

Exhibit No.:
Witness: Michael Gorman
Type of Exhibit: Surrebuttal Testimony
Issues: Revenue Requirement
Sponsoring Party: Missouri Industrial Energy Consumers
Case No.: ER-2010-0036

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

**In the Matter of Union Electric Company,
d/b/a AmerenUE's Tariffs to Increase Its
Annual Revenues for Electric Service**

Case No. ER-2010-0036
Tariff Nos. YE-2010-0054
and YE-2010-0055

Surrebuttal Testimony and Schedules of

Michael Gorman

On behalf of

Missouri Industrial Energy Consumers

March 5, 2010



Project 9187

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STATE OF MISSOURI)
) **SS**
COUNTY OF ST. LOUIS)

Affidavit of Michael Gorman

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

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

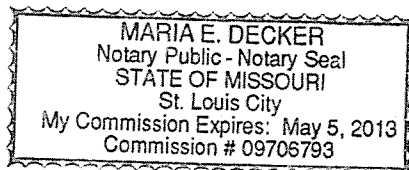
2. Attached hereto and made a part hereof for all purposes are my surrebuttal testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2010-0036.

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



Michael Gorman

Subscribed and sworn to before me this 4th day of March, 2010.





Notary Public

**In the Matter of Union Electric Company,
d/b/a AmerenUE's Tariffs to Increase Its
Annual Revenues for Electric Service**

Surrebuttal Testimony of Michael Gorman

8 A I will respond to the rebuttal testimony of AmerenUE (AmerenUE or Company)
9 witness Dr. Roger A. Morin and his support for an updated 10.8% return on equity for
10 AmerenUE. I will also respond to Ameren witness Julie Cannell's rebuttal testimony
11 in support of Dr. Morin's 10.8% return on equity.

BRUBAKER & ASSOCIATES, INC.

1 **Response to Dr. Morin**

2 **Q DID DR. MORIN TAKE ISSUE WITH THE DEVELOPMENT OF A RETURN ON**
3 **EQUITY RANGE USING THE RESULTS OF YOUR RETURN ON EQUITY**
4 **ESTIMATES?**

5 A Yes. Dr. Morin asserted that the return on equity estimates produced in my analysis
6 support a return on equity in the range of 9.5% to 12.0%, and not the 9.5% to 10.5%
7 range I recommended in my testimony.

8 **Q DO YOU AGREE WITH DR. MORIN THAT THE APPROPRIATE RANGE FOR**
9 **YOUR RETURN ON EQUITY ESTIMATES IS 9.5% TO 12.0%?**

10 A No. Dr. Morin's assertion that my return on equity results fall in the range of 9.5% to
11 12.0% is erroneous and misrepresents my direct testimony and return findings.
12 (Morin Rebuttal at 32-33). However, as explained below, consistently using proxy
13 groups without undue influence on outlier estimates, would reduce the range asserted
14 by Dr. Morin to 9.5% to 11.0%. Excluding the effects of outliers would not be
15 consistent with Dr. Morin's own analysis.

16 Dr. Morin's high-end range is heavily impacted by a few outlier estimates in
17 the DCF return models. My interpretation of the proxy group results, and those of
18 Dr. Morin's, would leave Dr. Morin's assessment of the range for my group at 9.5% to
19 11.0%, with a midpoint estimate of 10.25%. This is only 25 basis points different at
20 the midpoint estimate for my recommended range of 9.5% to 10.5%, or 10.0%.
21 Hence, based on a review of Dr. Morin's rebuttal testimony, the issue of return on
22 equity should fall between my recommended return of 10.0% and the midpoint of the
23 range of returns estimated using my methodologies and Dr. Morin's assessment of
24 those returns which would support a return on equity of 10.25%. Both of these

1 midpoint estimates are substantially lower than Dr. Morin's proposal to increase
2 AmerenUE's return on equity in this proceeding to 10.8%.

3 **Q PLEASE EXPLAIN WHY DR. MORIN'S HIGH-END RETURN ESTIMATE OF YOUR**
4 **COST OF EQUITY ESTIMATES IS HEAVILY SKEWED BY OUTLIER RESULTS**
5 **AND IS INCONSISTENT WITH BOTH YOUR TESTIMONY AND HIS RELYING ON**
6 **PROXY GROUP ESTIMATES.**

7 A Dr. Morin developed his recommended range using my studies based on the proxy
8 group average results. This is inappropriate because the proxy group average results
9 are skewed due to significant company outliers, as explained on page 23 of my direct
10 testimony. For example, Empire District has a growth rate of 34%, which is
11 significantly higher than the growth projections for the other utilities. Therefore, I
12 concluded that the median results better represent the central tendency of the proxy
13 group results. Modifying the development of the range from use of only the proxy
14 group average results to the median results of the proxy group would reduce the
15 proxy group estimated range made by Dr. Morin from 9.5% to 12.0%, to 9.5% to
16 11.0%.

17 **Q WHY DO YOU BELIEVE THAT EXCLUSION OF OUTLIER ESTIMATES AND USE**
18 **OF PROXY GROUP MEDIANS ARE CONSISTENT WITH DR. MORIN'S**
19 **INTERPRETATION OF PROXY GROUP RETURN ESTIMATES?**

20 A Dr. Morin also relied on the proxy group median estimates for his DCF studies. At
21 page 49 of his direct testimony, Dr. Morin stated:

22 In order to palliate the effect of outliers, the median estimate of 12.2%
23 is preferable in this case.

1 Dr. Morin's attempt to increase the upper bound of my recommended DCF
2 range from 10.5% to 12.0% is erroneous and contradicts his own testimony, and
3 should be rejected.

4 **Q PLEASE SUMMARIZE DR. MORIN'S SPECIFIC CRITICISMS OF YOUR RETURN**
5 **ON EQUITY ESTIMATE IN THIS PROCEEDING.**

6 A Dr. Morin outlines his specific arguments as follows:

- 7 1. I placed little weight to my constant growth DCF analysis;
- 8 2. His criticisms related to my non-constant growth DCF study;
- 9 3. I should have included 20 basis points to my DCF return estimate for AmerenUE
10 to reflect the quarterly compounding;
- 11 4. My CAPM estimate is understated; and
- 12 5. I should have reflected an inverse relationship between interest rates and equity
13 risk premiums in my risk premium study.

14 **Constant Growth DCF Model**

15 **Q DID DR. MORIN CRITICIZE THE WEIGHTS YOU GAVE TO YOUR CONSTANT**
16 **GROWTH DCF STUDIES IN THIS PROCEEDING?**

17 A Yes. Dr. Morin noted that in past proceedings, I did not express concern with the
18 reliability of the results of the DCF study. Specifically, he takes issue with my finding
19 that the dividend yield component of the DCF model appears to reflect uncertain
20 market outlooks and uncertain growth outlooks, whereas the growth component of
21 the DCF model appears to reflect quite robust growth outlooks.

22 Because of this apparent contradiction in growth outlooks, I find the constant
23 growth DCF analysis results to be suspicious at best, and rather high.

1 While Dr. Morin found this conclusion and assessment to be “self-serving,” he
2 has provided no legitimate basis to support the expectation that utility stock dividend
3 yields can be abnormally high (reflecting uncertain growth outlooks), while the
4 analysts continue to reflect quite robust growth outlooks.

5 There is a clear contradiction in the DCF input parameters. One would
6 reasonably expect that when growth is abnormally high, dividend yields would
7 contract to reflect the market’s willingness to pay a higher price for a stock that has
8 strong growth outlooks. Dr. Morin’s assertions in this regard support the expectations
9 that investors will bid down a security price, and increase the yield, while believing
10 security analysts that growth will be at abnormally high levels. Dr. Morin’s position is
11 illogical and inflates the DCF return on equity estimate.

12 **Q DID YOU GIVE WEIGHT TO THE CONSTANT GROWTH DCF STUDY IN YOUR**
13 **RETURN ON EQUITY RECOMMENDATION IN THIS CASE?**

14 A Yes. Despite my reservations about the inconsistency in the dividend yield, and the
15 robust growth outlooks, I included the results of my constant growth DCF study in
16 forming my recommended return for AmerenUE in this case.

17 **Q IS YOUR TESTIMONY IN THIS CASE CONCERNING THE RELIABILITY OF THE**
18 **CONSTANT GROWTH DCF RESULT CONSISTENT WITH YOUR PRIOR**
19 **TESTIMONY?**

20 A Yes. I consistently and routinely review my constant growth DCF model results to
21 determine whether the parameters of this DCF study produced reasonable and
22 reliable rate of return results.

1 However, due to differences in market data, utility fundamentals, and three- to
2 five-year growth outlooks, my conclusions changed in this case, and more recent
3 cases, relative to prior cases. While I agree that I do not frequently conclude that
4 consensus analysts' growth rate forecasts are not reasonable estimates of long-term
5 sustainable growth, I do routinely check the analysts' growth projections to determine
6 if they are or are not reasonable long-term sustainable growth rate estimates.

7 **Q DID DR. MORIN ARGUE AGAINST THE PROPOSITION THAT THE ANALYSTS'**
8 **GROWTH RATES USED IN A CONSTANT GROWTH DCF ANALYSIS SHOULD**
9 **BE SUSTAINABLE IN THE LONG TERM?**

10 **A** No. Dr. Morin has not contested my testimony that the growth rates used in the
11 constant growth model should reflect a reasonable estimate of long-term sustainable
12 growth. A long-term sustainable growth rate is required by the constant growth DCF
13 model. Hence, if there is reason to believe that the three- to five-year consensus
14 analysts' growth rate projections are not reasonable estimates of long-term
15 sustainable growth, then use of those growth rate estimates in a constant growth
16 model will produce an unreliable return on equity estimate. Again, this conclusion
17 has not been refuted.

18 Because the growth rate estimates are such a critical element in constructing
19 a reliable and accurate constant growth DCF return estimate, I consistently test the
20 reliability of the DCF parameters in determining whether or how much support to give
21 to my constant growth DCF return estimates.

1 **Q HAS DR. MORIN EVER REJECTED THE RESULTS OF A CONSTANT GROWTH**
2 **DCF STUDY BECAUSE HE QUESTIONED THE RELIABILITY OF THE GROWTH**
3 **RATES OR OTHER PARAMETERS OF THIS DCF MODEL?**

4 A Yes. As an example, in 1995, Dr. Morin filed testimony on behalf of PSI Energy, in
5 Cause No. 40003 before the Indiana Utility Regulatory Commission. In that
6 testimony, Dr. Morin recommended a return on equity in the range of 12.0% to 12.5%
7 and recommended the high end of his range be used to set rates. At arriving at his
8 proposed range, Dr. Morin disregarded the results of his constant growth DCF
9 analysis which produced return on equity estimates of 10.80% and 10.91%.
10 Dr. Morin's general philosophy for exercising caution in adopting a DCF return
11 estimate was described as follows:

12 In summary, caution and judgment are required in interpreting the
13 results of the DCF model for PSI because of: (1) declining earnings
14 and dividends effect on financial inputs to the DCF model, (2) the
15 questionable applicability of the DCF model to utility stocks in general
16 in the current capital market environment, and (3) the conceptual and
17 practical difficulties associated with the growth component of the DCF
18 model.¹

19 Dr. Morin stated concern with identifying a growth rate for the constant growth
20 DCF model that could accurately capture investors' long-term growth expectations:

21 My third concern deals with the realism of the constant growth rate
22 assumption and with difficulty of finding an adequate proxy for that
23 growth rate. The standard DCF model assumes that a single growth
24 rate of dividends is applicable in perpetuity. Not only is the constant
25 growth rate assumption somewhat unrealistic, but it is difficult to proxy.
26 Analysts' growth forecasts are usually made for not more than two to
27 five years in time, or if they are made for more than a few years, they
28 are dominated by the near-term earnings and dividends picture. In
29 short, the perpetual growth term of the DCF model does not square
30 well with the shorter-term focus of institutional investors.²

¹ PSI Energy, Inc., Indiana Utility Regulatory Commission Cause No. 40003, Direct Testimony of Roger A. Morin, at 38-46.

² *Id.*, at 37-38, emphasis added.

1 Dr. Morin's testimony in this proceeding contradicts similar conclusions he
2 reached before the Indiana Utility Regulatory Commission in a case in which he found
3 that analysts' growth rates were not reasonable for use in a constant growth DCF
4 analysis. Dr. Morin's criticisms of me in this proceeding are at odds with positions he
5 has taken in other proceedings.

6 **Q ARE THERE INCONSISTENCIES IN DR. MORIN'S ARGUMENTS ON THE DCF**
7 **MODEL IN THIS CASE?**

8 A Yes. Dr. Morin is inconsistent on his preference for the duration of the forecast that
9 should be used as a reasonable estimate of long-term sustainable growth. First,
10 Dr. Morin asserts that consensus analysts' three- to five-year analyst growth rate
11 projections should be relied on as a long-term sustainable growth rate in a constant
12 growth DCF study, because they: (1) are reflected in stock prices, (2) possess a high
13 explanatory power of equity values, and (3) are used by investors. (Morin Rebuttal at
14 14).

15 However, in arguing about an appropriate long-term sustainable growth rate
16 for use in a multi-stage growth DCF study, Dr. Morin asserts that a 10-year GDP
17 growth rate estimate is not long enough, and prefers to rely on his GDP forecast of
18 6.0% based on 20-year security data maturity. (Morin Rebuttal at 18, 40-41).
19 Dr. Morin is not consistent with his use of data.

1 Q HAS DR. MORIN, IN PREVIOUS TESTIMONIES FILED IN OTHER
2 JURISDICTIONS, CONSISTENTLY RELIED ON A DCF RETURN ESTIMATE
3 BASED ON CONSENSUS ANALYSTS' GROWTH RATE PROJECTIONS?

4 A No. In a piece of testimony filed in 2003, on behalf of the Michigan Consolidated Gas
5 Company, before the Michigan Public Service Commission, in MPSC Case No.
6 U-13898, Dr. Morin used several proxy groups to estimate his recommended return
7 on equity of 10.2% to 12.1% with a midpoint of 11.2%.

8 However, in arriving at that range, he made two DCF return estimates of a
9 vertically integrated electric proxy group. One DCF return estimate for this proxy
10 group was based on Zacks consensus analysts' growth rates, and the other DCF
11 return was based on *Value Line* growth rate projections. In arriving at his
12 recommended rate of return in this Michigan proceeding, Dr. Morin rejected his DCF
13 return based on consensus analysts' growth rate estimates for the vertically
14 integrated electric proxy group, and relied on his DCF analysis based on *Value Line*
15 growth rates for the same proxy group.

16 Dr. Morin's position before the Michigan Public Service Commission
17 contradicts his criticisms of my use of *Value Line* forecasts, rather than consensus
18 analysts' forecasts, in my DCF return analysis in this case. (Morin Rebuttal at 39-41).

19 **Sustainable Growth DCF**

20 Q DID DR. MORIN TAKE ISSUE WITH YOUR SUSTAINABLE GROWTH DCF
21 STUDY?

22 A Yes. Dr. Morin takes issue with the use of *Value Line* forecasts, and comments on
23 the circularity of the model. (Morin Rebuttal at 39).

1 Concerning the *Value Line* forecast, Dr. Morin comments that the single
2 analyst backing *Value Line's* forecast may not be representative of investor
3 consensus expectations. He argues that consensus analyst growth rates are
4 superior to those of a single analyst.

5 Concerning the circularity of the model, Dr. Morin argues that the projected
6 earnings and rate of return parameters of the model drive the growth outlooks, which
7 may or may not reasonably reflect the DCF return estimates captured by the
8 sustainable growth model itself. He argues that circularity makes the results of this
9 model highly questionable.

10 **Q DO YOU AGREE WITH DR. MORIN THAT A CONSENSUS ANALYSTS'**
11 **PROJECTION IS BETTER THAN A SINGLE ANALYST PROJECTION?**

12 A Generally, yes. However, *Value Line* is widely followed and does provide meaningful
13 information for producing a wide range of return on equity estimates. However, since
14 it is not possible to determine whether any single analyst is more influential with
15 investors than consensus analysts' projections, I would agree that a consensus
16 analysts' forecast is superior to that of a single analyst projection.

17 **Q ARE THERE ANY INCONSISTENCIES IN DR. MORIN'S ASSERTION THAT**
18 **CONSENSUS ANALYST PROJECTIONS SHOULD BE USED RATHER THAN A**
19 **SINGLE ANALYST PROJECTION?**

20 A Yes. Dr. Morin contradicts this assertion in his proposed source of a long-term GDP
21 growth rate projection. With respect to this long-term GDP growth rate, he proposes
22 to rely on a single GDP growth rate forecast by Morningstar, instead of a consensus
23 analyst GDP forecast as published by the *Blue Chip Economic Forecasts* (Morin

Rebuttal at 40-41). His proposal for a single GDP long-term growth rate as outlined by Morningstar is completely contrary to his recommendation to place minimal weight on the single analyst projections such as those published by *Value Line*.

Q DOES DR. MORIN RELY ON VALUE LINE DATA IN HIS DCF STUDIES?

A Yes. Dr. Morin's own DCF analyses are based on *Value Line* and Zacks three- to five-year growth projections. Zacks published growth rates are consensus analyst estimates. The *Value Line* growth rates are projections made by a single security analyst. Dr. Morin relied on both growth rate (consensus analysts, and *Value Line*) projections. Again, Dr. Morin's arguments contradict his own studies.

Q DO YOU AGREE WITH DR. MORIN THAT YOUR SUSTAINABLE GROWTH DCF MODEL IS SUBJECT TO A TECHNICAL ERROR?

A No. At pages 39-40 of his rebuttal testimony, Dr. Morin states that my sustainable DCF analysis is understated by 10-20 basis points because I failed to adjust *Value Line's* end-of-year book equity to reflect an average book equity. This argument is erroneous. As shown on pages 1 and 3 of my Schedule MPG-11, in column 4, I did adjust the year-end earned return on equity to an average year return on equity using the following formula:

$$R_a = R_t * 2(1+G)/(2+G) \text{ or } = R_t * (2B_t/(B_t + B_{t-1}))$$

Where:

R_a = Average Return

R_t = Year-End Return

G = growth = $B_t/B_{t-1} - 1$

B_t = Book Value at Time t

B_{t-1} = Book Value at time $t-1$

Hence, my growth rate was based on an average return on equity. Therefore, Dr. Morin's argument is erroneous.

1 **Q DO YOU AGREE WITH DR. MORIN THAT THE SUSTAINABLE GROWTH MODEL**
2 **IS CIRCULAR AND PRODUCES UNRELIABLE RESULTS?**

3 A No. All of the rate of return models used by Dr. Morin, myself, and all other rate of
4 return witnesses in this proceeding have general economic factors underlying the
5 growth estimates. The mathematical construction of those growth models is tied to
6 expectations of investment returns, invested capital, earned return, cash flow strength
7 and relative outlooks for alternative investment opportunities. If the sustainable
8 growth DCF model which develops a sustainable long-term growth rate based on
9 expected outlooks for investment returns is circular and not reliable, then security
10 analyst projections for long-term sustainable growth would also be circular and
11 unreliable. There is simply no guarantee that any estimate of future growth is not
12 based on projected economic or financial parameters which render the estimate
13 circular and/or unreliable. Dr. Morin's arguments in this regard are simply unfounded
14 and do not support his recommendation to exclude the results of this model in
15 estimating AmerenUE's return in this proceeding.

16 **Multi-Stage Growth DCF Study**

17 **Q WHAT IS THE PRIMARY ISSUE DR. MORIN TAKES WITH YOUR MULTI-STAGE**
18 **GROWTH DCF STUDY?**

19 A Dr. Morin primarily argues that my long-term sustainable growth rate of 4.7% is too
20 low. He asserts that a long-term growth rate of 6.0% is more reasonable. He
21 contends that this alternative long-term growth rate is recommended by Morningstar
22 in its Stocks, Bonds, Bills and Inflation 2009 Yearbook Valuation Edition. (Morin
23 Rebuttal at 41).

1 **Q PLEASE SUMMARIZE YOUR RESPONSE TO DR. MORIN CONCERNING THE**
2 **APPROPRIATENESS OF A LONG-TERM SUSTAINABLE GROWTH RATE**
3 **ESTIMATE.**

4 A I disagree with Dr. Morin's assessment for several reasons. First, my long-term GDP
5 growth forecast is a published forecast based on a consensus of economists'
6 forecasts. Therefore, as Dr. Morin's testimony states, a consensus analysts' forecast
7 is the growth rate that most likely reflects investors' expectations. (Morin Rebuttal at
8 41). In contrast, Dr. Morin's proposal to rely on a single growth rate projection made
9 by Morningstar is not as likely to reflect consensus economists' and investor
10 expectations.

11 Further, Dr. Morin's assertion that Morningstar is projecting a 6.0% long-term
12 sustainable growth rate is erroneous. Rather, Morningstar prescribes a favored
13 methodology, which at the time of the 2009 Valuation publication indicated a
14 long-term sustainable growth rate of 3.9% (page 53). Therefore, my consensus GDP
15 forecast of 4.7% represents a conservative estimate for a long-term sustainable
16 growth.

17 **Q HOW DID YOU DERIVE YOUR LONG-TERM SUSTAINABLE GROWTH RATE?**

18 A My long-term growth rate is based on the consensus economists' projected GDP
19 growth over the next 10-year period as published in the *Blue Chip Economic*
20 *Indicators*, October 2009.

1 **Q DR. MORIN STATES THAT YOUR DCF RESULTS ARE UNDERSTATED BY 20**
2 **BASIS POINTS FOR NOT APPLYING THE QUARTERLY COMPOUNDING.**
3 **PLEASE RESPOND.**

4 **A A quarterly compounding adjustment to the DCF model was discussed in my direct**
5 **testimony at pages 34-37. An increase in the DCF return estimate to reflect the**
6 **quarterly compounding assumption will allow investors to receive their dividend**
7 **reinvestment return twice – once through the authorized return on equity included in**
8 **the development of rates, and a second time after dividends are actually paid to**
9 **investors and those dividends are reinvested.**

10 This double-recovery is best illustrated by a utility bond investment analogy. A
11 utility bond pays a coupon twice a year. The cost of a bond investment to the utility is
12 the nominal cost for making the two semiannual coupon payments. The expected
13 return to the bond investor is the effective annual return on the bond, which includes
14 the two coupon payments and the reinvestment return by reinvesting the first coupon
15 payment for the remaining six months of the year. However, the reinvestment portion
16 of the return on the bond coupon payment is not a cost to the utility. Therefore, the
17 reinvestment cost should not be included in the utility's cost of service.

18 In his response to this argument, Dr. Morin argues that the return on equity is
19 not a cost of service item. He is wrong. The purpose of this proceeding is to develop
20 a revenue requirement for the utility that will allow it to recover its cost of providing
21 service. Because a utility's cost does not include the reinvestment return on quarterly
22 dividend payments, that dividend reinvestment return should not be included in
23 revenue requirements and passed on to retail customers. If this is done, investors will
24 be allowed to recover the dividend reinvestment return twice. This is unjustified and
25 should not be allowed. This is precisely the reason why a quarterly compounding

DCF model is not widely relied on for developing authorized returns on equity for utility companies in regulatory proceedings.

CAPM Return Estimate

Q WHAT CRITICISMS DOES DR. MORIN MAKE OF YOUR TRADITIONAL CAPM RETURN ESTIMATE?

A Dr. Morin argues that the traditional CAPM return estimate understates the return on equity for companies that have betas less than 1.0, and he argues that my market risk premium of 5.6% is too low and inconsistent with the market risk premiums estimated by Morningstar.

Q PLEASE RESPOND TO DR. MORIN'S CRITICISMS OF YOUR MARKET RISK PREMIUM.

A First, Dr. Morin's arguments in this regard are irrelevant in this case because as shown on my Schedule MPG-19, I relied on both Morningstar's total market return risk premium of 5.7%, and an income return market risk premium of 6.5%. Dr. Morin's argument that I relied only on a 5.7% market risk premium, is incorrect.

Q PLEASE COMMENT ON DR. MORIN'S CRITICISMS OF YOUR USE OF BETAS IN YOUR CAPM STUDY.

A Dr. Morin argues that I should have relied on five years of historical betas in this case, rather than the current point estimate beta as he did. He argues that this was inconsistent with prior testimonies. Dr. Morin is again making inaccurate assessments. Relying on the current spot beta is completely consistent with my testimony in AmerenUE's last rate case. Dr. Morin failed to note that in his criticism of

1 my testimony in this case. However, in testimonies many years ago I did include a
2 consideration of betas over a longer term. The reason I considered these betas is
3 because betas of a few years ago rose to a level that was completely inconsistent
4 with rational assessments of utility investment risk. Utility betas in the last five years
5 increased because utility stock price performance was quite robust and outperformed
6 market indexes. In those past cases, I found that the current observable utility beta
7 was substantially out of line with utility betas over time. Therefore, I relied on a more
8 normal utility beta to estimate a CAPM return estimate in those past cases. That was
9 not necessary in this case.

10 **Q PLEASE EXPLAIN WHY IT WAS NOT NECESSARY TO REVIEW HISTORICAL**
11 **BETAS IN ORDER TO USE A NORMAL UTILITY BETA IN ESTIMATING**
12 **AMERENUE'S RETURN ON EQUITY IN THIS PROCEEDING?**

13 **A** Current betas are reasonably consistent with historical normal betas. This is shown
14 on my exhibit Schedule MPG-SR-1. As shown on this schedule, during this 11-year
15 period, utility betas have averaged approximately 0.7. Current utility betas are also
16 around 0.7. However, during various periods, utility betas moved from lows of 0.5 to
17 highs of 0.99. It was the period where utility betas were as high as 0.99 where I
18 found it appropriate to review historical betas in order to produce a normalized beta
19 for use in a CAPM analysis. Again, utility betas today are normal, and in line with
20 historical average utility beta levels. Therefore, my CAPM produces a more
21 reasonable return on equity estimate for AmerenUE.

1 **Risk Premium Study**

2 **Q WHAT ARGUMENTS DOES DR. MORIN MAKE CONCERNING YOUR RISK**
3 **PREMIUM STUDY?**

4 A Dr. Morin recommends increasing my estimated equity risk premium to reflect an
5 inverse relationship between equity risk premiums and interest rates. He asserts that
6 had I made this adjustment, the equity risk premiums I relied on would have
7 increased from 5.16% to 5.7% over Treasury bonds. That equity risk premium of
8 5.7%, rather than 5.16%, combined with a Treasury bond yield of 5.0%, would
9 produce a return on equity estimate of 10.7%, instead of my estimated return on
10 equity of 10.24%.

11 **Q IS DR. MORIN'S PROPOSAL TO REFLECT A SIMPLISTIC INVERSE**
12 **RELATIONSHIP BETWEEN EQUITY RISK PREMIUMS AND INTEREST RATES**
13 **CONSISTENT WITH THE ACADEMIC LITERATURE ON THIS RELATIONSHIP?**

14 A No, his position is not consistent with the academic research on this issue.

15 **Q PLEASE DESCRIBE THE ACADEMIC RESEARCH ON THE RELATIONSHIP**
16 **BETWEEN EQUITY RISK PREMIUMS AND INTEREST RATES.**

17 A The academic literature on the inverse relationship between interest rates and equity
18 risk premiums has observed that there has been a transient inverse relationship that
19 was not tied to changes in nominal interest rates. It was caused by changes to
20 perceived risk differentials between debt and equity investments. Further, the
21 relationship between interest rates and equity risk premiums is not constant, but
22 rather can change materially over time.

1 Most of the academic literature addressing this issue that I am familiar with is
2 based on market data from the 1980s and very early 1990s. During the 1980s and
3 very early 1990s, an inverse relationship did exist. However, that relationship did not
4 exist prior to 1980, and it has not been shown to be the case since the early 1990s.
5 For example, the abstract for a paper written by Eugene Brigham, Dilip K. Shome and
6 Steve R. Vinson, entitled "The Risk Premium Approach to Measuring a Utility's Cost
7 of Equity," published by the Public Utility Research Center, August 1984, states:

8 (4) Before 1980, equity risk premiums for utilities increased as interest
9 rates rose, but after that date an increase in interest rates was
10 associated with lower risk premiums. As a result, in recent years a
11 100 basis point increase in long-term interest rates has led to an
12 increase of about 37 basis points in the cost of equity. (5) Risk
13 premiums are not stable; they change substantially over relatively
14 short periods of time, and this volatility has implications for anyone
15 who seeks to measure equity capital costs on the basis of a debt yield
16 plus a risk premium, including advocates of the CAPM approach.
17 (Emphasis added).

18 These authors found that there was a positive relationship between interest
19 rates and equity risk premiums before 1980, and an inverse relationship from 1980-
20 1984. This study does not establish a consistent relationship between interest rates
21 and equity risk premiums over the entire period.

22 In a more recent study by Robert S. Harris and Felicia C. Marston published in
23 the *Journal of Applied Finance* – 2001, "The Market Risk Premium: Expectational
24 Estimates Using Analysts Forecasts," the authors expanded an earlier study of risk
25 premiums to cover the period of 1982-1998. In this study, the authors did note an
26 historical inverse relationship between equity risk premiums and interest rates.
27 However, the authors went into detail to explain why that historical relationship was
28 likely affected more by relative investment risk changes, and not simply changes to
29 nominal interest rates. The authors state as follows:

1 . . .The market risk premium changes over time and appears inversely
2 related to government interest rates but is positively related to the
3 bond yield spread, which proxies for the incremental risk of investing in
4 equities as opposed to government bonds.

5 Importantly, the authors in that same study concluded as follows:

6 . . . As a result, our evidence does not resolve the equity premium
7 puzzle; rather, the results suggest investors still expect to receive large
8 spreads to invest in equity versus debt instruments.

9 There is strong evidence, however, that the market risk premium
10 changes over time. Moreover, these changes appear linked to the
11 level of interest rates as well as ex ante proxies for risk drawn from
12 interest rate spreads in the bond market . . .

13 Clearly, the academic literature does not support a simplistic inverse
14 relationship between interest rates and equity risk premiums. Rather, the authors of
15 these studies recognize that equity risk premiums change over time from the
16 perceived changes in investment risk. Dr. Morin's simplistic analysis takes no
17 account of changes to perceived investment risk, and inappropriately increases equity
18 risk premiums for no other reason than a reduction in nominal interest rates.

19 **Q ARE REDUCTIONS IN NOMINAL INTEREST RATES AN ADEQUATE REASON**
20 **FOR INCREASES TO EQUITY RISK PREMIUMS?**

21 A No, they are not. Reductions to nominal interest rates over the last 10 years are
22 simply not an adequate reason for increases to equity risk premiums. Indeed,
23 decreases to interest rates over the last 10 years likely have been caused by reduced
24 inflation expectations, which would decrease both bond interest rates and required
25 common equity returns. Reduced inflation expectations alone should not change
26 relative debt to equity investment risk, and thus would not cause equity risk premiums
27 to increase. Consequently, Dr. Morin's proposal to reflect an inverse relationship
28 between equity risk premiums and bond interest rates should be rejected.

1 **Q DO YOU BELIEVE THAT THE EQUITY RISK PREMIUM HAS INCREASED**
2 **BECAUSE OF THE RECENT MARKET TURBULENCE?**

3 A As discussed in detail in my direct testimony, the security markets experienced
4 significant turbulence, which led to increased utility spreads over Treasuries at the
5 end of 2008 and the beginning of 2009. However, since then the market has
6 significantly improved and the current spreads are lower than the ones experienced
7 prior to the credit crisis, which suggests that the current market risk perception is at or
8 below the risk outlook prior to the financial crisis.

9 **Response to AmerenUE Witness Julie M. Cannell**

10 **Q WHAT ISSUES CONCERNING MS. CANNELL'S REBUTTAL TESTIMONY WILL**
11 **YOU ADDRESS?**

12 A I will respond to Ms. Cannell's conclusions and support for her testimony that the
13 Commission should award the Company's requested 10.8% return on equity, as
14 recommended as AmerenUE witness Dr. Roger Morin. Ms. Cannell asserts that a
15 10.8% return on equity is necessary in order to preserve the constructive Missouri
16 regulatory outlook for investors, which will support AmerenUE's credit, and
17 construction program. She also concludes that a return on equity in the range of
18 9.5% to 10.5% as I recommended would not support AmerenUE's ability to access
19 external capital markets in order to support its capital expenditure programs.

20 I will also respond to the general assertions made by Ms. Cannell concerning:
21 (1) investors' requirement for increased returns in utility investments, (2) investors'
22 expectations for the current rate proceedings, and (3) investors' expectations for
23 return on equity for AmerenUE.

1 **Q PLEASE DESCRIBE MS. CANNELL’S ASSESSMENT OF THE INVESTORS’**
2 **EXPECTATION CONCERNING THE RISK OF THE UTILITY INVESTMENTS.**

3 A Ms. Cannell goes through various aspects of business risk associated with electric
4 utility companies that have existed over approximately the last 15 years. She
5 concludes at page 10 of her testimony that “These increased risks mean that
6 investors no longer perceive electric utilities as a group as being the ‘safe havens’
7 they once were.”

8 **Q DO YOU BELIEVE MS. CANNELL IS CORRECT, THAT INVESTORS NO LONGER**
9 **PERCEIVE ELECTRIC UTILITIES TO BE “SAFE HAVEN” INVESTMENTS?**

10 A No. Ms. Cannell’s assessment that investors no longer perceive electric utility
11 investments as a safe haven investment is contradicted by nearly every
12 “independent” market participant.

13 **Q PLEASE PROVIDE EXAMPLES OF MARKET PARTICIPANTS CONCLUDING**
14 **THAT THE ELECTRIC UTILITY INDUSTRY IS A SAFE HAVEN INVESTMENT.**

15 A The Edison Electric Institute (EEI) in its 2009 third quarter financial update
16 characterized an electric utility as exhibiting a traditional role as a defensive
17 investment in terms of market stress. As described in my direct testimony at pages
18 11-12, EEI advises that the stability of utility earnings and dividends, and stock price
19 performance exhibit relatively stable investment returns during periods of market
20 stress.

1 *Value Line* also noted the market risk mitigation aspects of utility stock
2 investments:

3 **Conclusion**

4 During challenging economic times, investors tend to migrate towards
5 utility stocks due to their relative stability and attractive dividend yields.
6 And, now seems like a better time than ever, as the broad market
7 selloff early in the year has led to higher yields and increased
8 total-return potential. All told, we believe this might be a good time for
9 investors to increase their electric-utility exposure.³

10 Further, as noted on pages 7-9 of my direct testimony, credit analyst reports
11 from Standard & Poor's, Moody's, and Fitch, the three major credit rating agencies,
12 characterize the electric utility industry as having relatively stable credit quality, and
13 state that the industry has navigated the difficult 2008-2009 financial market. All of
14 this is clear evidence that electric utilities have maintained their safe haven
15 perspective by investors, and Ms. Cannell's assessment that they lost this distinction
16 is inaccurate.

17 **Q DO YOU AGREE WITH MS. CANNELL THAT INVESTORS WOULD EXPECT**
18 **THAT AMERENUE IN THIS CASE WOULD RECEIVE APPROXIMATELY THE**
19 **SAME AUTHORIZED RETURN ON EQUITY IT RECEIVED IN ITS LAST RATE**
20 **CASE?**

21 **A** No. An informed investor would understand that utility rates are based on the utility's
22 costs in a test year, including the utility cost of equity. The rate of return approved in
23 the last case may or may not be reflective of its current market cost of equity. Indeed,
24 in this case, I have already shown in my direct testimony that AmerenUE's cost of
25 capital in this case is lower than its cost of capital in its last case. This alone would
26 signal to an informed investor that the authorized return on equity in this case should

³*Value Line Investment Survey*. "Electric Utility (East) Industry," May 29, 2009, emphasis added.

1 be lower than that of its last case. As such, rational expectations for an informed
2 investor in this case should be that AmerenUE's authorized return on equity will be
3 lower than it was in its last rate case. Consistent application of these rate-setting
4 principles will also support a constructive regulatory environment in Missouri.

5 **Q CAN YOU OUTLINE THE AMERENUE-SPECIFIC RISKS WHICH MS. CANNELL**
6 **ASSERTS SUPPORT THE COMPANY'S 10.8% RETURN ON EQUITY REQUEST?**

7 A Ms. Cannell generally reviews AmerenUE's investment risk from several broad
8 operating risk categories including the following:

- 9 1. Regulatory risk,
- 10 2. Construction risk,
- 11 3. Historical test year risk, and
- 12 4. Regulatory lag.

13 Based on all of these assessments, Ms. Cannell appears to conclude that her
14 assessment of AmerenUE's risk supports AmerenUE's requested return on equity of
15 10.8%.

16 **Q PLEASE OUTLINE MS. CANNELL'S CONCLUSIONS ASSOCIATED WITH**
17 **AMERENUE'S REGULATORY RISK.**

18 A Ms. Cannell quotes two sources that find that the regulatory risk ranking of the
19 Missouri Commission would be average as noted from the Regulatory Research
20 Associates (RRA), and below average as stated by Barclays Capital. (Cannell Direct
21 at 24-25).

1 **Q DO YOU HAVE ANY GENERAL RESPONSE TO MS. CANNELL'S ASSESSMENT**
2 **OF THE REGULATORY RISK IN MISSOURI?**

3 A Yes. My first general finding is that the Commission should place minimal to no
4 weight on the opinions outlined by Barclays Capital. Barclays is very clear in its
5 disclosure that it is not an independent source of investment advice, and its
6 recommendations could relate to conflicts of interest that could affect its objectivity.
7 Specifically, Barclays states as follows:

8 Barclays Capital does and seeks to do business with companies
9 covered in its research reports. As a result, investors should be aware
10 that the firm may have a conflict of interest that could affect the
11 objectivity of this report.⁴

12 That report included a section concerning Ameren Corporation, AmerenUE's
13 parent company. As Barclays clearly notes, it may do, or seek to do, business with
14 Ameren Corporation including AmerenUE. Therefore, its report should not be taken
15 by the Commission as an objective assessment of the risk of AmerenUE, or the utility
16 industry.

17 **Q DO YOU HAVE THE SAME CONCERN ABOUT RRA'S ASSESSMENT OF THE**
18 **REGULATORY RISK OF MISSOURI?**

19 A No. RRA makes the following disclosure:

20 Regulatory Research Associates provides independent research and
21 consultation on electric utility securities and regulation, with a nearly
22 30-year reputation for unmatched expertise in both areas. Knowing
23 the financial and strategic impact of state-level regulation is the key to
24 success in the energy business. And, with the expert analysis and
25 proprietary data provided by Regulatory Research Associates, you
26 have access to the best available intelligence on regulatory issues
27 affecting utilities. (Emphasis added).⁵

⁴Barclay Capital Utility, Capital Management, July 16, 2009, attached to Ms. Cannell's rebuttal testimony, emphasis added.

⁵SNL.com.

1 As noted by Ms. Cannell at page 24 of her rebuttal testimony, RRA rates the Missouri
2 regulatory environment as “relatively balanced from an investor perspective,” and on
3 its rate scale, it rates Missouri as an “Average – 2” ranking.

4 **Q ARE THERE OTHER INDEPENDENT SOURCES THAT RATE REGULATORY**
5 **RISK BETWEEN JURISDICTIONS?**

6 A Yes. *The Value Line Investment Survey* provides a regulatory risk assessment for
7 regulatory jurisdictions similar to that provided by RRA. Like RRA, *Value Line* is an
8 independent advisory service to investors. In its December 25, 2009 report on
9 Ameren Corporation, *Value Line* rated the regulatory climate in Missouri as Average
10 and the Illinois regulatory environment as Below Average.⁶

11 Hence, from a regulatory perspective from independent rating agencies,
12 Missouri’s regulatory environment is rated as average or generally supportive of
13 investors’ interest.

14 **Q MS. CANNELL ALSO OUTLINES CONSTRUCTION RISK FOR AMERENUE. DO**
15 **YOU BELIEVE MISSOURI HAS IMPLEMENTED REGULATORY MECHANISMS**
16 **THAT HELP SUPPORT A UTILITY’S FINANCIAL INTEGRITY, AND ACCESS TO**
17 **CAPITAL TO SUPPORT MAJOR CONSTRUCTION PROGRAMS?**

18 A Yes. The Missouri Public Service Commission has implemented constructive
19 regulatory plans which have mitigated construction risk for Kansas City Power and
20 Light, and The Empire District Electric Company after those utilities demonstrated that
21 an extraordinary regulatory mechanism was justified. As such, to the extent
22 AmerenUE is able to demonstrate it has construction risk that cannot be managed

⁶*Value Line* ranks regulation on a scale of Above Average, Average, and Below Average (May 8, 2009 at 2232).

1 through traditional regulatory practices, there are opportunities for it to negotiate
2 regulatory mechanisms to strengthen cash flows to support its credit metrics during
3 construction periods, if needed.

4 **Q HOW WERE THESE REGULATORY MECHANISMS PERCEIVED BY THE CREDIT**
5 **RATING AGENCIES?**

6 A Positively, S&P stated the following:

7 State regulatory decisions will be key to credit quality as companies
8 seek to recover substantial capital expenditures on a timely basis. In
9 notable instances where state regulators have been required to
10 confront certain challenges (e.g., in rulings affecting recovery of costs
11 related to new power plants), regulatory decisions have been generally
12 supportive of companies' credit quality. For instance, in Iowa, Missouri
13 and Colorado, the commissions structured recovery mechanisms for
14 MidAmerican Energy Co., Kansas City Power & Light Co., and Public
15 Service Co. of Colorado, respectively, in such a way that the utilities'
16 financial health would not be compromised during the construction of
17 major generating facilities. Standard & Poor's does not assume that
18 these actions will in any way be a harbinger of the supportive nature of
19 decisions that many other commissions will be making, but they at
20 least provide a reference point. Of more immediate consequence are
21 the political battles that loom over the power cost increases that will
22 follow the expiration of the restructuring transition periods in Ohio
23 (2008) and Pennsylvania (2010).⁷

24 **Q MS. CANNELL ALSO ASSERTS THAT AMERENUE'S OPERATING RISK IS**
25 **GREATER BECAUSE IT IS REQUIRED TO USE AN HISTORICAL TEST YEAR IN**
26 **SETTING RATES. PLEASE COMMENT.**

27 A While I would agree that providing options for historic versus future test year provides
28 the utility more flexibility to design rates that will recover its cost of service once those
29 rates are in effect, Ms. Cannell's blanket assertion that use of only an historical test
30 year increases AmerenUE's rates is too simplistic to support her risk claim.

⁷Standard & Poor's RatingsDirect: "U.S. Electric Utility Sector Rating Actions Slightly Negative In A Quiet First Quarter, April 25, 2008 at 3, emphasis added.

1 Ameren Corporation's Illinois utility affiliates have options of using future test
2 years, historical test years, or current test years. Over at least the last 10 years,
3 Ameren Illinois Utilities have chosen to use only historical test years in order to set
4 utility rates. If using future test years better produces rate structures that allow the
5 utility to fully recover its cost of service, as Ms. Cannell asserts without support, then
6 it is reasonable to believe the Ameren Illinois Utilities would consistently choose
7 future test years in their rate-setting proceedings in Illinois. They do not. Again,
8 Ameren Illinois Utilities have consistently chosen to use historical test years to set
9 rates since at least the year 2000.

10 **Q MS. CANNELL ALSO SUGGESTS THAT AMERENUE HAS REGULATORY LAG**
11 **RISK THAT IS UNCHARACTERISTIC OF THE UTILITY INDUSTRY. PLEASE**
12 **RESPOND.**

13 **A** Ms. Cannell's assertion that AmerenUE has excessive regulatory lag has already
14 been addressed in this proceeding in AmerenUE's proposal for an interim rate
15 increase. The Company failed to provide evidence that supported its contention that
16 it has excessive regulatory lag, and this assertion has already been rejected by the
17 Commission. Since Ms. Cannell has not provided any new information in support of
18 this inaccurate assessment, I continue to recommend to the Commission to reject
19 AmerenUE's assertion that it has excessive regulatory lag. Since regulatory lag is a
20 part of operating risk for all regulated electric utilities, and AmerenUE's has not
21 proven it has more/less regulatory risk than other electric utilities, AmerenUE should
22 not receive an above industry average authorized return on equity in this proceeding.

1 **Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

2 **A Yes, it does.**

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AmerenUE

Betas (Integrated Electric Utilities)

Line	Company	Current	11-Year	Historical ²										
		Beta ¹ (1)	Average (2)	2009 (3)	2008 (4)	2007 (5)	2006 (6)	2005 (7)	2004 (8)	2003 (9)	2002 (10)	2001 (11)	2000 (12)	1999 (13)
1	ALLETE	0.70	0.85	0.70	0.85	0.95	0.90	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Allegheny Energy	0.95	1.21	1.00	1.10	2.10	1.95	1.75	1.55	1.35	0.80	0.60	0.55	0.60
3	Alliant Energy	0.70	0.74	0.70	0.80	0.90	0.90	0.85	0.80	0.70	0.65	0.55	0.55	N/A
4	Amer. Elec. Power	0.70	0.86	0.70	0.85	1.15	1.25	1.20	1.15	0.95	0.75	0.55	0.50	0.40
5	Ameren Corp.	0.80	0.68	0.80	0.80	0.80	0.75	0.75	0.75	0.65	0.60	0.55	0.55	0.50
6	CMS Energy Corp.	0.80	1.00	0.80	0.95	1.55	1.55	1.40	1.30	1.10	0.75	0.50	0.55	0.50
7	Cleco Corp.	0.65	0.87	0.65	0.90	1.35	1.25	1.15	1.05	0.90	0.65	0.55	0.55	0.55
8	DPL Inc.	0.60	0.75	0.60	0.75	0.90	0.95	0.95	0.90	0.80	0.75	0.60	0.55	0.55
9	DTE Energy	0.75	0.67	0.75	0.75	0.80	0.75	0.70	0.65	0.60	0.60	0.55	0.60	0.60
10	Duke Energy	0.65	0.63	0.65	0.60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	Edison Int'l	0.80	0.87	0.80	0.85	1.05	1.15	1.05	1.05	0.90	0.80	0.65	0.65	0.60
12	Empire Dist. Elec.	0.75	0.64	0.75	0.80	0.85	0.80	0.70	0.65	0.60	0.50	0.45	0.50	0.45
13	Entergy Corp.	0.70	0.69	0.70	0.80	0.85	0.85	0.75	0.75	0.65	0.60	0.50	0.60	0.50
14	Exelon Corp.	0.85	0.76	0.85	0.85	0.90	0.80	0.75	0.70	0.70	0.55	N/A	N/A	N/A
15	FPL Group	0.75	0.64	0.75	0.80	0.80	0.85	0.75	0.70	0.60	0.50	0.40	0.45	0.45
16	FirstEnergy Corp.	0.80	0.69	0.80	0.75	0.90	0.80	0.75	0.75	0.70	0.55	0.55	0.55	0.50
17	G't Plains Energy	0.75	0.73	0.75	0.75	0.85	0.90	0.85	0.80	0.70	0.65	0.55	0.60	0.60
18	Hawaiian Elec.	0.70	0.62	0.70	0.75	0.70	0.70	0.70	0.65	0.55	0.55	0.50	0.50	0.50
19	IDACORP Inc.	0.70	0.75	0.70	0.85	1.00	1.00	0.95	0.85	0.75	0.60	0.50	0.50	0.50
20	PG&E Corp.	0.55	0.80	0.55	0.85	0.95	1.15	1.10	1.05	0.90	0.80	0.55	0.45	0.40
21	Pepco Holdings	0.80	0.88	0.80	0.90	0.90	0.85	0.90	0.90	N/A	N/A	N/A	N/A	N/A
22	Portland General	0.70	0.70	0.70	0.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
23	Progress Energy	0.65	0.76	0.65	0.75	0.95	0.85	0.85	0.85	0.85	N/A	N/A	0.55	0.55
24	Public Serv. Enterprise	0.80	0.75	0.80	0.85	0.95	0.95	0.85	0.85	0.75	0.65	0.50	0.55	0.50
25	Southern Co.	0.55	0.61	0.55	0.65	0.75	0.65	0.65	0.65	0.65	N/A	N/A	0.45	0.45
26	TECO Energy	0.85	0.77	0.85	0.85	1.10	1.05	0.95	0.85	0.75	0.55	0.50	0.50	0.50
27	Westar Energy	0.75	0.65	0.75	0.85	0.90	0.90	0.85	0.75	0.60	0.50	0.35	0.30	0.35
28	Wisconsin Energy	0.65	0.64	0.65	0.75	0.80	0.80	0.70	0.70	0.60	0.55	0.50	0.50	0.45
29	Xcel Energy Inc.	0.65	0.75	0.65	0.75	1.05	0.90	0.80	0.80	0.70	0.60	N/A	N/A	0.50
30	Average	0.73	0.76	0.73	0.81	0.99	0.97	0.91	0.86	0.76	0.63	0.52	0.52	0.50

Sources:

¹ The Value Line Investment Survey, November 6, November 27, and December 25, 2009.

² The Value Line Investment Analyzer, downloaded on March 3, 2010.

AmerenUE

Betas (S&P Electric Utilities)

Line	Company	Current	11-Year	Historical ²										
		Beta ¹	Average	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	Allegheny Energy	0.95	1.21	1.00	1.10	2.10	1.95	1.75	1.55	1.35	0.80	0.60	0.55	0.60
2	Amer. Elec. Power	0.70	0.86	0.70	0.85	1.15	1.25	1.20	1.15	0.95	0.75	0.55	0.50	0.40
3	Ameren Corp.	0.80	0.68	0.80	0.80	0.80	0.75	0.75	0.75	0.65	0.60	0.55	0.55	0.50
4	CMS Energy Corp.	0.80	1.00	0.80	0.95	1.55	1.55	1.40	1.30	1.10	0.75	0.50	0.55	0.50
5	CenterPoint Energy	0.80	0.73	0.80	0.90	0.70	0.65	0.60	N/A	N/A	N/A	N/A	N/A	N/A
6	Consol. Edison	0.65	0.61	0.65	0.75	0.70	0.70	0.60	0.65	0.55	0.55	0.50	0.55	0.50
7	Constellation Energy	0.80	0.76	0.80	0.85	0.95	1.00	0.95	0.85	0.75	0.70	0.50	0.50	0.50
8	DTE Energy	0.75	0.67	0.75	0.75	0.80	0.75	0.70	0.65	0.60	0.60	0.55	0.60	0.60
9	Dominion Resources	0.70	0.74	0.70	0.75	1.05	1.00	0.90	0.85	0.75	0.60	0.50	0.55	0.50
10	Duke Energy	0.65	0.63	0.65	0.60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	Edison Int'l	0.80	0.87	0.80	0.85	1.05	1.15	1.05	1.05	0.90	0.80	0.65	0.65	0.60
12	Entergy Corp.	0.70	0.69	0.70	0.80	0.85	0.85	0.75	0.75	0.65	0.60	0.50	0.60	0.50
13	Exelon Corp.	0.85	0.76	0.85	0.85	0.90	0.80	0.75	0.70	0.70	0.55	N/A	N/A	N/A
14	FPL Group	0.75	0.64	0.75	0.80	0.80	0.85	0.75	0.70	0.60	0.50	0.40	0.45	0.45
15	FirstEnergy Corp.	0.80	0.69	0.80	0.75	0.90	0.80	0.75	0.75	0.70	0.55	0.55	0.55	0.50
16	Integrus Energy	0.95	0.71	0.95	0.80	0.85	0.80	0.75	0.75	0.70	0.60	0.55	0.55	0.50
17	PG&E Corp.	0.55	0.80	0.55	0.85	0.95	1.15	1.10	1.05	0.90	0.80	0.55	0.45	0.40
18	PPL Corp.	0.70	0.80	0.70	0.85	0.95	1.00	0.95	0.95	0.85	0.75	0.65	0.60	0.50
19	Pepco Holdings	0.80	0.88	0.80	0.90	0.90	0.85	0.90	0.90	N/A	N/A	N/A	N/A	N/A
20	Average	0.76	0.77	0.77	0.83	1.00	0.99	0.92	0.90	0.79	0.66	0.54	0.55	0.50

Sources:

¹ *The Value Line Investment Survey*, November 6, November 27, and December 25, 2009.

² *The Value Line Investment Analyzer*, downloaded on March 3, 2010.