Exhibit No.: Issues: Witness: Type of Exhibit: Sponsoring Party: Case No.: Date Testimony Prepared: October 10, 2012

**Revenue Requirement** Michael P. Gorman Surrebuttal Testimony Office of Public Counsel ER-2012-0175

#### **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 a General Rate **Increase for Electric Service** 

Case No. ER-2012-0175 Tracking No. YE-2012-0405

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Surrebuttal Testimony and Schedule of

Michael P. Gorman

**Revenue Requirement** 

On behalf of

The Office of Public Counsel

### **NON-PROPRIETARY VERSION**

October 10, 2012



Project 9606

#### 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 a General Rate Increase for Electric Service

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Case No. ER-2012-0175 Tracking No. YE-2012-0405

STATE OF MISSOURI

COUNTY OF ST. LOUIS

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#### Affidavit of Michael P. Gorman

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

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

2. Attached hereto and made a part hereof for all purposes are my surrebuttal testimony and schedule which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2012-0175.

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

P. Gorman

Subscribed and sworn to before me this 9th day of October, 2012.

MARIA E. DECKER Notary Public - Notary Seal STATE OF MISSOURI St. Louis City Commission Expires: May 5, 2013 Commission # 09706793

Maria E. Soe tary Public

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

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In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service **Case No. ER-2012-0175** Tracking No. YE-2012-0405

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

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In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service Case No. ER-2012-0175 Tracking No. YE-2012-0405

#### Surrebuttal Testimony of Michael P. Gorman

- 1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 2 A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,
- 3 Chesterfield, MO 63017.
- 4 Q ARE YOU THE SAME MICHAEL P. GORMAN WHO PREVIOUSLY FILED
- 5 TESTIMONY IN THIS CASE ON BEHALF OF THE OFFICE OF PUBLIC COUNSEL
- 6 ("OPC")?
- 7 A Yes.

#### 8 Q PLEASE DESCRIBE YOUR SURREBUTTAL TESTIMONY IN THIS CASE.

- 9 A I will respond to the rebuttal testimonies of KCP&L Greater Missouri Operations
- Company's ("KCP&L GMO" or "Company") witnesses Kevin Bryant and Dr. Samuel
  Hadaway.

#### 1 Response to Mr. Bryant

# 2 Q PLEASE DESCRIBE THE PORTION OF MR. BRYANT'S REBUTTAL TESTIMONY 3 TO WHICH YOU WILL RESPOND.

A Mr. Bryant responds to my criticisms of the Company's significant increase in its common equity ratio between its June 30, 2012 actual and its projection for the August 2012 true-up. Mr. Bryant argues that the significant increase is associated with the conversion of equity units – recorded as debt on the Company's June 30, 2012 capital structure – to common equity in July 2012. Mr. Bryant also argues that the equity the Company issued at that time was also used to reduce long-term debt on July 2 related to the maturity of the KCP&L GMO 11.875% senior notes.

#### 11 Q PLEASE RESPOND TO MR. BRYANT'S TESTIMONY.

A I agree with Mr. Bryant that conversion of the equity units to common equity in July
 2012 largely explains the difference between the Company's March 2012 actual
 common equity ratio and its Pro Forma capital structure equity ratio. However, the
 conversion of the equity units does not explain the entire significant increase in the
 common equity ratio.

As Mr. Bryant notes, the equity units represent about 4.5% of the Company's capital structure in March 2012 (Bryant Rebuttal Testimony at 3-4), and reflecting those as equity capital rather than debt capital would produce debt and common equity ratios of 50.0% and 49.4%, respectively – the preferred stock ratio remains at 0.60%. This capital structure mix is reasonably consistent with the 50.8% common

> Michael P. Gorman Page 2

equity ratio capital as shown in KCP&L GMO witness Michael Cline's true-up direct
 testimony in its 2010 rate case.<sup>1</sup>

However, the Company's forecast capital structure has a common equity ratio of 52.475% which is still a material increase in its June 30, 2012 common equity ratio of 50.0%, adjusted to reflect the conversion of the equity units. What appears to be the cause of the increase in the equity ratio is the retirement of \*\*\_\_\_\_\_\_7

- 8 \*\*2
- 9 Mr. Bryant states that common equity was used to refinance part of these maturing
- 10 securities in July 2012 (Bryant Rebuttal Testimony at 4).
- 11 Based on the Company's highly confidential workpapers, it appears as though
- 12 the Company financed a significant amount of debt with equity. This buildup in
- 13 common equity explains the increase in the common equity ratio relative to its actual
- 14 at March 30, 2011 reflecting conversion of the equity units.
- 15 The use of common equity to refinance these retiring debt maturities is
- 16 troubling for the following reasons:
- Current utility debt interest rates are at the lowest level in decades. Not taking advantage of today's very low capital market costs, particularly for debt securities, is a significant missed opportunity by KCP&L GMO to keep its cost of capital as low as possible.
- 21 2. The \$500 million KCP&L GMO 11.875% debt cost has been significantly above 22 market interest rates for well over a decade. Customers have been burdened by 23 paying utility rates to allow Great Plains Energy to meet the debt service obligations for this above-market bond issue. Now that KCP&L GMO has an 24 25 opportunity to refinance this expiring bond at much lower market interest rates (something less than 5% in today's marketplace), KCP&L GMO instead 26 refinances a large portion of this bond with common equity. Indeed, at my 27 28 proposed 9.3% cost of equity, adjusted for income taxes, the Company is refinancing the 11.875% bond at a pre-tax equity cost to customers of 14.9%. 29

<sup>&</sup>lt;sup>1</sup>Case No. ER-2010-0356, True-Up Direct Testimony of Michael Cline, page 1, also see Missouri Public Service Commission Report and Order, May 4, 2011, page 151. <sup>2</sup>Bryant Highly Confidential Workpapers.



- KCP&L GMO's refinancing of this above-market cost security actually increased
   its capital cost when it finally had an opportunity to reduce its cost of capital
   related to this above-market debt cost.
- 4 3. KCPL's and KCP&L GMO's decision not to minimize its cost of capital is particularly disturbing given the significant regulatory plan that helped support its 5 6 credit rating during its last major construction program. During that time period, customers paid higher rates to support regulatory amortization to support cash 7 flow metrics which in turn supported KCPL/KCP&L GMO's bond rating. KCPL 8 9 and KCP&L GMO's investors benefitted significantly through this regulatory plan, but the Company is failing now to reciprocate by making every effort available to 10 minimize its cost of capital going forward. 11

Q IN HIS REBUTTAL TESTIMONY, MR. BRYANT ASSERTS THAT THE EQUITY
 UNIT CONVERSION HAS BEEN REFLECTED BY STANDARD & POOR'S ("S&P")
 IN ITS BOND RATING ASSESSMENT, AND ITS PROPOSED TRUE-UP CAPITAL
 STRUCTURE IS LARGELY CONSISTENT WITH S&P'S CREDIT REVIEW.
 PLEASE RESPOND.

A S&P's current credit rating outlook for KCP&L GMO's parent company (Great Plains
Energy) and KCPL and KCP&L GMO is "BBB" with a "Stable" outlook.

At page 5 of the Highly Confidential S&P report attached to Mr. Bryant's testimony (Schedule KEB-1), it lists the credit metrics considered by S&P in arriving at Great Plains' bond rating. There, it shows an adjusted debt to debt and equity ratio for S&P over the period 2007 through 2011. The S&P adjusted debt ratio for this company has consistently been substantially higher than the 46.918% debt ratio the Company is proposing to use to set rates in this proceeding.<sup>3</sup>

Admittedly, the S&P debt ratio includes significant off-balance sheet debt items. However, the S&P report can be used to develop a debt and equity ratio comparable to that used for setting rates. Reflecting only the conversion of the equity units, which is specifically listed by S&P in its Table 3 of that report, along with the

<sup>3</sup>Hadaway Direct Testimony at 6.

unadjusted debt and equity balances, would show that S&P's credit rating reflects a
common equity ratio of less than 50% of investor capital. Again, this is generally
consistent with KCP&L GMO's last rate case, and its March 30, 2011 capital structure
adjusted for the equity units. Importantly, S&P found Great Plains' credit rating to be
"Stable" and at an investment grade bond rating level with this capital structure mix.

Hence, there is no justification for Great Plains' effort to increase its common
equity ratio in this proceeding. I state this simply because its credit rating is already
stable without an increase to its common equity ratio. Therefore, KCPL's and KCP&L
GMO's proposed capital structure with an increased common equity ratio is not
reasonable.

11

Q

#### DO YOU HAVE ANY RECOMMENDATIONS?

12 А Yes. The Company's effort appears to be directed at increasing its common equity 13 ratio which increases its overall cost of capital and income tax expense. The 14 Company's investors directly benefit from this by growing the Company's equity base, 15 and its earnings and dividend paying ability. I believe this is an unnecessary increase 16 to its cost of service, and the Company's proposal to increase its common equity ratio 17 should be justified. Absent complete justification, I recommend the Commission 18 consider using a hypothetical capital structure (50% debt/50% equity) in this case 19 rather than the Company's projected actual capital structure at the end of August 20 2012.

> Michael P. Gorman Page 5

#### 1 Response to Dr. Hadaway

# 2 Q DID DR. HADAWAY TAKE ISSUE WITH YOUR RECOMMENDED RETURN ON 3 EQUITY IN THIS PROCEEDING?

A Yes. Dr. Hadaway believes that my return on equity was negatively skewed by my
assumptions and the application of my models. In support of this, Dr. Hadaway offers
criticisms of my constant growth Discounted Cash Flow ("DCF") study, my multi-stage
growth DCF study and my risk premium analysis.

## 8 Q WHAT ARE DR. HADAWAY'S CRITICISMS OF YOUR CONSTANT GROWTH DCF 9 ANALYSIS?

10 A Dr. Hadaway believes I should have eliminated the results of Edison International, 11 and Cleco Corporation from my analysis because he believes these results were 12 unreasonably low. He concludes that if I would have eliminated these two companies 13 from my constant growth DCF study, the results would have increased from 9.5% up 14 to 9.8% to 9.9%.

# 15 Q ARE DR. HADAWAY'S CRITICISMS OF YOUR CONSTANT GROWTH DCF 16 STUDY REASONABLE?

17 A No. Dr. Hadaway's arguments are severely flawed and biased. Corrections to
18 Dr. Hadaway's misspecified model inputs continue to show that KCP&L GMO's
19 current market cost of equity in this case is approximately 9.3% to 9.5%. Corrected
20 versions of Dr. Hadaway's updated adjustments to my models are shown in my
21 Schedule MPG-SR-1, page 2 of 5.

# 1 Q DOES DR. HADAWAY OFFER REASONS TO EXCLUDE THE TWO LOW DCF 2 ESTIMATES?

A Yes. Dr. Hadaway recommends eliminating the two lowest results from my proxy group because the results are too low. However, he does not even comment on whether there are skewed high-end estimates. Dr. Hadaway recommends eliminating the result for Cleco Corporation of 6.14% and Edison International of 5.19% because they are only up to 123 basis points above the "BBB" utility debt cost of 4.91%. He also believes that Cleco Corporation stock is being artificially inflated by merger speculation.

# 10 Q ARE THESE REASONS ADEQUATE SUPPORT FOR ELIMINATING THESE 11 COMPANIES FROM THE PROXY GROUP AS DR. HADAWAY RECOMMENDS?

12 A I do not disagree that it is appropriate to eliminate outlier estimates to enhance the 13 integrity and reliability of the return on equity estimate. However, Dr. Hadaway has 14 applied recommended methodologies to eliminate only <u>low</u> DCF return estimates. He 15 has not proposed a methodology to identify and eliminate the high-end DCF return 16 estimates. As such, his proposed modification is one-sided and biased.

For example, if one were to eliminate DCF return estimates which are 125 basis points or less of the 4.91% utility bond yield return, then it would also be appropriate to eliminate DCF estimates which are substantially higher than the current observable "BBB" utility bond yield. The two highest return estimates in my proxy group are Great Plains Energy ("GPE") at 13.03% and Hawaiian Electric ("HE") at 12.34%. These estimates are more than 2.5x the "BBB" bond yield. Clearly, these estimates are skewed on the high side. Further, it is appropriate to eliminate GPE and HE as an offset to the low-end DCF return estimates, because the growth rates of these two companies are substantially in excess of the U.S. GDP growth rate of 4.9%. GPE and HE's three- to five-year growth rates (8.42% and 7.46%, respectively) of these DCF returns are more than 255 basis points higher than the prevailing 4.9% "BBB" utility bond yield.

# Q HOW WOULD YOUR DCF RESULT CHANGE IF LOW AND HIGH OUTLIER 7 RESULTS ARE ELIMINATED?

8 A Eliminating the two lowest return estimates as Dr. Hadaway proposes and also 9 eliminating the two highest DCF estimates would produce a proxy group average of 10 9.53% as shown on my Schedule MPG-SR-1, page 2 of 5. Hence, a symmetrical 11 removal of high and low skewed DCF estimates shows that my recommended return 12 on equity from my constant growth DCF analysis of 9.5% is reasonable.

An alternative method to smooth skewed results within the group is to rely on the group median as opposed to the group average result. The median return estimate may be a better approximation of the central tendency of this proxy group because of these outlier (high and low) DCF estimates. My proxy group median return estimate is 9.54% as shown in my direct testimony Schedule MPG-4. Again, a balanced assessment of my constant growth DCF analysis indicates a fair return on equity for KCP&L GMO in this case of around 9.5%.

# 20 Q WHAT ARE DR. HADAWAY'S CONCERNS RELATED TO YOUR MULTI-STAGE 21 GROWTH DCF ESTIMATE?

A Dr. Hadaway takes issue with the GDP growth rate used as a sustainable long-term
 growth rate. He does not agree with the consensus of independent security analysts'

projections of long-term GDP growth rate that I used in my direct testimony. Instead,
 he recommends using the GDP growth rate he projects in his testimony of 5.7%.

# Q IS DR. HADAWAY'S PROPOSAL TO USE HIS LONG-TERM GDP GROWTH RATE IN LIEU OF THE CONSENSUS ECONOMISTS' LONG-TERM GDP GROWTH RATE APPROPRIATE FOR ACCURATELY ESTIMATING KCP&L GMO'S MARKET COST OF EQUITY IN THIS PROCEEDING?

A No. Dr. Hadaway's proposal is inappropriate for several reasons. First, the objective
of analyzing the current market cost of equity is to attempt to measure economic and
financial factors used by investors to value stocks. Hence, it is the market's general
expectation of future GDP growth which is relevant, not the individual opinion of
Dr. Hadaway or me.

My GDP growth forecast is based on consensus published independent economists' projections of future GDP growth. This information is available to investors, and likely used by investors to make investment decisions. In significant contrast, Dr. Hadaway's GDP growth forecast is found only in his testimony and is highly unlikely to be reflective of consensus investors and that used by investors to value utility securities. It is known with certainty that Dr. Hadaway's GDP outlook is far higher than the consensus of independent economists.

Dr. Hadaway's methodology is simply not a method that reliably captures the consensus of investors' current outlooks. Therefore, he has not produced a reliable estimate of the market's current cost of equity for assuming the investment risk of KCP&L GMO and the proxy companies.

Second, Dr. Hadaway's method of estimating future GDP growth is tied to
 historical actual realized GDP growth. Dr. Hadaway's analysis is unreliable because

he has not captured the expectation of changes in U.S. GDP growth going forward relative to the past. The U.S. economy is now facing significant competition from other countries around the world which likely will impact its growth going forward relative to the growth experienced in the past. Therefore, using only historical data to form expectations of the future, does not reflect likely changes in the world economic and competitive position, and, therefore, does not reflect the consensus of investors' outlooks.

# 8 Q WHAT IS A REASONABLE ESTIMATE OF A MULTI-STAGE GROWTH DCF 9 MODEL?

A Using the consensus analysts' GDP growth forecast rather than Dr. Hadaway's
 individual estimate, my multi-stage growth DCF model produces a 9.30% result as I
 indicated in my direct testimony. This is developed on my Schedule MPG-SR-1, page
 3 of 5.

# 14 Q PLEASE DESCRIBE DR. HADAWAY'S CRITICISMS OF YOUR RISK PREMIUM 15 ANALYSIS.

16 A Dr. Hadaway believes I have understated the equity risk premium because I have not 17 relied on a simple inverse relationship between interest rates and equity risk 18 premiums. Dr. Hadaway believes that if I would have embraced his proposed 19 simplistic relationship, that the equity risk premium would consistently understate the 20 Company's current cost of equity.

#### 1 Q ARE DR. HADAWAY'S RISK PREMIUM ARGUMENTS ACCURATE?

A No. The clear finding in academic research on equity risk premiums is that the
 relationship between interest rates and risk premiums changes over time based on a
 multitude of factors. Second, academic research concludes that the relationship
 between equity risk premiums and interest rates changes based on the perception of
 the risk difference between equity investments and fixed income investments, and not
 simply interest rates.

8 This relationship is not based on a simple inverse relationship between risk 9 premiums and interest rates, but rather is tied to perceived risk differentials between 10 the two competing investments, as described in my direct testimony.

# 11 Q PLEASE DESCRIBE THE ACADEMIC RESEARCH ON THE RELATIONSHIP 12 BETWEEN EQUITY RISK PREMIUMS AND INTEREST RATES.

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

Most of the academic literature addressing this issue that I am familiar with is based on market data from the 1980s and very early 1990s. During the 1980s and very early 1990s, an inverse relationship did exist. However, that relationship did not exist prior to 1980, and it has not been shown to be the case since the early 1990s. For example, in a paper written by Eugene Brigham, Dilip K. Shome and Steve R.

- 1 Vinson, entitled "The Risk Premium Approach to Measuring a Utility's Cost of Equity,"
- 2 published in *Financial Management/Spring 1985,* the authors stated:

3 Any number of events could occur to cause the perceived riskiness of 4 stocks versus bonds to change, but probably the most pervasive factor, over the 1966-1984 period, is related to inflation. Inflationary 5 6 expectations are, of course, reflected in interest rates. Therefore, one might expect to find a relationship between risk premiums and interest 7 8 rates. As we noted in our discussion of Exhibit 3, risk premiums were 9 positively correlated with interest rates from 1966 through 1979, but, 10 beginning in 1980, the relationship turned negative.

- 11 These academics found that there was a <u>positive</u> relationship between interest 12 rates and equity risk premiums before 1980, and an <u>inverse</u> relationship from 13 1980-1984. This study does not establish a consistent relationship between interest
- 14 rates and equity risk premiums over the entire period.
- 15 In the more recent, yet still outdated, study by Robert S. Harris and Felicia C.
- 16 Marston published in the Journal of Applied Finance 2001, "The Market Risk
- 17 Premium: Expectational Estimates Using Analysts Forecasts," the authors expanded
- 18 an earlier study of risk premiums to cover the period of 1982-1998. In this study, the
- 19 authors did note a historical inverse relationship between equity risk premiums and
- 20 interest rates. However, the authors went into detail to explain why that historical
- 21 relationship was likely affected more by relative investment risk changes, and not
- simply changes to nominal interest rates as Dr. Hadaway implies in his testimony.
- 23 The authors state as follows:
- 24The market risk premium changes over time and appears inversely25related to government interest rates but is positively related to the26bond yield spread, which proxies for the incremental risk of investing in27equities as opposed to government bonds.
- 28 Importantly, the authors in that same study concluded as follows:
- 29As a result, our evidence does not resolve the equity premium puzzle;30rather, the results suggest investors still expect to receive large31spreads to invest in equity versus debt instruments.

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

5 Clearly, the academic literature does not support a simplistic inverse 6 relationship between interest rates and equity risk premiums. Rather, the authors of 7 these studies recognize that equity risk premiums change with perceived changes in 8 investment risk. Dr. Hadaway's simplistic analysis takes no account of changes to 9 perceived risk, and inappropriately increases equity risk premiums for no other reason 10 than a reduction in nominal interest rates.

# 11 Q ARE REDUCTIONS IN NOMINAL INTEREST RATES AN ADEQUATE REASON 12 FOR INCREASES TO EQUITY RISK PREMIUMS?

13 No, they are not. Reductions to nominal interest rates are simply not an adequate А 14 reason for increases to equity risk premiums. Indeed, decreases to interest rates 15 over the last ten years have been likely caused by reduced inflation expectations, 16 which would decrease both bond interest rates and common equity required returns. 17 Reduced inflation expectations alone should not change relative debt to equity 18 investment risk, and thus would not cause equity risk premiums to increase. 19 Consequently, Dr. Hadaway's proposal to reflect an inverse relationship between 20 equity risk premiums and bond interest rates is flawed and unreliable, and it should 21 be rejected.

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# Q USING DR. HADAWAY'S METHODOLOGY, WHAT DO YOU BELIEVE TO BE A REASONABLE EQUITY RISK PREMIUM ESTIMATE IN THIS CASE?

A Because spreads have widened between utility and Treasuries and "A" and "Baa" utility bond yields, I do agree with Dr. Hadaway that the equity risk premium in this case should be higher than under more normal market conditions. Reflecting the
high and low equity risk premium for my Treasury bond yield as developed on
Schedule MPG-SR-1, page 4 of 5, would indicate a return on equity for KCP&L GMO
in the range of 10.01% and 7.43%. Again, I recommend giving greater weight (75%)
to the high-end estimate and 25% weight to the low-end estimate. Using this
weighting scheme, I believe an equity risk premium over Treasury bonds indicates a
fair return on equity of 9.37%.

8 Similarly, using the highest equity risk premium over utility bond yields, would 9 indicate a return on equity in the range of 10.13% to 7.25% as developed on my 10 Schedule MPG-SR-1, page 5 of 5. Giving more weight to the high-end estimate than 11 the low-end estimate, I again believe a fair return on equity in this case would be 12 9.41%. Giving due consideration to a larger than normal equity risk premium in this 13 case for greater risk securities would indicate a fair return on equity for KCP&L GMO 14 in this case of 9.4%.

#### 15 Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

16 A Yes.

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## Summary of Updated Gorman ROE Results

|             |  | Gorman        | Gorman Analysis  |  |  |
|-------------|--|---------------|------------------|--|--|
|             |  |               | Hadaway          |  |  |
| <u>Line</u> | Gorman Models                            | <b>Direct</b> | <b>Corrected</b> |  |  |
|             |  | (1)           | (2)              |  |  |
|             | DCF Models                               |               |                  |  |  |
| 1           | Constant Growth DCF (Analysts' Growth)   | 9.46%         | 9.53%            |  |  |
| 2           | Constant Growth DCF (Sustainable Growth) | 9.15%         | NA               |  |  |
| 3           | Multi-Stage DCF                          | <u>9.30%</u>  | <u>9.30%</u>     |  |  |
| 4           | DCF (Constant Growth DCF)                | 9.50%         | 9.40%            |  |  |
|             | Risk Premium Average                     | 9.10%         |                  |  |  |
| 5           | Treasury                                 |               | 9.37%            |  |  |
| 6           | Utility                                  |               | 9.41%            |  |  |
| 7           | САРМ                                     | 8.50%         | NA               |  |  |
| 8           | Average excluding CAPM (Recommended ROE) | 9.30%         | 9.40%            |  |  |

Source: Hadaway Rebuttal, Schedule SCH-9.

#### Gorman Constant Growth DCF Analysis (Excluding Outliers)

|      |                          |                    | Analysts'        | Adjusted Constant |                  |                   |
|------|--------------------------|--------------------|------------------|-------------------|------------------|-------------------|
| Line | Company                  | Price              | Growth           | Dividend          | Yield            | Growth DCF        |
|      | <u> </u>                 | (1)                | (2)              | (3)               | (4)              | (5)               |
|      |                          | (1)                | (-)              | (-)               | (-)              | (-)               |
| 1    | ALLETE                   | \$40.45            | 5.40%            | \$1.84            | 4.79%            | 10.19%            |
| 2    | Alliant Energy Co.       | \$44.57            | 6.12%            | \$1.80            | 4.29%            | 10.41%            |
| 3    | American Elec. Pwr.      | \$39.03            | 3.86%            | \$1.88            | 5.00%            | 8.86%             |
| 4    | Avista Corp.             | \$26.03            | 4.72%            | \$1.16            | 4.67%            | 9.39%             |
| 5    | Black Hills Corp         | \$32.37            | 6.00%            | \$1.48            | 4.85%            | 10.85%            |
| 6    | Cleco Corporation        | <del>\$40.96</del> | 3.00%            | \$1.25            | 3.14%            | <del>6.14%</del>  |
| 7    | DTE Energy Co.           | \$57.28            | 4.38%            | \$2.35            | 4.28%            | 8.66%             |
| 8    | Edison Internat.         | <del>\$44.67</del> | <u>2.22%</u>     | \$1.30            | <u>2.97%</u>     | 5.19%             |
| 9    | Great Plains Energy      | <del>\$20.46</del> | 8.4 <u>2</u> %   | <del>\$0.87</del> | 4.61%            | <del>13.03%</del> |
| 10   | Hawaiian Electric        | <del>\$27.34</del> | <del>7.46%</del> | <del>\$1.24</del> | <del>4.87%</del> | <del>12.33%</del> |
| 11   | IDACORP                  | \$40.29            | 4.67%            | \$1.32            | 3.43%            | 8.10%             |
| 12   | Pinnacle West            | \$49.65            | 5.67%            | \$2.10            | 4.47%            | 10.14%            |
| 13   | Portland General         | \$25.67            | 4.28%            | \$1.06            | 4.31%            | 8.59%             |
| 14   | SCANA Corp.              | \$46.69            | 4.69%            | \$1.98            | 4.44%            | 9.13%             |
| 15   | Sempra Energy            | \$65.75            | 6.10%            | \$2.40            | 3.87%            | 9.97%             |
| 16   | Southern Co.             | \$46.21            | 5.32%            | \$1.96            | 4.47%            | 9.79%             |
| 17   | Teco Energy, Inc.        | \$17.77            | 4.37%            | \$0.88            | 5.17%            | 9.54%             |
| 18   | Vectren Corp.            | \$29.24            | 5.00%            | \$1.40            | 5.03%            | 10.03%            |
| 19   | Westar Energy            | \$28.90            | 5.79%            | \$1.32            | 4.83%            | 10.62%            |
| 20   | Wisconsin Energy         | \$37.83            | 5.58%            | \$1.20            | 3.35%            | 8.93%             |
| 21   | Xcel Energy Inc.         | <u>\$27.77</u>     | <u>4.94%</u>     | <u>\$1.04</u>     | <u>3.93%</u>     | <u>8.87%</u>      |
|      |                          |                    |                  |                   |                  |                   |
| 22   | Average (Excl. Outliers) | \$37.02            | 5.41%            | \$1.54            | 4.46%            | 9.53%             |
| 23   | Median                   |                    |                  |                   |                  | 9.54%             |

Source: Hadaway Rebuttal, Schedule SCH-9

#### Gorman Multi-Stage Growth DCF Analysis (with Long-Term GDP Growth)

| <u>Line</u> | <u>Company</u>      | <u>Price</u><br>(1) | <u>Dividend</u><br>(2) | First Stage<br>Growth<br><u>(EPS)</u><br>(3) | <u>Year 6</u><br>(4) | Seco<br><u>Year 7</u><br>(5) | nd Stage Gi<br><u>Year 8</u><br>(6) | rowth<br><u>Year 9</u><br>(7) | <u>Year 10</u><br>(8) | Third<br>Stage<br>Growth<br><u>(GDP)</u><br>(9) | Updated<br>Cost of<br><u>Equity</u><br>(10) |
|-------------|---------------------|---------------------|------------------------|--|----------------------|------------------------------|-------------------------------------|-------------------------------|-----------------------|---|---|
| 1           | ALLETE              | \$40.45             | \$1.84                 | 5.40%  | 5.32%                | 5.23%                        | 5.15%                               | 5.07%                         | 4.98%                 | 4.90%   | 9.82%                                       |
| 2           | Alliant Energy Co.  | \$44.57             | \$1.80                 | 6.12%  | 5.92%                | 5.71%                        | 5.51%                               | 5.31%                         | 5.10%                 | 4.90%   | 9.47%                                       |
| 3           | American Elec. Pwr. | \$39.03             | \$1.88                 | 3.86%  | 4.03%                | 4.21%                        | 4.38%                               | 4.55%                         | 4.73%                 | 4.90%   | 9.64%                                       |
| 4           | Avista Corp.        | \$26.03             | \$1.16                 | 4.72%  | 4.75%                | 4.78%                        | 4.81%                               | 4.84%                         | 4.87%                 | 4.90%   | 9.52%                                       |
| 5           | Black Hills Corp    | \$32.37             | \$1.48                 | 6.00%  | 5.82%                | 5.63%                        | 5.45%                               | 5.27%                         | 5.08%                 | 4.90%   | 10.03%                                      |
| 6           | Cleco Corporation   | \$40.96             | \$1.25                 | 3.00%  | 3.32%                | 3.63%                        | 3.95%                               | 4.27%                         | 4.58%                 | 4.90%   | 7.71%                                       |
| 7           | DTE Energy Co.      | \$57.28             | \$2.35                 | 4.38%  | 4.47%                | 4.55%                        | 4.64%                               | 4.73%                         | 4.81%                 | 4.90%   | 9.06%                                       |
| 8           | Edison Internat.    | \$44.67             | \$1.30                 | 2.22%  | 2.67%                | 3.11%                        | 3.56%                               | 4.01%                         | 4.45%                 | 4.90%   | 7.43%                                       |
| 9           | Great Plains Energy | \$20.46             | \$0.87                 | 8.42%  | 7.83%                | 7.25%                        | 6.66%                               | 6.07%                         | 5.49%                 | 4.90%   | 10.41%                                      |
| 10          | Hawaiian Electric   | \$27.34             | \$1.24                 | 7.46%  | 7.03%                | 6.61%                        | 6.18%                               | 5.75%                         | 5.33%                 | 4.90%   | 10.45%                                      |
| 11          | IDACORP             | \$40.29             | \$1.32                 | 4.67%  | 4.71%                | 4.74%                        | 4.78%                               | 4.82%                         | 4.86%                 | 4.90%   | 8.28%                                       |
| 12          | Pinnacle West       | \$49.65             | \$2.10                 | 5.67%  | 5.54%                | 5.41%                        | 5.29%                               | 5.16%                         | 5.03%                 | 4.90%   | 9.55%                                       |
| 13          | Portland General    | \$25.67             | \$1.06                 | 4.28%  | 4.38%                | 4.49%                        | 4.59%                               | 4.69%                         | 4.80%                 | 4.90%   | 9.06%                                       |
| 14          | SCANA Corp.         | \$46.69             | \$1.98                 | 4.69%  | 4.73%                | 4.76%                        | 4.80%                               | 4.83%                         | 4.87%                 | 4.90%   | 9.29%                                       |
| 15          | Sempra Energy       | \$65.75             | \$2.40                 | 6.10%  | 5.90%                | 5.70%                        | 5.50%                               | 5.30%                         | 5.10%                 | 4.90%   | 9.03%                                       |
| 16          | Southern Co.        | \$46.21             | \$1.96                 | 5.32%  | 5.25%                | 5.18%                        | 5.11%                               | 5.04%                         | 4.97%                 | 4.90%   | 9.47%                                       |
| 17          | Teco Energy, Inc.   | \$17.77             | \$0.88                 | 4.37%  | 4.46%                | 4.55%                        | 4.64%                               | 4.72%                         | 4.81%                 | 4.90%   | 9.93%                                       |
| 18          | Vectren Corp.       | \$29.24             | \$1.40                 | 5.00%  | 4.98%                | 4.97%                        | 4.95%                               | 4.93%                         | 4.92%                 | 4.90%   | 9.95%                                       |
| 19          | Westar Energy       | \$28.90             | \$1.32                 | 5.79%  | 5.64%                | 5.49%                        | 5.35%                               | 5.20%                         | 5.05%                 | 4.90%   | 9.96%                                       |
| 20          | Wisconsin Energy    | \$37.83             | \$1.20                 | 5.58%  | 5.47%                | 5.35%                        | 5.24%                               | 5.13%                         | 5.01%                 | 4.90%   | 8.37%                                       |
| 21          | Xcel Energy Inc.    | \$27.77             | \$1.04                 | 4.94%  | 4.93%                | 4.93%                        | 4.92%                               | 4.91%                         | 4.91%                 | 4.90%   | 8.84%                                       |
| 22<br>23    | Average<br>Median   | \$37.57             | \$1.52                 | 5.14%  | 5.10%                | 5.06%                        | 5.02%                               | 4.98%                         | 4.94%                 | 4.90%   | 9.30%<br>9.47%                              |

Source:

Hadaway Rebuttal, Schedule SCH-9.

#### Update of Gorman Risk Premium Analysis - Proj. Treasury Bond

| <u>Line</u> | Year           | Treasury<br><u>Bond Yield</u><br>(1) | Authorized<br>Electric<br><u>Returns</u><br>(2) | Indicated<br>Risk<br><u>Premium</u><br>(3) |
|-------------|----------------|--------------------------------------|---|--|
| 1           | 1986           | 7.80%                                | 13.93%  | 6.13%                                      |
| 2           | 1987           | 8.58%                                | 12.99%  | 4.41%                                      |
| 3           | 1988           | 8.96%                                | 12.79%  | 3.83%                                      |
| 4           | 1989           | 8.45%                                | 12.97%  | 4.52%                                      |
| 5           | 1990           | 8.61%                                | 12.70%  | 4.09%                                      |
| 6           | 1991           | 8.14%                                | 12.55%  | 4.41%                                      |
| 7           | 1992           | 7.67%                                | 12.09%  | 4.42%                                      |
| 8           | 1993           | 6.60%                                | 11.41%  | 4.81%                                      |
| 9           | 1994           | 7.37%                                | 11.34%  | 3.97%                                      |
| 10          | 1995           | 6.88%                                | 11.55%  | 4.67%                                      |
| 11          | 1996           | 6.70%                                | 11.39%  | 4.69%                                      |
| 12          | 1997           | 6.61%                                | 11.40%  | 4.79%                                      |
| 13          | 1998           | 5.58%                                | 11.66%  | 6.08%                                      |
| 14          | 1999           | 5.87%                                | 10.77%  | 4.90%                                      |
| 15          | 2000           | 5.94%                                | 11.43%  | 5.49%                                      |
| 16          | 2001           | 5.49%                                | 11.09%  | 5.60%                                      |
| 17          | 2002           | 5.43%                                | 11.16%  | 5.73%                                      |
| 18          | 2003           | 4.96%                                | 10.97%  | 6.01%                                      |
| 19          | 2004           | 5.05%                                | 10.75%  | 5.70%                                      |
| 20          | 2005           | 4.65%                                | 10.54%  | 5.89%                                      |
| 21          | 2006           | 4.99%                                | 10.36%  | 5.37%                                      |
| 22          | 2007           | 4.83%                                | 10.36%  | 5.53%                                      |
| 23          | 2008           | 4.28%                                | 10.46%  | 6.18%                                      |
| 24          | 2009           | 4.07%                                | 10.48%  | 6.41%                                      |
| 25          | 2010           | 4.25%                                | 10.34%  | 6.09%                                      |
| 26          | 2011           | <u>3.91%</u>                         | <u>10.22%</u>                                   | <u>6.31%</u>                               |
| 27          | Average        | 6.22%                                | 11.45%  | 5.23%                                      |
| 28          | Max            |                                      |   | 6.41%                                      |
| 29          | Min            |                                      |   | 3.83%                                      |
| -           |                |                                      |   |  |
|             |                | <u>OST OF EQUITY</u>                 |   |  |
| 30          |                | FREASURY BOND YIEL                   | D 3.60%   | 3.60%                                      |
| 30<br>31    |                | OND Risk Premium                     | 6.41%   | 3.83%                                      |
| 32          | Cost of Equity |                                      | <u>0.41%</u><br>10.01%                          | <u>3.83%</u><br>7.43%                      |
| 52          | Sost of Equily |                                      | 10.0176   | 1.4370                                     |
| 33          | Weight         |                                      | 0.75  | 0.25                                       |
| 34          | Weighted Com   | ponent                               | 7.51%   | 1.86%                                      |
| 35          | Recommende     | d                                    | 9.37%   |  |

Source: Hadaway Rebuttal, Schedule SCH-9.

#### Update of Gorman Risk Premium Analysis - Utility Bond

|          |                 | Moody's "A" Rated<br>Public Utility | Authorized<br>Electric | Indicated<br>Risk |
|----------|-----------------|-------------------------------------|------------------------|-------------------|
| Line     | <u>Year</u>     | Bond Yield                          | <u>Returns</u>         | <u>Premium</u>    |
|          |                 | (1)                                 | (2)                    | (3)               |
|          | 1000            | 0 500/                              | 10.000/                | 4.050/            |
| 1        | 1986            | 9.58%                               | 13.93%                 | 4.35%             |
| 2        | 1987            | 10.10%                              | 12.99%                 | 2.89%             |
| 3        | 1988            | 10.49%                              | 12.79%                 | 2.30%             |
| 4        | 1989            | 9.77%                               | 12.97%                 | 3.20%             |
| 5        | 1990            | 9.86%                               | 12.70%                 | 2.84%             |
| 6        | 1991            | 9.36%                               | 12.55%                 | 3.19%             |
| 7        | 1992            | 8.69%                               | 12.09%                 | 3.40%             |
| 8        | 1993            | 7.59%                               | 11.41%                 | 3.82%             |
| 9        | 1994            | 8.31%                               | 11.34%                 | 3.03%             |
| 10       | 1995            | 7.89%                               | 11.55%                 | 3.66%             |
| 11       | 1996            | 7.75%                               | 11.39%                 | 3.64%             |
| 12       | 1997            | 7.60%                               | 11.40%                 | 3.80%             |
| 13       | 1998            | 7.04%                               | 11.66%                 | 4.62%             |
| 14       | 1999            | 7.62%                               | 10.77%                 | 3.15%             |
| 15       | 2000            | 8.24%                               | 11.43%                 | 3.19%             |
| 16       | 2001            | 7.76%                               | 11.09%                 | 3.33%             |
| 17       | 2002            | 7.37%                               | 11.16%                 | 3.79%             |
| 18       | 2003            | 6.58%                               | 10.97%                 | 4.39%             |
| 19       | 2004            | 6.16%                               | 10.75%                 | 4.59%             |
| 20       | 2005            | 5.65%                               | 10.54%                 | 4.89%             |
| 21       | 2006            | 6.07%                               | 10.36%                 | 4.29%             |
| 22       | 2007            | 6.07%                               | 10.36%                 | 4.29%             |
| 23       | 2008            | 6.53%                               | 10.46%                 | 3.93%             |
| 24       | 2009            | 6.04%                               | 10.48%                 | 4.44%             |
| 25       | 2010            | 5.46%                               | 10.34%                 | 4.88%             |
| 26       | 2011            | 5.04%                               | 10.22%                 | 5.18%             |
| 27       | Average         | 7.64%                               | 11.45%                 | 3.81%             |
| 28       | Max             |                                     |                        | 5.18%             |
| 29       | Min             |                                     |                        | 2.30%             |
| 20       | WIIII           |                                     |                        | 2.0070            |
|          |                 |                                     |                        |                   |
|          | INDICATED       | <u>COST OF EQUITY</u>               |                        |                   |
| 30       | CURRENT "E      | Baa" UTILITY BOND YIELD             | 4.95%                  | 4.95%             |
| 31       | Utility Risk Pr | emium                               | <u>5.18%</u>           | 2.30%             |
| 32       | Cost of Equi    | ty                                  | 10.13%                 | 7.25%             |
| 33       | Weight          |                                     | 0.75                   | 0.25              |
| 33<br>34 | Weighted Cor    | monent                              | 7.60%                  | 0.25<br>1.81%     |
| 54       | weighted CO     | nponent                             | 1.00 /0                | 1.0170            |
| 35       | Recommend       | ed [                                | 9.41%                  |                   |

Source:

Hadaway Rebuttal, Schedule SCH-9.