

Staff-7

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*Sponsoring Party:* MoPSC Staff  
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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-2007-0291**

Exhibit No. 207  
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*Jefferson City, Missouri*  
*September 2007*

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1           A.     In rebuttal testimony, Dr. Hadaway addresses issues in my direct testimony  
2 ranging from the Company's request for a 50 basis point increase in return on equity (ROE)  
3 due to KCP&L's construction risk to Staff's use of the single-stage Discounted Cash Flow  
4 Model (DCF). OPC witness Mr. Michael Gorman addressed Staff's recommended  
5 ratemaking capital structure, which he believes is too heavily weighted with common equity.

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

- 7                   1. Company's request for a 50 basis point increase in ROE;
- 8                   2. DCF growth rate analysis;
- 9                   3. Capital asset pricing model (CAPM);
- 10                  4. Capital structure;

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

12           Q.     On page 8, lines 15 through 17, of his rebuttal testimony, Dr. Hadaway claims  
13 you should have made an explicit upward adjustment to your ROE because of KCP&L's  
14 construction program. What is your response?

15           A.     I do not believe an adjustment should be added to my recommended ROE  
16 because of KCP&L's construction program. My comparable group's average credit rating  
17 of BBB already reflects the risk relative to KCP&L's construction program because  
18 KCP&L's credit rating is currently BBB. A credit rating takes into account business and  
19 financial risk. Therefore, if one selects a reasonable proxy group with similar credit ratings,  
20 then no further adjustment is needed. The comparable group's stock prices already reflect  
21 similar business and financial risk.

22           It is also worthy to note that KCP&L entered a Stipulation and Agreement in Case  
23 No. EO-2005-0329, for an Experimental Regulatory Plan, which was approved by the

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1 Commission that provides for additional amortization to meet certain credit ratios to allow  
2 the opportunity to keep the Company's credit rating at investment grade. Without the  
3 possibility of additional amortization to meet the credit ratios, it is possible that credit rating  
4 agencies would lower KCP&L's credit rating during the construction phase. The  
5 Experimental Regulatory Plan was meant to reduce the risk the Company may face during  
6 the construction phase. Adding an additional 50 basis points to ROE because of construction  
7 risk calls into question the need for the Experimental Regulatory Plan. It is also worthy to  
8 note that the credit rating agencies have not lowered KCP&L's credit rating since the  
9 commencement of its construction program.

10 Q. On page 9, lines 1 through 7 of his rebuttal testimony, Dr. Hadaway disagrees  
11 with Staff's "stand-alone analysis of Great Plains Energy because a single-company analysis  
12 is not statistically reliable (as is demonstrated by the 8.0 percent to 8.8 percent ROE he  
13 obtains from that analysis). The 3.69 percent growth rate for Great Plains Energy he uses in  
14 that analysis is a further indication of why analysts' near-term growth projections are not a  
15 proper estimate of long-term growth in the DCF analysis." How do you respond?

16 A. Staff did not recommend the Commission adopt Staff's results from its  
17 company-specific analysis of Great Plains Energy (GPE). Staff provided this analysis for  
18 informational purposes so the Commission can review the results of a company-specific  
19 analysis of GPE to compare it to the comparable group analyses.

20 Q. On page 9, lines 16 through 18 of his rebuttal testimony, Dr. Hadaway says,  
21 "He also presents an Institutional Broker's Estimate System ("IBES") growth rate average  
22 (6.37 percent), but he does not use this estimate in his analysis." How do you respond?

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1           A.     Dr. Hadaway is incorrect when he states that Staff did not use IBES' growth  
2 rate of 6.37 percent in their analysis. The growth rate of 6.37 percent is captured in Staff's  
3 projected growth rate range of 5.34 percent to 6.50 percent, which is then added to the  
4 dividend yield of 3.80 percent to arrive at an ROE range of 9.14 percent ( $5.34 + 3.80$ ) to  
5 10.30 ( $6.50 + 3.80$ ) percent.

6           Q.     Dr. Hadaway says you should have relied on your CAPM results instead of  
7 relying exclusively on your DCF results. What is your response?

8           A.     Staff uses the CAPM as a check of reasonableness for the DCF results.  
9 Staff's CAPM results are 9.92 percent based on the geometric mean and 11.33 percent based  
10 on the arithmetic mean. The geometric mean takes into account compounding interest over  
11 one holding period. The arithmetic mean takes into account an average return over numerous  
12 holding periods, as if one bought and sold securities year-to-year. It is assumed that  
13 investors invest in utility stocks for the long-term. Therefore, it is logical to estimate the  
14 returns using the geometric mean and not the arithmetic mean.

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

18          A.     Suppose that an investor makes a \$1 stock investment over a three-year  
19 period. If an investor pays \$1 for a stock in year 1 and in year 2 the stock increases to \$1.50,  
20 then the investor would have a 50 percent growth rate. In year three, the price of the  
21 stock decreases by 50 percent to \$0.75. If an investor performed a simple arithmetic  
22 average of these two returns, then that investor would think that he/she received 0 percent  
23  $[(50 \text{ percent} + -50 \text{ percent})/2]$  growth in their investment over the three-year period.

1 However, in reality, the investor actually had a 25 percent decline in his/her investment over  
2 this three-year period. This is why using the arithmetic mean is questionable.

3 Q. Do you have any academic support for Staff's use of the geometric mean?

4 A. Yes. The first is *Investment Analysis & Portfolio Management*, seventh  
5 edition, 2003, written by Frank K. Reilly and Keith C. Brown. Reilly and Brown stated the  
6 following:

7 The geometric mean is appropriate for long-run asset class  
8 comparisons, whereas the arithmetic mean is what you would use  
9 to estimate the premium for a given year (e.g. the *expected*  
10 performance next year).

11 The second textbook is *INVESTMENT VALUATION: Tools and Techniques for*  
12 *Determining the Value of Any Asset*, 1996, written by Aswath Damodaran. Dr. Damodaran  
13 stated the following in his textbook:

14 The geometric mean generally yields lower premium estimates  
15 than the arithmetic mean. In the context of valuation, where cash  
16 flows over a long time horizon are discounted back to the present,  
17 the geometric mean provides a better estimate of the risk premium.  
18 Thus, the premium of 5.50% (the geometric mean of the premium  
19 over Treasury bonds) is used throughout this book for calculating  
20 expected returns.

21 **RESPONSE TO MICHAEL GORMAN'S REBUTTAL TESTIMONY**

22 Q. Mr. Gorman states that Staff's capital structure consists of an equity ratio that  
23 is too high. How do you respond?

24 A. Staff's capital structure was based on March 31, 2007, actual known and  
25 measurable data that did not include the Company's debt issuance in May and September.  
26 Staff noted in Direct Testimony that it would update the capital structure through  
27 September 30, 2007, once data is known and measurable. Staff has not traditionally used  
28 projected data to determine the rate-of-return for a company.

1 **SUMMARY AND CONCLUSIONS**

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

3 A. My recommended cost of common equity, which is in the range of  
4 9.14 percent to 10.30 percent, would produce a fair and reasonable rate of return of  
5 7.97 percent to 8.73 percent for KCP&L's Missouri jurisdictional electric utility rate base.

6 Q. Does this conclude your surrebuttal testimony?

7 A. Yes, it does.



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Notary Public