the 2012 rate case to the current case using actual yields instead of forecasted yields.
19 I estimated the COE in 2014 by applying Dr. Vander Weide's estimated risk premiums to the
20 average bond yield for the three months ending through December 2014. Additionally,
21 because of significant variation in utility stock prices between January and February 2015,
22 Staff is providing this information as of January and February 2015 to provide the
23 Commission information on how bond yields have reacted since December 2014.

1 Q. What are Staff's concerns about certain companies from Dr. Vander Weide's
2 broader proxy groups he used in his DCF analyses?

3 A. The objective of selecting a comparable group is to find companies that are as
4 "pure play" as possible. "Pure play" means that the comparable company is confined, as
5 much as possible, to the operation that is the subject of the cost-of-capital study. To meet
6 this objective, Staff only includes in its comparable group companies that have at least 80%
7 of income from regulated utility operations, at least 50% of plant from electric utility
8 operations, at least 25% of electric plant generation and that are classified as "Regulated"¹ by
9 the Edison Electric Institute ("EEI"). Dr. Vander Weide does not use any of these criteria in
10 selecting his comparable companies. Instead of using pre-screening criteria to eliminate
11 incomparable companies, Dr. Vander Weide eliminates companies from his proxy group
12 after he performs a DCF analysis based on whether the results are consistent with parameters
13 he decides should be used to render a DCF implied COE as unreliable.

14 Q. What did the DCF analyses using a subset of Dr. Vander Weide's proxy
15 groups imply regarding the change in the COE since Empire's 2012 rate case, Case No.
16 ER-2012-0345?

17 A. The constant growth DCF analysis implies that the cost of common equity has
18 declined by approximately 80 basis points since Empire's 2012 rate case. The multi-stage
19 DCF analysis implies that the cost of common equity has declined in the range of
20 approximately 40 to 50 basis points. (See Schedule SG-1)

¹ EEI's "Regulated" classification means 80%+ of the company's total assets are regulated.

1 Q. What bond yields did Staff use for purposes of comparing the results from
2 Dr. Vander Weide's risk premium methods in Empire's 2012 rate case as compared to the
3 current case?

4 A. Staff compared the risk premium methods using the actual average monthly
5 yields on 'A' rated utility bonds for February through April 2012 and October through
6 December 2014 from BondsOnline data. Staff also shows how bond yield data through
7 February 2015 affects the COE estimates. Staff believes it is more reliable to compare the
8 methods using the actual yields because using projected bond yields tends to overstate the
9 COE, especially in the current environment. Estimating the COE by adding risk premiums to
10 projected bond yields is similar to basing a DCF COE estimate on projected stock prices.
11 Because Dr. Vander Weide is adding his risk premium estimates to projected bond yields in
12 2018, his COE estimates are not reliable for purposes of estimating the current COE.
13 Although Staff generally does not believe it is appropriate to use any projected bond yields
14 because it is inconsistent with investors current return requirements, Staff adamantly
15 disagrees with using projected bond yields three years from now. Dr. Vander Weide did not
16 use projected stock prices in his DCF analysis because current stock prices reflect investors'
17 expectations regarding changes in interest rates as well as company-specific risks. Current
18 bond prices, and therefore current bond yields, reflect investors' expectations concerning
19 future interest rates. Therefore, the current bond yield does not need to be adjusted.

20 Q. Has Dr. Vander Weide's method of projecting bond yields proven to bias his
21 COE estimates?

22 A. Yes. In Empire's 2012 case, Dr. Vander Weide used Value Line's 5.3%
23 projected AAA corporate bond yield from Value Line's February 24, 2012 Selection &

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Rebuttal Testimony

1 Opinion to impute his estimate of a 2015 projected yield for A rated utility bonds of 6.5%.
2 He added the 6.5% forecasted yield to his 4.4% risk premium estimate for a final cost of
3 equity estimate of 10.9% using his ex-ante risk premium method. Experience has proven
4 why one should be cautious about using estimated bond yields for purposes of estimating the
5 COE for purposes of setting the allowed ROE. The actual average Moody's AAA corporate
6 bond yield for January and February 2015 was 3.53%, almost 2% lower than the projections
7 Dr. Vander Weide used to justify his higher COE estimates in 2012.² The actual average
8 yields on A-rated utility bonds for January and February 2015 was 3.65% according to
9 BondsOnline data, which is almost 3% lower than the projections Dr. Vander Weide used to
10 justify his higher COE estimates in 2012.

11 Q. What does the risk premium analyses using actual A rated utility bond yields
12 in Dr. Vander Weide's COE estimation methods imply regarding the change in the COE
13 since Empire's 2012 rate case, Case No. ER-2012-0345?

14 A. Using the average A rated utility bond yield ending of 4.97% for the three
15 months ending April 2012, Dr. Vander Weide's ex-ante risk premium analysis produced a
16 COE of 10.28% and using the average A rated utility bond yield of 4.02% for the three
17 months ending December 2014 his ex-ante risk premium analysis produced a COE of 9.82%.
18 Therefore, the ex-ante risk premium analysis using actual average yields implies that the cost
19 of common equity has declined by 46 basis points since Empire's 2012 rate case. Applying
20 the same actual yields to Dr. Vander Weide's ex-post risk premium analysis in 2012 and
21 2014 produced a COE of 9.02% and 8.32%, respectively. Therefore, the ex-post risk
22 premium analysis using the same actual yields as in the ex-ante analysis implies that the cost

² <http://research.stlouisfed.org/fred2/data/AAA.txt>.

1 of common equity has declined by 70 basis points. The average A rated utility bond yields
2 were 3.60% and 3.70% for January and February 2015, respectively. Using these yields in
3 Dr. Vander Weide's ex-ante risk premium analysis produced a COE of 9.65% and 9.69%,
4 respectively. The COE results when using the January and February 2015 average A rated
5 utility bond yields in Dr. Vander Weide's ex-post risk premium analysis were 7.90% and
6 8.00%, respectively. This implies an even greater decline in the COE since 2012.

7 **MR. SCHAFFER'S COST OF COMMON EQUITY FOR EMPIRE**

8 Q. Please summarize Mr. Schafer's estimated COE and resulting
9 recommended ROE.

10 A. Mr. Schafer's recommended ROE is 9.05%. This recommendation is the
11 midpoint of his range of 8.62% to 9.47% established by the results of his CAPM and constant
12 growth DCF model, respectively. Mr. Schafer also used the multi-stage DCF method to
13 estimate the COE.

14 Q. Do you believe Empire's allowed ROE should be higher or lower than
15 Ameren Missouri's allowed ROE?

16 A. I believe it should be higher. Due to Empire's higher risk profile,
17 I recommend that Empire's allowed ROE be set 25 basis points higher than Ameren
18 Missouri's. Mr. Schaefer did not reflect Empire's higher risk in his recommendation.

19 Q. Are you aware of any testimony Mr. Schafer may have sponsored in 2012 to
20 allow you to compare the relative changes in his COE estimates over time?

21 A. No. Mr. Schafer indicates on page 2 of his direct testimony that the only case
22 he has previously filed testimony, before this case, is in the current Ameren Missouri rate
23 case No. ER-2014-0258.

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Rebuttal Testimony

1 Q. What ROE did Mr. Schafer recommend in the current Ameren Missouri
2 rate case?

3 A. 9.01%, which was based on a simple average of his three COE estimates in
4 that case, which included his multi-stage DCF cost of equity.

5 Q. Does Mr. Schaefer explain why he decided to take a mid-point of his COE
6 estimates in this case as compared to an average in the Ameren Missouri case?

7 A. No.

8 Q. Has the COE for the electric utility industry increased since Mr. Schafer made
9 his ROE recommendation in the current Ameren Missouri rate case?

10 A. No. Staff's analysis presented in its direct testimony in this case shows that
11 the COE for the electric utility industry declined during the time that elapsed between the
12 rate case filings for Ameren Missouri and Empire.

13 Q. How much did Staff estimate the COE had declined between the time it filed
14 testimony in the Ameren Missouri rate case and the time it filed testimony in the Empire
15 rate case?

16 A. Using the multi-stage DCF method, Staff estimated a COE of approximately
17 7.60% to 8.40%, midpoint of 8.00%, in the current Ameren Missouri rate case and a COE of
18 approximately 7.30% to 8.10%, midpoint of 7.70%, in the current Empire case. Therefore,
19 Staff estimated that the COE had declined by approximately 30 basis points between the time
20 it filed direct testimony in Ameren Missouri's current rate case to Empire's current rate case.

21 Q. In Staff's opinion, what was the primary cause for such significant decline in
22 the COE over this approximate two month period?

Shana Griffin
Rebuttal Testimony

1 A. The macroeconomic environment caused a further decline in the COE.
2 Long-term interest rates declined during the fourth quarter of 2014. Average long-term
3 utility bond yields dropped below 4.25% and the average 30-year U.S. Treasury yields for
4 the fourth quarter of 2014 averaged of 2.97% (Oct 3.04%; Nov 3.04%; Dec 2.83%).

5 Q. If Staff believes the COE declined by another 30 basis points since it filed its
6 testimony in the Ameren Missouri rate case, what are the primary reasons causing the
7 difference in opinion between OPC and Staff?

8 A. Mr. Schafer's constant-growth DCF implies a COE increase of 25 basis
9 points. This higher COE estimate is due to the fact that he added Ameren Corp. to the proxy
10 group he used in the Ameren Missouri rate case. If Mr. Schafer had excluded Ameren from
11 his proxy group in this case his results would be: CAPM of 8.61% (13 basis points decline),
12 Constant-growth DCF of 9.23% and Three-Stage DCF of 8.63% (44 basis points decline).
13 This would provide a range of 8.61% to 9.23% with a midpoint of 8.92% and an average
14 of 8.83%.

15 Q. Does Staff agree with Mr. Schafer's dividend yield adjustment?

16 A. No. Staff disagrees with Mr. Schafer making an upward adjustment to the
17 COE implied from his analysis because he believes the dividend yields in the utility industry
18 are currently abnormally low.

19 Q. What are the implications of Mr. Schafer's decision to adjust the dividend
20 yield because he believes they are currently abnormally low?

21 A. There are two primary reasons why the dividend yield is lower than it has
22 been in the past. One is investors' required returns on utility stocks have declined. The other
23 is investors expect higher growth in earnings from the stock as compared to historical years.

1 Staff believes it to be the first reason because there has not been a fundamental shift in the
2 utility industry's growth prospects in the last couple of years.

3 Q. Mr. Schafer explains in his direct testimony that his dividend yield adjustment
4 is not an adjustment he would normally recommend, and discusses the likelihood that the
5 Federal Reserve ("the Fed") will soon raise interest rates and multiple organizations have
6 factored higher interest rates into their forecasts of the yield on Treasury securities as a
7 reason for making his dividend yield adjustment. What is your response?

8 A. First, even assuming the Fed increases the Fed Funds rate in the next year,
9 these increases are already factored into current long-term rates. If the Fed were to
10 unexpectedly increase or decrease interest rates, then this may have an impact on long-term
11 rates, but because these are changes to short-term rates, it will not have a dramatic impact on
12 long-term rates as these are impacted by competitive market forces rather than monetary
13 policy. Regardless, the timing and pace of change in the Fed Funds rate is not certain.
14 Federal Reserve Chairwoman Janet Yellen spoke before the Senate Banking Committee on
15 February 24, 2015 to present the Federal Reserve's semiannual Monetary Policy Report. She
16 stated "Provided that labor market conditions continue to improve and further improvement
17 is expected, the Committee anticipates that it will be appropriate to raise the target range for
18 the federal funds rate when, on the basis of incoming data, the Committee is reasonably
19 confident that inflation will move back over the medium term toward our 2 percent objective.
20 It continues to be the Federal Open Market Committee's ("FOMC") assessment that even
21 after employment and inflation are near levels consistent with our dual mandate, economic
22 conditions may, for some time, warrant keeping the federal funds rate below levels the
23 Committee views as normal in the longer run. In response to unforeseen developments, the

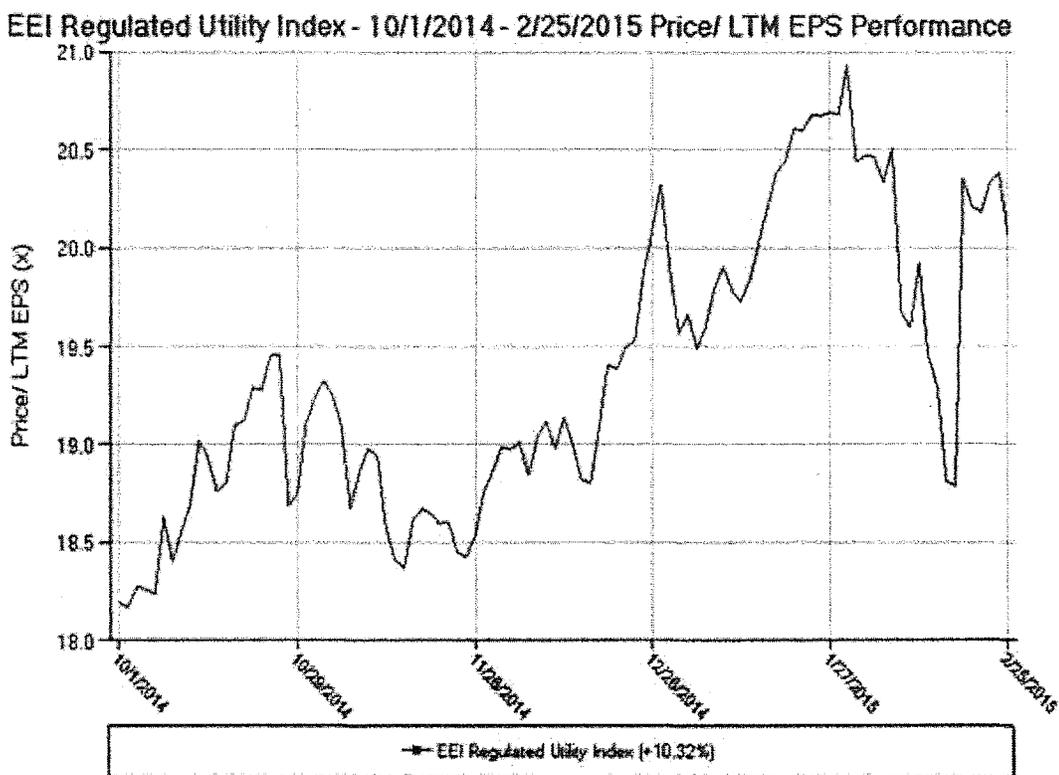
1 Committee will adjust the target range for the federal funds rate to best promote the
2 achievement of maximum employment and 2 percent inflation.” She also stated “too many
3 Americans remain unemployed or underemployed, wage growth is still sluggish, and
4 inflation remains well below our longer-run objective.” The Federal Reserve is obviously
5 still concerned about economic conditions even though recent quarters showed good
6 performance. Although many think there will be some increase to the federal funds rate at
7 least by the end of the year, the impact on long-term rates is likely to be small considering
8 that long-term rates are also low due to concerns about a prolonged low growth, low return
9 environment. The Federal Reserve is targeting a 2 percent inflation rate and the Federal
10 Reserve Chairwoman said that inflation remains well below their longer-run objective.

11 Q. Do the utility capital market conditions at the time Staff prepared its rebuttal
12 testimony still support of Staff’s position that the COE has declined by at least 25 to 75 basis
13 points since 2012?

14 A. Yes. The lower interest rate environment has continued to support a low cost
15 of capital environment for utilities for both their equity and debt capital. At the time Staff
16 filed its direct testimony in the 2012 Ameren and KCP&L rate cases, the 6 month average
17 utility bond yield through June 2012 was 4.94%. At the time Staff was preparing its
18 testimony for this case, the 6 month average utility bond yield through December 2014 was
19 4.27%, a decline of 67 basis points. The 6 month average utility bond yield through
20 February 2015 was even lower at 4.11%, a decline of 83 basis points from the first 6 months
21 of 2012.

22 Below are graphs of the change in the price-to-last-twelve-months’ earnings ratios
23 (“p/e ratios”) for EEI’s current regulated utility index. The first illustrates the data from the

1



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3 At the time of the 2012 rate cases, the average forward p/e ratio as reported by Factset, for
4 Staff's 2012 proxy group (excluding Cleco Corporation and Wisconsin Energy due to their
5 current involvement in mergers and acquisitions), was approximately 14.12x based on 2011
6 year end prices applied to projected 2012 EPS. The average forward p/e ratio for the same
7 proxy group based on 2014 year end prices applied to projected 2015 EPS was approximately
8 16.85x. The current average forward p/e ratio for the same proxy group was approximately
9 17.31x based on January and February 2015 prices applied to projected 2015 EPS. Since
10 utility prices were at their peak in January 2015 and there was a contraction in February
11 2015, Staff calculated the average forward p/e ratio for the same proxy group based on
12 January 2015 month end price to 2015 projected EPS and February 2015 month end price to

1 2015 projected EPS based on the same proxy group. The results were 18.07x and 16.56x,
2 respectively. Consequently, even with the contraction of utility stock prices in February
3 2015, the current p/e ratios are higher than they were in 2012. Also, because the projected
4 average 5-year EPS growth rates of these eight companies has actually declined by
5 approximately 70 basis points from approximately 5.40% to 4.67%, the only plausible
6 explanation for the expansion of the p/e ratios for these companies since the last rate case is a
7 decline in the required ROE, i.e. the cost of equity, for the regulated electric utility industry
8 due to the realization that our economy may be in a prolonged low-yield, low growth state.

9 The subset of Dr. Vander Weide's 2012 and 2014 proxy groups also illustrate that the
10 p/e ratios are still higher than in 2012. At the time of the 2012 rate cases, the average
11 forward p/e ratio as reported by Factset, for the subset of Dr. Vander Weide's proxy groups,
12 was approximately 14.66x based on 2011 year end prices applied to projected 2012 EPS.
13 The average forward p/e ratio for the same proxy group based on 2014 year end prices
14 applied to projected 2015 EPS was approximately 17.72x. The current average forward
15 p/e ratio for the same proxy group was approximately 18.10x based on January and
16 February 2015 prices applied to projected 2015 EPS.

17 SUMMARY AND CONCLUSIONS

18 Q. What points in your rebuttal testimony should the Commission focus on?

19 A. The Commission should recognize that based on Staff's comparison of the
20 COE estimates determined by Dr. Vander Weide's estimation methods from Empire's 2012
21 rate case to the current case show a decline in the COE. This analysis shows a decline in the
22 COE in the range of approximately 40 to 80 basis points and continues to support Staff's

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Rebuttal Testimony

1 conclusion in its direct testimony that the Commission should set the allowed ROE at least
2 25 to 75 basis points lower than the Commission set allowed ROEs in the 2012 cases.

3 Q. Does this conclude your rebuttal testimony?

4 A. Yes, it does.

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 SHANA GRIFFIN

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

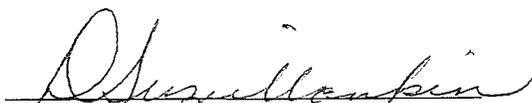
Shana Griffin, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Rebuttal Testimony in question and answer form, consisting of 17 pages to be presented in the above case; that the answers in the foregoing Rebuttal Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of her knowledge and belief.



Shana Griffin

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

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2016
Commission Number: 12412070



Notary Public

The Empire District Electric Company

Case No. ER-2014-0351

**IMPLIED COST OF EQUITY DECLINE BASED ON
SUBSET OF DR. VANDER WEIDE'S 2012 AND 2014 PROXY GROUPS
AND ESTIMATION METHODS**

| | <u>2014 Rate Case Results</u> | <u>2012 Rate Case Results</u> |
|---|---|-------------------------------|
| Constant Growth DCF | 9.50% | 10.30% |
| Multi-Stage DCF | 8.80% - 10.00% | 9.30% - 10.40% |
| Ex Ante Risk Premium (using actual average yields) | 9.82% | 10.28% |
| Ex Post Risk Premium (using actual average yields) | 8.32% | 9.02% |
| | <u>Implied Cost of Equity Reduction</u> | |
| Constant Growth DCF | 0.80% | |
| Multi-Stage DCF | .40% to .50% | |
| Ex Ante Risk Premium | 0.46% | |
| Ex Post Risk Premium | 0.70% | |

The Empire District Electric Company
Case No. ER-2014-0351
Subset of Proxy Group Companies from
Dr. Vander Weide's 2012 and 2014 Empire Rate Case Proxy Groups

| Number | Ticker Symbol | Company Name |
|--------|------------------|---|
| 1 | LNT | Alliant Energy Corporation |
| 2 | AEP | American Electric Power Company |
| 3 | CNP | CenterPoint Energy, Inc. |
| 4 | CMS | CMS Energy Corp. |
| 5 | ED | Consolidated Edison, Inc. |
| 6 | D | Dominion Resources, Inc. |
| 7 | DTE | DTE Energy Company |
| 8 | DUK | Duke Energy Corporation |
| 9 | GXP | Great Plains Energy, Inc. |
| 10 | NU | Northeast Utilities (Eversource Energy) |
| 11 | NWE | Northwestern Corporation |
| 12 | OGE | OGE Energy Corp. |
| 13 | PCG | PG&E Corportaion |
| 14 | PNW | Pinnacle West Capital Corporation |
| 15 | PNM | PNM Resources, Inc. |
| 16 | POR | Portland General Electric Company |
| 17 | SCG | SCANA Corp. |
| 18 | SRE | Sempra Energy |
| 19 | SO | Southern Company |
| 20 | TE | TECO Energy, Inc. |
| 21 | UIL | UIL Holdings Corporation |
| 22 | WR | Westar Energy, Inc. |
| 23 | XEL | Xcel Energy Inc. |