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Case No.: ER-2007-____
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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2007-____

DIRECT TESTIMONY

OF

SAMUEL C. HADAWAY

ON BEHALF OF

KANSAS CITY POWER & LIGHT COMPANY

**Kansas City, Missouri
January 2007**

DIRECT TESTIMONY

OF

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Case No. EO-2007-_____

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

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

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

5 **Q. On whose behalf are you testifying?**

6 A. I am testifying on behalf of Kansas City Power & Light Company ("KCPL" or the
7 "Company").

8 **Q. Please state your educational background and describe your professional**
9 **training and experience.**

10 A. I have a bachelors degree in economics from Southern Methodist University and
11 M.B.A. and Ph.D. degrees in finance from the University of Texas at Austin ("UT
12 Austin"). I serve as an adjunct professor in the McCombs School of Business at UT
13 Austin. I have taught economics and finance courses and I have conducted research
14 and directed graduate students writing in these areas. I was previously Director of the
15 Economic Research Division at the Public Utility Commission of Texas where I
16 supervised the Commission's finance, economics, and accounting staff and served as
17 the Commission's chief financial witness in electric and telephone rate cases. I have
18 taught courses in various utility conferences on cost of capital, capital structure,
19 utility financial condition, and cost allocation and rate design issues. I have made
20 presentations before the New York Society of Security Analysts, the National Rate of

1 Return Analysts Forum, and various other professional and legislative groups. I have
2 served as a vice president and on the board of directors of the Financial Management
3 Association.

4 A list of my publications and testimony I have given before various regulatory
5 bodies and in state and federal courts is contained in my resume, which is included as
6 Appendix A.

7 **Q. Have you previously testified in a proceeding at the Missouri Public Service**
8 **Commission or before any other utility regulatory agency?**

9 A. Yes, I have. I have testified before the Missouri Public Service Commission and
10 numerous other state commissions on ROE and related issues.

11 **Q. What is the purpose of your testimony?**

12 A. The purpose of my testimony is to estimate KCPL's required rate of return on equity
13 ("ROE") and to support the Company's requested capital structure and overall rate of
14 return.

15 **Q. Please outline and describe the testimony you will present.**

16 A. My testimony is divided into four additional sections. Following this introduction, in
17 Section II, I present and explain the Company's requested capital structure and overall
18 rate of return. In Section III, I review various methods for estimating the cost of
19 equity. In this section, I discuss the discounted cash flow ("DCF") model, as well as
20 risk premium methods and other approaches often used to estimate the cost of capital.
21 In Section IV, I review general capital market costs and conditions, and discuss
22 recent developments in the electric utility industry that affect the cost of capital. In

1 Section V, I discuss the details of my cost of equity studies and provide a summary
2 table of my ROE results.

3 **Q. Please describe the general approach in your cost of equity studies.**

4 A. First, my recommendation is premised upon the fair rate of return principles
5 established by the U.S. Supreme Court in *Federal Power Comm'n v. Hope Natural*
6 *Gas Co.*, 320 US 591, 603 (1944) ("*Hope*") and *Bluefield Water Works &*
7 *Improvements Co. v. Public Service Commission*, 262 US 679, 693 (1923)
8 ("*Bluefield*"). That is to say, a utility's return authorized by a regulatory body, such as
9 the Missouri Public Service Commission, should be commensurate with returns on
10 investments in other enterprises having corresponding risks. The return should also
11 be sufficient to assure confidence in the financial integrity of the utility so as to
12 maintain its credit, and to attract capital so that it is able to properly discharge its
13 public duties. Given these legal principles, I have used several methods to determine
14 an appropriate ROE and overall rate of return for KCPL. These methods and the
15 underlying economic models are applied to an investment grade company reference
16 group of other electric utilities generally similar to KCPL.

17 **Q. Please explain your analysis in arriving at a recommended ROE for KCPL.**

18 A. My ROE estimate is based on alternative versions of the constant growth and
19 multistage growth DCF model. It is confirmed by my risk premium analysis and my
20 review of economic conditions and interest rates expected to prevail during the
21 coming year. Because KCPL is a wholly-owned subsidiary of Great Plains Energy
22 Inc. ("GPE") and does not have publicly traded common stock or other independent
23 market data, its cost of equity cannot be estimated directly. For this reason, I apply

1 the DCF model to a large reference group of investment grade electric utilities
2 selected from the *Value Line Investment Survey*. To be included in my group, the
3 reference companies must have at least a triple-B (investment grade) bond rating;
4 they must derive at least 70 percent of revenues from regulated utility sales; and they
5 must have consistent financial records not affected by recent mergers or restructuring,
6 and a consistent dividend record with no dividend cuts within the past two years.

7 To test my DCF results, I conducted a risk-premium analysis based on ROEs
8 allowed by state regulators relative to Moody's average utility debt costs. In this
9 analysis, I also included the forecasted higher interest rates of Standard and Poor's
10 ("S&P") for the coming year. S&P forecasts that long-term Government and
11 corporate interest rates will increase from current levels by 20 basis points (0.20%)
12 by the fourth quarter of 2007. Under current market and economic conditions, the
13 combination of DCF and risk premium models, tempered by consensus forecasts
14 about future interest rates, provides the best approach for estimating KCPL's fair cost
15 of equity capital.

16 **Q. Should the reference group ROE be applied directly to KCPL?**

17 A. No. The reference group is an appropriate starting point for estimating KCPL's ROE,
18 but the reference group's average ROE is lower than the fair cost of equity for KCPL.
19 This is because KCPL faces considerably higher construction and other operating
20 risks than the average company in the reference group. Under these circumstances
21 the Commission should add an ROE increment or adjustment to the reference group
22 ROE to account for KCPL's higher risks.

1 **Q. Why do you use this approach?**

2 A. As I will discuss in more detail below, this approach of using a comparable reference
3 group of investment grade utilities and adjusting for risk is consistent with the
4 economic requirements of *Hope* and *Bluefield*. It is the appropriate method for
5 determining a fair rate of return on KCPL's equity capital. KCPL's specific risks and
6 the need for a risk adjustment stem from the higher construction and operating
7 requirements that KCPL faces.

8 **Q. Why is this the appropriate analysis?**

9 A. In the assessment of a fair rate of return for KCPL, I have evaluated the Company's
10 circumstances relative to my reference group of investment grade utilities. The key
11 factor is the Company's large capital expenditure program. As shown in my Schedule
12 SCH-1, KCPL's capital expenditures over the next five years are expected to equal 95
13 percent of the Company's current net plant. By comparison, capital spending for the
14 average reference company for the next five years is expected to be only about 62
15 percent of current net plant. KCPL's larger construction program increases its
16 financing and regulatory risks, and should be reflected in a higher allowed rate of
17 return. The Missouri expenditure program is discussed more fully in the Direct
18 Testimony of Company witnesses Chris Giles, John Grimwade, and Dana Crawford.

19 **Q. What ROE range is indicated by your DCF analysis?**

20 A. My reference group analysis indicates that a DCF range of 10.5 percent to 10.8
21 percent is appropriate. As I will explain in more detail later, results from the
22 traditional constant growth DCF model fail to meet basic checks of reasonableness
23 and, therefore, are not included in my recommended range.

1 **Q. Please explain.**

2 A. Currently, the traditional constant growth DCF model does not reasonably reflect the
3 market cost of equity because that model, as typically applied, depends on historically
4 low dividend yields and pessimistic analysts' growth forecasts. These near-term
5 circumstances, which are affected by the utility industry's consolidation and currently
6 high utility stock prices, do not reasonably reflect longer-term expectations for higher
7 capital costs. My risk premium analysis, which serves as a check of reasonableness
8 for the DCF results, demonstrates this fact. This analysis, based on allowed returns
9 from other state regulators, indicates that an ROE of 10.72 percent is appropriate,
10 with other risk premium approaches indicating ROEs as high as 11.4 percent.

11 Because recent historical data have a significant effect in the traditional
12 constant growth DCF format and because recent data appear to represent historic
13 lows in the economic cycle, those data should not be the primary basis for setting
14 KCPL's allowed rate of return.

15 **Q. What are your overall conclusions from your ROE analysis?**

16 A. Based on the combination of quantitative model results and my review of current
17 economic, market, and electric utility industry conditions, I estimate the average cost
18 of equity for the reference group at 10.75 percent. This estimate is consistent with
19 capital market trends and projections and is a reasonable estimate of capital costs that
20 will prevail during the period that the rates from this case are in effect. Using this
21 average cost of equity as a reference point, in order to reflect the higher utility risk
22 profile of KCPL as discussed previously, KCPL's ROE should be increased by 50

1 basis points relative to the cost of equity for the reference group, which results in a
2 requested ROE of 11.25 percent.

3 **II. KCPL CAPITAL STRUCTURE AND OVERALL RATE OF RETURN**

4 **Q. Please summarize the Company's requested capital structure and overall rate of**
5 **return.**

6 A. The following table identifies the requested capital structure components and the
7 resulting overall rate of return:

8 **Requested Capital Structure**

9 Capital Components	Ratio	Cost	Weighted Cost
10 Debt	45.24%	6.09%	2.76%
11 Preferred stock	1.33%	4.29%	0.06%
12 Common Equity	53.43%	11.25%	6.01%
13 TOTAL	100.00%		8.83%

14 **Q. What is the basis for the Company's requested capital structure and overall rate**
15 **of return?**

16 A. The requested capital structure and cost rates for debt and preferred stock are
17 calculated from Great Plains Energy's projected capital structure at September 30,
18 2007. The requested ROE is my estimate of KCPL's cost of equity capital. These
19 data are presented in more detail in Schedule SCH-2, with the September 30, 2007
20 summary shown on page 6 of that schedule. Using the parent company's consolidated
21 capital structure is consistent with KCPL's approach in its 2006 rate case and with the
22 Commission's recent orders on capital structure issues.

1 **Q. What are the key differences between Great Plains Energy's actual capital**
2 **structure as of December 31, 2006, and the requested capital structure,**
3 **projected as of September 30, 2007?**

4 A. The actual Great Plains Energy capital structure as of December 31, 2006, is shown
5 on page 2 of Schedule SCH-2. The key differences between the actual capital
6 structure and the requested capital structure, projected as of September 30, 2007, are
7 as follows:

8 Long-term Debt

9 Net Long-term Debt is projected to increase by \$186 million, the largest components
10 of which are as follows:

- 11 (a) A \$250 million debt offering projected by KCPL to refinance a \$225 million
12 debt maturity in 2007 (resulting in a net increase of \$25 million in long-term
13 debt);
- 14 (b) A \$250 million debt offering projected by KCPL to finance construction
15 expenditures; and
- 16 (c) An extinguishment of approximately \$164 million of debt at Great Plains
17 Energy pursuant to KCPL's FELINE PRIDES security, partially offset by a
18 \$75 million long-term debt offering anticipated by Great Plains Energy
19 (resulting in a net decrease of approximately \$89 million in long-term debt).

20 Equity

21 Equity is projected to increase by \$186 million, \$164 million of which is attributable
22 to shares to be issued in February 2007 pursuant to KCPL's FELINE PRIDES
23 security.

1 **III. ESTIMATING THE COST OF EQUITY CAPITAL**

2 **Q. What is the purpose of this section of your testimony?**

3 A. The purpose of this section of my testimony is to present a general definition of the
4 cost of equity and to compare the strengths and weaknesses of several of the most
5 widely used methods for estimating the cost of equity. Estimating the cost of equity
6 is fundamentally a matter of informed judgment. The various models provide a
7 concrete link to actual capital market data and assist with defining the various
8 relationships that underlie the ROE estimation process.

9 **Q. Please define the term “cost of equity capital” and provide an overview of the**
10 **cost estimation process.**

11 A. The cost of equity capital is the profit or rate of return that equity investors expect to
12 receive. In concept it is no different than the cost of debt or the cost of preferred
13 stock. The cost of equity is the rate of return that common stockholders expect, just
14 as interest on bonds and dividends on preferred stock are the returns that investors in
15 those securities expect. Equity investors expect a return on their capital
16 commensurate with the risks they take, consistent with returns that are available from
17 other similar investments. Unlike returns from debt and preferred stocks, however,
18 the equity return is not directly observable in advance and, therefore, it must be
19 estimated or inferred from capital market data and trading activity.

20 An example helps to illustrate the cost of equity concept. Assume that an
21 investor buys a share of common stock for \$20 per share. If the stock's expected
22 dividend is \$1.00, the expected dividend yield is 5.00 percent ($\$1.00 / \$20 = 5.0$
23 percent). If the stock price is also expected to increase to \$21.25 after one year, this

1 \$1.25 expected gain adds an additional 6.25 percent to the expected total rate of
2 return ($\$1.25 / \$20 = 6.25$ percent). Therefore, when buying the stock at \$20 per
3 share, the investor expects a total return of 11.25 percent: 5.0 percent dividend yield,
4 plus 6.25 percent price appreciation. In this example, the total expected rate of return
5 at 11.25 percent is the appropriate measure of the cost of equity capital, because it is
6 this rate of return that caused the investor to commit the \$20 of equity capital in the
7 first place. If the stock were riskier, or if expected returns from other investments
8 were higher, investors would have required a higher rate of return from the stock,
9 which would result in a lower initial purchase price in market trading.

10 Each day market rates of return and prices change to reflect new investor
11 expectations and requirements. For example, when interest rates on bonds and
12 savings accounts rise, utility stock prices usually fall. This is true, at least in part,
13 because higher interest rates on these alternative investments make utility stocks
14 relatively less attractive, which causes utility stock prices to decline in market
15 trading. This competitive market adjustment process is quick and continuous, so that
16 market prices generally reflect investor expectations and the relative attractiveness of
17 one investment versus another. In this context, to estimate the cost of equity one
18 must apply informed judgment about the relative risk of the company in question and
19 knowledge about the risk and expected rate of return characteristics of other available
20 investments as well.

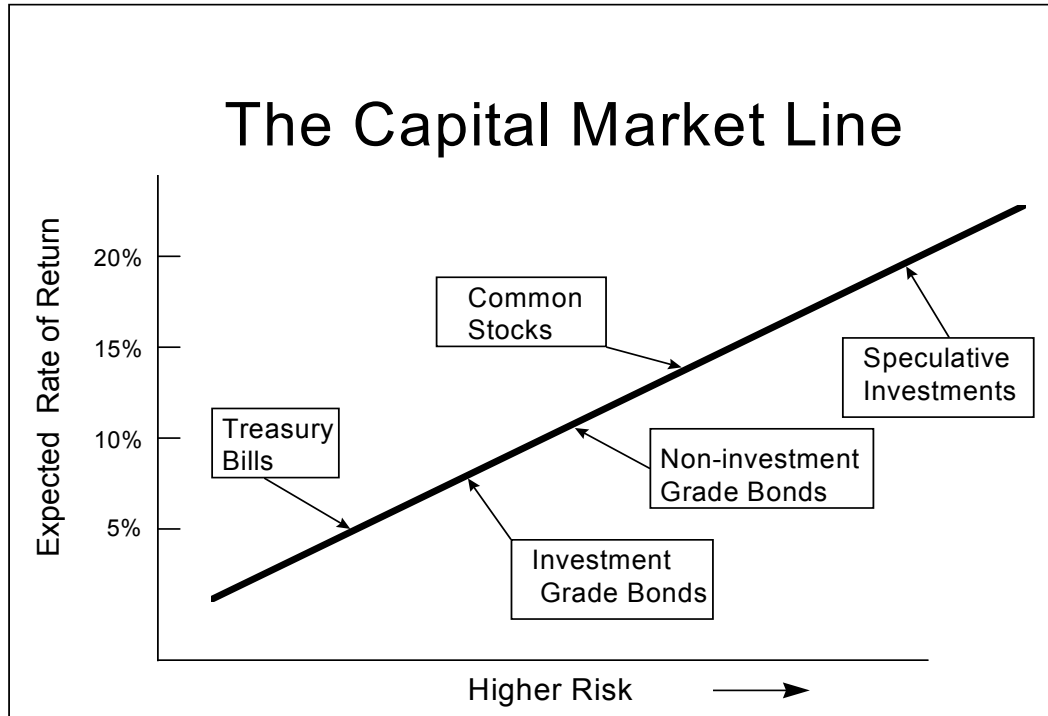
1 **Q. How does the market account for risk differences among the various**
2 **investments?**

3 A. Risk-return tradeoffs among capital market investments have been the subject of
4 extensive financial research. Literally dozens of textbooks and hundreds of academic
5 articles have addressed the issue. Generally, such research confirms the common
6 sense conclusion that investors will take additional risks only if they expect to receive
7 a higher rate of return. Empirical tests consistently show that returns from low risk
8 securities, such as U.S. Treasury bills, are the lowest; that returns from longer-term
9 Treasury bonds and corporate bonds are increasingly higher as risks increase; and,
10 generally, returns from common stocks and other more risky investments are even
11 higher. These observations provide a sound theoretical foundation for both the DCF
12 and risk premium methods for estimating the cost of equity capital. These methods
13 attempt to capture the well founded risk-return principle and explicitly measure
14 investors' rate of return requirements.

15 **Q. Can you illustrate the capital market risk-return principle that you just**
16 **described?**

17 A. Yes. The following graph depicts the risk-return relationship that has become widely
18 known as the Capital Market Line (“CML”). The CML offers a graphical
19 representation of the capital market risk-return principle. The graph is not meant to
20 illustrate the actual expected rate of return for any particular investment, but merely
21 to illustrate in a general way the risk-return relationship.

Risk-Return Tradeoffs



1 As a continuum, the CML can be viewed as an available opportunity set for investors.
2 Those investors with low risk tolerance or investment objectives that mandate a low
3 risk profile should invest in assets depicted in the lower left-hand portion of the
4 graph. Investments in this area, such as Treasury bills and short-maturity, high
5 quality corporate commercial paper, offer a high degree of investor certainty. In
6 nominal terms (before considering the potential effects of inflation), such assets are
7 virtually risk-free.

8 Investment risks increase as one moves up and to the right along the CML. A
9 higher degree of uncertainty exists about the level of investment value at any point in
10 time and about the level of income payments that may be received. Among these

1 investments are long-term bonds and preferred stocks, which offer priority claims to
2 assets and income payments. They are relatively low risk, but they are not risk-free.
3 The market value of long-term bonds, even those issued by the U.S. Treasury, often
4 fluctuates widely when government policies or other factors cause interest rates to
5 change.

6 Farther up the CML continuum, common stocks are exposed to even more
7 risk, depending on the nature of the underlying business and the financial strength of
8 the issuing corporation. Common stock risks include market-wide factors, such as
9 general changes in capital costs, as well as industry and company specific elements
10 that may add further to the volatility of a given company's performance. As I will
11 illustrate in my risk premium analysis, common stocks typically are more volatile and
12 have higher risk than high quality bond investments and, therefore, they reside above
13 and to the right of bonds on the CML graph. Other more speculative investments,
14 such as stock options and commodity futures contracts, offer even higher risks (and
15 higher potential returns). The CML's depiction of the risk-return tradeoffs available
16 in the capital markets provides a useful perspective for estimating investors' required
17 rates of return.

18 **Q. How is the fair rate of return in the regulatory process related to the estimated**
19 **cost of equity capital?**

20 A. The regulatory process is guided by fair rate of return principles established in the
21 U.S. Supreme Court cases, *Bluefield* and *Hope*:

22 A public utility is entitled to such rates as will permit it to earn a return
23 on the value of the property which it employs for the convenience of
24 the public equal to that generally being made at the same time and in
25 the same general part of the country on investments in other business

1 undertakings which are attended by corresponding risks and
2 uncertainties; but it has no constitutional right to profits such as are
3 realized or anticipated in highly profitable enterprises or speculative
4 ventures. *Bluefield Water Works & Improvement Company v. Public*
5 *Service Commission of West Virginia*, 262 U.S. 679, 692-693 (1923).

6 From the investor or company point of view, it is important that there
7 be enough revenue not only for operating expenses, but also for the
8 capital costs of the business. These include service on the debt and
9 dividends on the stock. By that standard the return to the equity owner
10 should be commensurate with returns on investments in other
11 enterprises having corresponding risks. That return, moreover, should
12 be sufficient to assure confidence in the financial integrity of the
13 enterprise, so as to maintain its credit and to attract capital. *Federal*
14 *Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 603
15 (1944).

16 Based on these principles, the fair rate of return should closely parallel investor
17 opportunity costs as discussed above. If a utility earns its market cost of equity,
18 neither its stockholders nor its customers should be disadvantaged.

19 **Q. What specific methods and capital market data are used to evaluate the cost of**
20 **equity?**

21 A. Techniques for estimating the cost of equity normally fall into three groups:
22 comparable earnings methods, risk premium methods, and DCF methods.

23 **Q. Please describe the first set of estimation techniques, the comparable earnings**
24 **methods.**

25 A. The comparable earnings methods have evolved over time. The original comparable
26 earnings methods were based on book accounting returns. This approach developed
27 ROE estimates by reviewing accounting returns for unregulated companies thought to
28 have risks similar to those of the regulated company in question. These methods have
29 generally been rejected because they assume that the unregulated group is earning its
30 actual cost of capital, and that its equity book value is the same as its market value.

1 In most situations these assumptions are not valid, and, therefore, accounting-based
2 methods do not generally provide reliable cost of equity estimates.

3 More recent comparable earnings methods are based on historical stock
4 market returns rather than book accounting returns. While this approach has some
5 merit, it too has been criticized because there can be no assurance that historical
6 returns actually reflect current or future market requirements. Also, in practical
7 application, earned market returns tend to fluctuate widely from year to year. For
8 these reasons, a current cost of equity estimate (based on the DCF model or a risk
9 premium analysis) is usually required.

10 **Q. Please describe the second set of estimation techniques, the risk premium**
11 **methods.**

12 A The risk premium methods begin with currently observable market returns, such as
13 yields on government or corporate bonds, and add an increment to account for the
14 additional equity risk. The capital asset pricing model ("CAPM") and arbitrage
15 pricing theory ("APT") model are more sophisticated risk premium approaches. The
16 CAPM and APT methods estimate the cost of equity directly by combining the "risk-
17 free" government bond rate with explicit risk measures to determine the risk premium
18 required by the market. Although these methods are widely used in academic cost of
19 capital research, their additional data requirements and their potentially questionable
20 underlying assumptions have detracted from their use in most regulatory
21 jurisdictions. The basic risk premium methods provide a useful parallel approach
22 with the DCF model and assure consistency with other capital market data in the cost
23 of equity estimation process.

1 **Q. Please describe the third set of estimation techniques, based on the DCF model.**

2 A. The DCF model is the most widely used regulatory cost of equity estimation method.
3 Like the risk premium approach, the DCF model has a sound basis in theory, and
4 many argue that it has the additional advantage of simplicity. I will describe the DCF
5 model in detail below, but in essence its estimate of ROE is simply the sum of the
6 expected dividend yield and the expected long-term dividend (or price) growth rate.
7 While dividend yields are easy to obtain, estimating long-term growth is more
8 difficult. Because the constant growth DCF model also requires very long-term
9 growth estimates (technically to infinity), some argue that its application is too
10 speculative to provide reliable results, resulting in the preference for the multistage
11 growth DCF analysis.

12 **Q. Of the three estimation methods, which do you believe provides the most reliable**
13 **results?**

14 A. From my experience, a combination of discounted cash flow and risk premium
15 methods provides the most reliable approach. While the caveat about estimating
16 long-term growth must be observed, the DCF model's other inputs are readily
17 obtainable, and the model's results typically are consistent with capital market
18 behavior. The risk premium methods provide a good parallel approach to the DCF
19 model and further ensure that current market conditions are accurately reflected in the
20 cost of equity estimate.

1 **Q. Please explain the DCF model.**

A. The DCF model is predicated on the concept that stock prices represent the present value or discounted value of all future dividends that investors expect to receive. In the most general form, the DCF model is expressed in the following formula:

$$5 \quad P_0 = D_1/(1+k) + D_2/(1+k)^2 + \dots + D_\infty/(1+k)^\infty \quad (1)$$

6 where P_0 is today's stock price; D_1 , D_2 , etc. are all future dividends and k is the
7 discount rate, or the investor's required rate of return on equity. Equation (1) is a
8 routine present value calculation based on the assumption that the stock's price is the
9 present value of all dividends expected to be paid in the future.

Under the additional assumption that dividends are expected to grow at a constant rate "g" and that k is strictly greater than g, equation (1) can be solved for k and rearranged into the simple form:

$$13 \quad \mathbf{k} = \mathbf{D}_1/\mathbf{P}_0 + \mathbf{g} \quad (2)$$

Equation (2) is the familiar constant growth DCF model for cost of equity estimation,
where D_1/P_0 is the expected dividend yield and g is the long-term expected dividend
growth rate.

17 **Q. Are there circumstances where the constant growth model may not give reliable**
18 **results?**

A. Yes. Under circumstances when growth rates are expected to fluctuate or when future growth rates are highly uncertain, the constant growth model may not give reliable results. Although the DCF model itself is still valid, i.e., equation (1) is mathematically correct, under such circumstances the simplified form of the model must be modified to capture market expectations accurately.

1 Recent events and current market conditions in the electric utility industry as
2 discussed later appear to challenge the constant growth assumption of the traditional
3 DCF model. Since the mid-1980s, dividend growth expectations for many electric
4 utilities have fluctuated widely. In fact, over one-third of the electric utilities in the
5 U.S. have reduced or eliminated their common dividends over this time period. Some
6 of these companies have re-established their dividends, producing exceptionally high
7 growth rates. Under these circumstances, long-term growth rate estimates may be
8 highly uncertain, and estimating a reliable “constant” growth rate for many
9 companies is often difficult.

10 **Q. Can the DCF model be applied when the constant growth assumption is**
11 **violated?**

12 A. Yes. When growth expectations are uncertain, the more general version of the model
13 represented in equation (1) should be solved explicitly over a finite "transition"
14 period while uncertainty prevails. The constant growth version of the model can then
15 be applied after the transition period, under the assumption that more stable
16 conditions will prevail in the future. There are two alternatives for dealing with the
17 nonconstant growth transition period.

18 Under the "terminal price" nonconstant growth approach, equation (1) is
19 written in a slightly different form:

20
$$P_0 = D_1/(1+k) + D_2/(1+k)^2 + \dots + P_T/(1+k)^T \quad (3)$$

21 where the variables are the same as in equation (1) except that P_T is the estimated
22 stock price at the end of the transition period T . Under the assumption that normal
23 growth resumes after the transition period, the price P_T is then expected to be based

1 on constant growth assumptions. With the terminal price approach, the estimated
2 cost of equity, k , is just the rate of return that investors would expect to earn if they
3 bought the stock at today's market price, held it and received dividends through the
4 transition period (until period T), and then sold it for price P_T . In this approach, the
5 analyst's task is to estimate the rate of return that investors expect to receive given the
6 current level of market prices they are willing to pay.

7 **Q. What is the other alternative for dealing with the nonconstant growth transition**
8 **period?**

9 A. Under the “multistage” nonconstant growth approach, equation (1) is simply
10 expanded to incorporate two or more growth rate periods, with the assumption that a
11 permanent constant growth rate can be estimated for some point in the future:

$$\begin{aligned} P_0 = & D_0(1+g_1)/(1+k) + \dots + D_0(1+g_2)^n/(1+k)^n + \\ & \dots + D_0(1+g_T)^{(T+1)}/(k-g_T) \end{aligned} \quad (4)$$

14 where the variables are the same as in equation (1), but g_1 represents the growth rate
15 for the first period, g_2 for a second period, and g_T for the period from year T (the end
16 of the transition period) to infinity. The first two growth rates are simply estimates
17 for fluctuating growth over “ n ” years (typically 5 or 10 years) and g_T is a constant
18 growth rate assumed to prevail forever after year T . The difficult task for analysts in
19 the multistage approach is determining the various growth rates for each period.

20 Although less convenient for exposition purposes, the nonconstant growth
21 models are based on the same valid capital market assumptions as the constant
22 growth version. The nonconstant growth approach simply requires more explicit data
23 inputs and more work to solve for the discount rate, k . Fortunately, the required data

1 are available from investment and economic forecasting services, and computer
2 algorithms can easily produce the required solutions. Both constant and nonconstant
3 growth DCF analyses are presented in the following section.

4 **Q. Please explain the risk premium methodology.**

5 A. Risk premium methods are based on the assumption that equity securities are riskier
6 than debt and, therefore, that equity investors require a higher rate of return. This
7 basic premise is well supported by legal and economic distinctions between debt and
8 equity securities, and it is widely accepted as a fundamental capital market principle.
9 For example, debt holders' claims to the earnings and assets of the borrower have
10 priority over all claims of equity investors. The contractual interest on mortgage debt
11 must be paid in full before any dividends can be paid to shareholders, and secured
12 mortgage claims must be fully satisfied before any assets can be distributed to
13 shareholders in bankruptcy. Also, the guaranteed, fixed-income nature of interest
14 payments makes year-to-year returns from bonds typically more stable than capital
15 gains and dividend payments on stocks. All these factors demonstrate the more risky
16 position of stockholders and support the equity risk premium concept.

17 **Q. Are risk premium estimates of the cost of equity consistent with other current**
18 **capital market costs?**

19 A. Yes. The risk premium approach is especially useful because it is founded on current
20 market interest rates, which are directly observable. This feature assures that risk
21 premium estimates of the cost of equity begin with a sound basis, which is tied
22 directly to current capital market costs.

1 **Q. Is there similar consensus about how risk premium data should be employed?**

2 A. No. In regulatory practice, there is often considerable debate about how risk
3 premium data should be interpreted and used. Since the analyst's basic task is to
4 gauge investors' required returns on long-term investments, some argue that the
5 estimated equity spread should be based on the longest possible time period. Others
6 argue that market relationships between debt and equity from several decades ago are
7 irrelevant and that only recent debt-equity observations should be given any weight in
8 estimating investor requirements. There is no consensus on this issue. Since analysts
9 cannot observe or measure investors' expectations directly, it is not possible to know
10 exactly how such expectations are formed or, therefore, to know exactly what time
11 period is most appropriate in a risk premium analysis.

12 The important point is to answer the following question: "What rate of return
13 should equity investors reasonably expect relative to returns that are currently
14 available from long-term bonds?" The risk premium studies and analyses I discuss
15 later address this question. My risk premium recommendation is based on an
16 intermediate position that avoids some of the problems and concerns that have been
17 expressed about both very long and very short periods of analysis with the risk
18 premium model.

19 **Q. Please summarize your discussion of cost of equity estimation techniques.**

20 A. Estimating the cost of equity is one of the most controversial issues in utility
21 ratemaking. Because actual investor requirements are not directly observable, several
22 methods have been developed to assist in the estimation process. The comparable
23 earnings method is the oldest but perhaps least reliable. Its use of accounting rates of

1 return, or even historical market returns, may or may not reflect current investor
2 requirements. Differences in accounting methods among companies and issues of
3 comparability also detract from this approach.

4 The DCF and risk premium methods have become the most widely accepted
5 in regulatory practice. A combination of the DCF model and a review of risk
6 premium data provides the most reliable cost of equity estimate. While the DCF
7 model does require judgment about future growth rates, the dividend yield is
8 straightforward, and the model's results are generally consistent with actual capital
9 market behavior. For these reasons, I will rely on a combination of the DCF model
10 and a risk premium analysis in the cost of equity studies that follow.

11 **IV. FUNDAMENTAL FACTORS THAT AFFECT THE COST OF EQUITY**

12 **Q. What is the purpose of this section of your testimony?**

13 A. I review recent capital market conditions and industry and company-specific factors
14 that should be reflected in a cost of capital estimate.

15 **Q. What has been the recent experience in the U.S. capital markets?**

16 A. In Schedule SCH-3, page 1, I provide a review of annual interest rates and rates of
17 inflation in the U.S. economy over the past ten years. During that time period,
18 inflation and capital market costs have declined and, generally, have been lower than
19 rates that prevailed in the previous decade. Until 2005, inflation, as measured by the
20 Consumer Price Index, had remained at historically low levels not seen consistently
21 since the early 1960s. The uneven pace of economic activity and the Federal Reserve
22 Board's monetary policy kept consumer price increases in check and interest rates
23 declined to the lowest levels in four decades. From the lowest interest rate levels

1 reached in mid-2005, however, economic growth, rising oil prices, and concerns
2 about renewed inflation have led to higher interest rates. Rates on long-term
3 corporate and Government bonds have increased by approximately 40-60 basis points
4 since June 2005. Estimates for 2007 are for continued, albeit slower, economic
5 growth and for further interest rate increases.

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

7 A. Since mid-2004, the Federal Reserve Board's Open Market Committee has increased
8 the Federal Funds rate 17 times (from 1.0 percent to 5.25 percent). The Prime rate
9 charged by banks to their best customers has similarly increased from 4.0 percent in
10 June 2004 to a current level of 8.25 percent. Although long-term interest rates were
11 slower to move, since mid-2005, long-term utility interest rates have increased by 40
12 to 50 basis points. In Schedule SCH-3, page 2, I provide a month-by-month summary
13 of Moody's Baa and Average Utility Interest Rates, including the historical lows in
14 June 2005 through December 2006. Those monthly interest rate data are summarized
15 in the following table:

Table 1:				
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%
Jul-06	6.61%	6.37%	5.25%	5.09%
Aug-06	6.43%	6.20%	5.08%	4.88%
Sep-06	6.26%	6.02%	4.93%	4.72%
Oct-06	6.23%	6.00%	4.94%	4.73%
Nov-06	6.03%	5.81%	4.78%	4.60%
Dec-06	6.11%	5.88%	4.78%	4.56%
Sources: Mergent Bond Record (Utility Rates);				
www.federalreserve.gov (Treasury Rates).				

1 As Table 1 shows, long-term interest rates paid by corporate utility borrowers and by
2 the U.S. Government are 40 to 60 basis points higher than their low points reached in
3 June 2005. Borrowing costs for Baa rated utilities like KCPL increased from 5.70
4 percent to 6.11 percent during this period. Similarly, average long-term borrowing
5 costs for all utility bond ratings have increased from their historical lows of 5.39
6 percent in June 2005 to 5.88 percent in December 2006. These higher long-term

1 borrowing costs offer a useful perspective for estimating the on-going cost of equity
2 capital.

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

4 A. Both corporate and government interest rates are expected to rise further from present
5 levels. In Schedule SCH-3, page 3, I provide Standard & Poor's most recent
6 economic forecast from its *Trends & Projections* publication for December 21, 2006.
7 The summary interest rate data from that publication are presented in the following
8 table:

9 **Table 2:**
10 **Standard & Poor's Interest Rate Forecast**

	Current	Average 2006Est.	Average 2007Est.	4thQtr. 2007Est.
10-Yr. T-Bonds	4.7%	4.8%	4.8%	4.9%
14 30-Yr. T-Bonds	4.8%	4.9%	4.9%	5.0%
15 Corporate Bonds	5.6%	5.6%	5.6%	5.8%

16 Sources: www.yahoo.com Yahoo Finance (Current Rates); Standard &
17 Poor's *Trends & Projections*, December 21, 2006, page 8 (Projected
18 Rates).

19 The data in Table 2 show that average interest rates are projected to increase further
20 during the coming year. Relative to current levels, projected long-term rates on
21 Treasuries Bonds are expected to increase by an additional 20 basis points.

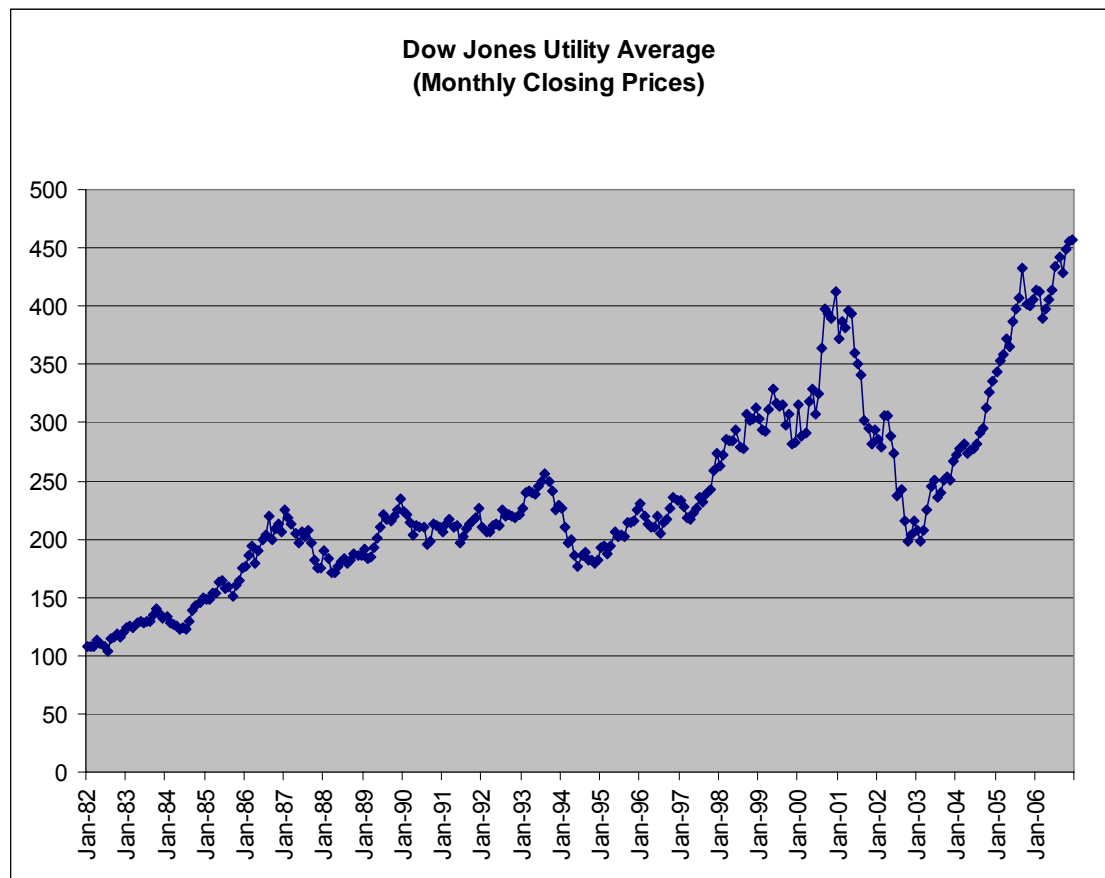
22 Standard & Poor's forecasts show expectations for continuing, albeit slower
23 economic growth, with growth in *real* Gross Domestic Product ("GDP") for 2007
24 estimated at 2.0 percent and *nominal* GDP growth (*i.e.*, real GDP plus inflation) at 4.3
25 percent. This projected real GDP growth rate compares to rates of 4.2 percent for
26 2004, and 3.2 percent for 2005, and 3.3 percent expected for 2006. The increase in
27 interest rates over the past 18 months and Standard & Poor's forecast for further

1 increases in 2007 provides a useful perspective for estimating the current cost of
2 equity capital.

3 **Q. How have utility stocks performed during the past several years?**

4 A. The Dow Jones Utility Average ("Average") has fluctuated widely. After reaching a
5 level of 310 in April 2002, it dropped to below 180 by October 2002. Since 2002, the
6 Average has continued to fluctuate. Its current level of about 453 is near its record
7 high level, having fluctuated between levels of 380 and 464 during the past year.
8 Utility stock prices generally have fluctuated much more widely in recent years than
9 was previously observed. The wider fluctuations in more recent years are vividly
10 demonstrated in the following graph of the Average prices over the past 25 years.

11



12

1 Widely fluctuating prices for natural gas and other uncertainties have created further
2 unsettling conditions. These factors and continuing concerns for the more
3 competitive market environment for all utility services will likely create further
4 uncertainties and market volatility for utility shares. In this environment, investors'
5 return expectations and requirements for providing capital to the utility industry
6 remain high relative to the longer-term traditional view of the utility industry.

7 **Q. What is the industry's current fundamental position?**

8 A. Although many utilities are attempting to return to their core businesses and hope to
9 see more stable results over the next several years, expectations for utility stocks are
10 mixed with stated concerns about higher interest rates, volatile commodity prices, and
11 the relatively high current market valuations for some utility companies. Such
12 concerns and expectations have been offered in various forums, such as the following
13 investment review:

14 **Standard & Poor's Industry Surveys, Electric Utilities**

15 In the first half of 2006, however, the Electric Utilities index was
16 unable to benefit from weakness in the broader market, as it had in
17 the previous two years. In our view, this was due largely to the
18 rise in interest rates, which not only raises the cost of capital for
19 the substantial amount of debt utilities must sell, but also reduces
20 the relative value of the yield from a utility stock's dividends.

21 Although we expect the performance of both the electric utility
22 sector and the individual companies within the sector to remain
23 volatile over the next several years, we expect the stocks to
24 become less volatile than they have been in the past few
25 years.(Standard & Poor's *Industry Surveys, Electric Utilities*,
26 August 10, 2006, p. 5.)

27 **Value Line Investors' Service**

1 Economists have assigned a low probability to the likelihood of an
2 easing of the Federal Reserve's monetary policy in early 2007.
3 (Rate cuts usually lend a boost to utility stocks.) We expect 2007
4 to be a fairly good year for the eastern electrics.... Still, the
5 utilities' capital budgets have increased because of the need for
6 more capacity and improved service reliability. Recovery of these
7 outlays (and high fuel costs) via electricity tariffs poses some risk.
8 (Value Line, December 1, 2006, p.157.)

9 In addition to these operational and regulatory issues, interest rate fluctuations
10 and negative growth rate projections from analysts make it more difficult to use
11 traditional rate of return models to estimate the fair, ongoing cost of capital.
12 Analysts' near-term growth estimates for utilities over the next three-to-five years are
13 extremely low. As I will discuss in more detail later, this feature raises significant
14 questions about using analysts' growth projections as proxies for long-term growth in
15 the DCF model.

16 Over the past several years, the greatest consideration for utility investors has
17 been the industry's transition to competition. With the passage of the Energy Policy
18 Act of 1992 (the "1992 Act") and the Federal Energy Regulatory Commission's
19 ("FERC") Order 888 in 1996, the stage was set for vastly increased competition in the
20 wholesale electric power market. The 1992 Act's mandate for open access to the
21 transmission grid and FERC's implementation through Order 888 effectively opened
22 the market for wholesale electricity to competition. Previously protected utility
23 service territory and the lack of transmission access in some parts of the country had
24 limited the availability of competitive bulk power prices. The 1992 Act and Order
25 888 have essentially eliminated the economic constraints for incremental power
26 needs.

1 In addition to wholesale issues at the federal level, many states implemented
2 retail access and have opened their retail markets to competition. Prior to the 2000-
3 2001 Western energy crisis, investors' concerns had focused principally on
4 appropriate transition mechanisms and the recovery of stranded costs. More recently,
5 however, provisions for dealing with power cost adjustments have become a larger
6 concern. The Western energy crisis refocused market concerns and contributed
7 significantly to increased market risk perceptions for companies without power cost
8 recovery provisions. As expected, the opening of previously protected utility markets
9 to competition, and the uncertainty created by the removal of regulatory protection,
10 have raised the level of uncertainty about investment returns across the entire
11 industry.

1 **Q. Is KCPL affected by these same market uncertainties and increasing utility**
2 **capital costs?**

3 A. Yes. To some extent all electric utilities are being affected by the industry's
4 transition to competition. KCPL's power costs and other operating activities have
5 been significantly affected by transition and restructuring events around the country.
6 In fact, the uncertainty associated with the changes that are transforming the utility
7 industry as a whole, as viewed from the perspective of the investor, remain a factor in
8 assessing any utility's required ROE, including the ROE from KCPL's operations in
9 Missouri. For KCPL specifically, its large construction program, its historical lack of
10 a fuel adjustment clause, and its heavy dependence on wholesale transactions to avoid
11 retail rate increases all increase the Company's risk profile. This is true even though
12 Missouri has not adopted retail choice or other major forms of restructuring.

13 **Q. How do capital market concerns and financial risk perceptions affect the cost of**
14 **equity capital?**

15 A. As I discussed previously, equity investors respond to changing assessments of risk
16 and financial prospects by changing the price they are willing to pay for a given
17 security. When the risk perceptions increase or financial prospects decline, investors
18 refuse to pay the previously existing market price for a company's securities and
19 market supply and demand forces then establish a new lower price. The lower market
20 price typically translates into a higher cost of capital through a higher dividend yield
21 requirement, as well as the potential for increased capital gains if prospects improve.
22 In addition to market losses for prior shareholders, the higher cost of capital is
23 transmitted directly to the company by the need to issue more shares to raise any

1 given amount of capital for future investment. The additional shares also impose
2 additional future dividend requirements and reduce future earnings per share growth
3 prospects.

4 **Q. How have regulatory commissions responded to these changing market and**
5 **industry conditions?**

6 A. On balance, allowed rates of return have changed less than interest rates over the past
7 five years. The following table summarizes electric utility ROEs allowed by state
8 regulatory commissions since 2002:

	Authorized Electric Utility Equity Returns				
	2002	2003	2004	2005	2006
1 st Quarter	10.87%	11.47%	11.00%	10.51%	10.38%
2 nd Quarter	11.41%	11.16%	10.54%	10.05%	10.69%
3 rd Quarter	11.06%	9.95%	10.33%	10.84%	10.06%
4 th Quarter	11.20%	11.09%	10.91%	10.75%	10.39%
Full Year	11.16%	10.97%	10.75%	10.54%	10.36%
Average Utility					
Debt Cost	7.53%	6.61%	6.20%	5.67%	6.09%
Indicated Risk					
Premium	3.63%	4.36%	4.55%	4.87%	4.27%

21 Source: *Regulatory Focus*, Regulatory Research Associates, Inc., Major Rate Case
22 Decisions, January 30, 2007 (Allowed ROEs). Moody's (Mergent) *Bond Record*
23 (Interest Rates).

24 During 2005, interest rates declined to their lowest levels since the 1960s. Allowed
25 equity returns followed the interest rate decline but declined by a smaller amount.
26 Although utility interest rates have fluctuated by almost 200 basis points over the past
27 five years, average allowed ROEs generally have fluctuated less. Observed equity
28 risk premiums (the difference between allowed equity returns and utility interest
29 rates) have ranged from 3.63 percent to 4.87 percent. Using the risk premiums

1 associated with the equity returns allowed during 2006, the indicated cost of equity is
2 10.6 percent (6.30% projected Baa interest rate + 4.27% risk premium = 10.57%).¹

3 **V. COST OF EQUITY CAPITAL FOR KCPL**

4 **Q. What is the purpose of this section of your testimony?**

5 A. Here I present my quantitative studies of the cost of equity capital for KCPL and to
6 discuss the details and results of my analysis.

7 **Q. How are your studies organized?**

8 A. In the first part of my analysis, I apply three versions of the DCF model to the 26-
9 company group of electric utilities based on the selection criteria discussed
10 previously. In the second part of my analysis, I apply various risk premium models
11 and review projected economic conditions and projected capital costs for the coming
12 year.

13 My DCF analysis is based on three versions of the DCF model. In the first
14 version of the DCF model, I use the constant growth format with long-term expected
15 growth estimated from an equally weighted, four-part average of (1) Value Line and
16 (2) Zacks earnings per share growth projections for the coming three to five years, (3)
17 a sustainable growth (“b” times “r”) estimate based on Value Line’s projected

¹ The forecasted triple-B utility bond rate (6.3%) is equal to Standard & Poor's projected long-term Treasury rate (5.0%) for 4th Quarter 2007 from Schedule SCH-3, page 3, plus a current spread of 130 basis points for Moody's Baa utility bond rate over Treasuries. This is a conservative estimate for the Baa rate because the recent Baa interest rate spread relative to Treasuries has been at historically low levels. For example, for the most recent five years since 2002, the average annual Baa spread over long-term Treasuries has ranged between 128 basis points and 260 basis points, with an average of 133 basis points for 2006.

1 retention rates and earned rates of return for the next three to five years, and (4) a
2 long-term estimate of nominal growth in GDP. In the second version of the DCF
3 model, for the estimated growth rate, I use only the long-term estimated GDP growth
4 rate. In the third version of the DCF model, I use a two-stage growth approach, with
5 stage one based on Value Line's three-to-five-year dividend projections and stage
6 two based on long-term projected growth in GDP. The dividend yields in all three of
7 the annual models are from Value Line's projections of dividends for the coming year
8 and stock prices are from the three-month average for the months that correspond to
9 the Value Line editions from which the underlying financial data are taken.

10 **Q. Why do you believe the long-term GDP growth rate should be used to estimate**
11 **long-term growth expectations in the DCF model?**

12 A. Growth in nominal GDP (real GDP plus inflation) is the most general measure of
13 growth in the U.S. economy. For long time periods, such as those used in the
14 Ibbotson Associates rate of return data, GDP growth has averaged between 6 percent
15 and 8 percent per year. From this observation, Professors Brigham, Gapenski, and
16 Ehrhardt offer the following observation concerning the appropriate long-term
17 growth rate in the DCF Model:

18 Expected growth rates vary from company to company, but dividend
19 growth on average is expected to continue in the foreseeable future at
20 about the same rate as that of the nominal gross domestic product (real
21 GDP plus inflation). On this basis, one might expect the dividend of
22 an average, or "normal," company to grow at a rate of 6 to 8 percent a
23 year. (Brigham, Gapenski, and Ehrhardt, *Financial Management*, 9th
24 Ed., page 335 (1999).)

25 Other academic research on corporate growth rates offers similar conclusions about
26 GDP growth, as well as concerns about the long-term adequacy of analysts' forecasts:

1 Our estimated median growth rate is reasonable when compared to the
2 overall economy's growth rate. On average over the sample period,
3 the median growth rate over 10 years for income before extraordinary
4 items is about 10 percent for all firms. ... After deducting the dividend
5 yield (the median yield is 2.5 percent per year), as well as inflation
6 (which averages 4 percent per year over the sample period), the
7 growth in real income before extraordinary items is roughly 3.5
8 percent per year. This is consistent with the historical growth rate in
9 real gross domestic product, which has averaged about 3.4 percent per
10 year over the period 1950-1998. (Louis K. C. Chan, Jason Karceski,
11 and Josef Lakonishok, "The Level and Persistence of Growth Rates,"
12 The Journal of Finance, April 2003, p. 649)

13 IBES long-term growth estimates are associated with realized growth
14 in the immediate short-term future. Over long horizons, however,
15 there is little forecastability in earnings, and analysts' estimates tend
16 to be overly optimistic. ... On the whole, the absence of predictability
17 in growth fits in with the economic intuition that competitive pressures
18 ultimately work to correct excessively high or excessively low
19 profitability growth. (Ibid, page 683)

20 These findings support the notion that long-term growth expectations are more
21 closely predicted by broader measures of economic growth than by near-term
22 analysts' estimates. Especially for the very long-term growth rate requirements of the
23 DCF model, the growth in nominal GDP should be considered an important input.

24 **Q. How have analysts' three-to-five year growth projections changed over the past**
25 **five years?**

26 A. Current analysts' growth projections are much lower than they were in 2001. For the
27 comparable electric utilities as shown in Schedule SCH-4, during 2001 Value Line's
28 projected three-to-five year earnings growth rate was 7.48 percent per year. In the
29 recent 2006 Value Line editions covering electric utilities, the average projected
30 earnings growth rate is only 5.4 percent, a decline of 2.08 percentage points. The "b
31 times r" sustainable growth rate based on Value Line's projected retention rates and
32 earned ROEs shows a similar decline. During 2001, for the comparable electric

1 group, the average “b times r” growth rate was 5.81 percent per year. Currently, the
2 “b times r” growth rate from the three most recent Value Line editions is only 3.85
3 percent, a drop of 1.96 percentage points. These comparisons further illustrate that
4 analysts’ growth rate projections are more volatile than one would expect for
5 perpetual growth rate expectations and that current projections are very low as
6 compared to analysts’ projections from only five years ago. These results strongly
7 support using more general long-term economic growth rates, such as GDP, in the
8 DCF model.

9 **Q. How did you estimate the expected long-run GDP growth rate?**

10 A. I developed my long-term GDP growth forecast from nominal GDP data contained in
11 the St. Louis Federal Reserve Bank data base. That data for the period 1947 through
12 2005 is summarized in my Schedule SCH-5. As shown at the bottom of that
13 schedule, the overall average for the period was 7.0 percent. The data also show,
14 however, that in the more recent years since 1980, lower inflation has resulted in
15 lower overall GDP growth. For this reason I gave more weight to the more recent
16 years in my GDP forecast. This approach is consistent with the concept that more
17 recent data should have a greater effect on expectations, given generally lower near-
18 and intermediate-term growth rate forecasts that presently exist. Based on this
19 approach, my overall forecast for long-term GDP growth is 6.6 percent.

20 **Q. Please summarize the results of your electric utility DCF analyses.**

21 A. The DCF results for my comparable company group are presented in Schedule SCH-
22 6. As shown in the first column of page 1 of that schedule, the traditional constant
23 growth model indicates an ROE range of only 9.4 percent to 9.5 percent. Because

1 this result falls 100 basis points or more below my risk premium checks of
2 reasonableness, it is excluded from my final DCF range. In the second column of
3 page 1, I recalculate the constant growth results with the growth rate based on long-
4 term forecasted growth in GDP. With the higher GDP growth rate, the constant
5 growth model indicates an ROE range of 10.7 percent to 10.8 percent. Finally, in the
6 third column of page 1, I present the results from the multistage DCF model. The
7 multistage model indicates an ROE of 10.5 percent. The electric utility results from
8 the annual DCF model indicate a reasonable ROE range of 10.5 percent to 10.8
9 percent.

10 **Q. What are the results of your risk premium studies?**

11 A. The details and results of my risk premium studies are shown in my Schedule SCH-7.
12 These studies and other risk premium data indicate an ROE range of 10.7 percent to
13 11.4 percent.

14 **Q. How are your risk premium studies structured?**

15 A. My risk premium studies are divided into two parts. First, I compare electric utility
16 authorized ROEs for the period 1980 through September 2006 to contemporaneous
17 long-term utility interest rates. The differences between the average authorized ROEs
18 and the average interest rate for the year is the indicated equity risk premium. I then
19 add the indicated equity risk premium to the forecasted triple-B utility bond interest
20 rate to estimate ROE. Because there is a strong inverse relationship between risk
21 premiums and interest rates (when interest rates are high, risk premiums are low and
22 vice versa), further analysis is required to estimate the current risk premium level.

1 The inverse relationship between risk premiums and interest rate levels is well
2 documented in numerous, well-respected academic studies. These studies typically
3 use regression analysis or other statistical methods to predict or measure the risk
4 premium relationship under varying interest rate conditions. On page 2 of Schedule
5 SCH-7, I provide regression analyses of the allowed annual equity risk premiums
6 relative to interest rate levels. The negative and statistically significant regression
7 coefficients confirm the inverse relationship between risk premiums and interest
8 rates. This means that when interest rates rise by one percentage point, the cost of
9 equity increases, but by a smaller amount. Similarly, when interest rates decline by
10 one percentage point, the cost of equity declines by less than one percentage point. I
11 use this negative interest rate change coefficient in conjunction with current interest
12 rates to establish the appropriate current equity risk premium.

13 **Q. How do the results of your risk premium study compare to levels found in other**
14 **published risk premium studies?**

15 A. Based on my risk premium studies, I am conservatively recommending a lower risk
16 premium than is often found in other published risk premium studies. For example,
17 the most widely followed risk premium data are provided in studies published
18 annually by Ibbotson Associates. (Ibbotson Associates, Stocks, Bonds, Bills and
19 Inflation 2006 Yearbook.) These data, for the period 1926-2005, indicate an
20 arithmetic mean risk premium of 6.1 percent for common stocks versus long-term
21 corporate bonds. Under the assumption of geometric mean compounding, Ibbotson's
22 risk premium for common stocks versus corporate bonds is 4.5 percent. Ibbotson
23 argues extensively for the arithmetic mean approach as the appropriate basis for

1 estimating the cost of equity. Based on the more conservative geometric mean risk
2 premium, Ibbotson's data indicate a cost of equity of 10.8 percent (6.30% forecasted
3 debt cost + 4.5 % risk premium = 10.8%). Based on the arithmetic risk premium,
4 Ibbotson's data indicate a cost of equity of 12.4 percent (6.30% forecasted debt cost +
5 6.1% risk premium = 12.4%).

6 The Harris and Marston (H&M) study noted above also provides specific
7 equity risk premium estimates. Using analysts' growth estimates to estimate equity
8 returns, H&M found equity risk premiums of 6.47 percent relative to U.S.
9 Government bonds and 5.13 percent relative to yields on corporate debt. H&M's
10 equity risk premium relative to corporate debt also indicates a current cost of equity
11 of 11.4 percent (6.30% debt cost + 5.13% risk premium = 11.43%). Although the
12 Ibbotson and H&M results should not be extrapolated directly as stand-alone
13 estimates of the cost of equity for regulated utilities, their results provide a reasonable
14 long-term perspective on capital market expectations for debt and equity rates of
15 return.

16 **Q. Please summarize the results of your cost of equity analysis.**

17 A. The following table summarizes my results:

1 **Summary of Cost of Equity Estimates**

2	<u>DCF Analysis</u>	<u>Indicated Cost</u>
3	Constant Growth (GDP Growth)	10.7%-10.8%
4	Multistage Growth Model	10.5%
5	Reasonable DCF Range	<u>10.5%-10.8%</u>
6	<u>Risk Premium Analysis</u>	<u>Indicated Cost</u>
7	Utility Debt + Risk Premium	
8	Risk Premium (6.30% + 4.42%)	10.72%
9	Ibbotson Risk Premium Analysis	
10	Risk Premium (6.30% + 4.5%)	10.80%
11	Harris-Marston Risk Premium	
12	Risk Premium (6.30% + 5.13%)	11.43%
13		
14	Reference Group Cost of Equity Estimate	<u>10.75%</u>
15	KCPL Cost of Equity Capital	<u>11.25%</u>
16		

17 **Q. How should these results be interpreted by the Commission in setting the fair**
18 **cost of equity for KCPL?**

19 A. Caution should be exercised in interpreting the quantitative DCF and risk premium
20 results, because they are significantly influenced by recent historically low points in
21 the interest rate cycle. The interest rate risk associated with projections for higher
22 rates over the coming year should be considered explicitly. Additionally, use of a
23 lower DCF range would fail to recognize the ongoing risks and uncertainties that
24 exist in the electric utility industry as well as the company-specific risks and
25 uncertainties that KCPL is currently facing. These factors indicate that the
26 Company's requested 11.25 percent ROE is a reasonable estimate of the fair cost of
27 equity capital.

28 **Q. Does this conclude your testimony?**


29 A. Yes, it does.

In the Matter of the Application of Kansas City)
Power & Light Company to Modify Its Tariff to) Case No. ER-2007-_____
Continue the Implementation of Its Regulatory Plan)

STATE OF TEXAS)
) **ss**
COUNTY OF TRAVIS)

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, as an expert witness to provide cost of capital testimony on behalf of Kansas City Power & Light Company.

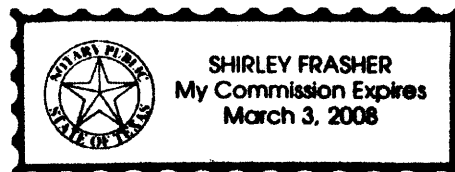
3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.


Samuel C. Hadaway

Subscribed and sworn before me this 29th day of January 2007.

Phil Vasquez
Notary Public

My commission expires: 3/3/08



SAMUEL C. HADAWAY

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(512) 346-9317**

SUMMARY OF QUALIFICATIONS

- Principal, Financial Analysis Consultants (FINANCO, Inc.).
- Ph.D. in Finance and Econometrics.
- Extensive expert witness testimony in court and before regulatory agencies.
- Management of professional research staff in academic and regulatory organizations.
- Professional presentations before executive development groups, the National Rate of Return Analysts' Forum, and the New York Society of Security Analysts.
- Financial Management Association, Vice President for Practitioner Services.

EDUCATION

**The University of Texas at Austin
Ph.D., Finance and Econometrics
January 1975**

*Dissertation: An Evaluation of the
Original and Recent Variants of the
Capital Asset Pricing Model.*

**The University of Texas at Austin
MBA, Finance
June 1973**

*Thesis: The Pricing of Risk on the
New York Stock Exchange.*

**Southern Methodist University
BA, Economics
June 1969**

Honors program. Departmental
distinction.

OTHER EXPERIENCE

**University of Texas at Austin
Adjunct Associate Professor
1985-1988, 2004-Present**

Corporate Financial Management,
Investments, and Integrative Finance
Cases.

**Texas State University San Marcos
Associate Professor of Finance
1983-1984, 2003-2004**

Graduate and undergraduate courses
in Financial Management, Managerial
Economics, and Investment Analysis.

**Public Utility Commission of Texas
Chief Economist and Director of
Economic Research Division
August 1980-August 1983**

Lead financial witness. Supervised
Commission staff in research and
testimony on rate of return, financial
condition, and economic analysis.

**Assistant Professor of Finance
Texas Tech University
July 1978-July 1980
University of Alabama
January 1975-June 1978**

Member of graduate faculty. Conducted
Ph.D. seminars and directed doctoral
dissertations in capital market theory.
Served as consultant to industry,
church and governmental organizations.

**FINANCIAL AND ECONOMIC TESTIMONY IN REGULATORY
PROCEEDINGS (Client in parenthesis)**

Cost of Money Testimony:

- Texas PUC Docket Nos. 33309 and 33310, November 2006, (AEP Texas Central Company and AEP Texas North Company).
- Louisiana Public Service Commission, Docket No. U-23327, October 2006 and January 2005 (Southwestern Electric Power Company, American Electric Power Company)
- Missouri Public Service Commission, Case No. ER-2007-0004, July 3, 2006 (Aquila, Inc.).
- New Mexico Public Regulation Commission, Case No. 06-__-UT, June 30, 2006 (El Paso Electric Company).
- New Mexico Public Regulation Commission, Case No. 06-00210-UT, May 30, 2006 (Public Service Company of New Mexico).
- Texas Public Utility Commission, Docket No. 32093, April 14, 2006 (CenterPoint Energy-Houston Electric, LLC).
- Utah Public Service Commission, Docket No. 06-035-21, March 7, 2006 (PacifiCorp).
- Oregon Public Utility Commission, Case No. UE-179, February 23, 2006 (PacifiCorp).
- Kansas Corporation Commission, Docket No. 06-KCPE-828-RTS, January 31, 2006 (Kansas City Power & Light Company).
- Missouri Public Service Commission, Case No. ER-2006-0314, January 27, 2006 (Kansas City Power & Light Company).
- California Public Utilities Commission, Docket No. 05-11-022, November 29, 2005 (PacifiCorp).
- Texas Public Utility Commission, Docket No. 31994, November 5, 2005 (Texas-New Mexico Power Company).
- New Hampshire Public Utilities Commission, Docket No. DE 05-178, November 4, 2005 (Unitil Energy Systems).
- Wyoming Public Service Commission, Docket No. 20000-ER-05-230, October 14, 2005 (PacifiCorp).
- Minnesota Public Utilities Commission, Docket. No. G-008/GR-05-1380, October 2005 (CenterPoint Energy Minnegasco).
- Texas Railroad Commission, Gas Utilities Division No. 9625, September 2005 (CenterPoint Energy Entex).
- Illinois Commerce Commission, Docket No. 05-0597, August 31, 2005 (Commonwealth Edison Company).
- Washington Utilities and Transportation Commission, Docket ,UE-050684/General Rate Case, May 2005 (PacifiCorp).
- Missouri Public Service Commission, Case No. ER-2005-0436, May 2005 (Aquila, Inc.).
- Idaho Public Utilities Commission, Case No. PAC-E-05-1, January 14, 2005 (PacifiCorp).
- Arkansas Public Service Commission, Docket No. 04-121-U, December 3, 2004 (CenterPoint Energy Arkla).
- Oregon Public Utility Commission, Case No. UE-170, November 12, 2004 (PacifiCorp).
- Texas Public Utility Commission, Docket No. 29206, November 8, 2004 (Texas-New Mexico Power Company).
- Texas Railroad Commission, Gas Utilities Division Nos. 9533 and 9534, October 13, 2004 (CenterPoint Energy Entex).
- Texas Public Utility Commission, Docket No. 29526, August 18 and September 2, 2004 (CenterPoint Energy Houston Electric).
- Utah Public Service Commission, Docket No. 04-2035-, August 4, 2004 (PacifiCorp).

- Oklahoma Corporation Commission, Cause No. PUD-200400187, July 2, 2004, (CenterPoint Energy Arkla).
- Minnesota Public Utilities Commission, Docket No. G-008/GR-04-901, July 2004, (CenterPoint Energy Minnegasco).
- Washington Utilities and Transportation Commission, Docket ,UE-032065/General Rate Case, December 2003 (PacifiCorp).
- Washington Utilities and Transportation Commission, Docket ,UG-031885, November 2003 (Northwest Natural Gas Company.).
- Wyoming Public Service Commission, Docket No. 20000-ER-03-198, May 2003 (PacifiCorp).
- Public Service Commission of Utah, Docket No. 03-2035-02, May 2003 (PacifiCorp).
- Public Utility Commission of Oregon, Case. UE-147, March 2003 (PacifiCorp).
- Wyoming Public Service Commission, Docket No. 20000-ER-00-162, May 2002 (PacifiCorp).
- Public Utility Commission of Oregon, UG-152, November 2002 (Northwest Natural).
- Massachusetts Department of Telecommunications and Energy, D.T.E. 02-24/24, May 2002 (Fitchburg Gas and Electric Light Company).
- New Hampshire Public Utilities Commission, Docket No. DE 01-247, January 2002 (Unitil Corporation).
- Washington Utilities and Transportation Commission, Docket UE-011569,70,UG-011571, November 2001 (Puget Sound Energy, Inc.).
- California Public Utilities Commission, Docket No. 01-03-026, September and December 2001 (PacifiCorp).
- New Mexico Public Regulation Commission, Docket No. 3643, July 2001 (Texas-New Mexico Power Company).
- Texas Natural Resources Conservation Commission, Docket No. 2001-1074/5-URC, May 2001 (AquaSource Utility, Inc.).
- Massachusetts Department of Telecommunications and Energy, Docket No. 99-118, May 2001 (Fitchburg Gas and Electric Light Company).
- Public Service Commission of Utah, Docket No. 01-035-01, January 2001 (PacifiCorp)
- Federal Energy Regulatory Commission, Docket No. ER-01-651, January 2001 (Southwestern Electric Power Company).
- Wyoming Public Service Commission, Docket No. 20000-ER-00-162, December 2000 (PacifiCorp).
- Public Utility Commission of Oregon, Case. UE-116, November 2000, (PacifiCorp)
- Public Utility Commission of Texas, Docket No. 22344, September 2000, (AEP Texas Companies, Entergy Gulf States, Inc., Reliant Energy HL&P, Texas-New Mexico Power Company, TXU Electric Company)
- Public Utility Commission of Oregon, Case UE-111, August 2000, (PacifiCorp)
- Texas Public Utility Commission, Docket Nos. 22352,3,4, March 2000 (Central Power and Light Co., Southwestern Electric Power Co., West Texas Utilities Co.).
- Texas Public Utility Commission, Docket No. 22355, March 2000 (Reliant Energy, Inc.).
- Texas Public Utility Commission, Docket No. 22349, March 2000 (Texas-New Mexico Power Co.).
- Texas Public Utility Commission, Docket No. 22350, March 2000 (TXU Electric).
- Washington Utilities and Transportation Commission, Docket UE-991831, November 1999 (PacifiCorp).
- Public Service Commission of Utah, Docket No. 99-035-10, September 1999 (PacifiCorp)
- Louisiana Public Service Commission Docket No. U-23029, August 1999 (Southwestern Electric Power Company)
- Wyoming Public Service Commission, Docket No. 2000-ER-99-145, July 1999, January 2000 (PacifiCorp, dba Pacific Power and Light Company).

- Texas PUC Docket No. 20150, March 1999 (Entergy Gulf States, Inc.)
- Federal Energy Regulatory Commission Docket No. ER-98-3177-00, May and December 1998 (Southwestern Electric Power Company).
- Public Service Commission of Utah, Docket No. 97-035-01, June 1998 (PacifiCorp, dba Utah Power and Light Company).
- Massachusetts Dept. of Telecommunications and Energy, Docket No. DTE 98-51, May 1998, (Fitchburg Gas and Electric Light Company, a subsidiary of Until Corp.)
- Texas PUC, Docket No. 18490, March 1998, (Texas Utilities Electric Company)
- Texas PUC Docket No. 17751, March 1998 and July 1997 (Texas-New Mexico Power Company).
- Federal Energy Regulatory Commission Docket No. RP-97, February 1998 and May 1997 (Koch Gateway Pipeline Company).
- Federal Energy Regulatory Commission Docket No. ER-97-4468-000, December 1997 (Puget Sound Power & Light).
- Oklahoma Corporation Commission, Cause No. PUD 960000214, August 1997 (Public Service Company of Oklahoma).
- Oregon Public Utility Commission Docket No. UE-94, April 1996, (PacifiCorp).
- Texas PUC Docket No. 15643, May and September 1996, (Central Power and Light and West Texas Utilities Company).
- Federal Energy Regulatory Commission Docket No. ER-96, April 1996 (Puget Sound Power & Light).
- Federal Energy Regulatory Commission Docket No. ER96, February 1996, (Central and South West Corporation).
- Washington Utilities & Transportation Commission Docket No. UE-951270, November 1995 (Puget Sound Power & Light).
- Texas PUC Docket No. 14965, November 1995, (Central Power and Light).
- Texas PUC Docket No. 13369, February 1995 (West Texas Utilities).
- Texas PUC Docket No. 12065, July and December 1994, (Houston Lighting & Power).
- Texas PUC, Docket No. 12820, July and November 1994, (Central Power and Light).
- Texas PUC Docket No. 12900, March 1994, and New Mexico PUC Case No. 2531, August 1993, (TNP Enterprises).
- Texas PUC, Docket No. 12815, March 1994, (Pedernales Electric Cooperative).
- Florida Public Service Commission, Docket No. 930987-EI, December 1993, (TECO Energy).
- Iowa Department of Commerce, Docket No. RPU-93-9, December 1993, (US West Communications).
- Texas PUC Dkt. No. 11735, May and September 1993, (Texas Utilities Electric Company)
- Oklahoma Corporation Commission, Cause No. PUD 001342, October 1992 (Public Service Company of Oklahoma).
- Texas PUC Dkt. No. 9983, November 1991, (Southwest Texas Telephone Company).
- Texas PUC Dkt. No. 9850, November 1990, Houston Lighting & Power Company).
- Texas PUC Dkt. Nos. 8480/8482, January 1989; City of Austin Dkt. No. 1, August 1988 and July 1987, (City of Austin Electric Department).
- Missouri Public Service Commission Case No. ER-90-101, July 1990 (UtiliCorp).
- Texas PUC Dkt. No. 9945, December 1990; Texas PUC Dkt. No. 9165, November 1989, (El Paso Electric Company).
- Texas PUC Dkt. No. 9427, July 1990, (Lower Colorado River Authority Association of Wholesale Customers).
- Oregon Public Utility Commission, March 1990, (Pacific Power & Light Company).
- Utah Public Service Commission, November 1989, (Utah Power & Light Company).
- Texas PUC Dkt. No. 5610, September 1988, (GTE Southwest).
- Iowa State Utilities Board, September 1988, (Northwestern Bell Telephone Company).

- Texas Water Commission, Dkt. Nos. RC-022 and RC-023, November 1986, (City of Houston Water Department).
- Pennsylvania PUC Dkt. Nos. R-842770 and R-842771, May 1985, (Bethlehem Steel).

Capital Structure Testimony:

- Federal Energy Regulatory Commission Docket No. RP-97, May 1997 (Koch Gateway Pipeline Company).
- Illinois Commerce Commission Dkt. No. 93-0252 Remand, July 1996, (Sprint).
- California PUC (Appl. No. 92-05-004) April 1993 and May 1993, (Pacific Telesis).
- Montana PSC, Dkt. No. 90.12.86, November 1991, (US West Communications).
- Massachusetts PUC Dkt. No. 86-33, June 1987, (New England Telephone Company).
- Maine PUC Dkt. No. 85-159, February 1987, (New England Telephone Company).
- New Hampshire PUC Dkt. No. 85-181, September 1986, (New England Telephone Company).
- Maine PUC Dkt. No. 83-213, March 1984, (New England Telephone Company).

Regulatory Policy and Other Regulatory Issues:

- Texas PUC Docket No. 31056, September 16, 2005, (AEP Texas Central Company).
- New Hampshire PUC Docket No. DE 03-086, May 2003, (Unitil Corporation).
- Texas PUC Docket No. 26194, May 2003 (El Paso Electric Company)
- Texas PUC Docket No. 22622, June 15, 2001 (TXU Electric)
- Texas PUC Docket No. 20125, November 1999 (Entergy Gulf States, Inc.)
- Texas PUC Docket No. 21112, July 1999 and New Mexico Public Regulation Commission Case No. 3103, July 1999 (Texas-New Mexico Power Company)
- Texas PUC Docket No. 20292, May 1999 (Central Power and Light Co.)
- Texas PUC Docket No. 20150, November 1998 (Entergy Gulf States, Inc.)
- New Mexico PUC Case No. 2769, May 1997, (Texas-New Mexico Power Company).
- Texas PUC Dkt. No. 15296, September 1996, (City of College Station, Texas).
- Texas PUC Dkt. No. 14965 Competitive Issues Phase, August 1996 (Central Power and Light Company).
- Texas PUC Dkt. No. 12456, May 1994, (Texas Utilities Electric Company).
- Texas PUC, Dkt. No. 12700/12701 and Federal Energy Regulatory Commission, Docket No. EC94-000, January 1994, (El Paso Electric Company).
- Florida Public Service Commission Generic Purchased Power Proceedings, October 1993 (TECO Energy).
- Texas PUC, Docket No. 11248, December 1992 (Barbara Faskins).
- Texas PUC Dkt. No. 10894, January and June 1992, (Gulf States Utilities Company).
- State Corporation Commission of Kansas, Dkt. No. 175,456-U, August 1991, (UtiliCorp United).
- Texas PUC Dkt. No. 9561, May 1990; Texas PUC Dkt. Nos. 6668/8646, July 1989 and February 1990, (Central Power and Light Company).
- Texas PUC Dkt. No. 9300, April 1990 and June 1990, (Texas Utilities Electric Co.).
- Texas PUC Dkt. No. 10200, August 1991, (Texas-New Mexico Power Company).
- Texas PUC Dkt. No. 7289, May 1987, (West Texas Utilities Company).
- Texas PUC Dkt. No. 7195, January 1987, (North Star Steel Texas).
- New Mexico PSC Case No. 1916, April 1986, (Public Service Company of New Mexico).
- Texas PUC Dkt. No. 6525, March 1986, (North Star Steel Texas).
- Texas PUC Dkt. No. 6375, November 1985, (Valley Industrial Council).
- Texas PUC Dkt. No. 6220, April 1985, (North Star Steel Texas).
- Texas PUC Dkt. No. 5940, March 1985, (West Texas Municipal Power Agency).
- Texas PUC Dkt. No. 5820, October 1984, (North Star Steel Texas).
- Texas PUC Dkt. No. 5779, September 1984, (Texas Industrial Energy Consumers).
- Texas PUC Dkt. No. 5560, April 1984, (North Star Steel Texas).

- Arizona PSC Dkt. No. U-1345-83-155, January 1984 and May 1984 (Arizona Public Service Company Shareholders Association).

Insurance Rate Testimony:

- Texas Department of Insurance, Docket No. 2394, November 1999, (Texas Title Insurance Agents).
- Senate Interim Committee on Title Insurance of the Texas Legislature, February 6, 1998
- Texas Department of Insurance, Docket No. 2279, October 1997, (Texas Title Insurance Agents).
- Texas Department of Insurance, January 1996, (Independent Metropolitan Title Insurance Agents of Texas).
- Texas Insurance Board, January 1992, (Texas Land Title Association).
- Texas Insurance Board, December 1990, (Texas Land Title Association).
- Texas Insurance Board, November 1989, (Texas Land Title Association).
- Texas Insurance Board, December 1987, (Texas Land Title Association).

Testimony On Behalf Of Texas PUC Staff:

- Texland Electric Cooperative, Dkt. No. 3896, February 1983
- El Paso Electric Company, Dkt. No. 4620, September 1982.
- Southwestern Bell Telephone Company, Dkt. No. 4545, August 1982.
- Central Power and Light Company, Dkt. No. 4400, May 1982.
- Texas-New Mexico Power Company, Dkt. 4240, March 1982.
- Texas Power and Light Company, Dkt. No. 3780, May 1981.
- General Telephone Company of the Southwest, Dkt. No. 3690, April 1981.
- Mid-South Electric Cooperative, Dkt. No. 3656, March 1981.
- West Texas Utilities Company, Dkt. No. 3473, December 1980.
- Houston Lighting & Power Company, Dkt. No. 3320, September 1980.

ECONOMIC ANALYSIS AND TESTIMONY

Antitrust Litigation:

- Marginal Cost Analysis of Concrete Production/Predatory Pricing (Stiles)
- Analysis of Lost Business Opportunity due to denial of Waste Disposal Site Permit (Browning-Ferris Industries, Inc.).
- Analysis of Electric Power Transmission Costs in Purchased Power Dispute (City of College Station, Texas).

Contract Litigation:

- Analysis of Cogeneration Contract/Economic Viability Issues(Texas-New Mexico Power Company)
- Definition of Electric Sales/Franchise Fee Contract Dispute (Reliant Energy HL&P)
- Analysis of Purchased Power Agreement/Breach of Contract (Texas-New Mexico Power Company)
- Regulatory Commission Provisions in Franchise Fee Ordinance Dispute (Central Power & Light Company)
- Analysis of Economic Damages resulting from attempted Acquisition of Highway Construction Company (Dillingham Construction Corporation).
- Analysis of Economic Damages due to Contract Interference in Acquisition of Electric Utility Cooperative (PacifiCorp).

- Analysis of Economic Damages due to Patent Infringement of Boiler Cleaning Process (Dowell-Schlumberger/The Dow Chemical Company).

Lender Liability/Securities Litigation:

- ERISA Valuation of Retail Drug Store Chain (Sommers Drug Stores Company).
- Analysis of Lost Business Opportunities in Failed Businesses where Lenders Refused to Extend or Foreclosed Loans (FirstCity Bank Texas, McAllen State Bank, General Electric Credit Corporation).
- Usury and Punitive Damages Analysis based on Property Valuation in Failed Real Estate Venture (Tomen America, Inc.).

Personal Injury/Wrongful Death/Lost Earnings Capacity Litigation:

- Analysis of Lost Earnings Capacity and Punitive Damages due to Industrial Accident (Worsham, Forsythe and Wooldridge).
- Analysis of Lost Earnings Capacity due to Improper Termination (Lloyd Gosselink, Ryan & Fowler).
- Present Value Analysis of Lost Earnings and Future Medical Costs due to Medical Malpractice (Sierra Medical Center).

Product Warranty/Liability Litigation:

- Analysis of Lost Profits due to Equipment Failure in Cogeneration Facility (WF Energy/Travelers Insurance Company).
- Analysis of Economic Damages due to Grain Elevator Explosion (Degesch Chemical Company).
- Analysis of Economic Damages due to failure of Plastic Pipe Water Lines (Western Plastics, Inc.)
- Analysis of Rail Car Repair and Maintenance Costs in Product Warranty Dispute (Youngstown Steel Door Company).

Property Tax Litigation:

- Evaluation of Electric Utility Distribution System (Jasper-Newton Electric Cooperative).
- Evaluations of Electric Utility Generating Plants (West Texas Utilities Company).

Various Valuations of Closely Held Businesses in Domestic Affairs Proceedings and for Federal Estate Tax Planning Purposes.

PROFESSIONAL PRESENTATIONS

"Fundamentals of Financial Management and Reporting for Non-Financial Managers," Austin Energy, July 2000.

"Fundamentals of Finance and Accounting," the IC² Institute, University of Texas at Austin, December 1996 and 1997.

"Fundamentals of Financial Analysis and Project Evaluation," Central and South West Companies, April, May, and June 1997.

"Fundamentals of Financial Management and Valuation," West Texas Utilities Company, November 1995.

- "Financial Modeling: Testing the Reasonableness of Regulatory Results," University of Texas Center for Legal and Regulatory Studies Conference, June 1991.
- "Estimating the Cost of Equity Capital," University of Texas at Austin Utilities Conference, June 1989, June 1990.
- "Regulation: The Bottom Line," Texas Society of Certified Public Accountants, Annual Utilities Conference, Austin, Texas, April 1990.
- "Alternative Treatments of Large Plant Additions -- Modeling the Alternatives," University of Texas at Dallas Public Utilities Conference, July 1989.
- "Industrial Customer Electrical Requirements," Edison Electric Institute Financial Conference, Scottsdale, Arizona, October 1988.
- "Acquisitions and Consolidations in the Electric Power Industry," Conference on Emerging Issues of Competition in the Electric Utility Industry, University of Texas at Austin, May 1988.
- "The General Fund Transfer - Is It A Tax? Is It A Dividend Payout? Is It Fair?" The Texas Public Power Association Annual Meeting, Austin, May 1984.
- "Avoiding 'Rate Shock' - Preoperational Phase-In Through CWIP in Rate Base," Edison Electric Institute, Finance Committee Annual Meeting, May 1983.
- "A Cost-Benefit Analysis of Alternative Bond Ratings Among Electric Utility Companies in Texas," (with B.L. Heidebrecht and J.L. Nash), Texas Senate Subcommittee on Consumer Affairs, December 1982.
- "Texas PUC Rate of Return and Construction Work in Progress Methods," New York Society of Security Analysts, New York, August 1982.
- "In Support of Debt Service Requirements as a Guide to Setting Rates of Return for Subsidiaries," Financial Forum, National Society of Rate of Return Analysts, Washington, D.C., May 1982.

PUBLICATIONS

- "Institutional Constraints on Public Fund Performance," (with B.L. Hadaway) *Journal of Portfolio Management*, Winter 1989.
- "Implications of Savings and Loan Conversions in a Deregulated World," (with B.L. Hadaway) *Journal of Bank Research*, Spring 1984.
- "Regulatory Treatment of Construction Work in Progress," abstract, (with B.L. Heidebrecht and J. L. Nash), *Rate & Regulation Review*, Edison Electric Institute, December 20, 1982.
- "Financial Integrity and Market-to-Book Ratios in an Efficient Market," (with W. L. Beedles), *Gas Pricing & Ratemaking*, December 7, 1982.
- "An Analysis of the Performance Characteristics of Converted Savings and Loan Associations," (with B.L. Hadaway) *Journal of Financial Research*, Fall 1981.

"Inflation Protection from Multi-Asset Sector Investments: A Long-Run Examination of Correlation Relationships with Inflation Rates," (with B.L. Hadaway), *Review of Business and Economic Research*, Spring 1981.

"Converting to a Stock Company-Association Characteristics Before and After Conversion," (with B.L. Hadaway), *Federal Home Loan Bank Board Journal*, October 1980.

"A Large-Sample Comparative Test for Seasonality in Individual Common Stocks," (with D.P. Rochester), *Journal of Economics and Business*, Fall 1980.

"Diversification Possibilities in Agricultural Land Investments," *Appraisal Journal*, October 1978.

"Further Evidence on Seasonality in Common Stocks," (with D.P. Rochester), *Journal of Financial and Quantitative Analysis*, March 1978.

Kansas City Power & Light Company Capital Spending Relative to Net Plant

(\$millions unless otherwise noted)

No.	Reference Company	2005 Net Plant	Common Shares Outstanding			Capital Spending Per Share			Total Capital Spending	Relative to Net Plant
			2006	2007	2008-2011	2006	2007	2008-2011	2006 -2011	
1	Alliant Energy Co.	4,866	115.0	113.0	116.0	4.15	5.30	4.30	3,071	63.1%
2	Ameren	13,572	207.2	209.8	216.8	5.90	9.05	5.55	7,934	58.5%
3	American Elec. Pwr.	24,284	396.0	398.0	404.0	9.50	9.05	7.75	19,888	81.9%
4	CH Energy Group	780	15.8	15.8	15.0	5.15	5.10	5.25	477	61.1%
5	Cent. Vermont P.S.	301	10.3	10.5	10.7	3.95	2.40	2.35	166	55.3%
6	Cleco Corporation	1,189	58.0	59.0	62.0	5.50	6.25	1.50	1,060	89.2%
7	Con. Edison	17,112	255.0	257.0	263.0	7.20	7.15	5.70	9,670	56.5%
8	DTE Energy Co.	10,830	177.0	177.0	168.0	8.45	7.40	7.75	8,013	74.0%
9	Duquesne Light	1,542	87.8	88.5	90.0	2.45	1.75	1.00	730	47.3%
10	Empire District	896	30.3	31.3	33.0	3.90	4.85	3.00	666	74.3%
11	Energy East Corp.	5,784	147.8	147.8	147.8	3.00	2.70	2.50	2,320	40.1%
12	Green Mtn. Power	237	5.3	5.4	5.5	4.30	3.75	2.75	103	43.6%
13	Hawaiian Electric	2,543	81.2	81.4	82.0	2.65	2.25	1.50	890	35.0%
14	IDACORP	2,314	43.9	45.2	46.1	5.20	6.65	4.90	1,432	61.9%
15	MGE Energy, Inc.	668	20.7	20.7	20.7	3.95	4.00	4.00	496	74.2%
16	NiSource Inc.	9,554	273.0	273.5	275.0	2.35	2.40	2.25	3,773	39.5%
17	Northeast Utilities	6,417	154.2	155.2	158.2	5.85	5.80	4.40	4,587	71.5%
18	NSTAR	3,702	106.8	106.8	106.8	3.65	3.35	2.75	1,923	51.9%
19	Pinnacle West	7,577	99.6	99.6	100.0	8.90	8.60	8.00	4,943	65.2%
20	PPL Corporation	10,916	381.0	382.0	371.0	3.60	4.05	3.00	7,371	67.5%
21	Progress Energy	14,442	254.0	256.0	261.0	6.95	6.75	6.50	10,279	71.2%
22	Puget Energy, Inc.	4,631	116.4	117.0	123.5	7.50	4.35	4.75	3,728	80.5%
23	SCANA Corp.	6,734	117.0	117.0	117.0	4.10	3.50	4.00	2,761	41.0%
24	Southern Co.	29,480	747.0	753.0	770.0	4.15	4.65	3.75	18,152	61.6%
25	Vectren Corp.	2,252	76.2	76.3	76.6	4.90	4.65	3.55	1,816	80.6%
26	Xcel Energy Inc.	14,696	406.0	427.0	440.0	4.00	4.15	3.50	9,556	65.0%
Average										62.0%
Kansas City Power & Light*		2,645							2,517	95.2%
Great Plains Energy*		2,645							2,539	96.0%

Source: Value Line Investment Survey, Electric Utility (East), Dec 1, 2006; (Central), Dec 29, 2006; (West), Nov 10, 2006.

*KCP&L and GPE Net Plant data from 2004 10K dated as of December 31, 2004.

*KCP&L and GPE Total Capital Spending 2005-2010 data from GPE Board Approved Budget as of December 2005.

KANSAS CITY POWER & LIGHT COMPANY
Capitalization
At December 31, 2006 (Est.)
(\$ in 000's)

CAPITAL COMPONENT	AMOUNT	PERCENT	REQUIRED RETURN	WEIGHTED RETURN
Long-Term Debt (Note 1)	979,187	41.45%	5.82%	2.41%
Preferred Stock	0	0.00%	0.00%	0.00%
Common Equity before Adjustment	1,383,293			
Equity Adjustment for OCI Related to Pension	0			
Adjusted Common Equity	1,383,293	58.55%	11.25%	6.59%
Total	\$2,362,480	100.00%		9.00%

Note 1: Includes amounts classified as current liabilities.

GREAT PLAINS ENERGY INCORPORATED
Capitalization
At December 31, 2006 (Est.)
(\$ in 000's)

<u>CAPITAL COMPONENT</u>	<u>AMOUNT</u>	<u>PERCENT</u>	<u>REQUIRED RETURN</u>	<u>WEIGHTED RETURN</u>
Long-Term Debt (Note 1)	1,143,644	44.52%	6.16%	2.74%
Preferred Stock	39,000	1.52%	4.29%	0.07%
Common Equity before Adjustment	1,338,614			
Equity Adjustment for All OCI	(47,673)			
Adjusted Common Equity	1,386,288	53.96%	11.25%	6.07%
Total	<u>\$2,568,931</u>	<u>100.00%</u>		<u>8.88%</u>

Note 1: Includes amounts classified as current liabilities.

KANSAS CITY POWER & LIGHT COMPANY AND GREAT PLAINS ENERGY**Weighted Average Cost of Long-Term Debt Capital****At December 31, 2006 (Est.)**

Line	Issue	(a) Initial Offering	(b) Date of Offering	(c) Date of Maturity	(d) Price to Public	(e) Underwriters Discounts & Commissions	(f) Issuance Expense	(g) Net Proceeds to Company	(h) Cost to Company	(i) Long-term Debt Capital Outstanding	(j) Annual Cost of Long-term Debt Capital
KANSAS CITY POWER & LIGHT ONLY											
General Mortgage Bonds											
1	Medium Term Notes - Series C (1)	\$150,000,000	Various	Various	\$150,000,000	\$968,050	\$572,926 (2)	\$148,459,024	8.085%	\$500,000	\$40,427
Pledged General Mortgage Bonds											
2	EIRR 1992 Series	\$31,000,000	9/15/1992	7/1/2017					3.834%	\$31,000,000	\$1,188,540
3	EIRR Hawthorn 1993 Series - 4.0% Coupon	\$12,366,000	10/14/1993	1/2/2012					4.202%	\$12,366,000	\$519,619
4	MATES Series 1993-A	\$40,000,000	12/7/1993	12/1/2023					3.791%	\$40,000,000	\$1,516,400
5	MATES Series 1993-B	\$39,480,000	12/7/1993	12/1/2023					3.747%	\$39,480,000	\$1,479,316
6	EIRR La Cygne 1994 Series - 4.05% Coupon	\$13,982,500	2/23/1994	3/1/2015					4.245%	\$13,982,000	\$593,536
7	EIRR La Cygne 1994 Series - 4.65% Coupon	\$21,940,000	2/23/1994	9/1/2035					4.813%	\$21,940,000	\$1,055,972
Unsecured Notes											
8	Senior Notes Due 2007 - 6% (3)	\$225,000,000	3/13/2002	3/15/2007	\$224,538,750	\$1,350,000	\$327,659	\$222,861,091	6.176%	\$225,000,000	\$13,895,925
9	Senior Notes Due 2011 - 6.5% Coupon (4)	\$150,000,000	3/20/2001	11/15/2011	\$150,000,000	\$1,198,500	\$50,000	\$148,751,500	6.615%	\$150,000,000	\$9,922,646
10	Senior Notes Due 2035 -6.05% Coupon (5)	\$250,000,000	11/17/2005	11/15/2035	\$250,000,000	\$2,187,500	\$150,000	\$247,662,500	6.118%	\$250,000,000	\$15,296,070
Environmental Improvement Revenue Refunding Bonds											
11	Series 1998-A Due 2015-4.75% Coupon	\$56,500,000	8/11/1998	9/1/2015					4.776%	\$56,500,000	\$2,698,440
12	Series 1998-B Due 2015-4.75% Coupon	\$50,000,000	8/11/1998	9/1/2015					4.774%	\$50,000,000	\$2,387,000
13	Series 1998-C Due 2017-4.65% Coupon	\$50,000,000	8/11/1998	9/1/2035					4.837%	\$50,000,000	\$2,418,500
14	Series 1998-D Due 2017-4.75% Coupon	\$40,000,000	8/11/1998	10/1/2017					4.774%	\$40,000,000	\$1,909,744
Other Long-Term Debt											
15	Unamortized Discount on Senior Notes									(\$1,580,509)	\$0
16	Loss/(Gain) on Reacquired Debt									\$0	\$690,325
17	Weighted Cost of Interest Rate Management Products									\$0	\$1,334,656
18	Total KCP&L Long-Term Debt Capital									\$979,187,491	\$56,947,117
19	KCP&L Weighted Avg. Cost of Long-Term Debt Capital								5.816%		

KANSAS CITY POWER & LIGHT COMPANY AND GREAT PLAINS ENERGY

Weighted Average Cost of Long-Term Debt Capital

At December 31, 2006 (Est.)

Line	Issue	(a) Initial Offering	(b) Date of Offering	(c) Date of Maturity	(d) Price to Public	(e) Underwriters Discounts & Commissions	(f) Issuance Expense	(g) Net Proceeds to Company	(h) Cost to Company	(i) Long-term Debt Capital Outstanding	(j) Annual Cost of Long-term Debt Capital
GREAT PLAINS ENERGY ONLY											
	<u>Unsecured Notes</u>										
1	FELINE PRIDES	\$163,600,000	6/14/2004	2/16/2009	\$163,600,000	\$1,063,400	\$129,976	\$162,406,624	8.179%	\$163,600,000	\$13,381,196
	<u>Affordable Housing Notes</u>										
2	Missouri Affordable Housing Fund IX - NDH	\$3,907,767	3/30/1999	10/1/2008					7.600%	\$856,132	\$65,066
3	Total GPE Only Long-Term Debt Capital				At December 31, 2006 (Est.)					<u>\$164,456,132</u>	<u>\$13,446,262</u>
4	GPE Only Weighted Avg. Cost of Long-Term Debt Capital				At December 31, 2006 (Est.)			<u>8.176%</u>			
GREAT PLAINS ENERGY											
5	Total GPE Long-Term Debt Capital				At December 31, 2006 (Est.)					<u>\$1,143,643,623</u>	<u>\$70,393,378</u>
6	GPE Weighted Avg. Cost of Long-Term Debt Capital				At December 31, 2006 (Est.)			<u>6.155%</u>			

- (1) Expenses associated with the Series C Medium Term Note issue are being amortized monthly over a 12 year period.
- (2) Costs associated with the early issuance of Series C and Series D Medium Term Notes for refunding Series B Medium Term Notes and First Mortgage Bonds in April and May 1993 have been added to Issuance Expenses.
- (3) Expenses associated with the Senior Notes, Series A issue are being amortized monthly over a 5 year period.
- (4) Expenses associated with the Senior Notes issue are being amortized monthly over a 10 year period.
- (5) Expenses associated with the Senior Notes issue are being amortized monthly over a 30 year period.

KANSAS CITY POWER & LIGHT COMPANY
Capitalization
At September 30, 2007 (Est.)

(\$ in 000's)

CAPITAL COMPONENT	AMOUNT	PERCENT	REQUIRED RETURN	WEIGHTED RETURN
Long-Term Debt (Note 1)	1,253,764	44.49%	6.08%	2.70%
Preferred Stock	0	0.00%	0.00%	0.00%
Common Equity before Adjustment	1,564,587			
Equity Adjustment for OCI Related to Pension	0			
Adjusted Common Equity	1,564,587	55.51%	11.25%	6.25%
Total	\$2,818,351	100.00%		8.95%

Note 1: Includes amounts classified as current liabilities.

GREAT PLAINS ENERGY INCORPORATED
Capitalization
At September 30, 2007 (Est.)

(\$ in 000's)

CAPITAL COMPONENT	AMOUNT	PERCENT	REQUIRED RETURN	WEIGHTED RETURN
Long-Term Debt (Note 1)	1,329,621	45.24%	6.09%	2.76%
Preferred Stock	39,000	1.33%	4.29%	0.06%
Common Equity before Adjustment	1,524,733			
Equity Adjustment for All OCI	(45,363)			
Adjusted Common Equity	1,570,096	53.43%	11.25%	6.01%
Total	\$2,938,717	100.00%		8.83%

Note 1: Includes amounts classified as current liabilities.

KANSAS CITY POWER & LIGHT COMPANY AND GREAT PLAINS ENERGY**Weighted Average Cost of Long-Term Debt Capital****At September 30, 2007 (Est.)**

Line	Issue	(a) Initial Offering	(b) Date of Offering	(c) Date of Maturity	(d) Price to Public	(e) Underwriters Discounts & Commissions	(f) Issuance Expense	(g) Net Proceeds to Company	(h) Cost to Company	(i) Long-term Debt Capital Outstanding	(j) Annual Cost of Long-term Debt Capital
KANSAS CITY POWER & LIGHT ONLY											
<u>Pledged General Mortgage Bonds</u>											
1	EIRR 1992 Series	\$31,000,000	9/15/1992	7/1/2017					4.612%	\$31,000,000	\$1,429,720
2	EIRR Hawthorn 1993 Series - 4.0% Coupon	\$12,366,000	10/14/1993	1/2/2012					4.202%	\$12,366,000	\$519,619
3	MATES Series 1993-A	\$40,000,000	12/7/1993	12/1/2023					4.305%	\$40,000,000	\$1,722,000
4	MATES Series 1993-B	\$39,480,000	12/7/1993	12/1/2023					4.276%	\$39,480,000	\$1,688,165
5	EIRR La Cygne 1994 Series - 4.05% Coupon	\$13,982,500	2/23/1994	3/1/2015					4.245%	\$13,982,000	\$593,536
6	EIRR La Cygne 1994 Series - 4.65% Coupon	\$21,940,000	2/23/1994	3/1/2018					4.813%	\$21,940,000	\$1,055,972
<u>Unsecured Notes</u>											
7	Senior Notes - To Be Refinanced in 2007 (1)	\$250,000,000	March 2007	March 2017	\$250,000,000	\$2,000,000	\$150,000	\$247,850,000	5.988%	\$250,000,000	\$14,969,478
8	Senior Notes Due 2011 - 6.5% Coupon (2)	\$150,000,000	3/20/2001	11/15/2011	\$150,000,000	\$1,198,500	\$50,000	\$148,751,500	6.615%	\$150,000,000	\$9,922,646
9	Senior Notes Due 2035 - 6.05% Coupon (3)	\$250,000,000	11/17/2005	11/15/2035	\$250,000,000	\$2,187,500	\$150,000	\$247,662,500	6.118%	\$250,000,000	\$15,296,070
10	New Issuance in 2007 (4)	\$250,000,000	September 2007	September 2017	\$250,000,000	\$2,000,000	\$150,000	\$247,850,000	6.743%	\$250,000,000	\$16,857,500
<u>Environmental Improvement Revenue Refunding Bonds</u>											
11	Series 1998-A Due 2015-4.75% Coupon	\$56,500,000	8/11/1998	9/1/2015					4.776%	\$56,500,000	\$2,698,440
12	Series 1998-B Due 2015-4.75% Coupon	\$50,000,000	8/11/1998	9/1/2015					4.774%	\$50,000,000	\$2,387,000
13	Series 1998-C Due 2017-4.65% Coupon	\$50,000,000	8/11/1998	10/1/2017					4.837%	\$50,000,000	\$2,418,500
14	Series 1998-D Due 2017-4.75% Coupon	\$40,000,000	8/11/1998	10/1/2017					4.774%	\$40,000,000	\$1,909,744
<u>Other Long-Term Debt</u>											
15	Unamortized Discount on Senior Notes									(\$1,503,561)	\$0
16	Loss/(Gain) on Reacquired Debt									\$0	\$690,325
17	Weighted Cost of Interest Rate Management Products									\$0	\$2,013,738
18	Total KCP&L Long-Term Debt Capital									\$1,253,764,439	\$76,172,454
19	KCP&L Weighted Avg. Cost of Long-Term Debt Capital								6.075%		

KANSAS CITY POWER & LIGHT COMPANY AND GREAT PLAINS ENERGY

Weighted Average Cost of Long-Term Debt Capital

At September 30, 2007 (Est.)

Line	Issue	(a) Initial Offering	(b) Date of Offering	(c) Date of Maturity	(d) Price to Public	(e) Underwriters Discounts & Commissions	(f) Issuance Expense	(g) Net Proceeds to Company	(h) Cost to Company	(i) Long-term Debt Capital Outstanding	(j) Annual Cost of Long-term Debt Capital
GREAT PLAINS ENERGY ONLY											
	<u>Unsecured Notes</u>										
1	Senior Notes - To Be Issued in 2007 (5)	\$75,000,000	February 2007	2/16/2009	\$75,000,000	\$675,000	\$150,000	\$74,175,000	6.324%	\$75,000,000	\$4,743,116
	<u>Affordable Housing Notes</u>										
2	Missouri Affordable Housing Fund IX - NDH	\$3,907,767	3/30/1999	10/1/2008					7.600%	\$856,132	\$65,066
3	Total GPE Only Long-Term Debt Capital				At September 30, 2007 (Est.)					\$75,856,132	\$4,808,182
4	GPE Only Weighted Avg. Cost of Long-Term Debt Capital				At September 30, 2007 (Est.)			6.339%			
GREAT PLAINS ENERGY											
5	Total GPE Long-Term Debt Capital				At September 30, 2007 (Est.)					\$1,329,620,571	\$80,980,637
6	GPE Weighted Avg. Cost of Long-Term Debt Capital				At September 30, 2007 (Est.)			6.091%			

(1) Expenses associated with the Senior Notes, will be amortized monthly over a 10 year period.

(2) Expenses associated with the Senior Notes issue are being amortized monthly over a 10 year period.

(3) Expenses associated with the Senior Notes are being amortized monthly over a 30 year period.

(4) Anticipated debt issuance will be for 60 years and will not be callable for the first 10 years. Expenses associated with the new debt will be amortized over a 10 year period.

(5) Expenses associated with the Senior Notes are being amortized monthly over a 2 year period.

GREAT PLAINS ENERGY INCORPORATED

Schedule SCH-2
Page 9 of 9Weighted Cost of Preferred Stock Capital Outstanding at
September 30, 2007 (Est.)

Line	(a) Description of Issue	(b) Date of Issuance	(c) No. of Shares Initial Offering	(d) Price to Public	(e) Underwriters Discounts & Commissions	(f) Issuance Expense	(g) Net Proceeds to Company	(h) Cost to Company	(i) Preferred Stock Capital Outstanding	(j) Annual Cost of Preferred Stock Capital
1	3.80% cum \$100 par	12-01-46	100,000	\$10,270,000	\$179,000	\$58,391	\$10,032,609	3.788%	\$10,000,000	\$378,800
2	4.50% cum \$100 par	1-20-52	100,000	10,000,000	195,000	79,241	9,725,759	4.627%	10,000,000	462,700
3	4.20% cum \$100 par	1-21-54	70,000	7,070,000	122,500	41,270	6,906,230	4.257%	7,000,000	297,990
4	4.35% cum \$100 par	4-17-56	120,000	12,000,000	201,600	71,304	11,727,096	4.451%	<u>12,000,000</u>	<u>534,120</u>
5	Total Preferred Stock Capital September 30, 2007 (Est.)								<u>\$39,000,000</u>	<u>\$1,673,610</u>
6	Weighted Average Cost at September 30, 2007 (Est.)						<u>4.291%</u>			

Kansas City Power & Light Company
Historical Capital Market Costs

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006*
Prime Rate	8.4%	8.4%	8.0%	9.2%	6.9%	4.7%	4.1%	4.3%	6.2%	7.9%
Consumer Price Index	2.3%	1.6%	2.2%	3.4%	2.8%	1.6%	2.3%	2.7%	3.4%	3.7%
Long-Term Treasuries	6.6%	5.6%	5.9%	5.9%	5.5%	5.4%	5.0%	5.1%	4.7%	5.1%
Moody's Avg Utility Debt	7.6%	7.0%	7.6%	8.1%	7.7%	7.5%	6.6%	6.2%	5.7%	6.1%
Moody's Baa Utility Debt	8.0%	7.3%	7.9%	8.4%	8.0%	8.0%	6.8%	6.4%	5.9%	6.4%

*Through September 2006.

SOURCES:

Prime Interest Rate - Federal Reserve Bank of St. Louis website
Consumer Price Index - Federal Reserve Bank of St. Louis website
Long-Term Treasuries - Federal Reserve Bank of St. Louis website
Moody's Average Utility Debt - Moody's (Mergent) Bond Record
Moody's A Utility Debt - Moody's (Mergent) Bond Record

Kansas City Power & Light Company

Long-Term Interest Rate Trends

Month	Baa Utility Rates	Average Utility Rates	Long-Term Treasury Rates	10-Year Treasury Rates
Jan-05	5.95%	5.80%	4.77%	4.22%
Feb-05	5.76%	5.64%	4.61%	4.17%
Mar-05	6.01%	5.86%	4.89%	4.50%
Apr-05	5.95%	5.72%	4.75%	4.34%
May-05	5.88%	5.60%	4.56%	4.14%
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%
Jul-06	6.61%	6.37%	5.25%	5.09%
Aug-06	6.43%	6.20%	5.08%	4.88%
Sep-06	6.26%	6.02%	4.93%	4.72%
Oct-06	6.23%	6.00%	4.94%	4.73%
Nov-06	6.03%	5.81%	4.78%	4.60%
Dec-06	6.11%	5.88%	4.78%	4.56%

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

Economic Indicators

Seasonally Adjusted Annual Rates — Dollar Figures in Billions

	Annual % Change				2006				E2007			
	2005	E2006	E2007	2005	E2006	E2007	2005	E2006	E2007	2005	E2006	E2007
Gross Domestic Product												
GDP (current dollars)	\$12,456.0	\$13,242.0	\$13,816.0	6.4	6.3	4.3				\$13,008.0	\$13,197.0	\$13,327.0
Annual rate of increase (%)	6.4	6.3	4.3	-	-	-				9.0	5.9	4.0
Annual rate of increase—real GDP (%)	3.2	3.3	2.3	-	-	-				5.6	2.6	2.2
Annual rate of increase—GDP deflator (%)	3.0	2.9	2.0	-	-	-				3.3	3.3	1.8
* Components of Real GDP												
Personal consumption expenditures	\$7,841.0	\$8,085.0	\$8,306.0	3.5	3.1	2.7				\$8,004.0	\$8,055.0	\$8,112.0
% change	3.5	3.1	2.7	-	-	-				4.8	2.6	2.9
Durable goods	\$1,145.3	\$1,200.1	\$1,215.2	5.5	4.8	1.3				\$1,190.5	\$1,190.3	\$1,207.6
Nondurable goods	\$2,276.8	\$2,357.4	\$2,421.0	4.5	3.5	2.7				\$2,342.8	\$2,351.1	\$2,357.7
Services	\$4,436.6	\$4,550.5	\$4,688.8	2.6	2.6	3.0				\$4,494.5	\$4,535.4	\$4,570.7
Nonresidential fixed investment	\$1,223.8	\$1,321.5	\$1,415.0	6.8	8.0	7.1				\$1,288.8	\$1,302.8	\$1,334.1
% change	6.8	8.0	7.1	-	-	-				13.7	4.4	10.0
Producers durable equipment	\$884.9	\$1,056.0	\$1,118.3	8.9	7.2	5.9				\$1,044.8	\$1,041.2	\$1,059.6
Residential fixed investment	\$598.5	\$572.5	\$478.6	8.6	-4.3	-16.4				\$608.5	\$590.6	\$561.7
% change	8.6	-4.3	-16.4	-	-	-				-0.5	-11.2	-18.2
Net change in business inventories	\$19.7	\$49.3	\$29.5	-	-	-				\$41.2	\$53.7	\$58.0
Gov't purchases of goods & services	\$1,958.0	\$1,997.7	\$2,033.6	0.9	2.0	1.8				\$1,987.1	\$1,991.2	\$2,002.1
Federal	\$727.6	\$741.0	\$752.5	1.5	1.8	1.6				\$745.1	\$736.6	\$739.3
State & local	\$1,230.4	\$1,256.6	\$1,280.9	0.5	2.1	1.9				\$1,242.0	\$1,254.4	\$1,262.6
Net exports	-\$619.2	-\$626.1	-\$574.0	-	-	-				-\$36.6	-\$624.2	-\$629.4
Exports	\$1,196.1	\$1,298.4	\$1,412.0	6.8	8.6	8.7				\$1,269.3	\$1,288.5	\$1,308.3
Imports	\$1,815.3	\$1,924.4	\$1,986.0	6.1	6.0	3.2				\$1,905.9	\$1,912.7	\$1,937.7
** Income & Profits												
Personal income	\$10,239.0	\$10,899.0	\$11,452.0	5.2	6.4	5.1				\$10,721.0	\$10,807.0	\$10,954.0
Disposable personal income	\$9,036.0	\$9,536.0	\$10,003.0	4.1	5.5	4.9				\$9,389.0	\$9,446.0	\$9,588.0
Saving rate (%)	-0.4	-0.9	-0.7	-	-	-				-0.3	-1.4	-1.2
Corporate profits before taxes	\$1,518.7	\$1,783.4	\$1,815.2	32.7	17.4	1.8				\$1,740.6	\$1,811.5	\$1,857.8
Corporate profits after taxes	\$1,119.4	\$1,313.8	\$1,342.8	32.6	17.4	2.2				\$1,283.7	\$1,335.4	\$1,366.6
† Earnings per share (S&P 500)	\$70.00	\$81.20	\$86.80	19.0	16.3	6.6				\$19.70	\$20.10	\$21.50
† Prices & Interest Rates												
Consumer price index	3.4	3.2	1.8	-	-	-				2.2	5.0	2.9
Treasury bills	3.1	4.7	4.8	-	-	-				4.4	4.7	4.9
10-yr notes	4.3	4.8	4.8	-	-	-				4.6	5.1	4.9
30-yr bonds	4.6	4.9	4.9	-	-	-				4.6	5.1	5.0
New issue rate—corporate bonds	5.2	5.6	5.6	-	-	-				5.4	5.9	5.7
Other Key Indicators												
Housing starts (1,000,000 units SAAR)	2.07	1.80	1.49	6.3	-13.1	-17.4				2.12	1.87	1.72
Auto & truck sales (1,000,000 units)	16.9	16.5	16.4	0.5	-2.9	-0.5				16.9	16.3	16.6
Unemployment rate (%)	5.1	4.6	4.9	-	-	-				4.7	4.6	4.7
U.S. dollar (% change)	-1.8	-1.5	-5.5	-	-	-				-4.1	-12.4	-2.1

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.