**BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

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 BEGIN THE
IMPLEMENTATION OF ITS REGULATORY PLAN**

DOCKET NO. 06-KCPE-828-RTS

I. INTRODUCTION AND SUMMARY OF RECOMMENDATIONS

Q. Please state your name and business address.

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

Q. On whose behalf are you testifying?

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

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

A. I have a Bachelor's degree in economics from Southern Methodist University, as well as MBA 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 and I 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 at 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 on the board of directors of the Financial Management Association.

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 attached as Schedule SCH-8.

Q. What is the purpose of your testimony?

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

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

A. My testimony is divided into five sections. Following this introduction, in Section II, I present and explain the Company's requested capital structure and overall rate of return. In Section III, I review various methods for estimating the cost of equity, including the discounted cash flow ("DCF") model, 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. Section V of my testimony discusses details of my cost of equity studies and provides a summary table of my ROE results.

Q. Please summarize your cost of equity studies and state your overall rate of return recommendation.

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 Gas Co.*, 320 US 591, 603 (1944) ("*Hope*"), and *Bluefield Water Works & Improvements Co. v. Public Service Comm'n*, 262 US 679, 693 (1923) ("*Bluefield*"). That is to say, a utility's return, authorized by a regulatory body, such as the Missouri Public Service Commission ("MPSC" or "Commission"), should be commensurate with returns on 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 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; they must derive at least 70 percent of revenues from regulated utility sales; and they must have consistent financial records not affected by recent mergers or restructuring, and 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 80 to 90 basis points (0.80%-0.90%) by the first 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.

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

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

Q. Why do you use this approach?

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 and operating requirements KCPL faces.

Q. Why is this the appropriate analysis?

A. 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 56 percent of current net plant. KCPL's larger construction program increases its financing and regulatory risks and therefore should be reflected in a higher allowed rate of return. The Kansas expenditure program is discussed more fully in the testimony of Company witnesses Lori Wright, Chris Giles, John Marshall and Dana Crawford.

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

A. My reference group analysis indicates that a DCF range of 10.6 percent to 11.3 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 10.94 percent is appropriate, with other risk premium methods indicating ROEs as high as 11.8 percent.

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

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

A. Based on the combination of my quantitative model results and my review of current economic, market, and electric utility industry conditions, I estimate the average cost of equity for the reference group companies at 11.0 percent. This estimate is consistent with capital market trends and projections and is a reasonable estimate of capital costs that will prevail during the period that the rates from this case are in effect. Using this average cost of equity as a reference point, in order to reflect the higher utility risk profile of KCPL as discussed previously, KCPL's ROE should be increased by 50 basis points relative to the cost of equity for the reference group, which results in a requested ROE of 11.5 percent.

II. KCPL CAPITAL STRUCTURE AND OVERALL RATE OF RETURN

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

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

Requested Capital Structure

Capital Components	Ratio	Cost	Weighted Cost
Debt	44.67%	6.16%	2.75%
Preferred stock	1.52%	4.29%	0.07%
Common Equity	53.81%	11.50%	6.19%
TOTAL	100.00%		9.01%

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

A. The requested capital structure and cost rates for debt and preferred stock are calculated from Great Plains Energy's projected capital structure at September 30, 2006. The requested ROE is my estimate of KCPL's cost of equity capital. These data are presented in more detail in Schedule SCH-2, with the September 30, 2006 summary shown on page 6 of that schedule. Using the parent company's consolidated capital structure is consistent with the Commission's precedent on capital structure issue.

Q. What are the key differences between Great Plains Energy's actual capital structure as of December 31, 2005, and the requested capital structure, projected as of September 30, 2006?

A. The actual Great Plains Energy capital structure as of December 31, 2005, is shown on page 2 of Schedule SCH-2. Two key differences exist between the actual capital structure and the requested capital structure, projected as of September 30, 2006: (1) The cost of long-term debt is projected to be about 30 basis points higher as of September 30, 2006; and (2) The projected capital structure includes an equity offering of $100 million to be completed in 2006.

Q. Why is there a 30 basis point increase in the projected cost of long-term debt?

A. The increase is solely attributable to KCPL's assumption that its long-term EIRR bonds that are currently in auction-rate mode, are auctioned at higher interest rates during 2006. This assumption is based on the Company's forecast and analysis, and is consistent with the projections for higher interest rates contained in my Schedule SCH-3, page 3. KCPL has $79.48 million of such bonds that are re-auctioned every 35 days and $31 million that are re-auctioned every 7 days. The interest costs on these bonds are therefore subject to fluctuations in short-term tax-exempt rates. The Company's assumption is that the auction rates for these bonds will be approximately 70 basis points higher for the first nine months of 2006 than for the full year 2006. This effect raises the estimated overall cost of GPE's long-term debt as of September 30, 2006 by approximately 30 basis points compared to December 31, 2005.

Q. Please explain the difference between Great Plains Energy's actual capital structure as of December 31, 2005 and the requested capital structure, projected as of September 30, 2006, attributable to an anticipated equity offering.

A. Great Plains Energy plans to meet a portion of KCPL's financing requirements in 2006 through an equity offering that is expected to generate proceeds of approximately $100 million, which will be contributed to KCPL. The plans to complete such an offering in 2006 were initially formulated based on the Company's discussions with S&P during the 2004-2005 negotiation of the Company's comprehensive Regulatory Plan which is set forth in the Stipulation and Agreement (the "Stipulation") that was approved by the KCC on August 5, 2005 in Docket No. 04-KCPE-1025-GIE, including the Resources Plan in Appendix A, the Demand Response, Efficiency and Affordability Programs in Appendix B and the Rate Plan in Appendix C of the Stipulation. . Great Plains Energy's and KCPL's recently-completed long-term financial plan for the 2006-10 period confirmed the continued need for this offering and the Company therefore plans to proceed accordingly in the first nine months of 2006.

III. <u>ESTIMATING THE COST OF EQUITY CAPITAL</u>

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

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

Q. Please define the term "cost of equity capital" and provide an overview of the cost estimation process.

A. The cost of equity capital is the profit or rate of return that equity investors expect to receive. In concept it is no different than the cost of debt or the cost of preferred stock. The cost of equity is the rate of return that common stockholders expect, just as interest on bonds and dividends on preferred stock are the returns that investors in those securities expect. Equity investors expect a return on their capital commensurate with the risks they take and consistent with returns that might be 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 = 5.0 percent). If the stock price is also expected to increase to $21.25 after one year, this one dollar and twenty-five cent expected gain adds an additional 6.25 percent to the expected total rate of return ($1.25 / $20 = 6.25 percent). Therefore, buying the stock at $20 per share, the investor expects a total return of 11.25 percent: 5.0 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 have resulted in a lower initial purchase price in market trading. Market rates of return and prices change each day 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 knowledge about the risk and expected rate of return characteristics of other available investments as well.

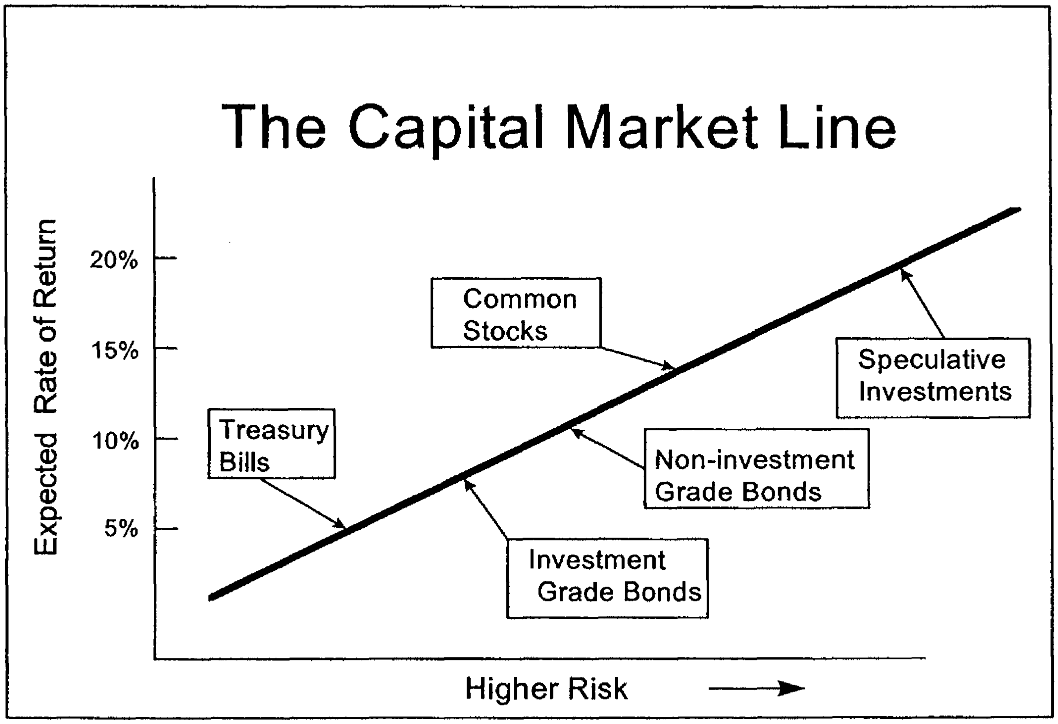
Q. How does the market account for risk differences among the various investments?

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.

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

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, long-term bonds and preferred stocks, which offer priority claims to assets and income payments, 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 (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?

A. The regulatory process is guided by fair rate of return principles established in the 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.

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.

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.

A 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 underlying assumptions have detracted from their use in most regulatory jurisdictions.

The basic risk premium methods provide a useful parallel approach with the DCF model and assure consistency with other capital market data in the cost of equity cost estimation process.

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

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

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

A. From my experience, a combination of DCF 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 model and further ensure that the cost of equity estimate accurately reflects current market conditions.

Q. Please explain the DCF model.

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

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

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:

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

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.

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

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

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 United States have reduced or eliminated their common dividends over this time period. Some of these companies have reestablished 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?

A. 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:

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

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 transition period?

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

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

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.

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

A. 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.

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

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. <u>FUNDAMENTAL FACTORS THAT AFFECT THE COST OF EQUITY</u>

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

A. In this section, 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?

A. Schedule SCH-3, page 1, provides a review of annual interest rates and rates of inflation in the U.S. economy over the past ten years. During that time period, inflation and capital market costs have declined and, generally, have been lower than rates that prevailed in the previous decade. Inflation, as measured by the Consumer Price Index, has remained at historically low levels not seen consistently since the early 1960s. Until the first quarter of 2004, the uneven pace of economic recovery kept consumer price increases in check and interest rates declined to the lowest levels in four decades. With improving economic conditions, since June of 2004, the Federal Reserve System has increased the Federal Funds interest rate thirteen times, raising it from 1 percent to a present level of 4.25 percent. Although recent long-term interest rates are only slightly above their historical lows, estimates for the next 12 months are for continued economic growth and further substantial interest rate increases.

Schedule SCH-3, page 2, provides a summary of Moody's Average Utility and Baa Utility Bond Yields. For the most recent three months through December 2005, Moody's Average Utility Rate was 5.86 percent and the average Baa Rate was 6.17 percent.

Schedule SCH-3, page 3, provides S&P's *Trends & Projections* for December 15, 2005. The forecast data show clear expectations for continuing economic growth, with growth in *real* Gross Domestic Product ("GDP") for 2005 estimated at 3.7 percent and *nominal* GDP growth (*i.e.*, real GDP plus inflation) at 6.5 percent. This projected real GDP growth rate compares to rates of less than 2 percent in 2001, 2.4 percent for 2002, and 3 percent for 2003. Consistent with sound economic conditions, S&P also forecasts that the unemployment rate will drop to 4.9 percent and that interest rates will rise significantly from current levels. The 10-year Treasury Note is projected to increase from its current level of about 4.4 percent to 5.2 percent by the 1st quarter of 2007. Long-term Treasury Bonds are projected to increase from current levels of about 4.6 percent to 5.4 percent, and Corporate Bonds are projected to increase from current levels of about 5.5 percent to 6.3 percent. These increasing interest rate trends offer important perspective for judging the cost of capital in the present case.

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

A. The Dow Jones Utility 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 over 400 is near a record high, having increased from a level of 280 a little more than a year ago. Utility stock prices generally have fluctuated much more widely in recent years than was previously expected. Rising prices for natural gas and other unexpected disruptions of supply caused by extreme weather and two major hurricanes along the Gulf Coast 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 electric 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 negative based on projections for higher interest rates and the present stock price levels for some utility companies. In a recent edition covering electric utilities, Value Line reflected its concerns:

> **Investment Advice**
>
> Many of the utility stocks in this issue are trading at or near their 52-week highs. But if Value Line's projection of rising interest rates is on target, share prices of these equities may decline. Too, the industry's Timeliness rank remains near the bottom of all industries we follow. At this juncture, more attractive investments are available elsewhere. (Value Line Investment Survey, April 1, 2005, p. 695.)

More recently, in a feature story on utilities' investment potential, The Wall Street Journal echoed Value Line's prior assessment:

> **Sector Has Gleamed Recently, But Worries About Energy Prices and Interest Rates Spur Concern**
>
> In the past several trading sessions, however, the sector has slipped amid worries that inflation and interest rates are headed up, that the economy will slow and that energy prices have peaked. ... Historically, interest-rate increases have pushed utilities stocks down because such reliable dividend payers long have been used as a bond substitute by income-seeking investors. Rising rates make newly issued bonds with higher yields more attractive than existing income-producing stocks and bonds with lower payouts. (Wall Street Journal, October 10, 2005, page C1.)

Expectations for rising interest rates also make it more difficult to estimate the fair, on-going cost of capital. Analysts' near-term growth estimates for utilities reflect the issues described by Value Line and The Wall Street Journal and current three-to-five-year projections are extremely low. As I will discuss in more detail later, this feature raises significant questions about using analysts' currently low 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 power markets. 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 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 such 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 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.

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

A. Yes. To some extent all electric utilities are being affected by the industry's transition to competition. Most all utilities' 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, remains 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?

A. As I discussed previously, equity investors respond to changing assessments of risk and financial prospects by changing the price they are willing to pay for a given security. When the risk perceptions increase or financial prospects decline, investors refuse to pay the previously existing market price for a company's securities, and then market supply and demand forces establish a new lower price. The lower market price typically translates into a higher cost of capital through a higher dividend yield requirement, as well as the potential for increased capital gains if prospects improve. In addition to market losses for prior shareholders, the higher cost of capital is transmitted directly to the company by the need to issue more shares to raise any given amount of capital for future investment. The new additional shares also impose additional future dividend requirements and reduce future earnings per share growth prospects.

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

A. On balance, allowed rates of return have changed less than interest rates over the past five years. The following table summarizes electric utility ROEs allowed by state regulatory commissions since 2001:

Authorized Electric Utility Equity Returns

	2001	2002	2003	2004	2005
1st Quarter	11.38%	10.87%	11.47%	11.00%	10.51%
2nd Quarter	10.88%	11.41%	11.16%	10.54%	10.05%
3rd Quarter	10.78%	11.06%	9.95%	10.33%	10.84%
4th Quarter	11.50%	11.20%	11.09%	10.91%	10.75%
Full Year	11.09%	11.16%	10.97%	10.75%	10.54%
Average Utility Debt Cost	7.72%	7.53%	6.61%	6.20%	5.68%
Indicated Risk Premium	3.37%	3.63%	4.36%	4.55%	4.86%

Source: *Regulatory Focus*, Regulatory Research Associates, Inc., Major Rate Case Decisions, January 2006.

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 about 200 basis points over the past five years, average allowed ROEs generally have fluctuated less. Equity risk premiums (the difference between allowed equity returns and utility interest rates) have ranged from 3.37 percent to 4.86 percent. With recent allowed equity risk premiums, the indicated cost of equity based on projected Baa utility debt costs is 11.5 percent (6.65% projected Baa interest rate + 4.86% risk premium = 11.51%).

V. <u>COST OF EQUITY CAPITAL FOR KCPL</u>

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

A. The purpose of this section is to present my quantitative studies of the cost of equity capital for KCPL and to 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 16-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.

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

A. Growth in nominal GDP (*i.e.*, real GDP plus inflation) is the most general measure of economic 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.)

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)

> 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?

A. Current analysts' growth projections are much lower than they were in 2001. For the comparable electric utilities as shown in Schedule SCH-5, during 2001, Value Line's projected three-to-five year earnings growth rate was 6.8 percent per year. In the recent 2005 Value Line editions covering electric utilities, the average projected earnings growth rate is only 4.3 percent. 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 5.6 percent per year. Currently, the "b times r" growth rate from the three most recent Value Line editions is only 3.6 percent. This comparison further illustrates 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 used just five years ago. These results strongly support using more general long-term economic growth rates, such as GDP, in the DCF model.

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 2004 is summarized in my Schedule SCH-6. As shown at the bottom of that schedule, the overall average for the period was 7.1 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 and with 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.

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-4. As shown in the first column of page 1 of that schedule, the traditional constant growth model indicates an ROE of only 9.3 percent to 9.4 percent. Because this result falls 150 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 11.2 percent to 11.3 percent. Finally, in the third column of page 1, I present the results from the multistage DCF model. The multistage model indicates an ROE range of 10.6 percent to 10.8 percent. The electric utility results from the annual DCF model indicate a reasonable ROE range of 10.6 percent to 11.3 percent.

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

A. The details and results of my risk premium studies are shown in my Schedule SCH-7. These studies, and other risk premium data discussed below, indicate an ROE range of 10.9 percent to 11.8 percent.

Q. How are your risk premium studies structured?

A. My risk premium studies are divided into two parts. First, I compare electric utility authorized ROEs for the period 1980 through 2005 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.[1] 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

---

[1] The forecasted triple-B utility bond rate (6.65%) is equal to Standard & Poor's projected long-term Treasury rate (5.4%) from Schedule SCH-3, page 3, plus a current spread of 125 basis points for Moody's triple-B utility bond rate over Treasuries. This is a very conservative estimate of the triple-B rate relative to Treasuries because recent spreads have been at historically low levels. For example, for the most recent five years since 2001, the average annual triple-B spread over long-term Treasuries has ranged between 129 basis points and 260 basis points.

this negative interest rate change coefficient in conjunction with current interest rates to establish the appropriate current equity risk premium.

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

A. 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 2005 Yearbook.) These data, for the period 1926-2004, indicate an arithmetic mean risk premium of 6.2 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 11.2 percent (6.65% forecasted debt cost + 4.5 % risk premium = 11.15%). Based on the arithmetic risk premium, Ibbotson's data indicate a cost of equity of 12.5 percent (6.65% forecasted debt cost + 6.2% risk premium = 12.85%).

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 11.8 percent (6.65%

debt cost + 5.13% risk premium = 11.78%). 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.

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

A. The following table summarizes my results:

Summary of Cost of Equity Estimates

DCF Analysis	Indicated Cost
Constant Growth (GDP Growth)	11.2%-11.3%
Multistage Growth Model	10.6%-10.8%
Reasonable DCF Range	10.6%-11.3%
Risk Premium Analysis	**Indicated Cost**
Utility Debt + Risk Premium	
Risk Premium (6.65% + 4.29%)	10.94%
Ibbotson Risk Premium Analysis	
Risk Premium (6.65% + 4.5%)	11.15%
Harris-Marston Risk Premium	
Risk Premium (6.65% + 5.13%)	11.78%
Reference Group Cost of Equity Estimate	11.0%
KCPL Cost of Equity Capital	11.5%

Q. How should these results be interpreted in setting the fair cost of equity for KCPL?

A. Caution should be exercised in interpreting the quantitative DCF and risk premium results, because they are significantly influenced by recent historically low points in the interest rate cycle. The interest rate risk associated with projections for significantly higher rates over the coming year should be considered explicitly.

Additionally, use of a lower DCF range would fail to recognize the ongoing risks and uncertainties that exist in the electric utility industry, as well as the company-specific risks and uncertainties that KCPL is currently facing. These factors indicate that the Company's requested 11.5 percent ROE is a reasonable estimate of the fair cost of equity capital.

Q. Does this conclude your testimony?

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. 06-KCPE-____-____

AFFIDAVIT OF SAMUEL C. HADAWAY

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

Samuel C. Hadaway, being first duly sworn on his oath, states:

1. My name is Samuel C. Hadaway. I am employed by FINANCO, Inc. in Austin, Texas. I have been retained by Great Plains Energy, Inc., the parent company of Kansas City Power & Light Company, as an expert witness to provide cost of capital testimony on behalf of Kansas City Power & Light Company.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Kansas City Power & Light Company consisting of 37 ( ) pages and Schedules SCH-1 through SCH-7, all of which having been prepared 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 best of my knowledge, information and belief.

Samuel C. Hadaway
Samuel C. Hadaway

Subscribed and sworn before me this 30th day of January 2006.

Notary Public

My commission expires: 3/3/08

SHIRLEY FRASHER
My Commission Expires
March 3, 2008

Great Plains Energy
Capital Spending Relative to Net Plant
($millions unless otherwise noted)

No.	Reference Company	2004 Net Plant	Common Shares Outstanding 2005	Common Shares Outstanding 2006	Common Shares Outstanding 2007-2010	Capital Spending Per Share 2005	Capital Spending Per Share 2006	Capital Spending Per Share 2007-2010	Total Capital Spending 2005 -2010	Average Capital Spending Relative to Net Plant
1	Alliant Energy Co.	5,284.6	116.8	117.8	120.8	5.50	5.20	4.95	3,647	
2	Ameren	13,297.0	205.0	207.4	214.6	4.55	4.80	4.65	5,920	
3	American Elec. Pwr.	22,801.0	394.0	394.0	400.0	6.75	8.35	8.25	19,149	
4	CH Energy Group	745.1	15.8	15.8	15.0	4.55	4.70	4.75	431	
5	Cent. Vermont P.S.	299.5	12.3	12.4	13.0	1.55	1.15	1.55	114	
6	Con. Edison	16,106.0	245.0	247.5	255.0	6.45	6.60	5.90	9,232	
7	DTE Energy Co.	10,491.0	178.0	178.0	166.0	5.90	5.60	6.75	6,529	
8	Duquesne Light	1,459.4	78.0	85.0	88.0	2.00	2.40	1.00	712	
9	Empire District	857.0	26.1	27.2	30.0	2.65	3.70	4.25	680	
10	Energy East Corp.	5,662.2	148.0	148.0	148.0	2.60	2.20	2.00	1,894	
11	FirstEnergy	13,478.0	329.8	329.8	329.8	3.30	3.65	3.00	6,250	
12	Green Mtn. Power	232.7	5.3	5.3	5.5	4.65	4.60	2.75	109	
13	Hawaiian Electric	2,422.3	80.8	80.8	81.0	2.60	2.55	2.00	1,064	
14	MGE Energy, Inc.	607.4	20.5	20.5	20.5	4.50	3.95	2.25	358	
15	NiSource Inc.	9,384.7	273.0	274.0	277.0	2.30	2.20	2.00	3,447	
16	NSTAR	3,425.0	106.8	106.8	106.8	3.75	2.95	2.25	1,677	
17	Pinnacle West	7,535.5	98.8	98.8	98.8	9.10	6.40	6.60	4,140	
18	Progress Energy	14,363.0	252.0	254.0	260.0	5.30	5.10	5.10	7,935	
19	Puget Energy, Inc.	4,228.4	115.5	116.0	117.5	5.00	6.45	4.50	3,441	
20	SCANA Corp.	6,762.0	114.8	116.5	121.0	3.80	4.15	3.75	2,735	
21	Southern Co.	28,361.0	745.0	750.0	780.0	3.20	3.45	3.35	15,424	
22	Vectren Corp.	2,156.2	76.2	76.2	76.4	3.90	3.75	3.10	1,530	
23	Westar Energy	3,911.0	87.0	87.9	90.6	2.40	2.90	3.10	1,587	
24	Xcel Energy Inc.	14,096.0	403.0	406.0	435.0	3.10	3.85	2.75	7,597	
	Total	187,966.0							105,600	**56.2%**
	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 2, 2005; (Central), Dec 30, 2005; (West), Nov 11, 2005

*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, 2005 (Est.)

($ in 000's)

CAPITAL COMPONENT	AMOUNT	PERCENT	REQUIRED RETURN	WEIGHTED RETURN
Long-Term Debt (Note 1)	979,024	46.43%	5.42%	2.52%
Preferred Stock	0	0.00%	0.00%	0.00%
Common Equity	1,129,624	53.57%	11.50%	6.16%
	$2,108,648	100.00%		8.68%

Note 1: Includes amounts classified as current liabilities.

GREAT PLAINS ENERGY INCORPORATED
Capitalization
At December 31, 2005 (Est.)

($ in 000's)

CAPITAL COMPONENT	AMOUNT	PERCENT	REQUIRED RETURN	WEIGHTED RETURN
Long-Term Debt (Note 1)	1,145,155	47.44%	5.86%	2.78%
Preferred Stock	39,000	1.62%	4.29%	0.07%
Common Equity	1,229,711	50.94%	11.50%	5.86%
	$2,413,866	100.00%		8.71%

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, 2005 (Est.)

Line	Issue	(a) Initial Offering	(b) Date of Offering	(c) Date of Maturity	(d) Price to Public	(e) Underwriters Discounts & Commissions	(f) Issuance Expense	(g) Net Proceeds to Company	(h) Cost to Company	(i) Long-term Debt Capital Outstanding	(j) Annual Cost of Long-term Debt Capital
	KANSAS CITY POWER & LIGHT ONLY										
	General Mortgage Bonds										
1	Medium Term Notes - Series C (1)	$150,000,000	Various	Various	$150,000,000	$968,050	$572,926 (2)	###########	8.085%	$500,000	$40,427
	Pledged General Mortgage Bonds										
2	EIRR 1992 Series	$31,000,000	9/15/1992	7/1/2017					2.977%	$31,000,000	$922,870
3	EIRR Hawthorn 1993 Series - 4.0% Coupc	$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					2.774%	$40,000,000	$1,109,600
5	MATES Series 1993-B	$39,480,000	12/7/1993	12/1/2023					2.795%	$39,480,000	$1,103,466
6	EIRR La Cygne 1994 Series - 4.05% Coup	$13,982,500	2/23/1994	3/1/2015					3.091%	$13,982,000	$432,184
	EIRR La Cygne 1994 Series - 4.65% Coup	$21,940,000	2/23/1994	3/1/2018					3.102%	$21,940,000	$680,579
	Unsecured Notes										
7	Senior Notes Due 2007 - 6% (3)	$225,000,000	3/13/2002	3/15/2007	$224,538,750	$1,350,000	$327,659	###########	6.325%	$225,000,000	$14,232,304
8	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	###########	6.697%	$150,000,000	$10,045,902
9	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	###########	6.146%	$250,000,000	$15,365,776
10											
11	**Environmental Improvement Revenue Refunding Bonds**										
12	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
13	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
14	Series 1998-C Due 2017-4.65% Coupon	$50,000,000	8/11/1998	10/1/2017					3.474%	$50,000,000	$1,737,000
15	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
16											
17	**Other Long-Term Debt**										
18	Unamortized Discount on Senior Notes									($1,743,656)	$0
19	Loss/(Gain) on Reaquired Debt									$0	$ 784,266
20	Weighted Cost of Interest Rate Management Products									$0	($880,578)
21											
22	**Total KCP&L Long-Term Debt Capital**				**At December 31, 2005 (Est.)**					$979,024,344	$53,088,599
23											
24	**KCP&L Weighted Avg. Cost of Long-Term Debt Capital**				**At December 31, 2005 (Est.)**			5.423%			

KANSAS CITY POWER & LIGHT COMPANY AND GREAT PLAINS ENERGY
Weighted Average Cost of Long-Term Debt Capital
At December 31, 2005 (Est.)

Line	Issue	(a) Initial Offering	(b) Date of Offering	(c) Date of Maturity	(d) Price to Public	(e) Underwriters Discounts & Commissions	(f) Issuance Expense	(g) Net Proceeds to Company	(h) Cost to Company	(i) Long-term Debt Capital Outstanding	(j) Annual Cost of Long-term Debt Capital
	GREAT PLAINS ENERGY ONLY										
	Unsecured Notes										
1	FELINE PRIDES	$163,600,000	6/14/2004	2/16/2009	$163,600,000	$1,063,400	$129,976	###########	8.471%	$163,600,000	$13,858,279
	Affordable Housing Notes										
2	Missouri Affordable Housing Fund VI - NDH	$4,654,773	3/21/1997	5/15/2006					8.360%	$262,426	$21,939
3	Missouri Affordable Housing Fund VI - NDH	$1,134,985	1/29/1998	5/15/2006					7.160%	$78,437	$5,616
4	Missouri Affordable Housing Fund VI - NDH	$6,270,000	1/29/1998	5/15/2006					7.160%	$531,570	$38,060
5	Missouri Affordable Housing Fund IX - NDH	$3,907,767	3/30/1999	10/1/2008					7.600%	$1,351,524	$102,716
6	Boston Financial Tax Credit Fund I - NDH	$1,481,000	3/30/1999	10/1/2006					7.600%	$306,681	$23,308
										$2,530,638	$191,639
7											
8	**Total GPE Only Long-Term Debt Capital**				**At December 31, 2005 (Est.)**					**$166,130,638**	**$14,049,918**
9											
10	**GPE Only Weighted Avg. Cost of Long-Term Debt Capital**				**At December 31, 2005 (Est.)**			8.457%			
	GREAT PLAINS ENERGY										
	Total GPE Long-Term Debt Capital				**At December 31, 2005 (Est.)**					**$1,145,154,982**	**$67,138,517**
	GPE Weighted Avg. Cost of Long-Term Debt Capital				**At December 31, 2005 (Est.)**			5.863%			

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

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KANSAS CITY POWER & LIGHT COMPANY
Capitalization
At September 30, 2006 (Est.)

($ in 000's)

CAPITAL COMPONENT	AMOUNT	PERCENT	REQUIRED RETURN	WEIGHTED RETURN
Long-Term Debt (Note 1)	979,147	42.95%	5.77%	2.48%
Preferred Stock	0	0.00%	0.00%	0.00%
Common Equity before Adjustment	1,248,176			
Equity Adjustment for OCI Related to Pension	(52,649)			
Adusted Common Equity	1,300,825	57.05%	11.50%	6.56%
Total	$2,279,972	100.00%		9.04%

`lote 1: Includes amounts classified as current liabilities.

GREAT PLAINS ENERGY INCORPORATED
Capitalization
At September 30, 2006 (Est.)

($ in 000's)

CAPITAL COMPONENT	AMOUNT	PERCENT	REQUIRED RETURN	WEIGHTED RETURN
Long-Term Debt (Note 1)	1,145,140	44.67%	6.16%	2.75%
Preferred Stock	39,000	1.52%	4.29%	0.07%
Common Equity before Adjustment	1,360,974			
Equity Adjustment for All OCI	(18,699)			
Adusted Common Equity	1,379,673	53.81%	11.50%	6.19%
Total	$2,563,813	100.00%		9.01%

Note 1: Includes amounts classified as current liabilities.

KANSAS CITY POWER & LIGHT COMPANY AND GREAT PLAINS ENERGY
Weighted Average Cost of Long-Term Debt Capital
At September 30, 2006 (Est.)

Line	Issue	(a) Initial Offering	(b) Date of Offering	(c) Date of Maturity	(d) Price to Public	(e) Underwriters Discounts & Commissions	(f) Issuance Expense	(g) Net Proceeds to Company	(h) Cost to Company	(i) Long-term Debt Capital Outstanding	(j) Annual Cost of Long-term Debt Capital
	KANSAS CITY POWER & LIGHT ONLY										
	General Mortgage Bonds										
1	Medium Term Notes - Series C (1)	$150,000,000	Various	Various	$150,000,000	$968,050	$572,926 (2)	###########	8.085%	$500,000	$40,427
	Pledged General Mortgage Bonds										
2	EIRR 1992 Series	$31,000,000	9/15/1992	7/1/2017					3.726%	$31,000,000	$1,155,060
3	EIRR Hawthorn 1993 Series - 4.0% Coupc	$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					3.471%	$40,000,000	$1,388,400
5	MATES Series 1993-B	$39,480,000	12/7/1993	12/1/2023					3.451%	$39,480,000	$1,362,455
6	EIRR La Cygne 1994 Series - 4.05% Coup	$13,982,500	2/23/1994	3/1/2015					4.245%	$13,982,000	$593,536
	EIRR La Cygne 1994 Series - 4.65% Coup	$21,940,000	2/23/1994	3/1/2018					4.813%	$21,940,000	$1,055,972
	Unsecured Notes										
7	Senior Notes Due 2007 - 6% (3)	$225,000,000	3/13/2002	3/15/2007	$224,538,750	$1,350,000	$327,659	###########	6.325%	$225,000,000	$14,232,304
8	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	###########	6.697%	$150,000,000	$10,045,902
9	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	###########	6.146%	$250,000,000	$15,365,776
10											
11	**Environmental Improvement Revenue Refunding Bonds**										
12	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
13	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
14	Series 1998-C Due 2017-4.65% Coupon	$50,000,000	8/11/1998	10/1/2017					4.837%	$50,000,000	$2,418,500
15	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
16											
17	**Other Long-Term Debt**										
18	Unamortized Discount on Senior Notes									($1,621,283)	$0
19	Loss/(Gain) on Reaquired Debt									$0	$ 784,266
20	Weighted Cost of Interest Rate Management Products									$0	$530,180
21											
22	**Total KCP&L Long-Term Debt Capital**				**At September 30, 2006 (Est.)**					$979,146,717	$56,487,581
23											
24	**KCP&L Weighted Avg. Cost of Long-Term Debt Capital**				**At September 30, 2006 (Est.)**			5.769%			

KANSAS CITY POWER & LIGHT COMPANY AND GREAT PLAINS ENERGY
Weighted Average Cost of Long-Term Debt Capital
At September 30, 2006 (Est.)

Line	Issue	(a) Initial Offering	(b) Date of Offering	(c) Date of Maturity	(d) Price to Public	(e) Underwriters Discounts & Commissions	(f) Issuance Expense	(g) Net Proceeds to Company	(h) Cost to Company	(i) Long-term Debt Capital Outstanding	(j) Annual Cost of Long-term Debt Capital
	GREAT PLAINS ENERGY ONLY										
	Unsecured Notes										
1	FELINE PRIDES	$163,600,000	6/14/2004	2/16/2009	$163,600,000	$1,063,400	$129,976	###########	8.471%	$163,600,000	$13,858,279
	Affordable Housing Notes										
2	Missouri Affordable Housing Fund IX - NDH	$3,907,767	3/30/1999	10/1/2008					7.600%	$1,811,327	$137,661
3	Boston Financial Tax Credit Fund I - NDH	$1,481,000	3/30/1999	10/1/2006					7.600%	$581,660	$44,206
										$2,392,987	$181,867
4											
5	**Total GPE Only Long-Term Debt Capital**				**At September 30, 2006 (Est.)**					**$165,992,987**	**$14,040,146**
6											
7	**GPE Only Weighted Avg. Cost of Long-Term Debt Capital**				**At September 30, 2006 (Est.)**			**8.458%**			

GREAT PLAINS ENERGY

Total GPE Long-Term Debt Capital	**At September 30, 2006 (Est.)**			**$1,145,139,704**	**$70,527,727**
GPE Weighted Avg. Cost of Long-Term Debt Capital	**At September 30, 2006 (Est.)**	**6.159%**			

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

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GREAT PLAINS ENERGY INCORPORATED

Weighted Cost of Preferred Stock Capital Outstanding at
September 30, 2006 (Est.)

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Line	Description of Issue	Date of Issuance	No. of Shares Initial Offering	Price to Public	Underwriters Discounts & Commissions	Issuance Expense	Net Proceeds to Company	Cost to Company	Preferred Stock Capital Outstanding	Annual Cost of Preferred Stock Capital
1	3.80% cum $100 par	12-01-46	100,000	##########	$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 Capital September 30, 2006 (Est.)**								$39,000,000	$1,673,610
6	Weighted Average Cost at September 30, 2006 (Est.)						4.291%			

Great Plains Energy
Historical Capital Market Costs

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005*
Prime Rate	8.3%	8.4%	8.4%	8.0%	9.2%	6.9%	4.7%	4.1%	4.3%	5.9%
Consumer Price Index	2.9%	2.3%	1.6%	2.2%	3.4%	2.8%	1.6%	2.3%	2.7%	3.3%
Long-Term Treasuries	6.7%	6.6%	5.6%	5.9%	5.9%	5.5%	5.4%	5.0%	5.1%	4.6%
Moody's Avg Utility Debt	7.7%	7.6%	7.0%	7.6%	8.1%	7.7%	7.5%	6.6%	6.2%	5.7%
Moody's A Utility Debt	7.8%	7.6%	7.0%	7.6%	8.2%	7.8%	7.4%	6.6%	6.2%	5.6%

*Through September.

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

Great Plains Energy
Three-Month Average Moody's Utility Bond Yields

MONTH	MOODY'S TRIPLE-B UTILITY BOND YIELD	MOODY'S AVERAGE UTILITY BOND YIELD
Oct-05	6.08%	5.79%
Nov-05	6.29%	5.99%
Dec-05	6.14%	5.81%
AVERAGE	6.17%	5.86%

Source: Mergent Bond Record

Economic Indicators

Seasonally Adjusted Annual Rates — Dollar Figures in Billions

2004	E2005	E2006	Annual % Change 2004	Annual % Change E2005	Annual % Change E2006		2005 2Q	2005 P3Q	2005 E4Q	E2006 1Q	E2006 2Q	E2006 3Q	E2006 4Q	E2007 1Q
						Gross Domestic Product								
$11,734.3	$12,492.0	$13,235.0	7.0	6.5	6.0	GDP (current dollars)	$12,378.0	$12,601.0	$12,790.0	$12,997.0	$13,169.0	$13,314.0	$13,459.0	$13,601.0
7.0	6.5	6.0	-	-	-	Annual rate of increase (%)	6.0	7.4	6.1	6.6	5.4	4.5	4.4	4.3
4.2	3.7	3.4	-	-	-	Annual rate of increase–real GDP (%)	3.3	4.3	3.5	3.7	3.0	2.8	2.7	2.5
2.6	2.7	2.4	-	-	-	Annual rate of increase–GDP deflator (%)	2.6	3.0	2.4	2.8	2.4	1.6	1.7	1.8
						***Components of Real GDP**								
$7,588.6	$7,857.0	$8,102.0	3.9	3.5	3.1	Personal consumption expenditures	$7,830.0	$7,911.0	$7,923.0	$7,987.0	$8,067.0	$8,140.0	$8,215.0	$8,269.0
3.9	3.5	3.1	-	-	-	% change	3.4	4.3	0.6	3.3	4.1	3.7	3.8	2.6
1,089.9	1,140.5	1,163.3	6.0	4.6	2.0	Durable goods	1,143.9	1,172.7	1,122.9	1,133.7	1,153.4	1,173.6	1,192.4	1,198.9
2,200.4	2,296.9	2,376.6	4.7	4.4	3.5	Nondurable goods	2,285.9	2,306.3	2,329.7	2,346.6	2,368.5	2,386.8	2,404.6	2,418.9
4,310.9	4,436.1	4,576.6	3.0	2.9	3.2	Services	4,417.6	4,454.0	4,480.8	4,517.9	4,558.1	4,594.8	4,635.5	4,668.1
1,186.7	1,291.3	1,422.8	9.4	8.8	10.2	Nonresidental fixed investment	1,279.0	1,306.1	1,328.0	1,371.2	1,411.4	1,446.5	1,462.1	1,465.7
9.4	8.8	10.2	-	-	-	% change	8.8	8.7	6.9	13.7	12.3	10.3	4.4	1.0
947.6	1,052.6	1,152.8	11.9	11.1	9.5	Producers durable equipment	1,040.9	1,068.0	1,087.1	1,118.5	1,142.4	1,165.0	1,185.3	1,194.4
552.9	593.8	576.4	10.3	7.4	(2.9)	Residental fixed investment	590.0	602.1	608.4	606.0	583.1	565.1	551.6	544.7
10.3	7.4	(2.9)	-	-	-	% change	11.0	8.5	4.2	(1.6)	(14.3)	(11.8)	(9.2)	(4.9)
52.0	21.8	30.0	-	-	-	Net change in business inventories	(1.7)	(13.4)	44.1	41.9	30.5	25.3	22.4	26.3
1,952.3	1,992.8	2,027.5	2.2	2.1	1.7	Gov't purchases of goods & services	1,984.1	1,999.7	2,015.4	2,021.7	2,023.9	2,028.5	2,036.1	2,045.5
723.7	744.9	763.9	5.2	2.9	2.6	Federal	736.1	750.6	761.3	763.1	763.9	763.8	764.8	765.2
1,228.4	1,247.6	1,263.4	0.4	1.6	1.3	State & local	1,247.8	1,248.9	1,254.0	1,258.4	1,259.8	1,264.5	1,271.1	1,280.0
(601.3)	(629.5)	(637.5)	-	-	-	Net exports	(614.2)	(621.3)	(637.3)	(638.5)	(635.1)	(638.0)	(638.4)	(628.5)
1,117.9	1,195.2	1,278.0	8.4	6.9	6.9	Exports	1,195.4	1,197.9	1,222.1	1,245.7	1,268.7	1,287.7	1,309.7	1,338.3
1,719.2	1,824.7	1,915.5	10.7	6.1	5.0	Imports	1,809.6	1,819.1	1,859.4	1,884.2	1,903.8	1,925.7	1,948.2	1,966.8
						****Income & Profits**								
$9,713.3	$10,240.0	$10,864.0	5.9	5.4	6.1	Personal income	$10,186.0	$10,260.0	$10,440.0	$10,612.0	$10,784.0	$10,952.0	$11,107.0	$11,261.0
8,664.2	9,031.0	9,567.0	6.1	4.2	5.9	Disposable personal income	8,980.0	9,043.0	9,200.0	9,354.0	9,503.0	9,643.0	9,769.0	9,863.0
1.7	(0.4)	0.1	-	-	-	Savings rate (%)	(0.3)	(1.5)	(0.5)	(0.2)	0.0	0.2	0.2	0.1
1,059.4	1,446.3	1,537.6	13.0	36.5	6.3	Corporate profits before taxes	1,412.2	1,395.9	1,598.7	1,590.4	1,539.2	1,517.4	1,503.5	1,485.4
788.2	1,066.4	1,123.3	11.8	35.3	5.3	Corporate profits after taxes	1,039.7	1,032.4	1,178.0	1,162.8	1,123.2	1,108.0	1,099.2	1,086.8
58.55	68.00	73.60	20.2	16.4	8.1	‡Earnings per share (S&P 500)	63.32	66.94	68.10	71.40	72.70	73.30	73.60	72.70
						†Prices & Interest Rates								
2.7	3.4	2.4	-	-	-	Consumer price index	4.2	5.1	3.0	2.2	1.3	1.0	1.4	1.3
1.4	3.2	4.5	-	-	-	Treasury bills	2.9	3.4	3.9	4.3	4.6	4.6	4.6	4.6
4.3	4.3	5.1	-	-	-	10-yr notes	4.2	4.2	4.5	4.8	5.1	5.2	5.2	5.2
5.1	4.6	5.2	-	-	-	30-yr bonds	4.5	4.4	4.7	5.0	5.3	5.3	5.3	5.4
5.6	5.3	6.1	-	-	-	New issue rate–corporate bonds	6.2	5.1	5.4	5.8	6.2	6.3	6.3	6.3
						Other Key Indicators								
1,949.7	2,060.0	1,880.0	5.2	5.6	(8.6)	Housing starts (1,000 units SAAR)	2,040.0	2,090.0	2,010.0	1,980.0	1,870.0	1,840.0	1,830.0	1,820.0
16.9	16.8	16.5	1.3	(0.4)	(2.0)	Auto & truck sales (1,000,000 units)	17.2	17.9	15.5	16.1	16.4	16.6	16.7	16.5
5.5	5.1	4.9	-	-	-	Unemployment rate (%)	5.1	5.0	5.0	4.9	4.8	4.8	4.9	4.9
(8.2)	(1.7)	(1.0)	-	-	-	§U.S. dollar	11.6	5.6	7.7	(4.2)	(4.7)	(9.3)	(9.5)	(9.5)

Note: Annual changes are from prior year and quarterly changes are from prior quarter. Figures may not add to totals because of rounding. A–Advance data. P–Preliminary. E–Estimated. R–Revised. *1996 Chain-weighted dollars. **Current dollars. ‡Trailing 4 quarters. †Average for period. §Quarterly % changes at quarterly rates. This forecast prepared by Standard & Poor's.

Great Plains Energy
Discounted Cash Flow Analysis
Summary Of DCF Model Results

Company	Traditional Constant Growth DCF Model	Constant Growth DCF Model Long-Term GDP Growth	Low Near-Term Growth Two-Stage Growth DCF Model
1 Alliant Energy Co.	9.1%	10.5%	10.0%
2 Ameren	9.2%	11.5%	10.7%
3 American Elec. Pwr.	8.0%	10.6%	10.6%
4 CH Energy Group	9.4%	11.2%	10.5%
5 Cent. Vermont P.S.	9.4%	11.7%	10.9%
6 Con. Edison	8.5%	11.6%	10.9%
7 DTE Energy Co.	11.6%	11.3%	10.6%
8 Duquesne Light	10.5%	12.6%	11.6%
9 Empire District	10.6%	12.7%	11.8%
10 Energy East Corp.	9.7%	11.6%	11.3%
11 FirstEnergy	10.5%	10.4%	10.2%
12 Green Mtn. Power	8.4%	10.3%	10.5%
13 Hawaiian Electric	8.6%	11.3%	10.5%
14 MGE Energy, Inc.	10.0%	10.6%	10.0%
15 NiSource Inc.	7.6%	10.7%	10.3%
16 NSTAR	8.8%	10.9%	10.5%
17 Pinnacle West	9.4%	11.4%	11.2%
18 Progress Energy	10.0%	12.2%	11.4%
19 Puget Energy, Inc.	9.9%	11.3%	11.0%
20 SCANA Corp.	9.3%	10.7%	10.5%
21 Southern Co.	9.3%	11.0%	10.7%
22 Vectren Corp.	9.2%	11.1%	10.7%
23 Westar Energy	8.7%	10.9%	10.6%
24 Xcel Energy Inc.	10.1%	11.3%	11.2%
GROUP AVERAGE	9.4%	11.2%	10.8%
GROUP MEDIAN	9.3%	11.3%	10.6%

Sources: Value Line Investment Survey, Electric Utility (East), Dec 2, 2005; (Central), Dec 30, 2005; (West), Nov 11, 2005

NOTE: SEE PAGE 5 OF THIS SCHEDULE FOR FURTHER EXPLANATION OF EACH COLUMN.

Great Plains Energy

Comparison of Comparable Group Projected Growth Rates

2001 to 2005

		Value Line Earnings		
No.	Company	2001	2005	
1	Alliant Energy Co.	6.5%	6.5%	
2	Ameren	4.0%	2.5%	
3	American Elec. Pwr.	NA	2.0%	
4	CH Energy Group	3.0%	4.5%	
5	Cent. Vermont P.S.	17.0%	2.5%	
6	Con. Edison	2.5%	1.5%	
7	DTE Energy Co.	8.5%	8.5%	
8	Duquesne Light	-2.0%	3.0%	
9	Empire District	5.0%	5.0%	
10	Energy East Corp.	3.5%	4.5%	
11	FirstEnergy	8.0%	10.0%	
12	Green Mtn. Power	NA	3.5%	
13	Hawaiian Electric	5.0%	2.5%	
14	MGE Energy, Inc.	NA	6.0%	
15	NiSource Inc.	16.0%	0.5%	
16	NSTAR	6.5%	2.5%	
17	Pinnacle West	5.5%	3.5%	
18	Progress Energy	NA	NA	
19	Puget Energy, Inc.	2.0%	5.5%	
20	SCANA Corp.	8.0%	4.5%	
21	Southern Co.	6.5%	4.0%	
22	Vectren Corp.	15.5%	4.0%	
23	Westar Energy	0.0%	5.5%	
24	Xcel Energy Inc.	15.0%	7.5%	% Points Decline
	Average	6.8%	4.3%	2.5%

		Value Line "br"		
No.	Company	2001	2005	
1	Alliant Energy Co.	3.1%	4.0%	
2	Ameren	4.0%	2.3%	
3	American Elec. Pwr.	6.9%	4.4%	
4	CH Energy Group	3.9%	3.0%	
5	Cent. Vermont P.S.	5.7%	3.8%	
6	Con. Edison	3.7%	2.0%	
7	DTE Energy Co.	8.2%	7.2%	
8	Duquesne Light	6.7%	3.6%	
9	Empire District	3.6%	1.4%	
10	Energy East Corp.	6.3%	3.1%	
11	FirstEnergy	7.6%	5.5%	
12	Green Mtn. Power	6.7%	4.0%	
13	Hawaiian Electric	4.2%	3.0%	
14	MGE Energy, Inc.	N/A	5.4%	
15	NiSource Inc.	8.1%	3.5%	
16	NSTAR	6.5%	3.9%	
17	Pinnacle West	6.0%	2.1%	
18	Progress Energy	6.5%	2.6%	
19	Puget Energy, Inc.	2.4%	3.3%	
20	SCANA Corp.	5.8%	4.6%	
21	Southern Co.	4.1%	4.4%	
22	Vectren Corp.	7.0%	3.4%	
23	Westar Energy	4.6%	3.2%	
24	Xcel Energy Inc.	6.2%	3.0%	% Points Decline
	Average	5.6%	3.6%	1.9%

Data Sources:

Electric: Value Line Investment Survey, Electric Utility (East), Dec 2, 2005 & Dec 7, 2001; (Central), Dec 30, 2005 & Oct 5, 2001; (West), Nov 11, 2005 & Nov 16, 2001.

Great Plains Energy
GDP Growth Analysis

	Nominal GDP	% Change	GDP Price Deflator	% Change	CPI	% Change
1947	250.0		15.8		22.5	
1948	271.6	8.7%	16.5	4.6%	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	556.7	5.7%	21.4	1.2%	29.9	0.9%
1962	592.2	6.4%	21.6	1.2%	30.3	1.3%
1963	629.6	6.3%	21.9	1.2%	30.7	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	2628.5	10.8%	50.6	8.7%	73.4	11.6%
1980	2871.4	9.2%	55.4	9.4%	83.2	13.3%
1981	3162.0	10.1%	60.1	8.6%	91.5	10.1%
1982	3304.1	4.5%	63.4	5.5%	96.8	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%	90.7	2.1%	148.6	2.6%
1995	7479.1	4.3%	92.6	2.0%	152.7	2.8%
1996	7939.3	6.2%	94.3	1.9%	157.3	3.0%
1997	8422.6	6.1%	95.7	1.5%	160.7	2.2%
1998	8867.0	5.3%	96.8	1.2%	163.2	1.6%
1999	9409.1	6.1%	98.4	1.6%	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%	189.3	2.8%
10-Year Average		5.2%		1.9%		2.5%
20-Year Average		5.6%		2.4%		3.0%
30-Year Average		7.1%		3.8%		4.6%
40-Year Average		7.5%		4.1%		4.7%
50-Year Average		7.1%		3.7%		4.0%
57-Year Average		7.1%		3.5%		3.8%
Average of Periods		6.6%		3.2%		3.8%

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

Great Plains Energy

Risk Premium Analysis

	MOODY'S AVERAGE PUBLIC UTILITY BOND YIELD (1)	AUTHORIZED ELECTRIC RETURNS (2)	INDICATED RISK 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%	11.41%	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%	10.73%	4.53%
2005	5.68%	10.54%	4.86%
AVERAGE	9.48%	[illegible]	

INDICATED COST OF EQUITY

PROJECTED TRIPLE-B UTILITY BOND YIELD*	6.65%
MOODY'S AVG ANNUAL YIELD DURING STUDY	9.48%
INTEREST RATE DIFFERENCE	-2.83%
INTEREST RATE CHANGE COEFFICIENT	-42.53%
ADUSTMENT TO AVG RISK PREMIUM	1.20%
BASIC RISK PREMIUM	3.08%
INTEREST RATE ADJUSTMENT	1.20%
EQUITY RISK PREMIUM	4.29%
PROJECTED TRIPLE-B UTILITY BOND YIELD*	6.65%
INDICATED EQUITY RETURN	**10.94%**

Sources:

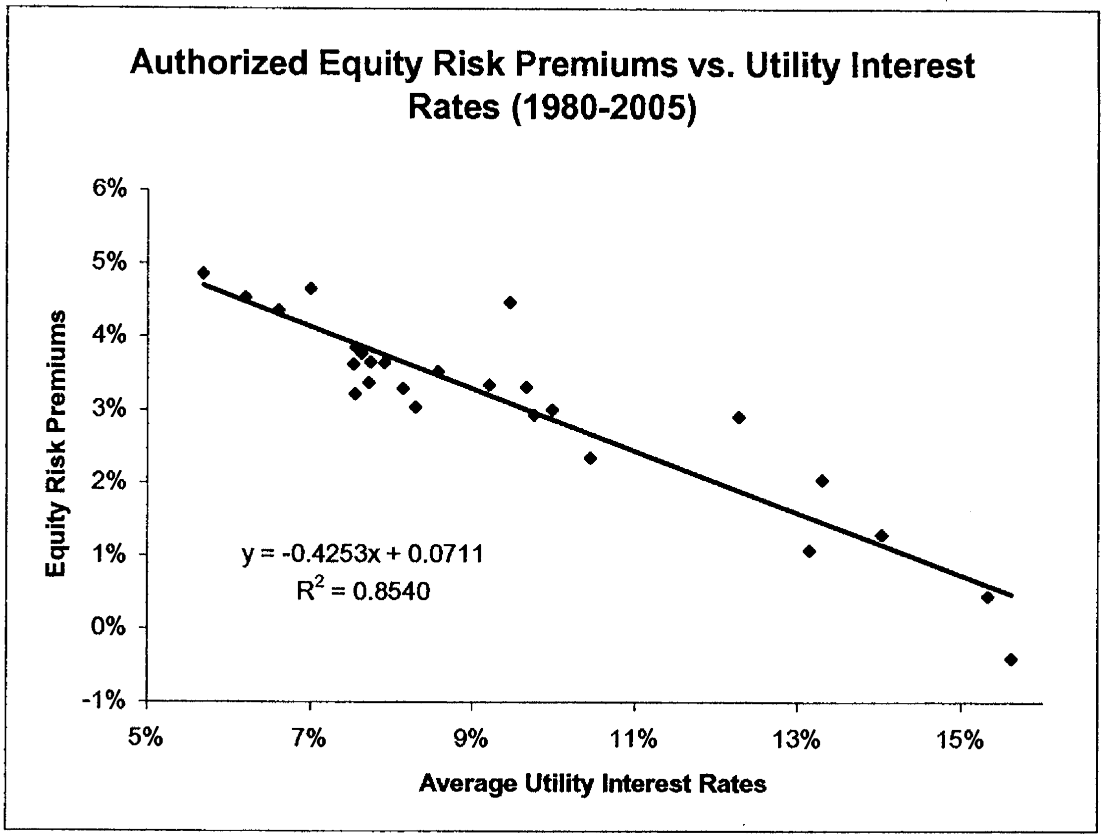
(1) Moody's Investors Service

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

*Projected triple-B utility bond yield is 125 basis points over projected long-term Treasury rate from page 3 of Exhibit SCH-4.

Great Plains Energy

Risk Premium Analysis



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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

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

The University of Texas at Austin
MBA, Finance
June 1973

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

Southern Methodist University
BA, Economics
June 1969

Honors program. Departmental distinction.

OTHER EXPERIENCE

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

Corporate Financial Management, Investments, and Integrative Finance Cases.

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

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

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

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

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

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

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

Cost of Money Testimony:

- California Public Utilities Commission, Docket No. 05-11-022, November 29, 2005 (PacifiCorp).
- New Hampshire Public Utilities Commission, Docket No. DE 05-178, November 4, 2005 (Unitil Energy Systems).
- Wyoming Public Service Commission, Docket No. 20000-ER-05-230, October 14, 2005 (PacifiCorp).
- Minnesota Public Utilities Commission, Docket. No. G-008/GR-05-1380, October 2005 (CenterPoint Energy Minnegasco).
- Texas Railroad Commission, Gas Utilities Division No. 9625, September 2005 (CenterPoint Energy Entex).
- Illinois Commerce Commission, Docket No. 05-0597, August 31, 2005 (Commonwealth Edison Company).
- Washington Utilities and Transportation Commission, Docket ,UE-050684/General Rate Case, May 2005 (PacifiCorp).
- Missouri Public Service Commission, Case No. ER-2005-0436, May 2005 (Aquila, Inc.).
- Louisiana Public Service Commission, Docket No. U-23327, January 18, 2005 (Southwestern Electric Power Company, American Electric Power Company)
- Idaho Public Utilities Commission, Case No. PAC-E-05-1, January 14, 2005 (PacifiCorp).
- Arkansas Public Service Commission, Docket No. 04-121-U, December 3, 2004 (CenterPoint Energy Arkla).
- Oregon Public Utility Commission, Case No. UE-170, November 12, 2004 (PacifiCorp).
- Texas Public Utility Commission, Docket No. 29206, November 8, 2004 (Texas-New Mexico Power Company).
- Texas Railroad Commission, Gas Utilities Division Nos. 9533 and 9534, October 13, 2004 (CenterPoint Energy Entex).
- Texas Public Utility Commission, Docket No. 29526, August 18 and September 2, 2004 (CenterPoint Energy Houston Electric).
- Utah Public Service Commission, Docket No. 04-2035-, August 4, 2004 (PacifiCorp).
- Oklahoma Corporation Commission, Cause No. PUD-200400187, July 2, 2004, (CenterPoint Energy Arkla).
- Minnesota Public Utilities Commission, Docket No. G-008/GR-04-901, July 2004, (CenterPoint Energy Minnegasco).
- Washington Utilities and Transportation Commission, Docket ,UE-032065/General Rate Case, December 2003 (PacifiCorp).
- Washington Utilities and Transportation Commission, Docket ,UG-031885, November 2003 (Northwest Natural Gas Company.).
- Wyoming Public Service Commission, Docket No. 20000-ER-03-198, May 2003 (PacifiCorp).
- Public Service Commission of Utah, Docket No. 03-2035-02, May 2003 (PacifiCorp).
- Public Utility Commission of Oregon, Case. UE-147, March 2003 (PacifiCorp).
- Wyoming Public Service Commission, Docket No. 20000-ER-00-162, May 2002 (PacifiCorp).
- Public Utility Commission of Oregon, UG-152, November 2002 (Northwest Natural).
- Massachusetts Department of Telecommunications and Energy, D.T.E. 02-24/24, May 2002 (Fitchburg Gas and Electric Light Company).
- New Hampshire Public Utilities Commission, Docket No. DE 01-247, January 2002 (Unitil Corporation).
- Washington Utilities and Transportation Commission, Docket UE-011569,70,UG-011571, November 2001 (Puget Sound Energy, Inc.).

- California Public Utilities Commission, Docket No. 01-03-026, September and December 2001 (PacifiCorp).
- New Mexico Public Regulation Commission, Docket No. 3643, July 2001 (Texas-New Mexico Power Company).
- Texas Natural Resources Conservation Commission, Docket No. 2001-1074/5-URC, May 2001 (AquaSource Utility, Inc.).
- Massachusetts Department of Telecommunications and Energy, Docket No. 99-118, May 2001 (Fitchburg Gas and Electric Light Company).
- Public Service Commission of Utah, Docket No. 01-035-01, January 2001 (PacifiCorp)
- Federal Energy Regulatory Commission, Docket No. ER-01-651, January 2001 (Southwestern Electric Power Company).
- Wyoming Public Service Commission, Docket No. 20000-ER-00-162, December 2000 (PacifiCorp).
- Public Utility Commission of Oregon, Case. UE-116, November 2000, (PacifiCorp)
- Public Utility Commission of Texas, Docket No. 22344, September 2000, (AEP Texas Companies, Entergy Gulf States, Inc., Reliant Energy HL&P, Texas-New Mexico Power Company, TXU Electric Company)
- Public Utility Commission of Oregon, Case UE-111, August 2000, (PacifiCorp)
- Texas Public Utility Commission, Docket Nos. 22352,3,4, March 2000 (Central Power and Light Co., Southwestern Electric Power Co., West Texas Utilities Co.).
- Texas Public Utility Commission, Docket No. 22355, March 2000 (Reliant Energy, Inc.).
- Texas Public Utility Commission, Docket No. 22349, March 2000 (Texas-New Mexico Power Co.).
- Texas Public Utility Commission, Docket No. 22350, March 2000 (TXU Electric).
- Washington Utilities and Transportation Commission, Docket UE-991831, November 1999 (PacifiCorp).
- Public Service Commission of Utah, Docket No. 99-035-10, September 1999 (PacifiCorp)
- Louisiana Public Service Commission Docket No. U-23029, August 1999 (Southwestern Electric Power Company)
- Wyoming Public Service Commission, Docket No. 2000-ER-99-145, July 1999, January 2000 (PacifiCorp, dba Pacific Power and Light Company).
- Texas PUC Docket No. 20150, March 1999 (Entergy Gulf States, Inc.)
- Federal Energy Regulatory Commission Docket No. ER-98-3177-00, May and December 1998 (Southwestern Electric Power Company).
- Public Service Commission of Utah, Docket No. 97-035-01, June 1998 (PacifiCorp, dba Utah Power and Light Company).
- Massachusetts Dept. of Telecommunications and Energy, Docket No. DTE 98-51, May 1998, (Fitchburg Gas and Electric Light Company, a subsidiary of Unitil Corp.)
- Texas PUC, Docket No. 18490, March 1998, (Texas Utilities Electric Company)
- Texas PUC Docket No. 17751, March 1998 and July 1997 (Texas-New Mexico Power Company).
- Federal Energy Regulatory Commission Docket No. RP-97, February 1998 and May 1997 (Koch Gateway Pipeline Company).
- Federal Energy Regulatory Commission Docket No. ER-97-4468-000, December 1997 (Puget Sound Power & Light).
- Oklahoma Corporation Commission, Cause No. PUD 960000214, August 1997 (Public Service Company of Oklahoma).
- Oregon Public Utility Commission Docket No. UE-94, April 1996, (PacifiCorp).
- Texas PUC Docket No. 15643, May and September 1996, (Central Power and Light and West Texas Utilities Company).
- Federal Energy Regulatory Commission Docket No. ER-96, April 1996 (Puget Sound Power & Light).

- Federal Energy Regulatory Commission Docket No. ER96, February 1996, (Central and South West Corporation).
- Washington Utilities & Transportation Commission Docket No. UE-951270, November 1995 (Puget Sound Power & Light).
- Texas PUC Docket No. 14965, November 1995, (Central Power and Light).
- Texas PUC Docket No. 13369, February 1995 (West Texas Utilities).
- Texas PUC Docket No. 12065, July and December 1994, (Houston Lighting & Power).
- Texas PUC, Docket No. 12820, July and November 1994, (Central Power and Light).
- Texas PUC Docket No. 12900, March 1994, and New Mexico PUC Case No. 2531, August 1993, (TNP Enterprises).
- Texas PUC, Docket No. 12815, March 1994, (Pedernales Electric Cooperative).
- Florida Public Service Commission, Docket No. 930987-EI, December 1993, (TECO Energy).
- Iowa Department of Commerce, Docket No. RPU-93-9, December 1993, (US West Communications).
- Texas PUC Dkt. No. 11735, May and September 1993, (Texas Utilities Electric Company)
- Oklahoma Corporation Commission, Cause No. PUD 001342, October 1992 (Public Service Company of Oklahoma).
- Texas PUC Dkt. No. 9983, November 1991, (Southwest Texas Telephone Company).
- Texas PUC Dkt. No. 9850, November 1990, Houston Lighting & Power Company).
- Texas PUC Dkt. Nos. 8480/8482, January 1989; City of Austin Dkt. No. 1, August 1988 and July 1987, (City of Austin Electric Department).
- Missouri Public Service Commission Case No. ER-90-101, July 1990 (UtiliCorp).
- Texas PUC Dkt. No. 9945, December 1990; Texas PUC Dkt. No. 9165, November 1989, (El Paso Electric Company).
- Texas PUC Dkt. No. 9427, July 1990, (Lower Colorado River Authority Association of Wholesale Customers).
- Oregon Public Utility Commission, March 1990, (Pacific Power & Light Company).
- Utah Public Service Commission, November 1989, (Utah Power & Light Company).
- Texas PUC Dkt. No. 5610, September 1988, (GTE Southwest).
- Iowa State Utilities Board, September 1988, (Northwestern Bell Telephone Company).
- Texas Water Commission, Dkt. Nos. RC-022 and RC-023, November 1986, (City of Houston Water Department).
- Pennsylvania PUC Dkt. Nos. R-842770 and R-842771, May 1985, (Bethlehem Steel).

Capital Structure Testimony:

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

Regulatory Policy and Other Regulatory Issues:

- Texas PUC Docket No.31056, September 16, 2005, (AEP Texas Central Company).
- New Hampshire PUC Docket No. DE 03-086, May 2003, (Unitil Corporation).
- Texas PUC Docket No. 26194, May 2003 (El Paso Electric Company)

- Texas PUC Docket No. 22622, June 15, 2001 (TXU Electric)
- Texas PUC Docket No. 20125, November 1999 (Entergy Gulf States, Inc.)
- Texas PUC Docket No. 21112, July 1999 and New Mexico Public Regulation Commission Case No. 3103, July 1999 (Texas-New Mexico Power Company)
- Texas PUC Docket No. 20292, May 1999 (Central Power and Light Co.)
- Texas PUC Docket No. 20150, November 1998 (Entergy Gulf States, Inc.)
- New Mexico PUC Case No. 2769, May 1997, (Texas-New Mexico Power Company).
- Texas PUC Dkt. No. 15296, September 1996, (City of College Station, Texas).
- Texas PUC Dkt. No. 14965 Competitive Issues Phase, August 1996 (Central Power and Light Company).
- Texas PUC Dkt. No. 12456, May 1994, (Texas Utilities Electric Company).
- Texas PUC, Dkt. No. 12700/12701 and Federal Energy Regulatory Commission, Docket No. EC94-000, January 1994, (El Paso Electric Company).
- Florida Public Service Commission Generic Purchased Power Proceedings, October 1993 (TECO Energy).
- Texas PUC, Docket No. 11248, December 1992 (Barbara Faskins).
- Texas PUC Dkt. No. 10894, January and June 1992, (Gulf States Utilities Company).
- State Corporation Commission of Kansas, Dkt. No. 175,456-U, August 1991, (UtiliCorp United).
- Texas PUC Dkt. No. 9561, May 1990; Texas PUC Dkt. Nos. 6668/8646, July 1989 and February 1990, (Central Power and Light Company).
- Texas PUC Dkt. No. 9300, April 1990 and June 1990, (Texas Utilities Electric Co.).
- Texas PUC Dkt. No. 10200, August 1991, (Texas-New Mexico Power Company).
- Texas PUC Dkt. No. 7289, May 1987, (West Texas Utilities Company).
- Texas PUC Dkt. No. 7195, January 1987, (North Star Steel Texas).
- New Mexico PSC Case No. 1916, April 1986, (Public Service Company of New Mexico).
- Texas PUC Dkt. No. 6525, March 1986, (North Star Steel Texas).
- Texas PUC Dkt. No. 6375, November 1985, (Valley Industrial Council).
- Texas PUC Dkt. No. 6220, April 1985, (North Star Steel Texas).
- Texas PUC Dkt. No. 5940, March 1985, (West Texas Municipal Power Agency).
- Texas PUC Dkt. No. 5820, October 1984, (North Star Steel Texas).
- Texas PUC Dkt. No. 5779, September 1984, (Texas Industrial Energy Consumers).
- Texas PUC Dkt. No. 5560, April 1984, (North Star Steel Texas).
- Arizona PSC Dkt. No. U-1345-83-155, January 1984 and May 1984 (Arizona Public Service Company Shareholders Association).

Insurance Rate Testimony:

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

Testimony On Behalf Of Texas PUC Staff:

- Texland Electric Cooperative, Dkt. No. 3896, February 1983

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

ECONOMIC ANALYSIS AND TESTIMONY

Antitrust Litigation:

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

Contract Litigation:

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

Lender Liability/Securities Litigation:

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

Personal Injury/Wrongful Death/Lost Earnings Capacity Litigation:

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

Product Warranty/Liability Litigation:

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

Property Tax Litigation:

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

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

PROFESSIONAL PRESENTATIONS

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

"Fundamentals of Finance and Accounting," the IC^2 Institute, University of Texas at Austin, December 1996 and 1997.

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

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

"Financial Modeling: Testing the Reasonableness of Regulatory Results," University of Texas Center for Legal and Regulatory Studies Conference, June 1991.

"Estimating the Cost of Equity Capital," University of Texas at Austin Utilities Conference, June 1989, June 1990.

"Regulation: The Bottom Line," Texas Society of Certified Public Accountants, Annual Utilities Conference, Austin, Texas, April 1990.

"Alternative Treatments of Large Plant Additions -- Modeling the Alternatives," University of Texas at Dallas Public Utilities Conference, July 1989.

"Industrial Customer Electrical Requirements," Edison Electric Institute Financial Conference, Scottsdale, Arizona, October 1988.

"Acquisitions and Consolidations in the Electric Power Industry," Conference on Emerging Issues of Competition in the Electric Utility Industry, University of Texas at Austin, May 1988.

"The General Fund Transfer - Is It A Tax? Is It A Dividend Payout? Is It Fair?" The Texas Public Power Association Annual Meeting, Austin, May 1984.

"Avoiding 'Rate Shock' - Preoperational Phase-In Through CWIP in Rate Base," Edison Electric Institute, Finance Committee Annual Meeting, May 1983.

"A Cost-Benefit Analysis of Alternative Bond Ratings Among Electric Utility Companies in Texas," (with B.L. Heidebrecht and J.L. Nash), Texas Senate Subcommittee on Consumer Affairs, December 1982.

"Texas PUC Rate of Return and Construction Work in Progress Methods," New York Society of Security Analysts, New York, August 1982.

"In Support of Debt Service Requirements as a Guide to Setting Rates of Return for Subsidiaries," Financial Forum, National Society of Rate of Return Analysts, Washington, D.C., May 1982.

PUBLICATIONS

"Institutional Constraints on Public Fund Performance," (with B.L. Hadaway) *Journal of Portfolio Management,* Winter 1989.

"Implications of Savings and Loan Conversions in a Deregulated World," (with B.L. Hadaway) *Journal of Bank Research*, Spring 1984.

"Regulatory Treatment of Construction Work in Progress," abstract, (with B.L. Heidebrecht and J. L. Nash), *Rate & Regulation Review*, Edison Electric Institute, December 20, 1982.

"Financial Integrity and Market-to-Book Ratios in an Efficient Market," (with W. L. Beedles), *Gas Pricing & Ratemaking*, December 7, 1982.

"An Analysis of the Performance Characteristics of Converted Savings and Loan Associations," (with B.L. Hadaway) *Journal of Financial Research*, Fall 1981.

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

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

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

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

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