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Michael P. Gorman
Surrebuttal Testimony
Noranda Aluminum, Inc.
EC-2014-0223
July 3, 2014

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Service Commission

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

Noranda Aluminum, Inc.
(Complainant)

v.

Union Electric Company, d/b/a
Ameren Missouri (Respondent)

)
)
)
) **Case No. EC-2014-0223**
)
)
)

Surrebuttal Testimony and Schedules of

Michael P. Gorman

On behalf of

Noranda Aluminum, Inc.

July 3, 2014



Comp. Exhibit No. 4
Date 7-28-14 Reporter AF
File No EC-2014-0223

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Case No. EC-2014-0223

STATE OF MISSOURI)

COUNTY OF ST. LOUIS)

SS

Affidavit of Michael P. Gorman

Michael P. Gorman, being first duly sworn, on his oath states:

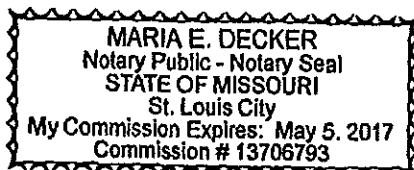
1. My name is Michael P. Gorman. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by Noranda Aluminum, Inc. in this proceeding on its behalf.

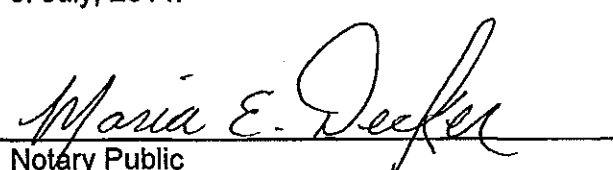
2. Attached hereto and made a part hereof for all purposes are my surrebuttal testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. EC-2014-0223.

3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.


Michael P. Gorman

Subscribed and sworn to before me this 2nd day of July, 2014.




Notary Public

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

| | | |
|---|---|-----------------------|
| Noranda Aluminum, Inc. (Complainant) |) | |
| v. |) | Case No. EC-2014-0223 |
| Union Electric Company, d/b/a Ameren Missouri (Respondent) |) | |

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**BEFORE THE PUBLIC SERVICE COMMISSION
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Noranda Aluminum, Inc.
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v.

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Ameren Missouri (Respondent)

Case No. EC-2014-0223

Surrebuttal Testimony of Michael P. Gorman

1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

2 A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 Q ARE YOU THE SAME MICHAEL P. GORMAN WHO PREVIOUSLY FILED DIRECT
5 TESTIMONY ON BEHALF OF COMPLAINANTS IN THIS CASE?

6 A Yes.

7 Q WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

8 A I will respond to the rebuttal testimony of Ameren Missouri ("Company") witness
9 Robert Hevert.

10 Q AFTER REVIEWING MR. HEVERT'S REBUTTAL TESTIMONY, WHAT IS YOUR
11 OPINION AS TO THE PROPER RETURN ON EQUITY FOR AMEREN MISSOURI?

12 A My opinion continues to be that 9.4% is a proper return on equity for Ameren
13 Missouri.

Michael P. Gorman
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1 **RESPONSE TO ROBERT HEVERT**

2 Q DOES MR. HEVERT COMPARE YOUR RECOMMENDED RETURN ON EQUITY
3 WITH RECENT INDUSTRY AUTHORIZED RETURNS?

4 A Yes. At page 7 of Mr. Hevert's rebuttal testimony, he compares my recommended
5 return on equity of 9.4% with the median authorized returns for vertically integrated
6 electric utilities in 2013 and 2014. He concludes this indicates industry returns on
7 equity of around 9.9%, with the highest at 10.95%, above my 9.4%.

8 Q PLEASE RESPOND TO MR. HEVERT.

9 A Contrary to Mr. Hevert's assertions, my recommendation is generally consistent with
10 the trend in industry authorized returns on equity. The *Regulatory Research*
11 *Associates* ("RRA") report published in April of this year summarizes decisions for
12 electric and gas utilities as follows:

13 The average return on equity (ROE) authorized electric utilities was
14 10.23% in the first quarter of 2014 (eight observations), compared to
15 the 10.02% authorized in calendar-2013. We note that the 2014 data
16 includes three surcharge/rider generation cases in Virginia that
17 incorporate plant-specific ROE premiums. Virginia statutes authorize
18 the State Corporation Commission to approve ROE premiums of up to
19 200 basis points for certain generation projects (see the Virginia
20 Commission Profile). Excluding these Virginia surcharge/rider
21 generation cases from the data, the average authorized electric ROE
22 was 9.57% for the first three months of 2014 versus 9.8% in calendar-
23 2013. The average ROE authorized gas utilities was 9.54% for the
24 first quarter of 2014 (six observations), compared to 9.68% in
25 calendar-2013. The data do not include a Feb. 20, 2014 New York
26 Public Service Commission steam rate decision for Consolidated
27 Edison Co. of New York that adopted a 9.3% ROE. (We note that this
28 report utilizes the simple mean for the return averages.)¹

29 As noted in this report, electric utility authorized returns on equity, excluding
30 the Virginia decisions with mandated 200 basis point premium adders to surcharges,

¹*Regulatory Research Associates Regulatory Focus*, "Major Rate Case Decisions—January-March 2014," April 9, 2014 at 1, double underlining indicates emphasis added.

1 was 9.8% in calendar year 2013, but had dropped to 9.57% in the first quarter of this
2 year. Similarly, gas utilities' authorized returns on equity decreased to 9.54% in the
3 first quarter of this year, compared to 9.68% during 2013. This trend suggests a
4 decline in authorized returns on equity for electric utilities of 23 to 25 basis points, and
5 14 to 15 basis points for gas utilities, respectively, in the first quarter of 2014 relative
6 to calendar year 2013. This trend supports my recommendation that Ameren
7 Missouri's return on equity of 9.8% authorized in December 2012 should be
8 decreased.

9 **Q HAVE DECLINING AUTHORIZED RETURNS ON EQUITY CONTINUED TO**
10 **SUPPORT THE FINANCIAL INTEGRITY AND ACCESS TO CAPITAL OF UTILITY**
11 **COMPANIES?**

12 **A** Yes. Indeed, with the significant declining trend in authorized returns on equity,
13 which track declines in capital market costs for utilities, credit rating agencies and
14 investors in general have viewed the utility industry as low-risk stable investments.
15 Indeed, credit analysts have actually increased the overall bond ratings of the utility
16 companies in face of these declining authorized returns on equity.

17 Credit rating agencies are raising the credit outlook for regulated utility
18 companies, and noting their strong credit metrics. All of this is occurring most
19 recently, as authorized returns on equity have declined in line with declines in overall
20 capital market costs. Statements by Standard & Poor's ("S&P") and Fitch are
21 indicative of these observations.

22 S&P recently published a report titled "Stable-To-Modestly Improved Industry
23 Outlook Supports Ratings For U.S. Regulated Electric, Gas, And Water Utilities." In
24 that report, S&P noted the following:

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Effect on ratings

Notwithstanding the slow economic recovery, credit quality in the domestic utility industry has continued a long shift to greater stability, and even modest improvement in some cases, especially as many companies re-emphasize their core competencies.

* * *

Industry Ratings Outlook

Good access to funding expected to continue

Liquidity is adequate for most utilities and investor appetite for utility debt remains healthy, with deals continuing to be oversubscribed at very attractive rates. The amount of medium- to long-term debt and hybrid securities issued through the three months ended March 31, 2013 was about \$8.7 billion. Credit fundamentals indicate that most, if not all, utilities should continue to have ample access to funding sources and credit. The relative certainty of financial performance provided by the regulatory framework under which utilities operate, their effective monopoly position, long-lived assets, and the financing necessary to fund these assets are all factors that make the utility sector attractive to investors. These elements have also helped utilities more effectively manage their rate-relief needs and mitigate the effect of sizable rate increases on customers.²

Similarly, Fitch states:

Rating Outlook

Stable Ratings Outlook: Fitch Ratings expects the ratings and ratings outlook for the overall U.S. Utilities, Power, and Gas (UPG) sector to remain stable in 2014.

* * *

Got Gas?

Gas utilities are benefitting from stable and low natural gas prices, and growing volumes from system build-outs and growing usage in electricity generation and as transportation fuel. In the northeast and mid-Atlantic regions, conversions from heating oil are also propelling strong customer and volume growth. Fitch expects continued strong growth and improved credit metrics for the sector in 2014, although ratings are expected to be stable.

²*Standard & Poor's RatingsDirect*: "Industry Report Card: Stable-To-Modestly Improved Industry Outlook Supports Ratings For U.S. Regulated Electric, Gas, And Water Utilities," April 19, 2013 at 3-4 and 6-7, emphasis added.

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Sector Outlook

The sector outlook for regulated gas distribution companies is positive. Relatively low and stable natural gas prices, customer growth, expanded use of natural gas for power generation and transportation fuel, and customer switching from heating oil or propane will drive substantially higher throughput volumes and drive improved profitability.³

Q DOES MR. HEVERT ATTEMPT TO DISTINGUISH THE REGULATORY ENVIRONMENT IN MISSOURI FROM THE INDUSTRY IN HIS ASSESSMENT OF INDUSTRY RETURNS ON EQUITY?

A Yes. He concludes that the rate of return should reflect comparable risk. He implies that the Missouri regulatory environment has greater risk than the industry in general because of the following:

- 1. Missouri does not include construction work in progress ("CWIP") in rate base.
- 2. Missouri sets rates based on an historical test year.
- 3. Missouri has very limited ability to implement interim rates.

Q PLEASE COMMENT ON MR. HEVERT'S CONCLUSIONS ABOUT THE REGULATORY RISK IN MISSOURI.

A Mr. Hevert's assessment of these risks is far from constructive or enlightening. The risk factors he notes are clearly evident to all investors, credit rating agencies and equity analysts, and are reflected in utility risk factors. As such, market participants would consider these and all other risk factors in assessing Ameren Missouri's risks, and the risks of all alternative utility investments. As such, fair compensation for

³*FitchRatings*: "2014 Outlook: Utilities, Power, and Gas," December 12, 2013 at 1-2, emphasis added.

1 these risks and all other investment risks would be estimated using a proxy group of
2 other electric utilities with investment risk similar to Ameren Missouri's. The fair return
3 on equity for the proxy group, would be reasonable compensation to investors for
4 assuming Ameren Missouri's investment risk, including the risk factors Mr. Hevert
5 singles out.

6 Moreover, I believe Mr. Hevert's assessment of the risk is incomplete and
7 flawed for several reasons. First, I agree with him that Missouri does not allow for
8 CWIP, and that many regulatory commissions do allow utilities to include CWIP in
9 rate base if they are in the midst of a major construction program, and doing so is
10 necessary to preserve its financial integrity as it significantly increases its amount of
11 invested capital.

12 While Mr. Hevert is right that Missouri does not permit CWIP in rate base, it
13 does however implement regulatory mechanisms to support a utility's cash flows
14 during a major construction program. For example, to support construction of the
15 Iatan 2 generating station by Kansas City Power and Light ("KCPL"), the Missouri
16 Commission approved a regulatory mechanism that allowed KCPL's rates to be set
17 higher than its cost of service to enhance its cash flows during this major construction
18 program. The increased cost of service was tracked as a regulatory liability that is
19 now being used to offset the revenue requirement of Iatan 2 now that it has been
20 placed in service. S&P stated as follows about the Missouri regulatory plan:

21 Stipulated agreements with the Missouri and Kansas commissions
22 permit KCPL to accelerate plant-related amortization expense in rate
23 proceedings occurring before the completion of its various projects,
24 including Iatan 2. This mechanism enables KCPL to request rate
25 increases (during the impending construction period) that enable it to
26 maintain cash-flow protection ratios commensurate with the 'BBB'
27 rating category. Although use of the mechanism reduces future rate
28 base (and, subsequently, future cash flows) in amounts equal to
29 plant-related amortization expense booked in the previous year,

1 Standard & Poor's views the arrangement as favorable since it
2 provides for more stable cash flows through the construction cycle.⁴

3 The net effect of this regulatory plan is economically comparable to including
4 CWIP in rate base. Hence, Mr. Hevert's assessment of this regulatory/construction
5 risk is incomplete and his conclusions are flawed.

6 Second, it is accurate that Missouri uses a historical test year, however,
7 Mr. Hevert fails to recognize that Missouri uses a true-up to the historical test year
8 period. As such, there is far less lag in the rate-effective period and the true-up
9 period in Missouri, relative to other jurisdictions that use a historical test period
10 without a true-up. Further, based on my experience, I believe Missouri's use of
11 interim rates is not significantly different than other jurisdictions. Missouri, like other
12 jurisdictions, will allow a utility to implement interim rates if necessary to maintain its
13 financial integrity. Use of interim rates is typically used sparingly and only in the
14 event a utility demonstrates financial need.

15 More importantly, Mr. Hevert's itemization of these risks for Missouri, is not
16 made in comparison to any other company, much less his proxy group companies.
17 Hence, it is a superficial assessment of risk, with no quantitative support and no real
18 measure of whether or not Ameren Missouri's risk for these factors, or on total, is any
19 different than his proxy group.

⁴*Standard & Poor's RatingsDirect*: "Kansas City Power & Light Co.," September 27, 2007
at 3.

1 Q WHY DO YOU BELIEVE THAT THE RISK FACTORS IDENTIFIED BY
2 MR. HEVERT ARE RISK FACTORS WELL KNOWN TO MARKET
3 PARTICIPANTS?

4 A Supporting a utility's cash flow during construction, regulatory mechanisms that allow
5 for timely recovery of cost of service, and flexibility to respond to financial need of a
6 utility are factors carefully considered by equity and credit analysts when assessing a
7 utility's investment risk. As an example, S&P assesses the business risk of a
8 company, as part of its review of total risk when assigning a bond rating. (Total risk
9 analysis consists of business risk analysis, and financial risk analysis.)

10 As part of its business risk analysis, S&P considers the industry risk. S&P
11 generally considers the utility industry to be a very-low risk industry. Regulated
12 industries receive this low business risk assessment based on limited cyclical, and
13 limited risk in sales, and low competitive risk.

14 With respect to regulatory risk considerations, S&P states as follows:

15 **Assessing regulatory advantage**

16 21. The regulatory framework/ regime's influence is of critical
17 importance when assessing regulated utilities' credit risk
18 because it defines the environment in which a utility
19 operates and has a significant bearing on a utility's financial
20 performance.

21 22. We base our assessment of the regulatory framework's
22 relative credit supportiveness on our view of how regulatory
23 stability, efficiency of tariff setting procedures, financial
24 stability, and regulatory independence protect a utility's
25 credit quality and its ability to recover its costs and earn a
26 timely return. Our view of these four pillars is the
27 foundation of a utility's regulatory support. We then assess
28 the utility's business strategy, in particular its regulatory
29 strategy and its ability to manage the tariff-setting process,
30 to arrive at a final regulatory advantage assessment.

31 23. When assessing regulatory advantage, we first consider
32 four pillars and sub-factors that we believe are key for a

1 utility to recover all its costs, on time and in full, and earn a
2 return on its capital employed:

3 24. Regulatory stability:

- 4 • Transparency of the key components of the rate setting
5 and how these are assessed
- 6 • Predictability that lowers uncertainty for the utility and its
7 stakeholders
- 8 • Consistency in the regulatory framework over time

9 25. Tariff-setting procedures and design:

- 10 • Recoverability of all operating and capital costs in full
- 11 • Balance of the interests and concerns of all
12 stakeholders affected
- 13 • Incentives that are achievable and contained⁵

14 As outlined by S&P above, the specific regulatory risks identified by
15 Mr. Hevert are not unique and need not be singled out as unique to Ameren Missouri.
16 Rather, the risks are known to market participants, and are reflected in market risk
17 factors that Mr. Hevert and I both rely on to select other utility companies of
18 comparable total investment risk.

19 **Proxy Group**

20 **Q DID MR. HEVERT COMMENT ON YOUR SELECTION OF A PROXY GROUP TO**
21 **ESTIMATE AMEREN MISSOURI'S COST OF EQUITY?**

22 **A** Yes. Mr. Hevert asserts that several of the companies should not have been included
23 in the proxy group because he believes they are not risk comparable to Ameren
24 Missouri. These companies include the following:

⁵Standard & Poor's RatingsDirect: "Criteria/Corporates/Utilities: Key Credit Factors For The Regulated Utilities Industry," November 19, 2013 at 6.

- 1 1. Edison International. Mr. Hevert observed that Edison International recently wrote
2 off its Edison Mission Energy subsidiary, an unregulated subsidiary that owns
3 merchant generating assets.
- 4 2. Consolidated Edison and UIL Holdings, companies he concludes are principally
5 transmission and distribution utilities with significant natural gas operations.
- 6 3. He also notes that UIL Holdings recently announced the acquisition of
7 Philadelphia Gas Works.
- 8 4. He is also critical of including companies in the proxy group that contain both
9 electric and gas utility operations.

10 **Q PLEASE RESPOND TO MR. HEVERT'S COMMENTS ON YOUR PROXY GROUP**
11 **SELECTION.**

12 **A** Mr. Hevert has not provided adequate justification to remove any of the companies
13 from my proxy group. Based on publically observable risk factors, and normal proxy
14 group selection criteria, Mr. Hevert's conclusions are unsupported and without merit.

15 However, and importantly, Mr. Hevert's implication that the selected group of
16 proxy companies is impacting the measurement of a fair return on equity for Ameren
17 Missouri is simply without merit. As I will discuss later in this testimony, Ameren
18 Missouri's current market cost of equity is well below 9.5% based on studies applied
19 to my proxy group, and to Mr. Hevert's proxy group. Indeed, use of both of these
20 proxy groups provides even stronger evidence that Ameren Missouri's last authorized
21 return on equity of 9.8% is excessive and well above its current market cost of equity.

22 **Q PLEASE DEFINE AND RESPOND TO MR. HEVERT'S COMMENTS CONCERNING**
23 **COMPANIES INCLUDED IN YOUR PROXY GROUP WITH WHICH HE TAKES**
24 **ISSUE.**

25 **A** Mr. Hevert argues that Edison International is not risk comparable to Ameren Missouri
26 because it recently divested an affiliated non-regulated generation subsidiary. This

1 argument is without merit. Ameren Missouri's parent company, Ameren Corporation,
2 has also recently divested an affiliated merchant generating company (Ameren
3 Generation). As such, Edison International's efforts to divest itself of its unprofitable
4 and unsuccessful merchant generation affiliate, is similar to the experience Ameren
5 Missouri's parent company has recently undertaken as it sought to divest its merchant
6 generation company which was also an unsuccessful and unprofitable affiliate.

7 Mr. Hevert's concern about Consolidated Edison and UIL Holdings is based
8 on only one risk factor which describes the companies' total risk. Mr. Hevert asserts
9 that Consolidated Edison and UIL Holdings are delivery companies, and not
10 integrated companies, and both have large gas delivery businesses. With this one
11 factor, he concludes that they are not risk comparable to Ameren Missouri. I
12 disagree. Consolidated Edison does own generating assets, and does buy power to
13 resell to its retail customers in New York City. This is a very complex process, and
14 does expose Consolidated Edison to the risk of fully recovering its purchased power
15 costs. Consolidated Edison's market risk factors are comparable to Ameren Missouri.

16 UIL Holdings' bond rating suggests it has greater risk than the proxy group
17 average, and slightly greater risk than Ameren Missouri. Its bond rating from S&P
18 and Moody's as shown on my Schedule MPG-1 attached to my direct testimony, is
19 "BBB" from S&P and "Baa3" from Moody's. These bond ratings are one notch lower
20 than Ameren Missouri's "BBB+" and "Baa2." To suggest as Mr. Hevert does, that UIL
21 Holdings has lower risk than Ameren Missouri because it is a delivery company, is
22 fundamentally flawed. Indeed, based on independent assessment of credit rating
23 agencies, UIL Holdings has reasonably comparable investment risk to Ameren
24 Missouri's, and if anything, it has slightly greater risk than Ameren Missouri.

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1 Mr. Hevert's proposal to identify investment risk based on one single risk
2 factor, rather than a complete assessment of investment risk is inconsistent with
3 credit rating agencies' establishment of utility bond ratings, and is an incomplete
4 method of identifying companies that have comparable risk to the subject company,
5 in this case Ameren Missouri.

6 **Response to My DCF**

7 **Q DID MR. HEVERT COMMENT ON YOUR DCF STUDIES?**

8 A Yes. Mr. Hevert commented on each of my three DCF studies, including my constant
9 growth DCF analysis based on analysts' growth rate forecasts, my sustainable growth
10 rate DCF analysis, and my multi-stage growth DCF analysis.

11 **Q PLEASE SUMMARIZE MR. HEVERT'S COMMENTS CONCERNING YOUR**
12 **CONSTANT GROWTH DCF ANALYSIS BASED ON ANALYSTS' THREE- TO**
13 **FIVE-YEAR GROWTH RATE FORECASTS.**

14 A Mr. Hevert summarizes the results of my DCF analyses, after acknowledging that the
15 constant growth DCF model application I propose, is generally consistent with his
16 methodology.

17 While Mr. Hevert and I develop constant growth rate DCF studies using
18 analysts' growth rate analyses in a similar manner, we interpret the results of those
19 studies in a very different way. Specifically, I evaluate the total results of the studies
20 in an attempt to measure the central tendency of all the companies within the proxy
21 group total. In contrast, Mr. Hevert separates DCF studies based on high estimates
22 and low estimates, and makes certain arguments about removing low-end estimates
23 to produce what he believes to be a more reasonable result.

1 Q IS MR. HEVERT'S INTERPRETATION OF A CONSTANT GROWTH DCF STUDY
2 BASED ON ANALYSTS' GROWTH RATE FORECASTS BALANCED AND
3 REASONABLE?

4 A No. It is inappropriate for Mr. Hevert to judge the results of the DCF analysis simply
5 because he finds certain estimates to be too low. A more balanced approach would
6 be to exclude high-end and low-end outlier estimates from the interpretation of the
7 group results, but not simply low-end estimates as Mr. Hevert has done.

8 I agree with Mr. Hevert that the Edison International return appears to be too
9 low. That is principally why I considered both the average and the median of my
10 proxy group DCF estimates. Relying on the median group estimate excludes outliers,
11 either too high or too low, in interpreting the central tendency of the results of the
12 proxy group. In significant contrast, Mr. Hevert's proposal to ignore low-end
13 estimates, without similarly excluding high-end estimates, produces a biased and
14 unreasonable conclusion.

15 Q WHY DO YOU BELIEVE THAT YOUR INTERPRETATION OF YOUR CONSTANT
16 GROWTH DCF RESULTS BASED ON ANALYSTS' GROWTH RATE ESTIMATES
17 PRODUCES A BALANCED AND REASONABLE ESTIMATE OF A FAIR RETURN
18 ON EQUITY FOR AMEREN MISSOURI?

19 A As shown in my direct testimony on my Schedule MPG-3, my proxy group produces
20 an average DCF return of 8.53%, and a group median return of 8.66%. The group
21 median is higher than the average because of some of the low-end DCF results like
22 Edison International's. However, the median proxy group estimate of 8.66% is
23 reasonably comparable to the median proxy group estimate using Mr. Hevert's mean
24 proxy group results as shown on his Schedule RBH-9. Specifically, his proxy group's

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1 median DCF returns were 8.86% for his 30-day average stock price, 9.01% for a
2 90-day stock price, and 9.14% for a 180-day stock price for the mean estimate.⁶ The
3 constant growth DCF analyses that I performed, and those that reflect all of the
4 earnings growth estimates used by Mr. Hevert, support a return on equity for Ameren
5 Missouri of 9.0%. Both my and Mr. Hevert's constant growth DCF studies support my
6 recommended return of 9.4% for Ameren Missouri.

7 **Q IS IT BALANCED AND REASONABLE FOR MR. HEVERT TO EXCLUDE ONLY**
8 **LOW-END DCF RESULTS?**

9 **A** No. Mr. Hevert's proposal to exclude DCF results because he finds them to be too
10 low is a biased and imbalanced method of interpreting the proxy group results, and
11 measuring a fair return on equity for Ameren Missouri. While Mr. Hevert may choose
12 to ignore it, capital market costs are very low in this market. The utility industry is
13 generally regarded by the capital markets as a low-risk, stable investment vehicle.
14 The market is providing significant access to capital for utility companies because of
15 the stable investment characteristics. Because the market recognizes the stable and
16 low-risk nature of electric utility companies, the security prices for utility companies
17 (both common equity and debt) have been bid up, and utilities' costs of capital have
18 declined.

⁶Mr. Hevert's DCF studies include low, mean and high DCF results. His mean DCF results include all the growth rate estimates used in his DCF studies. The median of the group mean results represents all the growth rate information available in his studies that best represents the central tendency of most of the results in his DCF studies. Mr. Hevert's proposed high-end estimates include significant outliers and growth rates which do not produce reasonable DCF results. His low-end estimates support the reasonableness of my findings on a fair return on equity based on his studies as described here.

1 Q DOES MR. HEVERT COMMENT ON THE RESULTS OF YOUR SUSTAINABLE
2 GROWTH DCF APPROACH?

3 A Yes. Like his previous comments on my constant growth DCF analysis using analyst
4 growth rate estimates, Mr. Hevert arbitrarily uses his judgment to determine whether
5 or not the DCF results are reasonable and represent the current market cost of equity
6 for utility companies. Since his judgment is biased, his conclusions simply have no
7 merit.

8 Further, he is also critical of the sustainable growth rate because it assumes a
9 constant payout ratio and earned return on equity assumptions he believes may not
10 be constant into perpetuity. He believes that historical data, and independent
11 research do not support these assumptions.

12 Q PLEASE RESPOND TO MR. HEVERT'S CONCERNS ON THE SUSTAINABLE
13 GROWTH RATE MODEL AND THE ASSUMPTION OF A CONSTANT PAYOUT
14 RATIO, EARNED RETURN ON EQUITY, AND HISTORICAL EXPERIENCE.

15 A Mr. Hevert's interpretation and conclusions on the sustainable growth model are
16 again biased and without merit. He is correct that it is not clear that the growth
17 characteristics of a utility will reflect a constant payout ratio, or earned return on
18 equity. However, those assumptions are also inherent in the constant growth DCF
19 study using analysts' growth rate forecasts. Mr. Hevert found no reason to make
20 these same arguments, which are equally applicable, to the constant growth DCF
21 model he has relied on. Rather, Mr. Hevert is simply arbitrarily and inconsistently
22 making arguments against one DCF model that are equally applicable to the DCF
23 model he relied on.

1 Further, and more importantly, the assumptions of the constant growth DCF
2 model are reasonable over time given the payout ratio, earnings retention and
3 reasonable valuation metrics of electric utilities today. While the payout ratio is not
4 constant from year to year, it is reasonably constant on average over a long period of
5 time.

6 **Q DOES MR. HEVERT PROVIDE ANY OTHER CRITICISMS OF THE SUSTAINABLE**
7 **GROWTH RATE ESTIMATE?**

8 A Yes. He makes the following arguments concerning the sustainable growth rate
9 model:

- 10 1. He argues that the growth rate is circular because it uses a projected return on
11 equity in order to forecast a growth rate.
- 12 2. He uses historical data and the DuPont model to decompose the proxy group's
13 return on equity data over the period 2007-2013 and projections (2017-2019).
- 14 3. He also compares the historical earnings retention ratio of the companies in the
15 proxy group with their growth rate and argues that historical data does not support
16 the expectations that earnings growth will increase as the earnings retention ratio
17 increases as the sustainable growth formula suggests.

18 **Q DO THESE ARGUMENTS MR. HEVERT MAKES DEMONSTRATE THAT A**
19 **SUSTAINABLE GROWTH RATE MODEL SHOULD NOT BE USED?**

20 A No. Mr. Hevert's analyses simply demonstrate why most market participants and
21 academics do not recommend basing growth rate estimates on only historical data.
22 Analysts' growth rate projections are found to be more accurate than growth rates
23 derived from only historical data, because analysts will make informed judgment to
24 the historical data in formulating growth rate outlooks for the future. However, what
25 Mr. Hevert does not recognize is that analysts use accepted financial models and
26 judgment to form their published growth rates.

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1 While the sustainable growth rate model may produce unreliable results if
2 based on only historical data, it does produce reasonable results using projected
3 normalized data and reasonable assumptions. Those projected data used by
4 analysts, including *Value Line*, include projected earnings, dividends, earnings
5 retention ratios, and earned return on book equity. It is simply irrational for Mr. Hevert
6 to think that an analyst can make a growth rate projection without forming outlooks for
7 the financial parameters of the companies under examination.

8 As such, I agree with Mr. Hevert that using only historical data will not allow
9 for the development of a reasonable growth rate estimate going forward. However,
10 projections of future earnings, balance sheet items, and operating margins are
11 necessary to form outlooks for the growth in earnings and dividends going forward.
12 One simply cannot project a growth rate of a company without projecting the
13 expected financial results of the company.

14 **Q PLEASE COMMENT ON MR. HEVERT'S USE OF THE DUPONT MODEL AND A**
15 **REVIEW OF HISTORICAL EARNINGS RETENTION RATIOS TO SUPPORT HIS**
16 **CONCLUSIONS CONCERNING THE UNRELIABILITY OF THE SUSTAINABLE**
17 **GROWTH DCF METHODOLOGY.**

18 **A**Mr. Hevert's reliance on the DuPont model to assess the historical and near-term
19 projections of profitability, and balance sheet strength, is reasonable in assessing
20 past performance, but incomplete in forming expectations of the future. Again, it is
21 reasonable to believe that analysts rely on informed judgment in using this data to
22 form their outlooks for the future.

23 Similarly, earnings retention ratios based on historical data can be distorted by
24 actual events that impact a company's accounting statements such as non-recurring

1 charges, variations in earnings due to non-normal events such as weather, economic
2 conditions, major storms and natural event damages to the system, and timing of
3 adjusting rates to reflect cost of service.

4 A major flaw in Mr. Hevert's analyses is not in the use of this information to
5 draw information to develop expectations of future growth. Rather, the flaw lies in his
6 logic of using this to make criticisms of one methodology, when the same information
7 can be used to draw criticisms of all the methodologies used to estimate a return on
8 equity. Mr. Hevert's reliance on historical earnings retention ratios, variability of the
9 balance sheet, operating margin, and earnings strength of the utilities (DuPont
10 model), can be used to raise concerns about relying on a constant growth DCF model
11 using analysts' growth rates (a method he uses), or developing a growth rate using a
12 sustainable growth rate methodology. It is simply inappropriate and unbalanced for
13 Mr. Hevert to apply it to only one of the models he chooses to reject. His arguments
14 about the reliability of Company historical data apply to all DCF models.

15 **Response to My Multi-Stage Growth DCF Model**

16 **Q PLEASE SUMMARIZE THE CRITICISMS MR. HEVERT MAKES OF YOUR MULTI-**
17 **STAGE GROWTH DCF ANALYSIS.**

18 **A** Mr. Hevert's criticisms of my multi-stage growth DCF analysis include the following:

- 19 1. He concludes that my multi-stage growth DCF model is understated because it
20 did not reflect quarterly dividend payments. He concludes that using a mid-year
21 cash flow convention would have increased the results of my multi-stage model
22 by 18 to 19 basis points. (Hevert Direct Testimony at 16).
- 23 2. And he concludes that my long-term sustainable growth rate of 4.8% is
24 inappropriate because it only applies for a 10-year period. He derives a
25 four-stage growth component to reflect his independent projection of future GDP
26 growth. He concludes that this higher GDP growth rate estimate he derived
27 would increase the DCF return by 62 to 63 basis points.

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1 Q DO YOU AGREE WITH MR. HEVERT THAT A FAIR RETURN ON EQUITY FOR
2 AMEREN MISSOURI SHOULD BE BASED ON A QUARTERLY COMPOUNDING
3 MULTI-STAGE GROWTH DCF ANALYSIS?

4 A No. A quarterly compounding adjustment to the DCF analysis reflects cash flows
5 received by investors from the utility, and by reinvesting utility dividends in other
6 enterprises of corresponding risk and return. The cash flows received by reinvesting
7 dividends are not a cost to the utility. Hence, the quarterly compounding adjustment
8 overstates the utility cost of capital because it represents the rate of return investors
9 earn by receiving cash flows from the utility, and receiving cash flows from other
10 enterprises.

11 A quarterly compounding DCF analysis has been largely rejected across the
12 country for setting rates. In any event, an 18 to 19 basis point adjustment to my
13 multi-stage growth DCF analysis would still show that my recommended return on
14 equity for Ameren Missouri is reasonable. As shown on my direct testimony
15 Schedule MPG-8, an 18 to 19 basis point adjustment to my median multi-stage
16 growth DCF return of 9.02% would suggest a fair return on equity for Ameren
17 Missouri of 9.20%. As such, Mr. Hevert's proposal for use of a quarterly compounded
18 DCF model is flawed and overstates Ameren Missouri's cost of capital.

19 Q PLEASE RESPOND TO MR. HEVERT'S CONTENTION THAT A LONG-TERM GDP
20 GROWTH RATE SHOULD BE 5.7%, RATHER THAN THE CONSENSUS
21 ECONOMISTS' PROJECTED GDP GROWTH RATE OF 4.8%.

22 A This is the same argument Mr. Hevert and I have had in several proceedings before
23 the Missouri Commission. My GDP growth rate of 4.8% is based on the 5- to 10-year
24 consensus economists' projections of long-term GDP growth. It includes a real GDP

1 growth outlook of 2.4% to 2.7% and a GDP inflation outlook of 2.1%.⁷ In contrast,
2 Mr. Hevert's GDP growth rate of 5.7% reflects a historical real GDP growth estimate
3 of 3.27%, which represents the real growth of the U.S. GDP over the period 1929-
4 2013, and a projected inflation outlook of 2.36%.

5 The primary difference between Mr. Hevert's GDP growth forecast and my
6 use of consensus analysts' growth projections is based on the real GDP growth
7 outlook. Mr. Hevert believes the future GDP growth rate will mirror the GDP growth
8 rate experienced by the U.S. economy over the last 80 years and average 3.27% in
9 the future. However, independent economists are projecting a slower real GDP
10 growth outlook of 2.7% for the economy going forward.

11 I would also note, that in his criticisms of my use of a GDP growth forecast,
12 Mr. Hevert argues that my use of 5- to 10-year growth rates is not consistent with the
13 market's outlook for a GDP growth rate over longer periods of time. That argument is
14 without merit. Indeed, in my direct testimony at page 17, I show that the consensus
15 economists' 5- to 10-year GDP growth forecast is consistent with the *Annual Energy*
16 *Outlook* GDP growth forecast through 2040 made by the EIA, and also with the
17 Congressional Budget Office's real GDP forecast through 2023. In significant
18 contrast, Mr. Hevert has not provided any evidence that any market participant
19 believes, as he does, that future GDP growth will mirror that of historical real GDP
20 growth.

⁷Gorman Direct Testimony at 16.

1 Q IS THERE REASON TO BELIEVE THAT THE U.S. REAL GDP GROWTH GOING
2 FORWARD MAY NOT BE AS STRONG AS IT HAS BEEN OVER THE LAST
3 80 YEARS?

4 A Yes. In significant contrast to the last 80 years, the U.S. is now competing with other
5 countries in the world that are significantly stronger economic competitors now than
6 they have been in the past. For example, countries that are now major economies
7 that compete with the U.S. include China, Brazil and India. These major economies
8 are now in direct competition with the U.S. This is in significant contrast to the last 80
9 years where these countries largely had very little economic output, and represented
10 very little economic competition to the U.S.

11 Response to My CAPM Study

12 Q DID MR. HEVERT TAKE ISSUE WITH YOUR CAPM RETURN ESTIMATE?

13 A Yes. Mr. Hevert argues that my market risk premium of 6.7%, which is based on the
14 arithmetic average of historical actual achieved market returns above the U.S.
15 Treasury bond income returns, is understated. He reaches this conclusion by looking
16 at some selected historical data presented on several charts he offered in his
17 testimony.

18 First, in Chart 1, he looks at the annual frequency distribution of observed
19 market returns from 1926-2013. Here, he states that approximately 50% of the
20 annual return observations are higher than a market return of 12.31% or higher, and
21 around 45 of 88 observations were in excess of 13.91%. He argues these returns
22 support a market risk premium well over the historical average, when both high
23 market returns and low market returns are considered.

1 In his Chart 3, he looks at the frequency distributions of market risk premium
2 estimates. There, he shows that approximately 54.6% of the historical market risk
3 premiums (1926-2013) were above 10.31%.

4 In his Chart 4, he states that the market risk premium as measured by
5 Morningstar, and the recommendation for a market risk premium included in the
6 Ibbotson Associates publications, 6.7%, are heavily influenced by a small number of
7 years in which the market risk premium fell because of significant losses. He cites
8 that in 2008 the market lost 37% and as a result the market risk premium in that year
9 was a negative 41.45%.

10 Mr. Hevert concludes all of these charts support his finding that a reasonable
11 market risk premium is significantly in excess of the historical average actual
12 achieved market risk premium.

13 **Q DO YOU BELIEVE MR. HEVERT HAS PROPERLY RELIED ON HISTORICAL**
14 **DATA TO FORM REASONABLE EXPECTATIONS OF THE FUTURE?**

15 **A** No. Ibbotson Associates recommends measuring actual achieved investment results
16 over very long periods of time, in order to smooth out market aberrations that are
17 caused by looking at shorter time periods. In direct contradiction to Morningstar,
18 Mr. Hevert found a market risk premium by looking at limited historical data that
19 supports his desired market risk premium estimates.

20 More specifically, Mr. Hevert's arguments are unreasonable and flawed for the
21 following reasons:

- 22 1. In his Chart 1 on page 21, Mr. Hevert concludes that an expected return on the
23 market is more reasonably predicted by only looking at approximately 50% of
24 actual achieved market returns. Those achieved market returns he selected are
25 when the returns are relatively strong. Mr. Hevert ignores market risk premiums
26 in bad years. In effect, Mr. Hevert is developing an expected return on the market
27 assuming that the return on the market will only reflect years of strong investment

1 returns, and will not be impacted by years of soft or bad investment returns. This
2 is unreasonable, because history tells us the market will have up years and down
3 years, and investment returns over the long term will reflect both good and bad
4 years. In contrast, Mr. Hevert's market risk premium reflects predominantly only
5 the returns in good years.

6 2. His Chart 3 on page 24 shows frequency distributions of actual market risk
7 premiums. These are annual market risk premiums, not expected averages over
8 longer periods of time. Again, market risk premiums can be strong or weak in any
9 given year, but on average should smooth out to a normalized sustainable level.
10 While the actual results of having invested in the market could vary from year to
11 year, the net result on investment returns over the long term will reflect the good
12 years and the bad years. As such, it is not appropriate to exclude the bad years,
13 as Mr. Hevert proposes, simply because he wants to use a higher market risk
14 premium estimate than is justified from actual historical investment returns.

15 3. On his Chart 4 on page 25, he tries to imply that the probability of future market
16 risk premiums is more heavily influenced by historical data if you exclude years
17 that have abnormal results. However, market events that cause significant
18 declines in the market are going to occur in the future, and therefore should be
19 included in the probability of annual return expectations. Indeed, it is this
20 significant volatility in market returns which helps describe the risk of making
21 investments in the stock market. By excluding market risk premiums reflecting
22 these annual returns that are low or negative, Mr. Hevert is mitigating the actual
23 investment characteristics of the market and falsely inflating his return outlook.
24 No rational investor would adopt Mr. Hevert's outlook that the market going
25 forward would only have strong annual returns, without the probability of having
26 low annual returns or even negative annual returns. It is simply not a rational and
27 enlightened outlook of the risk of investing in the market.

28 For all these reasons, it is clear that Mr. Hevert is simply manipulating and
29 choosing historical data to support his inflated market risk premium estimate. A
30 balanced and impartial assessment of historical data supports a market risk premium
31 that is no higher than 7.0%, which is the highest market risk premium estimate by
32 Morningstar.

1 Q DOES MORNINGSTAR SUPPORT YOUR POSITION OF GIVING SOME WEIGHT
2 TO ALL ANNUAL RETURNS AND USING HISTORICAL DATA TO FORM
3 EXPECTATIONS OF FUTURE RETURNS?

4 A Yes. Morningstar itself describes the appropriate use of historical data in measuring
5 market risk premiums. It says as follows:

6 Some analysts estimate the expected equity risk premium using a
7 shorter, more recent time period on the basis that recent events are
8 more likely to be repeated in the near future; furthermore, they believe
9 that the 1920s, 1930s, and 1940s contain too many unusual events.
10 This view is suspect because all periods contain "unusual" events.
11 Some of the most unusual events of the last hundred years took place
12 quite recently, including the inflation of the late 1970s and early 1980s,
13 the October 1987 stock market crash, the collapse of the high-yield
14 bond market, the major contraction and consolidation of the thrift
15 industry, the collapse of the Soviet Union, the development of the
16 European Economic Community, the attacks of September 11, 2001
17 and the more recent liquidity crisis of 2008 and 2009.

18 It is even difficult for economists to predict the economic environment
19 of the future. For example, if one were analyzing the stock market in
20 1987 before the crash, it would be statistically improbable to predict
21 the impending short-term volatility without considering the stock market
22 crash and market volatility of the 1929-1931 period.

23 Without an appreciation of the 1920s and 1930s, no one would believe
24 that such events could happen. The 87-year period starting with 1926
25 is representative of what can happen; it includes high and low returns,
26 volatile and quiet markets, war and peace, inflation and deflation, and
27 prosperity and depression. Restricting attention to a shorter historical
28 period underestimates the amount of change that could occur in a long
29 future period. Finally, because historical event-types (not specific
30 events) tend to repeat themselves, long-run capital market return
31 studies can reveal a great deal about the future. Investors probably
32 expect "unusual" events to occur from time to time, and their return
33 expectations reflect this.⁸

34 As advised by Morningstar, use of historical data should give some
35 consideration to all actual investment returns over long periods of time. While the
36 events that caused the positive or negative annual returns may not repeat
37 themselves, other events that have similar impact on market returns may be

⁸2013 Ibbotson S&P Valuation Yearbook at 59, emphasis added.

1 experienced in the future. Therefore, using historical data to draw conclusions about
2 what the market return will be going forward is necessary. Arbitrarily excluding data
3 from the historical time period as Mr. Hevert has done is improper. He has biased his
4 analysis, and overstated a reasonable estimate of a market risk premium.

5 **Risk Premium Analysis**

6 **Q DOES MR. HEVERT TAKE ISSUE WITH YOUR RISK PREMIUM STUDY?**

7 **A** Yes. He has three criticisms of the study:

- 8 1. First, he states that relying on the fourth lowest and highest risk premiums is
9 arbitrary and establishes a range of return on equity estimates that is not
10 predicated on the current market conditions.
- 11 2. He says my model ignores the relationship of a strong negative correlation
12 between interest rates and equity risk premiums revealed by the data.
- 13 3. He states that the low-end of my recommended risk premium range is far lower
14 than any authorized return on equity since at least 1986. Therefore, he concludes
15 that the low-end has no relevance in estimating the Company's cost of equity in
16 this proceeding.

17 **Q IN RESPONDING TO YOUR RISK PREMIUM STUDY, MR. HEVERT OFFERS**
18 **CHART 5 WHERE HE COMPARES TREASURY BOND YIELDS AND RISK**
19 **PREMIUM DATA. DOES HE USE THIS CHART TO ESTIMATE A FAIR RISK**
20 **PREMIUM?**

21 **A** Yes. However, the flaw in Mr. Hevert's analysis is that he is not observing what
22 actual risk premiums have been over time, and does not recognize that risk premiums
23 are driven by changes in perceived risk of equity versus debt securities. Rather, he is
24 simply employing an opportunistic review of actual historical data to grab numbers
25 that support a higher risk premium estimate, while ignoring data that produces returns
26 on equity that are lower than what he likes. His proposal to exclude low risk premium

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1 estimates is based on observations of what authorized returns on equity have been
2 more recently. As such, he does not perform an unbiased and balanced assessment
3 of historical data to estimate a risk premium. Rather, he looks for arguments to
4 support high estimates, and provides very sparse and unconvincing evidence to
5 reject low risk premium estimates.

6 He also observes that there is a point of inversion in comparing Treasury bond
7 yields to risk premium data. He states that early in the analysis, Treasury bond yields
8 are higher than risk premiums. More recently, risk premiums are higher than
9 Treasury bond yields. He uses this to imply that low market risk estimates should not
10 be considered in forming a fair return on equity for Ameren Missouri in this case. This
11 argument is again faulty because it is not based on the assessment of risk premiums
12 that reflect investment risk of equity versus bond securities. Rather, it is an
13 opportunistic review of historical data to try to arbitrarily reject low risk premium
14 estimates, and support his high risk premium estimates.

15 The market evidence from the past supports equity returns based on
16 prevailing market conditions and observable bond yields. Those returns for both
17 equity and debt securities reflect the relative investment risk of each of the securities.
18 Risk characteristics are completely absent from Mr. Hevert's selection of data that he
19 uses to support his preferred outcome.

1 Q MR. HEVERT SUGGESTS THAT INSTEAD OF EXCLUDING THE THREE
2 HIGHEST AND THREE LOWEST PREMIUMS, THAT YOU SHOULD INSTEAD
3 CONSIDER THE SECOND HIGHEST AND THE LOWEST DATA TO PRODUCE A
4 RISK PREMIUM ESTIMATE. PLEASE RESPOND.

5 A Mr. Hevert notes that the highest and lowest observations produce a return of equity
6 estimate of 10.26%. He does not explain how he arrived at that number. Further, he
7 says using the second highest and the lowest produces a return on equity of 9.99%.

8 The point of removing high and low data is to try to capture the central
9 tendency of all the observations in the data set. Simply relying on extreme estimates
10 does not produce a more reliable nor accurate return on equity estimate. In fact,
11 what Mr. Hevert has done simply produces a higher return on equity estimate. This is
12 particularly the case since using the high and low DCF returns on equity does not
13 support the 10.26% finding Mr. Hevert recognizes at page 30 of his rebuttal
14 testimony. Rather, it would support a return on equity of 9.85% using my comparable
15 risk gauge that includes interest rate changes as described in my direct testimony.

16 Q PLEASE SUMMARIZE MR. HEVERT'S RETURN ON EQUITY ESTIMATES.

17 A Mr. Hevert's return on equity estimates are summarized below in Table 1. In
18 Column 2, I show the results with prudent and sound adjustments to Mr. Hevert's
19 common equity return estimates. With reasonable adjustments to his proxy group's
20 DCF, CAPM and Risk Premium return estimates, Mr. Hevert's own studies show my
21 recommended return on equity (as described above) is reasonable for Ameren
22 Missouri.

TABLE 1

Hevert's Return on Equity Estimates

| <u>Description</u> | <u>Mean¹</u> (1) | <u>Adjusted²</u> (2) |
|---|--------------------------------|------------------------------------|
| <u>Constant Growth DCF</u> | | |
| 30-Day Average Stock Price | 9.48% | 8.86% |
| 90-Day Average Stock Price | 9.59% | 9.01% |
| 180-Day Average Stock Price | 9.67% | 9.14% |
| <u>Multi-Stage Growth DCF</u> | | |
| 30-Day Average Stock Price | 9.92% | 9.12%/8.94% |
| 90-Day Average Stock Price | 10.05% | 9.25%/9.07% |
| 180-Day Average Stock Price | 10.14% | 9.35%/9.17% |
| <u>CAPM Results (Bloomberg Beta)</u> | | |
| Current Treasury Yield (Bloomberg DCF - 3.60%) | 11.50% | 8.35% |
| Current Treasury Yield (<i>Value Line</i> DCF - 3.60%) | 11.53% | 8.93% |
| Proj Treasury Yield (Bloomberg DCF - 4.15%) | 12.05% | 8.90% |
| Proj Treasury Yield (<i>Value Line</i> DCF - 4.15%) | 12.08% | 9.48% |
| <u>CAPM Results (<i>Value Line</i> Beta)</u> | | |
| Current Treasury Yield (Bloomberg DCF - 3.60%) | 10.27% | 8.37% |
| Current Treasury Yield (<i>Value Line</i> DCF - 3.60%) | 10.29% | 8.95% |
| Proj Treasury Yield (Bloomberg DCF - 4.15%) | 10.82% | 8.92% |
| Proj Treasury Yield (<i>Value Line</i> DCF - 4.15%) | 10.84% | 9.50% |
| <u>Risk Premium</u> | 10.34% | Flawed |
| Range | 8.85% - 9.30% | |

Sources:

¹Hevert Rebuttal Testimony at 61-62.

²Schedule MPG-SR-1 through MPG-SR-3.

1 As shown in the Adjusted column, either making modifications to Mr. Hevert's
2 DCF and CAPM risk premium studies, or simply more accurately interpreting the
3 results of his studies, support a return on equity in the range of 8.9% to 9.3% for
4 Ameren Missouri in this case. These adjustments support my recommended return
5 on equity of 9.4% for Ameren Missouri.

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1 Q PLEASE DESCRIBE THE ADJUSTMENTS YOU MADE TO MR. HEVERT'S
2 CONSTANT GROWTH DCF STUDY.

3 A Mr. Hevert's constant growth DCF analysis and mine are reasonably comparable. My
4 criticisms of Mr. Hevert's analysis more relate to the interpretation of his results and
5 not the constructs of the model. Specifically, Mr. Hevert places significant weight on
6 high-end outlier estimates without also considering low-end results. A more balanced
7 methodology is to interpret the results based on the central tendency of all the proxy
8 group estimates to produce a more reasonable and reliable estimate for Ameren
9 Missouri.

10 As shown on my Schedule MPG-SR-1, I have summarized Mr. Hevert's
11 constant growth DCF return estimates, and ranked them from high to low for his low,
12 high and median estimates. The purpose of this is to show the central tendency of
13 the results, and show that overwhelmingly his DCF results produce return on equity
14 recommendations of 9.5% or less. As shown on his 30-day estimates approximately
15 67% of all estimates are less than 9.5%, for the mean over 80% are lower than 9.5%
16 for the low estimates, and even on the high estimates approximately 30% are 9.5% or
17 less. Based on his 90-day and 180-day DCF estimates, overwhelmingly his DCF
18 return estimates are 9.5% or less. The high-end estimates are skewed by consistent
19 high-end estimates for Portland General Electric Company ("POR"), PNM Resources,
20 Inc. ("PNM") and Otter Tail Corporation ("OTTR"). These numbers are clearly too
21 high to be reasonable estimates of Ameren Missouri's cost of equity.

22 Because of the existence of low-end and high-end estimates that skew the
23 group average results, I recommend placing primary weight on the median proxy
24 group estimate from the mean estimate of Mr. Hevert's DCF studies. The mean

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1 estimate reflects all his growth rate estimates, and provides a more accurate
2 description of the central tendency of all the proxy group DCF results.

3 As shown on this schedule, for the 30-day, 90-day and 180-day, the mean
4 proxy group estimate relying on the proxy group median is 8.86%, 9.01%, and 9.14%,
5 respectively. These estimates support the reasonableness of my 9.4%
6 recommended return on equity for Ameren Missouri.

7 **Q WHAT ARE YOUR CRITICISMS OF MR. HEVERT'S MULTI-STAGE DCF**
8 **ANALYSIS?**

9 **A** Primarily I have two criticisms. First, he has relied on a quarterly compounding
10 methodology, which he acknowledges increases his proxy group estimates by 18 to
11 19 basis points. Second, he relies on a GDP long-term growth rate of 5.7% which
12 significantly exceeds current market participants' outlook for future GDP growth.

13 As shown on pages 1, 4 and 7 of my attached Schedule MPG-SR-2, using a
14 long-term GDP growth outlook of 4.7%, and with and without his 18 basis point
15 quarterly compounding adjustment, Mr. Hevert's DCF studies support a return on
16 equity – using a 30-day, 90-day and 180-day average yield of 9.12%/8.94%,
17 9.25%/9.07% and 9.35%/9.17%, respectively.⁹ All of these estimates support my
18 recommended return on equity of 9.4%.

19 **Q PLEASE DESCRIBE THE ISSUES YOU HAVE WITH MR. HEVERT'S CAPM**
20 **RETURN ESTIMATES.**

21 **A** My primary criticisms of Mr. Hevert's CAPM return estimates is he has overstated the
22 market risk premium estimate. As described above, Mr. Hevert's market risk

⁹The first number in each pair is the mean value using average growth rates, and the second number is the first reduced by 18 basis points.

1 premium estimates of 8.71% and 10.31% significantly exceed reasonable estimates
2 of the future market risk premium. These estimates are based on DCF return
3 estimates of 13.91% and 12.31%, respectively. These DCF returns reflect growth
4 rates of 11.75% and 10.18%, respectively. These growth rates simply are not
5 sustainable indefinitely as required by the constant growth DCF study.

6 **Q CAN MR. HEVERT'S CAPM RETURN ESTIMATES BE MODIFIED TO PRODUCE**
7 **REASONABLE RETURN ON EQUITY ESTIMATES FOR AMEREN MISSOURI?**

8 A Yes. Use of a market risk premium in the range of 6.2% to 7.0% produces
9 reasonable CAPM results. As shown on my Schedule MPG-SR-3, using these
10 results supports CAPM return estimates of 8.35% to 9.50%, using Mr. Hevert's
11 current Treasury yield of 3.6%, and 4.15%, and the Bloomberg and *Value Line* beta
12 estimates of 0.766 and 0.769, respectively.

13 **Q DO YOU HAVE ANY COMMENTS CONCERNING MR. HEVERT'S RISK PREMIUM**
14 **STUDY?**

15 A Yes. Mr. Hevert gauges appropriate equity risk premiums by considering only
16 changes in nominal interest rates. He fails to consider the relative difference in
17 investment risk of equity versus debt securities. Indeed, his analysis makes no effort
18 to try to gauge the movement of equity risk premiums based on changes in
19 differences of investment risk of these two competing securities. As a result, his
20 equity risk premium is fundamentally flawed, and his design is simply to enhance a
21 return on equity estimate. Therefore, it should be rejected. A reasonable application
22 of a risk premium model would show that Ameren Missouri's cost of common equity is

1 reasonably in line with the adjusted results I make to Mr. Hevert's DCF and CAPM
2 studies.

3 Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

4 A Yes.

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Ameren Missouri

Revision of Exhibit RBH-10 Constant Growth Discounted Cash Flow Model

| 30 Day Average Stock Price | | | | | |
|----------------------------|--------|----------|--------|----------|--------|
| Low ROE | | Mean ROE | | High ROE | |
| IDA | 5.15% | IDA | 6.51% | IDA | 7.18% |
| WR | 6.90% | EDE | 7.66% | EDE | 8.34% |
| POR | 6.99% | SO | 8.35% | SO | 8.47% |
| EDE | 7.32% | AEP | 8.42% | DUK | 8.51% |
| CNL | 7.48% | DUK | 8.45% | AEP | 8.58% |
| NEE | 7.65% | PNW | 8.49% | PNW | 8.85% |
| PNW | 8.24% | WR | 8.50% | GXP | 9.58% |
| SO | 8.26% | NEE | 8.86% | NEE | 9.66% |
| AEP | 8.31% | GXP | 9.02% | WR | 10.16% |
| DUK | 8.41% | HE | 9.69% | CNL | 11.03% |
| HE | 8.59% | CNL | 9.85% | HE | 11.16% |
| GXP | 8.73% | POR | 10.54% | NU | 11.65% |
| NU | 9.90% | NU | 11.00% | POR | 14.50% |
| OTTR | 10.10% | PNM | 12.16% | PNM | 14.93% |
| PNM | 10.47% | OTTR | 14.69% | OTTR | 19.28% |
| Average | 8.17% | Average | 9.48% | Average | 10.79% |
| Median | 8.26% | Median | 8.86% | Median | 9.66% |
| < 9.5 | 12 | < 9.5 | 9 | < 9.5 | 6 |
| >= 9.5 | 3 | >= 9.5 | 6 | >= 9.5 | 9 |
| Total | 15 | Total | 15 | Total | 15 |

| 90 Day Average Stock Price | | | | | |
|----------------------------|--------|----------|--------|----------|--------|
| Low ROE | | Mean ROE | | High ROE | |
| IDA | 5.25% | IDA | 6.60% | IDA | 7.28% |
| WR | 7.05% | EDE | 7.80% | EDE | 8.48% |
| POR | 7.13% | DUK | 8.50% | DUK | 8.56% |
| EDE | 7.46% | SO | 8.51% | SO | 8.63% |
| CNL | 7.58% | AEP | 8.56% | AEP | 8.72% |
| NEE | 7.80% | PNW | 8.56% | PNW | 8.93% |
| PNW | 8.32% | WR | 8.64% | GXP | 9.75% |
| SO | 8.42% | NEE | 9.01% | NEE | 9.81% |
| AEP | 8.45% | GXP | 9.20% | WR | 10.31% |
| HE | 8.46% | HE | 9.55% | HE | 11.02% |
| DUK | 8.46% | CNL | 9.94% | CNL | 11.13% |
| GXP | 8.91% | POR | 10.69% | NU | 11.75% |
| NU | 10.00% | NU | 11.10% | POR | 14.66% |
| OTTR | 10.23% | PNM | 12.34% | PNM | 15.11% |
| PNM | 10.65% | OTTR | 14.82% | OTTR | 19.42% |
| Average | 8.28% | Average | 9.59% | Average | 10.90% |
| Median | 8.42% | Median | 9.01% | Median | 9.81% |
| < 9.5 | 12 | < 9.5 | 9 | < 9.5 | 6 |
| >= 9.5 | 3 | >= 9.5 | 6 | >= 9.5 | 9 |
| Total | 15 | Total | 15 | Total | 15 |

| 180 Day Average Stock Price | | | | | |
|-----------------------------|---------|---------|----------|---------|----------|
| Ticker | Low ROE | Ticker | Mean ROE | Ticker | High ROE |
| IDA | 5.36% | IDA | 6.71% | IDA | 7.39% |
| WR | 7.17% | EDE | 7.90% | EDE | 8.58% |
| POR | 7.23% | PNW | 8.50% | DUK | 8.59% |
| EDE | 7.56% | SO | 8.51% | SO | 8.63% |
| CNL | 7.65% | DUK | 8.52% | PNW | 8.86% |
| NEE | 7.92% | AEP | 8.72% | AEP | 8.88% |
| PNW | 8.25% | WR | 8.77% | GXP | 9.92% |
| SO | 8.43% | NEE | 9.14% | NEE | 9.94% |
| HE | 8.43% | GXP | 9.37% | WR | 10.44% |
| DUK | 8.48% | HE | 9.52% | HE | 10.99% |
| AEP | 8.60% | CNL | 10.02% | CNL | 11.20% |
| GXP | 9.08% | POR | 10.79% | NU | 11.82% |
| NU | 10.07% | NU | 11.17% | POR | 14.76% |
| OTTR | 10.29% | PNM | 12.48% | PNM | 15.26% |
| PNM | 10.79% | OTTR | 14.89% | OTTR | 19.48% |
| Average | 8.35% | Average | 9.67% | Average | 10.98% |
| Median | 8.43% | Median | 9.14% | Median | 9.94% |
| < 9.5 | 12 | < 9.5 | 9 | < 9.5 | 6 |
| >= 9.5 | 3 | >= 9.5 | 6 | >= 9.5 | 9 |
| Total | 15 | Total | 15 | Total | 15 |

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Revision of Exhibit RBH-10
 Multi-Stage Growth Discounted Cash Flow Model
 30 Day Average Stock Price
 High EPS Growth Rate Estimate in First Stage

| Company | EPS Growth Rate Estimates | Long-Term | Payoff Ratio | IRR | Profit | P/E Ratio | EV/EBITDA Ratio |
|---------------------------------------|---------------------------|-----------|--------------|--------|--------|-----------|-----------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| American Electric Power Company, Inc. | 4.30% | 4.70% | 64.00% | 67.05% | 16.82 | 3.32 | 3.22 |
| Chico Corporation | 8.00% | 4.70% | 64.00% | 67.05% | 13.69 | 2.81 | 3.22 |
| Duke Energy Corporation | 3.96% | 4.00% | 64.00% | 67.05% | 16.20 | 3.87 | 3.22 |
| Empire District Electric Company | 3.00% | 4.00% | 64.00% | 67.05% | 17.44 | 3.71 | 3.22 |
| Great Plains Energy Inc. | 6.00% | 4.70% | 64.00% | 67.05% | 16.13 | 3.48 | 3.22 |
| HE | 6.00% | 4.70% | 64.00% | 67.05% | 16.13 | 3.48 | 3.22 |
| HOAOP, Inc. | 4.00% | 4.70% | 64.00% | 67.05% | 16.13 | 3.48 | 3.22 |
| NEA | 6.00% | 4.70% | 64.00% | 67.05% | 16.13 | 3.48 | 3.22 |
| NU | 6.00% | 4.70% | 64.00% | 67.05% | 16.13 | 3.48 | 3.22 |
| Other T&E Corporation | 6.00% | 4.70% | 64.00% | 67.05% | 16.13 | 3.48 | 3.22 |
| OTTR | 6.00% | 4.70% | 64.00% | 67.05% | 16.13 | 3.48 | 3.22 |
| PNNV | 6.00% | 4.70% | 64.00% | 67.05% | 16.13 | 3.48 | 3.22 |
| PNN Resources, Inc. | 6.00% | 4.70% | 64.00% | 67.05% | 16.13 | 3.48 | 3.22 |
| POR | 6.00% | 4.70% | 64.00% | 67.05% | 16.13 | 3.48 | 3.22 |
| SOU | 6.00% | 4.70% | 64.00% | 67.05% | 16.13 | 3.48 | 3.22 |
| WR | 6.00% | 4.70% | 64.00% | 67.05% | 16.13 | 3.48 | 3.22 |

| Projected Annual | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|------------------|--------|-------|------|------|------|-----|-----|-----|
| Mean | 11.39% | 14.81 | 3.15 | 3.87 | 2.23 | | | |
| Max | 11.39% | 16.20 | 3.87 | 3.87 | 2.23 | | | |
| DCF Result | 9.83% | 13.69 | 2.91 | 2.91 | 2.23 | | | |

| Company | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| American Electric Power Company, Inc. | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| Chico Corporation | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| Duke Energy Corporation | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| Empire District Electric Company | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| Great Plains Energy Inc. | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| HE | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| HOAOP, Inc. | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| NEA | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| NU | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| Other T&E Corporation | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| OTTR | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| PNNV | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| PNN Resources, Inc. | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| POR | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| SOU | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |
| WR | 64.00% | 63.75% | 63.00% | 64.18% | 64.75% | 65.31% | 65.87% | 66.44% | 67.01% | 67.58% | 68.15% |

| Company | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| American Electric Power Company, Inc. | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| Chico Corporation | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| Duke Energy Corporation | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| Empire District Electric Company | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| Great Plains Energy Inc. | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| HE | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| HOAOP, Inc. | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| NEA | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| NU | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| Other T&E Corporation | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| OTTR | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| PNNV | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| PNN Resources, Inc. | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| POR | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| SOU | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |
| WR | \$1.99 | \$2.07 | \$2.16 | \$2.24 | \$2.32 | \$2.40 | \$2.48 | \$2.56 | \$2.64 | \$2.72 | \$2.80 |

Amgen Missouri

Revision of Exhibit B8H-10
 Multi-Stage Growth Discounted Cash Flow Model
 80 Day Average Stock Price
 High EPS Growth Rate Estimate in First Stage

| Inputs | Stock | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) | (24) | (25) | (26) | (27) | (28) | (29) | (30) | | |
|---------------------------------------|--------|---------|-------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| Company | Ticker | Price | Zacks | First Call | Line | Growth | Growth | Growth | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | | |
| American Electric Power Company, Inc. | AEPL | \$18.45 | 4.25% | 4.50% | 4.70% | 4.70% | \$2.50 | \$2.60 | \$2.75 | \$2.86 | \$2.97 | \$3.16 | \$3.44 | \$3.81 | \$4.14 | \$4.44 | \$4.64 | \$4.64 | \$4.64 | \$4.64 | \$4.64 | \$4.64 | \$4.64 | \$4.64 | \$4.64 | \$4.64 | \$4.64 | \$4.64 | \$4.64 | \$4.64 | \$4.64 | \$4.64 | |
| Cleco Corporation | CNCL | \$22.70 | 3.15% | 3.40% | 4.00% | 4.00% | \$4.30 | \$4.40 | \$4.50 | \$4.60 | \$4.70 | \$4.80 | \$4.90 | \$5.00 | \$5.10 | \$5.20 | \$5.30 | \$5.40 | \$5.50 | \$5.60 | \$5.70 | \$5.80 | \$5.90 | \$6.00 | \$6.10 | \$6.20 | \$6.30 | \$6.40 | \$6.50 | \$6.60 | \$6.70 | \$6.80 | |
| Duke Energy Corporation | DUKE | \$53.71 | 3.82% | 3.92% | 4.00% | 4.00% | \$7.85 | \$8.00 | \$8.15 | \$8.30 | \$8.45 | \$8.60 | \$8.75 | \$8.90 | \$9.05 | \$9.20 | \$9.35 | \$9.50 | \$9.65 | \$9.80 | \$9.95 | \$10.10 | \$10.25 | \$10.40 | \$10.55 | \$10.70 | \$10.85 | \$11.00 | \$11.15 | \$11.30 | \$11.45 | \$11.60 | |
| Empire District Electric Company | EDFE | \$23.23 | 3.00% | 3.22% | 4.00% | 4.00% | \$4.50 | \$4.60 | \$4.70 | \$4.80 | \$4.90 | \$5.00 | \$5.10 | \$5.20 | \$5.30 | \$5.40 | \$5.50 | \$5.60 | \$5.70 | \$5.80 | \$5.90 | \$6.00 | \$6.10 | \$6.20 | \$6.30 | \$6.40 | \$6.50 | \$6.60 | \$6.70 | \$6.80 | \$6.90 | \$7.00 | |
| Great Plains Energy Inc. | GXP | \$25.25 | 6.17% | 6.00% | 6.00% | 6.00% | \$5.20 | \$5.40 | \$5.60 | \$5.80 | \$6.00 | \$6.20 | \$6.40 | \$6.60 | \$6.80 | \$7.00 | \$7.20 | \$7.40 | \$7.60 | \$7.80 | \$8.00 | \$8.20 | \$8.40 | \$8.60 | \$8.80 | \$9.00 | \$9.20 | \$9.40 | \$9.60 | \$9.80 | \$10.00 | \$10.20 | |
| Hawaiian Electric Industries, Inc. | HE | \$25.45 | 6.00% | 6.20% | 6.00% | 6.00% | \$5.40 | \$5.60 | \$5.80 | \$6.00 | \$6.20 | \$6.40 | \$6.60 | \$6.80 | \$7.00 | \$7.20 | \$7.40 | \$7.60 | \$7.80 | \$8.00 | \$8.20 | \$8.40 | \$8.60 | \$8.80 | \$9.00 | \$9.20 | \$9.40 | \$9.60 | \$9.80 | \$10.00 | \$10.20 | \$10.40 | |
| IDAHO Power Corp. | IDA | \$22.87 | 4.00% | 4.00% | 4.00% | 4.00% | \$4.50 | \$4.60 | \$4.70 | \$4.80 | \$4.90 | \$5.00 | \$5.10 | \$5.20 | \$5.30 | \$5.40 | \$5.50 | \$5.60 | \$5.70 | \$5.80 | \$5.90 | \$6.00 | \$6.10 | \$6.20 | \$6.30 | \$6.40 | \$6.50 | \$6.60 | \$6.70 | \$6.80 | \$6.90 | \$7.00 | |
| Northeast Utilities | NU | \$43.49 | 6.28% | 6.28% | 6.28% | 6.28% | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | |
| Other Tail Corporation | OTTR | \$28.45 | 6.10% | 6.00% | 6.00% | 6.00% | \$5.80 | \$6.00 | \$6.20 | \$6.40 | \$6.60 | \$6.80 | \$7.00 | \$7.20 | \$7.40 | \$7.60 | \$7.80 | \$8.00 | \$8.20 | \$8.40 | \$8.60 | \$8.80 | \$9.00 | \$9.20 | \$9.40 | \$9.60 | \$9.80 | \$10.00 | \$10.20 | \$10.40 | \$10.60 | \$10.80 | |
| Pinnacle West Capital Corporation | PWM | \$53.65 | 4.13% | 4.00% | 4.70% | 4.70% | \$8.00 | \$8.20 | \$8.40 | \$8.60 | \$8.80 | \$9.00 | \$9.20 | \$9.40 | \$9.60 | \$9.80 | \$10.00 | \$10.20 | \$10.40 | \$10.60 | \$10.80 | \$11.00 | \$11.20 | \$11.40 | \$11.60 | \$11.80 | \$12.00 | \$12.20 | \$12.40 | \$12.60 | \$12.80 | \$13.00 | |
| PJM Resources, Inc. | PJM | \$26.19 | 7.60% | 8.20% | 12.00% | 12.00% | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | \$5.00 | |
| Portland General Electric Company | POR | \$41.66 | 3.70% | 3.55% | 3.50% | 4.70% | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 |
| Southern Company | SO | \$41.66 | 3.70% | 3.55% | 3.50% | 4.70% | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 | \$8.00 |
| Westar Energy, Inc. | WR | \$33.44 | 4.30% | 4.30% | 6.00% | 6.00% | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 | \$7.50 |

DCF Results
 Mean 9.71%
 Max 11.65%
 Min 8.60%

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Revised Hevert CAPM Return

| <u>Line</u> | <u>Description</u> | <u>High Market Risk Premium (1)</u> | <u>Low Market Risk Premium (2)</u> |
|-------------|------------------------------|---|--|
| 1 | Risk-Free Rate ¹ | 3.60% | 3.60% |
| 2 | Risk Premium ² | 6.96% | 6.20% |
| 3 | Bloomberg Beta ¹ | 0.766 | 0.766 |
| 4 | CAPM | 8.93% | 8.35% |
| 5 | Average | | 8.64% |
| 6 | Risk-Free Rate ¹ | 3.60% | 3.60% |
| 7 | Risk Premium ² | 6.96% | 6.20% |
| 8 | Value Line Beta ¹ | 0.769 | 0.769 |
| 9 | CAPM | 8.95% | 8.37% |
| 10 | Average | | 8.66% |
| 11 | Risk-Free Rate ¹ | 4.15% | 4.15% |
| 12 | Risk Premium ² | 6.96% | 6.20% |
| 13 | Bloomberg Beta ¹ | 0.766 | 0.766 |
| 14 | CAPM | 9.48% | 8.90% |
| 15 | Average | | 9.19% |
| 16 | Risk-Free Rate ¹ | 4.15% | 4.15% |
| 17 | Risk Premium ² | 6.96% | 6.20% |
| 18 | Value Line Beta ¹ | 0.769 | 0.769 |
| 19 | CAPM | 9.50% | 8.92% |
| 20 | Average | | 9.21% |

Sources:

¹ Exhibit RBH-13.

² Morningstar, Inc. *Ibbotson SBBI 2014 Classic Yearbook* at 91 and 152.