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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2016-0156

SURREBUTTAL TESTIMONY

OF

ROBERT B. HEVERT

ON BEHALF OF

KCP&L GREATER MISSOURI OPERATIONS COMPANY

**Kansas City, Missouri
September 2016**

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ROBERT B. HEVERT

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1 **I. INTRODUCTION AND SUMMARY OF RECOMMENDATIONS**

2 **Q: Please state your name and business address.**

3 A: My name is Robert B. Hevert. I am a Partner with ScottMadden, Inc. (“ScottMadden”),
4 and my business address is 1900 West Park Drive, Suite 250, Westborough, MA 01581.

5 **Q: Are you the same Robert B. Hevert who pre-file Direct Testimony and Rebuttal**
6 **Testimony in this matter?**

7 A: Yes, I filed Direct and Rebuttal Testimony on behalf of KCP&L Greater Missouri
8 Operations Company (“GMO” or the “Company”).

9 **Q: What is the purpose of your Surrebuttal Testimony?**

10 A: On behalf of GMO, my Surrebuttal Testimony responds to the rebuttal testimony of Mr.
11 David Murray submitted in this proceeding on behalf of the Missouri Public Service
12 Commission Utility Services Division (“Staff”) as it relates to his recommended Return
13 on Equity (“ROE”). In accordance with the Commission’s July 26, 2016 order in this
14 proceeding, I also respond to the portion of Mr. Michael P. Gorman’s direct testimony
15 filed on behalf of the Office of Public Counsel (“OPC”) that was responsive to my Direct
16 Testimony. My analyses and conclusions are supported by the data presented in
17 Schedules RBH-26 through RBH-27, which have been prepared by me or under my
18 direction.

1 **Q: Have you updated your ROE analyses from those presented in your Rebuttal**
2 **Testimony?**

3 A: No, I have not. I continue to rely on the analyses provided in my Rebuttal Testimony,
4 which were updated based on market data through June 30, 2016.

5 **Q: Please provide a summary overview of your Surrebuttal Testimony.**

6 A: In my Direct Testimony and Rebuttal Testimony, I concluded that a reasonable range of
7 ROE estimates is from 9.75 percent to 10.50 percent. For the reasons discussed
8 throughout my Surrebuttal Testimony, none of the arguments raised in Mr. Murray's or
9 Mr. Gorman's rebuttal testimonies have caused me to revise my recommendation. As
10 such, I continue to conclude that an ROE within a range of 9.75 percent to 10.50 percent
11 is reasonable.

12 In particular, I do not agree with Mr. Murray that current market conditions
13 support an ROE as low as 9.00 percent. As discussed in my Direct Testimony, because
14 no one model is most reliable under all market conditions, investors tend to rely on
15 multiple methods to develop their return requirements.¹ That fact is particularly relevant
16 because Mr. Murray suggests that recent increases in utility stock prices indicate that the
17 ROE has decreased. In particular, because utility stock valuations recently have been
18 relatively high, the dividend yield component of the Constant Growth DCF model has
19 decreased. Without an offsetting increase in growth rates, which would be the
20 fundamental driver of increased prices, the DCF results decrease; Mr. Murray interprets
21 that decrease as a measure of a decrease in the Cost of Equity.

¹ Direct Testimony of Robert B. Hevert, at 5.

1 The increase in utility prices, and the resulting decreased dividend yields, has
2 been associated with a “reach for yield” in a time of low Treasury yields - it has not been
3 a fundamental and permanent change in intrinsic utility valuations. If it were, we would
4 have to assume that utility stock prices are essentially independent of growth rates.
5 Doing so, however, would violate the fundamental structure of the Constant Growth DCF
6 model, which assumes that prices increase as a result of increased growth. Relying on
7 data taken from a period of abnormal market conditions, and assuming that those
8 conditions will remain in place in perpetuity is a short-term perspective that produces
9 downwardly biased results.

10 I also address certain concerns raised by Mr. Gorman in his direct testimony. I
11 continue to believe the analytical models, assumptions, and inputs presented in my Direct
12 and Rebuttal Testimonies are reasonable and appropriate under current market
13 conditions. I have relied on information and data that is supported by academic research
14 and industry practice, represents market expectations, and is corroborated by long-term
15 historical relationships.

16 **Q: How is the remainder of your Testimony organized?**

17 A: The remainder of my Direct Testimony is organized as follows:

18 Section II – Provides my response to Mr. Murray’s rebuttal testimony regarding
19 the Company’s cost of capital;

20 Section III – Provides my response to the portion of Mr. Gorman’s direct
21 testimony that was responsive to my Direct Testimony; and

22 Section IV – Summarizes my conclusions and recommendation.

II. RESPONSE TO THE REBUTTAL TESTIMONY OF STAFF WITNESS

MURRAY

1 **Q: Please briefly summarize Staff’s rebuttal testimony.**

2 A: Mr. Murray argues that GMO’s Cost of Equity has fallen because “utility stocks have
3 rallied significantly since the beginning of the year,” and, therefore, ROE model
4 estimates will be lower.² Noting that my recommended range of Cost of Equity for GMO
5 (9.75 percent to 10.50 percent) is below my recommended range for KCP&L in Case No.
6 ER-14-0370 (10.20 percent to 10.50 percent), Mr. Murray states that I must believe the
7 Cost of Equity has declined by 10 to 45 basis points.³

8 **Q: Do you agree with Mr. Murray’s assertion that recent declines in DCF model results**
9 **necessarily implies that the Cost of Equity has decreased?**

10 A: No, I do not. Mr. Murray’s position fails to take into account current market conditions
11 and its effect on DCF analyses. Recently high utility stock valuations have reflected the
12 Federal Reserve’s intervention in capital markets, including Quantitative Easing, which
13 lowered the long-end of the yield curve, and caused investors to “reach for yield”.⁴ The
14 abnormal market conditions related to Federal Reserve actions undermine the reliability
15 of the DCF model and as such, I believe that approach should be given limited weight in
16 determining the Company’s ROE.⁵

17 Classic valuation theory assumes that investors trade securities rationally, with
18 prices reflecting their perceptions of intrinsic value.⁶ Although central banks such as the

² Rebuttal Testimony of David Murray, at 13.

³ *Ibid.*, at 12.

⁴ *See*, Rebuttal Testimony of Robert B. Hevert, at 5.

⁵ *See*, Direct Testimony of Robert B. Hevert, at 53.

⁶ *i.e.*, the traditional efficient markets formulation. *See*, Stowe et al., *Equity Asset Valuation*, 2007, at 18.

1 Federal Reserve have the ability to set benchmark interest rates, they have been
2 maintaining below normal rates to stimulate continued economic growth and capital
3 market recovery. It therefore is reasonable to conclude that the Federal Reserve and
4 other central banks have been acting as market-movers, having a significant effect on the
5 market prices of both bonds and stocks. The presence of market-movers, such as the
6 Federal Reserve, runs counter to the hypothesis of Perfectly Competitive Capital
7 Markets, which underlies traditional Cost of Equity models. Consequently, the results of
8 those models (including the DCF model) should be considered in the context of both
9 quantitative and qualitative information.

10 As discussed throughout my Direct and Rebuttal Testimonies, there are several
11 reasons to question the likelihood of current capital market conditions persisting. For
12 example, the Federal Reserve recently began the process of rate normalization;⁷ Value
13 Line projects declines in utility stock valuation levels;⁸ TLT (an exchange-traded fund
14 that seeks to track the investment results of an index composed of U.S. Treasury bonds
15 with remaining maturities greater than twenty years) option prices indicate expectations
16 for increasing rates;⁹ and consensus estimates reported by Blue Chip indicate
17 expectations for increasing rates.¹⁰

18 More recently, Federal Reserve Chair Janet Yellen noted that "...in light of the
19 continued solid performance of the labor market and our outlook for economic activity
20 and inflation, I believe the case for an increase in the federal funds rate has strengthened

⁷ Direct Testimony of Robert B. Hevert, at 53.

⁸ Rebuttal Testimony of Robert B. Hevert, at 17.

⁹ Direct Testimony of Robert B. Hevert, at 57.

¹⁰ *Ibid.*; and Rebuttal Testimony of Robert B. Hevert, Schedule 7.

1 in recent months.” As of September 1, 2016, the implied probability of an increase in
2 the Federal Funds rate by the end of the year was over 50.00 percent.¹¹

3 We also have seen utility stock valuations fall when they reach levels that
4 investors may consider “stretched”. As noted in my Rebuttal Testimony, between
5 January and June 2015, utility stocks declined in value coincident with a period of rising
6 interest rates.¹² In a similar fashion, both the proxy group used in my analyses and the
7 Dow Jones Utility Index lost about 6.50 percent of their value during August 2016,
8 whereas the overall market (as measured by the S&P 500) lost no value.¹³ As a
9 consequence of the fall in value, the proxy group’s dividend yield increased by
10 approximately 20 basis points during August 2016.

11 The point simply is that if we are to rely on a model such as the Constant Growth
12 DCF method, which assumes current valuations will remain constant in perpetuity, and
13 we apply data from a period of unusually high valuations, we implicitly are assuming that
14 the conditions supporting those valuations also will be in place in perpetuity. In my
15 view, that is a very tenuous set of assumptions, which should cause us to view DCF
16 results with considerable caution.

17 **Q: What is your response to Mr. Murray’s suggestion that you believe the Cost of**
18 **Equity has declined by as much as 10 to 45 basis points because your recommended**
19 **ROE range in this proceeding is lower than it was in Case No. ER-2014-0370?**

20 **A:** Mr. Murray is mistaken. As discussed in my Direct Testimony at pages 3 - 4, my
21 recommendation specifically took into account the Commission’s September 2, 2015

¹¹ <http://www.cmegroup.com/trading/interest-rates/countdown-to-fomc.html>. Accessed September 2, 2016.

¹² Rebuttal Testimony of Robert B. Hevert, at 5-6.

¹³ Source: SNL Financial. Proxy group performance is calculated as an index. The charts on pages 19 and 20 of Mr. Murray’s rebuttal testimony end on August 2, 2016.

1 Order in KCP&L’s last rate case, which found that a range between 9.40 percent and 9.60
2 percent was an accurate estimate of KCP&L’s Cost of Equity. Considering all of the
3 analytical results, business risks faced by the Company, and the KCP&L Order, I believe
4 my recommended range of 9.75 percent to 10.50 percent represents a reasonable, if
5 somewhat conservative, estimate of the Company’s ROE.¹⁴ As such, I strongly disagree
6 with Mr. Murray’s suggestion that my recommended range implies support for an ROE
7 as low as 9.00 percent.

8 **Q: What is your response to Mr. Murray’s statement that your suggestion (in the 2014**
9 **Ameren Missouri and KCP&L rate cases) to be cautious about ROE results inferred**
10 **from DCF models because of high utility stock valuations has been “proven wrong”**
11 **by the market?**¹⁵

12 A: Mr. Murray’s conclusion is misplaced. As shown in the chart on page 19 of Mr.
13 Murray’s rebuttal testimony, for example, the total return for utilities was lower than the
14 market in mid-2015. As noted above and in my Rebuttal Testimony, that drop was
15 coincident with increases in interest rates. It therefore appears that even over the period
16 reviewed by Mr. Murray, investors have not consistently valued utilities at their current
17 levels. Further, over a similar timeframe, Staff’s ROE estimates in the Ameren Missouri
18 and KCP&L rate cases were “proven wrong” as utility investors actually earned higher
19 returns.

20 In addition, the Federal Reserve only recently began to normalize the Fed Funds
21 rate, and has not yet begun to unwind its balance sheet. As that process continues

¹⁴ Direct Testimony of Robert B. Hevert, at 4.

¹⁵ Rebuttal Testimony of David Murray, at 21-23.

1 investors may change their market expectations, and their return requirements.¹⁶ That is,
2 it would be inappropriate to assume that current market conditions, including the Federal
3 Reserve's intervention, will continue in perpetuity. As noted above, more recent data
4 indicate that investors see a growing likelihood of interest rate increases, and have
5 reduced the price they are willing to pay for utility common stock.

6 **Q: Is the use of projected interest rates in ROE models inconsistent with theory and the**
7 **efficient market hypothesis, as Mr. Murray suggests?**¹⁷

8 A: No, it is not. The Cost of Equity is a forward-looking concept and it is important to
9 develop a CAPM analysis that reflects investors' expectations. That is particularly the
10 case as the purpose of this proceeding is to establish the Cost of Equity for GMO's utility
11 operations, also on a forward-looking basis. Moreover, I understand that there is nothing
12 in Missouri utility or regulatory policy that prevents the Commission from considering
13 such trends and forecasts in setting the fair Rate of Return. Ratemaking necessarily is a
14 predictive exercise; considering forward-looking data is consistent with that approach.

15 Further, if market efficiency applies to interest rates, it also applies to derivative
16 securities, such as options on the long-term Government bond index (that is, the TLT).
17 Because investors are willing to pay considerably more for the option to sell the TLT
18 than they are willing to pay for the option to buy the index, we can conclude that they see
19 a greater chance of interest rate increases than decreases.¹⁸ Similarly, forward yields
20 (which are based on the slope of the current Treasury yield curve) indicate that investors
21 expected long-term term yields to be higher in the coming one to two years than their

¹⁶ Direct Testimony of Robert B. Hevert, at 53.

¹⁷ Rebuttal Testimony of David Murray, at 23.

¹⁸ <http://www.nasdaq.com/symbol/tlt/option-chain?dateindex=8>. Accessed September 2, 2016. Based on at-the-money options dated January 2018. Please note that bond prices decrease as interest rates increase.

1 current levels.¹⁹ Consequently, market efficiency does not invalidate the consideration of
2 interest rate expectations in setting the current Cost of Equity.

3 Lastly, although we may not agree on certain aspects of the application of the
4 CAPM, I note Mr. Gorman also uses a projected risk-free rate in his ROE analyses.

5 **Q: Do you agree with Mr. Murray’s assertion at page 23 of his rebuttal testimony that**
6 **acquisition premiums paid in recent utility transactions support his position that the**
7 **cost of capital is “very low”?**

8 A: No, I do not. The price paid in a merger transaction reflects the value of the target’s
9 various operations to a prospective buyer through the purchase of the entire company as
10 an asset, whereas the market value reflects the views of minority equity investors. The
11 two are fundamentally different, and one should not be viewed as a definitive measure of
12 the other. That is, the discount rates that Mr. Murray cites are used to value an asset from
13 the perspective of a single, acquisitive party whereas the purpose of the ROE witnesses’
14 testimonies is to estimate the Cost of Equity based on observed market prices established
15 by individual, generally non-controlling parties. Consequently, I disagree that the
16 discount rates used in assessing utility acquisitions are relevant to the ROE determination
17 in this proceeding.

III. RESPONSE TO PORTIONS OF MR. GORMAN’S DIRECT TESTIMONY

18 **Q: Please summarize Mr. Gorman’s criticisms of your Cost of Equity analyses.**

19 A: Mr. Gorman argues that my ROE recommendation is overstated because: (1) the
20 Constant Growth DCF results are based on excessive, unsustainable growth rates; (2) the
21 Multi-Stage DCF model is based on an unrealistic GDP growth estimate and

¹⁹ Source: Federal Reserve Schedule H.15.

1 unsustainable payout ratio assumptions; (3) my CAPM analysis is based on inflated
2 estimates of the Market Risk Premiums; (4) my Bond Yield Plus Risk Premium analysis
3 is based on an inflated utility Equity Risk Premium; and (5) my Risk Premium analyses
4 rely on “stale” Treasury yields.²⁰ I respond to each of Mr. Gorman’s concerns in turn,
5 below.

6 **Q: Do you agree with Mr. Gorman’s assertion that the growth rates used in your**
7 **constant growth DCF analysis are “excessive” and “unsustainable”?**

8 A: No, I do not. Although Mr. Gorman argues that the consensus growth rates in my
9 constant growth DCF model (averaging 5.39 percent) are high relative to his estimate of
10 projected GDP growth and retention growth, he also notes that my mean results are
11 similar to his own.²¹

12 **Q: Please respond to Mr. Gorman’s assertion your long-term growth rate is**
13 **inconsistent with other consensus estimates of long-term GDP growth.**

14 A. The long-term growth rate in my multi-stage DCF analysis reflects growth expectations
15 beginning ten years in the future, whereas Mr. Gorman’s consensus GDP projections are
16 only five or ten year projections. Because there are no consensus forecasts that begin in
17 ten years, it is reasonable to assume that real growth will revert to its long-term average
18 over time. Moreover, the terminal growth rate is intended to reflect expected growth in
19 perpetuity and as such, the term of even the longest GDP forecast considered by Mr.
20 Gorman does not reflect the expected, perpetual nature of the terminal growth assumed in
21 the DCF model.

²⁰ Direct Testimony of Michael P. Gorman, at 66-67.

²¹ *Ibid.*, at 69.

1 In his Multi-Stage DCF analysis, Mr. Gorman cites to projections from the
2 Energy Information Administration (“EIA”), Congressional Budget Office (“CBO”), and
3 other sources including the Social Security Administration (“SSA”), and suggests that the
4 terminal growth rate in my Multi-Stage DCF analysis is too high.²² In the case of the
5 CBO and EIA forecast, those projections cover only fifteen years of a perpetual period,
6 and represent forecasts from single entities. As such, I do not agree that those sources
7 invalidate the growth rate used in my analysis.

8 In addition, the CBO provides updates regarding its forecasting record. In that
9 context, the CBO discusses comparisons to other forecasts, and notes that “[d]espite their
10 value, comparisons of forecasting errors can be misleading when forecasts are made for
11 different purposes.”²³ In essence, the CBO notes that comparisons to other forecasts are
12 not always apt, at least in part because they may be based on different assumptions and
13 used for different purposes. Moreover, the CBO states that it is required to assume that
14 future fiscal policy will reflect current law, so that it may “provide a benchmark” against
15 which proposed changes in law may be assessed.²⁴ Given that purpose and structure, I
16 disagree that the CBO’s forecast invalidates the growth rate used in my Multi-Stage DCF
17 analysis.

18 The CBO also notes that among its two-year forecasts (since the early 1980’s), the
19 forecast error for “real output growth” and inflation (measured by the Consumer Price

²² *Ibid.*, at 46, 69.

²³ *CBO’s Economic Forecasting Record: 2015 Update*, February 2015, at 4-5.

²⁴ “In particular, forecasters in the private sector attempt to predict the future stance of federal fiscal policy, and the Administration’s forecasts assume the adoption of the fiscal policy reflected in the President’s proposed budget. CBO, however, is required to assume that fiscal policy in the future will generally reflect the provisions in current law, an approach that derives from the agency’s responsibility to provide a benchmark for lawmakers as they consider proposed changes in law. Forecasting errors may be driven by those different assumptions, particularly when policymakers are considering major changes in the fiscal policy embedded in current law.”

1 Index) has been 1.40 percentage points, and 0.80 percentage points, respectively.²⁵ That
2 range of error, if applied to the 4.00 percent long-term CBO forecast noted by Mr.
3 Gorman, suggests that the 5.35 percent rate applied in my Direct Testimony is within the
4 range of the CBO's projections.²⁶

5 As to the SSA forecast, my long-term growth estimate falls well within the range
6 of the "cases" that the SSA considers.²⁷ Moreover, Mr. Gorman's 4.35 percent long-term
7 sustainable growth rate conflicts with market measures cited elsewhere in his testimony.
8 For example, Mr. Gorman does not consider the use of long-term historical data for the
9 purpose of developing his terminal growth rate, yet he relies on long-term historical data
10 for the purposes of his CAPM analyses. According to Duff & Phelps (which provides the
11 data Mr. Gorman relies on to estimate the historical Market Risk Premium), the
12 arithmetic average historical capital appreciation rate is 7.70 percent, which is
13 substantially higher than Mr. Gorman's 4.35 percent estimate of long-term GDP
14 growth.²⁸ Aside from the inconsistency with his other analyses, Mr. Gorman's low
15 growth rate has the effect of producing unduly low DCF estimates.

²⁵ *CBO's Economic Forecasting Record: 2015 Update*, February 2015, at 1.

²⁶ As to the use of expected inflation, I note that the TIPS spread has been affected by low levels of inflation, which likely are affected by recently low oil prices. As noted at page 30 of the Federal Reserve's February 2016 *Monetary Policy Report*, "Inflation is expected to remain low in the near term, in part because of recent further declines in energy prices, but to rise to 2 percent over the medium term as the transitory effects of declines in energy and import prices dissipate and the labor market strengthens further."

²⁷ Tables V.B1 and V.B2 of the *2016 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds* includes "Low Cost" scenario assumptions of 2.90 percent and 2.70 percent for the GDP Price Index, and Real GDP Growth, respectively, over the period 2025 through 2085. Combined, those projections indicate nominal GDP growth of approximately 5.70 percent.

²⁸ Duff & Phelps, *2016 Valuation Handbook: Guide to Cost of Capital* at 2-4. Even if we were to consider the geometric mean, the historical capital appreciation rate exceeds Mr. Gorman's 4.35 percent estimate; Mr. Gorman notes on page 44 of his direct testimony that the long-term geometric average growth rate is 5.80 percent.

1 In my Rebuttal Testimony, I have assessed whether my 5.35 percent nominal
2 GDP growth estimate is reasonable within the context of historical observations.²⁹
3 Consistent with Mr. Gorman’s approach to his risk premium study, I calculated the
4 average five- and ten-year annual GDP growth rates from 1929 to 2015, an 87-year
5 period. Average annual growth as low as 4.35 percent has been observed very
6 infrequently. In fact, average annual growth *exceeded* 4.35 percent in 68 of 77 ten-year
7 periods. I also calculated average GDP growth over five-year periods. In that case,
8 average annual GDP growth rate was greater than 4.35 percent in 70 of 82 periods.

9 **Q: What is your response to Mr. Gorman’s assertion that your dividend payout ratio**
10 **assumption is “unreasonable”?**

11 A: Mr. Gorman argues that there is “no reason” to expect the dividend payout ratio of the
12 proxy group to increase or change between growth stages of the model.³⁰ However, as
13 noted in my Direct Testimony there are several reasons why management may adjust
14 dividend payments in the near term, such as increases or decreases in expected capital
15 spending.³¹ Over the long term, it is reasonable to assume that dividend payout ratios
16 will converge to the industry average; that is, the analysis assumes that short-term trends
17 in the payout ratio will not continue in perpetuity.

18 I also note that several of Mr. Gorman’s proxy companies recently have discussed
19 target payout ratios that are highly consistent with my 67.30 percent assumption. For
20 example, in first and second quarter 2016 investor relations presentations, Alliant Energy,
21 NorthWestern Corporation, and Xcel Energy all noted target payout ratios in the range of

²⁹ Rebuttal Testimony of Robert B. Hevert, at 29-30.

³⁰ Direct Testimony of Michael P. Gorman, at 73.

³¹ Direct Testimony of Robert B. Hevert, at 24.

1 60.00 percent to 70.00 percent.³² Consequently, I disagree with Mr. Gorman's position
2 that a long-term payout ratio of approximately 67.00 percent is unreasonable.

3 **Q: Turning to the CAPM, please summarize Mr. Gorman's criticisms of your CAPM**
4 **analysis.**

5 A: Mr. Gorman's concern with my CAPM analysis lies primarily with my Market Risk
6 Premium estimates.³³ In particular, Mr. Gorman states that my 12.82 percent and 13.63
7 percent projected returns on the market are "inflated."³⁴ To determine the reasonableness
8 of my derived expected market returns, it is instructive to understand how often various
9 ranges of total returns actually have occurred over the 1926 to 2015 period. In fact, the
10 12.82 percent and 13.63 percent estimates presented in my Direct Testimony, which Mr.
11 Gorman asserts are "inflated,"³⁵ represent the approximately 49th percentile of the actual
12 returns observed from 1926 to 2015. In other words, of the 90 annual observations, 46
13 were 13.63 percent or higher. Moreover, given the historical volatility in market returns
14 (as noted by Morningstar, the long-term standard deviation is 19.99 percent), my total
15 return estimates of 12.82 percent and 13.63 percent are statistically indistinguishable
16 from the long-term arithmetic average of 11.95 percent.³⁶

17 Mr. Gorman further states that my Market Risk Premium ("MRP") estimates are
18 "inflated and not reliable."³⁷ I therefore performed a similar analysis using historical
19 Market Risk Premium. I first gathered the annual Market Risk Premium reported by

³² Alliant Energy, AGA Financial Forum, Investor Presentation, May 16, 2016; NorthWestern Energy, AGA Financial Forum, Investor Presentation, May 16, 2016; and Xcel Energy, RBC Conference, Investor Presentation, June 7, 2016.

³³ Direct Testimony of Michael P. Gorman, at 75.

³⁴ *Ibid.*

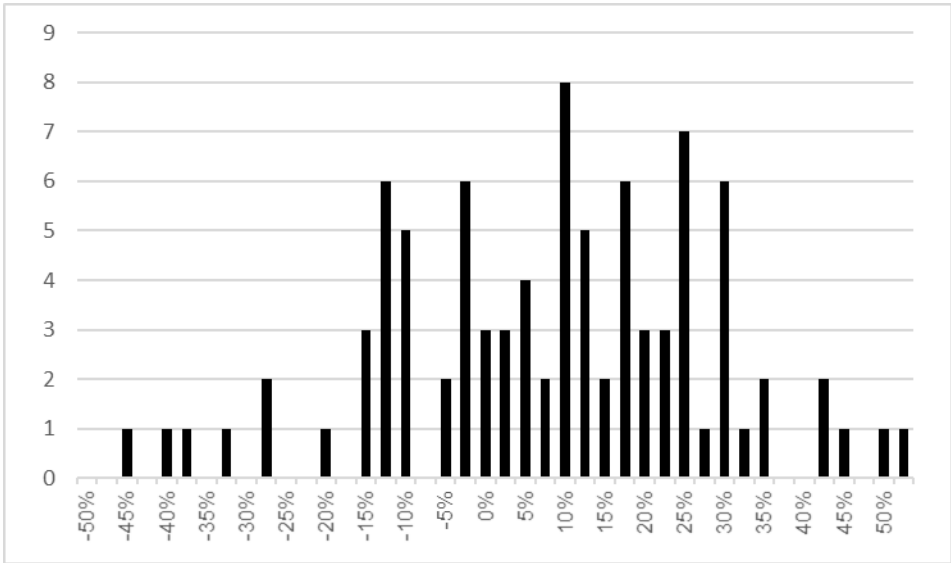
³⁵ *Ibid.*

³⁶ See, Morningstar, Inc., 2016 Ibbotson Stocks, Bonds, Bills and Inflation Classic Yearbook, Appendix A, at 3-5; Schedule RBH-26. Even if we were to look at the standard error, my estimate is well within one standard error of the long-term average.

³⁷ Direct Testimony of Michael P. Gorman, at 76.

1 Morningstar, and produced a histogram of the observations (Mr. Gorman also includes
 2 historical data from 1926 to 2015 to estimate the Market Risk Premium in his direct
 3 testimony at pages 57 - 61). The results of my analysis, which are presented in Chart 1
 4 demonstrate that MRPs of at least 10.68 percent (the high end of the range of the MRP
 5 estimates in my Direct Testimony) will occur approximately half of the time.

6 **Chart 1: Frequency Distribution of Observed Market Risk Premium, 1926 - 2015³⁸**



7

8 **Q: Please summarize Mr. Gorman’s criticisms of your Bond Yield Plus Risk Premium**
 9 **analysis.**

10 **A:** Mr. Gorman’s concern with my Bond Yield Plus Risk Premium analysis is my
 11 “contention” of a “simplistic inverse relationship” between the Equity Risk Premium and
 12 interest rates is not supported by academic research.³⁹ Mr. Gorman further argues that
 13 the relevant factor explaining changes in the Equity Risk Premiums is the change to

³⁸ Schedule RBH-26.
³⁹ Direct Testimony of Michael P. Gorman, at 79.

1 equity risk relative to debt risk, not “simply” changes in interest rates. He concludes that
2 my analysis ignores such investment risk differentials.

3 **Q: What is your response to Mr. Gorman’s critiques?**

4 A: First, regarding the inverse relationship between the Equity Risk Premium and interest
5 rates, I cited several academic studies in my Rebuttal Testimony that support my
6 findings.⁴⁰ Moreover, as explained above, Mr. Gorman’s own data clearly demonstrate
7 that the Equity Risk Premium moves inversely to interest rates (both Treasury Yields and
8 Utility Bond Yields). Mr. Gorman may disagree with the premise, but empirical results
9 based on his data support my position (*see*, Schedule RBH-25 of my Rebuttal
10 Testimony).

11 **Q: Did you perform any additional analyses to address Mr. Gorman’s concern
12 regarding the effect of expected market volatility and other interest rate
13 environments on your results?**

14 A: Yes, I did. Although for the reasons discussed above I continue to believe the model is
15 properly specified, I performed an additional analysis to specifically include the effect of
16 equity market volatility, and credit spreads (*see*, Schedule RBH-27). As with my original
17 Bond Yield Plus Risk Premium analysis, I defined the Risk Premium as the dependent
18 variable, and the prevailing 30-year Treasury yield as an independent variable. I then
19 included two additional explanatory variables: (1) the VIX (the Chicago Board Options
20 Exchange’s one-month volatility index, which is a common measure of volatility); and
21 (2) the credit spread between the 30-year Treasury yield and the Moody’s Baa Utility

⁴⁰ Rebuttal Testimony of Robert B. Hevert, at 60.

1 Index (as a measure of incremental risk).⁴¹ In both instances, the statistically significant
2 inverse relationship between Treasury yields and the Risk Premium remains, and the
3 resulting ROE estimates are generally consistent with those of my original Bond Yield
4 Plus Risk Premium analysis.⁴²

5 Lastly, I note that applying Mr. Gorman's projected 3.40 percent 30-year
6 Treasury yield to this alternative Bond Yield Plus Risk Premium Analysis produces a
7 more reasonable (although still low) ROE estimate of 9.95 percent relative to Mr.
8 Gorman's 9.25 percent recommendation (*see*, Schedule RBH-27).⁴³

9 Based on all of this data, the Bond Yield Plus Risk Premium range in my Direct
10 Testimony for 10.04 percent to 10.47 percent is reasonable.

11 **Q: What is your response to Mr. Gorman's concern in his direct testimony at pages 75**
12 **and 81 that your CAPM and Bond Yield Plus Risk Premium analyses rely on**
13 **"stale" Treasury yields?**

14 A: The Treasury yield estimates used in my Direct Testimony were based on current data
15 used at the time I submitted my ROE analysis to the Commission in February 2016. My
16 rebuttal to Mr. Gorman is based on updated Treasury yield data as of June 30, 2016 and
17 fully supports my conclusions. Consequently, my analyses do not rely on "stale"
18 Treasury yields, as Mr. Gorman suggests.

⁴¹ Mr. Gorman notes on page 34 of his testimony that his proxy group has an average Moody's credit rating of Baa1.

⁴² *See*, Schedule RBH-27.

⁴³ Mr. Gorman uses a 3.40 percent projected Treasury yield in his risk premium analysis. *See*, Direct Testimony of Michael P. Gorman, at 54-55.

IV. SUMMARY AND CONCLUSIONS

1 **Q: Please briefly summarize your Surrebuttal Testimony.**

2 A: In my Direct Testimony and Rebuttal Testimony, I concluded that a reasonable range of
3 ROE estimates is from 9.75 percent to 10.50 percent. For the reasons discussed
4 throughout my Surrebuttal Testimony, none of the arguments raised in Mr. Murray's or
5 Mr. Gorman's rebuttal testimonies have caused me to revise my recommendation. As
6 such, I continue to conclude that an ROE within a range of 9.75 percent to 10.50 percent
7 is reasonable.

8 **Q: Does this conclude your Surrebuttal Testimony?**

9 A: Yes, it does.

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

In the Matter of KCP&L Greater Missouri Operations)
Company's Request for Authority to Implement) Case No. ER-2016-0156
A General Rate Increase for Electric Service)

AFFIDAVIT OF ROBERT B. HEVERT


COMMONWEALTH OF MASSACHUSETTS)
) ss
COUNTY OF WORCESTER)

Robert B. Hevert, being first duly sworn on his oath, states:

1. My name is Robert B. Hevert and my business address is ScottMadden, Inc., 1900 West Park Drive, Suite 250, Westborough, MA 01581. I have been retained to serve as an expert witness to provide testimony on behalf of KCP&L Greater Missouri Operations Company.

2. Attached hereto and made a part hereof for all purposes is my Surrebuttal Testimony on behalf of KCP&L Greater Missouri Operations Company consisting of eighteen (18) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.



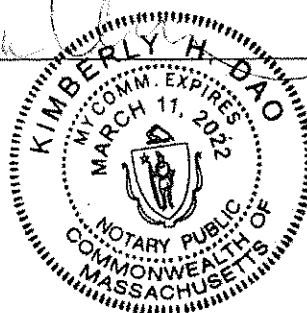
Robert B. Hevert

Subscribed and sworn before me this 30th day of August, 2016.

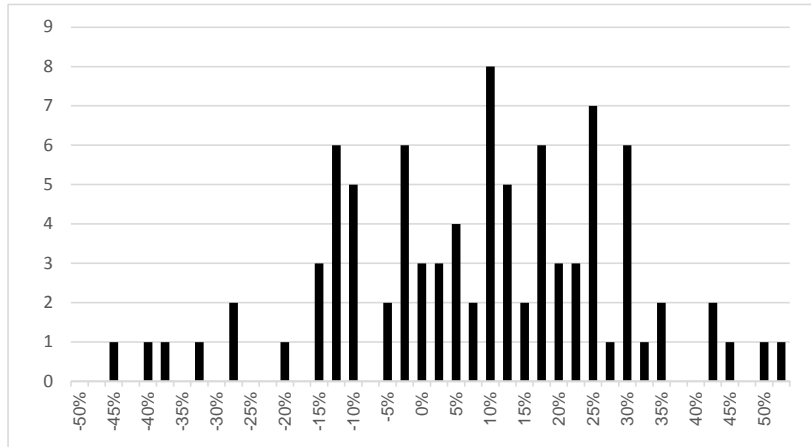


Notary Public

My commission expires: March 11, 2022



Frequency Distribution of Observed Market Risk Premia, 1926 - 2015



Sources: Morningstar, Inc., Ibbotson SBI 2016 Appendix A, at 3-5, 21-23.

Year	Large Company Stocks Total Returns	Long-Term Government Bond Income Returns	MRP
	Jan-Dec*	Jan-Dec*	
1926	0.1162	0.0373	0.0789
1927	0.3749	0.0341	0.3408
1928	0.4361	0.0322	0.4039
1929	-0.0842	0.0347	-0.1189
1930	-0.2490	0.0332	-0.2822
1931	-0.4334	0.0333	-0.4667
1932	-0.0819	0.0369	-0.1188
1933	0.5399	0.0312	0.5087
1934	-0.0144	0.0318	-0.0462
1935	0.4767	0.0281	0.4486
1936	0.3392	0.0277	0.3115
1937	-0.3503	0.0266	-0.3769
1938	0.3112	0.0264	0.2848
1939	-0.0041	0.0240	-0.0281
1940	-0.0978	0.0223	-0.1201
1941	-0.1159	0.0194	-0.1353
1942	0.2034	0.0246	0.1788
1943	0.2590	0.0244	0.2346
1944	0.1975	0.0246	0.1729
1945	0.3644	0.0234	0.3410
1946	-0.0807	0.0204	-0.1011
1947	0.0571	0.0213	0.0358
1948	0.0550	0.0240	0.0310
1949	0.1879	0.0225	0.1654
1950	0.3171	0.0212	0.2959
1951	0.2402	0.0238	0.2164
1952	0.1837	0.0266	0.1571
1953	-0.0099	0.0284	-0.0383
1954	0.5262	0.0279	0.4983
1955	0.3156	0.0275	0.2881
1956	0.0656	0.0299	0.0357
1957	-0.1078	0.0344	-0.1422
1958	0.4336	0.0327	0.4009
1959	0.1196	0.0401	0.0795
1960	0.0047	0.0426	-0.0379

	Large Company Stocks Total Returns	Long-Term Government Bond Income Returns	
Year	Jan-Dec*	Jan-Dec*	MRP
1961	0.2689	0.0383	0.2306
1962	-0.0873	0.0400	-0.1273
1963	0.2280	0.0389	0.1891
1964	0.1648	0.0415	0.1233
1965	0.1245	0.0419	0.0826
1966	-0.1006	0.0449	-0.1455
1967	0.2398	0.0459	0.1939
1968	0.1106	0.0550	0.0556
1969	-0.0850	0.0595	-0.1445
1970	0.0386	0.0674	-0.0288
1971	0.1430	0.0632	0.0798
1972	0.1899	0.0587	0.1312
1973	-0.1469	0.0651	-0.2120
1974	-0.2647	0.0727	-0.3374
1975	0.3723	0.0799	0.2924
1976	0.2393	0.0789	0.1604
1977	-0.0716	0.0714	-0.1430
1978	0.0657	0.0790	-0.0133
1979	0.1861	0.0886	0.0975
1980	0.3250	0.0997	0.2253
1981	-0.0492	0.1155	-0.1647
1982	0.2155	0.1350	0.0805
1983	0.2256	0.1038	0.1218
1984	0.0627	0.1174	-0.0547
1985	0.3173	0.1125	0.2048
1986	0.1867	0.0898	0.0969
1987	0.0525	0.0792	-0.0267
1988	0.1661	0.0897	0.0764
1989	0.3169	0.0881	0.2288
1990	-0.0310	0.0819	-0.1129
1991	0.3047	0.0822	0.2225
1992	0.0762	0.0726	0.0036
1993	0.1008	0.0717	0.0291
1994	0.0132	0.0659	-0.0527
1995	0.3758	0.0760	0.2998
1996	0.2296	0.0618	0.1678
1997	0.3336	0.0664	0.2672
1998	0.2858	0.0583	0.2275
1999	0.2104	0.0557	0.1547
2000	-0.0910	0.0650	-0.1560
2001	-0.1189	0.0553	-0.1742
2002	-0.2210	0.0559	-0.2769
2003	0.2868	0.0480	0.2388
2004	0.1088	0.0502	0.0586
2005	0.0491	0.0469	0.0022
2006	0.1579	0.0468	0.1111
2007	0.0549	0.0486	0.0063
2008	-0.3700	0.0445	-0.4145
2009	0.2646	0.0347	0.2299
2010	0.1506	0.0425	0.1081
2011	0.0211	0.0390	-0.0179
2012	0.1600	0.0246	0.1354
2013	0.3239	0.0288	0.2951
2014	0.1369	0.0341	0.1028
2015	0.0138	0.0247	-0.0109
Average	0.1195	0.0505	0.0690
Std. Dev.	0.1999	0.0263	0.2008

Bin	Frequency	Cumulative %
-50.00%	0	0.000%
-47.50%	0	0.000%
-45.00%	1	1.111%
-42.50%	0	1.111%
-40.00%	1	2.222%
-37.50%	1	3.333%
-35.00%	0	3.333%
-32.50%	1	4.444%
-30.00%	0	4.444%
-27.50%	2	6.667%
-25.00%	0	6.667%
-22.50%	0	6.667%
-20.00%	1	7.778%
-17.50%	0	7.778%
-15.00%	3	11.111%
-12.50%	6	17.778%
-10.00%	5	23.333%
-7.50%	0	23.333%
-5.00%	2	25.556%
-2.50%	6	32.222%
0.00%	3	35.556%
2.50%	3	38.889%
5.00%	4	43.333%
7.50%	2	45.556%
10.00%	8	54.444%
12.50%	5	60.000%
15.00%	2	62.222%
17.50%	6	68.889%
20.00%	3	72.222%
22.50%	3	75.556%
25.00%	7	83.333%
27.50%	1	84.444%
30.00%	6	91.111%
32.50%	1	92.222%
35.00%	2	94.444%
37.50%	0	94.444%
40.00%	0	94.444%
42.50%	2	96.667%
45.00%	1	97.778%
47.50%	0	97.778%
50.00%	1	98.889%
51.00%	1	100.000%

Count: 90

Average	MRP	Rank:
	10.68%	55.90%

Historical Market Return

Hevert	% Rank	Count
12.82%	48.6%	
13.63%	49.3%	46

Alternative Bond Yield Plus Risk Premium Analysis

	[1]	[2]	[3]	[4]
	Constant	LN(30-Year Treasury)	Moody's Utility Baa Credit Spread	VIX
Regression Coefficients	-0.026	-0.025	0.215	0.00005
Long Term Averages [5], [6]			1.81%	22.36

	30-Yr. Treasury Yield [7]	Risk Premium [8]	Return on Equity [9]
Current 30-Year Treasury	2.50%	7.33%	9.83%
Blue Chip Financial Forecast 2017 Projection	3.40%	6.55%	9.95%
Blue Chip Financial Forecast 2020 Projection	4.40%	5.89%	10.29%

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.820612
R Square	0.673404
Adjusted R Square	0.671829
Standard Error	0.005498
Observations	626

ANOVA					
	df	SS	MS	F	Significance F
Regression	3	0.038767	0.012922	427.497607	0.000000
Residual	622	0.018802	0.000030		
Total	625	0.057569			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-0.025758	0.002491	-10.340783	0.000000	-0.030649	-0.020866	-0.030649	-0.020866
LN(30-Year Treasury)	-0.025474	0.000843	-30.202755	0.000000	-0.027131	-0.023818	-0.027131	-0.023818
Utility Baa Credit Spread	0.214700	0.047428	4.526891	0.000007	0.121562	0.307838	0.121562	0.307838
VIX	0.000055	0.000034	1.618449	0.106073	-0.000012	0.000122	-0.000012	0.000122

Notes:

- [1] Constant of regression equation (1992-2016)
- [2] Equals Regression Coefficient of LN(30-year Treasury Yield variable)
- [3] Equals Regression Coefficient of Credit Spread variable
- [4] Equals Regression Coefficient of VIX variable
- [5] Long-Term Historical Average of Baa Credit Spread
- [6] Source: <http://www.cboe.com/data/volatilityindexes/volatilityindexes.aspx>
- [7] Source: Current = Bloomberg Professional, Near-Term Projected = Blue Chip Financial Forecasts, Vol. 35, No. 6, June 1, 2016, at 2. Forecast for Q3 2017. Long-Term Projected = Blue Chip Financial Forecasts, Vol. 35, No. 6, June 1, 2016, at 14.
- [8] Equals [1] + ([2] x LN[7]) + ([3] x [5]) + ([4] x [6])
- [9] Equals [7] + [8]
- [10] Source: SNL Financial. Rate Cases through 6/30/2016 were examined to coincide with Rebuttal Exhibits.
- [11] Source: SNL Financial
- [12] Source: Bloomberg Professional, equals 200-trading day average (i.e. lag period)
- [13] Source: Bloomberg Professional, equals 200-trading day average (i.e. lag period)
- [14] Equals LN[12]
- [15] Equals [13] - [12]
- [16] Source: Bloomberg Professional, equals 200-trading day average (i.e. lag period)
- [17] Equals [11] - [12]

[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Moody's Utility Baa Yield	LN(30-Year Treasury)	Moody's Utility Baa Credit Spread	VIX	Risk Premium
1/10/1990	12.80%	8.24%		-2.496477861		19.95	4.56%
1/11/1990	12.90%	8.23%		-2.497024601		19.96	4.67%
1/17/1990	12.80%	8.22%		-2.499113014		21.59	4.58%
1/26/1990	12.00%	8.19%		-2.501942804		22.87	3.81%
2/9/1990	12.10%	8.17%		-2.504801539		23.58	3.93%
2/24/1990	12.86%	8.15%		-2.507522892		23.35	4.71%
3/30/1990	12.90%	8.16%		-2.505906927		22.17	4.74%
4/4/1990	15.76%	8.17%		-2.505240839		22.16	7.59%
4/12/1990	12.52%	8.18%		-2.503520424		22.04	4.34%
4/19/1990	12.75%	8.20%		-2.501412987		22.01	4.55%
5/21/1990	12.10%	8.28%		-2.490818765		21.42	3.82%
5/29/1990	12.40%	8.30%		-2.489147186		21.25	4.10%
5/31/1990	12.00%	8.30%		-2.488692501		21.17	3.70%
6/4/1990	12.90%	8.30%		-2.4883905		21.11	4.60%
6/6/1990	12.25%	8.31%		-2.488115209		21.06	3.94%
6/15/1990	13.20%	8.32%		-2.486948935		20.80	4.88%
6/20/1990	12.92%	8.32%		-2.486220477		20.68	4.60%
6/27/1990	12.90%	8.33%		-2.484996704		20.52	4.57%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Moody's Utility Baa Yield	LN(30-Year Treasury)	Moody's Utility Baa Credit Spread	VIX	Risk Premium
6/29/1990	12.50%	8.34%		-2.484701847		20.45	4.16%
7/6/1990	12.35%	8.34%		-2.48420579		20.33	4.01%
7/6/1990	12.10%	8.34%		-2.48420579		20.33	3.76%
8/10/1990	12.55%	8.41%		-2.475736762		20.52	4.14%
8/16/1990	13.21%	8.43%		-2.473575512		20.64	4.78%
8/22/1990	13.10%	8.45%		-2.471018017		20.82	4.65%
8/24/1990	13.00%	8.46%		-2.469496155		21.00	4.54%
9/26/1990	11.45%	8.59%		-2.454201215		21.96	2.86%
10/2/1990	13.00%	8.61%		-2.451809401		22.09	4.39%
10/5/1990	12.84%	8.63%		-2.450337442		22.18	4.21%
10/19/1990	13.00%	8.67%		-2.445512392		22.69	4.33%
10/25/1990	12.30%	8.68%		-2.444370992		22.80	3.62%
11/21/1990	12.70%	8.69%		-2.442615086		22.98	4.01%
12/13/1990	12.30%	8.67%		-2.44490271		22.97	3.63%
12/17/1990	12.87%	8.67%		-2.44545674		23.00	4.20%
12/18/1990	13.10%	8.67%		-2.445757644		23.02	4.43%
12/19/1990	12.00%	8.66%		-2.446009336		23.04	3.34%
12/20/1990	12.75%	8.66%		-2.446187995		23.05	4.09%
12/21/1990	12.50%	8.66%		-2.446334775		23.07	3.84%
12/27/1990	12.79%	8.66%		-2.44671836		23.13	4.13%
1/2/1991	13.10%	8.66%		-2.446942427		23.25	4.44%
1/4/1991	12.50%	8.65%		-2.4473669		23.31	3.85%
1/15/1991	12.75%	8.65%		-2.448168141		23.75	4.10%
1/25/1991	11.70%	8.63%		-2.450247154		23.94	3.07%
2/4/1991	12.50%	8.60%		-2.453128134		23.92	3.90%
2/7/1991	12.50%	8.59%		-2.454862821		23.95	3.91%
2/12/1991	13.00%	8.57%		-2.456475087		23.99	4.43%
2/14/1991	12.72%	8.56%		-2.457500722		24.02	4.16%
2/22/1991	12.80%	8.55%		-2.459800347		24.08	4.25%
3/6/1991	13.10%	8.53%		-2.461874245		24.18	4.57%
3/8/1991	13.00%	8.52%		-2.462251459		24.21	4.48%
3/8/1991	12.30%	8.52%		-2.462251459		24.21	3.78%
4/22/1991	13.00%	8.49%		-2.466242714		24.23	4.51%
5/7/1991	13.50%	8.47%		-2.468214975		24.22	5.03%
5/13/1991	13.25%	8.47%		-2.468668749		24.15	4.78%
5/30/1991	12.75%	8.43%		-2.473033695		23.59	4.32%
6/12/1991	12.00%	8.41%		-2.476341626		23.03	3.59%
6/25/1991	11.70%	8.38%		-2.478854049		22.47	3.32%
6/28/1991	12.50%	8.38%		-2.479875908		22.31	4.12%
7/1/1991	12.00%	8.37%		-2.480289386		22.25	3.63%
7/3/1991	12.50%	8.36%		-2.481170322		22.15	4.14%
7/19/1991	12.10%	8.34%		-2.484421541		21.55	3.76%
8/1/1991	12.90%	8.32%		-2.486808759		20.89	4.58%
8/16/1991	13.20%	8.29%		-2.490493686		20.12	4.91%
9/27/1991	12.50%	8.23%		-2.496936101		19.02	4.27%
9/30/1991	12.25%	8.23%		-2.49722421		18.99	4.02%
10/17/1991	13.00%	8.20%		-2.500713128		18.47	4.80%
10/23/1991	12.50%	8.20%		-2.501422183		18.20	4.30%
10/23/1991	12.55%	8.20%		-2.501422183		18.20	4.35%
10/31/1991	11.80%	8.19%		-2.502275923		17.68	3.61%
11/1/1991	12.00%	8.19%		-2.502450195		17.63	3.81%
11/5/1991	12.25%	8.19%		-2.502725164		17.55	4.06%
11/12/1991	12.50%	8.18%		-2.503292528		17.35	4.32%
11/12/1991	13.25%	8.18%		-2.503292528		17.35	5.07%
11/25/1991	12.40%	8.18%		-2.503712733		17.21	4.22%
11/26/1991	12.50%	8.18%		-2.503769265		17.20	4.32%
11/26/1991	11.60%	8.18%		-2.503769265		17.20	3.42%
11/27/1991	12.10%	8.18%		-2.503814739		17.19	3.92%
12/18/1991	12.25%	8.15%		-2.507331083		17.07	4.10%
12/19/1991	12.60%	8.15%		-2.507721524		17.06	4.45%
12/19/1991	12.80%	8.15%		-2.507721524		17.06	4.65%
12/20/1991	12.65%	8.14%		-2.508180009		17.04	4.51%
1/9/1992	12.80%	8.09%		-2.51476261		17.13	4.71%
1/16/1992	12.75%	8.07%		-2.516799408		17.14	4.68%
1/21/1992	12.00%	8.06%		-2.517809082		17.12	3.94%
1/22/1992	13.00%	8.06%		-2.518107633		17.10	4.94%
1/27/1992	12.65%	8.05%		-2.519087429		17.09	4.60%
1/31/1992	12.00%	8.04%		-2.520318057		17.12	3.96%
2/11/1992	12.40%	8.03%		-2.522191565		17.16	4.37%
2/25/1992	12.50%	8.01%		-2.524420455		17.14	4.49%
3/16/1992	11.43%	7.98%		-2.5279667		17.25	3.45%
3/18/1992	12.28%	7.98%		-2.528600856		17.26	4.30%
4/2/1992	12.10%	7.95%		-2.532341542		17.24	4.15%
4/9/1992	11.45%	7.93%		-2.534038199		17.24	3.52%
4/10/1992	11.50%	7.93%		-2.534424003		17.23	3.57%
4/14/1992	11.50%	7.92%		-2.535249959		17.21	3.58%
5/5/1992	11.50%	7.89%		-2.539367717		17.08	3.61%
5/12/1992	12.46%	7.88%		-2.540491605		17.09	4.58%
5/12/1992	11.87%	7.88%		-2.540491605		17.09	3.99%
6/1/1992	12.30%	7.86%		-2.542849882		17.02	4.44%
6/12/1992	10.90%	7.85%		-2.544044864		16.97	3.05%
6/26/1992	12.35%	7.85%		-2.544922989		16.91	4.50%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Moody's Utility Baa Yield	LN(30-Year Treasury)	Moody's Utility Baa Credit Spread	VIX	Risk Premium
6/29/1992	11.00%	7.85%		-2.545003672		16.88	3.15%
6/30/1992	13.00%	7.85%		-2.545063228		16.86	5.15%
7/13/1992	13.50%	7.84%		-2.546223031		16.78	5.66%
7/13/1992	11.90%	7.84%		-2.546223031		16.78	4.06%
7/22/1992	11.20%	7.83%		-2.547220512		16.65	3.37%
8/3/1992	12.00%	7.81%		-2.550005891		16.52	4.19%
8/6/1992	12.50%	7.80%		-2.550979453		16.48	4.70%
9/22/1992	12.00%	7.71%		-2.562150915		15.88	4.29%
9/28/1992	11.40%	7.71%		-2.563005971		15.78	3.69%
9/30/1992	11.75%	7.71%		-2.563248543		15.75	4.04%
10/2/1992	13.00%	7.70%		-2.563503569		15.74	5.30%
10/12/1992	12.20%	7.70%		-2.563555104		15.85	4.50%
10/16/1992	13.16%	7.71%		-2.563267456		15.82	5.45%
10/30/1992	11.75%	7.71%		-2.563084214		15.75	4.04%
11/3/1992	12.00%	7.71%		-2.56315855		15.74	4.29%
12/3/1992	11.85%	7.68%		-2.566695907		15.36	4.17%
12/15/1992	11.00%	7.66%		-2.569018479		15.17	3.34%
12/16/1992	11.90%	7.66%		-2.569326814		15.14	4.24%
12/16/1992	12.40%	7.66%		-2.569326814		15.14	4.74%
12/17/1992	12.00%	7.66%		-2.569679219		15.10	4.34%
12/22/1992	12.40%	7.65%		-2.571003981		14.99	4.75%
12/22/1992	12.30%	7.65%		-2.571003981		14.99	4.65%
12/29/1992	12.25%	7.63%	8.61%	-2.573127127	0.98%	14.86	4.62%
12/30/1992	12.00%	7.63%	8.61%	-2.573498663	0.98%	14.84	4.37%
12/31/1992	11.90%	7.62%	8.61%	-2.573859792	0.99%	14.82	4.28%
1/12/1993	12.00%	7.61%	8.62%	-2.5762929	1.01%	14.72	4.39%
1/21/1993	11.25%	7.59%	8.61%	-2.578757112	1.02%	14.52	3.66%
2/2/1993	11.40%	7.56%	8.56%	-2.582792324	1.01%	14.35	3.84%
2/15/1993	12.30%	7.52%	8.52%	-2.587853331	1.00%	14.22	4.78%
2/24/1993	11.90%	7.49%	8.48%	-2.591873816	0.99%	14.18	4.41%
2/26/1993	11.80%	7.48%	8.46%	-2.593142317	0.98%	14.16	4.32%
2/26/1993	12.20%	7.48%	8.46%	-2.593142317	0.98%	14.16	4.72%
4/23/1993	11.75%	7.29%	8.29%	-2.619128589	1.00%	13.85	4.46%
5/11/1993	11.75%	7.24%	8.26%	-2.62487387	1.02%	13.86	4.51%
5/14/1993	11.50%	7.24%	8.26%	-2.625954403	1.02%	13.87	4.26%
5/25/1993	11.50%	7.22%	8.26%	-2.627704331	1.04%	13.87	4.28%
5/28/1993	11.00%	7.22%	8.26%	-2.628492033	1.04%	13.84	3.78%
6/3/1993	12.00%	7.21%	8.26%	-2.629953568	1.05%	13.83	4.79%
6/16/1993	11.50%	7.19%	8.24%	-2.633023609	1.06%	13.77	4.31%
6/18/1993	12.10%	7.18%	8.24%	-2.633671358	1.06%	13.77	4.92%
6/25/1993	11.67%	7.17%	8.23%	-2.635647271	1.06%	13.74	4.50%
7/21/1993	11.38%	7.10%	8.20%	-2.64572959	1.10%	13.42	4.28%
7/23/1993	10.46%	7.09%	8.16%	-2.646920829	1.08%	13.34	3.37%
8/24/1993	11.50%	6.95%	8.13%	-2.665744765	1.18%	12.79	4.55%
9/21/1993	10.50%	6.80%	8.05%	-2.687542088	1.25%	12.72	3.70%
9/29/1993	11.47%	6.76%	8.03%	-2.693671658	1.27%	12.73	4.71%
9/30/1993	11.60%	6.76%	8.03%	-2.694664066	1.27%	12.74	4.84%
11/2/1993	10.80%	6.60%	7.89%	-2.718055616	1.29%	12.67	4.20%
11/12/1993	12.00%	6.56%	7.86%	-2.723624369	1.30%	12.76	5.44%
11/26/1993	11.00%	6.52%	7.83%	-2.730429154	1.31%	12.85	4.48%
12/14/1993	10.55%	6.48%	7.80%	-2.736143407	1.32%	12.75	4.07%
12/16/1993	10.60%	6.48%	7.80%	-2.736836716	1.32%	12.72	4.12%
12/21/1993	11.30%	6.47%	7.80%	-2.738096605	1.33%	12.66	4.83%
1/4/1994	10.07%	6.44%	7.78%	-2.742426307	1.34%	12.49	3.63%
1/13/1994	11.00%	6.42%	7.77%	-2.746265671	1.35%	12.45	4.58%
1/21/1994	11.00%	6.40%	7.75%	-2.748645306	1.35%	12.39	4.60%
1/28/1994	11.35%	6.39%	7.74%	-2.750446141	1.35%	12.37	4.96%
2/3/1994	11.40%	6.38%	7.73%	-2.75225574	1.35%	12.34	5.02%
2/17/1994	10.60%	6.36%	7.71%	-2.755429452	1.35%	12.38	4.24%
2/25/1994	11.25%	6.35%	7.70%	-2.756899777	1.36%	12.39	4.90%
2/25/1994	12.00%	6.35%	7.70%	-2.756899777	1.36%	12.39	5.65%
3/1/1994	11.00%	6.35%	7.70%	-2.757370833	1.36%	12.40	4.65%
3/4/1994	11.00%	6.34%	7.70%	-2.757695555	1.36%	12.43	4.66%
4/25/1994	11.00%	6.40%	7.74%	-2.74819011	1.33%	13.03	4.60%
5/10/1994	11.75%	6.44%	7.77%	-2.741906094	1.32%	13.20	5.31%
5/13/1994	10.50%	6.46%	7.78%	-2.739522199	1.32%	13.25	4.04%
6/3/1994	11.00%	6.54%	7.84%	-2.727421288	1.30%	13.32	4.46%
6/27/1994	11.40%	6.65%	7.94%	-2.710605473	1.29%	13.42	4.75%
8/5/1994	12.75%	6.88%	8.15%	-2.676571985	1.27%	13.42	5.87%
10/31/1994	10.00%	7.33%	8.54%	-2.613065108	1.21%	13.77	2.67%
11/9/1994	10.85%	7.40%	8.60%	-2.604267563	1.20%	13.94	3.45%
11/9/1994	10.85%	7.40%	8.60%	-2.604267563	1.20%	13.94	3.45%
11/18/1994	11.20%	7.46%	8.65%	-2.59623401	1.20%	14.12	3.74%
11/22/1994	11.60%	7.47%	8.67%	-2.594037077	1.20%	14.14	4.13%
11/28/1994	11.06%	7.50%	8.69%	-2.590418601	1.20%	14.20	3.56%
12/8/1994	11.70%	7.55%	8.75%	-2.584071324	1.21%	14.29	4.15%
12/8/1994	11.50%	7.55%	8.75%	-2.584071324	1.21%	14.29	3.95%
12/14/1994	10.95%	7.57%	8.78%	-2.581380139	1.21%	14.28	3.38%
12/15/1994	11.50%	7.57%	8.78%	-2.580740162	1.21%	14.26	3.93%
12/19/1994	11.50%	7.58%	8.80%	-2.579505183	1.21%	14.24	3.92%
12/28/1994	12.15%	7.61%	8.83%	-2.575147209	1.21%	14.14	4.54%
1/9/1995	12.28%	7.64%	8.87%	-2.571310299	1.22%	14.14	4.64%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Moody's Utility Baa Yield	LN(30-Year Treasury)	Moody's Utility Baa Credit Spread	VIX	Risk Premium
1/31/1995	11.00%	7.69%	8.93%	-2.565244175	1.24%	13.71	3.31%
2/10/1995	12.60%	7.70%	8.95%	-2.563744305	1.25%	13.56	4.90%
2/17/1995	11.90%	7.70%	8.96%	-2.563497046	1.26%	13.49	4.20%
3/9/1995	11.50%	7.72%	8.98%	-2.561774453	1.26%	13.37	3.78%
3/20/1995	12.00%	7.72%	8.98%	-2.561279667	1.26%	13.35	4.28%
3/23/1995	12.81%	7.72%	8.99%	-2.561193104	1.27%	13.32	5.09%
3/29/1995	11.60%	7.72%	8.99%	-2.561390321	1.27%	13.31	3.88%
4/6/1995	11.10%	7.72%	8.99%	-2.561975041	1.28%	13.30	3.38%
4/7/1995	11.00%	7.71%	8.99%	-2.562117041	1.28%	13.28	3.29%
4/19/1995	11.00%	7.70%	8.99%	-2.563551842	1.29%	13.20	3.30%
5/12/1995	11.63%	7.68%	8.97%	-2.566903376	1.29%	13.21	3.95%
5/25/1995	11.20%	7.65%	8.95%	-2.570704328	1.30%	13.22	3.55%
6/9/1995	11.25%	7.60%	8.91%	-2.576999458	1.31%	13.26	3.65%
6/21/1995	12.25%	7.56%	8.88%	-2.582523025	1.32%	13.24	4.69%
6/30/1995	11.10%	7.51%	8.85%	-2.588289223	1.33%	13.20	3.59%
9/11/1995	11.30%	7.20%	8.58%	-2.630863753	1.38%	12.48	4.10%
9/27/1995	11.50%	7.12%	8.50%	-2.642117081	1.38%	12.24	4.38%
9/27/1995	11.75%	7.12%	8.50%	-2.642117081	1.38%	12.24	4.63%
9/27/1995	11.30%	7.12%	8.50%	-2.642117081	1.38%	12.24	4.18%
9/29/1995	11.00%	7.11%	8.49%	-2.643930188	1.38%	12.24	3.89%
11/9/1995	12.36%	6.89%	8.30%	-2.674546417	1.40%	12.47	5.47%
11/9/1995	11.38%	6.89%	8.30%	-2.674546417	1.40%	12.47	4.49%
11/17/1995	11.00%	6.85%	8.26%	-2.680612738	1.41%	12.51	4.15%
12/4/1995	11.35%	6.78%	8.21%	-2.69155484	1.43%	12.52	4.57%
12/11/1995	11.40%	6.74%	8.18%	-2.697079693	1.44%	12.52	4.66%
12/20/1995	11.60%	6.69%	8.13%	-2.704042664	1.44%	12.50	4.91%
12/27/1995	12.00%	6.66%	8.11%	-2.709184261	1.45%	12.48	5.34%
2/5/1996	12.25%	6.48%	7.97%	-2.737087325	1.50%	12.63	5.77%
3/29/1996	10.67%	6.42%	7.92%	-2.746308744	1.50%	13.49	4.25%
4/8/1996	11.00%	6.42%	7.92%	-2.745813123	1.50%	13.63	4.58%
4/11/1996	12.59%	6.43%	7.93%	-2.74496808	1.51%	13.74	6.16%
4/11/1996	12.59%	6.43%	7.93%	-2.74496808	1.51%	13.74	6.16%
4/24/1996	11.25%	6.43%	7.95%	-2.744033106	1.51%	13.93	4.82%
4/30/1996	11.00%	6.43%	7.95%	-2.744203463	1.52%	13.99	4.57%
5/13/1996	11.00%	6.44%	7.97%	-2.743373053	1.53%	14.15	4.56%
5/23/1996	11.25%	6.43%	7.98%	-2.743837779	1.54%	14.24	4.82%
6/25/1996	11.25%	6.48%	8.01%	-2.736832837	1.53%	14.73	4.77%
6/27/1996	11.20%	6.48%	8.01%	-2.736140306	1.53%	14.77	4.72%
8/12/1996	10.40%	6.57%	8.09%	-2.722275526	1.51%	15.35	3.83%
9/27/1996	11.00%	6.71%	8.19%	-2.701473883	1.48%	15.98	4.29%
10/16/1996	12.25%	6.76%	8.22%	-2.693650854	1.46%	16.22	5.49%
11/5/1996	11.00%	6.81%	8.25%	-2.686455654	1.44%	16.44	4.19%
11/26/1996	11.30%	6.83%	8.27%	-2.683157094	1.43%	16.58	4.47%
12/18/1996	11.75%	6.84%	8.27%	-2.683065193	1.44%	16.80	4.91%
12/31/1996	11.50%	6.83%	8.27%	-2.683536548	1.44%	16.84	4.67%
1/3/1997	10.70%	6.83%	8.27%	-2.683469618	1.43%	16.85	3.87%
2/13/1997	11.80%	6.82%	8.24%	-2.684796545	1.42%	17.23	4.98%
2/20/1997	11.80%	6.82%	8.23%	-2.685897396	1.42%	17.29	4.98%
3/31/1997	10.02%	6.80%	8.21%	-2.688051022	1.40%	17.83	3.22%
4/2/1997	11.65%	6.80%	8.20%	-2.687962365	1.40%	17.86	4.85%
4/28/1997	11.50%	6.81%	8.20%	-2.686810534	1.39%	18.20	4.69%
4/29/1997	11.70%	6.81%	8.20%	-2.686853335	1.39%	18.20	4.89%
7/17/1997	12.00%	6.77%	8.14%	-2.692346266	1.37%	19.04	5.23%
12/12/1997	11.00%	6.60%	7.96%	-2.717610327	1.36%	22.58	4.40%
12/23/1997	11.12%	6.57%	7.88%	-2.722946277	1.31%	22.85	4.55%
2/2/1998	12.75%	6.39%	7.80%	-2.750652989	1.41%	23.45	6.36%
3/2/1998	11.25%	6.28%	7.71%	-2.76702993	1.42%	23.41	4.97%
3/6/1998	10.75%	6.27%	7.69%	-2.769940573	1.43%	23.39	4.48%
3/20/1998	10.50%	6.22%	7.64%	-2.777213672	1.42%	23.36	4.28%
4/30/1998	12.20%	6.12%	7.54%	-2.79337985	1.42%	23.68	6.08%
7/10/1998	11.40%	5.94%	7.39%	-2.824188014	1.46%	23.14	5.46%
9/15/1998	11.90%	5.78%	7.30%	-2.850769112	1.52%	23.80	6.12%
11/30/1998	12.60%	5.58%	7.26%	-2.886003023	1.68%	26.06	7.02%
12/10/1998	12.20%	5.54%	7.25%	-2.89315573	1.71%	26.34	6.66%
12/17/1998	12.10%	5.52%	7.25%	-2.897314092	1.73%	26.58	6.58%
2/5/1999	10.30%	5.38%	7.24%	-2.922553735	1.86%	27.54	4.92%
3/4/1999	10.50%	5.34%	7.25%	-2.930709887	1.91%	28.19	5.16%
4/6/1999	10.94%	5.32%	7.28%	-2.933623209	1.96%	28.47	5.62%
7/29/1999	10.75%	5.52%	7.54%	-2.897188406	2.02%	25.77	5.23%
9/23/1999	10.75%	5.70%	7.72%	-2.864128491	2.02%	24.95	5.05%
11/17/1999	11.10%	5.90%	7.90%	-2.830538984	2.00%	24.31	5.20%
1/7/2000	11.50%	6.05%	8.03%	-2.805234019	1.98%	23.49	5.45%
1/7/2000	11.50%	6.05%	8.03%	-2.805234019	1.98%	23.49	5.45%
2/17/2000	10.60%	6.17%	8.15%	-2.784697924	1.98%	23.35	4.43%
3/28/2000	11.25%	6.20%	8.23%	-2.781387114	2.03%	22.96	5.05%
5/24/2000	11.00%	6.18%	8.34%	-2.783420237	2.16%	23.84	4.82%
7/18/2000	12.20%	6.16%	8.40%	-2.787689912	2.24%	23.36	6.04%
9/29/2000	11.16%	6.03%	8.42%	-2.808572357	2.39%	22.44	5.13%
11/28/2000	12.90%	5.89%	8.40%	-2.832402316	2.51%	22.97	7.01%
11/30/2000	12.10%	5.88%	8.40%	-2.83326822	2.52%	23.03	6.22%
1/23/2001	11.25%	5.79%	8.33%	-2.848668238	2.54%	23.49	5.46%
2/8/2001	11.50%	5.77%	8.31%	-2.852595652	2.54%	23.15	5.73%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Moody's Utility Baa Yield	LN(30-Year Treasury)	Moody's Utility Baa Credit Spread	VIX	Risk Premium
5/8/2001	10.75%	5.62%	8.12%	-2.878885019	2.50%	24.39	5.13%
6/26/2001	11.00%	5.62%	8.08%	-2.878717819	2.46%	24.93	5.38%
7/25/2001	11.02%	5.60%	8.06%	-2.882979849	2.46%	25.07	5.42%
7/25/2001	11.02%	5.60%	8.06%	-2.882979849	2.46%	25.07	5.42%
7/31/2001	11.00%	5.59%	8.05%	-2.883621127	2.46%	24.96	5.41%
8/31/2001	10.50%	5.56%	8.01%	-2.88991106	2.45%	24.49	4.94%
9/7/2001	10.75%	5.55%	8.01%	-2.890944082	2.45%	24.53	5.20%
9/10/2001	11.00%	5.55%	8.00%	-2.8911758	2.45%	24.55	5.45%
9/20/2001	10.00%	5.55%	8.00%	-2.891508082	2.45%	24.84	4.45%
10/24/2001	10.30%	5.54%	8.00%	-2.892931715	2.46%	25.69	4.76%
11/28/2001	10.60%	5.49%	8.01%	-2.902140335	2.52%	26.17	5.11%
12/3/2001	12.88%	5.49%	8.01%	-2.902751896	2.52%	26.22	7.39%
12/20/2001	12.50%	5.50%	8.03%	-2.900883598	2.53%	26.14	7.00%
1/22/2002	10.00%	5.50%	8.06%	-2.901113059	2.56%	25.49	4.50%
3/27/2002	10.10%	5.45%	8.10%	-2.910256497	2.65%	24.65	4.65%
4/22/2002	11.80%	5.45%	8.12%	-2.909549875	2.67%	24.49	6.35%
5/28/2002	10.17%	5.46%	8.15%	-2.906892594	2.69%	24.29	4.71%
6/10/2002	12.00%	5.47%	8.17%	-2.905117339	2.69%	24.33	6.53%
6/18/2002	11.16%	5.48%	8.17%	-2.904826571	2.70%	24.42	5.68%
6/20/2002	11.00%	5.48%	8.18%	-2.904761693	2.70%	24.46	5.52%
6/20/2002	12.30%	5.48%	8.18%	-2.904761693	2.70%	24.46	6.82%
7/15/2002	11.00%	5.48%	8.19%	-2.904867042	2.71%	24.08	5.52%
9/12/2002	12.30%	5.45%	8.14%	-2.909336723	2.69%	25.15	6.85%
9/26/2002	10.45%	5.41%	8.12%	-2.916605702	2.70%	25.82	5.04%
12/4/2002	11.55%	5.29%	8.04%	-2.939312994	2.75%	28.03	6.26%
12/13/2002	11.75%	5.27%	8.02%	-2.943691118	2.75%	28.29	6.48%
12/20/2002	11.40%	5.25%	8.01%	-2.947529791	2.76%	28.48	6.15%
1/8/2003	11.10%	5.19%	7.96%	-2.958831509	2.77%	28.93	5.91%
1/31/2003	12.45%	5.13%	7.89%	-2.970990735	2.76%	29.66	7.32%
2/28/2003	12.30%	5.04%	7.79%	-2.987360779	2.75%	30.74	7.26%
3/6/2003	10.75%	5.02%	7.76%	-2.991151425	2.74%	30.99	5.73%
3/7/2003	9.96%	5.02%	7.75%	-2.992064936	2.74%	31.04	4.94%
3/20/2003	12.00%	4.98%	7.70%	-2.999369836	2.71%	31.54	7.02%
4/3/2003	12.00%	4.95%	7.63%	-3.00477383	2.68%	31.74	7.05%
4/15/2003	11.15%	4.93%	7.59%	-3.008823419	2.65%	31.70	6.22%
6/25/2003	10.75%	4.79%	7.24%	-3.038054451	2.44%	28.27	5.96%
6/26/2003	10.75%	4.79%	7.23%	-3.038241201	2.44%	28.19	5.96%
7/9/2003	9.75%	4.79%	7.18%	-3.038725594	2.39%	27.44	4.96%
7/16/2003	9.75%	4.79%	7.16%	-3.038182058	2.36%	26.97	4.96%
7/25/2003	9.50%	4.79%	7.12%	-3.037864695	2.33%	26.27	4.71%
8/26/2003	10.50%	4.83%	7.02%	-3.030347336	2.19%	24.78	5.67%
12/17/2003	9.85%	4.94%	6.75%	-3.008547812	1.82%	20.47	4.91%
12/17/2003	10.70%	4.94%	6.75%	-3.008547812	1.82%	20.47	5.76%
12/18/2003	11.50%	4.94%	6.75%	-3.008306374	1.81%	20.40	6.56%
12/19/2003	12.00%	4.94%	6.75%	-3.008139377	1.81%	20.31	7.06%
12/19/2003	12.00%	4.94%	6.75%	-3.008139377	1.81%	20.31	7.06%
12/23/2003	10.50%	4.94%	6.74%	-3.007905668	1.80%	20.15	5.56%
1/13/2004	12.00%	4.95%	6.71%	-3.006044052	1.76%	19.31	7.05%
3/2/2004	10.75%	4.99%	6.63%	-2.997661168	1.63%	18.17	5.76%
3/26/2004	10.25%	5.02%	6.60%	-2.990888746	1.58%	17.96	5.23%
4/5/2004	11.25%	5.03%	6.60%	-2.98876185	1.57%	17.85	6.22%
5/18/2004	10.50%	5.07%	6.61%	-2.981503433	1.54%	17.43	5.43%
5/25/2004	10.25%	5.07%	6.60%	-2.980961895	1.53%	17.36	5.18%
5/27/2004	10.25%	5.08%	6.60%	-2.980817422	1.52%	17.33	5.17%
6/2/2004	11.22%	5.08%	6.59%	-2.980403032	1.52%	17.30	6.14%
6/30/2004	10.50%	5.10%	6.57%	-2.975822055	1.47%	16.96	5.40%
6/30/2004	10.50%	5.10%	6.57%	-2.975822055	1.47%	16.96	5.40%
7/16/2004	11.60%	5.11%	6.56%	-2.974028017	1.45%	16.69	6.49%
8/25/2004	10.25%	5.10%	6.53%	-2.975274132	1.43%	16.53	5.15%
9/9/2004	10.40%	5.10%	6.51%	-2.976412668	1.42%	16.35	5.30%
11/9/2004	10.50%	5.07%	6.43%	-2.982694322	1.37%	15.94	5.43%
11/23/2004	11.00%	5.06%	6.42%	-2.983091699	1.36%	15.75	5.94%
12/14/2004	10.97%	5.07%	6.42%	-2.982380897	1.35%	15.59	5.90%
12/21/2004	11.25%	5.07%	6.41%	-2.981810537	1.34%	15.51	6.18%
12/21/2004	11.50%	5.07%	6.41%	-2.981810537	1.34%	15.51	6.43%
12/22/2004	10.70%	5.07%	6.41%	-2.981683878	1.34%	15.47	5.63%
12/22/2004	11.50%	5.07%	6.41%	-2.981683878	1.34%	15.47	6.43%
12/29/2004	9.85%	5.08%	6.41%	-2.980600108	1.34%	15.30	4.77%
1/6/2005	10.70%	5.08%	6.41%	-2.980446978	1.33%	15.12	5.62%
2/18/2005	10.30%	4.98%	6.33%	-3.000646136	1.35%	14.59	5.32%
2/25/2005	10.50%	4.96%	6.31%	-3.004643114	1.35%	14.46	5.54%
3/10/2005	11.00%	4.93%	6.27%	-3.010737966	1.34%	14.18	6.07%
3/24/2005	10.30%	4.89%	6.23%	-3.017006419	1.34%	14.05	5.41%
4/4/2005	10.00%	4.87%	6.21%	-3.021138837	1.33%	14.02	5.13%
4/7/2005	10.25%	4.87%	6.19%	-3.022686157	1.33%	14.00	5.38%
5/18/2005	10.25%	4.78%	6.08%	-3.040911423	1.30%	13.89	5.47%
5/25/2005	10.75%	4.76%	6.06%	-3.044157534	1.30%	13.75	5.99%
5/26/2005	9.75%	4.76%	6.06%	-3.044786764	1.30%	13.71	4.99%
6/1/2005	9.75%	4.75%	6.05%	-3.047722875	1.30%	13.64	5.00%
7/19/2005	11.50%	4.64%	5.95%	-3.069666948	1.31%	13.17	6.86%
8/5/2005	11.75%	4.62%	5.93%	-3.074217217	1.31%	12.94	7.13%
8/15/2005	10.13%	4.61%	5.92%	-3.076430355	1.31%	12.84	5.52%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Moody's Utility Baa Yield	LN(30-Year Treasury)	Moody's Utility Baa Credit Spread	VIX	Risk Premium
9/28/2005	10.00%	4.54%	5.87%	-3.091984314	1.32%	12.77	5.46%
10/4/2005	10.75%	4.53%	5.86%	-3.093410813	1.33%	12.78	6.22%
12/12/2005	11.00%	4.55%	5.93%	-3.090657422	1.38%	12.97	6.45%
12/13/2005	10.75%	4.55%	5.93%	-3.090774901	1.38%	12.96	6.20%
12/21/2005	10.29%	4.54%	5.93%	-3.091653062	1.39%	12.91	5.75%
12/21/2005	10.40%	4.54%	5.93%	-3.091653062	1.39%	12.91	5.86%
12/22/2005	11.15%	4.54%	5.94%	-3.091878642	1.39%	12.90	6.61%
12/22/2005	11.00%	4.54%	5.94%	-3.091878642	1.39%	12.90	6.46%
12/28/2005	10.00%	4.54%	5.94%	-3.092997227	1.40%	12.87	5.46%
12/28/2005	10.00%	4.54%	5.94%	-3.092997227	1.40%	12.87	5.46%
1/5/2006	11.00%	4.53%	5.93%	-3.094948	1.41%	12.82	6.47%
1/27/2006	9.75%	4.52%	5.94%	-3.096670977	1.42%	12.72	5.23%
3/3/2006	10.39%	4.53%	5.96%	-3.094156765	1.43%	12.39	5.86%
4/17/2006	10.20%	4.62%	6.05%	-3.075605406	1.44%	12.34	5.58%
4/26/2006	10.60%	4.64%	6.08%	-3.070230581	1.44%	12.34	5.96%
5/17/2006	11.60%	4.69%	6.14%	-3.058721844	1.45%	12.47	6.91%
6/6/2006	10.00%	4.75%	6.19%	-3.047813395	1.44%	12.72	5.25%
6/27/2006	10.75%	4.80%	6.25%	-3.036302206	1.45%	13.07	5.95%
7/6/2006	10.20%	4.83%	6.28%	-3.031062883	1.45%	13.12	5.37%
7/24/2006	9.60%	4.86%	6.32%	-3.02480261	1.46%	13.29	4.74%
7/26/2006	10.50%	4.86%	6.33%	-3.023940481	1.47%	13.29	5.64%
7/28/2006	10.05%	4.87%	6.33%	-3.022998842	1.47%	13.27	5.18%
8/23/2006	9.55%	4.89%	6.36%	-3.018275015	1.47%	13.20	4.66%
9/1/2006	10.54%	4.90%	6.36%	-3.016566705	1.47%	13.19	5.64%
9/14/2006	10.00%	4.91%	6.37%	-3.014511628	1.47%	13.25	5.09%
10/6/2006	9.67%	4.92%	6.37%	-3.011845109	1.45%	13.30	4.75%
11/21/2006	10.08%	4.95%	6.39%	-3.005242783	1.44%	13.12	5.13%
11/21/2006	10.08%	4.95%	6.39%	-3.005242783	1.44%	13.12	5.13%
11/21/2006	10.12%	4.95%	6.39%	-3.005242783	1.44%	13.12	5.17%
12/1/2006	10.50%	4.96%	6.38%	-3.004548713	1.43%	13.07	5.54%
12/1/2006	10.25%	4.96%	6.38%	-3.004548713	1.43%	13.07	5.29%
12/7/2006	10.75%	4.96%	6.38%	-3.004570614	1.43%	13.06	5.79%
12/21/2006	10.90%	4.95%	6.38%	-3.004971508	1.42%	12.98	5.95%
12/21/2006	11.25%	4.95%	6.38%	-3.004971508	1.42%	12.98	6.30%
12/22/2006	10.25%	4.95%	6.38%	-3.00491217	1.42%	12.98	5.30%
1/5/2007	10.00%	4.95%	6.37%	-3.00518353	1.42%	12.98	5.05%
1/11/2007	10.10%	4.95%	6.37%	-3.00597145	1.42%	12.98	5.15%
1/11/2007	10.10%	4.95%	6.37%	-3.00597145	1.42%	12.98	5.15%
1/11/2007	10.90%	4.95%	6.37%	-3.00597145	1.42%	12.98	5.95%
1/12/2007	10.10%	4.95%	6.37%	-3.006139	1.42%	12.98	5.15%
1/13/2007	10.40%	4.95%	6.36%	-3.006139	1.41%	12.98	5.45%
1/19/2007	10.80%	4.94%	6.36%	-3.00724106	1.42%	12.96	5.86%
3/21/2007	11.35%	4.86%	6.26%	-3.023136318	1.40%	12.81	6.49%
3/22/2007	9.75%	4.86%	6.26%	-3.023543588	1.40%	12.78	4.89%
5/15/2007	10.00%	4.81%	6.18%	-3.035131286	1.38%	12.22	5.19%
5/17/2007	10.25%	4.80%	6.18%	-3.035523183	1.38%	12.21	5.45%
5/17/2007	10.25%	4.80%	6.18%	-3.035523183	1.38%	12.21	5.45%
5/22/2007	10.20%	4.80%	6.18%	-3.035813023	1.37%	12.19	5.40%
5/22/2007	10.50%	4.80%	6.18%	-3.035813023	1.37%	12.19	5.70%
5/23/2007	10.70%	4.80%	6.18%	-3.035807374	1.37%	12.18	5.90%
5/25/2007	9.67%	4.80%	6.18%	-3.035748374	1.37%	12.16	4.87%
6/15/2007	9.90%	4.82%	6.18%	-3.032185058	1.36%	12.27	5.08%
6/21/2007	10.20%	4.83%	6.19%	-3.030757034	1.36%	12.30	5.37%
6/22/2007	10.50%	4.83%	6.19%	-3.030419127	1.36%	12.31	5.67%
6/28/2007	10.75%	4.84%	6.19%	-3.028770569	1.35%	12.38	5.91%
7/12/2007	9.67%	4.86%	6.21%	-3.024328119	1.35%	12.56	4.81%
7/19/2007	10.00%	4.87%	6.21%	-3.023067835	1.35%	12.65	5.13%
7/19/2007	10.00%	4.87%	6.21%	-3.023067835	1.35%	12.65	5.13%
8/15/2007	10.40%	4.88%	6.24%	-3.020041442	1.36%	13.76	5.52%
10/9/2007	10.00%	4.91%	6.32%	-3.01403012	1.41%	15.94	5.09%
10/17/2007	9.10%	4.91%	6.32%	-3.013249941	1.41%	16.15	4.19%
10/31/2007	9.96%	4.90%	6.33%	-3.015111405	1.43%	16.62	5.06%
11/29/2007	10.90%	4.87%	6.34%	-3.022447269	1.47%	18.14	6.03%
12/6/2007	10.75%	4.86%	6.35%	-3.023872047	1.49%	18.45	5.89%
12/13/2007	9.96%	4.86%	6.36%	-3.024379313	1.50%	18.60	5.10%
12/14/2007	10.70%	4.86%	6.37%	-3.024419338	1.51%	18.62	5.84%
12/14/2007	10.80%	4.86%	6.37%	-3.024419338	1.51%	18.62	5.94%
12/19/2007	10.20%	4.86%	6.37%	-3.024925123	1.52%	18.74	5.34%
12/20/2007	10.20%	4.86%	6.37%	-3.025146904	1.52%	18.77	5.34%
12/20/2007	11.00%	4.86%	6.37%	-3.025146904	1.52%	18.77	6.14%
12/28/2007	10.25%	4.85%	6.39%	-3.026113672	1.54%	18.84	5.40%
12/31/2007	11.25%	4.85%	6.39%	-3.026472202	1.54%	18.88	6.40%
1/8/2008	10.75%	4.83%	6.39%	-3.029431558	1.56%	19.16	5.92%
1/17/2008	10.75%	4.81%	6.40%	-3.033564395	1.58%	19.51	5.94%
1/28/2008	9.40%	4.80%	6.40%	-3.037591447	1.60%	19.99	4.60%
1/30/2008	10.00%	4.79%	6.40%	-3.038613023	1.61%	20.14	5.21%
1/31/2008	10.71%	4.79%	6.40%	-3.039198674	1.61%	20.21	5.92%
2/29/2008	10.25%	4.75%	6.44%	-3.047449143	1.70%	21.45	5.50%
3/12/2008	10.25%	4.73%	6.46%	-3.052209146	1.73%	21.99	5.52%
3/25/2008	9.10%	4.68%	6.47%	-3.061558162	1.79%	22.55	4.42%
4/22/2008	10.25%	4.60%	6.49%	-3.078832624	1.89%	23.32	5.65%
4/24/2008	10.10%	4.60%	6.50%	-3.080067582	1.90%	23.35	5.50%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Moody's Utility Baa Yield	LN(30-Year Treasury)	Moody's Utility Baa Credit Spread	VIX	Risk Premium
5/1/2008	10.70%	4.58%	6.50%	-3.082615966	1.92%	23.46	6.12%
5/19/2008	11.00%	4.56%	6.52%	-3.087540151	1.96%	23.32	6.44%
5/27/2008	10.00%	4.55%	6.53%	-3.090159256	1.98%	23.18	5.45%
6/10/2008	10.70%	4.54%	6.55%	-3.091971478	2.01%	22.89	6.16%
6/27/2008	11.04%	4.54%	6.58%	-3.092903964	2.05%	22.73	6.50%
6/27/2008	10.50%	4.54%	6.58%	-3.092903964	2.05%	22.73	5.96%
7/10/2008	10.43%	4.52%	6.60%	-3.096262708	2.07%	22.88	5.91%
7/16/2008	9.40%	4.51%	6.60%	-3.09785137	2.09%	23.08	4.89%
7/30/2008	10.80%	4.51%	6.64%	-3.099343455	2.13%	23.33	6.29%
7/31/2008	10.70%	4.51%	6.64%	-3.09948303	2.13%	23.34	6.19%
8/11/2008	10.25%	4.50%	6.67%	-3.099990996	2.16%	23.37	5.75%
8/26/2008	10.18%	4.50%	6.70%	-3.101220659	2.20%	23.23	5.68%
9/10/2008	10.30%	4.50%	6.73%	-3.102089265	2.24%	23.01	5.80%
9/24/2008	10.65%	4.48%	6.77%	-3.105445296	2.29%	23.46	6.17%
9/24/2008	10.65%	4.48%	6.77%	-3.105445296	2.29%	23.46	6.17%
9/24/2008	10.65%	4.48%	6.77%	-3.105445296	2.29%	23.46	6.17%
9/30/2008	10.20%	4.47%	6.79%	-3.106880921	2.32%	23.77	5.73%
10/8/2008	10.15%	4.46%	6.83%	-3.109380865	2.37%	24.61	5.69%
11/13/2008	10.55%	4.45%	7.14%	-3.113307793	2.70%	29.58	6.10%
11/17/2008	10.20%	4.44%	7.17%	-3.113801229	2.73%	29.98	5.76%
12/1/2008	10.25%	4.39%	7.27%	-3.124869944	2.88%	31.79	5.86%
12/23/2008	11.00%	4.27%	7.40%	-3.153518936	3.13%	34.13	6.73%
12/29/2008	10.00%	4.24%	7.41%	-3.16118106	3.17%	34.34	5.76%
12/29/2008	10.20%	4.24%	7.41%	-3.16118106	3.17%	34.34	5.96%
12/31/2008	10.75%	4.22%	7.42%	-3.165299335	3.20%	34.47	6.53%
1/14/2009	10.50%	4.15%	7.48%	-3.182081347	3.33%	35.25	6.35%
1/21/2009	10.50%	4.11%	7.50%	-3.191026293	3.38%	35.81	6.39%
1/21/2009	10.50%	4.11%	7.50%	-3.191026293	3.38%	35.81	6.39%
1/21/2009	10.50%	4.11%	7.50%	-3.191026293	3.38%	35.81	6.39%
1/27/2009	10.76%	4.09%	7.52%	-3.196810512	3.43%	36.26	6.67%
1/30/2009	10.50%	4.07%	7.54%	-3.200583476	3.46%	36.58	6.43%
2/4/2009	8.75%	4.06%	7.55%	-3.203900576	3.49%	36.94	4.69%
3/4/2009	10.50%	3.96%	7.64%	-3.228968418	3.69%	39.59	6.54%
3/12/2009	11.50%	3.93%	7.68%	-3.237197803	3.75%	40.42	7.57%
4/2/2009	11.10%	3.85%	7.77%	-3.257597848	3.92%	42.04	7.25%
4/21/2009	10.61%	3.80%	7.83%	-3.270969095	4.04%	42.91	6.81%
4/24/2009	10.00%	3.78%	7.85%	-3.274149923	4.07%	43.10	6.22%
4/30/2009	11.25%	3.77%	7.87%	-3.277842627	4.10%	43.29	7.48%
5/4/2009	10.74%	3.77%	7.88%	-3.279318491	4.12%	43.40	6.97%
5/20/2009	10.25%	3.74%	7.92%	-3.286204298	4.18%	43.96	6.51%
5/28/2009	10.50%	3.74%	7.94%	-3.286261679	4.20%	44.24	6.76%
6/22/2009	10.00%	3.76%	7.98%	-3.280184058	4.22%	45.01	6.24%
6/24/2009	10.80%	3.76%	7.98%	-3.27948786	4.22%	45.06	7.04%
7/8/2009	10.63%	3.76%	7.98%	-3.279556337	4.22%	44.95	6.87%
7/17/2009	10.50%	3.77%	7.96%	-3.276804414	4.19%	44.55	6.73%
8/31/2009	10.25%	3.82%	7.63%	-3.265340673	3.81%	38.96	6.43%
10/14/2009	10.70%	4.02%	7.28%	-3.214483475	3.26%	33.90	6.68%
10/23/2009	10.88%	4.06%	7.22%	-3.203174858	3.15%	33.22	6.82%
11/2/2009	10.70%	4.10%	7.17%	-3.195312051	3.08%	32.57	6.60%
11/3/2009	10.70%	4.10%	7.16%	-3.194201474	3.06%	32.48	6.60%
11/24/2009	10.25%	4.16%	7.04%	-3.180528246	2.88%	30.89	6.09%
11/25/2009	10.75%	4.16%	7.03%	-3.179847438	2.87%	30.79	6.59%
11/30/2009	10.35%	4.17%	7.02%	-3.177361286	2.85%	30.58	6.18%
12/3/2009	10.50%	4.18%	6.99%	-3.175090026	2.82%	30.18	6.32%
12/7/2009	10.70%	4.19%	6.98%	-3.173207062	2.79%	29.90	6.51%
12/16/2009	11.00%	4.22%	6.93%	-3.165967328	2.71%	28.98	6.78%
12/16/2009	10.90%	4.22%	6.93%	-3.165967328	2.71%	28.98	6.68%
12/18/2009	10.40%	4.22%	6.91%	-3.164249054	2.69%	28.70	6.18%
12/18/2009	10.40%	4.22%	6.91%	-3.164249054	2.69%	28.70	6.18%
12/22/2009	10.20%	4.23%	6.90%	-3.162096838	2.66%	28.46	5.97%
12/22/2009	10.40%	4.23%	6.90%	-3.162096838	2.66%	28.46	6.17%
12/22/2009	10.40%	4.23%	6.90%	-3.162096838	2.66%	28.46	6.17%
12/30/2009	10.00%	4.26%	6.85%	-3.155121845	2.59%	27.91	5.74%
1/4/2010	10.80%	4.28%	6.84%	-3.151395302	2.56%	27.67	6.52%
1/11/2010	11.00%	4.31%	6.79%	-3.145305506	2.49%	27.09	6.69%
1/26/2010	10.13%	4.35%	6.69%	-3.134367263	2.34%	26.08	5.78%
1/27/2010	10.40%	4.36%	6.68%	-3.133477673	2.32%	26.01	6.04%
1/27/2010	10.40%	4.36%	6.68%	-3.133477673	2.32%	26.01	6.04%
1/27/2010	10.70%	4.36%	6.68%	-3.133477673	2.32%	26.01	6.34%
2/9/2010	9.80%	4.38%	6.60%	-3.127793047	2.21%	25.43	5.42%
2/18/2010	10.60%	4.40%	6.55%	-3.123777636	2.15%	25.05	6.20%
2/24/2010	10.18%	4.41%	6.52%	-3.121686872	2.11%	24.80	5.77%
3/2/2010	9.63%	4.41%	6.49%	-3.121269972	2.08%	24.54	5.22%
3/4/2010	10.50%	4.41%	6.47%	-3.120908261	2.06%	24.43	6.09%
3/5/2010	10.50%	4.41%	6.46%	-3.120784568	2.05%	24.37	6.09%
3/11/2010	11.90%	4.42%	6.44%	-3.120123654	2.02%	24.10	7.48%
3/17/2010	10.00%	4.41%	6.40%	-3.120488042	1.99%	23.85	5.59%
3/25/2010	10.15%	4.42%	6.36%	-3.119876023	1.94%	23.47	5.73%
4/2/2010	10.10%	4.43%	6.33%	-3.117231477	1.90%	23.15	5.67%
4/27/2010	10.00%	4.46%	6.26%	-3.110636567	1.80%	22.16	5.54%
4/29/2010	9.90%	4.46%	6.25%	-3.110494299	1.79%	22.11	5.44%
4/29/2010	10.06%	4.46%	6.25%	-3.110494299	1.79%	22.11	5.60%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Moody's Utility Baa Yield	LN(30-Year Treasury)	Moody's Utility Baa Credit Spread	VIX	Risk Premium
4/29/2010	10.26%	4.46%	6.25%	-3.110494299	1.79%	22.11	5.80%
5/12/2010	10.30%	4.45%	6.21%	-3.111299926	1.75%	22.26	5.85%
5/12/2010	10.30%	4.45%	6.21%	-3.111299926	1.75%	22.26	5.85%
5/28/2010	10.20%	4.44%	6.17%	-3.113932092	1.73%	22.81	5.76%
5/28/2010	10.10%	4.44%	6.17%	-3.113932092	1.73%	22.81	5.66%
6/7/2010	10.30%	4.44%	6.17%	-3.114055732	1.73%	23.00	5.86%
6/16/2010	10.00%	4.44%	6.17%	-3.114597301	1.73%	23.16	5.56%
6/28/2010	10.50%	4.43%	6.17%	-3.115717468	1.73%	23.19	6.07%
6/28/2010	9.67%	4.43%	6.17%	-3.115717468	1.73%	23.19	5.24%
6/30/2010	9.40%	4.43%	6.17%	-3.116340439	1.74%	23.30	4.97%
7/1/2010	10.25%	4.43%	6.17%	-3.116562245	1.74%	23.34	5.82%
7/15/2010	10.70%	4.43%	6.17%	-3.117118905	1.74%	23.43	6.27%
7/15/2010	10.53%	4.43%	6.17%	-3.117118905	1.74%	23.43	6.10%
7/30/2010	10.70%	4.41%	6.16%	-3.120221767	1.74%	23.39	6.29%
8/4/2010	10.50%	4.41%	6.15%	-3.120995743	1.74%	23.40	6.09%
8/6/2010	9.83%	4.41%	6.15%	-3.121498459	1.74%	23.41	5.42%
8/25/2010	9.90%	4.37%	6.10%	-3.130131006	1.73%	23.38	5.53%
9/3/2010	10.60%	4.35%	6.07%	-3.135016174	1.72%	23.44	6.25%
9/14/2010	10.70%	4.33%	6.06%	-3.139529881	1.73%	23.46	6.37%
9/16/2010	10.00%	4.32%	6.05%	-3.140935713	1.73%	23.44	5.68%
9/16/2010	10.00%	4.32%	6.05%	-3.140935713	1.73%	23.44	5.68%
9/30/2010	9.75%	4.28%	6.02%	-3.150230015	1.73%	23.47	5.47%
10/14/2010	10.35%	4.24%	5.98%	-3.160773329	1.74%	23.50	6.11%
10/28/2010	10.70%	4.21%	5.95%	-3.168341788	1.75%	23.55	6.49%
11/2/2010	10.38%	4.20%	5.95%	-3.17043425	1.75%	23.60	6.18%
11/4/2010	10.70%	4.19%	5.94%	-3.171543411	1.75%	23.54	6.51%
11/19/2010	10.20%	4.17%	5.93%	-3.176070512	1.76%	23.28	6.03%
11/22/2010	10.00%	4.17%	5.93%	-3.176584599	1.76%	23.24	5.83%
12/1/2010	10.13%	4.16%	5.92%	-3.180510957	1.76%	23.21	5.97%
12/6/2010	9.86%	4.15%	5.91%	-3.181566727	1.76%	23.18	5.71%
12/9/2010	10.25%	4.15%	5.91%	-3.182246769	1.76%	23.14	6.10%
12/13/2010	10.70%	4.15%	5.91%	-3.182883161	1.76%	23.13	6.55%
12/14/2010	10.13%	4.15%	5.91%	-3.183079988	1.76%	23.12	5.98%
12/15/2010	10.44%	4.15%	5.91%	-3.183167264	1.76%	23.12	6.29%
12/17/2010	10.00%	4.14%	5.90%	-3.183507953	1.76%	23.11	5.86%
12/20/2010	10.60%	4.14%	5.90%	-3.183684527	1.76%	23.10	6.46%
12/21/2010	10.30%	4.14%	5.90%	-3.18386368	1.76%	23.09	6.16%
12/27/2010	9.90%	4.14%	5.90%	-3.184538125	1.76%	23.07	5.76%
12/29/2010	11.15%	4.14%	5.90%	-3.185177677	1.76%	23.07	7.01%
1/5/2011	10.15%	4.13%	5.89%	-3.187112059	1.77%	23.08	6.02%
1/12/2011	10.30%	4.12%	5.89%	-3.188930455	1.77%	23.07	6.18%
1/13/2011	10.30%	4.12%	5.89%	-3.189224696	1.77%	23.06	6.18%
1/18/2011	10.00%	4.12%	5.88%	-3.189817587	1.77%	23.05	5.88%
1/20/2011	9.30%	4.12%	5.88%	-3.190121488	1.77%	23.06	5.18%
1/20/2011	10.13%	4.12%	5.88%	-3.190121488	1.77%	23.06	6.01%
1/31/2011	9.60%	4.11%	5.88%	-3.190920371	1.76%	23.12	5.49%
2/3/2011	10.00%	4.11%	5.88%	-3.190715033	1.76%	23.13	5.89%
2/25/2011	10.00%	4.14%	5.88%	-3.183839904	1.74%	22.58	5.86%
3/25/2011	9.80%	4.18%	5.87%	-3.175519517	1.70%	21.29	5.62%
3/30/2011	10.00%	4.18%	5.87%	-3.173985214	1.69%	21.16	5.82%
4/12/2011	10.00%	4.21%	5.86%	-3.167347489	1.65%	20.69	5.79%
4/25/2011	10.74%	4.23%	5.86%	-3.162361798	1.63%	20.17	6.51%
4/26/2011	9.67%	4.24%	5.86%	-3.161766449	1.62%	20.13	5.43%
4/27/2011	10.40%	4.24%	5.86%	-3.161170032	1.62%	20.08	6.16%
5/4/2011	10.00%	4.25%	5.85%	-3.159264664	1.61%	19.84	5.75%
5/4/2011	10.00%	4.25%	5.85%	-3.159264664	1.61%	19.84	5.75%
5/24/2011	10.50%	4.27%	5.85%	-3.153484574	1.58%	19.44	6.23%
6/8/2011	10.75%	4.30%	5.86%	-3.145562201	1.55%	19.02	6.45%
6/16/2011	9.20%	4.32%	5.86%	-3.142525313	1.55%	18.83	4.88%
6/17/2011	9.95%	4.32%	5.86%	-3.142110224	1.55%	18.83	5.63%
7/13/2011	10.20%	4.37%	5.88%	-3.131313145	1.51%	18.48	5.83%
8/1/2011	9.20%	4.39%	5.89%	-3.126053204	1.50%	18.46	4.81%
8/8/2011	10.00%	4.38%	5.88%	-3.127241649	1.49%	18.77	5.62%
8/11/2011	10.00%	4.38%	5.87%	-3.128765757	1.49%	19.05	5.62%
8/12/2011	10.35%	4.38%	5.87%	-3.129218642	1.49%	19.13	5.97%
8/19/2011	10.25%	4.36%	5.85%	-3.133372714	1.49%	19.53	5.89%
9/2/2011	12.88%	4.32%	5.82%	-3.141667397	1.50%	20.31	8.56%
9/22/2011	10.00%	4.24%	5.76%	-3.160554415	1.52%	21.34	5.76%
10/12/2011	10.30%	4.14%	5.70%	-3.185236225	1.57%	22.82	6.16%
10/20/2011	10.50%	4.10%	5.68%	-3.194899365	1.58%	23.27	6.40%
11/30/2011	10.90%	3.87%	5.54%	-3.251672762	1.66%	25.28	7.03%
11/30/2011	10.90%	3.87%	5.54%	-3.251672762	1.66%	25.28	7.03%
12/14/2011	10.00%	3.79%	5.49%	-3.271703753	1.70%	25.67	6.21%
12/14/2011	10.30%	3.79%	5.49%	-3.271703753	1.70%	25.67	6.51%
12/20/2011	10.20%	3.76%	5.47%	-3.280231611	1.71%	25.76	6.44%
12/21/2011	10.20%	3.75%	5.46%	-3.282150288	1.71%	25.76	6.45%
12/22/2011	9.90%	3.75%	5.46%	-3.284074128	1.71%	25.77	6.15%
12/22/2011	10.40%	3.75%	5.46%	-3.284074128	1.71%	25.77	6.65%
12/23/2011	10.19%	3.74%	5.45%	-3.285945923	1.71%	25.76	6.45%
1/25/2012	10.50%	3.57%	5.36%	-3.333877869	1.80%	25.89	6.93%
1/27/2012	10.50%	3.55%	5.35%	-3.33779292	1.80%	25.91	6.95%
2/15/2012	10.20%	3.47%	5.29%	-3.361409425	1.82%	26.12	6.73%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Moody's Utility Baa Yield	LN(30-Year Treasury)	Moody's Utility Baa Credit Spread	VIX	Risk Premium
2/23/2012	9.90%	3.43%	5.27%	-3.371270593	1.84%	26.14	6.47%
2/27/2012	10.25%	3.42%	5.27%	-3.374743262	1.84%	26.15	6.83%
2/29/2012	10.40%	3.41%	5.26%	-3.378194589	1.85%	26.16	6.99%
3/29/2012	10.37%	3.31%	5.20%	-3.407607481	1.89%	25.99	7.06%
4/4/2012	10.00%	3.29%	5.19%	-3.413550962	1.90%	25.89	6.71%
4/26/2012	10.00%	3.20%	5.14%	-3.441427686	1.94%	25.91	6.80%
5/2/2012	10.00%	3.18%	5.13%	-3.448747519	1.95%	25.85	6.82%
5/7/2012	9.80%	3.16%	5.12%	-3.453275485	1.95%	25.85	6.64%
5/15/2012	10.00%	3.14%	5.10%	-3.460060701	1.95%	25.79	6.86%
5/29/2012	10.05%	3.11%	5.08%	-3.4721097	1.98%	25.23	6.94%
6/7/2012	10.30%	3.07%	5.07%	-3.482000441	2.00%	24.77	7.23%
6/14/2012	9.40%	3.06%	5.06%	-3.486617828	2.00%	24.45	6.34%
6/15/2012	10.40%	3.06%	5.06%	-3.487549095	2.01%	24.40	7.34%
6/18/2012	9.60%	3.05%	5.06%	-3.488645419	2.01%	24.33	6.55%
6/19/2012	9.25%	3.05%	5.06%	-3.489530491	2.01%	24.25	6.20%
6/26/2012	10.10%	3.04%	5.06%	-3.493695579	2.02%	23.82	7.06%
6/29/2012	10.00%	3.04%	5.05%	-3.494637933	2.02%	23.58	6.96%
7/9/2012	10.20%	3.03%	5.05%	-3.497048482	2.02%	23.14	7.17%
7/16/2012	9.80%	3.02%	5.04%	-3.500418657	2.02%	22.59	6.78%
7/20/2012	9.81%	3.01%	5.04%	-3.504340258	2.03%	22.07	6.80%
7/20/2012	9.31%	3.01%	5.04%	-3.504340258	2.03%	22.07	6.30%
9/13/2012	9.80%	2.94%	4.99%	-3.527182873	2.05%	19.11	6.86%
9/19/2012	10.05%	2.94%	4.99%	-3.526826754	2.05%	18.84	7.11%
9/19/2012	9.80%	2.94%	4.99%	-3.526826754	2.05%	18.84	6.86%
9/26/2012	9.50%	2.94%	4.98%	-3.527062671	2.04%	18.51	6.56%
10/12/2012	9.60%	2.93%	4.95%	-3.52951591	2.02%	18.04	6.67%
10/23/2012	9.75%	2.93%	4.93%	-3.529590812	2.00%	17.84	6.82%
10/24/2012	10.30%	2.93%	4.93%	-3.529748862	2.00%	17.83	7.37%
11/9/2012	10.30%	2.92%	4.90%	-3.533860924	1.98%	17.75	7.38%
11/28/2012	10.40%	2.90%	4.86%	-3.542070693	1.97%	17.60	7.50%
11/29/2012	9.88%	2.89%	4.86%	-3.542597759	1.97%	17.58	6.99%
11/29/2012	9.75%	2.89%	4.86%	-3.542597759	1.97%	17.58	6.86%
12/5/2012	9.71%	2.89%	4.85%	-3.544668433	1.96%	17.53	6.82%
12/5/2012	10.40%	2.89%	4.85%	-3.544668433	1.96%	17.53	7.51%
12/12/2012	9.80%	2.88%	4.84%	-3.547301552	1.96%	17.48	6.92%
12/13/2012	10.50%	2.88%	4.84%	-3.547776921	1.96%	17.47	7.62%
12/13/2012	9.50%	2.88%	4.84%	-3.547776921	1.96%	17.47	6.62%
12/14/2012	10.40%	2.88%	4.83%	-3.548313291	1.96%	17.47	7.52%
12/19/2012	9.71%	2.87%	4.83%	-3.55032707	1.96%	17.44	6.84%
12/19/2012	10.25%	2.87%	4.83%	-3.55032707	1.96%	17.44	7.38%
12/20/2012	10.40%	2.87%	4.83%	-3.551071791	1.96%	17.43	7.53%
12/20/2012	10.30%	2.87%	4.83%	-3.551071791	1.96%	17.43	7.43%
12/20/2012	10.45%	2.87%	4.83%	-3.551071791	1.96%	17.43	7.58%
12/20/2012	10.25%	2.87%	4.83%	-3.551071791	1.96%	17.43	7.38%
12/20/2012	10.25%	2.87%	4.83%	-3.551071791	1.96%	17.43	7.38%
12/20/2012	9.80%	2.87%	4.83%	-3.551071791	1.96%	17.43	6.93%
12/20/2012	9.50%	2.87%	4.83%	-3.551071791	1.96%	17.43	6.63%
12/21/2012	10.20%	2.87%	4.82%	-3.552029679	1.96%	17.43	7.33%
12/26/2012	9.80%	2.86%	4.82%	-3.554468047	1.96%	17.46	6.94%
1/9/2013	9.70%	2.84%	4.79%	-3.560007089	1.95%	17.50	6.86%
1/9/2013	9.70%	2.84%	4.79%	-3.560007089	1.95%	17.50	6.86%
1/9/2013	9.70%	2.84%	4.79%	-3.560007089	1.95%	17.50	6.86%
1/16/2013	9.60%	2.84%	4.78%	-3.561332869	1.94%	17.45	6.76%
1/16/2013	9.60%	2.84%	4.78%	-3.561332869	1.94%	17.45	6.76%
2/13/2013	10.20%	2.84%	4.74%	-3.560233115	1.90%	17.01	7.36%
2/22/2013	9.75%	2.85%	4.73%	-3.556516105	1.88%	16.89	6.90%
2/27/2013	10.00%	2.86%	4.73%	-3.555309947	1.87%	16.85	7.14%
3/14/2013	9.30%	2.88%	4.72%	-3.546517094	1.83%	16.34	6.42%
3/27/2013	9.80%	2.90%	4.71%	-3.539647787	1.80%	15.88	6.90%
5/1/2013	9.84%	2.94%	4.65%	-3.526125487	1.71%	15.25	6.90%
5/15/2013	10.30%	2.96%	4.64%	-3.519540807	1.68%	15.02	7.34%
5/30/2013	10.20%	2.98%	4.64%	-3.513066975	1.66%	14.88	7.22%
5/31/2013	9.00%	2.98%	4.64%	-3.512192166	1.65%	14.89	6.02%
6/11/2013	10.00%	3.00%	4.64%	-3.505315119	1.63%	14.96	7.00%
6/21/2013	9.75%	3.02%	4.65%	-3.498759074	1.62%	14.99	6.73%
6/25/2013	9.80%	3.03%	4.65%	-3.49675999	1.62%	15.02	6.77%
7/12/2013	9.36%	3.08%	4.68%	-3.481789788	1.60%	15.07	6.28%
8/8/2013	9.83%	3.14%	4.73%	-3.45936077	1.59%	14.82	6.69%
8/14/2013	9.15%	3.16%	4.75%	-3.453855638	1.58%	14.72	5.99%
9/11/2013	10.25%	3.27%	4.83%	-3.421529571	1.57%	14.57	6.98%
9/11/2013	10.20%	3.27%	4.83%	-3.421529571	1.57%	14.57	6.93%
9/24/2013	10.20%	3.31%	4.87%	-3.409215674	1.57%	14.47	6.89%
10/3/2013	9.65%	3.33%	4.90%	-3.401082413	1.56%	14.45	6.32%
11/6/2013	10.20%	3.41%	4.96%	-3.379044872	1.55%	14.40	6.79%
11/21/2013	10.00%	3.44%	4.99%	-3.368809925	1.54%	14.36	6.56%
11/26/2013	10.00%	3.45%	4.99%	-3.366096324	1.54%	14.36	6.55%
12/3/2013	10.25%	3.47%	5.00%	-3.360895981	1.53%	14.38	6.78%
12/4/2013	9.50%	3.47%	5.01%	-3.359715842	1.53%	14.38	6.03%
12/5/2013	10.20%	3.48%	5.01%	-3.35846819	1.53%	14.38	6.72%
12/9/2013	8.72%	3.49%	5.01%	-3.356206097	1.53%	14.34	5.23%
12/9/2013	9.75%	3.49%	5.01%	-3.356206097	1.53%	14.34	6.26%
12/13/2013	9.75%	3.50%	5.03%	-3.352419421	1.53%	14.34	6.25%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Moody's Utility Baa Yield	LN(30-Year Treasury)	Moody's Utility Baa Credit Spread	VIX	Risk Premium
12/16/2013	9.95%	3.50%	5.03%	-3.351442572	1.53%	14.35	6.45%
12/16/2013	9.95%	3.50%	5.03%	-3.351442572	1.53%	14.35	6.45%
12/16/2013	10.12%	3.50%	5.03%	-3.351442572	1.53%	14.35	6.62%
12/17/2013	9.50%	3.51%	5.03%	-3.350513821	1.52%	14.37	5.99%
12/17/2013	10.95%	3.51%	5.03%	-3.350513821	1.52%	14.37	7.44%
12/18/2013	8.72%	3.51%	5.03%	-3.349557441	1.52%	14.37	5.21%
12/18/2013	9.80%	3.51%	5.03%	-3.349557441	1.52%	14.37	6.29%
12/19/2013	10.15%	3.51%	5.04%	-3.348558925	1.52%	14.38	6.64%
12/30/2013	9.50%	3.54%	5.05%	-3.341237101	1.51%	14.41	5.96%
2/20/2014	9.20%	3.69%	5.14%	-3.300809253	1.46%	14.62	5.51%
2/26/2014	9.75%	3.70%	5.15%	-3.298142577	1.46%	14.65	6.05%
3/17/2014	9.55%	3.72%	5.17%	-3.291654434	1.45%	14.72	5.83%
3/26/2014	9.40%	3.73%	5.18%	-3.289458707	1.45%	14.66	5.67%
3/26/2014	9.96%	3.73%	5.18%	-3.289458707	1.45%	14.66	6.23%
4/2/2014	9.70%	3.73%	5.17%	-3.289430531	1.45%	14.58	5.97%
5/16/2014	9.80%	3.70%	5.11%	-3.296016163	1.40%	14.38	6.10%
5/30/2014	9.70%	3.68%	5.08%	-3.30223463	1.40%	14.35	6.02%
6/6/2014	10.40%	3.67%	5.07%	-3.304183446	1.40%	14.26	6.73%
6/30/2014	9.55%	3.64%	5.02%	-3.312939972	1.38%	13.95	5.91%
7/2/2014	9.62%	3.64%	5.01%	-3.313638177	1.38%	13.91	5.98%
7/10/2014	9.95%	3.63%	5.00%	-3.316024339	1.37%	13.86	6.32%
7/23/2014	9.75%	3.61%	4.97%	-3.321269779	1.36%	13.68	6.14%
7/29/2014	9.45%	3.60%	4.96%	-3.323360677	1.35%	13.57	5.85%
7/31/2014	9.90%	3.60%	4.95%	-3.324172133	1.35%	13.55	6.30%
8/20/2014	9.75%	3.56%	4.92%	-3.334006414	1.36%	13.61	6.19%
8/25/2014	9.60%	3.56%	4.91%	-3.336650742	1.36%	13.59	6.04%
8/29/2014	9.80%	3.54%	4.90%	-3.340939413	1.36%	13.57	6.26%
9/11/2014	9.60%	3.51%	4.88%	-3.349211325	1.37%	13.57	6.09%
9/15/2014	10.25%	3.51%	4.87%	-3.35067505	1.37%	13.57	6.74%
10/9/2014	9.80%	3.44%	4.83%	-3.368938807	1.39%	13.62	6.36%
11/6/2014	9.56%	3.37%	4.78%	-3.390572121	1.41%	14.09	6.19%
11/6/2014	10.20%	3.37%	4.78%	-3.390572121	1.41%	14.09	6.83%
11/14/2014	10.20%	3.35%	4.78%	-3.395556187	1.42%	13.94	6.85%
11/26/2014	9.70%	3.32%	4.77%	-3.403705802	1.44%	13.82	6.38%
11/26/2014	10.20%	3.32%	4.77%	-3.403705802	1.44%	13.82	6.88%
12/4/2014	9.68%	3.30%	4.76%	-3.409936411	1.45%	13.78	6.38%
12/10/2014	9.25%	3.29%	4.75%	-3.414456607	1.46%	13.80	5.96%
12/10/2014	9.25%	3.29%	4.75%	-3.414456607	1.46%	13.80	5.96%
12/11/2014	10.07%	3.28%	4.75%	-3.415853404	1.47%	13.83	6.79%
12/12/2014	10.20%	3.28%	4.75%	-3.417360316	1.47%	13.86	6.92%
12/17/2014	9.17%	3.27%	4.75%	-3.421672047	1.48%	13.96	5.90%
12/18/2014	9.83%	3.26%	4.74%	-3.422874511	1.48%	13.98	6.57%
1/23/2015	9.50%	3.14%	4.69%	-3.461973582	1.55%	14.37	6.36%
2/24/2015	9.83%	3.04%	4.65%	-3.494634623	1.62%	14.67	6.79%
3/18/2015	9.75%	2.98%	4.64%	-3.514002626	1.66%	14.90	6.77%
3/25/2015	9.50%	2.95%	4.63%	-3.521791091	1.67%	14.96	6.55%
3/26/2015	9.72%	2.95%	4.63%	-3.52324442	1.68%	14.98	6.77%
4/23/2015	10.20%	2.87%	4.61%	-3.551824778	1.74%	15.21	7.33%
4/29/2015	9.53%	2.86%	4.60%	-3.556018437	1.75%	15.22	6.67%
5/1/2015	9.60%	2.85%	4.60%	-3.55764862	1.75%	15.23	6.75%
5/26/2015	9.75%	2.83%	4.63%	-3.565489209	1.80%	15.16	6.92%
6/17/2015	9.00%	2.82%	4.66%	-3.569012071	1.84%	15.30	6.18%
6/17/2015	9.00%	2.82%	4.66%	-3.569012071	1.84%	15.30	6.18%
9/2/2015	9.50%	2.79%	4.79%	-3.579016567	2.00%	15.68	6.71%
9/10/2015	9.30%	2.79%	4.81%	-3.579283498	2.02%	15.99	6.51%
10/15/2015	9.00%	2.81%	4.90%	-3.571012447	2.09%	16.66	6.19%
11/19/2015	10.30%	2.88%	5.04%	-3.547076162	2.16%	16.28	7.42%
11/19/2015	10.00%	2.88%	5.04%	-3.547076162	2.16%	16.28	7.12%
12/3/2015	10.00%	2.90%	5.08%	-3.541396988	2.19%	16.28	7.10%
12/9/2015	9.14%	2.90%	5.11%	-3.539568146	2.20%	16.33	6.24%
12/9/2015	9.14%	2.90%	5.11%	-3.539568146	2.20%	16.33	6.24%
12/11/2015	10.30%	2.90%	5.12%	-3.53922282	2.21%	16.42	7.40%
12/15/2015	9.60%	2.91%	5.13%	-3.538307892	2.22%	16.50	6.69%
12/17/2015	9.70%	2.91%	5.14%	-3.537386373	2.23%	16.54	6.79%
12/18/2015	9.50%	2.91%	5.14%	-3.536907801	2.23%	16.57	6.59%
12/30/2015	9.50%	2.93%	5.18%	-3.530756888	2.25%	16.60	6.57%
1/6/2016	9.50%	2.94%	5.20%	-3.526766416	2.26%	16.72	6.56%
2/23/2016	9.75%	2.94%	5.34%	-3.528253531	2.40%	18.32	6.81%
3/16/2016	9.85%	2.91%	5.36%	-3.537673349	2.45%	18.69	6.94%
4/29/2016	9.80%	2.83%	5.31%	-3.563568465	2.47%	18.60	6.97%
6/3/2016	9.75%	2.80%	5.24%	-3.573972869	2.43%	18.79	6.95%
6/8/2016	9.48%	2.80%	5.23%	-3.576092552	2.43%	18.56	6.68%
6/15/2016	9.00%	2.79%	5.20%	-3.580432911	2.42%	18.29	6.21%
6/15/2016	9.00%	2.79%	5.20%	-3.580432911	2.42%	18.29	6.21%
Average:					1.81%	20	
Count:						748	