BEFORE THE PUBLIC SERVICE
COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application of KCP&L Greater Missouri Operations Company for Approval to Make Certain Changes in its Charges for Electric Service	**)** **)** **)** **)** **Case No. ER-2010-0356** **)** **)** **)**

Rebuttal Testimony and Schedules of

Michael Gorman

On behalf of

Ag Processing, Inc.
Sedalia Industrial Energy Users Association
Federal Executive Agencies

December 15, 2010

BAI

BRUBAKER & ASSOCIATES, INC.
CHESTERFIELD, MO 63017

Project 9384

BEFORE THE PUBLIC SERVICE
COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application of) KCP&L Greater Missouri Operations) Company for Approval to Make) Certain Changes in its Charges for) Electric Service))	Case No. ER-2010-0356

STATE OF MISSOURI   )
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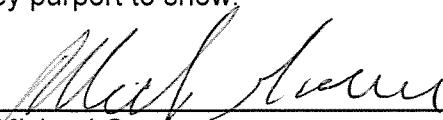COUNTY OF ST. LOUIS   )

Affidavit of Michael Gorman

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

1.   My name is Michael Gorman. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by Ag Processing, Inc., Sedalia Industrial Energy Users Association and Federal Executive Agencies in this proceeding on their behalf.
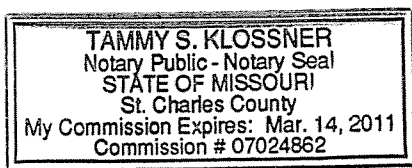
2.   Attached hereto and made a part hereof for all purposes are my rebuttal testimony and schedules which were prepared in written form for introduction into evidence in the Missouri Public Service Commission's Case No. ER-2010-0356.

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

_____
Michael Gorman

Subscribed and sworn to before me this 14th day of December, 2010.

_____
Notary Public

BEFORE THE PUBLIC SERVICE
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In the Matter of the Application of KCP&L Greater Missouri Operations Company for Approval to Make Certain Changes in its Charges for Electric Service	))))))) Case No. ER-2010-0356

Rebuttal Testimony of Michael Gorman

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

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

3 Chesterfield, MO 63017.

4 **Q ARE YOU THE SAME MICHAEL GORMAN WHO PREVIOUSLY FILED**

5 **TESTIMONY IN THIS PROCEEDING?**

6 A Yes.

7 **Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**

8 **EXPERIENCE.**

9 A This information was provided in Appendix A of my direct testimony.

10 **Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

11 A I am appearing on behalf of Ag Processing, Inc., Sedalia Industrial Energy Users

12 Association and the Federal Executive Agencies ("FEA") (collectively "Industrials").

13 These customers purchase substantial amounts of electricity from KCP&L Greater

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Michael Gorman
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1   Missouri Operations Company ("KCPL-GMO") and the outcome of this proceeding will

2   have an impact on their cost of electricity.

3 **Q**   **WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS**

4   **PROCEEDING?**

5 A   I will respond to the Company's requested return on equity of 11.0%. The Company's

6   return on equity is based on an estimated cost of equity for KCPL-GMO of 10.75%,

7   with a 0.25% return on equity adder KCPL-GMO requests to reflect its reliability and

8   customer satisfaction achievements. This 11.0% return on equity is excessive and

9   should be reduced to a return on equity of 9.5%.

10   A return on equity adder for achieving reliability and customer satisfaction

11   should not be approved in this proceeding. Customers are paying higher rates to

12   support costs related to the acquisition of KCPL-GMO into the Great Plains Energy

13   network. The higher rates supporting these acquisition-related costs, benefit both

14   investors and ratepayers. Customers are also being asked to pay for the addition of

15   major construction projects, including KCPL-GMO's portion of the Iatan 2

16   development costs in rates in this proceeding. Those costs are significant, and the

17   Commission should not approve further rate increases to support a discretionary

18   enhanced return on equity in this proceeding. Maintaining competitive rate structures

19   that support necessary capital improvements will work to the benefit of KCPL-GMO's

20   ratepayers, its community, and ultimately KCPL-GMO investors.

21   The mere size and cost at stake to ratepayers are too significant to allow a

22   further discretionary increase in retail rates in this case.

23   For these reasons, KCPL-GMO's proposal for an enhanced return on equity is

24   unreasonable and should be denied.

1   **Response to KCPL-GMO Witness Dr. Samuel Hadaway**

2   **Q   WHAT RETURN ON COMMON EQUITY IS KCPL-GMO PROPOSING FOR THIS**

3   **PROCEEDING?**

4   A   KCPL-GMO is proposing to set rates based on a return on equity of 11.00%.

5   KCPL-GMO's return on equity proposal is based on the analysis and judgment of

6   Dr. Samuel Hadaway. Dr. Hadaway's results are summarized at page 5 of his direct

7   testimony.   Dr. Hadaway recommends a return on equity of 10.75%.   However,

8   KCPL-GMO increased Dr. Hadaway's recommendation to include a 25 basis point

9   return on equity adder to reflect its reliability and customer satisfaction achievements.

10 **Q   DO DR. HADAWAY'S METHODOLOGIES SUPPORT HIS 10.75% RETURN ON**

11 **EQUITY FOR HIS PROXY GROUP?**

12 A   No.   As discussed in detail below, reflecting current market data and properly

13   applying his models, Dr. Hadaway's own analyses would support a return on equity in

14   the range of 9.3% to 10.0%. When the adjustments to Dr. Hadaway's return on

15   equity analyses required to correct the flaws in his approach are implemented, the

16   resulting estimates support my recommended return on equity of 9.5%.

17 **Q   WHAT IS THE TIME PERIOD OF THE MARKET DATA UNDERLYING**

18 **DR. HADAWAY'S RETURN ON EQUITY RECOMMENDATION IN THIS CASE?**

19 A   Dr. Hadaway's DCF model reflects stock prices ending February, March and May

20   2010,[1] and utility bond yields stated as of April 2010 (Hadaway Direct at 27). All of

21   this data is at least six months old, and does not reflect current market costs and

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[1]Schedule SCH2010-5 at 1.

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1   conditions. Therefore, Dr. Hadaway's return on equity estimates are stale and should

2   be disregarded.

3 **Q**   **PLEASE DESCRIBE THE METHODOLOGY SUPPORTING DR. HADAWAY'S**

4   **RETURN ON COMMON EQUITY RECOMMENDATION.**

5 A   Dr. Hadaway develops his return on common equity recommendation using three

6   versions of the DCF model, and two utility risk premium analyses. I have summarized

7   Dr. Hadaway's results below in Table 1 under column 1. Under column 2, I show the

8   results of Dr. Hadaway's analyses adjusted for updated data and a more reasonable

9   application of the models.

10   As shown below in Table 1, using consensus economists' projection of GDP

11   growth rather than Dr. Hadaway's inflated GDP growth estimates, his own DCF

12   analyses would support a return on equity for KCPL-GMO in the range of 10.0%.

13   Removing Dr. Hadaway's inappropriate interest rate-based adjustment to the

14   expected market risk premium and additional use of forecasted interest rates in his

15   risk premium analysis shows that his risk premium return would support a return of

16   approximately 9.34%.

TABLE 1

Summary of Dr. Hadaway's ROE Estimate

Description	Hadaway Results[1]	Adjusted Hadaway Results[2]
	(1)	(2)
DCF Analysis		
Constant Growth (Analysts' Growth)	10.5% - 10.7%	10.5% - 10.7%
Constant Growth (GDP Growth)	11.0% - 11.0%	9.7% - 9.7%
Two-Stage Growth Model	10.8% - 10.8%	9.7% - 9.7%
Reasonable DCF Range	10.7% - 10.8%	10.0% - 10.0%
Risk Premium Analysis		
Forecasted Utility Debt + Equity Risk Premium	10.82%	Reject
Current Utility Debt + Equity Risk Premium	10.61%	9.34%

_____

Sources:

[1]Hadaway Direct Testimony at 43.
[2]Schedule MPG-R-1.

1 **Q IS KCPL-GMO'S REQUEST FOR A 0.25% RETURN ON EQUITY ADDER TO**

2 **REFLECT IMPROVEMENTS IN ITS RELIABILITY AND CUSTOMER**

3 **SATISFACTION REASONABLE?**

4 A No. KCPL-GMO customers are faced with the prospect of higher rates to support

5 major construction projects that are completed and proposed to be included in rates

6 in this case. The Commission should not approve a return on equity adder that

7 further burdens customers with discretionary increases to rates. Therefore, I

8 recommend the Commission reject KCPL-GMO's request for a 25 basis point return

9 on equity adder to reflect an increase in customer satisfaction and reliability.

1	Q	**PLEASE DESCRIBE DR. HADAWAY'S CONSTANT GROWTH DCF ANALYSIS.**
2	A	Dr. Hadaway's adjusted constant growth DCF analysis is shown in Schedule
3		MPG-R-1. As shown in that schedule, Dr. Hadaway's constant growth DCF analysis
4		is based on a recent stock price, an annualized dividend and an average of three
5		growth rates: (1) *Value Line*; (2) Zacks; and (3) Thomson.

6	Q	**ARE DR. HADAWAY'S DCF ESTIMATES RELIABLE?**
7	A	No. Dr. Hadaway's constant growth DCF based on analyst growth rates produces
8		excessive return estimates for the same reasons discussed in my direct testimony
9		concerning my own DCF studies. That is, Dr. Hadaway's analyst growth DCF study
10		is based on growth rate estimates in the range of 5.58% to 5.86%. These growth
11		rates are <u>not</u> sustainable in the long run.

12   Second, his GDP growth input, which is used in his constant growth and

13   two-stage growth models, is based on an inflated GDP growth rate of 6.0%. This

14   GDP growth is excessive and not reflective of current market expectations.

15	Q	**HOW DID DR. HADAWAY DEVELOP HIS GDP GROWTH RATE?**
16	A	He states that the GDP growth rate is based on the achieved GDP growth over the
17		last 10, 20, 30, 40, 50, and 60-year periods. Dr. Hadaway's projected GDP growth
18		rate is unreasonable. Historical GDP growth over the last 20 and 40-year periods
19		was strongly influenced by the actual inflation rate experienced over that time period.

1 **Q WHY IS DR. HADAWAY'S DCF ESTIMATE EXCESSIVE IN COMPARISON TO**

2 **THAT OF PUBLISHED MARKET ANALYSTS?**

3 A The consensus economists' projected GDP growth rate is much lower than the GDP

4 growth rate used by Dr. Hadaway in his DCF analysis. A comparison of

5 Dr. Hadaway's GDP growth rate and consensus economists' projected GDP growth

6 over the next five and ten years is shown below in Table 2. As shown in this table,

7 Dr. Hadaway's GDP rate of 6.0% reflects real GDP of 2.9% and a GDP price inflation

8 of 3.1%. However, consensus economists' projections of nominal GDP include GDP

9 inflation projections over the next five and ten years of 2.0%, and 2.1%, respectively.[2]

10 As is clearly evident in the table below, Dr. Hadaway's historical GDP growth

11 reflects historical inflation, which is much higher than, and not representative of,

12 consensus market expected forward-looking inflation.

TABLE 2

GDP Projections

Description	GDP Price Inflation	Real GDP	Nominal GDP
Dr. Hadaway[1]	3.1%	2.9%	6.0%
Consensus 5-Year Projection[2]	2.0%	2.9%	4.8%
Consensus 10-Year Projection[2]	2.1%	2.5%	4.7%

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Sources:
[1]Schedule SCH2010-4.
[2]*Blue Chip Economic Indicators*, October 10, 2010, at 15.

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13 Therefore, Dr. Hadaway's 6.0% nominal GDP growth rate is not reflective of

14 consensus market expectations and should be rejected.

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[2]*Blue Chip Economic Indicators*, October 10, 2010 at 15.

1 **Q ARE YOU AWARE OF ANY JURISDICTIONS THAT HAVE REJECTED**

2 **DR. HADAWAY'S DCF RETURN ESTIMATES?**

3 A Yes. Dr. Hadaway's DCF models have been rejected by several regulatory

4 commissions, including the following cases:

5 • Arkansas (*In re: Centerpoint Energy*, 245 P.U.R. 4th 384 (Arkansas Public Service
6 Commission, September 19, 2005));

7 • Illinois (*In re: Commonwealth Edison Company*, 250 P.U.R. 4th 161 (Illinois
8 Commerce Commission, July 26, 2006));

9 • Massachusetts (*In re: Fitchburg Gas and Electric Light Company*, 2008
10 Mass.P.U.C. Lexis 13 (Massachusetts Department of Telecommunications and
11 Energy, February 29, 2008));

12 • New Mexico (*In re: Public Service Company of New Mexico*, 2008 N.M. P.U.C.
13 Lexis 14 (New Mexico Public Regulatory Commission, April 24, 2008)); and

14 • Washington (*In re: PacifiCorp*, 2006 Washington U.T.C. Lexis (Washington
15 Utilities and Transportation Commission, April 17, 2006)).

16 The Commission should reject Dr. Hadaway's DCF studies in this case, just

17 as many other commissions have rejected them because they are based on

18 unreasonably high GDP growth rates. The growth rates he used do not reflect

19 investor expectations and inflated his DCF estimates.

20 **Q HOW WOULD DR. HADAWAY'S DCF ANALYSES CHANGE IF CURRENT**

21 **MARKET-BASED GDP GROWTH RATE PROJECTIONS ARE INCLUDED IN HIS**

22 **ANALYSIS RATHER THAN HIS EXCESSIVE GDP GROWTH RATE?**

23 A As shown in Schedule MPG-R-1, I updated Dr. Hadaway's DCF analyses using more

24 recent market data and a GDP growth rate of 4.75%. This GDP growth rate is the

25 average of the consensus economists' 5-year and 10-year projected growth rate of

26 the GDP as published in the *Blue Chip Economic Indicators* on October 10, 2010 of

27 4.7% and 4.8%, respectively. As shown in Schedule MPG-R-1, using this consensus

1   economists' projected GDP growth rate reduces Dr. Hadaway's DCF results from

2   10.75% to 10.0%.

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TABLE 3

Adjusted Hadaway DCF

	Range Average	
Description	**Hadaway DCF[1]**	**Adjusted DCF[2]**
Constant Growth (Analysts' Growth)	10.6%	10.5% - 10.7%
Constant Growth (GDP Growth)	11.0%	9.7% - 9.7%
Two-Stage Growth Model	10.8%	9.7% - 9.7%
Average	10.8%	10.0% - 10.0%

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Sources:
[1]Schedule SCH2010-5.
[2]Schedule MPG-R-1.

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3   As shown above in Table 3, using a consensus economists' GDP forecast, rather

4   than the GDP forecast derived by Dr. Hadaway, would support a return on equity for

5   KCPL-GMO of 10.0%.

6   **Q   PLEASE DESCRIBE DR. HADAWAY'S UTILITY RISK PREMIUM ANALYSIS.**

7   A   Dr. Hadaway's utility bond yield versus authorized return on common equity risk

8   premium is shown in Schedule SCH2010-6, pages 1-3. As shown in this schedule,

9   Dr. Hadaway estimated an annual equity risk premium by subtracting Moody's

10   average bond yield from the electric utility regulatory commission authorized return on

11   common equity over the period 1980 through 2009. Based on this analysis,

12   Dr. Hadaway estimates an average indicated equity risk premium over current utility

13   bond yields of 3.23%.

14   However, Dr. Hadaway then adjusts this average equity risk premium using a

15   regression analysis based on an expectation that there is an ongoing inverse

1   relationship between interest rates and equity risk premiums. Based on this

2   regression analysis, Dr. Hadaway increases his equity risk premium from 3.23%, up

3   to 4.25% and 4.39% relative to projected and current "BBB" bond yields of 6.57% and

4   6.22%, respectively. He then adds these equity risk premiums to the projected and

5   current "BBB" rated utility bond yields to produce return on equity estimates of

6   10.82% and 10.61%, respectively.

7   **Q   ARE DR. HADAWAY'S UTILITY RISK PREMIUM ANALYSES REASONABLE?**

8   A   No. Dr. Hadaway's risk premiums are unreasonable for at least two reasons. First,

9   they are based on forecasted utility bond yields. Second, Dr. Hadaway's equity risk

10   premiums are increased to adjust his measured average equity risk premium for

11   changes to nominal interest rates.

12   **Q   HOW DID DR. HADAWAY DEVELOP FORECASTED UTILITY BOND YIELDS IN**

13   **HIS RISK PREMIUM STUDY?**

14   A   Dr. Hadaway forecasts utility bond yields based on the 3-month historical spread of

15   "BBB" rated utility bond yields and 30-year Treasury bond yields. He then added this

16   current utility bond yield spread to a forecasted long-term Treasury bond yield of

17   5.0%.

18   **Q   IS HIS USE OF FORECASTED UTILITY BOND YIELDS REASONABLE?**

19   A   No. The accuracy of his forecasted increased Treasury bond and utility bond yields is

20   at very best highly problematic. Indeed, while analysts consistently project Treasury

21   bond yields to increase, those projected increased interest rate projections have

22   consistently turned out to be wrong and have overstated the actual Treasury yields

1   that eventually prevailed. The accuracy of Dr. Hadaway's projected utility bond yields

2   is at very best problematic, because it is based on the accuracy of his projected

3   increase to Treasury bond yields or interest rates.

4 **Q**   **WHY DO YOU BELIEVE THAT THE ACCURACY OF FORECASTED INTEREST**

5   **RATES IS HIGHLY PROBLEMATIC?**

6 A   This is clearly evident from a review of projected changes to interest rates made over

7   the last several years, in comparison to how accurate these projections turned out to

8   be. This analysis clearly illustrates that observable interest rates today are as

9   accurate as are economists' consensus projections of future interest rates.

10   An analysis supporting this conclusion is illustrated in Schedule MPG-R-2. On

11   this schedule, under Column 1 (actual yield) and Column 2 (projected yield), I show

12   the actual market yield at the time a projection was made for Treasury bond yields

13   two years in the future.

14   As shown in Columns 1 and 2, over the last several years, Treasury yields

15   were projected to increase relative to the prevailing actual Treasury yields at the time

16   of the projection. In Column 4, I show what the Treasury yield actually turned out to

17   be two years after the forecast. In Column 5, I show the actual yield change relative

18   to the projected yield change.

19   As shown in this schedule, over the last several years, economists have been

20   consistently projecting increases to interest rates. However, as demonstrated under

21   Column 5, those yield projections have turned out to be overstated in virtually every

22   case. Indeed, actual Treasury yields have decreased or remained flat over the last

23   five years, rather than increase as the economists' projections indicated.

1   This review of the experience with projected interest rates clearly illustrates

2   that interest rate projection accuracy is highly problematic.   Indeed, current

3   observable interest rates are just as likely a reasonable projection of future interest

4   rates as are economists' projections.

5 **Q   HOW DID DR. HADAWAY ADJUST HIS STUDY PERIOD AVERAGE RISK**

6 **PREMIUM?**

7 A   Dr. Hadaway adjusted the average equity risk premium measured within his historical

8   period to reflect an expected inverse relationship between interest rates and equity

9   risk premiums. Dr. Hadaway believes that as nominal interest rates increase, equity

10   risk premiums decrease. And conversely, that as nominal interest rates decrease,

11   equity risk premiums increase.

12 **Q   IS IT REASONABLE TO ASSUME A SIMPLE INVERSE RELATIONSHIP**

13 **BETWEEN INTEREST RATES AND EQUITY RISK PREMIUMS?**

14 A   No, it is far more complicated than this simple assumption. Dr. Hadaway's belief that

15   there is a simplistic inverse relationship between equity risk premiums and interest

16   rates is not supported by academic research. While academic studies have shown

17   that, in the past, there has been an inverse relationship with these variables,

18   researchers have found that the relationship changes over time and is influenced by

19   changes in perception of the risk of bond investments relative to equity investments,

20   and not simply by changes to nominal interest rates.[3]

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[3]"The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts," Robert S. Harris and Felicia C. Marston, *Journal of Applied Finance*, Volume 11, No. 1, 2001 and "The Risk Premium Approach to Measuring a Utility's Cost of Equity," Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *Financial Management*, Spring 1985.

1   In the 1980s, equity risk premiums were inversely related to interest rates, but

2 that was likely attributable to the interest rate volatility that existed at that time.

3 Interest rate volatility currently is much lower than it was in the 1980s.[4] As such,

4 when interest rates were more volatile, the relative perception of bond investment risk

5 increased relative to the investment risk of equities. This changing investment risk

6 perception caused changes in equity risk premiums.

7   In today's marketplace, interest rate variability is not as extreme as it was

8 during the 1980s. Nevertheless, changes in the perceived risk of bond investments

9 relative to equity investments still drive changes in equity premiums. However, a

10 relative investment risk differential cannot be measured simply by observing nominal

11 interest rates. Changes in nominal interest rates are highly influenced by changes to

12 inflation outlooks, which also change equity return expectations. As such, the

13 relevant factors needed to explain changes in equity risk premiums are the relative

14 changes to the perceptions of risk of equity versus debt securities investments, not

15 simply changes to interest rates.

16   Importantly, Dr. Hadaway's analysis simply ignores investment risk

17 differentials. He bases his adjustment to the equity risk premium exclusively on

18 changes in nominal interest rates. This is a flawed methodology and does not

19 produce accurate or reliable risk premium estimates. His results should be rejected

20 by the Commission.

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[4]Morningstar, Inc. *Ibbotson SBBI 2010 Classic Yearbook* at 77.

Michael Gorman
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1 **Q CAN DR. HADAWAY'S RISK PREMIUM ANALYSES BASED ON CURRENT AND**

2 **PROJECTED YIELDS BE MODIFIED TO PRODUCE MORE REASONABLE**

3 **RESULTS?**

4 A Yes. Dr. Hadaway's study indicates that an unadjusted equity risk premium is 3.23%.

5 Using this unadjusted equity risk premium and the current "BBB" rated utility yield of

6 5.60%[5] will produce a return on equity of 8.83%. Using Dr. Hadaway's 2010 equity

7 risk premium of 4.25% as shown in Schedule SCH2010-6 and a current "BBB" rated

8 utility yield of 5.60% will produce a return of 9.85%. Therefore, Dr. Hadaway's risk

9 premium study, adjusted to include the reasonable unadjusted equity risk premiums

10 shown by his study and current observable utility bond yields, produces a return on

11 equity in the range of 8.83% to 9.85%. The midpoint of the adjusted range is 9.34%.

12 **Q PLEASE SUMMARIZE YOUR ADJUSTMENTS TO DR. HADAWAY'S RESULTS,**

13 **AND THE INDICATED RETURN ON EQUITY FOR KCPL-GMO IN THIS**

14 **PROCEEDING.**

15 A I find a revision to Dr. Hadaway's DCF studies to reflect the consensus of economists'

16 projected GDP growth, would support a return on equity in the range of 9.7% to

17 10.0%. Further, revisions to his risk premium study to reflect a more reasonable

18 equity risk premium and current observable utility bond yields, would support a return

19 on equity of approximately 9.32%. Hence, these updates to Dr. Hadaway's testimony

20 suggest a return on equity in the range of 9.3% to 10.0% would be reasonable. This

21 indicated range supports my recommended return on equity for KCPL-GMO of 9.5%

22 in this proceeding.

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[5]13 weeks ended October 22, 2010, Schedule MPG-14, page 1.

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

2 A Yes.

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KCP&L Greater Missouri Operations

Summary of Adjusted Hadaway DCF

Line	Description	Hadaway (1)	Hadaway Adjusted* (2)
	Constant Growth DCF (Analysts' Growth Rates)		
1	Average	10.7%	10.7%
2	Median	10.5%	10.5%
	Constant Growth DCF (Long-Term GDP Growth)		
3	Average	11.0%	9.7%
4	Median	11.0%	9.7%
	Two-Stage Growth DCF		
5	Average	10.8%	9.7%
6	Median	10.8%	9.7%

Sources:

Pages 2 to 4.

* The adjustment reflects changing the GDP Growth Rate
   to 4.75%.

KCP&L Greater Missouri Operations

Adjusted Hadaway Constant Growth DCF Model
(Analysts' Growth Rates)

Line	Company	Recent Stock Price (1)	Next Year's Dividend (2)	Dividend Yield (3)	Average Analyst Growth Rate (4)	Constant Growth DCF (5)
1	ALLETE	$33.30	$1.76	5.29%	4.52%	9.8%
2	Alliant Energy Co.	$32.91	$1.62	4.91%	5.53%	10.4%
3	American Elec. Pwr.	$34.11	$1.65	4.84%	3.53%	8.4%
4	Avista Corp.	$20.88	$1.04	4.98%	5.99%	11.0%
5	Black Hills Corp	$29.40	$1.46	4.97%	6.17%	11.1%
6	Cleco Corporation	$26.22	$1.04	3.97%	7.00%	11.0%
7	Con. Edison	$43.99	$2.39	5.43%	3.26%	8.7%
8	DPL Inc.	$27.25	$1.25	4.57%	5.32%	9.9%
9	DTE Energy Co.	$44.89	$2.18	4.86%	5.63%	10.5%
10	Duke Energy	$16.45	$0.98	5.96%	4.76%	10.7%
11	Edison Internat.	$33.68	$1.31	3.89%	2.51%	6.4%
12	Empire District	$18.48	$1.28	6.93%	6.50%	13.4%
13	Entergy Corp.	$79.58	$3.00	3.77%	5.23%	9.0%
14	NextEra Energy	$48.44	$2.00	4.13%	6.96%	11.1%
15	Hawaiian Electric	$21.63	$1.24	5.73%	9.12%	14.9%
16	IDACORP	$34.06	$1.20	3.52%	5.17%	8.7%
17	Northeast Utilities	$26.73	$1.07	3.98%	7.78%	11.8%
18	NSTAR	$34.95	$1.68	4.81%	5.74%	10.5%
19	PG&E Corp.	$42.60	$1.89	4.44%	7.03%	11.5%
20	Pinnacle West	$37.24	$2.10	5.64%	6.33%	12.0%
21	Portland General	$19.11	$1.06	5.52%	4.82%	10.3%
22	Progress Energy	$39.02	$2.51	6.43%	4.02%	10.5%
23	SCANA Corp.	$37.12	$1.91	5.15%	4.56%	9.7%
24	Sempra Energy	$49.64	$1.62	3.26%	4.83%	8.1%
25	Southern Co.	$32.89	$1.82	5.53%	4.78%	10.3%
26	Teco Energy, Inc.	$15.85	$0.81	5.11%	6.71%	11.8%
27	UIL Holdings Co.	$27.79	$1.73	6.23%	3.70%	9.9%
28	Vectren Corp.	$23.99	$1.38	5.75%	4.77%	10.5%
29	Westar Energy	$22.20	$1.26	5.68%	6.45%	12.1%
30	Wisconsin Energy	$49.93	$1.70	3.40%	8.83%	12.2%
31	Xcel Energy Inc.	$21.12	$1.02	4.81%	5.79%	10.6%
32	**Average**	**$33.08**	**$1.58**	**4.95%**	**5.59%**	**10.7%**
33	**Median**			**4.97%**	**5.53%**	**10.5%**

Source:
Schedule SCH2010-5, page 2 of 5.

KCP&L Greater Missouri Operations

Adjusted Hadaway Constant Growth DCF Model
(Long-Term GDP Growth)

Line	Company	Recent Stock Price (1)	Next Year's Dividend (2)	Dividend Yield (3)	GDP Growth* (4)	Long-Term Constant Growth DCF (5)
1	ALLETE	$33.30	$1.76	5.29%	4.75%	10.0%
2	Alliant Energy Co.	$32.91	$1.62	4.91%	4.75%	9.7%
3	American Elec. Pwr.	$34.11	$1.65	4.84%	4.75%	9.6%
4	Avista Corp.	$20.88	$1.04	4.98%	4.75%	9.7%
5	Black Hills Corp	$29.40	$1.46	4.97%	4.75%	9.7%
6	Cleco Corporation	$26.22	$1.04	3.97%	4.75%	8.7%
7	Con. Edison	$43.99	$2.39	5.43%	4.75%	10.2%
8	DPL Inc.	$27.25	$1.25	4.57%	4.75%	9.3%
9	DTE Energy Co.	$44.89	$2.18	4.86%	4.75%	9.6%
10	Duke Energy	$16.45	$0.98	5.96%	4.75%	10.7%
11	Edison Internat.	$33.68	$1.31	3.89%	4.75%	8.6%
12	Empire District	$18.48	$1.28	6.93%	4.75%	11.7%
13	Entergy Corp.	$79.58	$3.00	3.77%	4.75%	8.5%
14	NextEra Energy	$48.44	$2.00	4.13%	4.75%	8.9%
15	Hawaiian Electric	$21.63	$1.24	5.73%	4.75%	10.5%
16	IDACORP	$34.06	$1.20	3.52%	4.75%	8.3%
17	Northeast Utilities	$26.73	$1.07	3.98%	4.75%	8.7%
18	NSTAR	$34.95	$1.68	4.81%	4.75%	9.6%
19	PG&E Corp.	$42.60	$1.89	4.44%	4.75%	9.2%
20	Pinnacle West	$37.24	$2.10	5.64%	4.75%	10.4%
21	Portland General	$19.11	$1.06	5.52%	4.75%	10.3%
22	Progress Energy	$39.02	$2.51	6.43%	4.75%	11.2%
23	SCANA Corp.	$37.12	$1.91	5.15%	4.75%	9.9%
24	Sempra Energy	$49.64	$1.62	3.26%	4.75%	8.0%
25	Southern Co.	$32.89	$1.82	5.53%	4.75%	10.3%
26	Teco Energy, Inc.	$15.85	$0.81	5.11%	4.75%	9.9%
27	UIL Holdings Co.	$27.79	$1.73	6.23%	4.75%	11.0%
28	Vectren Corp.	$23.99	$1.38	5.75%	4.75%	10.5%
29	Westar Energy	$22.20	$1.26	5.68%	4.75%	10.4%
30	Wisconsin Energy	$49.93	$1.70	3.40%	4.75%	8.2%
31	Xcel Energy Inc.	$21.12	$1.02	4.81%	4.75%	9.6%
32	**Average**	**$33.08**	**$1.58**	**4.95%**	**4.75%**	**9.7%**
33	**Median**			**4.97%**		**9.7%**

Sources:
Schedule SCH2010-5, page 3 of 5.
* *Blue Chip Economic Indicators,* October 10, 2010 at 15.

KCP&L Greater Missouri Operations

Adjusted Hadaway Low Near-Term Growth
Two-Stage Growth DCF Model

Line	Company	Recent Stock Price[1] (1)	Next Year's Dividend[2] (2)	2014 Forecasted Dividend (3)	Annual Change to 2014 (4)	Cash Flows Year 1 Dividend (5)	Year 2 Dividend (6)	Year 3 Dividend (7)	Year 4 Dividend (8)	Year 5 Dividend (9)	GDP Growth[3] (10)	Two-Stage Growth DCF (11)
1	ALLETE	$33.30	$1.76	$1.80	$0.01	$1.76	$1.77	$1.79	$1.80	$1.89	4.75%	9.5%
2	Alliant Energy Co.	$32.91	$1.65	$1.92	$0.09	$1.65	$1.74	$1.83	$1.92	$2.01	4.75%	9.8%
3	American Elec. Pwr.	$34.11	$1.66	$1.90	$0.08	$1.66	$1.74	$1.82	$1.90	$1.99	4.75%	9.6%
4	Avista Corp.	$20.88	$1.08	$1.30	$0.07	$1.08	$1.15	$1.23	$1.30	$1.36	4.75%	10.1%
5	Black Hills Corp	$29.40	$1.48	$1.60	$0.04	$1.48	$1.52	$1.56	$1.60	$1.68	4.75%	9.5%
6	Cleco Corporation	$26.22	$1.10	$1.40	$0.10	$1.10	$1.20	$1.30	$1.40	$1.47	4.75%	9.4%
7	Con. Edison	$43.99	$2.40	$2.46	$0.02	$2.40	$2.42	$2.44	$2.46	$2.58	4.75%	9.7%
8	DPL Inc.	$27.25	$1.28	$1.50	$0.07	$1.28	$1.35	$1.43	$1.50	$1.57	4.75%	9.5%
9	DTE Energy Co.	$44.89	$2.24	$2.60	$0.12	$2.24	$2.36	$2.48	$2.60	$2.72	4.75%	9.8%
10	Duke Energy	$16.45	$0.99	$1.10	$0.04	$0.99	$1.03	$1.06	$1.10	$1.15	4.75%	10.6%
11	Edison Internat.	$33.68	$1.34	$1.50	$0.05	$1.34	$1.39	$1.45	$1.50	$1.57	4.75%	8.6%
12	Empire District	$18.48	$1.28	$1.35	$0.02	$1.28	$1.30	$1.33	$1.35	$1.41	4.75%	11.2%
13	Entergy Corp.	$79.58	$3.00	$3.60	$0.20	$3.00	$3.20	$3.40	$3.60	$3.77	4.75%	8.7%
14	NextEra Energy	$48.44	$2.00	$2.40	$0.13	$2.00	$2.13	$2.27	$2.40	$2.51	4.75%	9.0%
15	Hawaiian Electric	$21.63	$1.24	$1.30	$0.02	$1.24	$1.26	$1.28	$1.30	$1.36	4.75%	10.0%
16	IDACORP	$34.06	$1.20	$1.40	$0.07	$1.20	$1.27	$1.33	$1.40	$1.47	4.75%	8.3%
17	Northeast Utilities	$26.73	$1.10	$1.25	$0.05	$1.10	$1.15	$1.20	$1.25	$1.31	4.75%	8.8%
18	NSTAR	$34.95	$1.73	$2.05	$0.11	$1.73	$1.84	$1.94	$2.05	$2.15	4.75%	9.8%
19	PG&E Corp.	$42.60	$1.96	$2.40	$0.15	$1.96	$2.11	$2.25	$2.40	$2.51	4.75%	9.6%
20	Pinnacle West	$37.24	$2.10	$2.30	$0.07	$2.10	$2.17	$2.23	$2.30	$2.41	4.75%	10.1%
21	Portland General	$19.11	$1.07	$1.20	$0.04	$1.07	$1.11	$1.16	$1.20	$1.26	4.75%	10.2%
22	Progress Energy	$39.02	$2.52	$2.58	$0.02	$2.52	$2.54	$2.56	$2.58	$2.70	4.75%	10.6%
23	SCANA Corp.	$37.12	$1.92	$2.05	$0.04	$1.92	$1.96	$2.01	$2.05	$2.15	4.75%	9.6%
24	Sempra Energy	$49.64	$1.68	$2.05	$0.12	$1.68	$1.80	$1.93	$2.05	$2.15	4.75%	8.3%
25	Southern Co.	$32.89	$1.85	$2.10	$0.08	$1.85	$1.93	$2.02	$2.10	$2.20	4.75%	10.3%
26	Teco Energy, Inc.	$15.85	$0.82	$0.95	$0.04	$0.82	$0.86	$0.91	$0.95	$1.00	4.75%	10.0%
27	UIL Holdings Co.	$27.79	$1.73	$1.73	$0.00	$1.73	$1.73	$1.73	$1.73	$1.81	4.75%	10.2%
28	Vectren Corp.	$23.99	$1.39	$1.50	$0.04	$1.39	$1.43	$1.46	$1.50	$1.57	4.75%	10.2%
29	Westar Energy	$22.20	$1.28	$1.40	$0.04	$1.28	$1.32	$1.36	$1.40	$1.47	4.75%	10.3%
30	Wisconsin Energy	$49.93	$1.80	$2.40	$0.20	$1.80	$2.00	$2.20	$2.40	$2.51	4.75%	8.9%
31	Xcel Energy Inc.	$21.12	$1.03	$1.15	$0.04	$1.03	$1.07	$1.11	$1.15	$1.20	4.75%	9.5%
20	**Average**	**$33.08**	**$1.60**	**$1.81**	**$0.07**	**$1.60**	**$1.67**	**$1.74**	**$1.81**	**$1.90**	**4.75%**	**9.7%**
21	**Median**											**9.7%**

Sources:

Schedule SCH2010-5, page 4 of 5.

* *Blue Chip Economic Indicators,* October 10, 2010 at 15.

KCP&L Greater Missouri Operations

Accuracy of Interest Rate Forecasts
(Long-Term Treasury Bond Yields - Projected Vs. Actual)

Line	Date	Publication Data			Actual Yield in Projected Quarter	Projected Yield Higher (Lower) Than Actual Yield*
		Prior Quarter Actual Yield (1)	Projected Yield (2)	Projected Quarter (3)	(4)	(5)
1	Dec-00	5.8%	5.8%	1Q, 02	5.6%	0.2%
2	Mar-01	5.7%	5.6%	2Q, 02	5.8%	-0.2%
3	Jun-01	5.4%	5.8%	3Q, 02	5.2%	0.6%
4	Sep-01	5.7%	5.9%	4Q, 02	5.1%	0.8%
5	Dec-01	5.5%	5.7%	1Q, 03	5.0%	0.7%
6	Mar-02	5.3%	5.9%	2Q, 03	4.7%	1.2%
7	Jun-02	5.6%	6.2%	3Q, 03	5.2%	1.0%
8	Sep-02	5.8%	5.9%	4Q, 03	5.2%	0.7%
9	Dec-02	5.2%	5.7%	1Q, 04	4.9%	0.8%
10	Mar-03	5.1%	5.7%	2Q, 04	5.4%	0.3%
11	Jun-03	5.0%	5.4%	3Q, 04	5.1%	0.3%
12	Sep-03	4.7%	5.8%	4Q, 04	4.9%	0.9%
13	Dec-03	5.2%	5.9%	1Q, 05	4.8%	1.1%
14	Mar-04	5.2%	5.9%	2Q, 05	4.6%	1.4%
15	Jun-04	4.9%	6.2%	3Q, 05	4.5%	1.7%
16	Sep-04	5.4%	6.0%	4Q, 05	4.8%	1.2%
17	Dec-04	5.1%	5.8%	1Q, 06	4.6%	1.2%
18	Mar-05	4.9%	5.6%	2Q, 06	5.1%	0.5%
19	Jun-05	4.8%	5.5%	3Q, 06	5.0%	0.5%
20	Sep-05	4.6%	5.2%	4Q, 06	4.7%	0.5%
21	Dec-05	4.5%	5.3%	1Q, 07	4.8%	0.5%
22	Mar-06	4.8%	5.1%	2Q, 07	5.0%	0.1%
23	Jun-06	4.6%	5.3%	3Q, 07	4.9%	0.4%
24	Sep-06	5.1%	5.2%	4Q, 07	4.6%	0.6%
25	Dec-06	5.0%	5.0%	1Q, 08	4.4%	0.6%
26	Mar-07	4.7%	5.1%	2Q, 08	4.6%	0.5%
27	Jun-07	4.8%	5.1%	3Q, 08	4.5%	0.7%
28	Sep-07	5.0%	5.2%	4Q, 08	3.7%	1.5%
29	Dec-07	4.9%	4.8%	1Q, 09	3.5%	1.4%
30	Mar-08	4.6%	4.8%	2Q, 09	4.0%	0.8%
31	Jun-08	4.4%	4.9%	3Q, 09	4.3%	0.6%
32	Sep-08	4.6%	5.1%	4Q, 09	4.3%	0.8%
33	Dec-08	4.5%	4.6%	1Q, 10	4.6%	0.0%
34	Mar-09	3.7%	4.1%	2Q, 10	4.4%	-0.3%
35	Apr-09	3.5%	4.3%	3Q, 10		
36	May-09	3.5%	4.3%	3Q, 10		
37	Jun-09	3.5%	4.6%	3Q, 10		
38	Jul-09	4.0%	5.0%	4Q, 10		
39	Aug-09	4.0%	5.0%	4Q, 10		
40	Sep-09	4.0%	5.0%	4Q, 10		
41	Oct-09	4.3%	5.1%	1Q, 11		
42	Nov-09	4.3%	5.0%	1Q, 11		
43	Dec-09	4.3%	5.0%	1Q, 11		
44	Jan-10	4.3%	5.2%	2Q, 11		
45	Feb-10	4.3%	5.2%	2Q, 11		
46	Mar-10	4.3%	5.2%	2Q, 11		
47	Apr-10	4.6%	5.3%	3Q, 11		
48	May-10	4.6%	5.3%	3Q, 11		
49	Jun-10	4.6%	5.2%	3Q, 11		
50	Jul-10	4.4%	5.1%	4Q, 11		
51	Aug-10	4.4%	4.9%	4Q, 11		
52	Sep-10	4.4%	4.7%	4Q, 11		
53	Oct-10	3.9%	4.7%	1Q, 12		

Source:
Blue Chip Financial Forecasts, Various Dates.
* Col. 2 - Col. 4.