

Exhibit No.:
Witness: Michael Gorman
Type of Exhibit: Surrebuttal Testimony
Issues: Cost of Service
Sponsoring Party: Missouri Industrial Energy Consumers
Case No.: ER-2008-0318

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

**In the Matter of Union Electric Company d/b/a
AmerenUE for Authority to File Tariffs Increasing
Rates for Electric Service Provided to Customers
in the Company's Missouri Service Area.**)
)
) **Case No. ER-2008-0318**
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Surrebuttal Testimony and Schedules of

Michael Gorman

on Cost of Service

On Behalf of

Missouri Industrial Energy Consumers



Project 8983
November 5, 2008

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Surrebuttal Testimony of Michael Gorman

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

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

4 **Q ARE YOU THE SAME MICHAEL GORMAN WHO HAS PREVIOUSLY FILED**
5 **TESTIMONY IN THIS PROCEEDING?**

6 A Yes. I have previously filed direct and rebuttal testimony.

7 **Q ARE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE OUTLINED IN**
8 **YOUR DIRECT TESTIMONY?**

9 A Yes. This information is included in Appendix A.

10 **Q ON WHOSE BEHALF ARE YOU PRESENTING THIS SURREBUTTAL**
11 **TESTIMONY?**

12 A This testimony is presented on behalf of the Missouri Industrial Energy Consumers
13 ("MIEC").

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1 **Q WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

2 A I will respond to the rebuttal testimony of AmerenUE witness Dr. Roger A. Morin and
3 his continued support for his 10.9% return on equity for AmerenUE.

4 **Q PLEASE DESCRIBE YOUR SURREBUTTAL TESTIMONY TO DR. MORIN IN THIS**
5 **PROCEEDING.**

6 A I will respond to Dr. Morin regarding:

- 7 1. my decision not to rely on the results of my constant growth DCF analysis;
- 8 2. His criticisms related to my non-constant growth DCF studies;
- 9 3. His argument that I should have reflected an inverse relationship between interest
10 rates and equity risk premiums in my risk premium study;
- 11 4. His assertions that my CAPM estimate is understated; and
- 12 5. His argument that I should have included a 30 basis point flotation cost
13 adjustment adder to my return on common equity estimate for AmerenUE.

14 **Q PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS IN YOUR**
15 **SURREBUTTAL TESTIMONY TO AMERENUE WITNESS DR. ROGER MORIN.**

16 A As set forth below in detail, my conclusions and recommendations in my surrebuttal
17 testimony are as follows:

- 18 1. Dr. Morin's assertions that it was inappropriate and self-serving for me to
19 disregard the results of my constant growth DCF study are without merit. Dr.
20 Morin himself in past testimonies has rejected the results of DCF studies when he
21 found the parameters and inputs to this DCF model to be unreliable. Further, Dr.
22 Morin in past testimonies has rejected constant growth DCF studies as outliers,
23 based on factors he found to support that decision. My recommendation in this
24 case is to exclude the constant growth DCF analysis because the 3-5 year
25 analysts' growth rate estimates are not reasonable estimates of long-term
26 sustainable growth. Dr. Morin has provided no material rebuttal to that conclusion
27 and, therefore, has not contested the legitimacy and accuracy of my arguments
28 and supporting data leading to my conclusion to disregard my constant growth
29 DCF results in this proceeding.

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- 1 2. Dr. Morin's argument, that my analyses in support of my decision to disregard my
2 DCF study in this case is inconsistent with testimony I have filed in prior cases, is
3 erroneous and should be disregarded. I routinely test the results of my constant
4 growth DCF analysis to determine whether the results are rational and
5 reasonable. While I normally find the growth rate estimates made by analysts to
6 be reasonable estimates of long-term sustainable growth, I do not find that to be
7 an appropriate conclusion in all cases. Indeed, as set forth below, I have rejected
8 my constant growth DCF analysis when I found the growth rates to be
9 unreasonably low and unreasonably high. Rejecting the constant growth DCF
10 model has symmetrically increased and decreased my recommended return on
11 equity range. As such, I have consistently tested the results of my constant
12 growth DCF studies, and rejected those results when I found factors to be
13 unreasonable and unreliable. Importantly, I have not rejected the constant growth
14 DCF analysis only when I found the results to be too high, as Dr. Morin falsely
15 claims. I have consistently employed a balanced methodology to estimate a fair
16 return on equity.
- 17 3. Dr. Morin's arguments, in support of an appropriate growth rate for use in DCF
18 studies, are often contradictory and inconsistent. In my application, I consistently
19 rely on consensus analysts' growth rate projections for my constant growth and
20 two-stage growth DCF methodologies. In contrast, Dr. Morin's methodology
21 appears to favor the highest growth rate, regardless of whether it is based on
22 consensus analysts' projections, or is based on a single analyst's projection. Dr.
23 Morin's arguments are unconvincing, inconsistent, and his arguments should be
24 disregarded.
- 25 4. Dr. Morin's argument, that my risk premium study was understated because I did
26 not reflect an inverse relationship between interest rates and equity risk
27 premiums, is without merit and should be disregarded. An equity risk premium
28 will not change simply due to a change in interest rates. Indeed, interest rates
29 have declined over the last two decades largely because of declining inflation
30 expectations. A reduction in inflation expectations would reduce both bond yields
31 and common equity required returns in a similar manner. As such, a simple
32 decline in nominal interest rates will not necessarily cause an increase in the
33 equity risk premium. Rather, again, the equity risk premium should be based on
34 changes in perceived risk not simply changes in interest rates.
- 35 5. Dr. Morin's assertion that I understated my CAPM return estimate because I
36 inappropriately estimated the market risk premium is without merit. However,
37 setting aside my disagreements with Morningstar's proposed methodology of
38 estimating the market risk premiums, Morningstar's complete analysis of the
39 market risk premium produces a risk premium estimate that is very similar to the
40 one I proposed. Substituting the midpoint of Morningstar's market risk premium
41 estimates into my CAPM return estimates produces a result that is very similar to
42 the result that I offered in my direct testimony. Dr. Morin's conclusion that my
43 CAPM return estimate is understated is without merit and should be disregarded.

1 As set forth below, and as summarized above, I continue to recommend a
2 return on equity of 10.2% for AmerenUE in this proceeding. This analysis fully
3 reflects the market data that is available to influence expectations of investors and
4 allows for a consistent and credible estimate of the current market cost of equity for
5 AmerenUE's common stock capital.

6 **Constant Growth DCF Study**

7 **Q PLEASE DESCRIBE DR. MORIN'S ARGUMENTS RELATED TO YOUR DECISION**
8 **NOT TO RELY ON THE RESULTS OF YOUR CONSTANT GROWTH DCF STUDY**
9 **IN THIS PROCEEDING.**

10 A Dr. Morin argues that I was inconsistent in my application of the constant growth DCF
11 model in this case relative to testimony I have filed in the past, and that my decision
12 not to rely on the constant growth DCF model in this case was "results-oriented,
13 self-serving, and inconsistent" with my prior testimonies, and had the effect of
14 substantially reducing my recommended ROE. (Morin Rebuttal at 39).

15 **Q IS YOUR TESTIMONY CONCERNING THE DEVELOPMENT AND RELIANCE ON**
16 **THE CONSTANT GROWTH DCF ANALYSIS IN THIS CASE INCONSISTENT WITH**
17 **YOUR PRIOR TESTIMONY?**

18 A No. To the contrary, I consistently and routinely review my constant growth DCF
19 model results to determine whether the parameters of this DCF study produced
20 reasonable and reliable rate of return results.

21 However, due to differences in market data, utility fundamentals, and 3-5 year
22 growth outlooks, my conclusions changed in this case, and more recent cases,
23 relative to prior cases. While I agree that I do not frequently conclude that consensus

1 analysts' growth rate forecasts are not reasonable estimates of long-term sustainable
2 growth, I do routinely check the analysts' growth projections to confirm they are or are
3 not reasonable long-term sustainable growth rate estimates.

4 **Q DID DR. MORIN ARGUE THAT THE ANALYSTS' GROWTH RATES USED IN A**
5 **CONSTANT GROWTH DCF ANALYSIS SHOULD BE SUSTAINABLE IN THE**
6 **LONG TERM?**

7 A No. Dr. Morin has not contested my testimony that the growth rate used in the
8 constant growth model should reflect a reasonable estimate of long-term sustainable
9 growth. A long-term sustainable growth rate is required by the constant growth DCF
10 model. Hence, if there is reason to believe that the 3-5 year consensus analysts'
11 growth rate projections are not reasonable estimates of long-term sustainable growth,
12 then use of those growth rate estimates in a constant growth model will produce an
13 unreliable return on equity estimate. Again, this conclusion has not been refuted.

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

18 **Q PLEASE DESCRIBE YOUR PROCEDURE FOR TESTING THE**
19 **REASONABLENESS AND RELIABILITY OF YOUR CONSTANT GROWTH DCF**
20 **ANALYSIS PRESENTED IN THIS CASE AND PRIOR CASES.**

21 A In my rate of return testimony, I consistently develop a constant growth DCF analysis
22 using consensus analysts' growth rate forecasts, current dividend yields annualized,

1 and stock prices over a 13-week period. As Dr. Morin notes, he did not take issue
2 with these inputs. (Morin Rebuttal at 37-38).

3 However, in my testimony, I also reviewed the reasonableness of my constant
4 growth DCF parameters. I did this by comparing the consensus analysts' growth rate
5 projections relative to projections of GDP growth, and reviewing the proxy group
6 sustainable growth parameters, e.g., dividend payout ratio or dividend to book ratio,
7 to gauge the group's ability to grow. These considerations permit an informed
8 decision on whether the 3-5 year analyst growth rate projections are reasonable
9 estimates of long-term sustainable growth as required by the DCF model.

10 **Q DO YOU OFTEN CONCLUDE THAT ANALYSTS' 3-5 YEAR GROWTH IS NOT A**
11 **REASONABLE ESTIMATE OF LONG-TERM SUSTAINABLE GROWTH?**

12 A No. In the majority of cases in which I have filed testimony, I concluded that security
13 analysts' growth rate projections are reasonable estimates of long-term sustainable
14 growth because they seldom exceed the projected nominal growth of the U.S. GDP.
15 However, in some cases, like this one, I concluded that the 3-5 year growth rate was
16 too high to be a reasonable estimate of sustainable long-term growth.

17 **Q BASED ON YOUR TEST OF GROWTH RATES IN YOUR CONSTANT GROWTH**
18 **DCF STUDY, HAVE YOU EVER CONCLUDED THAT THE GROWTH RATES**
19 **WERE TOO LOW TO BE REASONABLE ESTIMATES OF LONG-TERM**
20 **SUSTAINABLE GROWTH?**

21 A Yes. In the early and mid-1990s, growth rates for utility companies were, in my
22 judgment, abnormally low due to certain fundamentals of the utility companies at that
23 time. Specifically, I found that utility payout ratios were abnormally high, and the high

1 payout ratios depressed the expected 3-5 year analysts' growth rates of those
2 companies. I showed in my testimony at that time, that while dividend growth would
3 likely be less than earnings growth over a short period of time, dividend payout ratios
4 would eventually decline to a more long-term sustainable level, and growth rates
5 thereafter would increase to a long-term sustainable level.

6 In those testimonies, I placed primary reliance on the multi-stage growth DCF
7 model, and minimal to no weight on the constant growth DCF model, in forming my
8 recommended return on equity. This decision resulted in an increase to my rate of
9 return on equity recommendations for several utilities.

10 Attached as Schedule MPG-S-1, I have identified the utility, state proceeding,
11 docket number and results of my rate of return findings including constant growth
12 DCF, non-constant growth DCF, risk premium, and CAPM studies. I also show the
13 return on equity range and point estimate I recommended in each case. Importantly,
14 in these cases, my recommended range did not rely on the constant growth DCF
15 study because I found growth rates in the constant growth study to be abnormally low
16 which understated the constant growth DCF estimate. In those cases, like this case, I
17 placed primary reliance on my non-constant growth DCF estimate.

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

21 **A** Yes. In 1995, Dr. Morin filed testimony on behalf of PSI Energy, in Cause No. 40003
22 before the Indiana Utility Regulatory Commission. In that testimony, Dr. Morin
23 recommended a return on equity in the range of 12.0% to 12.5% and recommended
24 the high end of his range be used to set rates. At arriving at his proposed range,

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1 Dr. Morin disregarded the results of his constant growth DCF analysis which
2 produced return on equity estimates of 10.80% and 10.91%, respectively. (Morin
3 Rebuttal at 46). Dr. Morin's general philosophy for exercising caution in adopting a
4 DCF return estimate was described as follows:

5 In summary, caution and judgment are required in interpreting the
6 results of the DCF model for PSI because of: (1) declining earnings
7 and dividends effect on financial inputs to the DCF model, (2) the
8 questionable applicability of the DCF model to utility stocks in general
9 in the current capital market environment, and (3) the conceptual and
10 practical difficulties associated with the growth component of the DCF
11 model.¹

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

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

24 Dr. Morin's testimony in this proceeding contradicts similar conclusions he
25 reached before the Indiana Utility Regulatory Commission in a 1995 case in which he
26 also found that analysts' growth rates were not reasonable for use in a constant
27 growth DCF analysis. Dr. Morin's criticisms of me in this proceeding contradict
28 positions he has taken in other proceedings.

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

² *Id.*, at 37-38, emphasis added.

1 **Q ARE THERE OTHER INCONSISTENCIES IN DR. MORIN’S ARGUMENTS ON THE**
2 **DCF MODEL IN THIS CASE?**

3 A Yes. Dr. Morin is inconsistent on his preference for a duration of a forecast that
4 should be used as a reasonable estimate of long-term sustainable growth. First,
5 Dr. Morin asserts that consensus analysts’ 3-5 year growth rate projections should be
6 relied on in a constant growth DCF study, as a long-term sustainable growth rate,
7 because they: (1) are reflected in stock prices, (2) possess a high explanatory power
8 of equity values, and (3) are used by investors. (Morin Rebuttal at 48). However, in
9 arguing about an appropriate long-term sustainable growth rate for use in a multi-
10 growth stage DCF study, Dr. Morin asserts that a 5-10 year GDP growth rate estimate
11 is not long enough, and prefers to rely on a 20-year GDP forecast. (Morin Rebuttal
12 at 40).

13 **Q ARE THERE OTHER CONTRADICTIONS IN DR. MORIN’S DCF GROWTH RATE**
14 **RECOMMENDATIONS?**

15 A Yes. In response to MEG witness Laconte, he takes issue with her proposal to use a
16 growth rate from *Value Line*, because it is a single analyst’s growth projection which
17 may not be representative of investors’ consensus expectations. Instead, he argues
18 that Ms. Laconte should have relied on consensus analysts’ growth rate projections
19 published by First Call, Reuters or Zacks (Morin Rebuttal at 48), because they are
20 more likely reflective of investor expectations.

21 However, he contradicts this assertion in his proposed source of a long-term
22 GDP growth rate projection. With respect to this long-term GDP growth rate, he
23 prefers to rely on a single GDP growth rate forecast made by Morningstar, instead of
24 my recommended GDP forecast which is based on the consensus of economists’

1 projections of long-term sustainable growth as published by the *Blue Chip Economic*
2 *Forecasts* (Morin Rebuttal at 39 and 40).

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

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

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

18 Dr. Morin's position before the Michigan Public Service Commission
19 contradicts his criticisms of MEG witness Laconte's use of *Value Line* forecasts,
20 rather than consensus analysts' forecasts, in her DCF return analysis in this
21 proceeding. (Morin Rebuttal at 48).

1 Q DR. MORIN REFERENCED A 2006 PUGET SOUND ENERGY CASE IN WHICH
2 YOU ACCEPTED THE RESULTS OF YOUR CONSTANT GROWTH DCF STUDIES.
3 HE ASSERTS THAT YOU ARE INCONSISTENT IN THIS CASE RELATIVE TO
4 THAT CASE. PLEASE RESPOND.

5 A Dr. Morin's assertions are without merit. In the Puget Sound Energy ("PSE") case,
6 just as in this case, I constructed a constant growth DCF study in the same way as I
7 did in this case. Also, after I developed the DCF study I tested the reliability of the
8 growth rate estimate used in that DCF study in the same way I did in this case. The
9 growth rate test in the 2006 PSE case, however, showed that the growth rates were a
10 reasonable estimate of long-term sustainable growth, because the proxy group
11 analysts' growth projection was lower than the projection of GDP growth (Morin
12 Rebuttal at 13). In this case, I found the 3-5 year growth rate projection is not a
13 reasonable estimate of long-term sustainable growth.

14 **Two-Stage Growth DCF Study**

15 Q WHAT IS THE PRIMARY ISSUE DR. MORIN TAKES WITH YOUR TWO-STAGE
16 GROWTH DCF STUDY?

17 A Dr. Morin primarily argues that my long-term sustainable growth rate of 4.8% to 5.0%
18 is too low. He asserts that a long-term growth rate of 6.0% is more reasonable. He
19 contends that this alternative long-term growth rate is recommended by Morningstar
20 in its Stocks, Bonds, Bills and Inflation 2008 Yearbook Valuation Edition. (Morin
21 Rebuttal at 40).

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 48). 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 2008 Valuation publication indicated a
14 long-term sustainable growth rate of 5.9%. However, as set forth below, constructing
15 that methodology using current information would produce a long-term GDP growth
16 rate of 5.48%.

17 Relying on Morningstar's methodology which is tied to a current Treasury
18 bond valuation, produces a long-term GDP growth forecast of around 5.48%, which
19 would increase the average of my two-stage DCF model and multi-stage DCF model
20 from 9.81% to 10.28%, as shown on my Schedule MPG-2.

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

22 A My long-term growth rate is based on the consensus economists' projected GDP
23 growth over the next 5 and 10-year periods as published in the *Blue Chip Economic*
24 *Indicators*, October 2008.

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1 Q WHAT LONG-TERM SUSTAINABLE GROWTH RATE DID DR. MORIN PROPOSE
2 TO USE?

3 A Dr. Morin asserts that the Morningstar publication relies on a long-term sustainable
4 U.S. GDP growth rate of 6.0%. (Morin Rebuttal at 40). Importantly, however, while
5 Dr. Morin noted this growth rate estimate came from the 2008 Morningstar Valuation
6 Edition, he failed to identify any page number from that document.

7 Q DID YOU VERIFY DR. MORIN'S ASSERTION THAT MORNINGSTAR HAS
8 PROJECTED A LONG-TERM GDP GROWTH RATE OF 6.0%?

9 A No. The only long-term U.S. GDP growth rate I found in the 2008 Morningstar
10 Valuation publication prescribes a methodology, and not a specific point estimate, of
11 future U.S. GDP growth. The data at the time of the publication indicated a long-term
12 sustainable growth rate of 5.9%, not the 6.0% growth rate asserted by Dr. Morin. But
13 more importantly, the Morningstar publication in the section of its study where it talks
14 about DCF estimates in estimating growth rates, states as follows:

15 In the *Ibbotson Cost of Capital Yearbook* the three-stage growth model
16 is used. In the first stage (the first five years), analysts' consensus
17 estimates of earnings growth are used. These should reflect any
18 extraordinary near-term growth potential. Over years 6 through 10, an
19 average of the analysts' consensus estimates of growth for the entire
20 industry is used. (We assume that over a middle horizon, growth of
21 any particular company will lie more in line with the industry as a
22 whole.) Finally, in years 11 and beyond, a growth rate estimate for the
23 entire economy is used, reflecting the belief that even in a rapidly
24 growing industry there will come a time when growth slows to be more
25 in line with the overall economy.³

26 To estimate long-term inflation, we can start with the current yield on a
27 government bond with approximately 20 years to maturity of
28 4.5 percent and subtract the current yield on an inflation-indexed bond
29 with approximately 20 years to maturity of 2.0 percent, for an inflation
30 estimate of 2.5 percent.

³ 2008 Ibbotson SBBI Valuation Yearbook, at 68, emphasis added.

1 Q HOW WOULD YOUR TWO-STAGE GROWTH DCF MODEL AND MULTI-STAGE
2 GROWTH DCF MODEL CHANGE IF YOU USED A LONG-TERM SUSTAINABLE
3 GROWTH RATE OF 5.48% AS DERIVED ABOVE INSTEAD OF THE 4.8% TO 5.0%
4 CONSENSUS ANALYSTS' GDP GROWTH FORECAST?

5 A As shown on my attached Schedule MPG-S-2, relying on a long-term sustainable
6 growth rate of 5.48% would result in a two-stage and multi-stage growth DCF return
7 estimate in the range of 10.15% to 10.42% with a midpoint of 10.28%. This revised
8 multi-stage DCF return estimate largely supports my recommended return on equity
9 for AmerenUE in this proceeding of 10.2%, but would show that a return on equity of
10 no higher than 10.4% would be appropriate. Again, this is largely consistent with my
11 recommended point estimate and range recommended in my direct testimony.

12 Q DID DR. MORIN ACCURATELY ESTIMATE THE CHANGE TO YOUR TWO-STAGE
13 GROWTH AND MULTI-STAGE GROWTH DCF MODEL IF HIS LONG-TERM
14 GROWTH RATE OF 6.0% IS USED?

15 A No. Dr. Morin asserted at page 40 of his testimony, that using a long-term growth of
16 6.0%, rather than the growth rate I used, would change my multi-growth stage
17 models' results to 10.73% to 10.93%. This is not accurate. Changing the long-term
18 growth rate to 6.0% would change these models' results to 10.65% to 10.74%, as
19 shown on my Schedule MPG-S-4.

20 Q DID DR. MORIN DEVELOP THIS LONG-TERM GROWTH RATE OF 6.0% IN A
21 MANNER THAT IS COMPARABLE TO MORNINGSTAR'S METHODOLOGY?

22 A Not in his rebuttal. He simply asserted, incorrectly, that Morningstar concluded that
23 the long-term GDP growth rate is 6.0% (Morin Rebuttal at 40).

1 **CAPM Return Estimate**

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

4 A Dr. Morin argues that the traditional CAPM return estimate understates the return on
5 equity for companies that have betas less than 1.0, and he argues that my market
6 risk premium of 6.5% is too low and inconsistent with the market risk premiums
7 estimated by Morningstar.

8 **Q PLEASE RESPOND TO DR. MORIN'S TESTIMONY.**

9 A Dr. Morin's assertion concerning my development of a traditional CAPM return
10 estimate is without merit. In my CAPM estimate, I relied on *Value Line* "adjusted"
11 betas in my CAPM. Adjusted betas will increase the CAPM return estimates for
12 companies with unadjusted betas less than 1.0, and decreasing CAPM return
13 estimates for companies with unadjusted betas greater than 1.0. Using an adjusted
14 beta, as opposed to an unadjusted beta, helps correct for the return on equity
15 underestimation effect caused by using a traditional CAPM return estimate for a
16 utility.

17 **Q DR. MORIN ARGUES THAT YOUR MARKET RISK PREMIUM WAS MEASURED**
18 **INCONSISTENTLY WITH HOW MORNINGSTAR RECOMMENDS A MARKET RISK**
19 **PREMIUM SHOULD BE ESTIMATED. PLEASE RESPOND.**

20 A Morningstar proposes to estimate a market risk premium using the income return on
21 Treasury bonds rather than the total achieved return on Treasury bonds. I disagree
22 with Morningstar's methodology, because it is not possible to invest in Treasury
23 bonds without experiencing an annual capital gain or loss on the value of the bond.

1 Hence, Morningstar's proposed methodology is inconsistent with actual historical
2 investment performance.

3 Nevertheless, my estimated market risk premium of 6.5% is very close to the
4 range of market risk premiums estimated by Morningstar. Morningstar's market risk
5 premium estimate based on its proposal to use only income return on Treasury
6 bonds, ranges from 6.2% to 7.1%. Hence, the midpoint of the Morningstar risk
7 premium studies would indicate a risk premium of 6.65%. This is very similar to my
8 estimated return of 6.5%. In contrast, Dr. Morin's proposed use of Morningstar's
9 highest market risk premium estimate of 7.1% is not justified.

10 **Q HOW WOULD YOUR CAPM RETURN ESTIMATE CHANGE IF YOU USED**
11 **MORNINGSTAR'S MIDPOINT MARKET RISK PREMIUM ESTIMATE OF 6.65%?**

12 A Using Morningstar's midpoint market risk premium estimate of 6.65%, would change
13 my risk premium from 10.63% to 10.70%, as shown on my Schedule MPG-S-5.

14 **Risk Premium Study**

15 **Q WHAT ARGUMENTS DOES DR. MORIN MAKE CONCERNING YOUR RISK**
16 **PREMIUM STUDY?**

17 A Dr. Morin recommends increasing my estimated equity risk premium to reflect an
18 inverse relationship between equity risk premiums and interest rates. He asserts that
19 had I made this adjustment, the equity risk premiums I relied on would have
20 increased from 5.08% to 5.6% over Treasury bonds. That equity risk premium of
21 5.6%, rather than 5.08%, combined with a Treasury bond yield of 5.1%, would
22 produce a return on equity estimate of 10.7%, instead of my estimated return on
23 equity of 10.2%.

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

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

5 Q PLEASE DESCRIBE THE ACADEMIC RESEARCH ON THE RELATIONSHIP
6 BETWEEN EQUITY RISK PREMIUMS AND INTEREST RATES.

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

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

20 (4) Before 1980, equity risk premiums for utilities increased as interest
21 rates rose, but after that date an increase in interest rates was
22 associated with lower risk premiums. As a result, in recent years a
23 100 basis point increase in long-term interest rates has led to an
24 increase of about 37 basis points in the cost of equity. (5) Risk
25 premiums are not stable; they change substantially over relatively
26 short periods of time, and this volatility has implications for anyone
27 who seeks to measure equity capital costs on the basis of a debt yield

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1 plus a risk premium, including advocates of the CAPM approach.
2 (Emphasis added).

3 These authors found that there was a positive relationship between interest
4 rates and equity risk premiums before 1980, and an inverse relationship from 1980-
5 1984. This study does not establish a consistent relationship between interest rates
6 and equity risk premiums over the entire period.

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

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

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

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

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

27 Clearly, the academic literature does not support a simplistic inverse
28 relationship between interest rates and equity risk premiums. Rather, the authors of
29 these studies recognize that equity risk premiums change over time from the

1 perceived changes in investment risk. Dr. Morin's simplistic analysis takes no
2 account of changes to perceived investment risk, and inappropriately increases equity
3 risk premiums for no other reason than a reduction in nominal interest rates.

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

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

14 **Flotation Costs**

15 **Q DID DR. MORIN CRITICIZE YOU FOR NOT INCLUDING A FLOTATION COST**
16 **ADJUSTMENT IN YOUR RETURN ON EQUITY ESTIMATE FOR AMERENUE?**

17 A Yes. Dr. Morin argues that the return on equity estimate should be increased by
18 30 basis points to account for flotation costs for common equity.

19 **Q DO YOU OPPOSE INCLUDING A RETURN ON EQUITY ADJUSTMENT FOR**
20 **FLOTATION COSTS?**

21 A Not if the utility can demonstrate what the previous regulatory treatment has been for
22 common stock flotation costs, and can show that its adjustment to the return on

1 equity is just and reasonable. Unfortunately, Dr. Morin has not provided any
2 evidence of what AmerenUE's actual flotation costs have been, or an appropriate
3 amount of common stock flotation costs that would be allocated to AmerenUE from its
4 parent company Ameren Corp. In fact, Dr. Morin's presentation is completely devoid
5 of any evidence at all of what AmerenUE's actual prudent and reasonable flotation
6 costs on common equity have been, and should be considered in estimating an
7 appropriate return on equity or cost of service for AmerenUE in this proceeding.
8 Therefore, the Commission should reject his proposal to adjust the return on equity in
9 this proceeding by a common stock flotation cost adjustment, because it is not based
10 on a known and measurable cost.

11 **Q WHY IS IT NECESSARY FOR THE COMPANY TO SHOW WHAT ITS ACTUAL**
12 **REASONABLE AND PRUDENT COMMON STOCK FLOTATION COSTS HAVE**
13 **BEEN, AND PREVIOUS REGULATORY TREATMENT OF THESE EXPENSES,**
14 **BEFORE FLOTATION COSTS SHOULD BE INCLUDED IN A RETURN ON**
15 **EQUITY ESTIMATE?**

16 **A** All utilities do not issue stock at the same time or in the same manner. As such,
17 flotation costs will not be uniform across all utility companies. Therefore, it is not
18 appropriate to estimate AmerenUE's flotation costs based on assessment of other
19 companies as Dr. Morin has done in this case.

20 Ameren Corp. may be making equity infusions to AmerenUE by the issuance
21 of debt capital. As such, the public flotation cost of that capital would not be
22 equivalent to the cost of issuing additional common equity at other public companies.
23 Therefore, Dr. Morin's proxy flotation cost methodology is unreliable. Further, Dr.
24 Morin has not accurately estimated how much of AmerenUE's equity capital has been

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1 produced through retained earnings, which would have no public flotation costs.
2 Again, Dr. Morin's flotation cost methodology is flawed and unreliable.

3 Moreover, the regulatory treatment of flotation costs is important in
4 determining whether an adjustment is necessary in this case. For example, in the
5 past, if the Missouri Commission's prescribed regulatory treatment for flotation costs
6 was to permit amortization of this expense to AmerenUE's cost of service, then the
7 past flotation costs would be fully recovered and should no longer be included in
8 AmerenUE's cost of service in this case. Dr. Morin has not provided any evidence of
9 past regulatory treatment for AmerenUE's actual common stock flotation costs.

10 For all these reasons, Dr. Morin's flotation cost proposal is nothing but a
11 speculative unsupported adjustment, is not based on a known and measurable cost
12 and is, therefore, not just and reasonable. Therefore, Dr. Morin's proposal to
13 increase AmerenUE's return on equity by 30 basis points should be rejected.

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

15 **A** Yes, it does.

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AMERENUE

Gorman ROE Recommendation History Excluding Constant Growth DCF from Range

| Utility | State | Year | Docket | Description | Average |
|------------------------------------|-------|------|----------------|-------------------------|----------------|
| Public Service Company of Oklahoma | OK | 1997 | PUD960000214 | Constant Growth DCF | 9.6% |
| | | | | Non-Constant Growth DCF | 9.7% |
| | | | | Risk Premium Analysis | 10.9% |
| | | | | Recommended Range | 9.7% - 11.4% |
| | | | | Recommended | 10.6% |
| Gulf States Utilities Company | TX | 1994 | 12852 | Constant Growth DCF | 11.02% |
| | | | | Non-Constant Growth DCF | 11.87% |
| | | | | Risk Premium Analysis | 12.10% |
| | | | | Recommended Range | 11.4% - 12.1% |
| | | | | Recommended | 11.75% |
| West Texas Utilities Company | TX | 1995 | 13369 | Constant Growth DCF | 10.0% |
| | | | | Non-Constant Growth DCF | 10.4% |
| | | | | Risk Premium Analysis | 11.5% |
| | | | | Recommended Range | 10.5% - 11.50% |
| | | | | Recommended | 11.0% |
| Houston Lighting & Power Company | TX | 1994 | 12065 | Constant Growth DCF | 10.6% |
| | | | | Non-Constant Growth DCF | 11.0% |
| | | | | Risk Premium Analysis | 11.8% |
| | | | | Recommended Range | 11.0% - 11.8% |
| | | | | Recommended | 11.4% |
| Pacific Power and Light Company | WY | 1996 | 20000-ER-95-99 | Constant Growth DCF | 9.8% |
| | | | | Non-Constant Growth DCF | 11.0% |
| | | | | Risk Premium Analysis | 10.9% |
| | | | | Recommended Range | 10.3% - 11.1% |
| | | | | Recommended | 10.7% |
| Central Power and Light Company | TX | 1996 | 14965 | Constant Growth DCF | 9.55% |
| | | | | Non-Constant Growth DCF | 10.25% |
| | | | | Risk Premium Analysis | 10.90% |
| | | | | Recommended Range | 10.25% - 10.9% |
| | | | | Recommended | 10.6% |

AmerenUE

DCF Results with GDP Growth Rate of 5.48%

| <u>Line</u> | <u>Description</u> | <u>Two-Stage DCF</u> | <u>Multi-Stage DCF</u> |
|-------------|---|--------------------------|----------------------------|
| 1 | Comparable Risk Proxy group | 10.19% | 10.27% |
| 2 | S&P Integrated Electric Utility Proxy Group | 10.31% | 10.42% |
| 3 | Moody's Electric Utility Proxy Group | 10.15% | 10.32% |
| 4 | Average | 10.22% | 10.34% |
| 5 | DCF Result | | <u>10.28%</u> |

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DCF Results with GDP Growth Rate of 5.48%

Comparable Risk Proxy Group

Two-Stage Growth DCF Model

| <u>Line</u> | <u>Company</u> | <u>13-Week AVG Stock Price¹</u> | <u>Annual Dividend²</u> | <u>First Stage Growth</u> | <u>Second Stage Growth³</u> | <u>Two-Stage Growth DCF</u> |
|-------------|---------------------|--|--|-------------------------------|--|---------------------------------|
| | | (1) | (2) | (3) | (4) | (5) |
| 1 | Ameren Corp. | \$42.42 | \$2.54 | 4.50% | 5.48% | 11.54% |
| 2 | Avista Corp. | \$21.47 | \$0.66 | 4.75% | 5.48% | 8.61% |
| 3 | Cleco Corp. | \$24.60 | \$0.90 | 13.00% | 5.48% | 10.77% |
| 4 | DTE Energy | \$42.78 | \$2.12 | 6.17% | 5.48% | 10.86% |
| 5 | Empire Dist. Elec. | \$19.99 | \$1.28 | 6.00% | 5.48% | 12.38% |
| 6 | Exelon Corp. | \$85.17 | \$2.00 | 10.25% | 5.48% | 8.52% |
| 7 | FirstEnergy Corp. | \$77.37 | \$2.20 | 7.75% | 5.48% | 8.79% |
| 8 | IDACORP, Inc. | \$30.20 | \$1.20 | 6.00% | 5.48% | 9.77% |
| 9 | NiSource Inc. | \$17.45 | \$0.92 | 3.00% | 5.48% | 10.47% |
| 10 | Northeast Utilities | \$25.88 | \$0.85 | 9.50% | 5.48% | 9.61% |
| 11 | OGE Energy | \$32.48 | \$1.39 | 4.00% | 5.48% | 9.71% |
| 12 | Otter Tail Corp. | \$40.23 | \$1.19 | 8.00% | 5.48% | 8.97% |
| 13 | Pepco Holdings | \$25.62 | \$1.08 | 7.80% | 5.48% | 10.39% |
| 14 | PG&E Corp. | \$38.98 | \$1.56 | 7.53% | 5.48% | 10.09% |
| 15 | Pinnacle West Capit | \$32.68 | \$2.10 | 4.84% | 5.48% | 12.08% |
| 16 | Xcel Energy Inc. | \$20.46 | \$0.95 | 5.70% | 5.48% | 10.43% |
| 17 | Average | \$36.11 | \$1.43 | 6.80% | 5.48% | 10.19% |

Sources:

¹ <http://moneycentral.msn.com>, downloaded on August 21, 2008.

² *The Value Line Investment Survey*; May 30, June 27, and August 8, 2008.

³ *Blue Chip Economic Indicators*, March 10, 2008.

AmerenUE

DCF Results with GDP Growth Rate of 5.48%

S&P Integrated Electric Utility Proxy Group

Two-Stage Growth DCF Model

| <u>Line</u> | <u>Company</u> | <u>13-Week AVG Stock Price¹</u> | <u>Annual Dividend²</u> | <u>First Stage Growth</u> | <u>Second Stage Growth³</u> | <u>Two-Stage Growth DCF</u> |
|-------------|---------------------|--|--|-------------------------------|--|---------------------------------|
| | | (1) | (2) | (3) | (4) | (5) |
| 1 | ALLETE | \$42.75 | \$1.72 | 5.50% | 5.48% | 9.73% |
| 2 | Alliant Energy | \$34.95 | \$1.40 | 5.55% | 5.48% | 9.72% |
| 3 | Amer. Elec. Power | \$40.87 | \$1.64 | 6.13% | 5.48% | 9.83% |
| 4 | Ameren Corp. | \$42.42 | \$2.54 | 4.50% | 5.48% | 11.54% |
| 5 | Cleco Corp. | \$24.60 | \$0.90 | 13.00% | 5.48% | 10.77% |
| 6 | CMS Energy Corp. | \$14.57 | \$0.36 | 8.85% | 5.48% | 8.49% |
| 7 | DPL Inc. | \$26.78 | \$1.10 | 11.09% | 5.48% | 10.97% |
| 8 | DTE Energy | \$42.78 | \$2.12 | 6.17% | 5.48% | 10.86% |
| 9 | Edison Int'l | \$50.32 | \$1.22 | 7.88% | 5.48% | 8.31% |
| 10 | Empire Dist. Elec. | \$19.99 | \$1.28 | 6.00% | 5.48% | 12.38% |
| 11 | Energy East Corp. | \$25.05 | \$1.24 | N/A | 5.48% | N/A |
| 12 | Entergy Corp. | \$115.23 | \$3.00 | 11.75% | 5.48% | 9.08% |
| 13 | FPL Group | \$64.67 | \$1.78 | 10.13% | 5.48% | 9.03% |
| 14 | Hawaiian Elec. | \$25.40 | \$1.24 | 5.59% | 5.48% | 10.65% |
| 15 | IDACORP Inc. | \$30.20 | \$1.20 | 6.00% | 5.48% | 9.77% |
| 16 | MGE Energy | \$34.29 | \$1.42 | N/A | 5.48% | N/A |
| 17 | Northeast Utilities | \$25.88 | \$0.85 | 9.50% | 5.48% | 9.61% |
| 18 | PG&E Corp. | \$38.98 | \$1.56 | 7.53% | 5.48% | 10.09% |
| 19 | Pinnacle West Capit | \$32.68 | \$2.10 | 4.84% | 5.48% | 12.08% |
| 20 | PNM Resources | \$12.77 | \$0.92 | 7.65% | 5.48% | 13.78% |
| 21 | Portland General | \$23.54 | \$0.98 | 6.95% | 5.48% | 10.16% |
| 22 | Progress Energy | \$42.23 | \$2.46 | 5.36% | 5.48% | 11.59% |
| 23 | Puget Energy Inc. | \$26.72 | \$1.00 | 6.00% | 5.48% | 9.52% |
| 24 | Southern Co. | \$35.61 | \$1.68 | 5.19% | 5.48% | 10.39% |
| 25 | TECO Energy | \$19.94 | \$0.80 | 7.58% | 5.48% | 10.11% |
| 26 | UniSource Energy | \$32.03 | \$0.96 | N/A | 5.48% | N/A |
| 27 | Westar Energy | \$22.53 | \$1.16 | 4.43% | 5.48% | 10.67% |
| 28 | Wisconsin Energy | \$46.13 | \$1.08 | 9.75% | 5.48% | 8.45% |
| 29 | Xcel Energy Inc. | \$20.46 | \$0.95 | 5.70% | 5.48% | 10.43% |
| 30 | Average | \$34.98 | \$1.40 | 7.25% | 5.48% | 10.31% |

Sources:

¹ <http://moneycentral.msn.com>, downloaded on August 20, 2008.

² *The Value Line Investment Survey*; May 30, June 27, and August 8, 2008.

³ *Blue Chip Economic Indicators*, March 10, 2008.

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DCF Results with GDP Growth Rate of 5.48%

Moody's Electric Utility Proxy Group

Two-Stage Growth DCF Model

| <u>Line</u> | <u>Company</u> | <u>13-Week AVG Stock Price¹</u> (1) | <u>Annual Dividend²</u> (2) | <u>First Stage Growth</u> (3) | <u>Second Stage Growth³</u> (4) | <u>Two-Stage Growth DCF</u> (5) |
|-------------|-------------------------|---|---|--------------------------------------|---|--|
| 1 | Amer. Elec. Power | \$40.87 | \$1.64 | 6.13% | 5.48% | 9.83% |
| 2 | CH Energy Group | \$36.97 | \$2.16 | N/A | 5.48% | N/A |
| 3 | Consol. Edison | \$39.77 | \$2.34 | 3.10% | 5.48% | 11.08% |
| 4 | Constellation Energy | \$81.50 | \$1.91 | 18.40% | 5.48% | 9.73% |
| 5 | Dominion Resources | \$45.51 | \$1.58 | 9.42% | 5.48% | 9.82% |
| 6 | DPL Inc. | \$26.78 | \$1.10 | 11.09% | 5.48% | 10.97% |
| 7 | DTE Energy | \$42.78 | \$2.12 | 6.17% | 5.48% | 10.86% |
| 8 | Duke Energy | \$17.72 | \$0.88 | 5.42% | 5.48% | 10.70% |
| 9 | Energy East Corp. | \$25.05 | \$1.24 | N/A | 5.48% | N/A |
| 10 | Exelon Corp. | \$85.17 | \$2.00 | 10.25% | 5.48% | 8.52% |
| 11 | FirstEnergy Corp. | \$77.37 | \$2.20 | 7.75% | 5.48% | 8.79% |
| 12 | IDACORP Inc. | \$30.20 | \$1.20 | 6.00% | 5.48% | 9.77% |
| 13 | NiSource Inc. | \$17.45 | \$0.92 | 3.00% | 5.48% | 10.47% |
| 14 | OGE Energy | \$32.48 | \$1.39 | 4.00% | 5.48% | 9.71% |
| 15 | PPL Corp. | \$49.31 | \$1.34 | 17.13% | 5.48% | 10.14% |
| 16 | Progress Energy | \$42.23 | \$2.46 | 5.36% | 5.48% | 11.59% |
| 17 | Public Serv. Enterprise | \$43.59 | \$1.29 | 12.92% | 5.48% | 9.77% |
| 18 | Southern Co. | \$35.61 | \$1.68 | 5.19% | 5.48% | 10.39% |
| 19 | TECO Energy | \$19.94 | \$0.80 | 7.58% | 5.48% | 10.11% |
| 20 | Xcel Energy Inc. | \$20.46 | \$0.95 | 5.70% | 5.48% | 10.43% |
| 21 | Average | \$40.54 | \$1.56 | 8.03% | 5.48% | 10.15% |

Sources:

¹ <http://moneycentral.msn.com>, downloaded on August 20, 2008.

² *The Value Line Investment Survey*; May 30, June 27, and August 8, 2008.

³ *Blue Chip Economic Indicators*, March 10, 2008.

AmerenUE

DCF Results with GDP Growth Rate of 5.48%

Comparable Risk Proxy Group

Multi-Stage Growth DCF Model

| <u>Line</u> | <u>Company</u> | <u>13-Week AVG</u> | <u>Annual</u> | <u>First Stage</u> | <u>Second Stage Growth</u> | | | | <u>Third Stage</u> | <u>Multi-Stage</u> |
|-------------|---------------------|---------------------------------|------------------------------|--------------------|----------------------------|---------------|---------------|---------------|----------------------------|--------------------|
| | | <u>Stock Price</u> ¹ | <u>Dividend</u> ² | <u>Growth</u> | <u>Year 6</u> | <u>Year 7</u> | <u>Year 8</u> | <u>Year 9</u> | <u>Growth</u> ³ | <u>Growth DCF</u> |
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1 | Ameren Corp. | \$42.42 | \$2.54 | 4.50% | 4.70% | 4.89% | 5.09% | 5.28% | 5.48% | 11.46% |
| 2 | Avista Corp. | \$21.47 | \$0.66 | 4.75% | 4.90% | 5.04% | 5.19% | 5.33% | 5.48% | 8.57% |
| 3 | Cleco Corp. | \$24.60 | \$0.90 | 13.00% | 11.50% | 9.99% | 8.49% | 6.98% | 5.48% | 11.35% |
| 4 | DTE Energy | \$42.78 | \$2.12 | 6.17% | 6.03% | 5.89% | 5.75% | 5.62% | 5.48% | 10.91% |
| 5 | Empire Dist. Elec. | \$19.99 | \$1.28 | 6.00% | 5.90% | 5.79% | 5.69% | 5.58% | 5.48% | 12.43% |
| 6 | Exelon Corp. | \$85.17 | \$2.00 | 10.25% | 9.30% | 8.34% | 7.39% | 6.43% | 5.48% | 8.77% |
| 7 | FirstEnergy Corp. | \$77.37 | \$2.20 | 7.75% | 7.30% | 6.84% | 6.39% | 5.93% | 5.48% | 8.91% |
| 8 | IDACORP, Inc. | \$30.20 | \$1.20 | 6.00% | 5.90% | 5.79% | 5.69% | 5.58% | 5.48% | 9.80% |
| 9 | NiSource Inc. | \$17.45 | \$0.92 | 3.00% | 3.50% | 3.99% | 4.49% | 4.98% | 5.48% | 10.29% |
| 10 | Northeast Utilities | \$25.88 | \$0.85 | 9.50% | 8.70% | 7.89% | 7.09% | 6.28% | 5.48% | 9.87% |
| 11 | OGE Energy | \$32.48 | \$1.39 | 4.00% | 4.30% | 4.59% | 4.89% | 5.18% | 5.48% | 9.62% |
| 12 | Otter Tail Corp. | \$40.23 | \$1.19 | 8.00% | 7.50% | 6.99% | 6.49% | 5.98% | 5.48% | 9.11% |
| 13 | Pepco Holdings | \$25.62 | \$1.08 | 7.80% | 7.34% | 6.87% | 6.41% | 5.94% | 5.48% | 10.56% |
| 14 | PG&E Corp. | \$38.98 | \$1.56 | 7.53% | 7.12% | 6.71% | 6.30% | 5.89% | 5.48% | 10.23% |
| 15 | Pinnacle West Capit | \$32.68 | \$2.10 | 4.84% | 4.96% | 5.09% | 5.22% | 5.35% | 5.48% | 12.02% |
| 16 | Xcel Energy Inc. | \$20.46 | \$0.95 | 5.70% | 5.66% | 5.61% | 5.57% | 5.52% | 5.48% | 10.45% |
| 17 | Average | \$36.11 | \$1.43 | 6.80% | 6.53% | 6.27% | 6.01% | 5.74% | 5.48% | 10.27% |

Sources:

¹ <http://moneycentral.msn.com>, downloaded on August 21, 2008.

² *The Value Line Investment Survey*; May 30, June 27, and August 8, 2008.

³ *Blue Chip Economic Indicators*, March 10, 2008.

AmerenUE

DCF Results with GDP Growth Rate of 5.48%

S&P Integrated Electric Utility Proxy Group

Multi-Stage Growth DCF Model

| Line | Company | 13-Week AVG | Annual | First Stage | Second Stage Growth | | | | Third Stage | Multi-Stage |
|------|---------------------|--------------------------|-----------------------|--------------|---------------------|--------------|--------------|--------------|---------------------|---------------|
| | | Stock Price ¹ | Dividend ² | Growth | Year 6 | Year 7 | Year 8 | Year 9 | Growth ³ | Growth DCF |
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1 | ALLETE | \$42.75 | \$1.72 | 5.50% | 5.50% | 5.49% | 5.49% | 5.48% | 5.48% | 9.73% |
| 2 | Alliant Energy | \$34.95 | \$1.40 | 5.55% | 5.54% | 5.52% | 5.51% | 5.49% | 5.48% | 9.72% |
| 3 | Amer. Elec. Power | \$40.87 | \$1.64 | 6.13% | 6.00% | 5.87% | 5.74% | 5.61% | 5.48% | 9.87% |
| 4 | Ameren Corp. | \$42.42 | \$2.54 | 4.50% | 4.70% | 4.89% | 5.09% | 5.28% | 5.48% | 11.46% |
| 5 | Cleco Corp. | \$24.60 | \$0.90 | 13.00% | 11.50% | 9.99% | 8.49% | 6.98% | 5.48% | 11.35% |
| 6 | CMS Energy Corp. | \$14.57 | \$0.36 | 8.85% | 8.18% | 7.50% | 6.83% | 6.15% | 5.48% | 8.66% |
| 7 | DPL Inc. | \$26.78 | \$1.10 | 11.09% | 9.96% | 8.84% | 7.72% | 6.60% | 5.48% | 11.40% |
| 8 | DTE Energy | \$42.78 | \$2.12 | 6.17% | 6.03% | 5.89% | 5.75% | 5.62% | 5.48% | 10.91% |
| 9 | Edison Int'l | \$50.32 | \$1.22 | 7.88% | 7.40% | 6.92% | 6.44% | 5.96% | 5.48% | 8.42% |
| 10 | Empire Dist. Elec. | \$19.99 | \$1.28 | 6.00% | 5.90% | 5.79% | 5.69% | 5.58% | 5.48% | 12.43% |
| 11 | Energy East Corp. | \$25.05 | \$1.24 | N/A | N/A | N/A | N/A | N/A | 5.48% | N/A |
| 12 | Entergy Corp. | \$115.23 | \$3.00 | 11.75% | 10.50% | 9.24% | 7.99% | 6.73% | 5.48% | 9.44% |
| 13 | FPL Group | \$64.67 | \$1.78 | 10.13% | 9.20% | 8.27% | 7.34% | 6.41% | 5.48% | 9.29% |
| 14 | Hawaiian Elec. | \$25.40 | \$1.24 | 5.59% | 5.56% | 5.54% | 5.52% | 5.50% | 5.48% | 10.66% |
| 15 | IDACORP Inc. | \$30.20 | \$1.20 | 6.00% | 5.90% | 5.79% | 5.69% | 5.58% | 5.48% | 9.80% |
| 16 | MGE Energy | \$34.29 | \$1.42 | N/A | N/A | N/A | N/A | N/A | 5.48% | N/A |
| 17 | Northeast Utilities | \$25.88 | \$0.85 | 9.50% | 8.70% | 7.89% | 7.09% | 6.28% | 5.48% | 9.87% |
| 18 | PG&E Corp. | \$38.98 | \$1.56 | 7.53% | 7.12% | 6.71% | 6.30% | 5.89% | 5.48% | 10.23% |
| 19 | Pinnacle West Capit | \$32.68 | \$2.10 | 4.84% | 4.96% | 5.09% | 5.22% | 5.35% | 5.48% | 12.02% |
| 20 | PNM Resources | \$12.77 | \$0.92 | 7.65% | 7.22% | 6.78% | 6.35% | 5.91% | 5.48% | 14.00% |
| 21 | Portland General | \$23.54 | \$0.98 | 6.95% | 6.66% | 6.36% | 6.07% | 5.77% | 5.48% | 10.26% |
| 22 | Progress Energy | \$42.23 | \$2.46 | 5.36% | 5.38% | 5.41% | 5.43% | 5.46% | 5.48% | 11.58% |
| 23 | Puget Energy Inc. | \$26.72 | \$1.00 | 6.00% | 5.90% | 5.79% | 5.69% | 5.58% | 5.48% | 9.55% |
| 24 | Southern Co. | \$35.61 | \$1.68 | 5.19% | 5.24% | 5.30% | 5.36% | 5.42% | 5.48% | 10.37% |
| 25 | TECO Energy | \$19.94 | \$0.80 | 7.58% | 7.16% | 6.74% | 6.32% | 5.90% | 5.48% | 10.26% |
| 26 | UniSource Energy | \$32.03 | \$0.96 | N/A | N/A | N/A | N/A | N/A | 5.48% | N/A |
| 27 | Westar Energy | \$22.53 | \$1.16 | 4.43% | 4.64% | 4.85% | 5.06% | 5.27% | 5.48% | 10.59% |
| 28 | Wisconsin Energy | \$46.13 | \$1.08 | 9.75% | 8.90% | 8.04% | 7.19% | 6.33% | 5.48% | 8.66% |
| 29 | Xcel Energy Inc. | \$20.46 | \$0.95 | 5.70% | 5.66% | 5.61% | 5.57% | 5.52% | 5.48% | 10.45% |
| 30 | Average | \$34.98 | \$1.40 | 7.25% | 6.90% | 6.54% | 6.19% | 5.83% | 5.48% | 10.42% |

Sources:

¹ <http://moneycentral.msn.com>, downloaded on August 20, 2008.

² *The Value Line Investment Survey*; May 30, June 27, and August 8, 2008.

³ *Blue Chip Economic Indicators*, March 10, 2008.

AmerenUE

DCF Results with GDP Growth Rate of 5.48%

Moody's Electric Utility Proxy Group

Multi-Stage Growth DCF Model

| Line | Company | 13-Week AVG | Annual | First Stage | Second Stage Growth | | | | Third Stage | Multi-Stage |
|------|----------------------|--------------------------|-----------------------|--------------|---------------------|--------------|--------------|--------------|---------------------|---------------|
| | | Stock Price ¹ | Dividend ² | Growth | Year 6 | Year 7 | Year 8 | Year 9 | Growth ³ | Growth DCF |
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1 | Amer. Elec. Power | \$40.87 | \$1.64 | 6.13% | 6.00% | 5.87% | 5.74% | 5.61% | 5.48% | 9.87% |
| 2 | CH Energy Group | \$36.97 | \$2.16 | N/A | N/A | N/A | N/A | N/A | 5.48% | N/A |
| 3 | Consol. Edison | \$39.77 | \$2.34 | 3.10% | 3.58% | 4.05% | 4.53% | 5.00% | 5.48% | 10.89% |
| 4 | Constellation Energy | \$81.50 | \$1.91 | 18.40% | 15.82% | 13.23% | 10.65% | 8.06% | 5.48% | 10.58% |
| 5 | Dominion Resource: | \$45.51 | \$1.58 | 9.42% | 8.63% | 7.84% | 7.05% | 6.27% | 5.48% | 10.08% |
| 6 | DPL Inc. | \$26.78 | \$1.10 | 11.09% | 9.96% | 8.84% | 7.72% | 6.60% | 5.48% | 11.40% |
| 7 | DTE Energy | \$42.78 | \$2.12 | 6.17% | 6.03% | 5.89% | 5.75% | 5.62% | 5.48% | 10.91% |
| 8 | Duke Energy | \$17.72 | \$0.88 | 5.42% | 5.43% | 5.44% | 5.45% | 5.47% | 5.48% | 10.70% |
| 9 | Energy East Corp. | \$25.05 | \$1.24 | N/A | N/A | N/A | N/A | N/A | 5.48% | N/A |
| 10 | Exelon Corp. | \$85.17 | \$2.00 | 10.25% | 9.30% | 8.34% | 7.39% | 6.43% | 5.48% | 8.77% |
| 11 | FirstEnergy Corp. | \$77.37 | \$2.20 | 7.75% | 7.30% | 6.84% | 6.39% | 5.93% | 5.48% | 8.91% |
| 12 | IDACORP Inc. | \$30.20 | \$1.20 | 6.00% | 5.90% | 5.79% | 5.69% | 5.58% | 5.48% | 9.80% |
| 13 | NiSource Inc. | \$17.45 | \$0.92 | 3.00% | 3.50% | 3.99% | 4.49% | 4.98% | 5.48% | 10.29% |
| 14 | OGE Energy | \$32.48 | \$1.39 | 4.00% | 4.30% | 4.59% | 4.89% | 5.18% | 5.48% | 9.62% |
| 15 | PPL Corp. | \$49.31 | \$1.34 | 17.13% | 14.80% | 12.47% | 10.14% | 7.81% | 5.48% | 10.96% |
| 16 | Progress Energy | \$42.23 | \$2.46 | 5.36% | 5.38% | 5.41% | 5.43% | 5.46% | 5.48% | 11.58% |
| 17 | Public Serv. Enterpr | \$43.59 | \$1.29 | 12.92% | 11.43% | 9.94% | 8.45% | 6.97% | 5.48% | 10.26% |
| 18 | Southern Co. | \$35.61 | \$1.68 | 5.19% | 5.24% | 5.30% | 5.36% | 5.42% | 5.48% | 10.37% |
| 19 | TECO Energy | \$19.94 | \$0.80 | 7.58% | 7.16% | 6.74% | 6.32% | 5.90% | 5.48% | 10.26% |
| 20 | Xcel Energy Inc. | \$20.46 | \$0.95 | 5.70% | 5.66% | 5.61% | 5.57% | 5.52% | 5.48% | 10.45% |
| 21 | Average | \$40.54 | \$1.56 | 8.03% | 7.52% | 7.01% | 6.50% | 5.99% | 5.48% | 10.32% |

Sources:

¹ <http://moneycentral.msn.com>, downloaded on August 20, 2008.

² *The Value Line Investment Survey*; May 30, June 27, and August 8, 2008.

³ *Blue Chip Economic Indicators*, March 10, 2008.

AmerenUE

Long-Term GDP Growth

| <u>Line</u> | <u>Date</u> | <u>20-Year Treasury</u> | | <u>Implied</u> |
|-------------|-----------------------|---------------------------|---------------------------|------------------|
| | | <u>T-Bond¹</u> | <u>TIPS^{1/2}</u> | <u>Inflation</u> |
| | | (1) | (2) | <u>Outlook</u> |
| | | | | (3) |
| 1 | 10/24/08 | 4.46% | 2.82% | 1.64% |
| 2 | 10/17/08 | 4.60% | 2.94% | 1.66% |
| 3 | 10/10/08 | 4.28% | 2.75% | 1.53% |
| 4 | 10/03/08 | 4.30% | 2.50% | 1.80% |
| 5 | 09/26/08 | 4.48% | 2.40% | 2.08% |
| 6 | 09/19/08 | 4.20% | 2.20% | 2.00% |
| 7 | 09/12/08 | 4.28% | 2.12% | 2.16% |
| 8 | 09/05/08 | 4.34% | 2.19% | 2.15% |
| 9 | 08/29/08 | 4.43% | 2.10% | 2.33% |
| 10 | 08/22/08 | 4.48% | 2.12% | 2.36% |
| 11 | 08/15/08 | 4.58% | 2.19% | 2.39% |
| 12 | 08/08/08 | 4.63% | 2.17% | 2.46% |
| 13 | 08/01/08 | 4.66% | 2.18% | 2.48% |
| 14 | Average | 4.44% | 2.36% | 2.08% |
| 15 | Real GDP ² | | | 3.40% |
| 16 | Nominal GDP | | | 5.48% |

Source:

¹ <http://www.federalreserve.gov>.

² Treasury Inflation-Protected Securities.

³ Morningstar Valuation Edition at 70.

AmerenUE

DCF Results with GDP Growth Rate of 6.00%

| <u>Line</u> | <u>Description</u> | <u>Two-Stage DCF</u> | <u>Multi-Stage DCF</u> |
|-------------|---|--------------------------|----------------------------|
| 1 | Comparable Risk Proxy group | 10.63% | 10.67% |
| 2 | S&P Integrated Electric Utility Proxy Group | 10.74% | 10.82% |
| 3 | Moody's Electric Utility Proxy Group | 10.59% | 10.72% |
| 4 | Average | 10.65% | 10.74% |
| 5 | DCF Result | | <u>10.69%</u> |

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DCF Results with GDP Growth Rate of 6.00%

Comparable Risk Proxy Group

Two-Stage Growth DCF Model

| <u>Line</u> | <u>Company</u> | <u>13-Week AVG Stock Price¹</u> | <u>Annual Dividend²</u> | <u>First Stage Growth</u> | <u>Second Stage Growth³</u> | <u>Two-Stage Growth DCF</u> |
|-------------|---------------------|--|--|-------------------------------|--|---------------------------------|
| | | (1) | (2) | (3) | (4) | (5) |
| 1 | Ameren Corp. | \$42.42 | \$2.54 | 4.50% | 6.00% | 11.95% |
| 2 | Avista Corp. | \$21.47 | \$0.66 | 4.75% | 6.00% | 9.07% |
| 3 | Cleco Corp. | \$24.60 | \$0.90 | 13.00% | 6.00% | 11.20% |
| 4 | DTE Energy | \$42.78 | \$2.12 | 6.17% | 6.00% | 11.29% |
| 5 | Empire Dist. Elec. | \$19.99 | \$1.28 | 6.00% | 6.00% | 12.79% |
| 6 | Exelon Corp. | \$85.17 | \$2.00 | 10.25% | 6.00% | 8.99% |
| 7 | FirstEnergy Corp. | \$77.37 | \$2.20 | 7.75% | 6.00% | 9.25% |
| 8 | IDACORP, Inc. | \$30.20 | \$1.20 | 6.00% | 6.00% | 10.21% |
| 9 | NiSource Inc. | \$17.45 | \$0.92 | 3.00% | 6.00% | 10.90% |
| 10 | Northeast Utilities | \$25.88 | \$0.85 | 9.50% | 6.00% | 10.06% |
| 11 | OGE Energy | \$32.48 | \$1.39 | 4.00% | 6.00% | 10.16% |
| 12 | Otter Tail Corp. | \$40.23 | \$1.19 | 8.00% | 6.00% | 9.42% |
| 13 | Pepco Holdings | \$25.62 | \$1.08 | 7.80% | 6.00% | 10.83% |
| 14 | PG&E Corp. | \$38.98 | \$1.56 | 7.53% | 6.00% | 10.53% |
| 15 | Pinnacle West Capit | \$32.68 | \$2.10 | 4.84% | 6.00% | 12.48% |
| 16 | Xcel Energy Inc. | \$20.46 | \$0.95 | 5.70% | 6.00% | 10.87% |
| 17 | Average | \$36.11 | \$1.43 | 6.80% | 6.00% | 10.63% |

Sources:

¹ <http://moneycentral.msn.com>, downloaded on August 21, 2008.

² *The Value Line Investment Survey*; May 30, June 27, and August 8, 2008.

³ *Blue Chip Economic Indicators*, March 10, 2008.

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DCF Results with GDP Growth Rate of 6.00%

S&P Integrated Electric Utility Proxy Group

Two-Stage Growth DCF Model

| <u>Line</u> | <u>Company</u> | <u>13-Week AVG Stock Price¹</u> | <u>Annual Dividend²</u> | <u>First Stage Growth</u> | <u>Second Stage Growth³</u> | <u>Two-Stage Growth DCF</u> |
|-------------|---------------------|--|--|-------------------------------|--|---------------------------------|
| | | (1) | (2) | (3) | (4) | (5) |
| 1 | ALLETE | \$42.75 | \$1.72 | 5.50% | 6.00% | 10.17% |
| 2 | Alliant Energy | \$34.95 | \$1.40 | 5.55% | 6.00% | 10.16% |
| 3 | Amer. Elec. Power | \$40.87 | \$1.64 | 6.13% | 6.00% | 10.28% |
| 4 | Ameren Corp. | \$42.42 | \$2.54 | 4.50% | 6.00% | 11.95% |
| 5 | Cleco Corp. | \$24.60 | \$0.90 | 13.00% | 6.00% | 11.20% |
| 6 | CMS Energy Corp. | \$14.57 | \$0.36 | 8.85% | 6.00% | 8.96% |
| 7 | DPL Inc. | \$26.78 | \$1.10 | 11.09% | 6.00% | 11.39% |
| 8 | DTE Energy | \$42.78 | \$2.12 | 6.17% | 6.00% | 11.29% |
| 9 | Edison Int'l | \$50.32 | \$1.22 | 7.88% | 6.00% | 8.78% |
| 10 | Empire Dist. Elec. | \$19.99 | \$1.28 | 6.00% | 6.00% | 12.79% |
| 11 | Energy East Corp. | \$25.05 | \$1.24 | N/A | 6.00% | N/A |
| 12 | Entergy Corp. | \$115.23 | \$3.00 | 11.75% | 6.00% | 9.53% |
| 13 | FPL Group | \$64.67 | \$1.78 | 10.13% | 6.00% | 9.49% |
| 14 | Hawaiian Elec. | \$25.40 | \$1.24 | 5.59% | 6.00% | 11.08% |
| 15 | IDACORP Inc. | \$30.20 | \$1.20 | 6.00% | 6.00% | 10.21% |
| 16 | MGE Energy | \$34.29 | \$1.42 | N/A | 6.00% | N/A |
| 17 | Northeast Utilities | \$25.88 | \$0.85 | 9.50% | 6.00% | 10.06% |
| 18 | PG&E Corp. | \$38.98 | \$1.56 | 7.53% | 6.00% | 10.53% |
| 19 | Pinnacle West Capit | \$32.68 | \$2.10 | 4.84% | 6.00% | 12.48% |
| 20 | PNM Resources | \$12.77 | \$0.92 | 7.65% | 6.00% | 14.17% |
| 21 | Portland General | \$23.54 | \$0.98 | 6.95% | 6.00% | 10.60% |
| 22 | Progress Energy | \$42.23 | \$2.46 | 5.36% | 6.00% | 12.01% |
| 23 | Puget Energy Inc. | \$26.72 | \$1.00 | 6.00% | 6.00% | 9.96% |
| 24 | Southern Co. | \$35.61 | \$1.68 | 5.19% | 6.00% | 10.83% |
| 25 | TECO Energy | \$19.94 | \$0.80 | 7.58% | 6.00% | 10.55% |
| 26 | UniSource Energy | \$32.03 | \$0.96 | N/A | 6.00% | N/A |
| 27 | Westar Energy | \$22.53 | \$1.16 | 4.43% | 6.00% | 11.10% |
| 28 | Wisconsin Energy | \$46.13 | \$1.08 | 9.75% | 6.00% | 8.91% |
| 29 | Xcel Energy Inc. | \$20.46 | \$0.95 | 5.70% | 6.00% | 10.87% |
| 30 | Average | \$34.98 | \$1.40 | 7.25% | 6.00% | 10.74% |

Sources:

¹ <http://moneycentral.msn.com>, downloaded on August 20, 2008.

² *The Value Line Investment Survey*; May 30, June 27, and August 8, 2008.

³ *Blue Chip Economic Indicators*, March 10, 2008.

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DCF Results with GDP Growth Rate of 6.00%

Moody's Electric Utility Proxy Group

Two-Stage Growth DCF Model

| <u>Line</u> | <u>Company</u> | <u>13-Week AVG Stock Price¹</u> (1) | <u>Annual Dividend²</u> (2) | <u>First Stage Growth</u> (3) | <u>Second Stage Growth³</u> (4) | <u>Two-Stage Growth DCF</u> (5) |
|-------------|-------------------------|---|---|--------------------------------------|---|--|
| 1 | Amer. Elec. Power | \$40.87 | \$1.64 | 6.13% | 6.00% | 10.28% |
| 2 | CH Energy Group | \$36.97 | \$2.16 | N/A | 6.00% | N/A |
| 3 | Consol. Edison | \$39.77 | \$2.34 | 3.10% | 6.00% | 11.50% |
| 4 | Constellation Energy | \$81.50 | \$1.91 | 18.40% | 6.00% | 10.17% |
| 5 | Dominion Resources | \$45.51 | \$1.58 | 9.42% | 6.00% | 10.26% |
| 6 | DPL Inc. | \$26.78 | \$1.10 | 11.09% | 6.00% | 11.39% |
| 7 | DTE Energy | \$42.78 | \$2.12 | 6.17% | 6.00% | 11.29% |
| 8 | Duke Energy | \$17.72 | \$0.88 | 5.42% | 6.00% | 11.13% |
| 9 | Energy East Corp. | \$25.05 | \$1.24 | N/A | 6.00% | N/A |
| 10 | Exelon Corp. | \$85.17 | \$2.00 | 10.25% | 6.00% | 8.99% |
| 11 | FirstEnergy Corp. | \$77.37 | \$2.20 | 7.75% | 6.00% | 9.25% |
| 12 | IDACORP Inc. | \$30.20 | \$1.20 | 6.00% | 6.00% | 10.21% |
| 13 | NiSource Inc. | \$17.45 | \$0.92 | 3.00% | 6.00% | 10.90% |
| 14 | OGE Energy | \$32.48 | \$1.39 | 4.00% | 6.00% | 10.16% |
| 15 | PPL Corp. | \$49.31 | \$1.34 | 17.13% | 6.00% | 10.58% |
| 16 | Progress Energy | \$42.23 | \$2.46 | 5.36% | 6.00% | 12.01% |
| 17 | Public Serv. Enterprise | \$43.59 | \$1.29 | 12.92% | 6.00% | 10.22% |
| 18 | Southern Co. | \$35.61 | \$1.68 | 5.19% | 6.00% | 10.83% |
| 19 | TECO Energy | \$19.94 | \$0.80 | 7.58% | 6.00% | 10.55% |
| 20 | Xcel Energy Inc. | \$20.46 | \$0.95 | 5.70% | 6.00% | 10.87% |
| 21 | Average | \$40.54 | \$1.56 | 8.03% | 6.00% | 10.59% |

Sources:

¹ <http://moneycentral.msn.com>, downloaded on August 20, 2008.

² *The Value Line Investment Survey*; May 30, June 27, and August 8, 2008.

³ *Blue Chip Economic Indicators*, March 10, 2008.

AmerenUE

DCF Results with GDP Growth Rate of 6.00%

Comparable Risk Proxy Group

Multi-Stage Growth DCF Model

| <u>Line</u> | <u>Company</u> | <u>13-Week AVG</u> | <u>Annual</u> | <u>First Stage</u> | <u>Second Stage Growth</u> | | | | <u>Third Stage</u> | <u>Multi-Stage</u> |
|-------------|---------------------|---------------------------------|------------------------------|--------------------|----------------------------|---------------|---------------|---------------|----------------------------|--------------------|
| | | <u>Stock Price</u> ¹ | <u>Dividend</u> ² | <u>Growth</u> | <u>Year 6</u> | <u>Year 7</u> | <u>Year 8</u> | <u>Year 9</u> | <u>Growth</u> ³ | <u>Growth DCF</u> |
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1 | Ameren Corp. | \$42.42 | \$2.54 | 4.50% | 4.80% | 5.10% | 5.40% | 5.70% | 6.00% | 11.83% |
| 2 | Avista Corp. | \$21.47 | \$0.66 | 4.75% | 5.00% | 5.25% | 5.50% | 5.75% | 6.00% | 9.01% |
| 3 | Cleco Corp. | \$24.60 | \$0.90 | 13.00% | 11.60% | 10.20% | 8.80% | 7.40% | 6.00% | 11.73% |
| 4 | DTE Energy | \$42.78 | \$2.12 | 6.17% | 6.13% | 6.10% | 6.07% | 6.03% | 6.00% | 11.30% |
| 5 | Empire Dist. Elec. | \$19.99 | \$1.28 | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% | 12.79% |
| 6 | Exelon Corp. | \$85.17 | \$2.00 | 10.25% | 9.40% | 8.55% | 7.70% | 6.85% | 6.00% | 9.20% |
| 7 | FirstEnergy Corp. | \$77.37 | \$2.20 | 7.75% | 7.40% | 7.05% | 6.70% | 6.35% | 6.00% | 9.34% |
| 8 | IDACORP, Inc. | \$30.20 | \$1.20 | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% | 10.21% |
| 9 | NiSource Inc. | \$17.45 | \$0.92 | 3.00% | 3.60% | 4.20% | 4.80% | 5.40% | 6.00% | 10.69% |
| 10 | Northeast Utilities | \$25.88 | \$0.85 | 9.50% | 8.80% | 8.10% | 7.40% | 6.70% | 6.00% | 10.27% |
| 11 | OGE Energy | \$32.48 | \$1.39 | 4.00% | 4.40% | 4.80% | 5.20% | 5.60% | 6.00% | 10.03% |
| 12 | Otter Tail Corp. | \$40.23 | \$1.19 | 8.00% | 7.60% | 7.20% | 6.80% | 6.40% | 6.00% | 9.53% |
| 13 | Pepco Holdings | \$25.62 | \$1.08 | 7.80% | 7.44% | 7.08% | 6.72% | 6.36% | 6.00% | 10.95% |
| 14 | PG&E Corp. | \$38.98 | \$1.56 | 7.53% | 7.22% | 6.92% | 6.61% | 6.31% | 6.00% | 10.63% |
| 15 | Pinnacle West Capit | \$32.68 | \$2.10 | 4.84% | 5.07% | 5.30% | 5.53% | 5.77% | 6.00% | 12.38% |
| 16 | Xcel Energy Inc. | \$20.46 | \$0.95 | 5.70% | 5.76% | 5.82% | 5.88% | 5.94% | 6.00% | 10.85% |
| 17 | Average | \$36.11 | \$1.43 | 6.80% | 6.64% | 6.48% | 6.32% | 6.16% | 6.00% | 10.67% |

Sources:

¹ <http://moneycentral.msn.com>, downloaded on August 21, 2008.

² *The Value Line Investment Survey*; May 30, June 27, and August 8, 2008.

³ *Blue Chip Economic Indicators*, March 10, 2008.

AmerenUE

DCF Results with GDP Growth Rate of 6.00%

S&P Integrated Electric Utility Proxy Group

Multi-Stage Growth DCF Model

| Line | Company | 13-Week AVG | Annual | First Stage | Second Stage Growth | | | | Third Stage | Multi-Stage |
|------|---------------------|--------------------------|-----------------------|--------------|---------------------|--------------|--------------|--------------|---------------------|---------------|
| | | Stock Price ¹ | Dividend ² | Growth | Year 6 | Year 7 | Year 8 | Year 9 | Growth ³ | Growth DCF |
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1 | ALLETE | \$42.75 | \$1.72 | 5.50% | 5.60% | 5.70% | 5.80% | 5.90% | 6.00% | 10.14% |
| 2 | Alliant Energy | \$34.95 | \$1.40 | 5.55% | 5.64% | 5.73% | 5.82% | 5.91% | 6.00% | 10.13% |
| 3 | Amer. Elec. Power | \$40.87 | \$1.64 | 6.13% | 6.10% | 6.08% | 6.05% | 6.03% | 6.00% | 10.28% |
| 4 | Ameren Corp. | \$42.42 | \$2.54 | 4.50% | 4.80% | 5.10% | 5.40% | 5.70% | 6.00% | 11.83% |
| 5 | Cleco Corp. | \$24.60 | \$0.90 | 13.00% | 11.60% | 10.20% | 8.80% | 7.40% | 6.00% | 11.73% |
| 6 | CMS Energy Corp. | \$14.57 | \$0.36 | 8.85% | 8.28% | 7.71% | 7.14% | 6.57% | 6.00% | 9.10% |
| 7 | DPL Inc. | \$26.78 | \$1.10 | 11.09% | 10.07% | 9.05% | 8.03% | 7.02% | 6.00% | 11.78% |
| 8 | DTE Energy | \$42.78 | \$2.12 | 6.17% | 6.13% | 6.10% | 6.07% | 6.03% | 6.00% | 11.30% |
| 9 | Edison Int'l | \$50.32 | \$1.22 | 7.88% | 7.50% | 7.13% | 6.75% | 6.38% | 6.00% | 8.86% |
| 10 | Empire Dist. Elec. | \$19.99 | \$1.28 | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% | 12.79% |
| 11 | Energy East Corp. | \$25.05 | \$1.24 | N/A | N/A | N/A | N/A | N/A | 6.00% | N/A |
| 12 | Entergy Corp. | \$115.23 | \$3.00 | 11.75% | 10.60% | 9.45% | 8.30% | 7.15% | 6.00% | 9.86% |
| 13 | FPL Group | \$64.67 | \$1.78 | 10.13% | 9.30% | 8.48% | 7.65% | 6.83% | 6.00% | 9.72% |
| 14 | Hawaiian Elec. | \$25.40 | \$1.24 | 5.59% | 5.67% | 5.75% | 5.83% | 5.92% | 6.00% | 11.05% |
| 15 | IDACORP Inc. | \$30.20 | \$1.20 | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% | 10.21% |
| 16 | MGE Energy | \$34.29 | \$1.42 | N/A | N/A | N/A | N/A | N/A | 6.00% | N/A |
| 17 | Northeast Utilities | \$25.88 | \$0.85 | 9.50% | 8.80% | 8.10% | 7.40% | 6.70% | 6.00% | 10.27% |
| 18 | PG&E Corp. | \$38.98 | \$1.56 | 7.53% | 7.22% | 6.92% | 6.61% | 6.31% | 6.00% | 10.63% |
| 19 | Pinnacle West Capit | \$32.68 | \$2.10 | 4.84% | 5.07% | 5.30% | 5.53% | 5.77% | 6.00% | 12.38% |
| 20 | PNM Resources | \$12.77 | \$0.92 | 7.65% | 7.32% | 6.99% | 6.66% | 6.33% | 6.00% | 14.33% |
| 21 | Portland General | \$23.54 | \$0.98 | 6.95% | 6.76% | 6.57% | 6.38% | 6.19% | 6.00% | 10.66% |
| 22 | Progress Energy | \$42.23 | \$2.46 | 5.36% | 5.48% | 5.61% | 5.74% | 5.87% | 6.00% | 11.95% |
| 23 | Puget Energy Inc. | \$26.72 | \$1.00 | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% | 9.96% |
| 24 | Southern Co. | \$35.61 | \$1.68 | 5.19% | 5.35% | 5.51% | 5.67% | 5.84% | 6.00% | 10.77% |
| 25 | TECO Energy | \$19.94 | \$0.80 | 7.58% | 7.26% | 6.95% | 6.63% | 6.32% | 6.00% | 10.66% |
| 26 | UniSource Energy | \$32.03 | \$0.96 | N/A | N/A | N/A | N/A | N/A | 6.00% | N/A |
| 27 | Westar Energy | \$22.53 | \$1.16 | 4.43% | 4.74% | 5.06% | 5.37% | 5.69% | 6.00% | 10.98% |
| 28 | Wisconsin Energy | \$46.13 | \$1.08 | 9.75% | 9.00% | 8.25% | 7.50% | 6.75% | 6.00% | 9.10% |
| 29 | Xcel Energy Inc. | \$20.46 | \$0.95 | 5.70% | 5.76% | 5.82% | 5.88% | 5.94% | 6.00% | 10.85% |
| 30 | Average | \$34.98 | \$1.40 | 7.25% | 7.00% | 6.75% | 6.50% | 6.25% | 6.00% | 10.82% |

Sources:

¹ <http://moneycentral.msn.com>, downloaded on August 20, 2008.

² *The Value Line Investment Survey*; May 30, June 27, and August 8, 2008.

³ *Blue Chip Economic Indicators*, March 10, 2008.

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DCF Results with GDP Growth Rate of 6.00%

Moody's Electric Utility Proxy Group

Multi-Stage Growth DCF Model

| Line | Company | 13-Week AVG | Annual | First Stage | Second Stage Growth | | | | Third Stage | Multi-Stage |
|------|----------------------|--------------------------|-----------------------|--------------|---------------------|--------------|--------------|--------------|---------------------|---------------|
| | | Stock Price ¹ | Dividend ² | Growth | Year 6 | Year 7 | Year 8 | Year 9 | Growth ³ | Growth DCF |
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1 | Amer. Elec. Power | \$40.87 | \$1.64 | 6.13% | 6.10% | 6.08% | 6.05% | 6.03% | 6.00% | 10.28% |
| 2 | CH Energy Group | \$36.97 | \$2.16 | N/A | N/A | N/A | N/A | N/A | 6.00% | N/A |
| 3 | Consol. Edison | \$39.77 | \$2.34 | 3.10% | 3.68% | 4.26% | 4.84% | 5.42% | 6.00% | 11.28% |
| 4 | Constellation Energy | \$81.50 | \$1.91 | 18.40% | 15.92% | 13.44% | 10.96% | 8.48% | 6.00% | 10.98% |
| 5 | Dominion Resource: | \$45.51 | \$1.58 | 9.42% | 8.73% | 8.05% | 7.37% | 6.68% | 6.00% | 10.48% |
| 6 | DPL Inc. | \$26.78 | \$1.10 | 11.09% | 10.07% | 9.05% | 8.03% | 7.02% | 6.00% | 11.78% |
| 7 | DTE Energy | \$42.78 | \$2.12 | 6.17% | 6.13% | 6.10% | 6.07% | 6.03% | 6.00% | 11.30% |
| 8 | Duke Energy | \$17.72 | \$0.88 | 5.42% | 5.53% | 5.65% | 5.77% | 5.88% | 6.00% | 11.09% |
| 9 | Energy East Corp. | \$25.05 | \$1.24 | N/A | N/A | N/A | N/A | N/A | 6.00% | N/A |
| 10 | Exelon Corp. | \$85.17 | \$2.00 | 10.25% | 9.40% | 8.55% | 7.70% | 6.85% | 6.00% | 9.20% |
| 11 | FirstEnergy Corp. | \$77.37 | \$2.20 | 7.75% | 7.40% | 7.05% | 6.70% | 6.35% | 6.00% | 9.34% |
| 12 | IDACORP Inc. | \$30.20 | \$1.20 | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% | 10.21% |
| 13 | NiSource Inc. | \$17.45 | \$0.92 | 3.00% | 3.60% | 4.20% | 4.80% | 5.40% | 6.00% | 10.69% |
| 14 | OGE Energy | \$32.48 | \$1.39 | 4.00% | 4.40% | 4.80% | 5.20% | 5.60% | 6.00% | 10.03% |
| 15 | PPL Corp. | \$49.31 | \$1.34 | 17.13% | 14.90% | 12.68% | 10.45% | 8.23% | 6.00% | 11.35% |
| 16 | Progress Energy | \$42.23 | \$2.46 | 5.36% | 5.48% | 5.61% | 5.74% | 5.87% | 6.00% | 11.95% |
| 17 | Public Serv. Enterpr | \$43.59 | \$1.29 | 12.92% | 11.53% | 10.15% | 8.77% | 7.38% | 6.00% | 10.66% |
| 18 | Southern Co. | \$35.61 | \$1.68 | 5.19% | 5.35% | 5.51% | 5.67% | 5.84% | 6.00% | 10.77% |
| 19 | TECO Energy | \$19.94 | \$0.80 | 7.58% | 7.26% | 6.95% | 6.63% | 6.32% | 6.00% | 10.66% |
| 20 | Xcel Energy Inc. | \$20.46 | \$0.95 | 5.70% | 5.76% | 5.82% | 5.88% | 5.94% | 6.00% | 10.85% |
| 21 | Average | \$40.54 | \$1.56 | 8.03% | 7.62% | 7.22% | 6.81% | 6.41% | 6.00% | 10.72% |

Sources:

¹ <http://moneycentral.msn.com>, downloaded on August 20, 2008.

² *The Value Line Investment Survey*; May 30, June 27, and August 8, 2008.

³ *Blue Chip Economic Indicators*, March 10, 2008.

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Comparable Risk Proxy Group

CAPM

| <u>Line</u> | <u>Description</u> | <u>Historical Premium (1)</u> |
|-------------|-----------------------------|---------------------------------------|
| 1 | Risk-Free Rate ¹ | 5.10% |
| 2 | Risk Premium ² | 6.65% |
| 3 | Beta ³ | 0.85 |
| 4 | CAPM | 10.75% |

| <u>Line</u> | <u>Description</u> | <u>Prospective Premium (1)</u> |
|-------------|-----------------------------|--|
| 5 | Risk-Free Rate ¹ | 5.10% |
| 6 | Risk Premium ² | 6.52% |
| 7 | Beta ³ | 0.85 |
| 8 | CAPM | 10.64% |
| 9 | CAPM Average | 10.70% |

Sources:

¹ *Blue Chip Financial Forecasts*; August 1, 2008 at 2.

² *SBI*; 2008 at 31 and 120.

³ *The Value Line Investment Survey*; May 30, June 27, and August 8, 2008.