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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

SURREBUTTAL TESTIMONY

OF

MATTHEW J. BARNES

KANSAS CITY POWER AND LIGHT COMPANY

CASE NO. ER-2006-0314

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MATTHEW J. BARNES
KANSAS CITY POWER AND LIGHT COMPANY
CASE NO. ER-2006-0314**

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SURREBUTTAL TESTIMONY

OF

MATTHEW J. BARNES

KANSAS CITY POWER AND LIGHT COMPANY

CASE NO. ER-2006-0314

Q. Please state your name.

A. My name is Matthew J. Barnes.

Q. Are you the same Matthew J. Barnes who filed direct and rebuttal testimony in this proceeding for the Staff of the Missouri Public Service Commission (Staff)?

A. Yes, I am.

Q. In your direct testimony, did you provide your expert opinion on what you considered to be a fair and reasonable rate-of-return on the Missouri jurisdictional electric utility rate base for Kansas City Power & Light (KCP&L or Company)?

A. Yes, I did.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of Dr. Samuel C. Hadaway. Dr. Hadaway sponsored rate-of-return direct and rebuttal testimony on behalf of KCP&L.

EXECUTIVE SUMMARY

Q. Can you please identify the issues you will address in your surrebuttal testimony?

Surrebuttal Testimony of
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1 A. In rebuttal testimony, Dr. Hadaway addresses issues in my direct testimony
2 ranging from the trends in interest rates to the Company's request for a 50 basis point
3 increase in return on equity (ROE) due to KCP&L's construction risk.

4 I have addressed the following issues in my surrebuttal testimony:

- 5 1. ROE's authorized by this Commission and other states;
- 6 2. Trends in interest rates;
- 7 3. Capital structure;
- 8 4. Comparable group selection;
- 9 5. DCF growth rate analysis;
- 10 6. Inputs for the capital asset pricing model (CAPM);
- 11 7. KCP&L expected pension returns;
- 12 8. Company's request for a 50 basis point increase in ROE;
- 13 9. Kansas Corporation Commission's (KCC) ROE recommendation.

14 **RESPONSE TO DR. HADAWAY'S REBUTTAL TESTIMONY**

15 Q. Table 1 on page 4 of Dr. Hadaway's rebuttal testimony shows the average
16 authorized ROE's for 2004, 2005 and the first and second quarter of 2006 of 10.75%,
17 10.54%, and 10.57% respectively and compares those averages to your recommendation.
18 What is your response?

19 A. I believe the use of other states average authorized ROE's as a benchmark to
20 measure the reasonableness of my recommended ROE should be approached with extreme
21 caution. Staff has reviewed cases in other states in which the recommendations of the other
22 states' Staff have been below what the Commission has authorized.

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1 Q. On page 5, line 8 through page 6, line 8, of his rebuttal testimony,
2 Dr. Hadaway provides his explanation for why he believes that interest rates in the past year
3 are an "increasing trend". Have there been short-term periods of interest rate increases (at
4 least one-year or more) during the past 25 years of generally downward-trending interest
5 rates?

6 A. Yes. A review of Schedules 5-1 and 5-3 attached to my direct testimony
7 shows that there have been three other short-term periods of interest rate increases of a year
8 or more, within a longer general downward trend in interest rates. Public utility bond yields
9 increased from 6.88 percent in September 1998 to 8.55 percent in May 2000, which is
10 approximately a year and a half of interest rate increases. Public utility bond yields increased
11 from 6.99 percent in October 1993 to 9.00 percent in November 1994, which is just a little
12 over a year. Public utility bond yields increased from 13.00 percent in May 1983 to
13 15.16 percent in June 1984, which, again, is just a little over a year. Consequently, one can
14 find short-term periods of interest rate increases in the past 25 years, but the stronger, more
15 permanent trend, has been that of falling interest rates.

16 Q. On page 8, line 2 through line 3 of his rebuttal testimony, Dr. Hadaway says
17 your "historical approach is not consistent with the Company's actual capital structure as of
18 June 30, 2006, or with the projected capital structure for September 30, 2006 that the
19 Company has requested." Do you have a response?

20 A. Yes. Because I received the June 30, 2006 information close to Staff's filing
21 date, I used the test year December 31, 2005 capital structure. Staff consistently uses actual
22 data to determine a company's capital structure and embedded cost of preferred stock and
23 long-term debt. In my rebuttal testimony I updated my capital structure and embedded cost

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1 of long-term debt to reflect the actual capital structure and embedded cost of long-term debt
2 as of June 30, 2006.

3 Q. Please explain your updated capital structure and embedded costs.

4 A. As of June 30, 2006, KCP&L had a consolidated capital structure that
5 consisted of 53.24 percent common equity, 1.54 percent preferred stock, and 45.22 percent
6 long-term debt. I am still recommending a cost of common equity in the range of
7 9.32 percent to 9.42 percent with a mid-point of 9.37 percent. The embedded cost of
8 preferred stock remained at 4.29 percent and the embedded cost of long-term debt was
9 6.08 percent. Now that I have updated my capital structure with the actual June 30, 2006
10 data, there should not be a material difference between the parties' capital structures.

11 Q. Was the Company aware that you were going to update your capital structure
12 as of June 30, 2006 before you filed rebuttal testimony in this proceeding?

13 A. Yes. A settlement conference was held the week of August 28 through
14 September 1, 2006 and Staff presented the updated capital structure to the Company during
15 that time.

16 Q. Beginning on page 10, line 1 of his rebuttal testimony, Dr. Hadaway explains
17 why he believes your comparable group of 5 electric companies is "problematic both in terms
18 of statistical reliability and representativeness." What is your response?

19 A. First, Dr. Hadaway did not provide any statistical analysis to support his
20 position. Regardless, I do not believe that his comparable group is a good sample of
21 predominately regulated vertically-integrated electric utilities. Dr. Hadaway chose
22 24 companies as his sample group and still arrives at a single-stage constant growth DCF of
23 9.40, which is at the high end of my range of 9.32 percent to 9.42 percent. In this case, even

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1 Dr. Hadaway's less representative proxy group supports a lower cost of common equity.
2 Some of Dr. Hadaway's companies in his sample group have non-regulated operations and/or
3 are diversified, which I believe are not truly comparable to KCP&L.

4 Q. Has it become more difficult to select pure play vertically-integrated electric
5 utilities because of the restructuring of the electric utility industry in certain states and
6 because of some electric utility companies' involvement in significant non-regulated
7 operations?

8 A. Yes. This is why I chose to rely on S&P's CreditStats publication to choose
9 companies that S&P classifies as vertically-integrated electric utilities.

10 Q. On page 12, lines 8 through 22 of his rebuttal testimony, Dr. Hadaway
11 discusses some criticisms he has about your DCF growth rate analysis. How do you
12 respond?

13 A. Dr. Hadaway criticizes my DCF growth rate analysis because I used Value
14 Line's 3-5 year growth rate forecasts and IBES and Standard and Poor's 5-year forecasts.
15 The reason I chose to use growth rate forecasts is because the historical growth rates have
16 been somewhat volatile. If I chose to give some weight to the historical growth rates, my
17 recommended growth would have been a rate lower than my recommendation of 4.70 percent
18 to 4.80 percent, which I believe is optimistic for a mature regulated electric utility such as
19 KCP&L.

20 Q. Dr. Hadaway claims that analysts' near-term earnings forecasts for utility
21 companies have been lower in recent years and that the use of a nominal GDP growth rate is
22 the appropriate rate to add to the dividend yield in the DCF model. How do you respond?

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1 A. It would make sense that analysts' near-term earnings forecasts for mature,
2 regulated utility companies are low because investors expect it to be low in the long-term.
3 The organic growth for mature electric utilities is lower than the growth of the overall
4 economy.

5 Q. What is organic growth?

6 A. According to www.investopedia.com organic growth is:

7 The growth rate that a company can achieve by increasing output
8 and enhancing sales. This excludes any profits or growth acquired
9 from takeovers, acquisitions or mergers. Takeovers, acquisitions
10 and mergers do not bring about profits generated within the
11 company, and therefore, are not considered organic.

12 Q. Should one assume that a mature electric company will grow at the same rate
13 as the economy as a whole?

14 A. No. To assume that a mature electric utility will grow at the same rate as the
15 economy as a whole is an overstatement. Dr. Hadaway provides no evidence that investors
16 expect a mature electric utility to grow 6.6 percent over the long-term. It appears that he is
17 merely trying to inflate his ROE recommendation and the Commission should dismiss his
18 growth rate and as a result, his recommended ROE.

19 Q. On page 13, lines 1 through 21 of his rebuttal testimony, Dr. Hadaway
20 discusses some criticisms he has about your capital asset pricing model (CAPM) analysis.
21 How do you respond?

22 A. I do not agree that a forecasted yield should be used to estimate the risk-free
23 rate component of the CAPM. There have been many times in the last few years when there
24 have been predictions that long-term interest rates may increase and this never happened.
25 Because investors can easily observe current long-term risk-free interest rates and apply their
26 current required equity risk premiums to these interest rates, using current yields allows for a

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1 more reliable measure of the current cost of common equity. While it is possible that long-
2 term interest rates may increase in the future, it is also possible that they will decrease. If
3 KCP&L's cost of capital should increase dramatically because of an increase in long-term
4 interest rates, then they can file a rate case and have all revenues and expenses of
5 the Company reviewed at that time. In fact, the *Experimental Regulatory Plan* in Case No.
6 EO-2005-0329, identifies four rate cases planned for KCP&L through the in-service of
7 Iatan 2 in 2010, this case being the first one filed. It is expected that KCP&L will file its next
8 rate case February 1, 2007.

9 Q. Are you aware of any discussions regarding the complexities of attempting to
10 estimate future risk-free interest rates for use in the CAPM?

11 A. Yes. Dr. Roger A. Morin discussed these complexities in his book
12 *Regulatory Finance Utilities' Cost of Capital*, 1994. The specific excerpt follows:

13 Over the last 50 years, the Treasury bill rate has approximately
14 equaled the annual inflation rate, as demonstrated in Fama (1975)
15 and Ibbotson Associates (1993). Refined techniques to forecast
16 inflation based on the current shape of the yield curve could thus
17 be employed to obtain the expected risk-free rate.⁵ Alternately, the
18 consensus inflation forecast by economists over the requisite
19 horizon could be employed to derive the risk-free rate estimate.
20 However, none of these techniques is likely to provide superior
21 estimates to that supplied by current yield data. The complexity
22 and computational costs are likely to outweigh their marginal
23 usefulness.

24 Q. Do you have any evidence to test the reasonableness of your recommended
25 ROE and the unreasonableness of Dr. Hadaway's recommended ROE?

26 A. Yes. In response to Data Request 0229, Great Plains Energy provided
27 projected returns for the Company's Pension Plans and Other Employee Benefits. The
28 historical real equity (S&P 500) return was calculated to be in the range of 5.40 percent for
29 40 years and 7.10 percent for 80 years as compiled by Ibbotson Associates and referenced in

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1 *Ibbotson Associates Stocks, Bonds, Bills, and Inflation 2006 Yearbook Market Results for*
2 *1926-2005*. The expected inflation rate of 3.0 percent to 3.5 percent is added to the historical
3 real equity return to arrive at an estimated nominal return on equity for the Company's
4 pension assets of 8.40 percent to 10.60 percent. My ROE range of 9.32 percent to
5 9.42 percent is in-between the estimated nominal equity return on the Company's pension
6 assets. Dr. Hadaway's recommended ROE of 11.50 percent is higher than the returns
7 projected for the broader stock market. Staff received this information in response to Staff
8 Data Request 0229.

9 Q. Do you know what asset-class allocation is included in the Company's
10 expected nominal equity return on their pension assets? As an example, is the S&P 500
11 included?

12 A. Yes. Ibbotson Associates' Large Company Stock Returns (S&P 500) is used
13 as the benchmark for the estimated return on the Company's pension assets.

14 Q. Is a regulated utility company less risky than the S&P 500?

15 A. Yes. Regulated utility companies tend to be less risky than the S&P 500. The
16 S&P 500 represents the market as a whole that include different business sectors, many of
17 which are not granted monopoly powers that utility companies enjoy.

18 Additionally, betas of publicly traded stock represent the amount of market risk that
19 investors associate with the company underlying the stock. If the beta of a company is below
20 one, then it is considered to have less market risk than the overall market, such as the
21 S&P 500. Consequently, if this is the case, then one would not expect a higher return for the
22 less risky stock of a utility company. As shown on Schedule 18 attached to my direct
23 testimony, my comparable group has an average beta of 0.81, which is below one.

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1 Considering the above, my ROE recommendation of 9.32 percent to 9.42 percent is
2 much more reasonable when compared to the pension plan consultant's estimate of market
3 returns for the plan assets. It certainly is more reasonable than Dr. Hadaway's ROE
4 recommendation of 11.50 percent.

5 Q. On page 14 lines 5 through 17, of his rebuttal testimony, Dr. Hadaway
6 discusses why you should have included a 50 basis point adjustment in your ROE to
7 compensate the Company for its construction risk. What is your response?

8 A. I do not believe an increase of 50 basis points should be added to my ROE
9 because KCP&L faces construction risk relative to my or Dr. Hadaway's comparable group.
10 KCP&L entered a Stipulation and Agreement in Case No. EO-2005-0329, for an
11 Experimental Regulatory Plan which was approved by the Commission that provides for
12 additional amortization to meet certain credit ratios to allow the opportunity to keep the
13 Company's credit rating investment grade. Without the possibility of additional amortization
14 to meet the credit ratios, it is possible that credit rating agencies would lower KCP&L's
15 credit rating during the construction phase. The Experimental Regulatory Plan was meant to
16 reduce the risk the Company may face during the construction phase. Adding an additional
17 50 basis points to ROE because of construction risk calls into question the need for the
18 Experimental Regulatory Plan.

19 Q. Does Dr. Hadaway mention in his direct or rebuttal testimony anything about
20 the Experimental Regulatory Plan or the amortization that may be allowed to meet credit
21 ratios to allow the opportunity to keep the Company's credit rating investment grade?

22 A. No. Dr. Hadaway is silent about the regulatory plan in his direct and rebuttal
23 testimony.

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1 Q. On page 4 lines 8 through 11 of his rebuttal testimony, Dr. Hadaway says,
2 “More recently, on August 18, 2006, the Staff of the Kansas Corporation Commission
3 recommended an ROE of 10.55 percent for KCPL (Docket 06-KCPE-828-RTS, Pre-filed
4 Direct Testimony of Adam H. Gatewood).” What is your response to Dr. Hadaway’s
5 statement?

6 A. Mr. Gatewood has significantly increased his ROE recommendation for
7 KCP&L compared to his previous recommendations in the Kansas Corporation
8 Commission’s (KCC) last Aquila and Westar case.

9 Q. What ROE did Mr. Gatewood recommend in the KCC’s last Aquila electric
10 rate case, Docket No. 04-AQLE-1065-RTS?

11 A. Mr. Gatewood recommended an ROE in the range of 9.35 percent to
12 10.00 percent with a final recommendation of 9.50 percent giving the most weight to the
13 DCF model and using the Capital Asset Pricing Model (CAPM) as a check of
14 reasonableness.

15 Q. What ROE did Mr. Gatewood recommend in the KCC’s last Westar rate case,
16 Docket No. 05-WSEE-981-RTS?

17 A. Mr. Gatewood recommended an ROE in the range of 9.60 percent to
18 10.60 percent using an average of his DCF and CAPM results. Mr. Gatewood’s final
19 recommendation was 9.60 percent. It is not clear in his Westar direct testimony why he
20 changed his methodology to use an average of his DCF and CAPM results while he strictly
21 relied on the DCF model in the Aquila case Docket No. 04-AQLE-1065-RTS.

22 Q. What ROE did Mr. Gatewood recommend in the KCC’s current KCP&L rate
23 case, Docket No. 06-KCPE-828-RTS?

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1 A. Mr. Gatewood recommended an ROE in the range of 10.05 percent to
2 11.05 percent with a mid-point of 10.55 percent. Again it is not clear why he uses the
3 average of his DCF and CAPM model, when in the Aquila case Docket No. 04-AQLE-1065-
4 RTS he strictly relies on his DCF result.

5 Q. What are the differences in Mr. Gatewood's CAPM recommendations
6 between the Aquila, Westar, and KCP&L cases?

7 A. Mr. Gatewood's CAPM results for Aquila, Westar and KCP&L are
8 8.24 percent, 9.63 percent, and 12.30 percent respectively. The difference between the
9 Aquila case and the KCP&L case is 406 basis points or 4.06 percent higher in the last two
10 years.

11 Q. Why do you think Mr. Gatewood's CAPM results have increased so much?

12 A. Mr. Gatewood uses a volatile input for his CAPM model. Mr. Gatewood uses
13 a 90-day Treasury Bill as the risk-free rate component. He also uses the arithmetic average
14 return from large company stocks minus U.S. Treasury bills as his risk premium. Staff does
15 not believe that the change in the cost of common equity is as volatile as Mr. Gatewood's
16 CAPM analysis attempts to demonstrate. If Mr. Gatewood had used long-term treasury
17 bonds as an input in his CAPM, his estimated cost of common equity would not have
18 changed so much over the previously mentioned rate cases.

19 Q. Please provide a simple example to illustrate why you don't believe investors
20 use arithmetic means when determining the amount of risk premium they will require on a
21 given stock or a portfolio of stocks.

22 A. Suppose that an investor makes a \$1 stock investment over a three-year
23 period. If an investor pays \$1 for a stock in year 1 and in year 2 the stock increases to \$1.50,

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1 then the investor would have a 50 percent growth rate. In year three the price of the stock
2 decreases by 50 percent to \$.75. If an investor performed a simple arithmetic average of
3 these two returns, then they would think that they received 0 percent [(50 percent + -50
4 percent)/2] growth in their investment over the three-year period. However, in reality the
5 investor actually had a 25 percent decline in their investment over this three-year period.
6 This is why using the arithmetic mean is questionable.

7 Q. Do you believe that Mr. Gatewood should use a short-term treasury rate as the
8 risk-free rate in the CAPM model?

9 A. There is much debate among analysts as to which risk-free rate is appropriate
10 to use in the CAPM model. I believe that a long-term rate such as the 30-year Treasury bond
11 is the appropriate rate to use when measuring the cost of equity for a utility company because
12 of the volatility in short-term interest rates. Investors try to measure the cost of equity of a
13 utility company assuming that one invests for the long-term, so using a short-term (less than
14 one year) interest rate would not be the appropriate component to use in the CAPM model as
15 I believe that this would be an apples to oranges comparison.

16 **SUMMARY AND CONCLUSIONS**

17 Q. Please summarize the conclusions of your surrebuttal testimony.

18 A. My recommended cost of common equity, which is in the range of
19 9.32 percent to 9.42 percent, would produce a fair and reasonable rate of return of
20 7.60 percent to 7.65 percent for KCP&L's Missouri jurisdictional electric utility rate base.

21 Q. Does this conclude your surrebuttal testimony?

22 A. Yes, it does.