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**MISSOURI PUBLIC SERVICE COMMISSION
CASE NO.: ER-2006-0314**

REBUTTAL TESTIMONY

OF

SAMUEL C. HADAWAY

ON BEHALF OF

KANSAS CITY POWER & LIGHT COMPANY

**Kansas City, Missouri
September 2006**

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1 **I. Introduction**

2 **Q. Please state your name and affiliation.**

3 A. My name is Samuel C. Hadaway. I previously filed Direct Testimony on behalf
4 of Kansas City Power & Light Company ("KCPL" or the "Company") in this
5 proceeding.

6 **Q. What is the purpose of your rebuttal testimony?**

7 A. In this rebuttal testimony, I respond to the return on equity ("ROE") and capital
8 structure recommendations of Missouri Public Service Commission Staff ("Staff")
9 witness Matthew J. Barnes, and the ROE recommendations of the Office of the
10 Public Utility Counsel ("OPC") witness Richard A. Baudino, and Department of
11 Energy ("DOE") witness J. Randall Woolridge.

12 **Q. How is your rebuttal testimony organized?**

13 A. Following this introduction, I offer a general overview of the parties' rate of return
14 positions. For perspective, I compare the other parties' recommendations to the
15 rates of return recently allowed by this Commission and other regulators around
16 the country. This comparison shows that the other parties' recommendations are
17 far below the mainstream of recent cost of capital findings. I also show that the
18 other parties' recommendations are not consistent with the rising trend in long-

1 term interest rates that has occurred over the past twelve months or with
2 projections for even higher interest rates in the coming year. Following these
3 general comments, I then respond individually to the technical aspects of
4 Mr. Barnes' and Mr. Baudino's ROE recommendations. With respect to
5 Professor Woolridge, I will point out some relatively minor mistakes in his
6 testimony, but generally, his recommendation is so far removed from practical
7 capital market considerations that further academic debate in this forum seems
8 pointless. While Professor Woolridge offers an interesting presentation of his and
9 other scholarly research, for purposes of this proceeding, such research amounts
10 to little more than rank speculation. The conclusion of that research--that future
11 equity market returns will be lower than past returns--simply has not been and
12 cannot be confirmed. In fact, such conclusions are quite similar to those drawn by
13 equally qualified market scholars in the late 1950s and 1960s.¹

14 **II. Overview of Rate of Return Positions**

15 **Q. How do the parties' rate of return recommendations compare?**

16 A. The parties' principal differences are with respect to ROE. Although Mr. Barnes
17 recommends a slightly different capital structure, based on historical data for
18 December 31, 2005, in this rebuttal I provide the Company's actual capital
19 structure at June 30, 2006, which confirms the Company's requested capital
20 structure. Other than Mr. Barnes' capital structure recommendation on behalf of

¹ See, e.g., Benjamin Graham, *The Intelligent Investor*, 4th Revised Ed., 1973, pp. 33-35. In the 1959 edition, Professor Graham offered the following: "In sum, we feel compelled to express the conclusion that the present level of stock prices is a dangerous one." (p. 59). In the 1964 edition, Professor Graham further stated: "Speaking bluntly, if the 1964 price level is not too high how could we say that *any* price level is too high." (p. 63).

1 Staff, the other parties are in agreement with the Company's proposed capital
2 structure.

3 With respect to ROE, Mr. Barnes recommends a range of 9.32 percent to
4 9.42 percent; Mr. Baudino recommends an ROE of 9.9 percent; and
5 Dr. Woolridge recommends an ROE of only 9.0 percent. These lower ROEs
6 compare to the Company's requested ROE of 11.5 percent.

7 **Q. The difference between the Company's and the other parties' ROEs seems**
8 **quite large. Why are the positions so far apart?**

9 A. The parties' differences on ROE can be divided into four categories. First, the
10 other parties entirely reject the Company's requested 50 basis point risk
11 increment. Although they appear to recognize that KCPL has higher construction
12 risk than the peer group companies, they do not agree that the Company should be
13 compensated for this risk. Second, the other parties do not acknowledge that their
14 ROE recommendations are well below the ROEs recently allowed by this
15 Commission or the ROEs recently allowed by other state regulators. Third, the
16 other parties give no real consideration to the upward trend in interest rates that
17 has occurred over the past 12 months, or to the forecasts for even higher interest
18 rates expected in the coming year. Finally, there is significant disagreement about
19 the appropriate technical inputs and the weights that should be given to the
20 alternative models. In the remainder of this rebuttal testimony, I will focus on
21 each of these areas and show that these differences account for the large
22 difference between the Company's and the other parties' ROE recommendations.

1 **Q. How do the other parties' recommended ROEs compare with returns**
2 **recently allowed for electric utilities by this Commission and by other state**
3 **regulators?**

4 A. The other parties' recommended ROEs are much lower than the most recent ROEs
5 granted by this Commission and the average ROEs allowed by other state
6 regulators. For example, in its order in Case No. ER-2004-0570, on March 10,
7 2005 (near the bottom of the low interest rate cycle), this Commission set the
8 ROE for Empire District Electric Company at 11.0 percent. More recently, on
9 August 18, 2006, the Staff of the Kansas Corporation Commission recommended
10 an ROE of 10.55 percent for KCPL (Docket 06-KCPE-828-RTS, Pre-filed Direct
11 Testimony of Adam H. Gatewood). I have also prepared as Schedule SCH-9 a
12 summary of electric utility ROEs allowed by other state commissions over the
13 past two and one-half years. The results from that Schedule are shown in the
14 following table:

Table 1:
Authorized Electric Utility Equity Returns

	2004	2005	2006
1st Quarter	11.00%	10.51%	10.38%
2nd Quarter	10.54%	10.05%	10.69%
3rd Quarter	10.33%	10.84%	
4th Quarter	10.91%	10.75%	
Full Year	10.75%	10.54%	10.57%

Source: Regulatory Research Associates, *Regulatory Focus*, July 6, 2006, page 2.

15 As shown in Table 1 above, average allowed Electric Utility ROEs for 2004-2006
16 were 10.75 percent, 10.54 percent, and 10.57 percent, respectively. Given the
17 increase in interest rates that has occurred over the past 12 months, these data

show that the other parties' ROE recommendations are too low. Given KCPL's large construction program and its reliance on risky off-system sales, the other parties' ROE recommendations for KCPL are less than the Company's cost of equity. Adoption of any of the other parties' proposed ROE will likely result in a decline in GPE's stock price at a time when the Company must continue to issue additional equity.

Q. How have interest rates changed during the past two years?

A. The Federal Reserve Open Market Committee has now increased the Federal Funds rate 17 times (from 1.0 percent to 5.25 percent) since mid-2004. The Prime rate charged by banks to their best customers has similarly increased from 4.0 percent in June 2004 to a current level of 8.25 percent. Although long-term interest rates were slower to move, since mid-2005, long-term utility interest rates have increased by 100 basis points. I have prepared as Schedule SCH-10 a month-by-month summary of Moody's Baa and Average Utility Interest Rates for June 2005 through June 2006. Those monthly interest rate data are summarized in the following table:

Table 2:				
Long-Term Interest Rate Trends				
	Baa	Average	Long-Term	10-Year
	Utility	Utility	Treasury	Treasury
Month	Rates	Rates	Rates	Rates
Jun-05	5.70%	5.39%	4.35%	4.00%
Jul-05	5.81%	5.50%	4.48%	4.18%
Aug-05	5.80%	5.51%	4.53%	4.26%
Sep-05	5.83%	5.54%	4.51%	4.20%
Oct-05	6.08%	5.79%	4.74%	4.46%
Nov-05	6.19%	5.88%	4.83%	4.54%

Dec-05	6.14%	5.83%	4.73%	4.47%
Jan-06	6.06%	5.77%	4.65%	4.42%
Feb-06	6.11%	5.83%	4.73%	4.57%
Mar-06	6.26%	5.98%	4.91%	4.72%
Apr-06	6.54%	6.28%	5.22%	4.99%
May-06	6.59%	6.39%	5.35%	5.11%
Jun-06	6.61%	6.39%	5.29%	5.11%
Sources: Mergent Bond Record (Utility Rates); www.federalreserve.gov (Treasury Rates).				

As the data in Table 2 show, long-term interest rates paid by corporate utility borrowers and by the U.S. Government have risen by about 100 basis points during the past year. Borrowing costs for Baa rated utilities like KCPL increased from 5.70 percent to 6.61 percent during this period. Similarly, average long-term borrowing costs for all utility bond ratings have increased from their historical lows of 5.39 percent in June 2005 to 6.39 percent in June 2006. This increasing trend in long-term borrowing costs should not be ignored and should be considered explicitly in estimates of the on-going cost of equity capital.

Q. What levels of interest rates are forecast for 2007?

A. Both corporate and government interest rates are expected to rise further from present levels. I have reproduced as Schedule SCH-11 Standard & Poor's most recent economic forecast from its *Trends & Projections* publication for August 24, 2006. The summary interest rate data from that publication are presented in the following table:

Table 3:			
Standard & Poor's Interest Rate Forecast			
	Current	Average 2006E	Average 2007E
Treasury Bills	4.9%	4.9%	5.1%

10-Yr. T-Bonds	4.8%	5.0%	5.7%
30-Yr. T-Bonds	4.9%	5.1%	5.7%
Corporate Bonds	5.9%	5.9%	6.9%
Sources: www.yahoo.com Yahoo Finance (Current Rates); Standard & Poor's <i>Trends & Projections</i> , August 24, 2006, page 8 (Projected Rates).			

1 The data in Table 3 show that interest rates are projected to increase further
2 during the coming year. Relative to the expected 2006 averages, rates on 10-year
3 and 30-year Treasury bonds for 2007 are expected to increase by an additional
4 60 to 70 basis points. Corporate borrowing costs are forecast to increase by
5 100 basis points.

6 All these factors indicate that the other parties' rate of return positions are
7 unreasonably low. Their positions are below rates of return approved by this
8 Commission for other electric utilities and they are below the average ROEs
9 allowed by other state regulators. The other parties' low ROE recommendations
10 are also inconsistent with the increasing trend in long-term capital costs as
11 reflected in the 100 basis point increase in long-term interest rates during the past
12 year. Their positions also are inconsistent with projections for further interest rate
13 increases in 2007—the first and only year new rates will be in effect. And, most
14 importantly, none of the other parties provide any compensation for KCPL's more
15 risky profile. Had the other parties more reasonably considered available
16 economic data and capital market trends, as well as KCPL's larger construction
17 and off-system sales risks, they should have recognized that their ROE
18 recommendations are too low.

19 **III. Rebuttal of Staff Witness Matthew J. Barnes**

20 **Q. What are your areas of disagreement with Mr. Barnes?**

1 A. I disagree with his capital structure and ROE recommendations. I disagree with
2 his capital structure recommendation because his historical approach is not
3 consistent with the Company's actual capital structure as of June 30, 2006 or with
4 the projected capital structure for September 30, 2006 that the Company has
5 requested.

6 I disagree with Mr. Barnes' ROE recommendation for several reasons.
7 Most important, his ROE estimate is deficient because he relies solely on a
8 mechanical application of the constant growth discounted cash flow ("DCF")
9 model. He does not review multi-stage growth versions of the model or
10 alternative estimates of the model's required growth rate. Mr. Barnes estimates
11 growth from only one approach (analysts' 3-to-5 year earning growth projections).
12 Additionally, he applies the DCF model to a sample of only five companies and
13 he rejects his own capital asset pricing model ("CAPM") checks of
14 reasonableness for his DCF results. I will demonstrate that had Mr. Barnes more
15 reasonably considered alternative approaches and alternative growth rates, his
16 DCF estimates would have been considerably higher. I will also show that had
17 Mr. Barnes included higher projected interest rates in his CAPM analysis, those
18 results would have been even higher, further showing that his DCF-based ROE
19 recommendation is too low. Finally, although Mr. Barnes offered a discussion of
20 KCPL's financial condition, he gave no consideration to the Company's larger
21 construction program relative to his comparable group utilities. All these
22 deficiencies detract from Mr. Barnes' ROE recommendation and cause his range
23 of ROE for KCPL to be too low.

1 **Q. What is the basis for Mr. Barnes' proposed capital structure?**

2 A. As I explained in my Direct Testimony, the Company's requested capital structure
3 is based on Great Plains Energy's projected long-term capital at September 30,
4 2006. That capital structure is comprised of 53.81 percent equity, 1.52 percent
5 preferred stock, and 44.67 percent long-term debt. Mr. Barnes recommends a
6 capital structure based on Great Plains Energy's long-term capital at
7 December 31, 2005. That capital structure was comprised of 50.94 percent
8 common equity, 1.62 percent preferred stock, and 47.44 percent long-term debt.
9 Mr. Barnes' historical capital structure fails to recognize the Company's efforts to
10 strengthen its balance sheet as it prepares for its large upcoming construction
11 program.

12 **Q. Are there more recent actual data that support the Company's capital**
13 **structure request?**

14 A. Yes. As reported in its SEC Form 10-Q at June 30, 2006, Great Plains Energy
15 had long-term capital consisting of 53.24 percent common equity, 1.54 percent
16 preferred stock, and 45.22 percent long-term debt. If Mr. Barnes updates his
17 historical capital structure approach for the most recently available data, no
18 material difference should exist between his recommendation and the Company's
19 request. As noted previously, OPC and DOE are in agreement with the
20 Company's capital structure request.

21 **Q. You mentioned that Mr. Barnes used a "comparable group" of only five**
22 **companies. What is your evaluation of this approach?**

1 A. Such a small sample size may be problematic both in terms of statistical reliability
2 and representativeness. In terms of reliability, with such a small sample, the
3 outcome for any one company may unduly influence the results for the whole
4 group. If there are extreme values, or outliers, these observations may
5 inappropriately skew the final group average. For example, in Mr. Barnes' sample
6 of five companies, each company counts for 20 percent of the group average. In
7 contrast, with a large sample, such as my 24-company group, each company
8 counts for only about 4 percent.

9 The dividend yield data in Mr. Barnes' Schedule 17 clearly suffer from the
10 small sample problem. In column 3 of that schedule, Mr. Barnes summarizes the
11 projected dividend yield for his group. Four of the yield estimates are between
12 4.66 percent and 5.17 percent, while the yield for IDACORP is more than
13 100 basis points lower at only 3.67 percent. The average yield for the four
14 companies is 4.86 percent, but when IDACORP is included, the group average
15 falls to 4.62 percent. In his analysis, therefore, the abnormal dividend yield of
16 one company reduces the final ROE average by almost 25 basis points
17 ($4.86\% - 4.62\% = 0.24\%$). This specific example from Mr. Barnes' actual data
18 illustrates the statistical shortcoming of a small sample size, and that his ROE
19 estimates may be significantly understated because he includes one company with
20 an abnormally low dividend yield.

21 **Q. Is Mr. Barnes' small sample of companies representative of KCPL's cost of**
22 **capital?**

1 A. No. Although Mr. Barnes says he chose his sample "*because these companies*
2 *have similar electric operations that are comparable to KCP&L*" (Barnes at 15,
3 lines 2-3), without the balance of other companies that are similar to KCPL in
4 geographical location and diversity, size, and operating risk characteristics, the
5 five companies he selected do not meet this objective. Mr. Barnes' group is
6 unrepresentative because he began with too small a sample (11 companies) and
7 ended up with four of his five finalists located in one region of the country (the
8 West). As such, Mr. Barnes' small group is dominated by companies that have
9 characteristics and issues that are distinctly different from those affecting KCPL.

10 In my analysis, I started with the entire 60-company group of electric
11 utilities followed by Value Line. I then narrowed my group to 24, based on the
12 bond ratings and operational characteristics discussed in my Direct Testimony.
13 Mr. Barnes started his analysis with only the 11 companies currently included in
14 Standard & Poor's integrated utility group. Although his additional filters for
15 narrowing the group may not have been unreasonable, the initial S&P group was
16 so small that most of the reasonably comparable electric utilities were already
17 eliminated. Besides being too small from a statistical standpoint, as discussed
18 above, Mr. Barnes ends up with a flawed sample because it is dominated by
19 companies that are not similar to KCPL. Four of the five companies are in
20 Value Line's West Region: Hawaiian Electric (based in Honolulu, Hawaii);
21 IDACORP (based in Boise, Idaho); Pinnacle West (based in Phoenix, Arizona);
22 and Puget Energy (based in Bellevue, Washington). The other company,
23 Southern Company (based in Atlanta, Georgia), is in Value Line's East Region.

1 In such a small sample, Southern Company's geographic characteristics, huge
2 size, and financial metrics dwarf KCPL. By beginning with too small a group and
3 failing to give practical consideration to the companies' characteristics,
4 Mr. Barnes applied his ROE analysis to a group of "comparable" companies that
5 are not representative of KCPL's financial risks or operating characteristics. Not
6 one of his companies is from the Central Region in which KCPL resides.

7 **Q. What is your evaluation of Mr. Barnes' DCF growth rate analysis?**

8 A. Mr. Barnes' growth rate analysis is also too narrow. His final growth rate range,
9 of 4.70 percent to 4.80 percent, is based entirely on analysts' 3-5 year earnings
10 growth rate forecasts. As I explained in my Direct Testimony, analysts' near-term
11 earnings forecasts for electric utilities have dropped significantly in recent years.
12 Mr. Barnes' sole reliance on these forecasts is improper because the constant
13 growth DCF model requires a very long-term estimate of investors' growth
14 expectations. To meet this requirement, Mr. Barnes should have considered more
15 general, long-term economic growth forecasts like projections of growth in gross
16 domestic product ("GDP"), as I did in my Direct Testimony. In Schedule SCH-
17 12, I recalculate Mr. Barnes' ROE estimates taking into account long-term GDP
18 growth. When this somewhat higher GDP growth is averaged with Mr. Barnes'
19 analysts' growth rates, his DCF cost of equity increases by almost 100 basis points
20 to about 10.3 percent. These results show that had Mr. Barnes more reasonably
21 included other forms of the DCF model or other sources for his growth rate
22 estimates, his ROE results would have been much higher.

23 **Q. How did Mr. Barnes use the CAPM to test his final ROE recommendation?**

1 A. Similar to his DCF approach, Mr. Barnes applied the CAPM to his five-company
2 sample in a way that produces low ROE estimates. I will show that had
3 Mr. Barnes included more reasonable forecasts for higher interest rates in the
4 CAPM, he would have found a higher ROE estimate. This higher CAPM
5 estimate of ROE should have indicated to Mr. Barnes that his DCF estimates are
6 too low.

7 **Q. What is the range of ROE estimates from Mr. Barnes' CAPM analysis?**

8 A. As shown in Schedule 18 of his testimony, for his comparable company group,
9 Mr. Barnes obtained average CAPM estimates ranging from 6.36 percent to
10 10.43 percent.² These results are based on alternative risk premium estimates and
11 the long-term risk-free Treasury bond interest rate as of June 2006.

12 **Q. What estimates of ROE result from Mr. Barnes' CAPM analysis when**
13 **forecasted interest rates are included?**

14 A. As shown in my Schedule SCH-11, the long-term Treasury bond rate forecasted
15 for 2007 is 5.7 percent. When this rate is substituted for the risk-free rate in
16 Mr. Barnes' Schedule 18, the range based on the geometric and arithmetic mean
17 risk premiums is 9.7 percent to 11.0 percent, with a midpoint of 10.3 percent (see
18 Schedule SCH-12, page 2). Had Mr. Barnes included forecasted interest rates in
19 his CAPM analysis and used his CAPM results as a reasonableness check on his
20 DCF estimates, he would have recognized that his DCF based recommendation is
21 too low.

² The low end of this range is based on a risk premium of only 1.48 percent, for 1996-2005. It is not clear why Mr. Barnes included this estimate since such a low risk premium is not consistent with other long-term experience. I do not include this estimate of risk premium in my analysis of Mr. Barnes' CAPM work.

1 **Q. In your Direct Testimony, you recommended the inclusion of a 50-basis point**
2 **increase in KCPL's ROE to compensate investors for the high degree of**
3 **construction risk the Company faces. Did Mr. Barnes concur with your**
4 **recommendation?**

5 A. Mr. Barnes is silent on the critical issue of KCPL's construction risk. Over the
6 next few years, KCPL faces a myriad of risks related to plant construction,
7 including cost increases, delays, labor shortages, financing, and new regulations,
8 to name but a few. As I demonstrated in Schedule SCH-1 to my Direct
9 Testimony, this risk is significantly higher on a relative basis for KCPL than other
10 comparable companies over the next several years. This has significant
11 implications for KCPL's ability to attract equity capital needed to finance
12 construction over the next few years. In competitive capital markets, if investors
13 can get the same ROR from utilities with little or no current construction risk,
14 why would they provide equity capital to finance KCPL's more risky capital
15 needs? Rational investors will not. KCPL's investors must be compensated for
16 the risks they bear. In this regard, Mr. Barnes' failure to include the Company's
17 requested risk adjustment is unreasonable and his recommended ROR is too low.

18 **IV. Rebuttal of OPC Witness Richard A. Baudino**

19 **Q. What is your general assessment of Mr. Baudino's rate of return**
20 **recommendations?**

21 A. As noted previously, Mr. Baudino and OPC agree with the Company's requested
22 capital structure and cost rates for debt and preferred stock. Therefore, the
23 differences between my and Mr. Baudino's rate of return recommendations stem

1 from our differences with respect to ROE. Mr. Baudino and I use similar,
2 relatively large comparable company groups. However, Mr. Baudino restricts his
3 DCF analysis to only the constant growth version of the DCF model and his
4 growth rate estimates in the model are based only on analysts' 3-to-5 year
5 earnings growth estimates (as shown on Schedule RAB-4, page 5). Like
6 Mr. Barnes, had Mr. Baudino expanded his DCF analysis to include alternative
7 versions of the DCF model and alternative approaches to estimating the model's
8 required growth rate, his estimates would have been higher. Additionally,
9 Mr. Baudino entirely rejects his own higher CAPM estimates of ROE. I will
10 demonstrate below that Mr. Baudino's DCF results should have been higher. Had
11 he considered his own CAPM estimates, he would have found a higher ROE
12 recommendation appropriate.

13 **Q. What does Mr. Baudino's DCF analysis show when additional growth**
14 **measures are considered?**

15 A. In my Schedule SCH-13, page 1, Panel 1, I update Mr. Baudino's
16 Schedule RAB-4, page 5, to reflect an additional growth measure beyond the ones
17 he used. As I explained in my Direct Testimony, projected growth in the overall
18 U.S. economy (as reflected in GDP growth) is a historically reliable measure and
19 an important indicator of expected long-term growth in the electric utility
20 industry. Utilities are a fundamental sector in the economic infrastructure and the
21 economic prospects of utility companies are directly linked to overall economic
22 activity. As such, long-term growth expectations for utilities are closely tied to
23 long-run economic performance as measured by the GDP growth rate.

1 Since the long-term growth expectations required in the DCF model
2 cannot be measured directly, economists tend to rely on several alternatives for
3 estimating growth. Particularly in proceedings before the Federal Energy
4 Regulatory Commission ("FERC"), estimates of long-term growth (as opposed to
5 analysts' five-year forecasts) have been used routinely. Such estimates have been
6 based on long-term projected profits and more general long-term economic
7 growth estimates. I have used projected long-term growth in GDP for this
8 purpose. When this additional growth rate is averaged into Mr. Baudino's growth
9 estimates, the average DCF result from Schedule RAB-4 increases from
10 9.89 percent to 10.46 percent. This result is slightly higher than the result that I
11 demonstrated for Mr. Barnes' group with the expanded growth rate approach.
12 Had Mr. Barnes and Mr. Baudino more reasonably considered alternative growth
13 rates in their DCF analyses, their ROE estimates would have been higher.

14 **Q. What are your specific comments on Mr. Baudino's CAPM analysis?**

15 A. I disagree with two of Mr. Baudino's CAPM inputs and I disagree with his
16 rejection of the CAPM as a reasonableness check for his DCF results. I will
17 demonstrate below that Mr. Baudino's own CAPM analysis shows that his ROE
18 recommendation is too low. Furthermore, his CAPM results would have been
19 even higher had he not included a new source of lower Beta coefficients in his
20 analysis or if he had based his CAPM analysis on forecasted interest rates.

21 **Q. How do Mr. Baudino's CAPM results change if his lower First**
22 **Call/Thompson Betas are removed from the analysis?**

1 A. In my Schedule SCH-13, page 2, Panel 1, I reproduce Mr. Baudino's original
2 CAPM results. The overall average ROE from these calculations is
3 10.61 percent. At the outset, this average result shows that Mr. Baudino's
4 9.9 percent ROE recommendation is too low. Rather than acknowledge this
5 relationship, Mr. Baudino entirely rejected the CAPM results.

6 In Schedule SCH-13, page 2, Panel 2, I demonstrate the effect of the
7 Mr. Baudino's lower First Call/Thompson ("FC/T") Betas, by eliminating those
8 Betas from the calculations. I would note that Mr. Baudino has traditionally
9 relied upon Value Line's somewhat higher Beta estimates in his CAPM analyses.
10 See, e.g., Southwestern Electric Power Co., Docket No. U-232327, Subdocket A
11 (La. P.S.C., October 2004) at page 27 (attached as Schedule SCH-13, page 3).
12 The CAPM results, after excluding the FC/T Betas and using only the Value Line
13 Betas, are shown in column 22 of the schedule. The average ROE estimate is
14 11.40 percent. Mr. Baudino's CAPM analysis using the same Value Line Betas
15 he has used in prior cases shows further that his DCF-based ROE
16 recommendation is too low.

17 In Schedule SCH-13, page 2, Panel 3, I include all of Mr. Baudino's Beta
18 estimates, including the FC/T estimates, but I replace his historical risk-free
19 interest rates with the Treasury bond rate projected for 2007. These results
20 produce a CAPM average ROE estimate of 11.32 percent. Thus, under a wide
21 range of input assumptions (including Mr. Baudino's own), the CAPM check of
22 reasonableness shows that Mr. Baudino's recommended ROE is too low.

1 **Q. Did Mr. Baudino address your recommendation for a 50-basis point increase**
2 **in KCPL's ROE to compensate investors for the high degree of construction**
3 **risk the Company faces?**

4 A. Like Mr. Barnes, Mr. Baudino failed to acknowledge KCPL's construction risk
5 and the need to compensate investors for that risk in order for KCPL to attract
6 needed capital. . In this regard, Mr. Baudino's failure to include the Company's
7 requested risk adjustment is unreasonable and his recommended ROR is too low.

8 **V. Rebuttal of DOE Witness J. Randall Woolridge**

9 **Q. What is your assessment of Professor Woolridge's rate of return on equity**
10 **recommendation?**

11 A. Professor Woolridge's ROE recommendation is far below the reasonable cost of
12 equity for KCPL. The extreme nature of his recommendation is easily seen by
13 comparing his ROE estimate to the rates of return that this and other regulatory
14 commissions have found appropriate. While his recommendation is technically
15 derived from the DCF model and the CAPM, his approach to these models is
16 colored by his personal views on future equity market returns. Based on his and
17 other academic research, Professor Woolridge obviously believes that future
18 equity market returns will be lower than market returns have been in the past. In
19 a forum such as this rate case, this academic thesis cannot be proved or disproved.

20 **Q. At page 2, lines 19-20, Professor Woolridge states: "*Long-term capital cost***
21 ***rates for U.S. corporations are currently at their lowest levels in more than four***
22 ***decades.*" Is this statement correct?**

1 A. No. As discussed previously and as shown in Schedule SCH-10, long-term utility
2 borrowing costs have increased by 100 basis points since their lowest levels in
3 June 2005.

4 **Q. At pages 5-6, Professor Woolridge quotes two publications from 1999 as**
5 **evidence that equity risk premiums may have declined from the 5-7 percent**
6 **range (relative to U.S. Treasury bonds) and now may be expected to be in the**
7 **3-4 percent range. Are the cited 1999 publications relevant today?**

8 A. They are much less relevant today than they were in 1999. During the stock
9 market bubble of the 1990s, many academicians and others warned that market
10 prices were high and correctly noted that rates of return being earned during the
11 1990s were not sustainable. Federal Reserve Chairman Alan Greenspan's
12 comment about "irrational exuberance"³ was, indeed, appropriate and prescient.
13 Since early 2000, however, the NASDAQ market has declined by about two-thirds
14 and other market indices have moved sideways as corporate earnings have moved
15 up. These market corrections have led to much improved fundamental prospects
16 for future market returns relative to the fundamentals that existed in early 2000.

17 **Q. On pages 6 and 7 and in Exhibit JRW-2, Professor Woolridge argues that the**
18 **2003 change in dividend tax rates may have reduced the cost of equity by as**
19 **much as 100 basis points. Do you agree with his assessment?**

20 A. No. Professor Woolridge significantly overstates the effect of the tax law change.
21 The example he provides in Exhibit JRW-2 is incorrect for two reasons. First, it
22 is based on average *personal* tax rates for dividends, which are not at all

³ Alan Greenspan, "The Challenge of Central Banking in a Democratic Society," before the American Enterprise Institute, December 5, 1996.

1 applicable to the institutions that hold the majority of utility shares. I have
2 prepared as Schedule SCH-14 a summary of the institutional holding percentages
3 for the electric utilities in my comparable group. The mean and median
4 institutional percentages for the group are 53.63 percent and 55.00 percent,
5 respectively. Because institutions such as retirement funds do not pay taxes, tax
6 rates are not a consideration in their investment decisions or their required rates of
7 return. Second, the capital gains rates Professor Woolridge uses in his example
8 are well above the effective rates for either individuals or institutions.⁴ Although
9 the 2003 tax law change may have had some impact on the corporate cost of
10 capital, Professor Woolridge's discussion of the issues is an overstatement and his
11 example is simply incorrect.

12 **Q. On page 8, at line 9, Professor Woolridge states that the common equity ratio**
13 **for the comparable electric utility group is 46 percent and that the average**
14 **earned return on common equity is 9.5 percent. Are these statistics**
15 **accurate?**

16 A. While Professor Woolridge's sources are considered reliable, his use of the data is
17 questionable. First, the 46 percent equity ratio that he cites is not relevant to
18 KCPL's requested capital structure. His 46 percent equity ratio includes short-
19 term as well as long-term debt in the comparative capital structures. KCPL's
20 requested 53.81 percent equity ratio does not include short-term debt because that
21 debt largely finances construction work in progress, which is not included in rate

⁴ The effective capital gains rate is much lower than the statutory rate because capital gains are taxed only when a qualifying security is sold. To the extent that utility shares are not as actively traded as other stocks and are held as long-term investments, the effective average capital gain rate for utilities is even lower.

1 base and is included in the AFUDC rate calculation. Also, the 46 percent equity
2 ratio is for 2005 only and it is not consistent with projected improvement in the
3 comparable companies' capital structures going forward. Professor Woolridge's
4 focus on a 9.5 percent earned rate of return is also an understatement. On page 12
5 of his testimony and in Exhibit JRW-5, page 3, Professor Woolridge reports the
6 earned rates of return for the Dow Jones Utilities ("DJU"). The data show that the
7 DJU returns have been much higher than the 9.5 percent that Professor Woolridge
8 reports. For 2005, the DJU earned return was 11.75 percent.

9 **Q. Professor Woolridge summarizes his DCF analysis on page 25. Why is his**
10 **DCF estimate (9.1 percent) even lower than those of the other witnesses?**

11 A. Professor Woolridge does essentially the same kind of DCF analysis as
12 Mr. Barnes and Mr. Baudino. He relies solely on the constant growth version of
13 the DCF model and he ultimately uses analysts' five-year forecasts as his growth
14 rate estimate. As I explained in my rebuttal of Messrs. Barnes and Baudino, I
15 disagree with the sole reliance on only one version of the DCF model, and I have
16 demonstrated that a broader based, longer-term approach to growth estimates is
17 required. Professor Woolridge's DCF results are even lower than those of
18 Messrs. Barnes and Baudino because his selected sources provide an even lower
19 average growth rate (4.25 percent) than those used by either Mr. Barnes
20 (4.7 percent to 4.8 percent) or Mr. Baudino (5.47 percent). Like Messrs. Barnes
21 and Baudino, Professor Woolridge would have found a higher DCF estimate if he
22 had more reasonably considered alternative versions of the DCF model and a
23 broader approach to estimating long-term growth rates.

1 **Q. Between pages 25 and 47, Professor Woolridge discusses inputs for his**
2 **CAPM analysis. What is your opinion of his final CAPM estimate of ROE?**

3 A. Professor Woolridge, on page 47, arrives at an 8.7 percent CAPM estimate of
4 ROE. That estimate is comprised of a 5.25 percent risk-free rate based on
5 Treasury securities, a Beta coefficient of 0.82 from Value Line, and a market
6 equity risk premium of 4.16 percent based on an average of various risk-premium
7 estimates shown in his Exhibit JRW-8, page 3. It is telling to note in that exhibit
8 that the estimated risk premium from Professor Woolridge's own "Building
9 Block" academic research is only 3.0 percent. If Professor Woolridge had used
10 the typical Ibbotson data that Messrs. Barnes and Baudino applied and if he had
11 applied a forecasted Treasury bond rate as I explained in my rebuttal of Messrs.
12 Barnes and Baudino, his CAPM results would have been much higher. The low
13 rate of return bias that follows from Professor Woolridge's academic research is
14 evident throughout his analysis.

15 **Q. On pages 47-48, Professor Woolridge says that his 9.0 percent ROE is low by**
16 **historical standards but that it is justified by currently low interest rates, by**
17 **the 2003 tax rate reduction on dividends and capital gains, and by a lower**
18 **market equity risk premium. What is your view of Professor Woolridge's**
19 **conclusions?**

20 A. It appears that Professor Woolridge recognizes that no regulator has set an ROE
21 as low as his in any recent major electric utility rate case. His statement about
22 low interest rates entirely ignores the 100 basis point increase that has occurred in
23 long-term utility borrowing costs during the past year and forecasts for even

1 higher interest rates in the coming year. As I explained previously, his discussion
2 and analysis of the 2003 tax reduction is overstated and incorrect, and his beliefs
3 about lower future market returns cannot be substantiated. In this context,
4 Professor Woolridge's explanation of his extreme position is not well founded.

5 **Q. On page 49, Professor Woolridge compares the 9.5 percent earned rate of**
6 **return he calculated in Exhibit JRW-3 for the comparable company group to**
7 **the group's average market-to book ratio of 149.5 percent. He uses this**
8 **comparison to support the reasonableness his 9.0 ROE. What is your**
9 **response to this analysis?**

10 A. Professor Woolridge's comparison is potentially confusing for two reasons. First,
11 as I explained previously, the data in Professor Woolridge's Exhibit JRW-5 show
12 that the earned return for the Dow Jones Utilities for 2005 was 11.75 percent. An
13 earned return of 9.5 percent is well below market expectations for most utility
14 companies. Additionally, Professor Woolridge's comparison would make it
15 appear that the earned rates of return are the cause for utility market-to-book
16 ratios greater than one. This contention entirely ignores the consolidation and
17 merger activity that has significantly impacted electric utility stock market prices
18 in recent years. Investors know that many acquisitions have occurred and that
19 more are expected. Furthermore, they know that significant acquisition premiums
20 and large capital gains have been associated with the merger activity. In this
21 environment, expectations for further mergers and knowledge of past merger
22 prices effectively set a floor for market prices. While earnings expectations are a

1 part of market pricing, Professor Woolridge's contention about direct causation
2 between utility earned rates of return and market-to-book ratios is myopic.

3 **Q. In the remainder of his testimony, Professor Woolridge criticizes your ROE**
4 **recommendation based on (1) an inflated DCF growth rate, (2) outdated and**
5 **biased equity risk premium estimates, and (3) an unwarranted risk**
6 **adjustment. What is your response?**

7 A. I believe I have adequately explained on pages 29-33 of my Direct
8 Testimony why analysts' 3-to-5 year growth projections are not the appropriate
9 sole basis for the required very long-term growth rate in the DCF model. In this
10 rebuttal testimony, I have also explained why I disagree with Professor
11 Woolridge's academic approach to the equity risk premium issue. His criticism of
12 my testimony in these areas is incorrect. With respect to the Company's requested
13 50 basis point risk increment, Professor Woolridge would again ignore this
14 Commission's and other regulators' decisions in this area. As I demonstrated in
15 Exhibit SCH-1 to my Direct Testimony, KCPL faces very large *nominal*, and
16 extraordinarily large *relative* capital requirements compared to similar companies.
17 Dr. Woolridge takes the position that the terms of the Stipulation and Agreement
18 approved by the Commission in Case No. EO-2005-0329 setting forth an agreed-
19 upon Resource Plan (the "Stipulation") somehow mitigate the immense risk the
20 scale and scope of this project represent to KCPL. While the Company and many
21 of the other parties were indeed signatories to the Stipulation, it did not limit any
22 party's ability in this case or any future rate case to challenge the prudence of
23 KCPL's expenditures or to disagree with KCPL's assessment of its rate base or

1 cost of service. I understand that nothing in the Stipulation limits the rights of a
2 non-signatory party to take any position on an issue. Similarly, I understand that
3 nothing in the Stipulation restricts the ability of the Commission to make a
4 finding of fact or conclusion of law on any issue. Therefore, neither the
5 Stipulation nor the process that led to its negotiation and approval has eliminated
6 the financing, construction, and ultimate regulatory risks that the Company faces.
7 Capital market participants recognize these ongoing risks and require adequate
8 compensation for these risks. For Professor Woolridge at page 52, lines 1-9 to
9 use the Stipulation and the process that preceded it as justification for rejecting
10 the Company's requested risk adjustment is inappropriate.

11 **Q. On pages 60-62, Professor Woolridge offers an extensive discussion of**
12 **arithmetic versus geometric averages and concludes on page 62 that your**
13 **risk premium study is "biased and should be disregarded." Do you agree?**

14 **A.** No. Professor Woolridge's assertions about my use of arithmetic mean data are
15 incorrect and potentially misleading. On page 50, Professor Woolridge
16 reproduces a summary of results from my Direct Testimony of various ROE
17 estimation methods. In the Risk Premium Analysis section of that table the issue
18 of arithmetic versus geometric averaging exists only in the Ibbotson Risk
19 Premium results. And, as I explained in my Direct Testimony (page 34, line 14),
20 I used the more conservative geometric mean data in my analysis. Furthermore,
21 Professor Woolridge is simply wrong in his assertion that only geometric mean
22 data should be employed to assess investors' expectations.⁵

⁵ See, e.g., Marshall E. Blume, "Unbiased Estimators of Long-Run Expected Rates of Return,"
Journal of the American Statistical Association, September 1974, pp. 634-638.

1 **Q. Beginning on page 63 and running through the end of his testimony on page**
2 **72, Professor Woolridge shifts to an argumentative style, using words and**
3 **phrases like "taint," "Peso Problem," "Analysts Are Still Coming Up Rosy,"**
4 **and "myriad of empirical biases" to criticize your analysis, as well as the**
5 **opinions of security analysts and even some of his academic colleagues. As**
6 **sources for data in charts on pages 69 and 70 he cites "J. Randall**
7 **Woolridge." Are these comments typical of the serious discussion of**
8 **economic and financial issues usually found in regulatory proceedings?**

9 **A. No. Most of Professor Woolridge's comments are purely editorial and have little**
10 or nothing to do with my analysis. Certainly his discussion of New York
11 Attorney General Eliot Spitzer's investigations and the well-known fact that
12 security analysts were optimistic is entirely misplaced since I do not use analysts'
13 forecasts in my analysis. In fact, his diatribe in this section is only a slight
14 expansion of his presentation at the 2003 NASUCA Annual Meeting entitled
15 "Why Are Allowed Rates of Returns Too High?" (Attached as Schedule
16 SCH-15). Additionally, his chart data are taken directly from some of his other
17 prior work entitled "Forecasting Through Rose-Colored Glasses."
18 Professor Woolridge's comments in this section are not responsive to my Direct
19 Testimony.

20 **VI. ROE Update**

21 **Q. What are the results of your updated DCF analyses?**

22 **A. My updated DCF estimates are based on the same comparable company methods**
23 I used in my Direct Testimony. My updated DCF results are presented in

1 Schedule SCH-16. The reasonable range from my updated DCF analysis is
2 10.9 percent to 11.4 percent. These results are based on the two-stage growth
3 DCF model and the single-stage growth DCF model with the growth rate based
4 on the long-term GDP growth rate. The traditional constant growth DCF model
5 indicates an ROE of only 9.7 percent to 9.8 percent, which fails to meet my risk
6 premium checks of reasonableness and, therefore, continues to be excluded from
7 my recommended electric utility DCF range.

8 **Q. What are the results of your updated risk premium analysis?**

9 A. My updated risk premium analysis is presented in Schedule SCH-17. Based on
10 currently projected Baa utility interest rates for 2007, the electric utility risk
11 premium analysis indicates an ROE of 11.1 percent. The updated results of the
12 Ibbotson risk premium analysis and the Harris-Marston risk premium analysis
13 indicate ROEs of 11.5 percent ($6.95\% + 4.5\% = 11.45\%$) and 12.1 percent
14 ($6.95\% + 5.13\% = 12.08\%$), respectively.

15 **Q. What do you conclude from your updated ROE analyses?**

16 My updated analyses indicate that the Company's requested 11.5 percent ROE is a
17 reasonable estimate of the fair cost of equity capital. This conclusion is also
18 based on the interest rate risk associated with projections for significantly higher
19 rates over the coming year. Additionally, my recommendation recognizes the
20 ongoing risks and uncertainties that exist in the electric utility industry as well as
21 the company-specific risks and uncertainties that KCPL is currently facing.

22 **Q. Does this conclude your rebuttal testimony?**

23 A. Yes, it does.

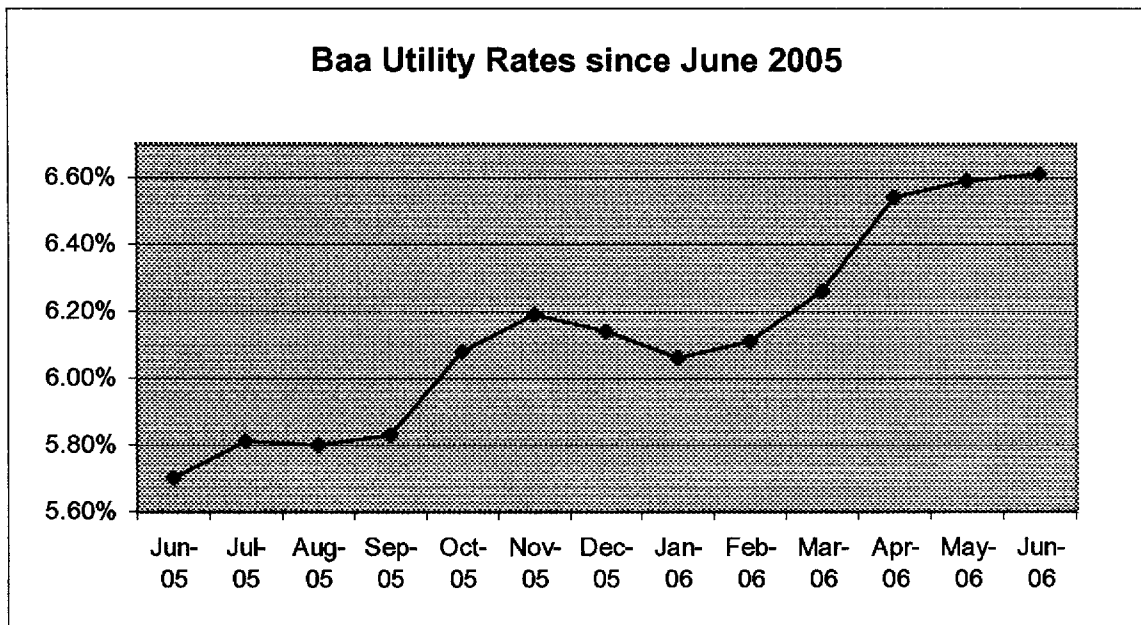
Great Plains Energy
Authorized Electric Utility Equity Returns

	2004	2005	2006
1st Quarter	11.00%	10.51%	10.38%
2nd Quarter	10.54%	10.05%	10.69%
3rd Quarter	10.33%	10.84%	
4th Quarter	10.91%	10.75%	
Full Year	10.75%	10.54%	10.57%

Source: Regulatory Research Associates, *Regulatory Focus* , July 6, 2006, page 2.

Kansas City Power & Light Co. Long-Term Interest Rate Trends

Month	Baa Utility Rates	Average Utility Rates	Long-Term Treasury Rates	10-Year Treasury Rates
Jun-05	5.70%	5.39%	4.35%	4.00%
Jul-05	5.81%	5.50%	4.48%	4.18%
Aug-05	5.80%	5.51%	4.53%	4.26%
Sep-05	5.83%	5.54%	4.51%	4.20%
Oct-05	6.08%	5.79%	4.74%	4.46%
Nov-05	6.19%	5.00%	4.83%	4.54%
Dec-05	6.14%	5.88%	4.73%	4.47%
Jan-06	6.06%	5.77%	4.65%	4.42%
Feb-06	6.11%	5.83%	4.73%	4.57%
Mar-06	6.26%	5.98%	4.91%	4.72%
Apr-06	6.54%	6.28%	5.22%	4.99%
May-06	6.59%	6.39%	5.35%	5.11%
Jun-06	6.61%	6.39%	5.29%	5.11%



Sources: Mergent Bond Record (Utility Rates);
www.federalreserve.gov (Treasury Rates).

Economic Indicators

Seasonally Adjusted Annual Rates — Dollar Figures in Billions

			Annual % Change										
2005	E2006	E2007	2005	E2006	E2007	2005	2006	E2007					
						4Q	1Q	A2Q	E3Q	E4Q	1Q	2Q	3Q
Gross Domestic Product													
\$12,456.0	\$13,275.0	\$13,890.0	6.4	6.6	4.6	\$12,731.0	\$13,008.0	\$13,194.0	\$13,381.0	\$13,517.0	\$13,662.0	\$13,812.0	\$13,963.0
6.4	6.6	4.6	-	-	-	5.1	9.0	5.8	5.8	4.1	4.4	4.5	4.5
3.2	3.4	2.3	-	-	-	1.8	5.6	2.5	2.9	2.1	1.9	2.4	2.7
3.0	3.1	2.2	-	-	-	3.3	3.3	3.3	2.8	2.0	2.4	2.0	1.7
*Components of Real GDP													
\$7,841.0	\$8,084.0	\$8,286.0	3.5	3.1	2.5	\$7,910.0	\$8,004.0	\$8,053.0	\$8,124.0	\$8,156.0	\$8,197.0	\$8,247.0	\$8,314.0
3.5	3.1	2.5	-	-	-	0.8	4.8	2.5	3.6	1.6	2.0	2.5	3.3
1,145.3	1,198.8	1,192.2	5.5	4.7	(0.6)	1,137.9	1,190.5	1,189.1	1,216.3	1,199.3	1,183.0	1,184.5	1,193.8
2,276.8	2,359.0	2,413.8	4.5	3.6	2.3	2,309.6	2,342.8	2,352.4	2,365.6	2,375.0	2,389.2	2,403.0	2,422.1
4,436.6	4,549.5	4,692.9	2.6	2.5	3.2	4,476.7	4,494.5	4,533.2	4,568.3	4,602.1	4,638.7	4,671.8	4,710.9
1,223.8	1,324.2	1,412.1	6.8	8.2	6.6	1,248.2	1,288.8	1,297.5	1,336.7	1,373.9	1,389.0	1,406.9	1,419.1
6.8	8.2	6.6	-	-	-	5.2	13.7	2.7	12.7	11.6	4.5	5.3	3.5
984.9	1,064.7	1,124.8	8.9	8.1	5.7	1,007.6	1,044.8	1,042.2	1,071.1	1,100.6	1,106.5	1,118.1	1,131.5
598.5	584.9	533.7	8.6	(2.3)	(8.8)	609.2	608.5	598.6	575.7	556.9	548.2	539.8	527.9
8.6	(2.3)	(8.8)	-	-	-	(1.1)	(0.5)	(6.4)	(14.5)	(12.4)	(6.1)	(6.0)	(8.5)
19.7	44.8	23.1	-	-	-	43.5	41.2	52.6	39.6	46.0	36.4	27.3	15.9
1,958.0	1,997.4	2,031.9	0.9	2.0	1.7	1,963.5	1,987.1	1,990.0	2,002.5	2,010.2	2,021.1	2,028.7	2,035.1
727.6	742.2	748.0	1.5	2.0	0.8	729.6	745.1	738.7	742.2	742.8	745.7	747.0	749.1
1,230.4	1,255.1	1,283.5	0.5	2.0	2.3	1,233.7	1,242.0	1,251.1	1,260.1	1,267.1	1,275.1	1,281.4	1,285.7
(619.2)	(628.6)	(585.5)	-	-	-	(636.6)	(636.6)	(627.1)	(626.0)	(624.9)	(616.3)	(602.8)	(583.0)
1,196.1	1,301.6	1,409.7	6.8	8.8	8.3	1,228.4	1,269.3	1,279.6	1,314.0	1,343.7	1,369.5	1,395.3	1,422.8
1,815.3	1,930.3	2,005.1	6.1	6.3	3.9	1,865.0	1,905.9	1,906.7	1,940.0	1,968.5	1,985.7	1,998.0	2,005.8
**Income & Profits													
\$10,239.0	\$10,886.0	\$11,487.0	5.2	6.3	5.5	\$10,484.0	\$10,648.0	\$10,813.0	\$10,971.0	\$11,112.0	\$11,269.0	\$11,413.0	\$11,557.0
9,036.0	9,508.0	10,065.0	4.1	5.2	5.9	9,236.0	9,322.0	9,440.0	9,578.0	9,694.0	9,846.0	9,975.0	10,133.0
(0.4)	(1.4)	(0.5)	-	-	-	(0.3)	(1.1)	(1.5)	(1.7)	(1.4)	(0.9)	(0.7)	(0.4)
1,518.7	1,791.2	1,746.5	32.7	17.9	(2.5)	1,598.3	1,740.6	1,811.6	1,823.2	1,789.2	1,749.9	1,742.3	1,747.7
1,119.4	1,317.8	1,279.2	32.6	17.7	(2.9)	1,173.7	1,283.7	1,333.4	1,340.3	1,313.6	1,284.9	1,279.2	1,283.3
70.00	80.80	82.80	19.0	16.0	2.0	69.90	72.70	75.10	79.00	80.90	83.40	84.40	83.60
†Prices & Interest Rates													
3.4	3.6	2.5	-	-	-	3.2	2.2	5.0	3.6	2.2	2.5	2.0	1.7
3.1	4.9	5.1	-	-	-	3.8	4.4	4.7	5.1	5.4	5.4	5.3	4.9
4.3	5.0	5.7	-	-	-	4.5	4.6	5.1	5.1	5.3	5.5	5.8	5.7
4.6	5.1	5.7	-	-	-	4.7	4.6	5.1	5.2	5.4	5.5	5.7	5.7
5.2	5.9	6.9	-	-	-	5.4	5.4	5.9	5.9	6.4	6.7	7.0	6.9
Other Key Indicators													
2,070.0	1,900.0	1,720.0	6.3	(8.4)	(9.4)	2,060.0	2,120.0	1,880.0	1,810.0	1,790.0	1,760.0	1,720.0	1,700.0
16.9	16.6	16.0	0.5	(1.9)	(3.6)	16.0	16.9	16.3	17.0	16.3	16.0	15.9	16.1
5.1	4.7	4.9	-	-	-	4.9	4.7	4.6	4.7	4.7	4.8	4.9	4.9
(1.8)	(2.4)	(6.7)	-	-	-	6.1	(4.1)	(12.4)	(4.3)	(11.1)	(6.0)	(5.4)	(4.5)

Note: Annual changes are from prior year and quarterly changes are from prior quarter. Figures may not add to totals because of rounding. A—Advance data. P—Preliminary. E—Estimated. R—Revised. *1996 Chain-weighted dollars.

**Current dollars. †Trailing 4 quarters. ‡Average for period. \$Quarterly % changes at quarterly rates. This forecast prepared by Standard & Poor's.

Great Plains Energy
Barnes Revised Cost of Equity Analysis (DCF)

Company Name	Barnes Dividend Yield	Barnes Low Short-Term Analysts' Growth	Long-Term GDP Growth	Average Growth	Barnes Revised Low ROE Estimate
Hawaiian Electric Industries, Inc.	4.66%	4.70%	6.60%	5.65%	10.31%
IDACORP, Inc.	3.67%	4.70%	6.60%	5.65%	9.32%
Pinnacle West Capital	5.17%	4.70%	6.60%	5.65%	10.82%
Puget Energy Inc.	4.76%	4.70%	6.60%	5.65%	10.41%
Southern Co.	4.83%	4.70%	6.60%	5.65%	10.48%
Average	4.62%			5.65%	10.27%

Company Name	Barnes Dividend Yield	Barnes High Short-Term Analysts' Growth	Long-Term GDP Growth	Average Growth	Barnes Revised High ROE Estimate
Hawaiian Electric Industries, Inc.	4.66%	4.80%	6.60%	5.70%	10.36%
IDACORP, Inc.	3.67%	4.80%	6.60%	5.70%	9.37%
Pinnacle West Capital	5.17%	4.80%	6.60%	5.70%	10.87%
Puget Energy Inc.	4.76%	4.80%	6.60%	5.70%	10.46%
Southern Co.	4.83%	4.80%	6.60%	5.70%	10.53%
Average	4.62%			5.70%	10.32%

		Midpoint
Barnes Revised DCF Range	10.27% - 10.32%	10.29%

Great Plains Energy
Barnes Revised Cost of Equity Analysis (CAPM)

Company Name	Revised Risk Free Rate	Companies' Value Line Beta	Arithmetic Mkt. Risk Prem (1926-2005)	Geometric Mkt. Risk Prem (1926-2005)	Barnes Revised Low ROE Estimate	Arithmetic CAPM ROE (1926-2005)	Geometric CAPM ROE (1926-2005)
Hawaiian Electric Industries, Inc.	5.70%	0.70	6.50%	4.90%	10.60%	10.25%	9.13%
IDACORP, Inc.	5.70%	0.95	6.50%	4.90%	10.60%	11.88%	10.36%
Pinnacle West Capital	5.70%	0.95	6.50%	4.90%	10.60%	11.88%	10.36%
Puget Energy Inc.	5.70%	0.80	6.50%	4.90%	10.60%	10.90%	9.62%
Southern Co.	5.70%	0.65	6.50%	4.90%	10.60%	9.93%	8.89%
Average	5.70%	0.81	6.50%	4.90%	10.60%	10.97%	9.67%

		Midpoint
Barnes Revised CAPM Range	9.67% - 10.97%	10.32%

Great Plains Energy Update of Baudino ROE Analysis

PANEL 1: UPDATE OF BAUDINO DCF ANALYSIS CONSIDERATION OF ADDITIONAL LONG-TERM GROWTH RATE

	Baudino DCF Analysis						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Value Line Dividend Gr.	Value Line Earnings Gr.	Zack's Earning Gr.	FC/T Earning Gr.	Average with Baudino Gr. Rates	Additional L-T Growth Rate GDP Gr.	Average with Additional Gr. Rate
Dividend Yield	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
Growth Rate	4.06%	5.83%	6.21%	5.77%	5.47%	6.60%	6.03%
Expected Div. Yield	<u>4.39%</u>	<u>4.43%</u>	<u>4.43%</u>	<u>4.42%</u>	<u>4.42%</u>	<u>4.44%</u>	<u>4.43%</u>
DCF Return on Equity	8.45%	10.26%	10.64%	10.19%	9.89%	11.04%	<u>10.46%</u>

PANEL 2: REVISED BAUDINO RESULTS

(8)

DCF Result	10.46% (see result of column 7)
CAPM Result	<u>11.36%</u> (see average result of columns 22 & 31)
Average ROE	<u>10.91%</u>

NOTES;

Column (6): GDP growth rate calculation from page 3 of this Exhibit.

Page 2, Panel 2: Same as Baudino CAPM Analysis, but excluding calculations with First Call/Thompson (FC/T) betas.

Page 2, Panel 3: Same as Baudino CAPM Analysis, but with projected 20-year and 5-year Treasury bond rates of 5.70% and 5.60%, respectively.

Great Plains Energy

Update of Baudino ROE Analysis

PANEL 1: BAUDINO CAPM ANALYSIS

	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
	20-Yr, VL β , <u>Mkt RP</u>	5-Yr, VL β , <u>Mkt RP</u>	20-Yr, FC/T β , <u>Mkt RP</u>	5-Yr, FC/T β , <u>Mkt RP</u>	20-Yr, VL β , Historic Geom <u>Mean RP</u>	20-Yr, VL β , Historic Arith <u>Mean RP</u>	20-Yr, FC/T β , Historic Geom <u>Mean RP</u>	5-Yr, FC/T β , Historic Arith <u>Mean RP</u>	Average all <u>CAPM</u>
Risk-Free Rate	5.03%	4.77%	5.03%	4.77%	5.03%	5.03%	5.03%	5.03%	
Risk Premium	8.69%	8.94%	8.69%	8.94%	5.20%	7.10%	5.20%	7.10%	
Beta	0.86	0.86	0.65	0.65	0.86	0.86	0.65	0.65	
Beta*Risk Premium	<u>7.47%</u>	<u>7.69%</u>	<u>5.63%</u>	<u>5.79%</u>	<u>4.47%</u>	<u>6.11%</u>	<u>3.37%</u>	<u>4.60%</u>	
CAPM Return on Equity	12.50%	12.46%	10.66%	10.56%	9.50%	11.14%	8.40%	9.63%	<u>10.61%</u>

PANEL 2: BAUDINO ANALYSIS WITHOUT NEW APPROACH (EXCLUDE FIRST CALL/THOMPSON BETAS)

	(18)	(19)	(20)	(21)	(22)
	20-Yr, VL β , <u>Mkt RP</u>	5-Yr, VL β , <u>Mkt RP</u>	20-Yr, VL β , Historic Geom <u>Mean RP</u>	20-Yr, VL β , Historic Arith <u>Mean RP</u>	Average all <u>CAPM</u>
Risk-Free Rate	5.03%	4.77%	5.03%	5.03%	
Risk Premium	8.69%	8.94%	5.20%	7.10%	
Beta	0.86	0.86	0.86	0.86	
Beta*Risk Premium	<u>7.47%</u>	<u>7.69%</u>	<u>4.47%</u>	<u>6.11%</u>	
CAPM Return on Equity	12.50%	12.46%	9.50%	11.14%	<u>11.40%</u>

PANEL 3: BAUDINO ANALYSIS WITH CONSIDERATION OF PROJECTED INTEREST RATES

	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)
	20-Yr, VL β , <u>Mkt RP</u>	5-Yr, VL β , <u>Mkt RP</u>	20-Yr, FC/T β , <u>Mkt RP</u>	5-Yr, FC/T β , <u>Mkt RP</u>	20-Yr, VL β , Historic Geom <u>Mean RP</u>	20-Yr, VL β , Historic Arith <u>Mean RP</u>	20-Yr, FC/T β , Historic Geom <u>Mean RP</u>	5-Yr, FC/T β , Historic Arith <u>Mean RP</u>	Average all <u>CAPM</u>
Risk-Free Rate	5.70%	5.60%	5.70%	5.60%	5.70%	5.70%	5.70%	5.70%	
Risk Premium	8.69%	8.94%	8.69%	8.94%	5.20%	7.10%	5.20%	7.10%	
Beta	0.86	0.86	0.65	0.65	0.86	0.86	0.65	0.65	
Beta*Risk Premium	<u>7.47%</u>	<u>7.69%</u>	<u>5.63%</u>	<u>5.79%</u>	<u>4.47%</u>	<u>6.11%</u>	<u>3.37%</u>	<u>4.60%</u>	
CAPM Return on Equity	13.17%	13.29%	11.33%	11.39%	10.17%	11.81%	9.07%	10.30%	<u>11.32%</u>

Great Plains Energy
Institutional Holdings of Electric Utility Company Shares

No.	Company	Institutional Ownership
1	Alliant Energy Co.	59.00%
2	Ameren	57.00%
3	American Elec. Pwr.	63.00%
4	CH Energy Group	53.00%
5	Cent. Vermont P.S.	44.00%
6	Con. Edison	49.00%
7	DTE Energy Co.	60.00%
8	Duquesne Light	58.00%
9	Empire District	34.00%
10	Energy East Corp.	47.00%
11	FirstEnergy	70.00%
12	Green Mtn. Power	50.00%
13	Hawaiian Electric	32.00%
14	MGE Energy, Inc.	26.00%
15	NiSource Inc.	75.00%
16	NSTAR	44.00%
17	Pinnacle West	81.00%
18	Progress Energy	65.00%
19	Puget Energy, Inc.	61.00%
20	SCANA Corp.	40.00%
21	Southern Co.	41.00%
22	Vectren Corp.	44.00%
23	Westar Energy	73.00%
24	Xcel Energy Inc.	61.00%
GROUP AVERAGE		53.63%
GROUP MEDIAN		55.00%

Source: Yahoo Finance, Major Holders, August 14, 2006 (www.yahoo.com).