Exhibit No.:

Revenue Requirement Issue: Witness: Michael Gorman Type of Exhibit: Rebuttal Testimony MEUA, MIEC and DOE Sponsoring Parties: Case No.: ER-2010-0355

Date Testimony Prepared: December 8, 2010

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

In the Matter of the Application of **Kansas City Power & Light Company** for Approval to Make Certain Changes in its Charges for Electric Service to Continue the Implementation of Its **Regulatory Plan** 

Case No. ER-2010-0355

Rebuttal Testimony and Schedules of

#### **Michael Gorman**

On behalf of

The Midwest Energy Users Association **Missouri Industrial Energy Consumers United States Department of Energy** 

December 8, 2010



Project 9384

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

In the Matter of the Application of Kansas City Power & Light Company for Approval to Make Certain Changes in its Charges for Electric Service to Continue the Implementation of Its Regulatory Plan

Case No. ER-2010-0355

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

#### Affidavit of Michael Gorman

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

- My name is Michael Gorman. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017. We have been retained by the Midwest Energy Users Association ("MEUA"), Missouri Industrial Energy Consumers ("MIEC"), and the United States Department of Energy ("DOE") 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 Missouri Public Service Commission Case No. ER-2010-0355.
- I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things they purport to show.

Michael Gorman

Subscribed and sworn to before me this 7th day of December, 2010.

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

Commission # 09706793

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

In the Matter of the Application of Kansas City Power & Light Company for Approval to Make Certain Changes in its Charges for Electric Service to Continue the Implementation of Its Regulatory Plan

Case No. ER-2010-0355

#### Rebuttal Testimony of Michael Gorman

1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS. 2 Α Michael Gorman. My business address is 16690 Swingley Ridge Road, Suite 140, 3 Chesterfield, MO 63017. ARE YOU THE SAME MICHAEL GORMAN WHO PREVIOUSLY FILED 4 Q **TESTIMONY IN THIS PROCEEDING?** 5 6 Α Yes. 7 Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND 8 EXPERIENCE. 9 This information was provided in Appendix A of my direct testimony. 10 ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING? Q 11 Α This testimony is presented on behalf of the Midwest Energy Users Association 12 ("MEUA"), Missouri Industrial Energy Consumers ("MIEC"), and the United States

Department of Energy ("DOE"). MEUA members, MIEC members and DOE are

13

1	large commercial and/or industrial users of electricity served by Kansas City
2	Power & Light Company ("KCPL" or "Company").

## Q WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?

Α

I will respond to the Company's requested return on equity of 11.0%. The Company's return on equity is based on an estimated cost of equity for KCPL of 10.75%, with a 0.25% return on equity adder KCPL requests to reflect its reliability and customer satisfaction achievements. This 11.0% return on equity is excessive and should be reduced to a return on equity of 9.5%.

A return on equity adder for achieving reliability and customer satisfaction should not be approved in this proceeding. Customers have provided KCPL significant rate and cash flow support during construction of major capital improvement programs. This ratepayer funded cash flow enhancement benefitted KCPL's investors and ultimately retail ratepayers. Now, rates are being adjusted to account for a significant increase in rate base to reflect these capital improvements being placed in-service. As such, the Commission should work to the benefit of customers to mitigate this rate impact by providing KCPL a fair rate of return, but one no higher than necessary to provide fair compensation and maintain its financial integrity.

Further, Staff found that KCPL's latan 2 development cost has come in well over the contingency adjusted budget. The Commission should not award a bonus return on equity component if it finds that any portion of this budget overrun was caused by imprudent or unreasonable management of this construction project. The

1	mere	size	and	cost	at	stake	to	ratepayers	are	too	significant	to	allow	а	further
2	discre	tiona	ry inc	rease	in	retail r	ate	s in this cas	e.						

For these reasons, KCPL's proposal for an enhanced return on equity is unreasonable and should be denied.

## 5 Q HAVE YOU UPDATED YOUR RETURN ON EQUITY ANALYSES IN THIS 6 REBUTTAL TESTIMONY?

No. However, I did develop a more recent return on equity study to support my return on equity recommendations for KCPL's affiliate, KCP&L Greater Missouri Operations Company ("KCPL-GMO"), in Case No. ER-2010-0356. In that testimony, I recommended a fair return on equity of 9.5% to reflect more recent market information relative to the time I performed my study for KCPL in this case. Since KCPL-GMO's and KCPL's investment risks are both tied to their parent company, Great Plains Energy, an updated return on equity study would support a 9.5% return for KCPL in this case rather than the 9.65% I previously recommended.

#### Response to KCPL Witness Dr. Samuel Hadaway

### 16 Q WHAT RETURN ON COMMON EQUITY IS KCPL PROPOSING FOR THIS

#### 17 **PROCEEDING?**

3

4

7

8

9

10

11

12

13

14

15

Α

A KCPL is proposing to set rates based on a return on equity of 11.00%. KCPL's return
on equity proposal is based on the analysis and judgment of Dr. Samuel Hadaway.
Dr. Hadaway's results are summarized at pages 44-45 of his direct testimony.
Dr. Hadaway recommends a return on equity of 10.75%. However, KCPL increased
Dr. Hadaway's recommendation to include a 25 basis point return on equity adder to
reflect its reliability and customer satisfaction achievements.

## 1 Q DO DR. HADAWAY'S METHODOLOGIES SUPPORT HIS 10.75% RETURN ON 2 EQUITY FOR HIS PROXY GROUP?

A No. As discussed in detail below, reflecting current market data and properly applying his models, Dr. Hadaway's own analyses would support a return on equity in the range of 9.3% to 10.0%. When the adjustments to Dr. Hadaway's return on equity analyses required to correct the flaws in his approach are implemented, the resulting estimates support my recommended return on equity of 9.5%.

## 8 Q WHAT IS THE TIME PERIOD OF THE MARKET DATA UNDERLYING 9 DR. HADAWAY'S RETURN ON EQUITY RECOMMENDATION IN THIS CASE?

Dr. Hadaway's DCF model reflects stock prices ending February, March and May 2010,<sup>1</sup> and utility bond yields stated as of April 2010 (Hadaway Direct at 27). All of this data is at least six months old, and does not reflect current market costs and conditions. Therefore, Dr. Hadaway's return on equity estimates are stale and should be disregarded.

AT PAGE 5-6 OF HIS TESTIMONY, DR. HADAWAY ASSERTS THAN AN INTERIM ENERGY CHARGE ("IEC") WILL NOT LOWER KCPL'S BUSINESS RISK AND SHOULD NOT BE JUSTIFICATION FOR A REDUCTION TO THE AUTHORIZED RETURN ON EQUITY FOR KCPL. PLEASE RESPOND.

I disagree. The adoption of an IEC is specifically intended to reduce the uncertainty of KCPL recovering its purchased power costs. The need for an IEC is created because power costs can be outside of a utility management's control, and the cost is significant and may limit the utility's ability to earn its authorized return on equity.

\_

Α

10

11

12

13

14

15

16

17

18

19

20

21

22

Α

<sup>&</sup>lt;sup>1</sup>Schedule SCH2010-5 at 1.

Hence, an IEC is specifically designed to reduce KCPL's business risk. Therefore, an IEC will reduce KCPL's investment risk relative to not having an IEC, and should be reflected in a reduced return on equity award in this case.

Α

## 4 Q PLEASE DESCRIBE THE METHODOLOGY SUPPORTING DR. HADAWAY'S 5 RETURN ON COMMON EQUITY RECOMMENDATION.

Dr. Hadaway develops his return on common equity recommendation using three versions of the DCF model, and two utility risk premium analyses. I have summarized Dr. Hadaway's results below in Table 1 under column 1. Under column 2, I show the results of Dr. Hadaway's analyses adjusted for updated data and a more reasonable application of the models.

As shown below in Table 1, using consensus economists' projection of GDP growth rather than Dr. Hadaway's inflated GDP growth estimates, his own DCF analyses would support a return on equity for KCPL in the range of 10.0%. Removing Dr. Hadaway's inappropriate interest rate-based adjustment to the expected market risk premium and additional use of forecasted interest rates in his risk premium analysis shows that his risk premium return would support a return of approximately 9.34%.

TABLE 1										
Summary of Dr. Hadaway's ROE Estimate										
Description	Hadaway <u>Results<sup>1</sup></u> (1)	Adjusted Hadaway <u>Results<sup>2</sup></u> (2)								
<ul><li><u>DCF Analysis</u></li><li>Constant Growth (Analysts' Growth)</li><li>Constant Growth (GDP Growth)</li><li>Two-Stage Growth Model</li><li>Reasonable DCF Range</li></ul>	10.5% - 10.7% 11.0% - 11.0% <u>10.8% - 10.8%</u> 10.7% - 10.8%	10.5% - 10.7% 9.7% - 9.7% <u>9.7% - 9.7%</u> 10.0% - 10.0%								
Risk Premium Analysis Forecasted Utility Debt + Equity Risk Premium Current Utility Debt + Equity Risk Premium  ———— Sources:	10.82% 10.61%	Reject 9.34%								
<sup>1</sup> Hadaway Direct Testimony at 44. <sup>2</sup> Schedule MPG-R-1.										

# 1 Q IS KCPL'S REQUEST FOR A 0.25% RETURN ON EQUITY ADDER TO REFLECT 2 IMPROVEMENTS IN ITS RELIABILITY AND CUSTOMER SATISFACTION 3 REASONABLE?

No. The regulatory plan that has supported KCPL's investment grade bond rating during its major construction program resulted in customers paying over \$168 million<sup>2</sup> in higher rates during the last several rate case cycles than what would have been paid under traditional ratemaking. This increased cost to customers benefitted both the utility, and ultimately customers. Now, customers are faced with the prospect of even higher rates as these major construction projects are completed. Hence, customers are already shouldering the difficult burden of supporting KCPL's credit metrics via higher rates during construction, and are now faced with the prospect of

4

5

6

7

8

9

10

11

<sup>&</sup>lt;sup>2</sup>Direct Testimony of Greg Meyer at 29.

even higher rates to reflect the full cost of the construction projects. The Commission should not approve a return on equity adder that further burdens customers with discretionary increases to rates. Therefore, I recommend the Commission reject KCPL's request for a 25 basis point return on equity adder to reflect an increase in customer satisfaction and reliability.

#### 6 Q PLEASE DESCRIBE DR. HADAWAY'S CONSTANT GROWTH DCF ANALYSIS.

A Dr. Hadaway's adjusted constant growth DCF analysis is shown in Schedule MPG-R-1. As shown in that schedule, Dr. Hadaway's constant growth DCF analysis is based on a recent stock price, an annualized dividend and an average of three growth rates: (1) Value Line; (2) Zacks; and (3) Thomson.

#### Q ARE DR. HADAWAY'S DCF ESTIMATES RELIABLE?

Α

Α

No. Dr. Hadaway's constant growth DCF based on analyst growth rates produces excessive return estimates for the same reasons discussed in my direct testimony concerning my own DCF studies. That is, Dr. Hadaway's analyst growth DCF study is based on growth rate estimates in the range of 5.58% to 5.86%. These growth rates are <u>not</u> sustainable in the long run.

Second, his GDP growth input, which is used in his constant growth and two-stage growth models, is based on an inflated GDP growth rate of 6.0%. This GDP growth is excessive and not reflective of current market expectations.

#### Q HOW DID DR. HADAWAY DEVELOP HIS GDP GROWTH RATE?

He states that the GDP growth rate is based on the achieved GDP growth over the last 10, 20, 30, 40, 50, and 60-year periods. Dr. Hadaway's projected GDP growth

rate is unreasonable. Historical GDP growth over the last 20 and 40-year periods was strongly influenced by the actual inflation rate experienced over that time period.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Q

Α

## WHY IS DR. HADAWAY'S DCF ESTIMATE EXCESSIVE IN COMPARISON TO THAT OF PUBLISHED MARKET ANALYSTS?

The consensus economists' projected GDP growth rate is much lower than the GDP growth rate used by Dr. Hadaway in his DCF analysis. A comparison of Dr. Hadaway's GDP growth rate and consensus economists' projected GDP growth over the next five and ten years is shown below in Table 2. As shown in this table, Dr. Hadaway's GDP rate of 6.0% reflects real GDP of 2.9% and a GDP price inflation of 3.1%. However, consensus economists' projections of nominal GDP include GDP inflation projections over the next five and ten years of 2.0%, and 2.1%, respectively.<sup>3</sup>

As is clearly evident in the table below, Dr. Hadaway's historical GDP growth reflects historical inflation, which is much higher than, and not representative of, consensus market expected forward-looking inflation.

TABLE 2									
GDP Projections									
GDP Price Real Description Inflation GDP									
Dr. Hadaway <sup>1</sup> Consensus 5-Year Projection <sup>2</sup> Consensus 10-Year Projection <sup>2</sup>	3.1% 2.0% 2.1%	2.9% 2.9% 2.5%	6.0% 4.8% 4.7%						
Sources: <sup>1</sup> Schedule SCH2010-4. <sup>2</sup> Blue Chip Economic Indicators, Octo	ober 10. 2010.	at 15.							

<sup>&</sup>lt;sup>3</sup>Blue Chip Economic Indicators, October 10, 2010 at 15.

1		Therefore, Dr. Hadaway's 6.0% nominal GDP growth rate is not reflective of
2		consensus market expectations and should be rejected.
3	Q	ARE YOU AWARE OF ANY JURISDICTIONS THAT HAVE REJECTED
4		DR. HADAWAY'S DCF RETURN ESTIMATES?
5	Α	Yes. Dr. Hadaway's DCF models have been rejected by several regulatory
6		commissions, including the following cases:
7 8		<ul> <li>Arkansas (<i>In re: Centerpoint Energy</i>, 245 P.U.R. 4<sup>th</sup> 384 (Arkansas Public Service Commission, September 19, 2005));</li> </ul>
9 10		• Illinois ( <i>In re: Commonwealth Edison Company</i> , 250 P.U.R. 4 <sup>th</sup> 161 (Illinois Commerce Commission, July 26, 2006));
11 12 13		<ul> <li>Massachusetts (In re: Fitchburg Gas and Electric Light Company, 2008 Mass.P.U.C. Lexis 13 (Massachusetts Department of Telecommunications and Energy, February 29, 2008));</li> </ul>
14 15		<ul> <li>New Mexico (In re: Public Service Company of New Mexico, 2008 N.M. P.U.C. Lexis 14 (New Mexico Public Regulatory Commission, April 24, 2008)); and</li> </ul>
16 17		<ul> <li>Washington (In re: PacifiCorp, 2006 Washington U.T.C. Lexis (Washington Utilities and Transportation Commission, April 17, 2006)).</li> </ul>
18		The Commission should reject Dr. Hadaway's DCF studies in this case, just
19		as many other commissions have rejected them because they are based on
20		unreasonably high GDP growth rates. The growth rates he used do not reflect
21		investor expectations and inflated his DCF estimates.
22	Q	HOW WOULD DR. HADAWAY'S DCF ANALYSES CHANGE IF CURRENT
23		MARKET-BASED GDP GROWTH RATE PROJECTIONS ARE INCLUDED IN HIS
24		ANALYSIS RATHER THAN HIS EXCESSIVE GDP GROWTH RATE?
25	Α	As shown in Schedule MPG-R-1, I updated Dr. Hadaway's DCF analyses using more
26		recent market data and a GDP growth rate of 4.75%. This GDP growth rate is the

average of the consensus economists' 5-year and 10-year projected growth rate of the GDP as published in the *Blue Chip Economic Indicators* on October 10, 2010 of 4.7% and 4.8%, respectively. As shown in Schedule MPG-R-1, using this consensus economists' projected GDP growth rate reduces Dr. Hadaway's DCF results from 10.75% to 10.0%.

Α

TABLE 3  Adjusted Hadaway DCF										
	Range	Average								
Description	Hadaway DCF <sup>1</sup>	Adjusted DCF <sup>2</sup>								
Constant Growth (Analysts' Growth) Constant Growth (GDP Growth) Two-Stage Growth Model Average	10.6% 11.0% <u>10.8%</u> 10.8%	10.5% - 10.7% 9.7% - 9.7% <u>9.7% - 9.7%</u> 10.0% - 10.0%								
Source: <sup>1</sup> Schedule SCH2010-5. <sup>2</sup> Schedule MPG-R-1.										

As shown above in Table 3, using a consensus economists' GDP forecast, rather than the GDP forecast derived by Dr. Hadaway, would support a return on equity for KCPL of 10.0%.

#### 9 Q PLEASE DESCRIBE DR. HADAWAY'S UTILITY RISK PREMIUM ANALYSIS.

Dr. Hadaway's utility bond yield versus authorized return on common equity risk premium is shown in Schedule SCH2010-6, pages 1-3. As shown in this schedule, Dr. Hadaway estimated an annual equity risk premium by subtracting Moody's average bond yield from the electric utility regulatory commission authorized return on common equity over the period 1980 through 2009. Based on this analysis,

Dr. Hadaway estimates an average indicated equity risk premium over current utility bond yields of 3.23%.

Α

Α

However, Dr. Hadaway then adjusts this average equity risk premium using a regression analysis based on an expectation that there is an ongoing inverse relationship between interest rates and equity risk premiums. Based on this regression analysis, Dr. Hadaway increases his equity risk premium from 3.23%, up to 4.25% and 4.39% relative to projected and current "BBB" bond yields of 6.57% and 6.22%, respectively. He then adds these equity risk premiums to the projected and current "BBB" rated utility bond yields to produce return on equity estimates of 10.82% and 10.61%, respectively.

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

No. Dr. Hadaway's risk premiums are unreasonable for at least two reasons. First, they are based on forecasted utility bond yields. Second, Dr. Hadaway's equity risk premiums are increased to adjust his measured average equity risk premium for changes to nominal interest rates.

## 16 Q HOW DID DR. HADAWAY DEVELOP FORECASTED UTILITY BOND YIELDS IN 17 HIS RISK PREMIUM STUDY?

Dr. Hadaway forecasts utility bond yields based on the 3-month historical spread of "BBB" rated utility bond yields and 30-year Treasury bond yields. He then added this current utility bond yield spread to a forecasted long-term Treasury bond yield of 5.0%.

#### Q IS HIS USE OF FORECASTED UTILITY BOND YIELDS REASONABLE?

Q

Α

Α

No. The accuracy of his forecasted increased Treasury bond and utility bond yields is at very best highly problematic. Indeed, while analysts consistently project Treasury bond yields to increase, those projected increased interest rate projections have consistently turned out to be wrong and have overstated the actual Treasury yields that eventually prevailed. The accuracy of Dr. Hadaway's projected utility bond yields is at very best problematic, because it is based on the accuracy of his projected increase to Treasury bond yields or interest rates.

## WHY DO YOU BELIEVE THAT THE ACCURACY OF FORECASTED INTEREST RATES IS HIGHLY PROBLEMATIC?

This is clearly evident from a review of projected changes to interest rates made over the last several years, in comparison to how accurate these projections turned out to be. This analysis clearly illustrates that observable interest rates today are as accurate as are economists' consensus projections of future interest rates.

An analysis supporting this conclusion is illustrated in Schedule MPG-R-2. On this schedule, under Column 1 (actual yield) and Column 2 (projected yield), I show the actual market yield at the time a projection was made for Treasury bond yields two years in the future.

As shown in Columns 1 and 2, over the last several years, Treasury yields were projected to increase relative to the prevailing actual Treasury yields at the time of the projection. In Column 4, I show what the Treasury yield actually turned out to be two years after the forecast. In Column 5, I show the actual yield change relative to the projected yield change.

As shown in this schedule, over the last several years, economists have been consistently projecting increases to interest rates. However, as demonstrated under Column 5, those yield projections have turned out to be overstated in virtually every case. Indeed, actual Treasury yields have decreased or remained flat over the last five years, rather than increase as the economists' projections indicated.

Α

Α

This review of the experience with projected interest rates clearly illustrates that interest rate projection accuracy is highly problematic. Indeed, current observable interest rates are just as likely a reasonable projection of future interest rates as are economists' projections.

### 10 Q HOW DID DR. HADAWAY ADJUST HIS STUDY PERIOD AVERAGE RISK 11 PREMIUM?

Dr. Hadaway adjusted the average equity risk premium measured within his historical period to reflect an expected inverse relationship between interest rates and equity risk premiums. Dr. Hadaway believes that as nominal interest rates increase, equity risk premiums decrease. And conversely, that as nominal interest rates decrease, equity risk premiums increase.

## Q IS IT REASONABLE TO ASSUME A SIMPLE INVERSE RELATIONSHIP BETWEEN INTEREST RATES AND EQUITY RISK PREMIUMS?

No, it is far more complicated than this simple assumption. Dr. Hadaway's belief that there is a simplistic inverse relationship between equity risk premiums and interest rates is not supported by academic research. While academic studies have shown that, in the past, there has been an inverse relationship with these variables, researchers have found that the relationship changes over time and is influenced by

changes in perception of the risk of bond investments relative to equity investments, and not simply by changes to nominal interest rates.<sup>4</sup>

In the 1980s, equity risk premiums were inversely related to interest rates, but that was likely attributable to the interest rate volatility that existed at that time. Interest rate volatility currently is much lower than it was in the 1980s.<sup>5</sup> As such, when interest rates were more volatile, the relative perception of bond investment risk increased relative to the investment risk of equities. This changing investment risk perception caused changes in equity risk premiums.

In today's marketplace, interest rate variability is not as extreme as it was during the 1980s. Nevertheless, changes in the perceived risk of bond investments relative to equity investments still drive changes in equity premiums. However, a relative investment risk differential cannot be measured simply by observing nominal interest rates. Changes in nominal interest rates are highly influenced by changes to inflation outlooks, which also change equity return expectations. As such, the relevant factors needed to explain changes in equity risk premiums are the relative changes to the perceptions of risk of equity versus debt securities investments, not simply changes to interest rates.

Importantly, Dr. Hadaway's analysis simply ignores investment risk differentials. He bases his adjustment to the equity risk premium exclusively on changes in nominal interest rates. This is a flawed methodology and does not produce accurate or reliable risk premium estimates. His results should be rejected by the Commission.

<sup>&</sup>lt;sup>4</sup>"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.

<sup>&</sup>lt;sup>5</sup>Morningstar, Inc. *Ibbotson SBBI 2010 Classic Yearbook* at 77.

CAN DR. HAI	DAWAY'S	RISI	K PREMIUM	ANA	LYSES BAS	SED ON	CURRENT A	ND
PROJECTED	YIELDS	BE	MODIFIED	то	PRODUCE	MORE	REASONAL	BLE
RESULTS?								

Q

Q

Α

Yes. Dr. Hadaway's study indicates that an unadjusted equity risk premium is 3.23%. Using this unadjusted equity risk premium and the current "BBB" rated utility yield of 5.60% will produce a return on equity of 8.83%. Using Dr. Hadaway's 2009 equity risk premium of 4.25% as shown in Schedule SCH2010-6 and a current "BBB" rated utility yield of 5.60% will produce a return of 9.85%. Therefore, Dr. Hadaway's risk premium study, adjusted to include the reasonable unadjusted equity risk premiums shown by his study and current observable utility bond yields, produces a return on equity in the range of 8.83% to 9.85%. The midpoint of the adjusted range is 9.34%.

### PLEASE SUMMARIZE YOUR ADJUSTMENTS TO DR. HADAWAY'S RESULTS, AND THE INDICATED RETURN ON EQUITY FOR KCPL IN THIS PROCEEDING.

I find a revision to Dr. Hadaway's DCF studies to reflect the consensus of economists' projected GDP growth, would support a return on equity in the range of 9.7% to 10.0%. Further, revisions to his risk premium study to reflect a more reasonable equity risk premium and current observable utility bond yields, would support a return on equity of approximately 9.32%. Hence, these updates to Dr. Hadaway's testimony suggest a return on equity in the range of 9.3% to 10.0% would be reasonable. This indicated range supports my recommended return on equity for KCPL of 9.5% in this proceeding.

<sup>&</sup>lt;sup>6</sup>13 weeks ended October 22, 2010, Schedule MPG-14, page 1.

- 1 Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?
- 2 A Yes.

### **Summary of Adjusted Hadaway DCF**

<u>Line</u>	<u>Description</u>	Hadaway (1)	Hadaway <u>Adjusted*</u> (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.

<sup>\*</sup> The adjustment reflects changing the GDP Growth Rate to 4.75%.

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

<u>Line</u>	<u>Company</u>	Recent Stock <u>Price</u> (1)	Next Year's <u>Dividend</u> (2)	Dividend <u>Yield</u> (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.

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

<u>Line</u>	<u>Company</u>	Recent Stock <u>Price</u> (1)	Next Year's <u>Dividend</u> (2)	Dividend <u>Yield</u> (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.

<sup>\*</sup> Blue Chip Economic Indicators, October 10, 2010 at 15.

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

		Recent	Next	2014	Annual			Cash Flows				
		Stock	Year's	Forecasted	Change	Year 1	Year 2	Year 3	Year 4	Year 5	GDP	Two-Stage
Line	<b>Company</b>	Price <sup>1</sup>	<u>Dividend<sup>2</sup></u>	<u>Dividend</u>	to 2014	Dividend	<u>Dividend</u>	<b>Dividend</b>	<u>Dividend</u>	<u>Dividend</u>	Growth <sup>3</sup>	<b>Growth DCF</b>
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(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%
	<b>0</b> ,	•	•	•	•			·				
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.

<sup>\*</sup> Blue Chip Economic Indicators, October 10, 2010 at 15.

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

		Publication Data			Actual Yield	Projected Yield
	_	Prior Quarter	Projected	Projected	in Projected	Higher (Lower)
<u>Line</u>	<u>Date</u>	Actual Yield	<u>Yield</u>	<u>Quarter</u>	<u>Quarter</u>	Than Actual Yield*
		(1)	(2)	(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%		5.0%	0.5%
				2Q, 07		
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.

<sup>\*</sup> Col. 2 - Col. 4.