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STATE CORPORATION COMMISSION

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BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

Susan Taleffy Docket Room

DIRECT TESTIMONY OF

SAMUEL C. HADAWAY

ON BEHALF OF KANSAS CITY POWER & LIGHT COMPANY

IN THE MATTER OF THE APPLICATION OF KANSAS CITY POWER & LIGHT COMPANY TO MODIFY ITS TARIFFS TO CONTINUE THE IMPLEMENTATION OF ITS REGULATORY PLAN

DOCKET NO. 07-KCPE- -RTS

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 I am testifying on behalf of Kansas City Power & Light Company ("KCPL" or the A. 7 "Company"). 8 0. Please state your educational background and describe your professional 9 training and experience.

I have a bachelors degree in economics from Southern Methodist University and M.B.A. and Ph.D. degrees in finance from the University of Texas at Austin ("UT Austin"). I serve as an adjunct professor in the McCombs School of Business at UT Austin. I have taught economics and finance courses, have conducted research, and directed graduate students' writing in these areas. I was previously Director of the Economic Research Division at the Public Utility Commission of Texas where I supervised the Commission's finance, economics, and accounting staff and served as the Commission's chief financial witness in electric and telephone rate cases. I have taught courses in various utility conferences on cost of capital, capital structure, utility financial condition, and cost allocation and rate design issues. I have made presentations before the New York Society of Security Analysts, the National Rate of Return Analysts Forum, and various other professional and legislative groups. I have served as a vice president and was on the board of directors of the Financial Management Association.

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

- Q. Have you previously testified in a proceeding at the Kansas Corporation

 Commission or before any other utility regulatory agency?
- 20 A. Yes, I have. I have submitted written testimony before the Kansas Corporation
 21 Commission in KCPL's 2006 Rate Case, Docket No. 06-KCPE-828-RTS, as well as
 22 provided written and oral testimony before numerous other state commissions on
 23 return on equity ("ROE") and related issues.

Q. What is the purpose of your testimony?

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- 2 A. The purpose of my testimony is to estimate KCPL's required rate of ROE and to
- 3 support the Company's requested capital structure and overall rate of return.
- 4 Q. Please outline and describe the testimony you will present.
- 5 A. My testimony is divided into four additional sections. Following this introduction, in
- 6 Section II, I present and explain the Company's requested capital structure and overall
- 7 rate of return. In Section III, I review various methods for estimating the cost of
- 8 equity. In this section, I discuss the discounted cash flow ("DCF") model, as well as
- 9 risk premium methods and other approaches often used to estimate the cost of capital.
- In Section IV, I review general capital market costs and conditions, and discuss
- recent developments in the electric utility industry that affect the cost of capital. In
- Section V, I discuss the details of my cost of equity studies and provide a summary
- table of my ROE results.
- 14 Q. Please describe the general approach in your cost of equity studies.
- 15 A. First, my recommendation is premised upon the fair rate of return principles
- established by the U.S. Supreme Court in Federal Power Comm'n v. Hope Natural
- 17 Gas Co., 320 U.S. 591, 603 (1944) ("Hope") and Bluefield Water Works &
- 18 Improvements Co. v. Public Service Commission, 262 US 679, 693 (1923)
- 19 ("Bluefield"). That is to say, a utility's return authorized by a regulatory body, such as
- the Kansas Corporation Commission, should be commensurate with returns on
- 21 investments in other enterprises having corresponding risks. The return should also
- be sufficient to assure confidence in the financial integrity of the utility so as to
- 23 maintain its credit, and to attract capital so that it is able to properly discharge its

public duties. Given these legal principles, I have used several methods to determine an appropriate ROE and overall rate of return for KCPL. These methods and the underlying economic models are applied to an investment grade company reference group of other electric utilities generally similar to KCPL.

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

A.

My ROE estimate is based on alternative versions of the constant growth and multistage growth DCF model. It is confirmed by my risk premium analysis and my review of economic conditions and interest rates expected to prevail during the coming year. Because KCPL is a wholly-owned subsidiary of Great Plains Energy Inc. ("GPE"), and does not have publicly traded common stock or other independent market data, its cost of equity cannot be estimated directly. For this reason, I apply the DCF model to a large reference group of investment grade electric utilities selected from the *Value Line Investment Survey*. To be included in my group, the reference companies must: have at least a triple-B (investment grade) bond rating; derive at least 70 percent of revenues from regulated utility sales; and have consistent financial records not affected by recent mergers or restructuring, have a consistent dividend record with no dividend cuts within the past two years.

To test my DCF results, I conducted a risk-premium analysis based on ROEs allowed by state regulators relative to Moody's average utility debt costs. In this analysis, I also included the forecasted higher interest rates of Standard and Poor's ("S&P") for the coming year. S&P forecasts that long-term Government and corporate interest rates will increase from current levels by 20 basis points (0.20%) by the fourth quarter of 2007. Under current market and economic conditions, the

combination of DCF and risk premium models, tempered by consensus forecasts

about future interest rates, provides the best approach for estimating KCPL's fair cost

of equity capital.

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

5 A. No. The reference group is an appropriate starting point for estimating KCPL's ROE,
6 but the reference group's average ROE is lower than the fair cost of equity for KCPL.
7 This is because KCPL faces considerably higher construction risks than the average
8 company in the reference group. Under these circumstances the Commission should
9 add an ROE increment or adjustment to the reference group ROE to account for
10 KCPL's higher risks.

Q. Why do you use this approach?

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A.

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

Q. Why is this the appropriate analysis?

In the assessment of a fair rate of return for KCPL, I have evaluated the Company's circumstances relative to my reference group of investment grade utilities. The key factor is the Company's large capital expenditure program. As shown in my Schedule SCH-1, KCPL's capital expenditures over the next five years are expected to equal 95 percent of the Company's current net plant. By comparison, capital spending for

the average reference company for the next five years is expected to be only about 62 percent of current net plant. KCPL's larger construction program increases its financing and regulatory risks, and should be reflected in a higher allowed rate of return. KCPL's expenditure program is discussed more fully in the Direct Testimony of Company witnesses Chris B. Giles, John R. Grimwade, F. Dana Crawford, William P. Herdegen and Richard A. Spring.

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

A. My reference group analysis indicates that an ROE range of 10.5 percent to

10.8 percent is appropriate. As I will explain in more detail later, results from the

traditional constant growth DCF model fail to meet basic checks of reasonableness

and, therefore, are not included in my recommended range.

Q. Please explain.

A.

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

Because recent historical data have a significant effect in the traditional constant growth DCF format and because recent data appear to represent historic

- 1 lows in the economic cycle, those data should not be the primary basis for setting
- 2 KCPL's allowed rate of return.

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

4 A. Based on the combination of quantitative model results and my review of current 5 economic, market, and electric utility industry conditions, I estimate the average cost 6 of equity for the reference group at 10.75 percent. This estimate is consistent with 7 capital market trends and projections and is a reasonable estimate of capital costs that 8 will prevail during the period that the rates from this case are in effect. Using this 9 average cost of equity as a reference point, in order to reflect the higher utility risk 10 profile of KCPL as discussed previously, KCPL's ROE should be increased by 11 50 basis points relative to the cost of equity for the reference group, which results in a 12 requested ROE of 11.25 percent.

13 П. KCPL CAPITAL STRUCTURE AND OVERALL RATE OF RETURN

- 14 Q. Please summarize the Company's requested capital structure and overall rate of 15 return.
- 16 The following table identifies the requested capital structure components and the A. 17 resulting overall rate of return:

18	Requested Capital Structure				
19	Capital Components	Ratio	Cost	Weighted Cost	
20	Debt	45.24%	6.09%	2.76%	
21	Preferred stock	1.33%	4.29%	0.06%	
22	Common Equity	53.43%	11.25%	6.01%	
23	TOTAL	100.00%		8.83%	

I	Q.	What is the basis for the Company's requested capital structure and overall rate
2		of return?
3	A.	The requested capital structure and cost rates for debt and preferred stock are
4		calculated from GPE's projected capital structure at September 30, 2007. The
5		requested ROE is my estimate of KCPL's cost of equity capital. These data are
6		presented in more detail in Schedule SCH-2, with the September 30, 2007 summary
7		shown on page 6 of that schedule. Using the parent company's consolidated capital
8		structure is consistent with KCPL's approach in its 2006 rate case.
9	Q.	What are the key differences between GPE's actual capital structure as of
10		December 31, 2006, and the requested capital structure, projected as of
11		September 30, 2007?
12	A.	GPE's actual capital structure as of December 31, 2006, is shown on page 2 of
13		Schedule SCH-2. The key differences between the actual capital structure and the
14		requested capital structure, projected as of September 30, 2007, are as follows:
15		Long-Term Debt
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1 (c) 2 3 4 5 Equity 6 7 8 9 III. **ESTIMATING THE COST OF EQUITY CAPITAL** 10 What is the purpose of this section of your testimony? Q. 11 A. The purpose of this section of my testimony is to present a general definition of the 12 cost of equity and to compare the strengths and weaknesses of several of the most 13 widely used methods for estimating the cost of equity. Estimating the cost of equity 14 is fundamentally a matter of informed judgment. The various models provide a 15 concrete link to actual capital market data and assist with defining the various 16 relationships that underlie the ROE estimation process. 17 Q. Please define the term "cost of equity capital" and provide an overview of the 18 cost estimation process. 19 A. The cost of equity capital is the profit or rate of return that equity investors expect to 20 receive. In concept it is no different than the cost of debt or the cost of preferred 21 stock. The cost of equity is the rate of return that common stockholders expect, just 22 as interest on bonds and dividends on preferred stock are the returns that investors in 23 those securities expect. Equity investors expect a return on their capital

commensurate with the risks they take, and consistent with returns that are available from other similar investments. Unlike returns from debt and preferred stocks, however, the equity return is not directly observable in advance, and therefore, it must be estimated or inferred from capital market data and trading activity.

An example helps to illustrate the cost of equity concept. Assume that an investor buys a share of common stock for \$20 per share. If the stock's expected dividend is \$1.00, the expected dividend yield is 5.00 percent (\$1.00 / \$20 = 5.00 percent). If the stock price is also expected to increase to \$21.25 after one year, this \$1.25 expected gain adds an additional 6.25 percent to the expected total rate of return (\$1.25 / \$20 = 6.25 percent). Therefore, when buying the stock at \$20 per share, the investor expects a total return of 11.25 percent: 5.00 percent dividend yield, plus 6.25 percent price appreciation. In this example, the total expected rate of return at 11.25 percent is the appropriate measure of the cost of equity capital, because it is this rate of return that caused the investor to commit the \$20 of equity capital in the first place. If the stock were riskier, or if expected returns from other investments were higher, investors would have required a higher rate of return from the stock, which would result in a lower initial purchase price in market trading.

Each day, market rates of return and prices change to reflect new investor expectations and requirements. For example, when interest rates on bonds and savings accounts rise, utility stock prices usually fall. This is true, at least in part, because higher interest rates on these alternative investments make utility stocks relatively less attractive, which causes utility stock prices to decline in market trading. This competitive market adjustment process is quick and continuous, so that

market prices generally reflect investor expectations and the relative attractiveness of one investment versus another. In this context, to estimate the cost of equity one must apply informed judgment about the relative risk of the company in question and also apply knowledge about the risk and expected rate of return characteristics of other available investments as well.

Q. How does the market account for risk differences among the various

investments?

A.

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

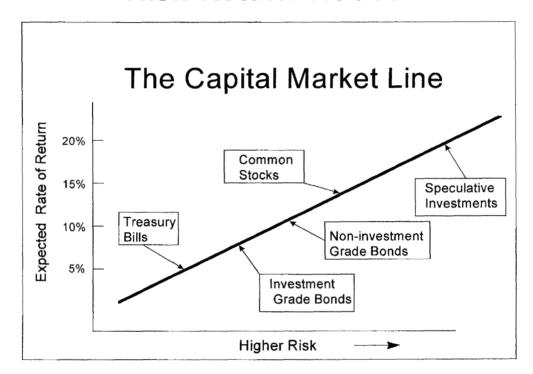
20 Q. Can you illustrate the capital market risk-return principle that you just

described?

22 A. Yes. The following graph depicts the risk-return relationship that has become widely known as the Capital Market Line ("CML"). The CML offers a graphical

representation of the capital market risk-return principle. The graph is not meant to illustrate the actual expected rate of return for any particular investment, but merely to illustrate, in a general way, the risk-return relationship.

Risk-Return Tradeoffs



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

Investment risks increase as one moves up and to the right along the CML. A higher degree of uncertainty exists about the level of investment value at any point in time and about the level of income payments that may be received. Among these investments are long-term bonds and preferred stocks, which offer priority claims to assets and income payments. They are relatively low risk, but they are not risk-free. The market value of long-term bonds, even those issued by the U.S. Treasury, often fluctuates widely when government policies or other factors cause interest rates to change.

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

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

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

- A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. Bluefield Water Works & Improvement Company v. Public Service Commission of West Virginia, 262 U.S. 679, 692-693 (1923).
- From the investor or company point of view, it is important that there be enough revenue not only for operating expenses, but also for the capital costs of the business. These include service on the debt and dividends on the stock. By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital. Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944).
- Based on these principles, the fair rate of return should closely parallel investor opportunity costs as discussed above. If a utility earns its market cost of equity, neither its stockholders nor its customers should be disadvantaged.
- Q. What specific methods and capital market data are used to evaluate the cost of equity?
- A. Techniques for estimating the cost of equity normally fall into three groups: comparable earnings methods, risk premium methods, and DCF methods.
- Q. Please describe the first set of estimation techniques, the comparable earnings
 methods.
- 31 A. The comparable earnings methods have evolved over time. The original comparable earnings methods were based on book accounting returns. This approach developed

ROE estimates by reviewing accounting returns for unregulated companies thought to have risks similar to those of the regulated company in question. These methods have generally been rejected because they assume that the unregulated group is earning its actual cost of capital, and that its equity book value is the same as its market value. In most situations these assumptions are not valid, and, therefore, accounting-based methods do not generally provide reliable cost of equity estimates.

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

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

The risk premium methods begin with currently observable market returns, such as yields on government or corporate bonds, and add an increment to account for the additional equity risk. The capital asset pricing model ("CAPM") and arbitrage pricing theory ("APT") model are more sophisticated risk premium approaches. The CAPM and APT methods estimate the cost of equity directly by combining the "risk-free" government bond rate with explicit risk measures to determine the risk premium required by the market. Although these methods are widely used in academic cost of capital research, their additional data requirements and their potentially questionable

i	underlying assumptions have detracted from their use in most regulatory
2	jurisdictions. The basic risk premium methods provide a useful parallel approach
3	with the DCF model and assure consistency with other capital market data in the cost

4 of equity estimation process.

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

- 6 The DCF model is the most widely used regulatory cost of equity estimation method. A. 7 Like the risk premium approach, the DCF model has a sound basis in theory, and 8 many argue that it has the additional advantage of simplicity. I will describe the DCF 9 model in detail below, but in essence its estimate of ROE is simply the sum of the 10 expected dividend yield and the expected long-term dividend (or price) growth rate. 11 While dividend yields are easy to obtain, estimating long-term growth is more 12 difficult. Because the constant growth DCF model also requires very long-term 13 growth estimates (technically to infinity), some argue that its application is too 14 speculative to provide reliable results, resulting in the preference for the multistage 15 growth DCF analysis.
- Of the three estimation methods, which do you believe provides the most reliable results?
- A. From my experience, a combination of discounted cash flow and risk premium
 methods provides the most reliable approach. While the caveat about estimating
 long-term growth must be observed, the DCF model's other inputs are readily
 obtainable, and the model's results typically are consistent with capital market
 behavior. The risk premium methods provide a good parallel approach to the DCF

- 1 model and further ensure that current market conditions are accurately reflected in the
 2 cost of equity estimate.
- 3 Q. Please explain the DCF model.

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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:

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$$P_0 = D_1/(1+k) + D_2/(1+k)^2 + ... + D_{\infty}/(1+k)^{\infty}$$
 (1)

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

$$k = D_1/P_0 + g (2)$$

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.

- 19 Q. Are there circumstances where the constant growth model may not give reliable 20 results?
- 21 A. Yes. Under circumstances when growth rates are expected to fluctuate or when 22 future growth rates are highly uncertain, the constant growth model may not give 23 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.

A.

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

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

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

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

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$$P_0 = D_1/(1+k) + D_2/(1+k)^2 + ... + P_T/(1+k)^T$$
 (3)

where the variables are the same as in equation (1) except that P_T is the estimated stock price at the end of the transition period T. Under the assumption that normal growth resumes after the transition period, the price P_T is then expected to be based on constant growth assumptions. With the terminal price approach, the estimated cost of equity, k, is just the rate of return that investors would expect to earn if they bought the stock at today's market price, held it and received dividends through the transition period (until period T), and then sold it for price P_T . In this approach, the analyst's task is to estimate the rate of return that investors expect to receive given the current level of market prices they are willing to pay.

- Q. What is the other alternative for dealing with the nonconstant growth transitionperiod?
- 12 A. Under the "multistage" nonconstant growth approach, equation (1) is simply

 13 expanded to incorporate two or more growth rate periods, with the assumption that a

 14 permanent constant growth rate can be estimated for some point in the future:

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$$P_0 = D_0(1+g_1)/(1+k) + ... + D_0(1+g_2)^n/(1+k)^n + ... + D_0(1+g_T)^{(T+1)}/(k-g_T)$$
 (4)

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

Although less convenient for exposition purposes, the nonconstant growth models are based on the same valid capital market assumptions as the constant growth version. The nonconstant growth approach simply requires more explicit data inputs and more work to solve for the discount rate, k. Fortunately, the required data are available from investment and economic forecasting services, and computer algorithms can easily produce the required solutions. Both constant and nonconstant growth DCF analyses are presented in the following section.

Q. Please explain the risk premium methodology.

A.

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

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

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

A.

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

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

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

- Q. Please summarize your discussion of cost of equity estimation techniques.
- 2 A. Estimating the cost of equity is one of the most controversial issues in utility
- 3 ratemaking. Because actual investor requirements are not directly observable, several
- 4 methods have been developed to assist in the estimation process. The comparable
- 5 earnings method is the oldest but perhaps least reliable. Its use of accounting rates of
- 6 return, or even historical market returns, may or may not reflect current investor
- 7 requirements. Differences in accounting methods among companies and issues of
- 8 comparability also detract from this approach.

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

IV. FUNDAMENTAL FACTORS THAT AFFECT THE COST OF EQUITY

- 17 Q. What is the purpose of this section of your testimony?
- 18 A. I review recent capital market conditions and industry and company-specific factors
- that should be reflected in a cost of capital estimate.
- Q. What has been the recent experience in the U.S. capital markets?
- 21 A. In Schedule SCH-3, page 1, I provide a review of annual interest rates and rates of
- 22 inflation in the U.S. economy over the past ten years. During that time period,
- 23 inflation and capital market costs have declined and, generally, have been lower than

rates that prevailed in the previous decade. Until 2005, inflation, as measured by the Consumer Price Index, had remained at historically low levels not seen consistently since the early 1960s. The uneven pace of economic activity and the Federal Reserve Board's monetary policy kept consumer price increases in check and interest rates declined to the lowest levels in four decades. From the lowest interest rate levels reached in mid-2005, however, economic growth, rising oil prices, and concerns about renewed inflation have led to higher interest rates. Rates on long-term corporate and Government bonds have increased by approximately 40-60 basis points since June 2005. Estimates for 2007 are for continued, albeit slower, economic growth and for further interest rate increases.

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

A.

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

Table 1:						
Long-Term Interest Rate Trends						
Baa Average Long-Term 10-Ye						
	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).						

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

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

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

A. Both corporate and government interest rates are expected to rise further from present levels. In Schedule SCH-3, page 3, I provide Standard & Poor's most recent economic forecast from its *Trends & Projections* publication for December 21, 2006.

The summary interest rate data from that publication are presented in the following table:

Table 2:
Standard & Poor's Interest Rate Forecast

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

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

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

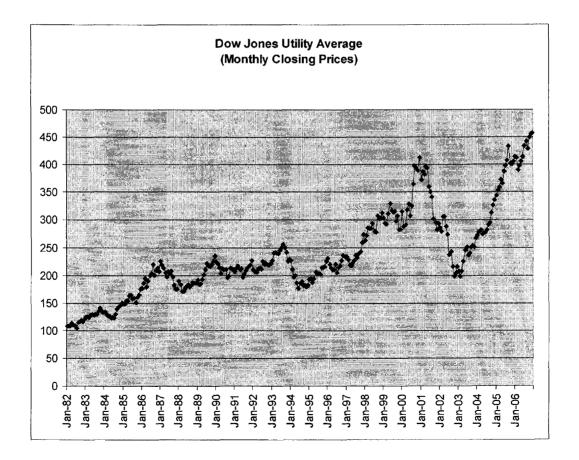
Standard & Poor's forecasts show expectations for continuing, albeit slower economic growth, with growth in *real* Gross Domestic Product ("GDP") for 2007 estimated at 2.0 percent and *nominal* GDP growth (*i.e.*, real GDP plus inflation) at 4.3 percent. This projected real GDP growth rate compares to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

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

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

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

A.



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

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

A.

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

Standard & Poor's Industry Surveys, Electric Utilities

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

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

Value Line Investors' Service

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

(Value Line, December 1, 2006, p.157.)

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

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

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

A.

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

Yes. To some extent all electric utilities are being affected by the industry's transition to competition. KCPL's power costs and other operating activities have been significantly affected by transition and restructuring events around the country. In fact, the uncertainty associated with the changes that are transforming the utility industry as a whole, as viewed from the perspective of the investor, remain a factor in assessing any utility's required ROE, including the ROE from KCPL's operations in Kansas. For KCPL specifically, its large construction program increases the Company's risk profile.

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

- As I discussed previously, equity investors respond to changing assessments of risk 1 A. and financial prospects by changing the price they are willing to pay for a given 2 security. When the risk perceptions increase or financial prospects decline, investors 3 refuse to pay the previously existing market price for a company's securities and 4 5 market supply and demand forces then establish a new lower price. The lower market 6 price typically translates into a higher cost of capital through a higher dividend yield 7 requirement, as well as the potential for increased capital gains if prospects improve. 8 In addition to market losses for prior shareholders, the higher cost of capital is 9 transmitted directly to the company by the need to issue more shares to raise any 10 given amount of capital for future investment. The additional shares also impose 11 additional future dividend requirements and reduce future earnings per share growth 12 prospects.
- 13 Q. How have regulatory commissions responded to these changing market and industry conditions?
- 15 A. On balance, allowed rates of return have changed less than interest rates over the past 16 five years. The following table summarizes electric utility ROEs allowed by state 17 regulatory commissions since 2002:

1	Authorized Electric Utility Equity Returns					
2		2002	2003	2004	2005	2006
3	1 st Quarter	10.87%	11.47%	11.00%	10.51%	10.38%
4	2 nd Quarter	11.41%	11.16%	10.54%	10.05%	10.69%
5	3 rd Quarter	11.06%	9.95%	10.33%	10.84%	10.06%
6	4 th Quarter	11.20%	11.09%	10.91%	10.75%_	
7	Full Year	11.16%	10.97%	10.75%	10.54%	10.34%
8	Average Utility					
9	Debt Cost	7.53%	6.61%	6.20%	5.67%	6.09%
10	Indicated Risk					
11	Premium	3.63%	4.36%	4.55%	4.87%	4.25%
12						

Source: Regulatory Focus, Regulatory Research Associates, Inc., Major Rate Case Decisions, September 2006 (Allowed ROEs). Moody's (Mergent) Bond Record (Interest Rates).

During 2005, interest rates declined to their lowest levels since the 1960s. Allowed equity returns followed the interest rate decline but declined by a smaller amount. Although utility interest rates have fluctuated by almost 200 basis points over the past five years, average allowed ROEs generally have fluctuated less. Observed equity risk premiums (the difference between allowed equity returns and utility interest rates) have ranged from 3.63 percent to 4.87 percent. Using the risk premiums associated with the equity returns allowed during 2006, the indicated cost of equity is 10.6 percent (6.30% projected Baa interest rate + 4.25% risk premium = 10.55%).

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

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

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

Q. How are your studies organized?

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

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

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

A.

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

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

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

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

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

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A.

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

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

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

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

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

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

A.

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

A. The DCF results for my comparable company group are presented in Schedule

SCH-6. As shown in the first column of page 1 of that schedule, the traditional

constant growth model indicates an ROE range of only 9.4 percent to 9.5 percent.

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

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

A.

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.

Q. How are your risk premium studies structured?

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

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

A.

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

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

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

The Harris and Marston (H&M) study noted above also provides specific equity risk premium estimates. Using analysts' growth estimates to estimate equity returns, H&M found equity risk premiums of 6.47 percent relative to U.S.

Government bonds and 5.13 percent relative to yields on corporate debt. H&M's equity risk premium relative to corporate debt also indicates a current cost of equity of 11.4 percent (6.30% debt cost + 5.13% risk premium = 11.43%). Although the Ibbotson and H&M results should not be extrapolated directly as stand-alone estimates of the cost of equity for regulated utilities, their results provide a reasonable long-term perspective on capital market expectations for debt and equity rates of return.

- 16 Q. Please summarize the results of your cost of equity analysis.
- 17 A. The following table summarizes my results:

2 **Indicated Cost DCF** Analysis 10.7%-10.8% 3 Constant Growth (GDP Growth) 4 Multistage Growth Model 10.5% 5 10.5%-10.8% Reasonable DCF Range 6 Risk Premium Analysis **Indicated Cost** 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 10.75% 15 Adjustment for KCPL's Higher Risk Profile .50% 16 KCPL Cost of Equity Capital 11.25% 17 18 Q. How should these results be interpreted by the Commission in setting the fair 19 cost of equity for KCPL? 20 A. Caution should be exercised in interpreting the quantitative DCF and risk premium 21 results, because they are significantly influenced by recent historically low points in 22 the interest rate cycle. The interest rate risk associated with projections for higher 23 rates over the coming year should be considered explicitly. Additionally, use of a 24 lower DCF range would fail to recognize the ongoing risks and uncertainties that 25 exist in the electric utility industry as well as the company-specific risks and 26 uncertainties that KCPL is currently facing. These factors indicate that the 27 Company's requested 11.25 percent ROE is a reasonable estimate of the fair cost of 28 equity capital.

Summary of Cost of Equity Estimates

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Q.

Does this conclude your testimony?

1 A. Yes, it does.

BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

In the Matter of the Application of Kansas City Power & Light Company to Modify Its Tariffs to Begin the Implementation of Its Regulatory Plan) Docket No. 07-KCPE
AFFIDAVIT OF SAMUI	EL C. HADAWAY
) ss
COUNTY OF TRAVIS)
Samuel C. Hadaway, being first duly sworn on his c	oath, states:
1. My name is Samuel C. Hadaway. I a	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 pr	rovide cost of capital testimony on behalf of
Kansas City Power & Light Company.	
2. Attached hereto and made a part here	eof for all purposes is my Direct Testimony
on behalf of Kansas City Power & Light Company	consisting of 40 pages and Schedules SCH-
1 through SCH-8, all of which having been prepare	d in written form for introduction into
evidence in the above-captioned docket.	
3. I have knowledge of the matters set	forth therein. I hereby swear and affirm that
my answers contained in the attached testimony to	the questions therein propounded, including
any attachments thereto, are true and accurate to the	e best of my knowledge, information and
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<u> </u>	/
	tavaniela
	y Public
My commission expires:	JAMES MiLLER Notary Public STATE OF TEXAS My Comm. Exp. 10-03-2009

SAMUEL C. HADAWAY

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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

The University of Texas at Austin MBA, Finance
June 1973

Southern Methodist University BA, Economics June 1969

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

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

Honors program. Departmental distinction.

OTHER EXPERIENCE

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

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

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

Assistant Professor of Finance Texas Tech University July 1978-July 1980 University of Alabama January 1975-June 1978 Corporate Financial Management, Investments, and Integrative Finance Cases.

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

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

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 PUČ 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 Régulation 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 Útilities 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).
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- 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).
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- 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).

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- Texas PUC, Docket No. 18490, March 1998, (Texas Utilities Electric Company)
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- 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).
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- Texas PUC Docket No. 26194, May 2003 (El Paso Electric Company)
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- Texas PUC Docket No. 20125, November 1999 (Entergy Gulf States, Inc.)
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- 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).
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- Texas PUC Dkt. No. 6525, March 1986, (North Star Steel Texas).
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- Senate Interim Committee on Title Insurance of the Texas Legislature, February 6,
- Texas Department of Insurance, Docket No. 2279, October 1997, (Texas Title Insurance Agents).
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- El Paso Electric Company, Dkt. No. 4620, September 1982.
- Southwestern Bell Telephone Company, Dkt. No. 4545, August 1982.
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- 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 Ánalysis 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.
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Kansas City Power & Light Company Capital Spending Relative to Net Plant

(\$millions unless otherwise noted)

									Total Capital	
	Reference	2005		Shares C	Outstanding	Capital S	Spending I	Per Share	Spending	Relative to
No.	Company	Net Plant	2006	2007	2008-2011	2006	2007	2008-2011	2006 -2011	Net Plant
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 Long-Term Debt (Note 1)	AMOUNT 979,187	PERCENT 41.45%	REQUIRED RETURN 5.82%	WEIGHTED RETURN 2.41%
Preferred Stock	0	0.00%	0.00%	0.00%
Common Equity before Adjustment Equity Adjustment for OCI Related to Pension Adjusted Common Equity	1,383,293 0 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)

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

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.)

	\	(a)	(b)	(c)	(d)	(e) Underwriters	(f)	(g)	(h)	(i) Long-term	(j) Annual Cost
Line	Issue	Initial Offering	Date of	Date of	Price to	Discounts &	Issuance	Net Proceeds	Cost to	Debt Capital	of Long-term
	SAS CITY POWER & LIGHT ONLY	Offering	Offering	Maturity	Public	Commissions	Expense	to Company	Company	Outstanding	Debt Capital
TANK .	3A3 CITT FOWER & LIGHT ONL!										
	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 Refun	iding 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 Pr	roducts								\$0	\$1,334,656
18	Total KCP&L Long-Term Debt Capital			At	December 31, 2006	G (Est.)			:	\$979,187,491	\$56,947,117
19	KCP&L Weighted Avg. Cost of Long-Term	Debt Capital			At December 31, 26	006 (Est.)	_	5,816%			
19	KCP&L Weighted Avg. Cost of Long-Term	Debt Capital			At December 31, 26	006 (Est.)	=	5.816%			

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

AL DE	cember 31, 2006 (ESL)										
		(a)	(b)	(c)	(q)	(e) Underwriters	(f)	(g)	(h)	(i) Long-term	(j) Annual Cost
		Initial	Date of	Date of	Price to	Discounts &	Issuance	Net Proceeds	Cost to	Debt Capital	of Long-term
Line	Issue	Offering	Offering	Maturity	Public	Commissions	Expense	to Company	Company	Outstanding	Debt Capital
	AT PLAINS ENERGY ONLY	Ottonkig	<u> </u>	Waterity	- upilo	COMMISSIONS	CAPONIC	to company	Company	Odiolariania	- Bant Gapter
Ot (m)	TI CAMPO ENERGY GIVET										
	Unsecured Notes										
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
					, , ,			, . , -			
	Affordable Housing Notes										
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 Capit	al		Δt	December 31, 2006	(Fst.)				\$164,456,132	\$13,446,262
		. .		***		(200)				V.0.0,000	
4	CDE Only Majorhand Ave. Cont. of Lang. To	Daht Caultal			1 . D	000 (F-()		0.4700/			
4	GPE Only Weighted Avg. Cost of Long-Te	irm Debt Capital			At December 31, 26	906 (Est.)		8.176%			
GREA	AT PLAINS ENERGY										
5	Total GPE Long-Term Debt Capital			At	December 31, 2006	(Est.)				\$1,143,643,623	\$70,393,378
	- '				,	. ,					
6	GPE Weighted Avg. Cost of Long-Term D	aht Canital			A4 Dagambar 24 - 04	000 (Eat)		6 4 # # 1/2			
v	Gr Weighted Avg. Goat bi Long-Term Di	ent cahirat			At December 31, 20	uuo (ESL)		6.155%			

⁽¹⁾ Expenses associated with the Series C Medium Term Note issue are being amortized monthly over a 12 year period.

E:\123DATA\FINANCE\COST-CAP\2005\[Cost of Capital Projected 12-31-05 FINAL for DF (12-7-05).xls]\WCLTD

⁽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.

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GREAT PLAINS ENERGY INCORPORATED

Weighted 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%	12,000,000	534,120
5	Total Preferred Stock Capi	ital September 3	0, 2007 (Est.)						\$39,000,000	\$1,673,610
6	Weighted Average Cost at S	September 30, 20	07 (Est.)				4.291%			

Kansas City Power & Light Company Historical Capital Market Costs

V										
	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

***********			Δn	nual % Ch	ange			*************	2006				E2007	
2005	E2006	E2007	2005	E2006			10	20		E4Q	10	20.	30	40
						Gross Damestic Product		2.1						
\$12,456.0	\$13,242.0	\$13,816.0	6.4	6.3	4.3	GDP (current dollars)	\$13,008.0	\$13,197.0	\$13,327.0	\$13,437.0	\$13,603.0	\$13,741.0	\$13,896.0	\$14,025.0
6.4	6.3	4.3	-	-	-	Annual rate of increase (%)	9.0	5.9		3.3	5.0	4.2	4.6	3.8
3.2	3.3	2.3		_	-	Annual rate of increase-real GDP (%)	5.6	2.6		1.8	2.5	2.5	2.7	2.1
3.0	2.9	2.0	•	-		Annual rate of increase-GDP deflator (%		3.3	1.8	1.4	2.5	1.6	1.8	1.7
						*Components of Real GDP			***********		·			
57,841.0	\$8,085.0	\$8,306.0	3.5	3.1	2.7	Personal consumption expenditures	\$8,004.0	\$8,055.0	\$8,112.0	\$8,168.0	\$8,234.0	\$8,283.0	\$8,331.0	\$8,376.0
3.5	3.1	2.7	- '	-	-	% change	4.8	2.6	2.9	2.8	3.3	2.4	2.3	2.2
1,145.3	\$1,200.1	\$1,215.2	5.5	4.8	1.3	Durable goods	\$1,190.5	\$1,190.3	\$1,207.6	\$1,212.1	\$1,219.3	\$1,216.7	\$1,212.6	\$1,212.4
2,276.8	\$2,357.4	\$2,421.0	4.5	3.5	2.7	Nondurable goods	\$2,342.8	\$2,351.1		\$2,378.1	\$2,396.6	\$2,412.9	\$2,430.1	\$2,444.5
4,436.6	\$4,550.5	\$4,688.8	2.6	2.6	3.0	Services	\$4,494.5	\$4,535.4		\$4,601.4	\$4,640.6	\$4,674.0	\$4,705.6	\$4,734.9
31,223.8	\$1,321.5	\$1,415.0	6.8	8.0	7.1	Nonresidental fixed investment	\$1,288.8	\$1,302.8	\$1,334.1	\$1,360.3	\$1,381.5	\$1,414.0	\$1,428.5	\$1,435.9
6.8	8.0	7.1		: <u>-</u> [1]	_	% change	13.7	4.4	10.0	8.1	6.4	9.7	4.2	2.1
\$984.9	\$1,056.0	\$1,118.3	8.9	7.2	5.9	Producers durable equipment	\$1,044.8	\$1,041.2		\$1,078.3	\$1,091.2	\$1,110.4	\$1,128.5	\$1,143.1
\$598.5	\$572.5	\$478.6	8.6	-4.3	-16.4	Residental fixed investment	\$608.5	\$590.6	\$561.7	\$529.0	\$497.3	\$478.6	\$472.3	\$466.1
8.6	-4.3	-16.4			-	% change	-0.5	-11.2	-18.2	-21.3	-21.9	-14.2	-5.2	-5.1
\$19.7	\$49.3	\$29.5		- 1	· •	Net change in business inventories	\$41.2	\$53.7	\$58.0	\$44.2	\$34.0	\$32.9	\$29.2	\$21.8
1,958.0	\$1.997.7	\$2,033.6	0.9	2.0	1.8	Gov't purchases of goods & services	\$1,987.1	\$1,991.2		\$2,010.4	\$2,027.9	\$2,029.0	\$2,034.3	\$2,043.1
\$727.6	\$741.0	\$752.5	1.5	1.8	1.6	Federal	\$745.1	\$736.6	\$739.3	\$742.9	\$754.1	\$750.8	\$751.6	\$753.5
1,230.4	\$1.256.6	\$1,280.9	0.5	2.1	1.9	State & local	\$1,242.0	\$1,254.4	\$1,262.6	\$1,267.3	\$1,273.7	\$1,278.1	\$1.282.5	\$1,289.5
-\$619.2	-\$626.1	\$574.0	2.0			Net exports	-\$636.6	-\$624.2	-\$629.4	-\$614.0	\$2.0	\$1.4	\$1.4	\$2.2
31,196.1	\$1,298.4	\$1,412.0	6.8	8.6	8.7	Exports	\$1,269.3	\$1,288.5	\$1,308.3	\$1,327.5	\$1,361.8	\$1,394.9	\$1,429.0	\$1,462.3
1,815.3	\$1,924.4	\$1,986.0	6.1	6.0	3.2	Imports	\$1,905.9	\$1,912.7	\$1,937.7	\$1,941.5	\$1,961.5	\$1,980.5	\$1,991.2	\$2,010.8
••••••••					~	and who have been been been been been been been be								
10.239.0	\$10,899.0	\$11,452.0	5.2	6.4	5.1	** Income & Profits Personal income	\$10,721.0	\$10.807.0	\$10,954.0	S11 113 0	\$11,263.0	\$11,385.0	\$11,515.0	\$11,645.0
9,036.0		\$10,003.0	4.1	5.5	4.9	Disposable personal income	\$9,389.0	\$9,446.0	\$9,588.0	\$9,720.0	\$9,846.0	\$9.940.0	\$10.055.0	\$10.168.0
-0.4	-0.9	-0.7	-	-	7.0	Saving rate (%)	-0.3	-1.4	-1.2	-0.5	-0.6	-0.8	-0.8	-0.7
1,518.7	\$1,783.4	\$1,815.2	32.7	17.4	1.8	Corporate profits before taxes	\$1,740.6	\$1,811.5	\$1,857.8	\$1,723.9	\$1,781.1	\$1,809.2	\$1,841.6	\$1,828.7
1,119.4	\$1,313.8	\$1,342.8	32.6	17.4	2.2	Corporate profits after taxes	\$1,283.7	\$1,335.4		\$1,269.6	\$1,314.0	\$1,338.2	\$1,362.7	\$1,356.2
\$70.00			19.0	16.3	6.6	‡Earnings per share (S&P 500)	\$19.70				\$23.3	\$22.4	\$21.4	\$19.6
	***************************************			enereke gerty.		†Prices & Interest Rates		en e			***************************************			erregion de la Toja de la La Cal
3.4	3.2	1.8	i	4		Consumer price index	2.2	5.0	2.9	-2.5	3.0	2.1	2.2	2.0
3.1	4.7	4.8			_ }	Treasury bills	4.4	4.7	4,9	4.9	5.0	4.9	4.7	4.4
4.3	4.8	4.8		_		10-yr notes	4.6	5.1	4,9	4.6	4.6	4.8	4.9	4.9
4.6	4.9	4.9	_	. 2	_	30-yr bonds	4.6	5.1	5.0	4.7	4.7	4.8	4.9	5.0
5.2	5.6	5.6			<u>-</u>	New issue rate-corporate bonds	5.4	5.9	5.7	5.3	5.3	5.5	5.7	5.8
						Other Key Indicators								\$
2.07	1.80	1.49	6.3	-13.1	-17.4	Housing starts (1,000,000 units SAAR)	2.12	1.87	1.72	1.49	1.49	1.48	1.49	1.50
16.9	16.5	16.4	0.5	-2.9	-0.5	Auto & truck sales (1,000,000 units)	16.9	16.3	16.6	16.1	16.4	16.3	16.4	16.4
5.1	4.6	4.9	0.0		0.0	Unemployment rate (%)	4.7	4.6	4.7	4.5	4.6	4.8	4.9	5.0
-1.8	-1.5	-5. 5		_		U.S. dollar (% change)	-4.1	-12.4	-2.1	-1.8	-9.5	-5.1	-3.9	-3.7
1.0	-1.0	-0.0		_		orar animar (1/0 primitide)	-4.1	-14.4	-2.1	-1.0		- J. 1	. 0.0	0.1

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.

Comparison of Analysts' Growth Rates 2001 to 2006

		Value Line	e Earnings				Value L	ine "br"	
No.	Company	2001	2006		No.	Company	2001	2006	
1	Alliant Energy Co.	6.5%	5.5%	_	1	Alliant Energy Co.	3.1%	3.9%	•
2	Ameren	4.0%	1.0%		2	Ameren	4.0%	1.9%	
3	American Elec. Pwr.	NA	6.5%		3	American Elec. Pwr.	6.9%	5.8%	
4	CH Energy Group	5.0%	3.0%		4	CH Energy Group	5.1%	3.0%	
5	Cent. Vermont P.S.	18.0%	10.0%		5	Cent. Vermont P.S.	5.9%	3.5%	
6	Cleco Corporation	8.0%	7.0%		6	Cleco Corporation	7.3%	4.4%	
7	Con. Edison	2.5%	2.0%		7	Con. Edison	3.7%	2.0%	
8	DTE Energy Co.	8.5%	3.0%		8	DTE Energy Co.	8.2%	3.3%	
9	Duquesne Light	-1.5%	5.0%		9	Duquesne Light	6.1%	4.5%	
10	Empire District	5.0%	9.5%		10	Empire District	3.6%	2.8%	
11	Energy East Corp.	3.5%	4.0%		11	Energy East Corp.	6.4%	2.8%	
12	Green Mtn. Power	NA	3.5%		12	Green Mtn. Power	5.4%	4.0%	
13	Hawaiian Electric	5.0%	3.0%		13	Hawaiian Electric	4.0%	3.0%	
14	IDACORP	2.5%	7.5%		14	IDACORP	4.8%	4.0%	
15	MGE Energy, Inc.	NA	6.0%		15	MGE Energy, Inc.	NA	5.3%	
16	NiSource Inc.	16.0%	3.5%		16	NiSource Inc.	8.1%	3.6%	
17	Northeast Utilities	NA	8.5%		17	Northeast Utilities	5.2%	3.9%	
18	NSTAR	6.5%	7.5%		18	NSTAR	6.5%	5.8%	
19	Pinnacle West	5.5%	7.0%		19	Pinnacle West	6.0%	3.1%	
20	PPL Corporation	15.0%	11.0%		20	PPL Corporation	13.0%	10.0%	
21	Progress Energy	NA	NA		21	Progress Energy	6.6%	1.1%	
22	Puget Energy, Inc.	4.0%	5.0%		22	Puget Energy, Inc.	3.4%	3.1%	
23	SCANA Corp.	6.5%	3.5%		23	SCANA Corp.	4.6%	4.6%	
24	Southern Co.	6.0%	3.5%		24	Southern Co.	3.8%	3.8%	
25	Vectren Corp.	15.5%	3.0%			Vectren Corp.	7.0%	2.9%	
26	Xcel Energy Inc.	15.0%	6.0%	% Points	26	Xcel Energy Inc.	6.6%	4.1%	% Points
	_			Decline		_			Decline
	Average	7.48%	5.40%	2.08%		Average	5.81%	3.85%	1.96%

Data Sources:

Electric: Value Line Investment Survey, Electric Utility (East), Dec 1, 2006 & Sep 7, 2001; (Central), Dec 29, 2006 & Oct 5, 2001; (West), Nov 10, 2006 & Aug 17, 2001.

Kansas City Power & Light Company GDP Growth Rate Forecast

	Nominal	%	GDP Price	%		%
1947	GDP 250.0	Change	Deflator	Change	CPI	Change
1947	250.0 271.6	8.7%	15.8 16.5	4.6%	22.5 24.1	7.0%
1949	268.6	-1.1%	16.3	-1.3%	23.8	-1.3%
1950	307.3	14.4%	16.9	3.6%	24.2	1.9%
1951	344.9	12.3%	17.8	5.5%	26.1	7.6%
1952	365.1	5.9%	18.1	1.7%	26.6	2.0%
1953	378.6	3.7%	18.3	1.1%	26.8	0.8%
1954	387.2	2.3%	18.5	0.9%	26.9	0.2%
1955	421.2	8.8%	18.9	2.3%	26.8	-0.2%
1956	444.7	5.6%	19.6	3.6%	27.3	1.7%
1957	460.3	3.5%	20.2	3.0%	28.2	3.4%
1958	477.6	3.8%	20.6	2.1%	28.9	2.5%
1959	514.5	7.7%	20.8	1.1%	29.2	1.0%
1960	526.6	2.4%	21.1	1.4%	29.6	1.5%
1961 1962	556.7 592.2	5.7% 6.4%	21.4	1.2% 1.2%	29.9	0.9%
1963	629.6	6.3%	21.6 21.9	1.2%	30.3 30.7	1.3% 1.3%
1964	675.2	7.2%	22.2	1.6%	31.1	1.3%
1965	737.9	9.3%	22.7	1.9%	31.6	1.7%
1966	799.6	8.4%	23.4	3.1%	32.6	3.1%
1967	848.1	6.1%	24.1	3.2%	33.5	2.7%
1968	930.2	9.7%	25.2	4.5%	34.9	4.3%
1969	998.7	7.4%	26.5	5.2%	36.9	5.6%
1970	1058.8	6.0%	27.9	5.2%	39.0	5.8%
1971	1150.2	8.6%	29.2	4.9%	40.6	4.1%
1972	1274.5	10.8%	30.5	4.2%	41.9	3.3%
1973	1410.6	10.7%	32.4	6.4%	44.8	6.8%
1974	1530.7	8.5%	35.6	9.9%	49.8	11.2%
1975	1689.0	10.3%	38.6	8.2%	54.1	8.7%
1976	1867.0	10.5%	40.8	5.7%	57.2	5.7%
1977	2083.6	11.6%	43.4	6.5%	61.0	6.6%
1978	2373.3	13.9%	46.6	7.3%	65.7	7.8%
1979 1980	2628.5 2871.4	10.8% 9.2%	50.6	8.7%	73.4	11.6%
1981	3162.0	9.2% 10.1%	55.4 60.1	9.4% 8.6%	83.2 91.5	13.3%
1982	3304.1	4.5%	63.4	5.5%	96.8	10.1% 5.8%
1983	3643.4	10.3%	65.8	3.7%	99.9	3.2%
1984	4010.7	10.1%	68.2	3.7%	104.2	4.3%
1985	4286.8	6.9%	70.1	2.7%	108.0	3.6%
1986	4519.9	5.4%	71.7	2.3%	109.8	1.7%
1987	4824.0	6.7%	73.7	2.8%	114.0	3.8%
1988	5207.6	8.0%	76.4	3.7%	118.7	4.1%
1989	5571.7	7.0%	79.3	3.7%	124.5	4.9%
1990	5846.0	4.9%	82.4	4.0%	131.3	5.5%
1991	6073.0	3.9%	85.0	3.1%	136.5	4.0%
1992	6424.4	5.8%	86.9	2.3%	140.7	3.1%
1993	6749.5	5.1%	88.8	2.3%	144.8	2.9%
1994	7169.1	6.2%		2.1%	148.6	2.6%
1995	7479.1	4.3%	92.6	2.0%	152.7	2.8%
1996 1997	7939.3	6.2%	94.3	1.9%	157.3	3.0%
1997	8422.6 8867.0	6.1% 5.3%	95.7 96.8	1.5% 1.2%	160.7 163.2	2.2% 1.6%
1999	9409.1	6.1%	98.4	1.2%	167.0	2.3%
2000	9915.0	5.4%	100.5	2.2%	172.7	3.4%
2001	10205.9	2.9%	102.9	2.4%	177.2	2.6%
2002	10565.5	3.5%	104.7	1.7%	180.2	1.7%
2003	11156.3	5.6%	106.9	2.0%	184.3	2.2%
2004	11919.7	6.8%	109.8	2.8%	189.4	2.8%
2005	12692.7	6.5%	113.0	2.9%	195.9	3.5%
10-Year Ave	erage	5.4%		2.0%		2.5%
20-Year Ave	erage	5.6%		2.4%		3.0%
30-Year Ave	_	7.0%		3.7%		4.4%
40-Year Ave	-	7.4%		4.1%		4.7%
50-Year Ave	-	7.1%		3.7%		4.1%
58-Year Ave		7.0%		3.5%		3.8%
Average of I	renods	6.6%		3.2%		3.8%

Source: St. Louis Federal Reserve Bank, Economic Data - FRED II (www.research.stlouisfed.org).

Kansas City Power & Light Company Discounted Cash Flow Analysis Summary Of DCF Model Results

	Traditional	Constant Growth	Low Near-Term Growth
	Constant Growth	DCF Model	Two-Stage Growth
Company	DCF Model	Long-Term GDP Growth	DCF Model
1 Alliant Energy Co.	8.3%	9.9%	9.9%
2 Ameren	8.6%	11.3%	10.5%
3 American Elec. Pwr.	9.6%	10.5%	10.6%
4 CH Energy Group	8.3%	10.7%	10.1%
5 Cent. Vermont P.S.	10.8%	10.7%	10.0%
6 Cleco Corporation	10.0%	10.1%	10.4%
7 Con. Edison	8.4%	11.4%	10.7%
8 DTE Energy Co.	8.9%	11.2%	10.8%
9 Duquesne Light	10.4%	11.6%	10.8%
10 Empire District	11.7%	12.0%	11.1%
11 Energy East Corp.	9.4%	11.5%	11.3%
12 Green Mtn. Power	8.2%	10.1%	10.3%
13 Hawaiian Electric	9.3%	11.1%	10.4%
14 IDACORP	8.8%	9.7%	9.1%
15 MGE Energy, Inc.	10.1%	10.7%	10.1%
16 NiSource Inc.	8.1%	10.5%	10.1%
17 Northeast Utilities	9.9%	9.6%	9.5%
18 NSTAR	10.2%	10.4%	10.5%
19 Pinnacle West	10.3%	11.0%	10.7%
20 PPL Corporation	12.6%	10,0%	10.8%
21 Progress Energy	9.0%	11.8%	11.1%
22 Puget Energy, Inc.	9.5%	10.7%	10.3%
23 SCANA Corp.	9.0%	10.8%	10.4%
24 Southern Co.	9.1%	11.0%	10.7%
25 Vectren Corp.	8.6%	11.1%	10.7%
26 Xcel Energy Inc.	9.4%	10.8%	10.7%
GROUP AVERAGE	9.5%	10.8%	10.5%
GROUP MEDIAN	9.4%	10.7%	10.5%

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

Kansas City Power & Light Company Discounted Cash Flow Analysis Traditional Constant Growth DCF Model

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
							Proje	cted Grow	rth Rate ∆	nalveie				
	i	Next	ŀ		/ear 2010	"BR" Grow			tii Nate A	ilialysis			Average	ROE
	Recent		Dividend		Cal ZUIU	Retention	iii Nate C	Jaiculation	B*R		Value	GDP		K=Div Yld+G
Company	Price(P0)		Yield	DPS	EPS	Rate (B)	NRV/	ROE (R)	Growth	Zacks	Line		(Cols 9-12)	(Cols 3+13)
Company	1 1100(1 0)	DIV(D1)	ricia	<i>D</i> , 0		reace (B)	INDV	NOL (N)	CIOWLII	Zaons	Line	01047211	(00/3 0 12)	100/00/10/
1 Alliant Energy Co.	38.37	1.27	3.31%	1.57	2.60	39.62%	26.10	9.96%	3.95%	4.00%	5.50%	6.60%	5,01%	8.3%
2 Ameren	53.97	2.54	4.71%	2.54	3.20	20.63%	34.65	9.24%	1.90%	6.10%	1.00%	6.60%	3,90%	8.6%
3 American Elec. Pwr.	40.95	1.59	3.88%	2.00	3.75	46,67%	30.25	12.40%	5.79%	3.90%	6.50%	6.60%	5.70%	9.6%
4 CH Energy Group	52.40		4.12%	2.20	3.25	32.31%	35.50	9.15%	2.96%	NA	3.00%	6.60%	4.19%	8.3%
5 Cent. Vermont P.S.	22.37	0.92	4.11%	0.92	1.60	42.50%	19.65	8.14%	3.46%	NA	10.00%	6.60%	6.69%	10.8%
6 Cleco Corporation	25.54	0.90	3.52%	1.20	2.00	40.00%	18.25	10.96%	4.38%	8.00%	7.00%	6.60%	6.50%	10.0%
7 Con. Edison	47.96	2.32	4.84%	2.38	3.05	21.97%	33.65	9.06%	1.99%	3.70%	2.00%	6.60%	3.57%	8.4%
8 DTE Energy Co.	46.06	2.14	4.65%	2.32	3.50	33.71%	36.25	9.66%	3.26%	4.30%	3,00%	6.60%	4.29%	8.9%
9 Duquesne Light	19.89	1.00	5.03%	1.00	1.50	33.33%	11.00	13.64%	4.55%	NA	5,00%	6.60%	5.38%	10.4%
10 Empire District	23.70	1.28	5.40%	1.28	1.75	26.86%	17.00	10.29%	2.76%	NA	9.50%	6.60%	6.29%	11.7%
11 Energy East Corp.	24.48	1.21	4.94%	1.40	2.00	30.00%	21.25	9.41%	2.82%	4.50%	4.00%	6.60%	4.48%	9.4%
12 Green Mtn. Power	33.74	1.18	3.50%	1.54	2.55	39.61%	25.35	10.06%	3.98%	NA	3.50%	6.60%	4.69%	8.2%
13 Hawaiian Electric	27.41	1.24	4.52%	1.24	1.75	29.14%	17.00	10.29%	3.00%	6.50%	3.00%	6.60%	4.78%	9.3%
14 IDACORP	39.05	1.20	3.07%	1.20	2.40	50.00%	30.20	7.95%	3.97%	4.70%	7.50%	6.60%	5.69%	8.8%
15 MGE Energy, Inc.	34.19	1.40	4.10%	1.44	2.45	41.22%	18.95	12.93%	5.33%	NA	6.00%	6.60%	5.98%	10.1%
16 NiSource Inc.	23.58	0.92	3.90%	1.00	1.75	42.86%	21.00	8.33%	3.57%	3.30%	3.50%	6.60%	4.24%	8.1%
17 Northeast Utilities	26.32	0.78	2.96%	0.93	1.70	45.29%	19.55	8.70%	3.94%	8.70%	8.50%	6.60%	6,93%	9.9%
18 NSTAR	34.79	1.33	3.82%	1.65	2.75	40.00%	19.00	14.47%	5.79%	5.80%	7.50%	6.60%	6.42%	10.2%
19 Pinnacle West	48.41	2.13	4.40%	2.43	3.70	34.32%	41.05	9.01%	3.09%	6.80%	7.00%	6.60%	5.87%	10.3%
20 PPL Corporation	35.07	1.20	3.42%	1.80	3.50	48.57%	17.00	20.59%	10.00%	9.20%	11.00%	6.60%	9.20%	12.6%
21 Progress Energy	47.01	2.46	5.23%	2.52	2.90	13.10%	33.95	8.54%	1.12%	3.60%	NA	6.60%	3.77%	9.0%
22 Puget Energy, Inc.	24.31	1.00	4.11%	1.10	1.75	37.14%	21.25	8.24%	3.06%	7.00%	5.00%	6.60%	5.41%	9.5%
23 SCANA Corp.	41.02	1.72	4.19%	1.90	3.25	41.54%	29.25	11.11%	4.62%	4.70%	3.50%	6.60%	4.85%	9.0%
24 Southern Co.	36.13		4.43%	1.80	2.50	28.00%	18.25	13.70%	3.84%	4.70%	3.50%	6.60%	4.66%	9.1%
25 Vectren Corp.	28.32	1.27	4.48%	1.39	1.90	26.84%	17.40	10.92%	2.93%	4.00%	3.00%	6.60%	4.13%	8.6%
26 Xcel Energy Inc.	22.31	0.93	4.17%	1.10	1.75	37.14%	16.00	10.94%	4.06%	4.30%	6.00%	6.60%	5.24%	9.4%
GROUP AVERAGE	34.51	1.45	4.19%						3.85%	5.39%	5.40%	6.60%	5.30%	9.5%
GROUP MEDIAN			4.15%											9.4%

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

Kansas City Power & Light Company Discounted Cash Flow Analysis Constant Growth DCF Model Long-Term GDP Growth

	(15)	(16)	(17)	(18)	(19)
	i				
		Next			ROE
	Recent		Dividend		K=Div Yld+G
Company	Price(P0)	Div(D1)	Yield	Growth	(Cols 17+18)
1 Alliant Energy Co.	38.37	1.27	3.31%	6.60%	9.9%
2 Ameren	53.97	2.54	4.71%	6.60%	11.3%
3 American Elec. Pwr.	40.95	1.59	3.88%	6.60%	10.5%
4 CH Energy Group	52.40	2.16	4.12%	6.60%	10.5%
5 Cent. Vermont P.S.	22.37	0.92	4.12%	6.60%	10.7%
6 Cleco Corporation	25.54	0.92	3.52%	6.60%	10.7%
7 Con. Edison	47.96	2.32	3.52% 4.84%	6.60%	11.4%
8 DTE Energy Co.	46.06	2.32	4.65%	6.60%	11.4%
9 Duquesne Light	19.89	1.00	5.03%	6.60%	11.6%
10 Empire District	23.70	1.00	5.40%	6.60%	12.0%
11 Energy East Corp.	24.48	1.20	4.94%	6.60%	12.0%
12 Green Mtn. Power	33.74	1.18	3.50%	6.60%	
13 Hawaiian Electric	27.41				10.1%
14 IDACORP		1.24	4.52%	6.60%	11.1%
	39.05	1.20	3.07%	6.60%	9.7%
15 MGE Energy, Inc. 16 NiSource Inc.	34.19	1.40	4.10%	6.60%	10.7%
	23.58	0.92	3.90%	6.60%	10.5%
17 Northeast Utilities 18 NSTAR	26.32	0.78	2.96%	6.60%	9.6%
	34.79	1.33	3.82%	6.60%	10.4%
19 Pinnacle West	48.41	2.13	4.40%	6.60%	11.0%
20 PPL Corporation	35.07	1.20	3.42%	6.60%	10.0%
21 Progress Energy	47.01	2.46	5.23%	6.60%	11.8%
22 Puget Energy, Inc.	24.31	1.00	4.11%	6.60%	10.7%
23 SCANA Corp.	41.02	1.72	4.19%	6.60%	10.8%
24 Southern Co.	36.13	1.60	4.43%	6.60%	11.0%
25 Vectren Corp.	28.32	1.27	4.48%	6.60%	11.1%
26 Xcel Energy Inc.	22.31	0.93	4.17%	6.60%	10.8%
GROUP AVERAGE	34.51	1.45	4.19%	6.60%	10.8%
GROUP MEDIAN			4.15%		10.7%

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

Kansas City Power & Light Company Discounted Cash Flow Analysis Low Near-Term Growth Two-Stage Growth DCF Model

	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
	Maria		A			0.4		A 10			DOE 1-1
	Next	0040	Annual		V 4		SH FLO		7/ 5	V 5 450	ROE=Interna
	Year's	2010	Change	Recent	Year 1	Year 2		Year 4	Year 5		Rate of Return
Company	Div	Div	to 2010	Price	Div	Div	Div	Div	DIV	Div Growth	(Yrs 0-150)
1 Alliant Energy Co.	1.27	1.57	0.10	38.37	1.27	1.37	1.47	1.57	1.67	6.60%	9.9%
2 Ameren	2.54	2.54	0.00	53.97	2.54	2.54	2.54	2.54	2.71	6.60%	10.5%
3 American Elec. Pwr.	1.59	2.00	0.00	40.95	1.59	1.73	1.86	2.00	2.13	6.60%	10.6%
4 CH Energy Group	2.16	2.20	0.14	52.40	2.16	2.17	2.19	2.20	2.35	6.60%	10.0%
5 Cent, Vermont P.S.	0.92	0.92	0.00	22.37	0.92	0.92	0.92	0.92	0.98	6.60%	10.176
6 Cleco Corporation	0.90	1.20	0.00	25.54	0.90	1.00	1.10	1.20	1.28	6.60%	10.6%
7 Con. Edison	2.32	2.38	0.02	47.96	2.32	2.34	2.36	2.38	2.54	6.60%	10.7%
8 DTE Energy Co.	2.14	2.32	0.02	46.06	2.14	2.20	2.26	2.32	2.47	6.60%	10.8%
9 Duquesne Light	1.00	1.00	0.00	19.89	1.00	1.00	1.00	1.00	1.07	6.60%	10.8%
10 Empire District	1.28	1.28	0.00	23.70	1.28	1.28	1.28	1.28	1.36	6.60%	11.1%
11 Energy East Corp.	1.21	1.40	0.06	24.48	1.21	1.27	1.34	1.40	1.49	6.60%	11.3%
12 Green Mtn. Power	1.18	1.54	0.12	33.74	1.18	1.30	1.42	1.54	1.64	6.60%	10.3%
13 Hawaiian Electric	1.24	1,24	0.00	27.41	1.24	1.24	1.24	1.24	1,32	6.60%	10.4%
14 IDACORP	1.20	1,20	0.00	39.05	1.20	1.20	1.20	1.20	1.28	6.60%	9.1%
15 MGE Energy, Inc.	1.40	1.44	0.01	34.19	1.40	1.41	1.43	1.44	1.54	6.60%	10.1%
16 NiSource Inc.	0.92	1.00	0.03	23.58	0.92	0.95	0.97	1.00	1.07	6.60%	10.1%
17 Northeast Utilities	0.78	0.93	0.05	26.32	0.78	0.83	0.88	0.93	0.99	6.60%	9.5%
18 NSTAR	1.33	1.65	0.11	34.79	1.33	1.44	1.54	1.65	1.76	6.60%	10.5%
19 Pinnacle West	2.13	2.43	0.10	48.41	2.13	2.23	2.33	2.43	2.59	6.60%	10.7%
20 PPL Corporation	1.20	1.80	0.20	35.07	1.20	1.40	1.60	1.80	1.92	6,60%	10.8%
21 Progress Energy	2.46	2.52	0.02	47.01	2.46	2.48	2.50	2.52	2,69	6.60%	11.1%
22 Puget Energy, Inc.	1.00	1.10	0.03	24.31	1.00	1.03	1.07	1.10	1.17	6.60%	10.3%
23 SCANA Corp.	1.72	1.90	0.06	41.02	1.72	1.78	1.84	1.90	2.03	6.60%	10.4%
24 Southern Co.	1.60	1.80	0.07	36.13	1.60	1.67	1.73	1.80	1.92	6.60%	10.7%
25 Vectren Corp.	1.27	1.39	0.04	28.32	1.27	1.31	1.35	1.39	1.48	6.60%	10.7%
26 Xcel Energy Inc.	0.93	1.10	0.06	22.31	0.93	0.99	1.04	1.10	1.17	6.60%	10.7%
GROUP AVERAGE	1		L								10.5%
GROUP MEDIAN											10.5%

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

Kansas City Power & Light Company Discounted Cash Flow Analysis DCF Analysis Column Descriptions

Column 1: Three-month Average Price per Share (Oct 2006-Dec 2006)	Column 16: See Column 2
Column 2: Estimated 2007 Dividends per Share from Value Line	Column 17: Column 16 Divided by Column 15
Column 3: Column 2 Divided by Column 1	Column 18: See Column 12
Column 4: Estimated 2010 Dividends per Share from Value Line	Column 19: Column 17 Plus Column 18
Column 5: Estimated 2010 Earnings per Share from Value Line	Column 20: See Column 2
Column 6: One Minus (Column 4 Divided by Column 5)	Column 21: See Column 4
Column 7: Estimated 2010 Net Book Value per Share from Value Line	Column 22: (Column 21 Minus Column 20) Divided by Three
Column 8: Column 5 Divided by Column 7	Column 23: See Column 1
Column 9: Column 6 Multiplied by Column 8	Column 24: See Column 20
Column 10: "Next 5 Years" Company Growth Estimate as Reported by Zacks.com	Column 25: Column 24 Plus Column 22
Column 11: "Est'd 03-05 to 09-11" Earnings Growth	Column 26: Column 25 Plus Column 22
Reported by Value Line.	Column 27: Column 26 Plus Column 22
Column 12: Average of GDP Growth During the Last 10 year, 20 year, 30 year, 40 year, 50 year, and 58 year growth periods.	Column 28: Column 27 Increased by the Growth Rate Shown in Column 29
Column 13: Average of Columns 9-12	Column 29: See Column 12
Column 14: Column 3 Plus Column 13	Column 30: The Internal Rate of Return of the Cash Flows in Columns 23-28 along with the Dividends
Column 15: See Column 1	for the Years 6-150 Implied by the Growth Rates shown in Column 29

Risk Premium Analysis

MO	ODY'S AVERAGE	AUTHORIZED	INDICATED
	PUBLIC UTILITY	ELECTRIC	RISK
	BOND YIELD (1)	RETURNS (2)	PREMIUM
1980	13.15%	14.23%	1.08%
1981	15.62%	15.22%	-0.40%
1982	15.33%	15.78%	0.45%
1983	13.31%	15.36%	2.05%
1984	14.03%	15.32%	1.29%
1985	12.29%	15.20%	2.91%
1986	9.46%	13.93%	4.47%
1987	9.98%	12.99%	3.01%
1988	10.45%	12.79%	2.34%
1989	9.66%	12.97%	3.31%
1990	9.76%	12.70%	2.94%
1991	9.21%	12.55%	3.34%
1992	8.57%	12.09%	3.52%
1993	7.56%	11. 4 1%	3.85%
1994	8.30%	11.34%	3.04%
1995	7.91%	11.55%	3.64%
1996	7.74%	11.39%	3.65%
1997	7.63%	11.40%	3.77%
1998	7.00%	11.66%	4.66%
1999	7.55%	10.77%	3.22%
2000	8.14%	11.43%	3.29%
2001	7.72%	11.09%	3.37%
2002	7.53%	11.16%	3.63%
2003	6.61%	10.97%	4.36%
2004	6.20%	10.75%	4.55%
2005	5.67%	10.54%	4.87%
Sep-06	6.02%	10.34%	4.32%
AVERAGE	9.35%	12.48%	3.13%
INDICATED CO			
	RIPLE-B UTILITY BO		6.30%
MOODY'S AVG	ANNUAL YIELD DUF	RING STUDY	9.35%
INTEREST RAT	E DIFFERENCE		-3.05%
	E CHANGE COEFFIC		-42.20%
ADUSTMENT	TO AVG RISK PREM	IUM	1.29%
BASIC RISK PR	FMIUM		3.13%
INTEREST RA	1.29%		
EQUITY RISK	4.42%		
			7.7270
PROJECTED TO	RIPLE-B UTILITY BOI	ND YIELD*	6.30%
INDICATED EQ	10.72%		

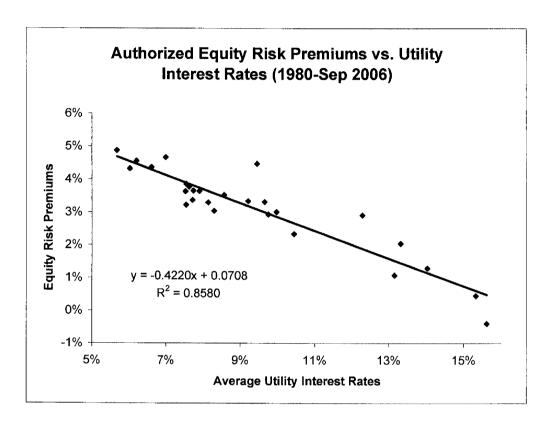
Sources:

⁽¹⁾ Moody's Investors Service

⁽²⁾ Regulatory Focus, Regulatory Research Associates, Inc.

^{*}Projected triple-B utility bond yield is 130 basis points over projected long-term Treasury rate from page 3 of Schedule SCH-3. The average triple-B spread during 2006 was 133 basis points.

Risk Premium Analysis



Summary of DCF and Risk Premium ROE Estimates

DCF Analysis	Indicated Cost
Constant Growth (GDP Growth)	10.7%-10.8%
Multistage Growth Model	10.5%
Reasonable DCF Range	<u>10.5%-10.8%</u>
Risk Premium Analysis	Indicated Cost
Utility Debt + Risk Premium	
Risk Premium (6.30% + 4.42%)	10.72%
Ibbotson Risk Premium Analysis	
Risk Premium (6.30% + 4.5%)	10.80%
Harris-Marston Risk Premium	
Risk Premium (6.30% + 5.13%)	11.43%
·	
Reference Group Cost of Equity Estimate	10.75%
KCPL Cost of Equity Capital	<u>11.25%</u>
• • •	