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Witness: Samuel C. Hadaway
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Sponsoring Party: Kansas City Power & Light Company
Case No.: ER-2010-0355
Date Testimony Prepared: January 5, 2011

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2010-0355

SURREBUTTAL TESTIMONY

OF

SAMUEL C. HADAWAY

ON BEHALF OF

KANSAS CITY POWER & LIGHT COMPANY

**Kansas City, Missouri
January 2011**

KCP&L Exhibit No. 29
Date 1-27-11 Reporter ML
File No. ER-2010-0355

SURREBUTTAL TESTIMONY

OF

SAMUEL C. HADAWAY

Case No. ER-2010-0355

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

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

3 A. My name is Samuel C. Hadaway. My business address is FINANCO, Inc., 3520
4 Executive Center Drive, Suite 124, Austin, Texas 78731.

5 **Q. Are you the same Samuel C. Hadaway who prefiled direct and rebuttal**
6 **testimony in this matter?**

7 A. Yes. I previously filed direct and rebuttal testimony on behalf of Kansas City Power
8 & Light Company ("KCP&L" or "the Company") in this matter.

9 **Q. What is the purpose of your surrebuttal testimony?**

10 A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimony,
11 concerning the return on equity ("ROE"), filed by Missouri Public Service Staff
12 ("Staff") witness David Murray and Michael P. Gorman on behalf of the Midwest
13 Energy Users Association, Missouri Industrial Energy Consumers, and United States
14 Department of Energy ("MEAU", et al). To the extent that I have responded, in my
15 rebuttal testimony, to the arguments set forth by Mr. Murray and Mr. Gorman, I will
16 note my previous responses and not comment further on those arguments.

17 **Q. Have the parties changed their initial ROE recommendations?**

18 A. Yes. In his rebuttal testimony, Mr. Gorman reduced his recommended ROE for
19 KCP&L from 9.65 percent (Gorman Direct, filed November 10, 2010) to 9.5 percent,

1 the same level he recommended for KCP&L Greater Missouri Operations in Case No.
2 ER-2010-0356 (filed November 17, 2010). Additionally, Mr. Gorman now argues
3 that the allowed rate of return should be reduced to reflect the Company's Interim
4 Energy Charge ("IEC") (Gorman Rebuttal at 5, line 3). Mr. Murray did not adjust his
5 recommendation; he continues to support an ROE range of 8.5 percent to 9.5 percent.
6 As I explained in my rebuttal testimony, the updated range from my DCF analysis is
7 now 10.2 percent to 10.8 percent. Based on this updated analysis, the Company has
8 reduced its requested ROE from 11.0 percent to 10.75 percent.

9 **II. RESPONSE TO STAFF WITNESS MURRAY**

10 **Q. What is the primary focus of Mr. Murray's rebuttal testimony?**

11 A. Mr. Murray correctly pointed out that I was expected to update my analysis in my
12 rebuttal testimony. For this reason, he did not concentrate on the level of my initial
13 ROE recommendation. Instead, he focused primarily on the differences in our long-
14 term DCF growth rate sources.

15 **Q. Did Mr. Murray's growth rate discussion add any new information to the debate
16 about what the long-term DCF growth rate should be?**

17 A. No. In his discussion, Mr. Murray's touts the two primary approaches he used to
18 support a midpoint long-term growth rate of 3.5 percent. He says that he disagrees
19 with my use of analysts' growth rates and GDP growth and claims that investors "...
20 expect growth rates consistent with past industry performance ... [and that] Staff's
21 perpetual growth rates closely reflect those that are used by investors, financial
22 advisors and equity analysts" (Murray Rebuttal at 2, lines 12-16.)

23 **Q. What is your response to Mr. Murray's growth rate contentions?**

1 A. With respect to allowed rates of return in the regulatory process, both of Mr. Murray's
2 preferred growth rate sources are questionable. They result in a 3.5 percent growth
3 rate, which he uses to produce a 9.0 percent midpoint ROE recommendation (Murray
4 Rebuttal at 22, lines 9-10). As I demonstrated in my rebuttal testimony, Mr. Murray's
5 low ROE estimate is caused by his use of incorrect data in his long-term industry
6 growth rate calculations (Hadaway Rebuttal at 13-15 and Exhibit SCH2010-09).
7 Additionally, in his rebuttal testimony, he attempts to misuse valuation data from
8 "fairness opinions" and asset impairment tests to estimate investors' growth
9 expectations. These are the very same kind of data from Mr. Murray's analysis that
10 the Commission flatly rejected in the recent AmerenUE's recent rate proceeding
11 (Case No. ER-2010-0036, Report and Order at 20). Mr. Murray's historical growth
12 rate calculations are incorrect, and his use of analysts' and accountants' discount rates,
13 which are often confidential and entirely unknown to the investing public, is
14 inappropriate. As the Commission did in the AmerenUE case, it should reject Mr.
15 Murray's inappropriate analysis.

16 **Q. At pages 7-9 of his rebuttal testimony, Mr. Murray criticizes your use of growth**
17 **in Gross Domestic Product ("GDP") to estimate investors' long-term growth**
18 **expectations. How do you respond to these criticisms?**

19 A. Mr. Murray's criticisms are misplaced. He begins with a would-be analogy, applying
20 my GDP growth estimate to the S&P 500 index. He says that with a 6.0 percent
21 growth rate and the S&P 2.08 percent dividend yield, the cost of common equity
22 would be 8.08 percent (Murray Rebuttal at 7, line 21). While his math is correct, his
23 logic is entirely wrong. The simple, constant growth DCF model, which Mr. Murray

1 uses for this purpose, is difficult to apply to the S&P 500 index. Many of the
2 companies in the index currently pay little or no dividends, but they have (relative to
3 GDP) very high expected growth rates. Under these circumstances, the DCF model
4 cannot be applied without assuming a multi-stage growth approach, or by assuming
5 that current analysts' growth rates are expected to be blended, at some point in the
6 future, with lower perpetual growth rates and with, currently unknown, higher future
7 dividend yields. A correct application of the DCF model to companies in the S&P
8 500 is much more complex than Mr. Murray's "GDP growth plus current yield"
9 approach. His S&P 500 analogy is, therefore, a mismatch that provides no useful
10 information.

11 **Q. Do some regulatory economists use a DCF approach to estimate the S&P 500's**
12 **expected return?**

13 A. Yes. In jurisdictions where the capital asset pricing model ("CAPM") is heavily
14 relied upon, a combination of current dividend yields and analysts' growth rates are
15 used to estimate the required market risk premium. A recent example of this
16 approach is found in testimony filed October 26, 2010 by the Illinois Commerce
17 Commission Staff (Direct Testimony of Michael McNally, ICC Docket No. 10-467).
18 In that analysis, the ICC Staff found an expected DCF return for the S&P 500 to be
19 12.74 percent (McNally at 28) and the indicated CAPM ROE to be 10.32 percent
20 (McNally at 32).

21 **Q. What other parts of Mr. Murray's GDP discussion do you disagree with?**

22 A. I disagree with the second portion of Mr. Murray's GDP discussion, which appears on
23 pages 8-9 of his rebuttal testimony. In this discussion, he mistakenly claims that

1 GDP growth "... is often used for a company or an industry in its 'growth phase,' i.e.,
2 experiencing 'supernormal' growth." In fact, the opposite is true. In my direct
3 testimony at page 40, I provided the following quotation from the well respected
4 Brigham and Houston textbook:

5 Expected growth rates vary somewhat among companies, but
6 dividends for mature firms are often expected to grow in the future at
7 about the same rate as nominal gross domestic product (real GDP plus
8 inflation). On this basis, one might expect the dividend of an average,
9 or "normal," company to grow at a rate of 5 to 8 percent a year.
10 (Eugene F. Brigham and Joel F. Houston, *Fundamentals of Financial*
11 *Management*, 11th Ed. 2007, page 298 [emphasis added].)

12 In addition to Mr. Murray's misstatements about "supernormal" growth versus
13 expected growth for "mature" firms, he again refers to his flawed 1948-2000
14 historical growth rate study to support his contentions. He claims to demonstrate in
15 his rebuttal Schedules 1 and 2 that utility growth relative to GDP has been steadily
16 declining. Because the graphs in these schedules are based on the same,
17 inconsistently reported data that Mr. Murray used in his direct testimony (see
18 Hadaway Rebuttal at 14 and Schedule SCH2010-9), the trends he claims to identify
19 are meaningless.

20 **Q. On page 19, Mr. Murray criticizes your risk premium study. How do you**
21 **respond to these criticisms?**

22 **A.** As I explained in my rebuttal testimony, I currently discount the risk premium
23 estimates, because they are based on artificially low interest rates that have resulted
24 from the government's expansionary monetary policy. Nonetheless, Mr. Murray's
25 criticisms of my analysis are misplaced. First, he says that my use of allowed ROE
26 data to interpret the market's required rate of return is of questionable value. His

1 opinion in this regard is exactly opposite of the Commission's opinion in the May
2 2010 AmerenUE Report and Order:

3 The Commission mentions the average allowed return on equity
4 not because the Commission should, or would slavishly follow the
5 national average in awarding a return on equity to AmerenUE.
6 However, AmerenUE must compete with other utilities all over the
7 country for the same capital. Therefore, the average allowed return
8 on equity provides a reasonableness test for the recommendations
9 offered by the return on equity experts. (Case No. ER-2010-0036,
10 Report and Order at 17, ¶ 12.)

11 Additionally, Mr. Murray is incorrect in his criticism of my risk premium adjustment,
12 which accounts for the inverse relationship between risk premiums and interest rate
13 levels. My data, spanning the 1980-2010 timeframe, clearly demonstrate this inverse
14 relationship (see Schedule SCH2010-12, page 3). During periods of high interest
15 rates, regulators have allowed and investors have come to expect, lower risk
16 premiums. Similarly, during periods of low interest rates, risk premiums tend to be
17 expand. Mr. Murray's (and Mr. Gorman's) criticism of this fundamental relationship
18 is simply a further effort to reduce ROE in lockstep with current artificially low
19 interest rates. Finally, Mr. Murray is incorrect in his criticism of my use of projected
20 interest rates. I use both actual and projected rates in my risk premium analysis
21 because investors are fully aware of both. The risk premium approach is an effort to
22 gauge the cost of equity by reviewing debt costs and the relationship between debt
23 costs and the cost of equity. Interest rate forecasts are an integral part of what
24 investors expect and, therefore, such forecasts, along with existing actual interest
25 rates, provide additional information about what investors expect their rate of return
26 on equity to be. Mr. Murray's criticisms should be dismissed and his low ROE
27 recommendation should be rejected.

1 my response in this surrebuttal will focus on his much lower estimates of expected
2 GDP growth.

3 **Q. What causes Mr. Gorman's "consensus" estimates of future GDP growth to be**
4 **so much lower than your long-term growth estimate?**

5 A. Mr. Gorman demonstrates the differences in our GDP growth rate estimates in Table
6 2 on page 8 of his rebuttal testimony. My data show that real GDP growth (excluding
7 inflation) is 2.9 percent. Mr. Gorman's 5-year consensus real growth rate is also 2.9
8 percent. His 10-year real growth rate is 2.5 percent. The difference in expected real
9 GDP growth, therefore, does not account for a large part of the total difference
10 between our GDP forecasts. The larger cause for our differences are the much lower
11 projected inflation rates in Mr. Gorman's data. The expected inflation rates in his
12 data are only 2.0 percent to 2.1 percent, whereas my estimate includes long-term
13 inflation of 3.1 percent. The data in my direct testimony Schedule SCH2010-4, show
14 that over the past 60 years, the GDP price deflator increased by an average of 3.5
15 percent per year. Even the most recent 10-year periods have shown average increases
16 of 2.3 percent per year. Mr. Gorman's inflation rates are lower than even those
17 associated with recently depressed economic conditions, and they are not at all
18 consistent with the longer-term historical inflation rates in the U.S. economy. To use
19 such anomalous inflation rates to produce a low long-term growth rate in the DCF
20 model, as Mr. Gorman has done, is inappropriate and should be disregarded.

21 **Q. What is the basis for Mr. Gorman's criticism of your risk premium analysis?**

22 A. Mr. Gorman summarizes his risk premium critique on page 11, lines 12-15 of his
23 rebuttal. In that testimony, he says that my risk premiums are unreasonable because I

1 used forecasted utility bond yields and I adjusted the average equity risk premium to
2 account for changes in nominal interest rates.

3 **Q. What is your response to these criticisms?**

4 A. As noted previously, because risk premium estimates are artificially affected by
5 current government monetary policy, such estimates understate the cost of equity.
6 For this reason, my ROE recommendation relies on the DCF model estimates.
7 However, these factors notwithstanding, Mr. Gorman's statements about how a risk
8 premium analysis should be performed are not correct and his "adjustments" to my
9 analysis should be disregarded.

10 Although I agree with Mr. Gorman that recent interest rate forecasts have
11 been difficult, it is not otherwise clear why he says that risk premium estimates of
12 ROE should not consider projected interest rates. In fact, in his direct testimony, Mr.
13 Gorman presents a risk premium analysis in which he uses the very same projected
14 government bond interest rates (Gorman Direct at 31, lines 17-18) that he is now
15 criticizing. Also, Mr. Gorman fails to mention that in my risk premium analysis I
16 also presented results based on actual current interest rates. His critique in this regard
17 is one-sided and does not provide useful information for evaluating the risk premium
18 issue.

19 **Q. On page 13, lines 20-21 of his rebuttal, Mr. Gorman also says that a "...**
20 **simplistic inverse relationship between equity risk premiums and interest rates**
21 **is not supported by academic research." Is his conclusion in this regard**
22 **correct?**

1 A. Apparently, the accuracy of his statement depends on his definition of "simplistic."
2 There is no question that the articles he cites in footnote 4 on page 14 of his rebuttal
3 discuss causes for changes in equity risk premiums. However, there is also clear
4 evidence in those articles and other similar academic work that risk premiums are
5 smaller when interest rates are high and larger when interest rates are low. In fact,
6 Mr. Gorman's statement that smaller risk premiums in the 1980s were likely
7 attributable to more volatile interest rates at that time (Gorman Rebuttal at 14, lines 3-
8 8) has turned out to be wrong.

9 To demonstrate this fact, in Schedule SCH2010-13, I provide a comparison of
10 interest rate volatility for the early 1980s, mentioned by Mr. Gorman, and two
11 additional periods, including the most recent three years since the beginning of the
12 financial crisis in 2008. These data, summarized in Table 1 below, show clearly that
13 smaller risk premiums are not caused by higher interest rate volatility, but that they
14 are directly associated with higher interest rates.

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Table 1
Changes in Equity Risk Premiums

Time Period	(1) Average Interest Rate	(2) Volatility*	(3) Average Equity Risk Premium**
1981-1983 Baa Utilities	15.75%	8.60%	0.70%
1999-2001 Baa Utilities	8.09%	3.87%	3.29%
2008-2010 Baa Utilities	6.77%	13.08%	4.26%

*Coefficient of Variation, Schedule SCH2010-13.

**Schedule SCH2010-12.

In the early 1980s, interest rates were indeed high and volatile. Prior to the 2008 financial crisis, the early 1980's were viewed as the most volatile interest rate period in modern history. However, as shown in column (2) of Table 1 above, the volatility of Baa interest rates since 2008 has been much higher than existed even in the early 1980s. More important, with respect to Mr. Gorman's arguments about what has caused changes in risk premiums, risk premiums have been much larger during the more recent lower interest rate time periods. His refusal to accept the well documented inverse relationship between equity risk premiums and interest rate levels is further refuted by these data. Mr. Gorman's "adjusted" results from my risk premium data should be disregarded.

Q. On pages 4-5 of his rebuttal, Mr. Gorman argues that the adoption of an IEC will reduce KCP&L's business risk and, therefore, the Company's ROE should be reduced. What is your response to this argument?

A. Again, it appears that Mr. Gorman is looking for any evidence that might be used to reduce the allowed ROE. Similar to his misplaced arguments about equity risk

1 premiums and GDP growth rates, his statements about an IEC adjustment are
2 potentially misleading and indicative of his approach in this case. Mr. Gorman must
3 be aware that all of the companies that both he and I used to estimate ROE have
4 energy cost recovery mechanisms in place. I demonstrated this fact in my direct
5 testimony at pages 5-6 and in Schedule SCH2010-1 at pages 2-3. Notably, Mr.
6 Gorman made no mention of the need for an IEC adjustment in his initial direct
7 testimony. His revised lower ROE recommendation, based at least in part on an IEC
8 adjustment, should be dismissed.

9 **Q. Does that conclude your testimony?**

10 **A. Yes, it does.**

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

In the Matter of the Application of Kansas City)
Power & Light Company to Modify Its Tariffs to) Docket No. ER-2010-0355
Continue the Implementation of Its Regulatory Plan)

AFFIDAVIT OF SAMUEL C. HADAWAY

STATE OF TEXAS)
) ss
COUNTY OF TRAVIS)

Samuel C. Hadaway, being first duly sworn on his oath, states:

1. My name is Samuel C. Hadaway. I am employed by FINANCO, Inc. in Austin, Texas. I have been retained by Great Plains Energy, Inc., the parent company of Kansas City Power & Light Company, to serve as an expert witness to provide cost of capital testimony on behalf of Kansas City Power & Light Company.

2. Attached hereto and made a part hereof for all purposes is my Surrebuttal Testimony on behalf of Kansas City Power & Light Company consisting of twelve (12) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

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

Samuel C. Hadaway
Samuel C. Hadaway

Subscribed and sworn before me this 31st day of December, 2010.



Arlene Stanford
Notary Public

My commission expires: 3-3-14

Kansas City Power & Light Company
Interest Rate Volatility

30-Year Treasury Bond Interest Rates

Jan-81	12.14%	Jan-99	5.16%	Jan-08	4.33%
Feb-81	12.80%	Feb-99	5.37%	Feb-08	4.52%
Mar-81	12.69%	Mar-99	5.58%	Mar-08	4.39%
Apr-81	13.20%	Apr-99	5.55%	Apr-08	4.44%
May-81	13.60%	May-99	5.81%	May-08	4.60%
Jun-81	12.96%	Jun-99	6.04%	Jun-08	4.69%
Jul-81	13.59%	Jul-99	5.98%	Jul-08	4.57%
Aug-81	14.17%	Aug-99	6.07%	Aug-08	4.50%
Sep-81	14.67%	Sep-99	6.07%	Sep-08	4.27%
Oct-81	14.68%	Oct-99	6.26%	Oct-08	4.17%
Nov-81	13.35%	Nov-99	6.15%	Nov-08	4.00%
Dec-81	13.45%	Dec-99	6.35%	Dec-08	2.87%
Jan-82	14.22%	Jan-00	6.63%	Jan-09	3.13%
Feb-82	14.22%	Feb-00	6.23%	Feb-09	3.59%
Mar-82	13.53%	Mar-00	6.05%	Mar-09	3.64%
Apr-82	13.37%	Apr-00	5.85%	Apr-09	3.76%
May-82	13.24%	May-00	6.15%	May-09	4.23%
Jun-82	13.92%	Jun-00	5.93%	Jun-09	4.52%
Jul-82	13.55%	Jul-00	5.85%	Jul-09	4.41%
Aug-82	12.77%	Aug-00	5.72%	Aug-09	4.37%
Sep-82	12.07%	Sep-00	5.83%	Sep-09	4.19%
Oct-82	11.17%	Oct-00	5.80%	Oct-09	4.19%
Nov-82	10.54%	Nov-00	5.78%	Nov-09	4.31%
Dec-82	10.54%	Dec-00	5.49%	Dec-09	4.49%
Jan-83	10.63%	Jan-01	5.54%	Jan-10	4.60%
Feb-83	10.88%	Feb-01	5.45%	Feb-10	4.62%
Mar-83	10.63%	Mar-01	5.34%	Mar-10	4.64%
Apr-83	10.48%	Apr-01	5.65%	Apr-10	4.69%
May-83	10.53%	May-01	5.78%	May-10	4.29%
Jun-83	10.93%	Jun-01	5.67%	Jun-10	4.13%
Jul-83	11.40%	Jul-01	5.61%	Jul-10	3.99%
Aug-83	11.82%	Aug-01	5.48%	Aug-10	3.80%
Sep-83	11.63%	Sep-01	5.48%	Sep-10	3.77%
Oct-83	11.58%	Oct-01	5.32%	Oct-10	3.87%
Nov-83	11.75%	Nov-01	5.12%	Nov-10	4.19%
Dec-83	11.88%	Dec-01	5.48%	Dec-10	n/a
Standard Deviation	1.34%		0.35%		0.43%
Average	12.46%		5.77%		4.19%
Coefficient of Variation	10.73%		6.01%		10.21%

Source: U.S. Federal Reserve System.

<http://www.federalreserve.gov/releases/h15/data.htm>

Kansas City Power & Light Company
Interest Rate Volatility

Baa Utility Bond Interest Rates					
Jan-81	15.30%	Jan-99	7.30%	Jan-08	6.35%
Feb-81	15.86%	Feb-99	7.41%	Feb-08	6.60%
Mar-81	15.83%	Mar-99	7.55%	Mar-08	6.68%
Apr-81	16.14%	Apr-99	7.51%	Apr-08	6.81%
May-81	16.66%	May-99	7.74%	May-08	6.79%
Jun-81	16.30%	Jun-99	8.03%	Jun-08	6.93%
Jul-81	16.98%	Jul-99	7.97%	Jul-08	6.97%
Aug-81	17.19%	Aug-99	8.16%	Aug-08	6.98%
Sep-81	17.76%	Sep-99	8.19%	Sep-08	7.15%
Oct-81	17.71%	Oct-99	8.32%	Oct-08	8.58%
Nov-81	16.49%	Nov-99	8.12%	Nov-08	8.98%
Dec-81	17.02%	Dec-99	8.28%	Dec-08	8.11%
Jan-82	17.83%	Jan-00	8.40%	Jan-09	7.90%
Feb-82	17.83%	Feb-00	8.33%	Feb-09	7.74%
Mar-82	17.16%	Mar-00	8.40%	Mar-09	8.00%
Apr-82	17.00%	Apr-00	8.40%	Apr-09	8.03%
May-82	16.68%	May-00	8.86%	May-09	7.76%
Jun-82	17.21%	Jun-00	8.47%	Jun-09	7.30%
Jul-82	17.09%	Jul-00	8.33%	Jul-09	6.87%
Aug-82	16.37%	Aug-00	8.25%	Aug-09	6.36%
Sep-82	15.68%	Sep-00	8.32%	Sep-09	6.12%
Oct-82	15.10%	Oct-00	8.29%	Oct-09	6.14%
Nov-82	14.81%	Nov-00	8.25%	Nov-09	6.18%
Dec-82	14.69%	Dec-00	8.01%	Dec-09	6.26%
Jan-83	14.56%	Jan-01	7.99%	Jan-10	6.16%
Feb-83	14.61%	Feb-01	7.94%	Feb-10	6.25%
Mar-83	14.33%	Mar-01	7.85%	Mar-10	6.22%
Apr-83	14.07%	Apr-01	8.06%	Apr-10	6.19%
May-83	14.05%	May-01	8.11%	May-10	5.97%
Jun-83	14.16%	Jun-01	8.02%	Jun-10	6.18%
Jul-83	14.01%	Jul-01	8.05%	Jul-10	5.98%
Aug-83	14.21%	Aug-01	7.95%	Aug-10	5.55%
Sep-83	14.10%	Sep-01	8.12%	Sep-10	5.53%
Oct-83	13.95%	Oct-01	8.02%	Oct-10	5.62%
Nov-83	14.12%	Nov-01	7.96%	Nov-10	5.85%
Dec-83	14.23%	Dec-01	8.27%	Dec-10	n/a
Standard Deviation	1.35%		0.31%		0.89%
Average	15.75%		8.09%		6.77%
Coefficient of Variation	8.60%		3.87%		13.08%

Source: Moody's Public Utility Manual (1981-1983).

Mergent Bond Record (1999-2001, 2008-2010).