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STATE OF MISSOURI

BEFORE THE

MISSOURI PUBLIC SERVICE COMMISSION

IN THE MATTER OF KCP&L GREATER	**)**	
MISSOURI OPERATIONS COMPANY'S	**)**	
REQUEST FOR AUTHORITY TO	**)**	**CASE NO. ER-2012-0175**
IMPLEMENT A GENERAL RATE	**)**	
INCREASE FOR ELECTRIC SERVICE	**)**	

DIRECT TESTIMONY OF

MATTHEW I. KAHAL

ON BEHALF OF THE

UNITED STATES DEPARTMENT OF ENERGY

AUGUST 9, 2012

Exhibit No. 508

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MATTHEW I. KAHAL

I. QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Matthew I. Kahal. I am employed as an independent consultant retained in this matter by the firm of Exeter Associates, Inc. My business address is 10480 Little Patuxent Parkway, Suite 300, Columbia, Maryland 21044.

Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND.

A. I hold B.A. and M.A. degrees in economics from the University of Maryland and have completed all course work and examination requirements for the Ph.D. degree in economics. My areas of academic concentration included industrial organization, economic development and econometrics.

Q. WHAT IS YOUR PROFESSIONAL BACKGROUND?

A. I have been employed in the area of energy, utility and telecommunications consulting for the past 35 years working on a wide range of topics. Most of my work has focused on electric utility integrated planning, plant licensing, environmental issues, mergers and financial issues. I was a co-founder of Exeter Associates, and from 1981 to 2001 I was employed at Exeter Associates as a Senior Economist and Principal. During that time, I took the lead role at Exeter in performing cost of capital and financial studies. In recent years, the focus of much of my professional work has shifted to electric utility restructuring, resource acquisition and competition.

Prior to entering consulting, I served on the Economics Department faculties at the University of Maryland (College Park) and Montgomery College teaching courses on economic principles, development economics and business.

A complete description of my professional background is provided in Appendix A.

Q. HAVE YOU PREVIOUSLY TESTIFIED AS AN EXPERT WITNESS BEFORE UTILITY REGULATORY COMMISSIONS?

A. Yes. I have testified before approximately two-dozen state and federal utility commissions in more than 350 separate regulatory cases. My testimony has addressed a variety of subjects including fair rate of return, resource planning, financial assessments, load forecasting, competitive restructuring, rate design, purchased power contracts, merger economics and other regulatory policy issues. These cases have involved electric, gas, water and telephone utilities. In 1989, I testified before the U.S. House of Representatives, Committee on Ways and Means, on proposed federal tax legislation affecting utilities. A list of these cases may be found in Appendix A, with my statement of qualifications.

Q. WHAT PROFESSIONAL ACTIVITIES HAVE YOU ENGAGED IN SINCE LEAVING EXETER AS A PRINCIPAL IN 2001?

A. Since 2001, I have worked on a variety of consulting assignments pertaining to electric restructuring, purchase power contracts, environmental compliance, cost of capital and other regulatory issues. Current and recent clients include the U.S.

Department of Justice, U.S. Air Force, U.S. Department of Energy, the Federal Energy Regulatory Commission, Connecticut Attorney General, Pennsylvania Office of Consumer Advocate, New Jersey Rate Counsel, Rhode Island Division of Public Utilities, Louisiana Public Service Commission, Arkansas Public Service Commission, Maryland Department of Natural Resources and Energy Administration, and MCI.

II. OVERVIEW

A. Summary of Recommendations

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The U.S. Department of Energy ("DOE") on behalf of the Federal Executive Agencies ("FEA") has asked me to develop a recommendation concerning the fair rate of return on KCP&L Greater Missouri Operations Company ("GMO's" or "the Company's") electric utility rate base. GMO is one of two major electric utility subsidiaries of Great Plains Energy, Inc. ("GPE"). The other is KCP&L Kansas City Power & Light Company ("KCP&L") whose rate case is the subject of a parallel docket. My work in this case includes both a review of the Company's proposal concerning rate of return and the preparation of an independent study of the cost of common equity.

Please note that on August 2, 2012, I submitted Direct Testimony on rate of return in the KCP&L rate case (Case No. ER-2012-0174). My recommendations and findings in the two cases are essentially the same.

Q. WHAT MAJOR FEA FACILITIES NOW TAKE OR WILL TAKE SERVICE FROM GMO OR KCP&L?

A. The Bannister Federal Complex is the largest FEA facility that receives electric service from KCP&L. Annual electric costs for the site exceed $7 million. Ownership of the complex is divided between DOE's National Nuclear Security Administration ("NNSA") and the General Services Administration ("GSA"). Located within the complex are NNSA's Kansas City Site Office and Kansas City Plant ("KCP"), a high-tech research production facility that specializes in science-based manufacturing. NNSA is in the process of moving the KCP to a new 1.5

million square-foot campus style facility at the northwest corner of Missouri Highway 150 and Botts Road in Kansas City, Missouri, seven miles south of the current facility and in GMO's service territory. The new campus will be fully occupied by 2014.

The United States Air Force's Whiteman Air Force Base is located two miles south of Knob Noster, Missouri, and is the largest FEA facility that receives electric service from GMO. Annual electric costs for the base exceed $5.5 million.

Q. WHAT IS THE COMPANY'S RATE OF RETURN PROPOSAL IN THIS CASE?

A. As presented by its outside rate of return expert, Dr. Samuel Hadaway, the Company proposes an overall rate of return of 8.173 percent, based on the Company's projected capitalization at August 31, 2012. The capital structure proposed in this case includes 52.47 percent common equity, 46.92 percent long-term debt and 0.61 percent preferred stock, with no short-term debt included in the capital structure. The overall rate of return includes a return on common equity of 10.4 percent, as developed and recommended by Dr. Hadaway.

Q. WHAT IS THE COMPANY'S CURRENTLY AUTHORIZED RETURN ON EQUITY?

A. As stated in response to DOE 1-25, the Company's currently-authorized return on equity is 10.0 percent, as established in June 2011 in Docket No. ER-2010-0356. This means that despite the decline in market capital costs since the last case, the Company seeks an **increase** in its authorized return on equity. This contributes significantly to the rate increase sought in this case.

Q. WHAT IS THE COMPANY'S APPROACH TO CAPITAL STRUCTURE IN THIS CASE?

A. Dr. Hadaway employs the August 31, 2012 projected consolidated capital structure of Great Plains Energy, which he claims is consistent with the approach that has been taken the Company's prior rate cases. The capitalization projections account for new equity issuances, the growth in retained earnings and new debt issuances minus maturities. It should be noted that the requested capital structure does not include any short-term debt.

Q. DO YOU OBJECT TO THE EXCLUSION OF SHORT-TERM DEBT?

A. No, I do not, provided that on an ongoing basis the Company directly allocates its actual short-term debt to Construction Work In Progress ("CWIP") for purposes of calculating its Allowance for Funds Used During Construction ("AFUDC") rate. This procedure will ensure that customers receive the cost of capital benefit of this extremely low cost source of investor-supplied funds. The Company's response to DOE 1-23 indicates that it does follow this procedure.

Q. WHAT IS KCP&L'S CLAIMED COST RATE OF LONG-TERM DEBT?

A. Dr. Hadaway calculates a cost rate for long-term debt of 5.73 percent at August 31, 2012, a figure above the current market cost rate of long-term debt. The Company should routinely pursue feasible and cost-effective opportunities to lower its cost of debt.

Q. DO YOU SUPPORT DR. HADAWAY'S PROPOSED CAPITAL STRUCTURE?

A. No. I am not at this time making a specific capital structure or cost of debt recommendation. There are some aspects of Dr. Hadaway's proposed capital structure worth noting. First, Dr. Hadaway excludes, without explanation, Other Comprehensive Income ("OCI") from the ratemaking common equity component of capital structure. Since OCI is a negative item, this exclusion has the effect of increasing the equity ratio and therefore the rate of return. He does not quantify in testimony or his schedules the amount of this adjustment to the projected to equity balance. If the Company cannot provide a convincing explanation as to why this adjustment is proper, it should not be accepted.

Second, I observe that the proposed 53 percent equity and 47 percent debt capital structure is somewhat more equity laiden (and therefore expensive) than the electric utility industry average. This is shown both in Dr. Hadaway's testimony and in my own testimony. The Company's relatively strong ratemaking capital structure should be taken into account by the Commission in selecting the authorized return on equity.

Q. WHAT IS YOUR RECOMMENDATION ON RATE OF RETURN?

A. I am recommending a return on common equity at this time of 9.5 percent for GMO. If Dr. Hadaway's recommended capital structure and cost of debt and preferred stock are accepted, then my 9.5 percent equity cost rate would produce an overall rate of return of 7.70 percent, as shown on Schedule MIK-1.

My 9.5 percent cost of equity recommendations is based on a Discounted Cash Flow ("DCF") modeling study applied to a proxy group of publicly-traded companies that are primarily regulated electric utilities. This is the same proxy company group that was selected by Dr. Hadaway for his DCF study. In addition, I have conducted a Capital Asset Pricing Model ("CAPM") study using this same proxy group, although I find the CAPM approach to be much less useful than the DCF method, as explained later in my testimony.

Q. HOW DID YOU DERIVE YOUR COST OF EQUITY RESULTS?

A. My preferred approach is to apply the standard (or "constant growth") DCF analysis to a group of companies reasonably comparable in risk to GMO. I have done so using market data that extend through the first half of 2012, i.e., the six-month period ending June 2012. This study produces a cost of equity range of 8.8 to 9.8 percent, with a midpoint of 9.3 percent. My 9.5 percent recommendation at this time slightly exceeds my DCF midpoint, but is well within the DCF range. The CAPM approach produces a return range of 6.7 to 9.6 percent, depending primarily on the assumed risk premium value selected. This range, for the most part, is well below both my DCF range and my recommendation. Unlike Dr. Hadaway, I have not relied on the equity risk premium model, but I discuss the flaws of that model (as employed by Dr. Hadaway) later in my testimony. Dr. Hadaway's risk premium model does not properly measure the market cost of equity for GMO.

Q. HOW DID DR. HADAWAY DEVELOP HIS 10.4 PERCENT RECOMMENDATION?

A. Dr. Hadaway conducted several DCF studies, obtaining results ranging from 10.0 percent to an upper end value of 10.4 percent. In addition, he conducted a risk premium study obtaining a range of 9.97 to 10.12 percent. His recommendation of 10.4 percent is at the upper end of his range of evidence due to "the continuing turmoil that exists in equity markets" and the "government's continuing intervention in credit markets." (Testimony, page 42)

Q. DID DR. HADAWAY RECOMMEND A SPECIFIC RISK INCREMENT OR DECREMENT FOR KCP&L RELATIVE TO HIS DCF OR RISK PREMIUM STUDY RESULTS?

A. No, he did not. He does not specifically argue that the Company is either more or less risky than his electric utility proxy group average.

B. Capital Cost Trends

Q. HAVE YOU EXAMINED GENERAL TRENDS IN CAPITAL COSTS IN RECENT YEARS?

A. Yes. I show the capital cost trends since 2001, through calendar year 2011, on page 1 of Schedule MIK-2. Pages 2, 3 and 4 of that schedule show monthly data for January 2007 through June 2012. The indicators provided include the annualized inflation rate (as measured by the Consumer Price Index), ten-year Treasury yields, 3-month Treasury bill yields and Moody's Single A yields on long-term utility bonds. While there is some fluctuation, these data series show a generally declining trend in capital costs. For example, in the early part of this ten-year period utility bond yields averaged about 8 percent, with 10-year Treasury yields of 5 percent. By 2011, Single A utility bond yields had fallen to 5.1 percent, with ten-year Treasury yields declining to 2.8 percent. Within the past six months, Treasury and utility long-term bond rates have declined even further to near or below the lowest levels in decades.

For the past three years, short-term Treasury rates have been close to zero, with three-month Treasury bills averaging about 0.1 percent. These extraordinarily low rates (which are also reflected in non-Treasury debt instruments) are the result of an intentional policy of the Federal Reserve Board of Governors (the Fed) to make liquidity available to the U.S. economy and to promote economic activity. The Fed has also sought to exert downward pressure on long-term interest rates through its policy of "quantitative easing." Although that program ended this past summer, the Fed announced a continuation of its near-zero short-term interest rate policy at least through 2014. As a result, interest rates have remained low and have trended down and, for at least the near term, this very low interest rate environment is expected to continue.

Q. ARE THERE FORCES CONTRIBUTING TO LOW INTEREST RATES OTHER THAN FED POLICY?

A. Yes. While the decline in short-term rates is largely attributable to Fed policy decisions, the behavior of long-term rates reflects more fundamental economic forces. Factors that drive down long-term bond interest rates include the ongoing weakness of the U.S. and global macro economy, the inflation outlook and even international events. A weak economy (as we have at this time) exerts downward pressure on interest rates and capital costs generally because the demand for capital is low and inflationary pressures are lacking. While inflation measures can fluctuate from month to month, long-term inflation rate expectations presently remain quite low. Europe's Euro-zone continuing sovereign debt crisis probably contributes to lower U.S. interest rates, as U.S. securities are valued as a relative "safe haven" for global capital.

Q. DO LOW LONG-TERM INTEREST RATES IMPLY A LOW COST OF EQUITY FOR UTILITIES?

A. In a very general sense and over time that is normally the case, although the utility cost of equity and cost of debt need not move together in lock step or necessarily in the short run. The economic forces mentioned above that lead to lower interest rates also tend to exert downward pressure on the utility cost of equity. After all, many investors tend to view utility stocks and bonds as alternative investment vehicles for portfolio allocation purposes, and in that sense utility stocks and long-term bonds are related by market forces.

Q. ARE RELATIVE ECONOMIC WEAKNESS AND LOW INFLATION EXPECTED TO CONTINUE?

A. Yes, that appears to be the case. I have consulted the latest "consensus" forecasts published by *Blue Chip Economic Indicators* (Blue Chip), July 10, 2012 edition, a survey compilation of approximately 40 major forecast organizations. The "consensus" calls for real GDP growth of 2.1 percent in 2012 and 2.3 percent in 2013 and inflation (GDP deflator) of 1.8 percent in both 2012 and 2013, respectively. The March 2012 edition of Blue Chip also publishes a consensus ten-year inflation forecast of 2.1 to 2.2 percent per year, almost no change from the near term. Thus, both the near-term and long-term economic outlooks are for sluggish economic growth and low inflation, implying low capital costs.

Q. HAS THE PATTERN BEEN SIMILAR FOR EQUITY MARKETS?

A. As one would expect, equity markets have exhibited far more volatility than bond markets. Following the onset of the financial crisis about three years ago, stock market prices plunged, reaching a bottom in March 2009. Since then, stock prices recovered impressively and the major indexes have largely recovered to pre-crisis levels. The market recovery continued through most of the first half of 2011, but it then began to deteriorate in late July 2011. The second half of 2011 was characterized by significant stock market losses, some recovery and high volatility. The federal debt ceiling debate issue and the subsequent Standard & Poors (S&P) downgrade of Treasury securities may have been initial triggering events for the equity market turmoil during August and September 2011. The larger fundamental concerns of investors, based on reporting by the financial press, include the unraveling of the Euro-zone sovereign debt crisis (and its potential adverse impact on the European banking system) and the expectations by investors of the potential for further weakening in the U.S. economy (and to some extent, the global economy). In the fourth quarter 2011, the stock market recovered, and for 2011 overall the market was flat or provided only very modest returns for investors.

The effects of these economic events on U.S. utilities (such as GMO), however, are difficult to interpret. It would seem that the Euro-zone and global economic issues would have little to do directly with U.S. electric utilities such as GMO. However, the recent behavior of markets may, in a general sense, reflect heightened equity risk premiums. At the same time, the continuing economic weakness tends to exert downward pressure on capital costs, interest rates and inflation. Thus, despite the turmoil in financial markets, we remain in a generally low capital cost environment for good quality utilities.

Q. HAVE YOU BEEN ABLE TO INCORPORATE THESE RECENT CHANGES IN FINANCIAL MARKETS INTO YOUR COST OF CAPITAL ANALYSIS IN THIS CASE?

A. Yes, to a large extent I have done so. As a general matter, electric utility stocks have been reasonably stable in 2011, and through the first half of 2012, as my testimony demonstrates. The observed 2011 overall stock market volatility was quite significant, but it may turn out to be transitory. While these market events are notable, there is no clear evidence that this recent European and U.S. equity market volatility has adversely affected the utility cost of capital. Dividend yields for utility companies (such as the electric utility companies in my proxy group) have been reasonably stable and the utility long-term cost of debt is at a historic low. At this point, I believe it is reasonable to rely on a most recent six-month average of market data, which has been my past practice. This use of market data over a six-month period fully accounts for the observed equity market volatility, an issue discussed at some length in Dr. Hadaway's testimony.

III. GMO'S COST OF COMMON EQUITY

A. Using the DCF Model

Q. WHAT STANDARD ARE YOU USING TO DEVELOP YOUR RETURN ON EQUITY RECOMMENDATION?

A. As a general matter, the ratemaking process is designed to provide the utility an opportunity to recover its prudently-incurred costs of providing utility service to its customers, including the reasonable costs of financing its used and useful investment. Consistent with this "cost-based" approach, the fair and appropriate return on equity award for a utility is its cost of equity. The utility's cost of equity is the return required by investors (i.e., the "market return") to acquire or hold that company's common stock. A return award greater than the market return would be excessive and would overcharge customers for utility service. Similarly, an insufficient return could unduly weaken the utility and impair its incentives to invest in needed plant and equipment.

Although the *concept* of the cost of equity may be precisely stated, its quantification poses challenges to regulators. The market cost of equity, unlike most other utility costs, cannot be directly observed (i.e., investors do not directly, unambiguously state their equity return requirements), and it therefore must be estimated using analytic techniques. The DCF model is one such prominent and accepted method familiar to analysts, this Commission and other utility regulators.

Q. IS THE COST OF EQUITY A FAIR RETURN AWARD FOR THE UTILITY AND ITS CUSTOMERS?

A. Generally speaking, I believe it is. A return award commensurate with the cost of equity generally provides fair and reasonable compensation to utility investors and normally should allow efficient utility management to successfully finance its operations on reasonable terms. Setting the return on equity equal to a reasonable estimate of the cost of equity also is generally fair to ratepayers.

I recognize that there can be exceptions to this general rule. For example, in some instances, utilities have obtained rate of return adders as a reward for asserted good management performance or lowered returns where performance is subpar. In this case, no request for a management or service quality bonus has been requested by the Company. In addition, the regulator sometimes may take into consideration rate or financial continuity, i.e., avoiding changes in the authorized return that are unduly abrupt. Nonetheless, the principal task at hand is one of measuring the cost of equity.

Q. WHAT DETERMINES A COMPANY'S COST OF EQUITY?

A. It should be understood that the cost of equity is essentially a market price, and as such, it is ultimately determined by the forces of supply and demand operating in financial markets. The cost of equity is also the investor's "discount rate" for the company, i.e., the rate at which the investor "discounts" future earnings or cash flows received in determining the value of the company's stock. In that regard, there are two key factors that determine this price or discount rate. First, a company's cost of equity is determined by the fundamental conditions in capital markets (e.g., outlook for inflation, monetary policy, changes in investor behavior, investor asset preferences, the general business environment, etc.). The second factor (or set of factors) is the business and financial risks of the company in question. For example, the fact that a utility company operates principally as a regulated monopoly, dedicated to providing an essential service (in this case electric utility service), typically would imply very low business risk and therefore a relatively low cost of equity. The Company's relatively strong balance sheet and the favorable business risk profile assessment for providing electric utility service also contribute to its relatively low cost of equity.

Q. DOES DR. HADAWAY ADHER TO THESE PRINCIPLES?

A. In general, I believe he does in that he relies heavily on the DCF methodology to develop his ROE recommendation. However, I must question whether his risk premium study qualifies as a valid cost of equity technique, an issue that I discuss further in Section IV of my testimony.

Q. WHAT METHODS ARE YOU USING IN THIS CASE?

A. I employ both the DCF and CAPM models, applied to a proxy group of vertically-integrated electric utility companies. However, for reasons discussed in my testimony, I emphasize the DCF model results (as applied to the electric utility proxy group) in formulating my recommendation. It has been my experience that most utility regulatory commissions (federal and state), including Missouri, heavily emphasize the use of the DCF model to determine the cost of equity and setting the fair return. As a check (and partly because the Dr. Hadaway and other analysis have used this method in the past), I also perform a CAPM study which also is based on the same electric utility proxy group companies as used in my DCF study.

Q. PLEASE DESCRIBE THE DCF MODEL.

A. As mentioned, this model has been widely relied upon by the regulatory community, including this Commission. Its widespread acceptance among regulators is due to the fact that the model is market-based and is derived from standard economic/financial theory. The model, as typically used, is also transparent and generally understandable. I do not believe that an obscure or highly arcane model would receive the same degree of regulatory acceptance.

The theory begins by recognizing that any publicly-traded common stock (utility or otherwise) will sell at a price reflecting the discounted stream of cash flows *expected by investors*. The objective is to estimate that discount rate.

Using certain simplifying assumptions that I believe are generally reasonable for utilities, the DCF model for dividend paying stocks can be distilled down as follows:

K_e = (Do/Po) (1 + 0.5g) + g, where:

K_e = cost of equity;

Do = the current annualized dividend;

Po = stock price at the current time; and

g = the long-term annualized dividend growth rate.

This is referred to as the constant growth DCF model, because for mathematical simplicity it is assumed that the growth rate is constant for an indefinitely long time period. While this assumption may be unrealistic in many cases, for traditional utilities (which tend to be more stable than most unregulated companies) the assumption generally is reasonable, particularly when applied to a group of companies.

In addition to using the constant growth model, I note that Dr. Hadaway dispenses with this "constancy assumption" by the use of a multi-stage DCF study. Doing so, however, does not significantly alter the results he obtains from the more standard DCF model.

Q. HOW HAVE YOU APPLIED THIS MODEL?

A. Strictly speaking, the model can be applied only to publicly-traded companies, i.e., companies whose market prices (and therefore market valuations) are transparently revealed. Consequently, the model cannot be applied to GMO, which is a wholly-owned subsidiary of Great Plains Energy, and therefore a market proxy is needed. In this case, the Great Plains Energy parent could serve as that market proxy, since its stock is publically traded, and both Dr. Hadaway and I have included it in our proxy group. However, I am reluctant to rely upon a single-company DCF study (nor has Dr. Hadaway), since I believe such studies tend to be less reliable than using "group" data.

In any case, I believe that an appropriately selected proxy group is likely to be more reliable than a single company study. This is because there is "noise" or fluctuations in stock price or other data that cannot always be readily accounted for in a simple DCF study. The use of an appropriate and robust proxy group helps to allow such "data anomalies" to cancel out in the averaging process.

For the same reason, I prefer to use market data that are relatively current but averaged over a period of six months rather than purely relying upon "spot" market data. It is important to recall that this is not an academic exercise but involves the setting of permanent rates that can be expected to remain in effect for several years. The practice of averaging market data over a period of several months can add stability to the results. It appears that Dr. Hadaway employs a three-month average, in this case the last three months of 2011. In my opinion, six months is preferable since it encompasses a broader range of market data while still being reasonably current.

Q. ARE YOU EMPLOYING THE SAME ELECTRIC UTILITY PROXY GROUP AS DR. HADAWAY?

A. Yes. I have reviewed Dr. Hadaway's proxy group and believe it to be acceptable for the purposes of determining GMO's cost of equity. In particular, he selected this group using the Value Line electric utility data base and eliminated companies that do not have investment grade credit ratings, have recently reduced their dividends, have an excessive amount (i.e., more than 30 percent) of non-utility revenue or have been involved in mergers. In general, these are reasonable criteria, although no proxy group will be perfect. For example, despite his screen, this proxy group to some limited degree reflects the risks associated with unregulated operations.

In addition, accepting Dr. Hadaway's proxy group has certain practical advantages. It eliminates from this case controversies over sample selection and thereby allows a far more direct comparison of our respective DCF studies.

I provide a listing of these 22 proxy group companies on Schedule MIK-3, along with certain financial or risk indicators published by the Value Line Investment Survey.

Q. HOW DO THESE RISK INDICATORS FOR THE ELECTRIC UTILITY PROXY GROUP COMPARE TO THOSE PUBLISHED FOR GREAT PLAINS ENERGY?

A. They are similar, with GPE perhaps being slightly weaker than the group average, as the table below indicates.

Value Line Risk Indicators, 2012*

	GPE	**Electric Utility Group Average**
Safety Rating	3	2.2
Financial Strength	B+	B+ to A
Beta	0.75	0.73
Common Equity Ratio	51.6%	49.8%

Source: Schedule MIK-3.

It should be noted that although the proxy electric companies are primarily regulated utilities, some also have non-regulated operations that may be perceived as riskier than utility operations (e.g., competitive generation or energy services). I make no specific adjustment at this time to the DCF cost of capital results or to my recommendation for those potentially riskier non-regulated operations. Overall, the non-utility operations for these companies generally are relatively modest and do not unduly distort the task of estimating the utility cost of capital. Nonetheless, the existence of non-utility risk does add to the conservatism of my results and recommendation.

Q. HOW HAVE YOU APPLIED THE DCF MODEL TO THIS GROUP?

A. I have elected to use a six-month time period to measure the dividend yield component (Do/Po) of the DCF formula. Using the Standard & Poor's *Stock Guide*, I compiled the month-ending dividend yields for the six months ending June 2012, the most recent data available to me as of this writing. This time period covers the first half of calendar 2012. During the first quarter of 2012, the market experienced significant gains but nonetheless was fairly stable. In recent months the broader stock market has declined somewhat from its earlier highs in response to the European debt and economic issues, but electric utility stocks for this recent six-month period have been reasonably stable.

I show these dividend yield data on page 2 of Schedule MIK-4 for each month and each proxy company, January through June 2012. Over this six-month period the proxy group average dividend yields were relatively stable, ranging from a low of 4.04 percent in June to a high of 4.30 percent in February 2012, averaging 4.19 percent for the full six months.

For DCF purposes and at this time, I am using a proxy group dividend yield of 4.19 percent.

Q. IS 4.19 PERCENT YOUR FINAL DIVIDEND YIELD?

A. Not quite. Strictly speaking, the dividend yield used in the model should be the value the investor expects to receive over the next 12 months. Using the standard "half year" growth rate adjustment technique, the DCF adjusted yield becomes 4.3 percent. This is based on assuming that half of a year growth is 2.5 percent (i.e., a full year growth is 5.0 percent). The adjusted yield calculation is 4.19% x 1.025 = 4.29%.

Q. HOW DOES YOUR DIVIDEND YIELD FIGURE COMPARE TO DR. HADAWAY'S DIVIDEND YIELD FOR HIS PROXY GROUP?

A. They are very similar. Dr. Hadaway uses a different time frame for his market prices (late 2011) along with an estimated 2012 per share dividend, but he obtains similar results, a proxy group average dividend yield of 4.39 percent. (Schedule SCH-5, page 2 of 5)

Q. HOW HAVE YOU DEVELOPED YOUR GROWTH RATE COMPONENT?

A. Unlike the dividend yield, the investor growth rate cannot be directly observed but instead must be inferred through a review of available evidence. The growth rate in question is the *long-run* dividend per share growth rate, but analysts frequently use earnings growth as a proxy for (long-term) dividend growth. This is because in the long-run earnings are the ultimate source of dividend payments to shareholders, and this is likely to be particularly true for a large group of utility companies.

One possible approach is to examine historical growth as a guide to investor expected future growth, for example the recent five-year or ten-year growth in earnings, dividends and book value per share. However, my experience with utilities in recent years is that these historic measures have been very volatile and are not necessarily reliable as prospective measures. This is due in part to extensive corporate or financial restructuring. The DCF growth rate should be prospective, and one useful source of information on prospective growth is the projections of earnings per share (typically five years) prepared by securities analysts. Dr. Hadaway relies very heavily on securities analyst earnings projections as the basis for his DCF growth rates. I agree with Dr. Hadaway that it warrants substantial emphasis though not exclusive emphasis.

Q. PLEASE DESCRIBE THE ANALYST EARNINGS GROWTH RATE EVIDENCE THAT YOU HAVE EMPLOYED.

A. Schedule MIK-4, page 3 presents five available and well-known public sources of projected earnings growth rates. Four of these five sources -- YahooFinance, MSNMoney, Reuters and CNNfn -- provide averages from securities analyst surveys conducted by or for these organizations (typically they report the mean or median value). The fifth, Value Line, is that organization's own estimates and is readily available publically on a subscription basis. Value Line publishes its own projections using annual average earnings per share for a base period of 2009-2011 compared to the annual average for the forecast period of 2015-2017.

As this schedule shows, the growth rates for individual companies vary somewhat among the five sources, but the group averages are very similar. These proxy group averages are 4.4 percent for CNNfn, 4.7 percent for YahooFinance, 5.0 percent for MSNMoney, 4.6 percent for Reuters and 5.25 percent for Value Line. Thus, the range of growth rates among the five sources is 4.4 to 5.25 percent. The average of these five sources is 4.8 percent, and I have used these results (along with other evidence) in obtaining a reasonable expected growth range for the group of 4.5

to 5.5 percent. The 4.5 to 5.5 percent range should be viewed as conservatively high given the fact that the average of these five sources is actually 4.8 percent.[1]

Q. IS THERE ANY OTHER EVIDENCE THAT SHOULD BE CONSIDERED?

A. Yes. There are a number of reasons why investor expectations of long-run growth could differ from the limited, five-year earnings projections prepared by securities analysts. Consequently, while securities analyst estimates should be considered and given significant weight, these growth rates should be subject to a reasonableness test and corroboration, to the extent feasible.

On Schedule MIK-4, page 4 of 5, I have compiled three other measures of growth published by Value Line, i.e., growth rates of dividends and book value per share and the long-run retained earnings growth. (Retained earnings growth reflects the growth over time one would expect from the reinvestment of retained earnings, i.e., earnings not paid out to shareholders as dividends.) As shown on this schedule, these growth measures for the 22 proxy companies tend to be similar to analyst earnings growth projections. For the 22 proxy companies, dividend growth averages 4.7 percent, book value growth averages 4.0 percent, and earnings retention growth averages 4.0 percent.

Some analysts and regulators favor the use of earnings retention growth (often referred to as "sustainable growth"), which Value Line indicates to be 4.0 percent (for the 22 electric proxy companies). However, at least in theory, the sustainable growth rate also should include "an adder" to reflect potential future earnings growth contribution from issuing new common stock at prices above book value (referred to as "external growth" or the "s x v" factor). In practice, this factor is difficult to

[1] Please note that one company, Ameren, exhibits a growth rate of negative 2.7 percent which can be viewed as an aberration. Excluding Ameren would increase the proxy group average to 5.1 percent, a result well within my 4.5 to 5.5 percent range.

estimate since future stock issuances of companies over the long-term are an unknown, and there is little reliable information on this for investors. Consequently, any growth from stock issuance element would be speculative. Nonetheless, I have estimated this "external growth" factor using Value Line projections for these 22 companies of the growth rate (through 2015-2017) in shares outstanding, along with the current ("recent") stock price premium over book value. For these 22 companies, the external growth rate calculated in this manner averages about 0.6 percent. The sum of "internal" or earnings retention growth factor (i.e., 4.0 percent) and the "external" growth rate factor (i.e., 0.6 percent) is 4.6 percent.

Given this estimate of 4.6 percent for the sustainable growth rate and 4.8 percent for analyst earnings projections (or 5.1 percent if Ameren is excluded), a reasonable and conservatively high DCF growth rate range is 4.5 to 5.5 percent to appropriately reflect uncertainty.

Q. HOW DOES YOUR RANGE COMPARE TO DR. HADAWAY'S DCF GROWTH RATES?

A. His growth rate conclusions are somewhat higher than both my 5.0 percent midpoint and the 5.5 percent upper end of my range. His proxy group security analyst growth rates range from 5.35 to 6.28 percent, and he introduces a long-term normal GDP growth rate of 5.8 percent. I discuss these growth rate differences further in Section IV of my testimony.

Q. WHAT IS YOUR DCF CONCLUSION?

A. I summarize my DCF analysis on page 1 of Schedule MIK-4. The adjusted dividend yield for the six months ending June 2012 is 4.3 percent for this group. Available evidence would support a long-run growth rate in the range of approximately 4.5 to 5.5 percent, as explained above. Summing the adjusted yield and growth rate range produces a total return of 8.8 to 9.8 percent, and a midpoint result of 9.3 percent. My final recommendation is 9.5 percent which is within the 8.8 to 9.8 percent range but slightly above the DCF midpoint.

Q. ARE YOU INCLUDING IN YOUR RECOMMENDATION A COST ADDER FOR FLOTATION EXPENSE?

A. No, and Dr. Hadaway also has not included such an adjustment. Under certain circumstances, it can be appropriate to reflect in the authorized return on equity an "adder" to permit the utility an opportunity to recover the expenses associated with issuing new common stock. This is principally the underwriters fee charged by investment bankers for conducting a public issuance along with any related legal and regulatory expenses. In the case of GMO (and its parent, Great Plains Energy), there is no indication of flotation expenses in the recent past or prospectively to be recovered, and therefore a flotation adjustment is not needed. (Response to DOE 1-5 and 1-6)

B. <u>The CAPM Analysis</u>

Q. PLEASE DESCRIBE THE CAPM MODEL.

A. The CAPM is a form of the "risk premium" approach and is based on modern portfolio theory. Based on my experience, the CAPM is the cost of equity method most often used in rate cases after the DCF method, and it is one of the cost of equity methods used in the past (though not in this case) by Dr. Hadaway.

According to this model, the cost of equity (K_e) is equal to the yield on a risk-free asset plus an equity risk premium multiplied by a firm's "beta" statistic. "Beta" is a firm-specific risk measure which is computed as the movements in a company's stock price (or market return) relative to contemporaneous movements in the broadly defined stock market (e.g., the S&P 500 or the New York Stock Exchange

Composite). This measures the investment risk that cannot be reduced or eliminated through asset diversification (i.e., holding a broad portfolio of assets). The overall market, by definition, has a beta of 1.0, and a company with lower than average investment risk (e.g., a utility company) would have a beta below 1.0. The "risk premium" is defined as the expected return on the overall stock market minus the yield or return on a risk-free asset.

The CAPM formula is:

K_e = $R_f + \beta (R_m - R_f)$, where:

K_e = the firm's cost of equity

R_m = the expected return on the overall market

R_f = the yield on the risk free asset

β = the firm (or group of firms) risk measure.

Two of the three principal variables in the model are directly observable – the yield on a risk-free asset (e.g., a Treasury security yield) and the beta. For example, Value Line publishes estimated betas for each of the companies that it covers, and these betas are widely used by rate of return witnesses, including in the past Dr. Hadaway. The greatest difficulty, however, is in the measurement of the expected stock market return (and therefore the equity risk premium), since that variable cannot be directly observed.

While the beta itself also is "observable," different investor services provide differing calculations of betas depending on the specific procedures and methods that they use. These differences can have large impacts on the CAPM results.

Q. HOW HAVE YOU APPLIED THIS MODEL?

A. For purposes of my CAPM analysis, I have used a long-term (i.e., 30-year) Treasury yield as the risk-free return along with the average beta for the electric utility proxy group. (See Schedule MIK-3, page 1 of 1, for the company-by-company betas.) In last six months, long-term (i.e., 30-year) Treasury yields have averaged approximately 3.0 percent, and the currently-published Value Line betas for my electric utility proxy group average 0.73. Finally, and as explained below, I am using an equity risk premium range of 5 to 8 percent, although I also provide calculations using a higher risk premium (i.e., 9 percent) as a sensitivity test.

Using these data inputs, the CAPM calculation results are shown on page 1 of Schedule MIK-5. My low-end cost of equity estimate uses a risk-free rate of 3.0 percent, a proxy group beta of 0.73 and an equity risk premium of 5 percent.

$$K_e = 3.0\% + 0.73\ (5.0\%) = 6.7\%$$

The upper end estimate uses a risk-free rate of 3.0 percent, a proxy group beta of 0.73 and an equity risk premium of 8.0 percent.

$$K_e = 3.0\% + 0.73\ (8.0\%) = 8.8\%$$

Thus, with these inputs the CAPM provides a cost of equity range of 6.7 to 8.8 percent, with a midpoint of 7.7 percent. The CAPM analysis produces a midpoint result significantly lower than the range of results obtained for my electric utility proxy group DCF analysis, but I have not placed reliance on the CAPM returns in formulating my return on equity recommendation in this case. This is due to the unusual behavior of Treasury bond markets (the recent “flight to quality problem”), and with the stock market turmoil during the past year, it is difficult to assess equity risk premiums at this time.

Q. WHAT RESULT WOULD YOU OBTAIN USING A MARKET RISK PREMIUM THAT EXCEEDS YOUR 8 PERCENT UPPER END?

A. On Schedule MIK-5, I present a sensitivity case which uses a very high 9 percent risk premium value. In conjunction with a proxy group beta of 0.73 and a 3.0 percent Treasury bond yield, the CAPM produces:

$$K_e = 3.0\% + 0.73\ (9.0\%) = 9.6\%$$

While I view the 9.0 percent market risk premium estimate as potentially excessive, given current data on long-term Treasury yields and electric utility betas (from Value Line), the CAPM using this very high risk premium value produces a return of 9.6 percent. This high end sensitivity estimate is close to recommendation of 9.5 percent.

Q. IT APPEARS THAT A KEY ELEMENT IN YOUR CAPM STUDY IS YOUR EQUITY MARKET RETURN RISK PREMIUM OF 5 TO 8 PERCENT. HOW DID YOU DERIVE THAT RANGE?

A. There is a great deal of disagreement among analysts regarding the reasonably expected market return on the stock market as a whole and therefore the risk premium. In my opinion, a reasonable overall stock market risk premium to use would be about 6 to 7 percent, which today would imply a stock market return of about 9.0 to 10.0 percent. Due to uncertainty concerning the true market return value, I am employing a broad range of 5 to 8 percent as the overall market rate of return, which would imply a market equity return of roughly 8 to 11 percent for the overall stock market.

Q. DO YOU HAVE A SOURCE FOR THAT RANGE?

A. Yes. The well-known finance textbook by Brealey, Myers and Allen (*Principles of Corporate Finance*) reviews a broad range of evidence on the equity risk premium. The authors of the risk premium literature conclude:

> Brealey, Myers and Allen have no official position on the issue, but we believe that a range of 5 to 8 percent is reasonable for the risk premium in the United States. (Page 154)

My "midpoint" risk premium of roughly 6.5 percent falls well within that range.

There is one important caveat to consider here regarding the 5 to 8 percent range that the authors believe is supported by the literature. It appears that the 5 to 8 percent range is specified relative to short-term Treasury yields, not relative to long-term (i.e., 30-year) Treasury yields. At this time, the application of the CAPM using short-term Treasury yields would not be meaningful because those yields within the past year have approximated zero. It therefore could be argued that the 5 to 8 percent range of Brealy *et al*. is overstated if a long-term Treasury yield is used as the risk-free rate.

Q. HAS DR. HADAWAY PRESENTED A CAPM STUDY?

A. No. Dr. Hadaway states that he does not at this time view the CAPM as a reliable method given current conditions in capital markets. However, he has used this method in the past, and in discovery, DOE requested that he provide a recent study. (DOE 1-11) In response, Dr. Hadaway provided a electric utility study that he presented in a PacifiCorp Utah 2007 rate case. His study employed Value Line betas and a stock market risk premium range of 5.75 to 7.60 percent. This range is fully consistent with my suggested 5.0 to 8.0 percent range. I further note that the Value Line electric utility betas at that time averaged 0.87 in his 2007 study, compared to 0.73 today, as shown on my Schedule MIK-3. This implies that the risk profile for electric utilities, as compared to the broader, overall stock market, has declined since 2007.

IV. COMMENTS ON DR. HADAWAY'S STUDIES

A. DCF Evidence

Q. HOW DID DR. HADAWAY CONDUCT HIS DCF STUDIES?

A. As shown on his Schedule SCH-5, Dr. Hadaway produced three DCF studies, all of which appear to use 4th quarter 2011 market data. Two of the studies use the standard constant growth from of the DCF model, while the third is a two-stage growth model. All three studies produce very similar results ranging from 10.0 to 10.4 percent (using both mean and median measures), averaging about 10.1 percent.

The studies differ primarily due to the use of different growth rate assumptions. The first employs a combination of Value Line, Zacks and Thomson securities analyst growth rate projections for the 22 proxy companies, with the three sources averaging 5.63 percent. The second study employs Dr. Hadaway's historic trend estimate of U.S. nominal GDP growth (i.e., the historic growth rate of the U.S. economy) which he calculates to be 5.8 percent annually. The third study uses Value Line dividend growth projections for the first five years and the assumed 5.8 percent GDP growth rate thereafter.

Q. WHY ARE DR. HADAWAY'S DCF RESULTS HIGHER THAN YOURS?

A. The difference is primarily due to the assumed growth rates since our respective dividends yields differ only by about 0.1 to 0.2 percent, with mine being lower. With respect to my DCF study, I compiled securities analyst growth rates averaging 4.8 percent (or 5.1 percent if Ameren is eliminated), as compared to Dr. Hadaway's 5.63 percent. This difference may be due to timing (plus Dr. Hadaway's decision to delete negative or very low growth rates). For example, he reports Value Line growth rates published in 2011 averaging 6.28 percent, as compared to my 5.25 percent, which is from mid 2012. His Zacks and Thomson securities analyst growth rates also appear to be somewhat higher than my more recent (i.e., July 2012 vintage) projections published by these sources. The growth rates slowdown may reflect perceptions by securities analysts of a slowing U.S. economy today as compared to the 2011 outlook.

My conclusion is that the securities analyst growth rates that I report are more reflective of current market conditions than those used by Dr. Hadaway.

Q. DO YOU HAVE CONCERNS WITH DR. HADAWAY'S USE OF THE U.S. GDP GROWTH RATE IN HIS DCF STUDIES?

A. Yes, I do. I understand Dr. Hadaway's position to be that over a very long period of time, investors should expect that the growth rate for earnings of electric utilities (which provide fundamental infrastructure) will reflect the underlying trends of the U.S. economy.

The principal concern that I have is that Dr. Hadaway's assumed 5.8 percent growth rate may be an overly optimistic estimate of long-term U.S. economic growth, as compared to market expectations. I understand that his 5.8 percent estimate reflects historical trends, but the problem is that analysts today expect that some degree of slowdown relative to the historic trend will prevail in the future. While forecasters do not necessarily state the reasons or "drivers" behind their growth rate estimates, this projected slowdown may be due in part to the fact that the U.S. labor force in the long-run future is not expected to increase as rapidly as it did during the historic period used by Dr. Hadaway (i.e., due to changing demographic trends with an aging population).

As a check on Dr. Hadaway's 5.8 percent figure, I have consulted *Blue Chip Economic Indicators* (March and July editions) which compiles a survey of 40 major forecasting organizations. Blue Chip then publishes an average or "consensus" forecast for a number of U.S. economic measures – near term and long-term –

including nominal GDP. This publication indicates the following "consensus" growth rate estimates for nominal GDP:

2012	=	3.9%
2013	=	4.1
2014 – 2018	=	5.1 (range: 4.3 to 5.9%)
2019 – 2023	=	4.7 (range: 4.1 to 4.7%)

As compared to the Blue Chip consensus of professional economic forecasters, Dr. Hadaway's historic trend estimate overstates the prevailing growth rate outlook by nearly a full percentage point. The Blue Chip long-term "consensus" forecast of nominal U.S. GDP growth shown above is fully consistent with the 4.5 to 5.5 percent DCF growth rate range that I have used.

Q. DO YOU ALSO HAVE CONCEPTUAL CONCERNS WITH HIS NOMINAL GDP GROWTH RATE MEASURE?

A. Yes. One concern that I have is that Dr. Hadaway does not distinguish between the growth in <u>total earnings</u> and the growth in <u>earnings per share</u> when using GDP as a benchmark. It is the latter that is relevant for the DCF model, and for most electric utility companies some positive growth in the number of shares outstanding can be expected over time. Second, electric utilities are characteristically slower growing than U.S. industry as a whole. This means that the long-term growth rate for the U.S. economy might be viewed by investors as an overly optimistic estimate of long-term electric utility earnings growth. For both reasons, electric utility earnings per share over the long run may not grow as fast as the U.S. economy.

Q. WHAT DO YOU CONCLUDE REGARDING THE DCF EVIDENCE?

A. Dr. Hadaway's DCF study appears to somewhat overstate the cost of equity at this time. The main problem is one of updating since it appears that the earnings growth rate outlook has slowed. In addition, his long-term nominal GDP growth rate of 5.8

percent based on historic trends is out of line with the consensus of economic forecasters and, most likely, financial markets as well.

B. Dr. Hadaway's Risk Premium Model

Q. PLEASE DESCRIBE DR. HADAWAY'S RISK PREMIUM MODEL.

A. Dr. Hadaway has developed a simple econometric model that "explains" the equity risk premium as a function of contemporaneous interest rates (i.e., defined as triple B utility bond yields). The model is estimated using simple regression from a time series of data extending from 1980 to 2011. The relationship is inverse in that the higher the interest rate at any given point in time, the lower is the risk premium, and vice versa. Thus, in times like today, with rock bottom interest rates, we should expect to see a very high equity risk premium. That is the message from his model.

The key to the entire analysis is the definition of the risk premium. He calculates his historic risk premium data series as the average state commission allowed return on equity in a given year minus the prevailing yield on triple B utility bonds in that same year. In other words, his model is based on historical regulatory decisions and only partially on market data.

Q. WHAT RESULTS DID HE OBTAIN USING HIS MODEL?

A. Dr. Hadaway selects triple B utility bond yields of 5.08 and 5.34 percent, and with his model he calculates the risk premium cost of equity of 9.97 to 10.12 percent. Since triple B utility yields have declined somewhat since he conducted his study, his risk premium cost of equity results using this model today would be slightly lower than his 9.97 to 10.12 percent. This is well below his 10.4 percent recommendation.

Q. SHOULD HIS MODEL BE ACCEPTED?

A. No, it should not be relied upon for setting GMO's allowed cost of equity, as it has a number of shortcomings. The most serious problem is that commission allowed returns cannot be assumed to be the same thing as the market cost of equity, although they clearly are related to the cost of equity in some approximate way. Thus, it is not necessarily a market cost of equity methodology. In a sense, this method is not much different than saying the Missouri Public Service Commission should simply adopt the average electric ROE from other state commission decisions (albeit adjusted for some percentage of the change in interest rates). There may be merit in considering the decisions of other commissions, but it cannot be considered to be a true cost of equity method.

There are also a number of technical or econometric shortcomings of the model. Any valid econometric model must be supported by a convincing underlying theory. In this case, why does the interest rate "determine" the risk premium, and why should this relationship be inverse? If a convincing, logical theory cannot be supplied (which in this case it has not been), then the model cannot be accepted – particularly for such an important task as establishing the authorized return on investment. Absent an accepted supporting explanation, the estimated model may simply be spurious – merely a statistical correlation.

Given that this model is based on regulatory decisions and not directly on market data, what I believe it really shows is that there may be continuity or gradualism considerations in state commission ROE decisions. That is, as the cost of capital has declined over the years, this is not instantaneously reflected in commission ROE rulings but instead takes place with a lag or only gradually. This may be particularly true in settled cases. This would explain the inverse relationship observed in Dr. Hadaway's model.

In essence, Dr. Hadaway, at best, has developed a model that may be attempting to describe the behavior of utility regulators, not capital market behavior.

However interesting such a description may be, this is not a reliable estimate of GMO's cost of equity.

C. <u>Dr. Hadaway's ROE Recommendation</u>

Q. IN LIGHT OF HIS COST OF EQUITY STUDY RESULTS, DO YOU BELIEVE THAT DR. HADAWAY'S 10.4 PERCENT RECOMMENDATION IS APPROPRIATE?

A. No, I question his decision to recommend an authorized return that is at the top end of his range. His various study results mostly suggest a return of about 10.0 to 10.1 percent, very close to the Company's authorized return today of 10.0 percent. As I understand his testimony, he has recommended the upper end figure of 10.4 percent due to his concerns regarding the government's intervention in capital markets (which he believes has artificially lowered interest rates) and what he calls market turmoil in equity markets. His discussion of these issues is rather vague, and he has not shown how (if at all) this has caused the models to understate GMO's cost of equity.

As far as government policy and interest rates, I assume he is referring to the Federal Reserve policy that I describe in my testimony. The effect of that policy is mostly on short term interest rates, although to some extent certain Fed actions (such as "Operation Twist") can have some effect on long-term rates as well. However, Dr. Hadaway has not shown that the Fed has significantly distorted long-term rates, or more importantly, utility stock prices. The fact is that we are in a very low cost environment for long term debt and equity primarily due to the fundamental forces discussed in my testimony: very low inflation, a sluggish economy, and a "flight to quality" that favors U.S. assets generally, including low risk utility stocks and bonds. Whether one thinks that there are "artificial" forces at play is beside the point – the undisputed fact is that the cost of capital for good quality utility equity is extremely low, and there is no reason to ignore that.

I further believe that Dr. Hadaway’s comments on “market turmoil” as a reason for selecting the upper end of the range of evidence is misplaced. Whether market turmoil is a more serious problem today than in the past is debatable. However, what is not debatable is that any and all market turmoil or volatility is fully captured by a properly performed DCF study because such a study employs market prices for utility stocks that take such conditions into account. Thus, his and my DCF results already account for this, and to increase the recommendation for this factor can be considered to be double counting.

In summary, I believe that Dr. Hadaway’s studies in testimony support a return on equity of no more than about 10.1 percent, and that figure is likely to decline significantly with updating and the use of a more realistic nominal GDP growth rate. The current evidence from capital markets supports a cost of equity and return on equity award for GMO lower than the 10.0 percent awarded in the last rate case and no higher than my 9.5 percent recommendation.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

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STATE OF MISSOURI

BEFORE THE

MISSOURI PUBLIC SERVICE COMMISSION

KCP&L GREATER MISSOURI OPERATIONS COMPANY	**)))**	**CASE NO. ER-2012-0175**

SCHEDULES AND APPENDIX

ACCOMPANYING THE

DIRECT TESTIMONY

OF

MATTHEW I. KAHAL

ON BEHALF OF THE

U.S. DEPARTMENT OF ENERGY

AUGUST 8, 2012

EXETER

ASSOCIATES, INC.
10840 Little Patuxent Parkway
Suite 300
Columbia, Maryland 21044

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Rate of Return Summary at
August 31, 2012

Capital Type	Balance[1] (Thousands $)	% of Total	Cost Rate	Weighted Cost
Long-Term Debt	$1,114,683	46.92%	5.73%[1]	2.69%
Short-Term Debt	0	0	--	0.00
Preferred Equity	14,423	0.61	4.29[1]	0.03
Common Equity	1,246,685	52.47	9.5[2]	4.98
Total	$2,375,791	100.00%	--	7.70%

(1) Source: Dr. Hadaway's Schedule SCH-2, page 10 of 16.

(2) See Schedule MIK-4 and testimony.

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Trends in Capital Costs

	Annualized Inflation (CPI)	10-Year Treasury Yield	3-Month Treasury Yield	Single A Utility Yield
2001	2.9%	5.0%	3.5%	7.8%
2002	1.6	4.6	1.6	7.4
2003	1.9	4.1	1.0	6.6
2004	2.7	4.3	1.4	6.2
2005	3.4	4.3	3.0	5.6
2006	2.5	4.8	4.8	6.1
2007	2.8	4.6	4.5	6.3
2008	3.8	3.4	1.6	6.5
2009	(0.4)	3.2	0.2	6.0
2010	1.6	3.2	0.1	5.5
2011	3.1	2.8	0.0	5.1

KCP&L GREATER MISSOURI OPERATIONS COMPANY

U.S. Historic Trends in Capital Costs
(Continued)

	Annualized Inflation (CPI)	10-Year Treasury Yield	3-Month Treasury Yield	Single A Utility Yield
2007				
January	2.1%	4.8%	5.1%	6.0%
February	2.4	4.7	5.2	5.9
March	2.8	4.6	5.1	5.9
April	2.6	4.7	5.0	6.0
May	2.7	4.8	5.0	6.0
June	2.7	5.1	5.0	6.3
July	2.4	5.0	5.0	6.3
August	2.0	4.7	4.3	6.2
September	2.8	4.5	4.0	6.2
October	3.5	4.5	4.0	6.1
November	4.3	4.2	3.4	6.0
December	4.1	4.1	3.1	6.2
2008				
January	4.3%	3.7%	2.8%	6.0%
February	4.0	3.7	2.2	6.2
March	4.0	3.5	1.3	6.2
April	3.9	3.7	1.3	6.3
May	4.2	3.9	1.8	6.3
June	5.0	4.1	1.9	6.4
July	5.6	4.0	1.7	6.4
August	5.4	3.9	1.8	6.4
September	4.9	3.7	1.2	6.5
October	3.7	3.8	0.7	7.6
November	1.1	3.5	0.2	7.6
December	0.1	2.4	0.0	6.5

KCP&L GREATER MISSOURI OPERATIONS COMPANY

U.S. Historic Trends in Capital Costs
(Continued)

	Annualized Inflation (CPI)	10-Year Treasury Yield	3-Month Treasury Yield	Single A Utility Yield
2009				
January	0.0%	2.5%	0.1%	6.4%
February	0.2	2.9	0.3	6.3
March	(0.4)	2.8	0.2	6.4
April	(0.7)	2.9	0.2	6.5
May	(1.3)	2.9	0.2	6.5
June	(1.4)	3.7	0.2	6.2
July	(2.1)	3.6	0.2	6.0
August	(1.5)	3.6	0.2	5.7
September	(1.3)	3.4	0.1	5.5
October	(0.2)	3.4	0.1	5.6
November	1.8	3.4	0.1	5.6
December	2.5	3.6	0.1	5.8
2010				
January	2.6%	3.7%	0.1%	5.8%
February	2.1	3.7	0.1	5.9
March	2.3	3.7	0.2	5.8
April	2.2	3.9	0.2	5.8
May	2.0	3.4	0.2	5.5
June	1.1	3.2	0.1	5.5
July	1.2	3.0	0.2	5.3
August	1.1	2.7	0.2	5.0
September	1.1	2.7	0.2	5.0
October	1.2	2.5	0.1	5.1
November	1.1	2.8	0.1	5.4
December	1.2	3.3	0.1	5.6

KCP&L GREATER MISSOURI OPERATIONS COMPANY

U.S. Historic Trends in Capital Costs
(Continued)

	Annualized Inflation (CPI)	10-Year Treasury Yield	3-Month Treasury Yield	Single A Utility Yield
2011				
January	1.6%	3.4%	0.1%	5.6%
February	2.1	3.6	0.1	5.7
March	2.7	3.4	0.1	5.6
April	2.2	3.5	0.1	5.6
May	3.6	3.2	0.0	5.3
June	3.6	3.0	0.0	5.3
July	3.6	3.0	0.0	5.3
August	3.8	2.3	0.0	4.7
September	3.9	2.0	0.0	4.5
October	3.5	2.2	0.0	4.5
November	3.0	2.0	0.0	4.3
December	3.0	2.0	0.0	4.3
2012				
January	2.9	2.0	0.0	4.3
February	2.9	2.0	0.0	4.4
March	2.7	2.2	0.1	4.5
April	2.3	2.1	0.1	4.4
May	1.7	1.8	0.1	4.2
June	1.7	1.6	0.1	4.1

Source: *Economic Report of the President, Mergent's Bond Record,*
Federal Reserve Statistical Release (H.15), *Consumer Price Index Summary*
(BLS)

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Risk Indicators for the Electric Utility Proxy Group

	Company	Safety Rating	Financial Strength	Beta	2011 Common Equity Ratio*
1.	Allete	2	A	0.70	55.7%
2.	Alliant Energy	2	A	0.75	50.9
3.	Ameren	3	B++	0.80	53.7
4.	Am. Electric Power	3	B++	0.70	49.3
5.	Avista	2	A	0.70	48.6
6.	Black Hills Corp.	3	B+	0.85	48.6
7.	Cleco Corp.	1	A	0.65	51.5
8.	DTE Energy	3	B+	0.75	49.4
9.	Edison Int.	3	B++	0.80	40.6
10.	Great Plains Energy	3	B+	0.75	51.6
11.	Hawaiian Electric	3	B+	0.70	53.9
12.	Ida Corp.	3	B+	0.70	54.4
13.	Pinnacle West	2	B++	0.70	55.9
14.	Portland General	2	B++	0.75	50.4
15.	SCANA Corp.	2	B++	0.70	45.7
16.	Sempra Energy	2	A	0.80	49.2
17.	Southern Co.	1	A	0.55	47.1
18.	TECO Energy	2	B++	0.85	45.8
19.	Vectren	2	A	0.75	48.4
20.	Weston Energy	2	B++	0.75	50.0
21.	Wisconsin Energy	1	A	0.65	46.0
22.	Xcel Energy	2	B++	0.65	48.9
	Average	**2.2**	**--**	**0.73**	**49.8%**

* The common equity ratio excludes short-term debt (and current maturities of long-term debt). Actual 2011 equity ratio including short-term debt and current maturities would be slightly lower.

Source: *Value Line Investment Survey*, May 4, 25 and June 22, 2012.

KCP&L GREATER MISSOURI OPERATIONS COMPANY

DCF Summary for
Electric Utility Proxy Group

1.	Dividend Yield (January 2012 – June 2012)	4.19%[1]
2.	Adjusted Yield ((1) x 1.025)	4.3%
3.	Long-Term Growth Rate	4.5 – 5.5%[2]
4.	Total Return ((2) + (3))	8.8 – 9.8%
5.	Flotation Expense	0.0%
6.	Cost of Equity ((4) + (5))	8.8 – 9.8%
7.	Midpoint	9.3%
	Recommendation	**9.5%**

[1] Schedule MIK-4, page 2 of 5.

[2] Schedule MIK-4, pages 3 of 5, 4 of 5 and 5 of 5.

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Dividend Yields for the Electric Utility Proxy Group
(January 2012 – June 2012)

	Company	January	February	March	April	May	June	Average
1.	Allete	4.4%	4.4%	4.4%	4.5%	4.7%	4.4%	4.47%
2.	Alliant	4.2	4.2	4.2	4.0	4.1	3.9	4.10
3.	Ameren	5.1	5.0	4.9	4.9	5.0	4.8	4.95
4.	Amer. Electric	4.8	5.0	4.9	4.8	4.9	4.7	4.85
5.	Avista	4.3	4.7	4.5	4.4	4.6	4.3	4.47
6.	Black Hills	4.4	4.5	4.4	4.5	4.6	4.6	4.50
7.	Cleco Corp.	3.1	3.2	3.2	3.1	3.1	3.0	3.12
8.	DTE Energy	4.4	4.4	4.3	4.2	4.1	4.2	4.27
9.	Edison Int.	3.2	3.1	3.1	3.0	2.9	2.8	3.02
10.	Great Plains	4.1	4.3	4.2	4.2	4.3	4.0	4.18
11.	Hawaiian	4.8	5.0	4.9	4.7	4.5	4.3	4.70
12.	Ida Corp	3.1	3.3	3.2	3.2	3.4	3.1	3.22
13.	Pinnacle West	4.4	4.5	4.4	4.3	4.3	4.1	4.33
14.	Portland Gen.	4.3	4.3	4.2	4.1	4.3	4.1	4.22
15.	SCANA Corp	4.3	4.4	4.3	4.3	4.2	4.1	4.27
16.	Sempra	3.4	4.1	4.0	3.7	3.7	3.5	3.73
17.	Southern Co.	4.1	4.3	4.2	4.3	4.3	4.2	4.23
18.	TECO Energy	4.8	4.9	5.0	4.9	5.1	4.9	4.93
19.	Vectren	4.9	4.8	4.8	4.8	4.8	4.7	4.80
20.	Westar Energy	4.5	4.8	4.7	4.6	4.6	4.4	4.60
21.	Wisconsin Energy	3.5	3.5	3.4	3.3	3.2	3.0	3.32
22.	Xcel Energy	3.9	3.9	3.9	3.8	3.9	3.8	3.87
	Average	**4.18%**	**4.30%**	**4.23%**	**4.16%**	**4.21%**	**4.04%**	**4.19%**

Source: S&P *Stock Guide*, February 2012 – July 2012.

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Projection of Earnings per Share
Five-Year Growth Rates for the
Electric Utility Proxy Group

	Company	Value Line	Yahoo	MSN	Reuters	CNN	Average
1.	Allete	7.5%	5.00%	5.0%	6.50%	4.65%	5.73%
2.	Alliant Energy	6.0	6.30	6.2	5.92	6.30	6.14
3.	Ameren	-1.0	-3.00	-0.5	-4.50	-4.50	-2.70
4.	AEP	4.5	3.56	3.6	4.05	4.00	3.94
5.	Avista	5.5	4.00	4.7	4.50	5.00	4.74
6.	Black Hills	7.0	6.00	6.0	2.20	6.00	5.44
7.	Cleco Corp.	6.5	3.00	n/a	3.00	3.00	3.88
8.	DTE Energy	4.0	4.51	5.0	3.83	4.30	4.33
9.	Edison Int.	1.0	0.33	3.8	2.48	2.70	2.06
10.	Great Plains	5.5	9.75	7.8	8.50	5.00	7.31
11.	Hawaiian Elec.	9.0	9.15	7.1	6.57	8.70	8.10
12.	IdaCorp	3.0	4.00	5.0	4.50	4.50	4.20
13.	Pinnacle West	5.0	6.34	5.7	6.12	5.25	5.68
14.	Portland Gen.	5.5	3.67	4.1	4.25	4.50	4.40
15.	SCANA Corp	4.0	4.50	4.7	4.62	4.70	4.50
16.	Sempra Energy	4.5	7.00	6.8	6.50	4.95	5.95
17.	Southern Co.	5.0	5.40	5.0	5.51	5.40	5.26
18.	TECO Energy	7.5	3.12	3.1	4.56	2.60	4.18
19.	Vectren	6.5	5.00	4.5	5.50	5.00	5.30
20.	Westar Energy	6.5	4.60	6.2	5.55	5.60	5.69
21.	Wisconsin Energy	6.5	6.05	5.3	6.86	5.00	5.94
22.	Xcel Energy	6.0	5.06	4.9	4.92	5.00	5.18
	Average	**5.25%**	**4.70%**	**4.95%**	**4.63%**	**4.44%**	**4.78%**

Sources: *Value Line Investment Survey*, June 22, 2012. YahooFinance.com, MSNMoney.com, CNNfn.com, Reuters.com, public websites, July 2012.

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Other Value Line Measure of
Growth for the Electric Utility Proxy Group

	Company	Dividends Per Share	Book Value Per Share	2015 - 2017 Earnings Retention Growth Rate
1.	Allete	2.0%	4.0%	4.0%
2.	Alliant Energy	5.5	3.5	3.5
3.	Ameren	2.5	0.5	2.0
4.	Am. Electric Power	3.5	4.5	4.0
5.	Avista	6.5	3.5	3.5
6.	Black Hills Corp.	2.0	2.0	3.0
7.	Cleco Corp.	11.5	6.0	5.0
8.	DTE Energy	3.5	3.5	3.5
9.	Edison Int.	3.0	4.0	5.5
10.	Great Plains Energy	5.0	2.0	3.0
11.	Hawaiian Electric	1.0	5.5	3.0
12.	Ida Corp.	8.0	5.5	4.0
13.	Pinnacle West	2.5	3.5	3.5
14.	Portland General	3.5	4.0	4.0
15.	SCANA Corp.	2.0	5.5	4.0
16.	Sempra Energy	9.0	5.0	6.0
17.	Southern Co.	4.0	5.5	4.0
18.	TECO Energy	5.0	4.5	5.0
19.	Vectren	2.5	3.0	4.5
20.	Westar	3.0	4.5	3.5
21.	Wisconsin Energy	13.5	3.5	5.5
22.	Xcel Energy	5.0	4.5	3.5
	Average	**4.73%**	**4.00%**	**3.98%**

Source: *Value Line Investment Survey*, May 4, 25 and June 22, 2012.

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Fundamental Growth Rate Analysis
for Electric Utility Proxy Group

	Company	2011-2016[1]	Premium[2]	sv[3]	br[4]	sv + br
1.	Allete	1.55%	36.0%	0.6%	4.0%	4.6%
2.	Alliant Energy	0.88	53.1	0.5	3.5	4.0
3.	Ameren	-1.49	3.7	-0.1	2.0	1.9
4.	AEP	0.68	25.5	0.2	4.0	4.2
5.	Avista	1.20	23.5	0.3	3.5	3.8
6.	Black Hills	0.49	16.6	0.1	3.0	3.1
7.	Cleco Corp.	0.23	67.3	0.2	5.0	5.2
8.	DTE Energy	1.35	36.4	0.5	3.5	4.0
9.	Edison Int.	0.00	32.8	0.0	5.5	5.5
10.	Great Plains	2.50	-5.3	-0.1	3.0	2.9
11.	Hawaiian Electric	7.83	59.0	4.6	3.0	7.6
12.	IdaCorp.	0.42	12.5	0.1	4.0	4.1
13.	Pinnacle West	1.64	33.1	0.5	3.5	4.0
14.	Portland Gen.	0.30	10.7	0.0	4.0	4.0
15.	SCANA Corp	4.24	46.2	2.0	4.0	6.0
16.	Sempra Energy	0.50	49.7	0.2	6.0	6.2
17.	Southern Co.	1.67	114.7	1.9	4.0	5.9
18.	TECO Energy	0.48	60.4	0.3	5.0	5.3
19.	Vectren	1.45	58.8	0.9	4.5	5.4
20.	Westar Energy	1.44	25.6	0.4	3.5	3.9
21.	Wisconsin Energy	-0.66	116.5	-0.8	5.5	4.7
22.	Xcel Energy	1.15	47.2	0.5	3.5	4.0
	Average			**0.6%**	**4.0%**	**4.6%**

(1) Projected growth rate in shares outstanding, 2011-2016.

(2) % Premium of share price ("Recent Price") over 2011 Book Value per share.

(3) SV is growth rate in shares x % premium.

(4) br is Value Line's projection as of 2015-2017.

Source: *Value Line Investment Survey*, May 4, 25 and June 22, 2012.

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Capital Asset Pricing Model Study
Illustrative Calculations

A. Model Specification

$K_e = R_F + \beta (R_m - R_F)$, where

K_e = cost of equity

R_F = return on risk free asset

Rm = expected stock market return

B. Data Inputs

R_F = 3.0% (Treasury bond yield for the most recent six months, see page 2 of 2)

Rm = 8.0 – 11.0% (equates to equity risk premium of 5.0 - 8.0%)

Beta = 0.73 (See Schedule MIK-3)

C. Model Calculations

Low end:	K_e = 3.0% + 0.73 (5.0) = 6.7%
Midpoint:	K_e = 3.0% + 0.73 (6.5) = 7.7%
Upper End:	K_e = 3.0% + 0.73 (8.0) = 8.8%
High Sensitivity:	K_e = 3.0% + 0.73 (9.0) = 9.6%

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Long-Term Treasury Yields
(January 2012 - June 2012)

Month	30-Year	20-Year	10-Year
January 2012	3.03	2.70	1.97
February	3.11	2.75	1.97
March	3.28	2.94	2.17
April	3.18	2.82	2.05
May	2.93	2.53	1.80
June	2.70	2.31	1.62
Average	**3.04%**	**2.68%**	**1.93%**

Source: Federal Reserve, "Statistical Release," publication H.15, February 2012 – July 2012.

APPENDIX A

STATEMENT OF QUALIFICATIONS

FOR

MATTHEW I. KAHAL

MATTHEW I. KAHAL

Since 2001, Mr. Kahal has worked as an independent consulting economist, specializing in energy economics, public utility regulation and utility financial studies. Over the past three decades, his work has encompassed electric utility integrated resource planning (IRP), power plant licensing, environmental compliance and utility financial issues. In the financial area he has conducted numerous cost of capital studies and addressed other financial issues for electric, gas, telephone and water utilities. Mr. Kahal's work in recent years has shifted to electric utility restructuring, mergers and various aspects of regulation.

Mr. Kahal has provided expert testimony on more than 350 occasions before state and federal regulatory commissions and the U.S. Congress. His testimony has covered need for power, integrated resource planning, cost of capital, purchased power practices and contracts, merger economics, industry restructuring and various other regulatory and public policy issues.

Education:

B.A. (Economics) - University of Maryland, 1971.

M.A. (Economics) - University of Maryland, 1974.

Ph.D. candidacy - University of Maryland, completed all course work and qualifying examinations.

Previous Employment:

1981-2001 - Exeter Associates, Inc. (founding Principal, Vice President and President).

1980-1981 - Member of the Economic Evaluation Directorate, The Aerospace Corporation, Washington, D.C. office.

1977-1980 - Economist, Washington, D.C. consulting firm.

1972-1977 - Research/Teaching Assistant and Instructor, Department of Economics, University of Maryland (College Park). Lecturer in Business and Economics, Montgomery College.

Professional Work Experience:

Mr. Kahal has more than thirty years experience managing and conducting consulting assignments relating to public utility economics and regulation. In 1981, he and five colleagues founded the firm of Exeter Associates, Inc. and for the next 20 years he served as a Principal and corporate officer in the firm. During that time, he supervised multi-million dollar support contracts with the State of Maryland and directed the technical work conducted both by Exeter professional staff and numerous subcontractors. Additionally, Mr. Kahal took the lead role at Exeter in consulting to the firm's other governmental and private clients in the areas of financial analysis, utility mergers, electric restructuring and utility purchase power contracts.

At the Aerospace Corporation, Mr. Kahal served as an economic consultant to the Strategic Petroleum Reserve (SPR). In that capacity he participated in a detailed financial assessment of the SPR, and developed an econometric forecasting model of U.S. petroleum industry inventories. That study has been used to determine the extent to which private sector petroleum stocks can be expected to protect the U.S. from the impacts of oil import interruptions.

Before entering consulting, Mr. Kahal held faculty positions with the Department of Economics at the University of Maryland and with Montgomery College teaching courses on economic principles, business and economic development.

Publications and Consulting Reports:

Projected Electric Power Demands of the Baltimore Gas and Electric Company, Maryland Power Plant Siting Program, 1979.

Projected Electric Power Demands of the Allegheny Power System, Maryland Power Plant Siting Program, January 1980.

An Econometric Forecast of Electric Energy and Peak Demand on the Delmarva Peninsula, Maryland Power Plant Siting Program, March 1980 (with Ralph E. Miller).

A Benefit/Cost Methodology of the Marginal Cost Pricing of Tennessee Valley Authority Electricity, prepared for the Board of Directors of the Tennessee Valley Authority, April 1980.

An Evaluation of the Delmarva Power and Light Company Generating Capacity Profile and Expansion Plan, (Interim Report), prepared for the Delaware Office of the Public Advocate, July 1980, (with Sharon L. Mason).

Rhode Island-DOE Electric Utilities Demonstration Project, Third Interim Report on Preliminary Analysis of the Experimental Results, prepared for the Economic Regulatory Administration, U.S. Department of Energy, July 1980.

Petroleum Inventories and the Strategic Petroleum Reserve, The Aerospace Corporation, prepared for the Strategic Petroleum Reserve Office, U.S. Department of Energy, December 1980.

Alternatives to Central Station Coal and Nuclear Power Generation, prepared for Argonne National Laboratory and the Office of Utility Systems, U.S. Department of Energy, August 1981.

"An Econometric Methodology for Forecasting Power Demands," Conducting Need-for-Power Review for Nuclear Power Plants (D.A. Nash, ed.), U.S. Nuclear Regulatory Commission, NUREG-0942, December 1982.

State Regulatory Attitudes Toward Fuel Expense Issues, prepared for the Electric Power Research Institute, July 1983, (with Dale E. Swan).

"Problems in the Use of Econometric Methods in Load Forecasting," Adjusting to Regulatory, Pricing and Marketing Realities (Harry Trebing, ed.), Institute of Public Utilities, Michigan State University, 1983.

Proceedings of the Maryland Conference on Electric Load Forecasting, (editor and contributing author), Maryland Power Plant Siting Program, PPES-83-4, October 1983.

"The Impacts of Utility-Sponsored Weatherization Programs: The Case of Maryland Utilities," (with others), in Government and Energy Policy (Richard L. Itteilag, ed.), 1983.

Power Plant Cumulative Environmental Impact Report, contributing author, (Paul E. Miller, ed.) Maryland Department of Natural Resources, January 1984.

Projected Electric Power Demands for the Potomac Electric Power Company, three volumes with Steven L. Estomin), prepared for the Maryland Power Plant Siting Program, March 1984.

"An Assessment of the State-of-the-Art of Gas Utility Load Forecasting," (with Thomas Bacon, Jr. and Steven L. Estomin), published in the Proceedings of the Fourth NARUC Biennial Regulatory Information Conference, 1984.

"Nuclear Power and Investor Perceptions of Risk," (with Ralph E. Miller), published in The Energy Industries in Transition: 1985-2000 (John P. Weyant and Dorothy Sheffield, eds.), 1984.

The Financial Impact of Potential Department of Energy Rate Recommendations on the Commonwealth Edison Company, prepared for the U.S. Department of Energy, October 1984.

"Discussion Comments," published in Impact of Deregulation and Market Forces on Public Utilities: The Future of Regulation (Harry Trebing, ed.), Institute of Public Utilities, Michigan State University, 1985.

An Econometric Forecast of the Electric Power Loads of Baltimore Gas and Electric Company, two volumes (with others), prepared for the Maryland Power Plant Siting Program, 1985.

A Survey and Evaluation of Demand Forecast Methods in the Gas Utility Industry, prepared for the Public Utilities Commission of Ohio, Forecasting Division, November 1985, (with Terence Manuel).

A Review and Evaluation of the Load Forecasts of Houston Lighting & Power Company and Central Power & Light Company -- Past and Present, prepared for the Texas Public Utility Commission, December 1985, (with Marvin H. Kahn).

Power Plant Cumulative Environmental Impact Report for Maryland, principal author of three of the eight chapters in the report (Paul E. Miller, ed.), PPSP-CEIR-5, March 1986.

"Potential Emissions Reduction from Conservation, Load Management, and Alternative Power," published in Acid Deposition in Maryland: A Report to the Governor and General Assembly, Maryland Power Plant Research Program, AD-87-1, January 1987.

Determination of Retrofit Costs at the Oyster Creek Nuclear Generating Station, March 1988, prepared for Versar, Inc., New Jersey Department of Environmental Protection.

Excess Deferred Taxes and the Telephone Utility Industry, April 1988, prepared on behalf of the National Association of State Utility Consumer Advocates.

Toward a Proposed Federal Policy for Independent Power Producers, comments prepared on behalf of the Indiana Consumer Counselor, FERC Docket EL87-67-000, November 1987.

Review and Discussion of Regulations Governing Bidding Programs, prepared for the Pennsylvania Office of Consumer Advocate, June 1988.

A Review of the Proposed Revisions to the FERC Administrative Rules on Avoided Costs and Related Issues, prepared for the Pennsylvania Office of Consumer Advocate, April 1988.

Review and Comments on the FERC NOPR Concerning Independent Power Producers, prepared for the Pennsylvania Office of Consumer Advocate, June 1988.

The Costs to Maryland Utilities and Ratepayers of an Acid Rain Control Strategy -- An Updated Analysis, prepared for the Maryland Power Plant Research Program, October 1987, AD-88-4.

"Comments," in New Regulatory and Management Strategies in a Changing Market Environment (Harry M. Trebing and Patrick C. Mann, editors), Proceedings of the Institute of Public Utilities Eighteenth Annual Conference, 1987.

Electric Power Resource Planning for the Potomac Electric Power Company, prepared for the Maryland Power Plant Research Program, July 1988.

Power Plant Cumulative Environmental Impact Report for Maryland (Thomas E. Magette, ed.) authored two chapters, November 1988, PPRP-CEIR-6.

Resource Planning and Competitive Bidding for Delmarva Power & Light Company, October 1990, prepared for the Maryland Department of Natural Resources (with M. Fullenbaum).

Electric Power Rate Increases and the Cleveland Area Economy, prepared for the Northeast Ohio Areawide Coordinating Agency, October 1988.

An Economic and Need for Power Evaluation of Baltimore Gas & Electric Company's Perryman Plant, May 1991, prepared for the Maryland Department of Natural Resources (with M. Fullenbaum).

The Cost of Equity Capital for the Bell Local Exchange Companies in a New Era of Regulation, October 1991, presented at the Atlantic Economic Society 32nd Conference, Washington, D.C.

A Need for Power Review of Delmarva Power & Light Company's Dorchester Unit 1 Power Plant, March 1993, prepared for the Maryland Department of National Resources (with M. Fullenbaum)

The AES Warrior Run Project: Impact on Western Maryland Economic Activity and Electric Rates, February 1993, prepared for the Maryland Power Plant Research Program (with Peter Hall).

An Economic Perspective on Competition and the Electric Utility Industry, November 1994. Prepared for the Electric Consumers' Alliance.

PEPCO's Clean Air Act Compliance Plan: Status Report, prepared for the Maryland Power Plant Research Plan, January 1995 (w/Diane Mountain, Environmental Resources Management, Inc.).

The FERC Open Access Rulemaking: A Review of the Issues, prepared for the Indiana Office of Utility Consumer Counselor and the Pennsylvania Office of Consumer Advocate, June 1995.

A Status Report on Electric Utility Restructuring: Issues for Maryland, prepared for the Maryland Power Plant Research Program, November 1995 (with Daphne Psacharopoulos).

Modeling the Financial Impacts on the Bell Regional Holding Companies from Changes in Access Rates, prepared for MCI Corporation, May 1996.

The CSEF Electric Deregulation Study: Economic Miracle or the Economists' Cold Fusion?, prepared for the Electric Consumers' Alliance, Indianapolis, Indiana, October 1996.

Reducing Rates for Interstate Access Service: Financial Impacts on the Bell Regional Holding Companies, prepared for MCI Corporation, May 1997.

The New Hampshire Retail Competition Pilot Program: A Preliminary Evaluation, July 1997, prepared for the Electric Consumers' Alliance (with Jerome D. Mierzwa).

Electric Restructuring and the Environment: Issue Identification for Maryland, March 1997, prepared for the Maryland Power Plant Research Program (with Environmental Resource Management, Inc.)

An Analysis of Electric Utility Embedded Power Supply Costs, prepared for Power-Gen International Conference, Dallas, Texas, December 1997.

Market Power Outlook for Generation Supply in Louisiana, December 2000, prepared for the Louisiana Public Service Commission (with others).

A Review of Issues Concerning Electric Power Capacity Markets, prepared for the Maryland Power Plant Research Program, December 2001 (with B. Hobbs and J. Inon).
The Economic Feasibility of Air Emissions Controls at the Brandon Shores and Morgantown Coal-fired Power Plants, February 2005, (prepared for the Chesapeake Bay Foundation).

The Economic Feasibility of Power Plant Retirements on the Entergy System, September 2005 with Phil Hayet (prepared for the Louisiana Public Service Commission).

Expert Report on Capital Structure, Equity and Debt Costs, prepared for the Edmonton Regional Water Customers Group, August 30, 2006.

Maryland's Options to Reduce and Stabilize Electric Power Prices Following Restructuring, with Steven L. Estomin, prepared for the Power Plant Research Program, Maryland Department of Natural Resources, September 2006.

Expert Report of Matthew I. Kahal, on behalf of the U. S. Department of Justice, August 2008, Civil Action No. IP-99-1693C-MIS.

Conference and Workshop Presentations:

Workshop on State Load Forecasting Programs, sponsored by the Nuclear Regulatory Commission and Oak Ridge National Laboratory, February 1982 (presentation on forecasting methodology).

Fourteenth Annual Conference of the Michigan State University Institute for Public Utilities, December 1982 (presentation on problems in forecasting).

Conference on Conservation and Load Management, sponsored by the Massachusetts Energy Facilities Siting Council, May 1983 (presentation on cost-benefit criteria).

Maryland Conference on Load Forecasting, sponsored by the Maryland Power Plant Siting Program and the Maryland Public Service Commission, June 1983 (presentation on overforecasting power demands).

The 5th Annual Meetings of the International Association of Energy Economists, June 1983 (presentation on evaluating weatherization programs).

The NARUC Advanced Regulatory Studies Program (presented lectures on capacity planning for electric utilities), February 1984.

The 16th Annual Conference of the Institute of Public Utilities, Michigan State University (discussant on phase-in and excess capacity), December 1984.

U.S. Department of Energy Utilities Conference, Las Vegas, Nevada (presentation of current and future regulatory issues), May 1985.

The 18th Annual Conference of the Institute of Public Utilities, Michigan State University, Williamsburg, Virginia, December 1986 (discussant on cogeneration).

The NRECA Conference on Load Forecasting, sponsored by the National Rural Electric Cooperative Association, New Orleans, Louisiana, December 1987 (presentation on load forecast accuracy).

The Second Rutgers/New Jersey Department of Commerce Annual Conference on Energy Policy in the Middle Atlantic States, Rutgers University, April 1988 (presentation on spot pricing of electricity).

The NASUCA 1988 Mid-Year Meeting, Annapolis, Maryland, June 1988, sponsored by the National Association of State Utility Consumer Advocates (presentation on the FERC electricity avoided cost NOPRs).

The Thirty Second Atlantic Economic Society Conference, Washington, D.C., October 1991 (presentation of a paper on cost of capital issues for the Bell Operating Companies).

The NASUCA 1993 Mid-Year Meeting, St. Louis, Missouri, sponsored by the National Association of State Utility Consumer Advocates, June 1993 (presentation on regulatory issues concerning electric utility mergers).

The NASUCA and NARUC annual meetings in New York City, November 1993 (presentations and panel discussions on the emerging FERC policies on transmission pricing).

The NASUCA annual meetings in Reno, Nevada, November 1994 (presentation concerning the FERC NOPR on stranded cost recovery).

U.S. Department of Energy Utilities/Energy Management Workshop, March 1995 (presentation concerning electric utility competition).

The 1995 NASUCA Mid-Year Meeting, Breckenridge, Colorado, June 1995, (presentation concerning the FERC rulemaking on electric transmission open access).

The 1996 NASUCA Mid-Year Meeting, Chicago, Illinois, June 1996 (presentation concerning electric utility merger issues).

Conference on “Restructuring the Electric Industry,” sponsored by the National Consumers League and Electric Consumers Alliance, Washington, D.C., May 1997 (presentation on retail access pilot programs).

The 1997 Mid-Atlantic Conference of Regulatory Utilities Commissioners (MARUC), Hot Springs, Virginia, July 1997 (presentation concerning electric deregulation issues).

Power-Gen ‘97 International Conference, Dallas, Texas, December 1997 (presentation concerning utility embedded costs of generation supply).

Consumer Summit on Electric Competition, sponsored by the National Consumers League and Electric Consumers’ Alliance, Washington, D.C., March 2001 (presentation concerning generation supply and reliability).

National Association of State Utility Consumer Advocates, Mid-Year Meetings, Austin, Texas, June 16-17, 2002 (presenter and panelist on RTO/Standard Market Design issues).

Louisiana State Bar Association, Public Utility Section, October 2, 2002. (Presentation on Performance-Based Ratemaking and panelist on RTO issues). Baton Rouge, Louisiana.

Virginia State Corporation Commission/Virginia State Bar, Twenty Second National Regulatory Conference, May 10, 2004. (Presentation on Electric Transmission System Planning.) Williamsburg, Virginia.

Expert Testimony
of Matthew I. Kahal

	Docket Number	Utility	Jurisdiction	Client	Subject
1.	27374 & 27375 October 1978	Long Island Lighting Company	New York Counties	Nassau & Suffolk	Economic Impacts of Proposed Rate Increase
2.	6807 January 1978	Generic	Maryland	MD Power Plant Siting Program	Load Forecasting
3.	78-676-EL-AIR February 1978	Ohio Power Company	Ohio	Ohio Consumers' Counsel	Test Year Sales and Revenues
4.	17667 May 1979	Alabama Power Company	Alabama	Attorney General	Test Year Sales, Revenues, Costs and Load Forecasts
5.	None April 1980	Tennessee Valley Authority	TVA Board	League of Women Voters	Time-of-Use Pricing
6.	R-80021082	West Penn Power Company	Pennsylvania	Office of Consumer Advocate	Load Forecasting, Marginal Cost pricing
7.	7259 (Phase I) October 1980	Potomac Edison Company	Maryland	MD Power Plant Siting Program	Load Forecasting
8.	7222 December 1980	Delmarva Power & Light Company	Maryland	MD Power Plant Siting Program	Need for Plant, Load Forecasting
9.	7441 June 1981	Potomac Electric Power Company	Maryland	Commission Staff	PURPA Standards
10.	7159 May 1980	Baltimore Gas & Electric	Maryland	Commission Staff	Time-of-Use Pricing
11.	81-044-E-42T	Monongahela Power	West Virginia	Commission Staff	Time-of-Use Rates
12.	7259 (Phase II) November 1981	Potomac Edison Company	Maryland	MD Power Plant Siting Program	Load Forecasting, Load Management
13.	1606 September 1981	Blackstone Valley Electric and Narragansett	Rhode Island	Division of Public Utilities	PURPA Standards
14.	RID 1819 April 1982	Pennsylvania Bell	Pennsylvania	Office of Consumer Advocate	Rate of Return
15.	82-0152 July 1982	Illinois Power Company	Illinois	U.S. Department of Defense	Rate of Return, CWIP

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16.	7559 September 1982	Potomac Edison Company	Maryland	Commission Staff	Cogeneration
17.	820150-EU September 1982	Gulf Power Company	Florida	Federal Executive Agencies	Rate of Return, CWIP
18.	82-057-15 January 1983	Mountain Fuel Supply Company	Utah	Federal Executive Agencies	Rate of Return, Capital Structure
19.	5200 August 1983	Texas Electric Service Company	Texas	Federal Executive Agencies	Cost of Equity
20.	28069 August 1983	Oklahoma Natural Gas	Oklahoma	Federal Executive Agencies	Rate of Return, deferred taxes, capital structure, attrition
21.	83-0537 February 1984	Commonwealth Edison Company	Illinois	U.S. Department of Energy	Rate of Return, capital structure, financial capability
22.	84-035-01 June 1984	Utah Power & Light Company	Utah	Federal Executive Agencies	Rate of Return
23.	U-1009-137 July 1984	Utah Power & Light Company	Idaho	U.S. Department of Energy	Rate of Return, financial condition
24.	R-842590 August 1984	Philadelphia Electric Company	Pennsylvania	Office of Consumer Advocate	Rate of Return
25.	840086-EI August 1984	Gulf Power Company	Florida	Federal Executive Agencies	Rate of Return, CWIP
26.	84-122-E August 1984	Carolina Power & Light Company	South Carolina	South Carolina Consumer Advocate	Rate of Return, CWIP, load forecasting
27.	CGC-83-G & CGC-84-G October 1984	Columbia Gas of Ohio	Ohio	Ohio Division of Energy	Load forecasting
28.	R-842621 October 1984	Western Pennsylvania Water Company	Pennsylvania	Office of Consumer Advocate	Test year sales
29.	R-842710 January 1985	ALLTEL Pennsylvania Inc.	Pennsylvania	Office of Consumer Advocate	Rate of Return
30.	ER-504 February 1985	Allegheny Generating Company	FERC	Office of Consumer Advocate	Rate of Return

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31.	R-842632 March 1985	West Penn Power Company	Pennsylvania	Office of Consumer Advocate	Rate of Return, conservation, time-of-use rates
32.	83-0537 & 84-0555 April 1985	Commonwealth Edison Company	Illinois	U.S. Department of Energy	Rate of Return, incentive rates, rate base
33.	Rulemaking Docket No. 11, May 1985	Generic	Delaware	Delaware Commission Staff	Interest rates on refunds
34.	29450 July 1985	Oklahoma Gas & Electric Company	Oklahoma	Oklahoma Attorney General	Rate of Return, CWIP in rate base
35.	1811 August 1985	Bristol County Water Company	Rhode Island	Division of Public Utilities	Rate of Return, capital Structure
36.	R-850044 & R-850045 August 1985	Quaker State & Continental Telephone Companies	Pennsylvania	Office of Consumer Advocate	Rate of Return
37.	R-850174 November 1985	Philadelphia Suburban Water Company	Pennsylvania	Office of Consumer Advocate	Rate of Return, financial conditions
38.	U-1006-265 March 1986	Idaho Power Company	Idaho	U.S. Department of Energy	Power supply costs and models
39.	EL-86-37 & EL-86-38 September 1986	Allegheny Generating Company	FERC	PA Office of Consumer Advocate	Rate of Return
40.	R-850287 June 1986	National Fuel Gas Distribution Corp.	Pennsylvania	Office of Consumer Advocate	Rate of Return
41.	1849 August 1986	Blackstone Valley Electric	Rhode Island	Division of Public Utilities	Rate of Return, financial condition
42.	86-297-GA-AIR November 1986	East Ohio Gas Company	Ohio	Ohio Consumers' Counsel	Rate of Return
43.	U-16945 December 1986	Louisiana Power & Light Company	Louisiana	Public Service Commission	Rate of Return, rate phase-in plan
44.	Case No. 7972 February 1987	Potomac Electric Power Company	Maryland	Commission Staff	Generation capacity planning, purchased power contract
45.	EL-86-58 & EL-86-59 March 1987	System Energy Resources and Middle South Services	FERC	Louisiana PSC	Rate of Return

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46.	ER-87-72-001 April 1987	Orange & Rockland	FERC	PA Office of Consumer Advocate	Rate of Return
47.	U-16945 April 1987	Louisiana Power & Light Company	Louisiana	Commission Staff	Revenue requirement update phase-in plan
48.	P-870196 May 1987	Pennsylvania Electric Company	Pennsylvania	Office of Consumer Advocate	Cogeneration contract
49.	86-2025-EL-AIR June 1987	Cleveland Electric Illuminating Company	Ohio	Ohio Consumers' Counsel	Rate of Return
50.	86-2026-EL-AIR June 1987	Toledo Edison Company	Ohio	Ohio Consumers' Counsel	Rate of Return
51.	87-4 June 1987	Delmarva Power & Light Company	Delaware	Commission Staff	Cogeneration/small power
52.	1872 July 1987	Newport Electric Company	Rhode Island	Commission Staff	Rate of Return
53.	WO 8606654 July 1987	Atlantic City Sewerage Company	New Jersey	Resorts International	Financial condition
54.	7510 August 1987	West Texas Utilities Company	Texas	Federal Executive Agencies	Rate of Return, phase-in
55.	8063 Phase I October 1987	Potomac Electric Power Company	Maryland	Power Plant Research Program	Economics of power plant site selection
56.	00439 November 1987	Oklahoma Gas & Electric Company	Oklahoma	Smith Cogeneration	Cogeneration economics
57.	RP-87-103 February 1988	Panhandle Eastern Pipe Line Company	FERC	Indiana Utility Consumer Counselor	Rate of Return
58.	EC-88-2-000 February 1988	Utah Power & Light Co. PacifiCorp	FERC	Nucor Steel	Merger economics
59.	87-0427 February 1988	Commonwealth Edison Company	Illinois	Federal Executive Agencies	Financial projections
60.	870840 February 1988	Philadelphia Suburban Water Company	Pennsylvania	Office of Consumer Advocate	Rate of Return

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61.	870832 March 1988	Columbia Gas of Pennsylvania	Pennsylvania	Office of Consumer Advocate	Rate of Return
62.	8063 Phase II July 1988	Potomac Electric Power Company	Maryland	Power Plant Research Program	Power supply study
63.	8102 July 1988	Southern Maryland Electric Cooperative	Maryland	Power Plant Research Program	Power supply study
64.	10105 August 1988	South Central Bell Telephone Co.	Kentucky	Attorney General	Rate of Return, incentive regulation
65.	00345 August 1988	Oklahoma Gas & Electric Company	Oklahoma	Smith Cogeneration	Need for power
66.	U-17906 September 1988	Louisiana Power & Light Company	Louisiana	Commission Staff	Rate of Return, nuclear power costs Industrial contracts
67.	88-170-EL-AIR October 1988	Cleveland Electric Illuminating Co.	Ohio	Northeast-Ohio Areawide Coordinating Agency	Economic impact study
68.	1914 December 1988	Providence Gas Company	Rhode Island	Commission Staff	Rate of Return
69.	U-12636 & U-17649 February 1989	Louisiana Power & Light Company	Louisiana	Commission Staff	Disposition of litigation proceeds
70.	00345 February 1989	Oklahoma Gas & Electric Company	Oklahoma	Smith Cogeneration	Load forecasting
71.	RP88-209 March 1989	Natural Gas Pipeline of America	FERC	Indiana Utility Consumer Counselor	Rate of Return
72.	8425 March 1989	Houston Lighting & Power Company	Texas	U.S. Department of Energy	Rate of Return
73.	EL89-30-000 April 1989	Central Illinois Public Service Company	FERC	Soyland Power Coop, Inc.	Rate of Return
74.	R-891208 May 1989	Pennsylvania American Water Company	Pennsylvania	Office of Consumer Advocate	Rate of Return

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75.	89-0033 May 1989	Illinois Bell Telephone Company	Illinois	Citizens Utility Board	Rate of Return
76.	881167-EI May 1989	Gulf Power Company	Florida	Federal Executive Agencies	Rate of Return
77.	R-891218 July 1989	National Fuel Gas Distribution Company	Pennsylvania	Office of Consumer Advocate	Sales forecasting
78.	8063, Phase III Sept. 1989	Potomac Electric Power Company	Maryland	Depart. Natural Resources	Emissions Controls
79.	37414-S2 October 1989	Public Service Company of Indiana	Indiana	Utility Consumer Counselor	Rate of Return, DSM, off-system sales, incentive regulation
80.	October 1989	Generic	U.S. House of Reps. Comm. on Ways & Means	NA	Excess deferred income tax
81.	38728 November 1989	Indiana Michigan Power Company	Indiana	Utility Consumer Counselor	Rate of Return
82.	RP89-49-000 December 1989	National Fuel Gas Supply Corporation	FERC	PA Office of Consumer Advocate	Rate of Return
83.	R-891364 December 1989	Philadelphia Electric Company	Pennsylvania	PA Office of Consumer Advocate	Financial impacts (surrebuttal only)
84.	RP89-160-000 January 1990	Trunkline Gas Company	FERC	Indiana Utility Consumer Counselor	Rate of Return
85.	EL90-16-000 November 1990	System Energy Resources, Inc.	FERC	Louisiana Public Service Commission	Rate of Return
86.	89-624 March 1990	Bell Atlantic	FCC	PA Office of Consumer Advocate	Rate of Return
87.	8245 March 1990	Potomac Edison Company	Maryland	Depart. Natural Resources	Avoided Cost
88.	000586 March 1990	Public Service Company of Oklahoma	Oklahoma	Smith Cogeneration Mgmt.	Need for Power

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89.	38868 March 1990	Indianapolis Water Company	Indiana	Utility Consumer Counselor	Rate of Return
90.	1946 March 1990	Blackstone Valley Electric Company	Rhode Island	Division of Public Utilities	Rate of Return
91.	000776 April 1990	Oklahoma Gas & Electric Company	Oklahoma	Smith Cogeneration Mgmt.	Need for Power
92.	890366 May 1990, December 1990	Metropolitan Edison Company	Pennsylvania	Office of Consumer Advocate	Competitive Bidding Program Avoided Costs
93.	EC-90-10-000 May 1990	Northeast Utilities	FERC	Maine PUC, et. al.	Merger, Market Power, Transmission Access
94.	ER-891109125 July 1990	Jersey Central Power & Light	New Jersey	Rate Counsel	Rate of Return
95.	R-901670 July 1990	National Fuel Gas Distribution Corp.	Pennsylvania	Office of Consumer Advocate	Rate of Return Test year sales
96.	8201 October 1990	Delmarva Power & Light Company	Maryland	Depart. Natural Resources	Competitive Bidding, Resource Planning
97.	EL90-45-000 April 1991	Entergy Services, Inc.	FERC	Louisiana PSC	Rate of Return
98.	GR90080786J January 1991	New Jersey Natural Gas	New Jersey	Rate Counsel	Rate of Return
99.	90-256 January 1991	South Central Bell Telephone Company	Kentucky	Attorney General	Rate of Return
100.	U-17949A February 1991	South Central Bell Telephone Company	Louisiana	Louisiana PSC	Rate of Return
101.	ER90091090J April 1991	Atlantic City Electric Company	New Jersey	Rate Counsel	Rate of Return
102.	8241, Phase I April 1991	Baltimore Gas & Electric Company	Maryland	Dept. of Natural Resources	Environmental controls

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103.	8241, Phase II May 1991	Baltimore Gas & Electric Company	Maryland	Dept. of Natural Resources	Need for Power, Resource Planning
104.	39128 May 1991	Indianapolis Water Company	Indiana	Utility Consumer Counselor	Rate of Return, rate base, financial planning
105.	P-900485 May 1991	Duquesne Light Company	Pennsylvania	Office of Consumer Advocate	Purchased power contract and related ratemaking
106.	G900240 P910502 May 1991	Metropolitan Edison Company Pennsylvania Electric Company	Pennsylvania	Office of Consumer Advocate	Purchased power contract and related ratemaking
107.	GR901213915 May 1991	Elizabethtown Gas Company	New Jersey	Rate Counsel	Rate of Return
108.	91-5032 August 1991	Nevada Power Company	Nevada	U.S. Dept. of Energy	Rate of Return
109.	EL90-48-000 November 1991	Entergy Services	FERC	Louisiana PSC	Capacity transfer
110.	000662 September 1991	Southwestern Bell Telephone	Oklahoma	Attorney General	Rate of Return
111.	U-19236 October 1991	Arkansas Louisiana Gas Company	Louisiana	Louisiana PSC Staff	Rate of Return
112.	U-19237 December 1991	Louisiana Gas Service Company	Louisiana	Louisiana PSC Staff	Rate of Return
113.	ER91030356J October 1991	Rockland Electric Company	New Jersey	Rate Counsel	Rate of Return
114.	GR91071243J February 1992	South Jersey Gas Company	New Jersey	Rate Counsel	Rate of Return
115.	GR91081393J March 1992	New Jersey Natural Gas Company	New Jersey	Rate Counsel	Rate of Return
116.	P-870235 <u>et</u> <u>al</u>. March 1992	Pennsylvania Electric Company	Pennsylvania	Office of Consumer Advocate	Cogeneration contracts

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117.	8413 March 1992	Potomac Electric Power Company	Maryland	Dept. of Natural Resources	IPP purchased power contracts
118.	39236 March 1992	Indianapolis Power & Light Company	Indiana	Utility Consumer Counselor	Least-cost planning Need for power
119.	R-912164 April 1992	Equitable Gas Company	Pennsylvania	Office of Consumer Advocate	Rate of Return
120.	ER-91111698J May 1992	Public Service Electric & Gas Company	New Jersey	Rate Counsel	Rate of Return
121.	U-19631 June 1992	Trans Louisiana Gas Company	Louisiana	PSC Staff	Rate of Return
122.	ER-91121820J July 1992	Jersey Central Power & Light Company	New Jersey	Rate Counsel	Rate of Return
123.	R-00922314 August 1992	Metropolitan Edison Company	Pennsylvania	Office of Consumer Advocate	Rate of Return
124.	92-049-05 September 1992	US West Communications	Utah	Committee of Consumer Services	Rate of Return
125.	92PUE0037 September 1992	Commonwealth Gas Company	Virginia	Attorney General	Rate of Return
126.	EC92-21-000 September 1992	Entergy Services, Inc.	FERC	Louisiana PSC	Merger Impacts (Affidavit)
127.	ER92-341-000 December 1992	System Energy Resources	FERC	Louisiana PSC	Rate of Return
128.	U-19904 November 1992	Louisiana Power & Light Company	Louisiana	Staff	Merger analysis, competition competition issues
129.	8473 November 1992	Baltimore Gas & Electric Company	Maryland	Dept. of Natural Resources	QF contract evaluation
130.	IPC-E-92-25 January 1993	Idaho Power Company	Idaho	Federal Executive Agencies	Power Supply Clause

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131.	E002/GR-92-1185 February 1993	Northern States Power Company	Minnesota	Attorney General	Rate of Return
132.	92-102, Phase II March 1992	Central Maine Power Company	Maine	Staff	QF contracts prudence and procurements practices
133.	EC92-21-000 March 1993	Entergy Corporation	FERC	Louisiana PSC	Merger Issues
134.	8489 March 1993	Delmarva Power & Light Company	Maryland	Dept. of Natural Resources	Power Plant Certification
135.	11735 April 1993	Texas Electric Utilities Company	Texas	Federal Executives Agencies	Rate of Return
136.	2082 May 1993	Providence Gas Company	Rhode Island	Division of Public Utilities	Rate of Return
137.	P-00930715 December 1993	Bell Telephone Company of Pennsylvania	Pennsylvania	Office of Consumer Advocate	Rate of Return, Financial Projections, Bell/TCI merger
138.	R-00932670 February 1994	Pennsylvania-American Water Company	Pennsylvania	Office of Consumer Advocate	Rate of Return
139.	8583 February 1994	Conowingo Power Company	Maryland	Dept. of Natural Resources	Competitive Bidding for Power Supplies
140.	E-015/GR-94-001 April 1994	Minnesota Power & Light Company	Minnesota	Attorney General	Rate of Return
141.	CC Docket No. 94-1 May 1994	Generic Telephone	FCC	MCI Comm. Corp.	Rate of Return
142.	92-345, Phase II June 1994	Central Maine Power Company	Maine	Advocacy Staff	Price Cap Regulation Fuel Costs
143.	93-11065 April 1994	Nevada Power Company	Nevada	Federal Executive Agencies	Rate of Return
144.	94-0065 May 1994	Commonwealth Edison Company	Illinois	Federal Executive Agencies	Rate of Return
145.	GR94010002J June 1994	South Jersey Gas Company	New Jersey	Rate Counsel	Rate of Return

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146.	WR94030059 July 1994	New Jersey-American Water Company	New Jersey	Rate Counsel	Rate of Return
147.	RP91-203-000 June 1994	Tennessee Gas Pipeline Company	FERC	Customer Group	Environmental Externalities (oral testimony only)
148.	ER94-998-000 July 1994	Ocean State Power	FERC	Boston Edison Company	Rate of Return
149.	R-00942986 July 1994	West Penn Power Company	Pennsylvania	Office of Consumer Advocate	Rate of Return, Emission Allowances
150.	94-121 August 1994	South Central Bell Telephone Company	Kentucky	Attorney General	Rate of Return
151.	35854-S2 November 1994	PSI Energy, Inc.	Indiana	Utility Consumer Counsel	Merger Savings and Allocations
152.	IPC-E-94-5 November 1994	Idaho Power Company	Idaho	Federal Executive Agencies	Rate of Return
153.	November 1994	Edmonton Water	Alberta, Canada	Regional Customer Group	Rate of Return (Rebuttal Only)
154.	90-256 December 1994	South Central Bell Telephone Company	Kentucky	Attorney General	Incentive Plan True-Ups
155.	U-20925 February 1995	Louisiana Power & Light Company	Louisiana	PSC Staff	Rate of Return Industrial Contracts Trust Fund Earnings
156.	R-00943231 February 1995	Pennsylvania-American Water Company	Pennsylvania	Consumer Advocate	Rate of Return
157.	8678 March 1995	Generic	Maryland	Dept. Natural Resources	Electric Competition Incentive Regulation (oral only)
158.	R-000943271 April 1995	Pennsylvania Power & Light Company	Pennsylvania	Consumer Advocate	Rate of Return Nuclear decommissioning Capacity Issues
159.	U-20925 May 1995	Louisiana Power & Light Company	Louisiana	Commission Staff	Class Cost of Service Issues

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160.	2290 June 1995	Narragansett Electric Company	Rhode Island	Division Staff	Rate of Return
161.	U-17949E June 1995	South Central Bell Telephone Company	Louisiana	Commission Staff	Rate of Return
162.	2304 July 1995	Providence Water Supply Board	Rhode Island	Division Staff	Cost recovery of Capital Spending Program
163.	ER95-625-000 et al. August 1995	PSI Energy, Inc.	FERC	Office of Utility Consumer Counselor	Rate of Return
164.	P-00950915 et al. September 1995	Paxton Creek Cogeneration Assoc.	Pennsylvania	Office of Consumer Advocate	Cogeneration Contract Amendment
165.	8702 September 1995	Potomac Edison Company	Maryland	Dept. of Natural Resources	Allocation of DSM Costs (oral only)
166.	ER95-533-001 September 1995	Ocean State Power	FERC	Boston Edison Co.	Cost of Equity
167.	40003 November 1995	PSI Energy, Inc.	Indiana	Utility Consumer Counselor	Rate of Return Retail wheeling
168.	P-55, SUB 1013 January 1996	BellSouth	North Carolina	AT&T	Rate of Return
169.	P-7, SUB 825 January 1996	Carolina Tel.	North Carolina	AT&T	Rate of Return
170.	February 1996	Generic Telephone	FCC	MCI	Cost of capital
171.	95A-531EG April 1996	Public Service Company of Colorado	Colorado	Federal Executive Agencies	Merger issues
172.	ER96-399-000 May 1996	Northern Indiana Public Service Company	FERC	Indiana Office of Utility Consumer Counselor	Cost of capital
173.	8716 June 1996	Delmarva Power & Light Company	Maryland	Dept. of Natural Resources	DSM programs
174.	8725 July 1996	BGE/PEPCO	Maryland	Md. Energy Admin.	Merger Issues

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175.	U-20925 August 1996	Entergy Louisiana, Inc.	Louisiana	PSC Staff	Rate of Return Allocations Fuel Clause
176.	EC96-10-000 September 1996	BGE/PEPCO	FERC	Md. Energy Admin.	Merger issues competition
177.	EL95-53-000 November 1996	Entergy Services, Inc.	FERC	Louisiana PSC	Nuclear Decommissioning
178.	WR96100768 March 1997	Consumers NJ Water Company	New Jersey	Ratepayer Advocate	Cost of Capital
179.	WR96110818 April 1997	Middlesex Water Co.	New Jersey	Ratepayer Advocate	Cost of Capital
180.	U-11366 April 1997	Ameritech Michigan	Michigan	MCI	Access charge reform/financial condition
181.	97-074 May 1997	BellSouth	Kentucky	MCI	Rate Rebalancing financial condition
182.	2540 June 1997	New England Power	Rhode Island	PUC Staff	Divestiture Plan
183.	96-336-TP-CSS June 1997	Ameritech Ohio	Ohio	MCI	Access Charge reform Economic impacts
184.	WR97010052 July 1997	Maxim Sewerage Corp.	New Jersey	Ratepayer Advocate	Rate of Return
185.	97-300 August 1997	LG&E/KU	Kentucky	Attorney General	Merger Plan
186.	Case No. 8738 August 1997	Generic (oral testimony only)	Maryland	Dept. of Natural Resources	Electric Restructuring Policy
187.	Docket No. 2592 September 1997	Eastern Utilities	Rhode Island	PUC Staff	Generation Divestiture
188.	Case No.97-247 September 1997	Cincinnati Bell Telephone	Kentucky	MCI	Financial Condition

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189.	Docket No. U-20925 November 1997	Entergy Louisiana	Louisiana	PSC Staff	Rate of Return
190.	Docket No. D97.7.90 November 1997	Montana Power Co.	Montana	Montana Consumers Counsel	Stranded Cost
191.	Docket No. EO97070459 November 1997	Jersey Central Power & Light Co.	New Jersey	Ratepayer Advocate	Stranded Cost
192.	Docket No. R-00974104 November 1997	Duquesne Light Co.	Pennsylvania	Office of Consumer Advocate	Stranded Cost
193.	Docket No. R-00973981 November 1997	West Penn Power Co.	Pennsylvania	Office of Consumer Advocate	Stranded Cost
194.	Docket No. A-1101150F0015 November 1997	Allegheny Power System DQE, Inc.	Pennsylvania	Office of Consumer Advocate	Merger Issues
195.	Docket No. WR97080615 January 1998	Consumers NJ Water Company	New Jersey	Ratepayer Advocate	Rate of Return
196.	Docket No. R-00974149 January 1998	Pennsylvania Power Company	Pennsylvania	Office of Consumer Advocate	Stranded Cost
197.	Case No. 8774 January 1998	Allegheny Power System DQE, Inc.	Maryland	Dept. of Natural Resources MD Energy Administration	Merger Issues
198.	Docket No. U-20925 (SC) March 1998	Entergy Louisiana, Inc.	Louisiana	Commission Staff	Restructuring, Stranded Costs, Market Prices
199.	Docket No. U-22092 (SC) March 1998	Entergy Gulf States, Inc.	Louisiana	Commission Staff	Restructuring, Stranded Costs, Market Prices
200.	Docket Nos. U-22092 (SC) and U-20925(SC) May 1998	Entergy Gulf States and Entergy Louisiana	Louisiana	Commission Staff	Standby Rates
201.	Docket No. WR98010015 May 1998	NJ American Water Co.	New Jersey	Ratepayer Advocate	Rate of Return
202.	Case No. 8794 December 1998	Baltimore Gas & Electric Co.	Maryland	MD Energy Admin./Dept. Of Natural Resources	Stranded Cost/ Transition Plan

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203.	Case No. 8795 December 1998	Delmarva Power & Light Co.	Maryland	MD Energy Admin./Dept. Of Natural Resources	Stranded Cost/ Transition Plan
204.	Case No. 8797 January 1998	Potomac Edison Co.	Maryland	MD Energy Admin./Dept. Of Natural Resources	Stranded Cost/ Transition Plan
205.	Docket No. WR98090795 March 1999	Middlesex Water Co.	New Jersey	Ratepayer Advocate	Rate of Return
206.	Docket No. 99-02-05 April 1999	Connecticut Light & Power	Connecticut	Attorney General	Stranded Costs
207.	Docket No. 99-03-04 May 1999	United Illuminating Company	Connecticut	Attorney General	Stranded Costs
208.	Docket No. U-20925 (FRP) June 1999	Entergy Louisiana, Inc.	Louisiana	Staff	Capital Structure
209.	Docket No. EC-98-40-000, et al. May 1999	American Electric Power/ Central & Southwest	FERC	Arkansas PSC	Market Power Mitigation
210.	Docket No. 99-03-35 July 1999	United Illuminating Company	Connecticut	Attorney General	Restructuring
211.	Docket No. 99-03-36 July 1999	Connecticut Light & Power Co.	Connecticut	Attorney General	Restructuring
212.	WR99040249 Oct. 1999	Environmental Disposal Corp.	New Jersey	Ratepayer Advocate	Rate of Return
213.	2930 Nov. 1999	NEES/EUA	Rhode Island	Division Staff	Merger/Cost of Capital
214.	DE99-099 Nov. 1999	Public Service New Hampshire	New Hampshire	Consumer Advocate	Cost of Capital Issues
215.	00-01-11 Feb. 2000	Con Ed/NU	Connecticut	Attorney General	Merger Issues
216.	Case No. 8821 May 2000	Reliant/ODEC	Maryland	Dept. of Natural Resources	Need for Power/Plant Operations

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217.	Case No. 8738 July 2000	Generic	Maryland	Dept. of Natural Resources	DSM Funding
218.	Case No. U-23356 June 2000	Entergy Louisiana, Inc.	Louisiana	PSC Staff	Fuel Prudence Issues Purchased Power
219.	Case No. 21453, et al July 2000	SWEPCO	Louisiana	PSC Staff	Stranded Costs
220.	Case No. 20925 (B) July 2000	Entergy Louisiana	Louisiana	PSC Staff	Purchase Power Contracts
221.	Case No. 24889 August 2000	Entergy Louisiana	Louisiana	PSC Staff	Purchase Power Contracts
222.	Case No. 21453, et al. February 2001	CLECO	Louisiana	PSC Staff	Stranded Costs
223.	P-00001860 and P-0000181 March 2001	GPU Companies	Pennsylvania	Office of Consumer Advocate	Rate of Return
224.	CVOL-0505662-S March 2001	ConEd/NU	Connecticut Superior Court	Attorney General	Merger (Affidavit)
225.	U-20925 (SC) March 2001	Entergy Louisiana	Louisiana	PSC Staff	Stranded Costs
226.	U-22092 (SC) March 2001	Entergy Gulf States	Louisiana	PSC Staff	Stranded Costs
227.	U-25533 May 2001	Entergy Louisiana/ Gulf States	Louisiana Interruptible Service	PSC Staff	Purchase Power
228.	P-00011872 May 2001	Pike County Pike	Pennsylvania	Office of Consumer Advocate	Rate of Return
229.	8893 July 2001	Baltimore Gas & Electric Co.	Maryland	MD Energy Administration	Corporate Restructuring
230.	8890 September 2001	Potomac Electric/Connectivity	Maryland	MD Energy Administration	Merger Issues

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231.	U-25533 August 2001	Entergy Louisiana / Gulf States	Louisiana	Staff	Purchase Power Contracts
232.	U-25965 November 2001	Generic	Louisiana	Staff	RTO Issues
233.	3401 March 2002	New England Gas Co.	Rhode Island	Division of Public Utilities	Rate of Return
234.	99-833-MJR April 2002	Illinois Power Co.	U.S. District Court	U.S. Department of Justice	New Source Review
235.	U-25533 March 2002	Entergy Louisiana/ Gulf States	Louisiana	PSC Staff	Nuclear Uprates Purchase Power
236.	P-00011872 May 2002	Pike County Power & Light	Pennsylvania	Consumer Advocate	POLR Service Costs
237.	U-26361, Phase I May 2002	Entergy Louisiana/ Gulf States	Louisiana	PSC Staff	Purchase Power Cost Allocations
238.	R-00016849C001 et al. June 2002	Generic	Pennsylvania	Pennsylvania OCA	Rate of Return
239.	U-26361, Phase II July 2002	Entergy Louisiana/ Entergy Gulf States	Louisiana	PSC Staff	Purchase Power Contracts
240.	U-20925(B) August 2002	Entergy Louisiana	Louisiana	PSC Staff	Tax Issues
241.	U-26531 October 2002	SWEPCO	Louisiana	PSC Staff	Purchase Power Contract
242.	8936 October 2002	Delmarva Power & Light	Maryland	Energy Administration Dept. Natural Resources	Standard Offer Service
243.	U-25965 November 2002	SWEPCO/AEP	Louisiana	PSC Staff	RTO Cost/Benefit
244.	8908 Phase I November 2002	Generic	Maryland	Energy Administration Dept. Natural Resources	Standard Offer Service
245.	02S-315EG November 2002	Public Service Company of Colorado	Colorado	Fed. Executive Agencies	Rate of Return

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246.	EL02-111-000 December 2002	PJM/MISO	FERC	MD PSC	Transmission Ratemaking
247.	02-0479 February 2003	Commonwealth Edison	Illinois	Dept. of Energy	POLR Service
248.	PL03-1-000 March 2003	Generic	FERC	NASUCA	Transmission Pricing (Affidavit)
249.	U-27136 April 2003	Entergy Louisiana	Louisiana	Staff	Purchase Power Contracts
250.	8908 Phase II July 2003	Generic	Maryland	Energy Administration Dept. of Natural Resources	Standard Offer Service
251.	U-27192 June 2003	Entergy Louisiana and Gulf States	Louisiana	LPSC Staff	Purchase Power Contract Cost Recovery
252.	C2-99-1181 October 2003	Ohio Edison Company	U.S. District Court	U.S. Department of Justice, et al.	Clean Air Act Compliance Economic Impact (Report)
253.	RP03-398-000 December 2003	Northern Natural Gas Co.	FERC	Municipal Distributors Group/Gas Task Force	Rate of Return
254.	8738 December 2003	Generic	Maryland	Energy Admin Department of Natural Resources	Environmental Disclosure (oral only)
255.	U-27136 December 2003	Entergy Louisiana, Inc.	Louisiana	PSC Staff	Purchase Power Contracts
256.	U-27192, Phase II October/December 2003	Entergy Louisiana & Entergy Gulf States	Louisiana	PSC Staff	Purchase Power Contracts
257.	WC Docket 03-173 December 2003	Generic	FCC	MCI	Cost of Capital (TELRIC)
258.	ER 030 20110 January 2004	Atlantic City Electric	New Jersey	Ratepayer Advocate	Rate of Return
259.	E-01345A-03-0437 January 2004	Arizona Public Service Company	Arizona	Federal Executive Agencies	Rate of Return
260.	03-10001 January 2004	Nevada Power Company	Nevada	U.S. Dept. of Energy	Rate of Return

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261.	R-00049255 June 2004	PPL Elec. Utility	Pennsylvania	Office of Consumer Advocate	Rate of Return
262.	U-20925 July 2004	Entergy Louisiana, Inc.	Louisiana	PSC Staff	Rate of Return Capacity Resources
263.	U-27866 September 2004	Southwest Electric Power Co.	Louisiana	PSC Staff	Purchase Power Contract
264.	U-27980 September 2004	Cleco Power	Louisiana	PSC Staff	Purchase Power Contract
265.	U-27865 October 2004	Entergy Louisiana, Inc. Entergy Gulf States	Louisiana	PSC Staff	Purchase Power Contract
266.	RP04-155 December 2004	Northern Natural Gas Company	FERC	Municipal Distributors Group/Gas Task Force	Rate of Return
267.	U-27836 January 2005	Entergy Louisiana/ Gulf States	Louisiana	PSC Staff	Power plant Purchase and Cost Recovery
268.	U-199040 et al. February 2005	Entergy Gulf States/ Louisiana	Louisiana	PSC Staff	Global Settlement, Multiple rate proceedings
269.	EF03070532 March 2005	Public Service Electric & Gas	New Jersey	Ratepayers Advocate	Securitization of Deferred Costs
270.	05-0159 June 2005	Commonwealth Edison	Illinois	Department of Energy	POLR Service
271.	U-28804 June 2005	Entergy Louisiana	Louisiana	LPSC Staff	QF Contract
272.	U-28805 June 2005	Entergy Gulf States	Louisiana	LPSC Staff	QF Contract
273.	05-0045-EI June 2005	Florida Power & Lt.	Florida	Federal Executive Agencies	Rate of Return
274.	9037 July 2005	Generic	Maryland	MD. Energy Administration	POLR Service
275.	U-28155 August 2005	Entergy Louisiana Entergy Gulf States	Louisiana	LPSC Staff	Independent Coordinator of Transmission Plan

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276.	U-27866-A September 2005	Southwestern Electric Power Company	Louisiana	LPSC Staff	Purchase Power Contract
277.	U-28765 October 2005	Cleco Power LLC	Louisiana	LPSC Staff	Purchase Power Contract
278.	U-27469 October 2005	Entergy Louisiana Entergy Gulf States	Louisiana	LPSC Staff	Avoided Cost Methodology
279.	A-313200F007 October 2005	Sprint (United of PA)	Pennsylvania	Office of Consumer Advocate	Corporate Restructuring
280.	EM05020106 November 2005	Public Service Electric & Gas Company	New Jersey	Ratepayer Advocate	Merger Issues
281.	U-28765 December 2005	Cleco Power LLC	Louisiana	LPSC Staff	Plant Certification, Financing, Rate Plan
282.	U-29157 February 2006	Cleco Power LLC	Louisiana	LPSC Staff	Storm Damage Financing
283.	U-29204 March 2006	Entergy Louisiana Entergy Gulf States	Louisiana	LPSC Staff	Purchase power contracts
284.	A-310325F006 March 2006	Alltel	Pennsylvania	Office of Consumer Advocate	Merger, Corporate Restructuring
285.	9056 March 2006	Generic	Maryland	Maryland Energy Administration	Standard Offer Service Structure
286.	C2-99-1182 April 2006	American Electric Power Utilities	U. S. District Court Southern District, Ohio	U. S. Department of Justice	New Source Review Enforcement (expert report)
287.	EM05121058 April 2006	Atlantic City Electric	New Jersey	Ratepayer Advocate	Power plant Sale
288.	ER05121018 June 2006	Jersey Central Power & Light Company	New Jersey	Ratepayer Advocate	NUG Contracts Cost Recovery
289.	U-21496, Subdocket C June 2006	Cleco Power LLC	Louisiana	Commission Staff	Rate Stabilization Plan
290.	GR0510085 June 2006	Public Service Electric & Gas Company	New Jersey	Ratepayer Advocate	Rate of Return (gas services)

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291.	R-000061366 July 2006	Metropolitan Ed. Company Penn. Electric Company	Pennsylvania	Office of Consumer Advocate	Rate of Return
292.	9064 September 2006	Generic	Maryland	Energy Administration	Standard Offer Service
293.	U-29599 September 2006	Cleco Power LLC	Louisiana	Commission Staff	Purchase Power Contracts
294.	WR06030257 September 2006	New Jersey American Water Company	New Jersey	Rate Counsel	Rate of Return
295.	U-27866/U-29702 October 2006	Southwestern Electric Power Company	Louisiana	Commission Staff	Purchase Power/Power Plant Certification
296.	9063 October 2006	Generic	Maryland	Energy Administration Department of Natural Resources	Generation Supply Policies
297.	EM06090638 November 2006	Atlantic City Electric	New Jersey	Rate Counsel	Power Plant Sale
298.	C-2000065942 November 2006	Pike County Light & Power	Pennsylvania	Consumer Advocate	Generation Supply Service
299.	ER06060483 November 2006	Rockland Electric Company	New Jersey	Rate Counsel	Rate of Return
300.	A-110150F0035 December 2006	Duquesne Light Company	Pennsylvania	Consumer Advocate	Merger Issues
301.	U-29203, Phase II January 2007	Entergy Gulf States Entergy Louisiana	Louisiana	Commission Staff	Storm Damage Cost Allocation
302.	06-11022 February 2007	Nevada Power Company	Nevada	U.S. Dept. of Energy	Rate of Return
303.	U-29526 March 2007	Cleco Power	Louisiana	Commission Staff	Affiliate Transactions
304.	P-00072245 March 2007	Pike County Light & Power	Pennsylvania	Consumer Advocate	Provider of Last Resort Service
305.	P-00072247 March 2007	Duquesne Light Company	Pennsylvania	Consumer Advocate	Provider of Last Resort Service

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	Docket Number	Utility	Jurisdiction	Client	Subject
306.	EM07010026 May 2007	Jersey Central Power & Light Company	New Jersey	Rate Counsel	Power Plant Sale
307.	U-30050 June 2007	Entergy Louisiana Entergy Gulf States	Louisiana	Commission Staff	Purchase Power Contract
308.	U-29956 June 2007	Entergy Louisiana	Louisiana	Commission Staff	Black Start Unit
309.	U-29702 June 2007	Southwestern Electric Power Company	Louisiana	Commission Staff	Power Plant Certification
310.	U-29955 July 2007	Entergy Louisiana Entergy Gulf States	Louisiana	Commission Staff	Purchase Power Contracts
311.	2007-67 July 2007	FairPoint Communications	Maine	Office of Public Advocate	Merger Financial Issues
312.	P-00072259 July 2007	Metropolitan Edison Co.	Pennsylvania	Office of Consumer Advocate	Purchase Power Contract Restructuring
313.	EO07040278 September 2007	Public Service Electric & Gas	New Jersey	Rate Counsel	Solar Energy Program Financial Issues
314.	U-30192 September 2007	Entergy Louisiana	Louisiana	Commission Staff	Power Plant Certification Ratemaking, Financing
315.	9117 (Phase II) October 2007	Generic (Electric)	Maryland	Energy Administration	Standard Offer Service Reliability
316.	U-30050 November 2007	Entergy Gulf States	Louisiana	Commission Staff	Power Plant Acquisition
317.	IPC-E-07-8 December 2007	Idaho Power Co.	Idaho	U.S. Department of Energy	Cost of Capital
318.	U-30422 (Phase I) January 2008	Entergy Gulf States	Louisiana	Commission Staff	Purchase Power Contract
319.	U-29702 (Phase II) February, 2008	Southwestern Electric Power Co.	Louisiana	Commission Staff	Power Plant Certification
320.	March 2008	Delmarva Power & Light	Delaware State Senate	Senate Committee	Wind Energy Economics

	Docket Number	Utility	Jurisdiction	Client	Subject
321.	U-30192 (Phase II) March 2008	Entergy Louisiana	Louisiana	Commission Staff	Cash CWIP Policy, Credit Ratings
322.	U-30422 (Phase II) April 2008	Entergy Gulf States - LA	Louisiana	Commission Staff	Power Plant Acquisition
323.	U-29955 (Phase II) April 2008	Entergy Gulf States - LA Entergy Louisiana	Louisiana	Commission Staff	Purchase Power Contract
324.	GR-070110889 April 2008	New Jersey Natural Gas Company	New Jersey	Rate Counsel	Cost of Capital
325.	WR-08010020 July 2008	New Jersey American Water Company	New Jersey	Rate Counsel	Cost of Capital
326.	U-28804-A August 2008	Entergy Louisiana	Louisiana	Commission Staff	Cogeneration Contract
327.	IP-99-1693C-M/S August 2008	Duke Energy Indiana	Federal District Court	U.S. Department of Justice/ Environmental Protection Agency	Clean Air Act Compliance (Expert Report)
328.	U-30670 September 2008	Entergy Louisiana	Louisiana	Commission Staff	Nuclear Plant Equipment Replacement
329.	9149 October 2008	Generic	Maryland	Department of Natural Resources	Capacity Adequacy/Reliability
330.	IPC-E-08-10 October 2008	Idaho Power Company	Idaho	U.S. Department of Energy	Cost of Capital
331.	U-30727 October 2008	Cleco Power LLC	Louisiana	Commission Staff	Purchased Power Contract
332.	U-30689-A December 2008	Cleco Power LLC	Louisiana	Commission Staff	Transmission Upgrade Project
333.	IP-99-1693C-M/S February 2009	Duke Energy Indiana	Federal District Court	U.S. Department of Justice/EPA	Clean Air Act Compliance (Oral Testimony)
334.	U-30192, Phase II February 2009	Entergy Louisiana, LLC	Louisiana	Commission Staff	CWIP Rate Request Plant Allocation
335.	U-28805-B February 2009	Entergy Gulf States, LLC	Louisiana	Commission Staff	Cogeneration Contract

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336.	P-2009-2093055, et al. May 2009	Metropolitan Edison Pennsylvania Electric	Pennsylvania	Office of Consumer Advocate	Default Service
337.	U-30958 July 2009	Cleco Power	Louisiana	Commission Staff	Purchase Power Contract
338.	EO08050326 August 2009	Jersey Central Power Light Co.	New Jersey	Rate Counsel	Demand Response Cost Recovery
339.	GR09030195 August 2009	Elizabethtown Gas	New Jersey	New Jersey Rate Counsel	Cost of Capital
340.	U-30422-A August 2009	Entergy Gulf States	Louisiana	Staff	Generating Unit Purchase
341.	CV 1:99-01693 August 2009	Duke Energy Indiana	Federal District Court – Indiana	U. S. DOJ/EPA, *et al.*	Environmental Compliance Rate Impacts (Expert Report)
342.	4065 September 2009	Narragansett Electric	Rhode Island	Division Staff	Cost of Capital
343.	U-30689 September 2009	Cleco Power	Louisiana	Staff	Cost of Capital, Rate Design, Other Rate Case Issues
344.	U-31147 October 2009	Entergy Gulf States Entergy Louisiana	Louisiana	Staff	Purchase Power Contracts
345.	U-30913 November 2009	Cleco Power	Louisiana	Staff	Certification of Generating Unit
346.	M-2009-2123951 November 2009	West Penn Power	Pennsylvania	Office of Consumer Advocate	Smart Meter Cost of Capital (Surrebuttal Only)
347.	GR09050422 November 2009	Public Service Electric & Gas Company	New Jersey	Rate Counsel	Cost of Capital
348.	D-09-49 November 2009	Narragansett Electric	Rhode Island	Division Staff	Securities Issuances
349.	U-29702, Phase II November 2009	Southwestern Electric Power Company	Louisiana	Commission Staff	Cash CWIP Recovery
350.	U-30981 December 2009	Entergy Louisiana Entergy Gulf States	Louisiana	Commission Staff	Storm Damage Cost Allocation

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	Docket Number	Utility	Jurisdiction	Client	Subject
351.	U-31196 (ITA Phase) February 2010	Entergy Louisiana	Louisiana	Staff	Purchase Power Contract
352.	ER09080668 March 2010	Rockland Electric	New Jersey	Rate Counsel	Rate of Return
353.	GR10010035 May 2010	South Jersey Gas Co.	New Jersey	Rate Counsel	Rate of Return
354.	P-2010-2157862 May 2010	Pennsylvania Power Co.	Pennsylvania	Consumer Advocate	Default Service Program
355.	10-CV-2275 June 2010	Xcel Energy	U.S. District Court Minnesota	U.S. Dept. Justice/EPA	Clean Air Act Enforcement
356.	WR09120987 June 2010	United Water New Jersey	New Jersey	Rate Counsel	Rate of Return
357.	U-30192, Phase III June 2010	Entergy Louisiana	Louisiana	Staff	Power Plant Cancellation Costs
358.	31299 July 2010	Cleco Power	Louisiana	Staff	Securities Issuances
359.	App. No. 1601162 July 2010	EPCOR Water	Alberta, Canada	Regional Customer Group	Cost of Capital
360.	U-31196 July 2010	Entergy Louisiana	Louisiana	Staff	Purchase Power Contract
361.	2:10-CV-13101 August 2010	Detroit Edison	U.S. District Court Eastern Michigan	U.S. Dept. of Justice/EPA	Clean Air Act Enforcement
362.	U-31196 August 2010	Entergy Louisiana Entergy Gulf States	Louisiana	Staff	Generating Unit Purchase and Cost Recovery
363.	Case No. 9233 October 2010	Potomac Edison Company	Maryland	Energy Administration	Merger Issues
364.	2010-2194652 November 2010	Pike County Light & Power	Pennsylvania	Consumer Advocate	Default Service Plan

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365.	2010-2213369 April 2011	Duquesne Light Company	Pennsylvania	Consumer Advocate	Merger Issues
366.	U-31841 May 2011	Entergy Gulf States	Louisiana	Staff	Purchase Power Agreement
367.	11-06006 September 2011	Nevada Power	Nevada	U. S. Department of Energy	Cost of Capital
368.	9271 September 2011	Exelon/Constellation	Maryland	MD Energy Administration	Merger Savings
369.	4255 September 2011	United Water Rhode Island	Rhode Island	Division of Public Utilities	Rate of Return
370.	P-2011-2252042 October 2011	Pike County Light & Power	Pennsylvania	Consumer Advocate	Default service plan
371.	U-32095 November 2011	Southwestern Electric Power Company	Louisiana	Commission Staff	Wind energy contract
372.	U-32031 November 2011	Entergy Gulf States Louisiana	Louisiana	Commission Staff	Purchased Power Contract
373.	U-32088 January 2012	Entergy Louisiana	Louisiana	Commission Staff	Coal plant evaluation
374.	R-2011-2267958 February 2012	Aqua Pa.	Pennsylvania	Office of Consumer Advocate	Cost of capital
375.	P-2011-2273650 February 2012	FirstEnergy Companies	Pennsylvania	Office of Consumer Advocate	Default service plan
376.	U-32223 March 2012	Cleco Power	Louisiana	Commission Staff	Purchase Power Contract and Rate Recovery
377.	U-32148 March 2012	Entergy Louisiana Energy Gulf States	Louisiana	Commission Staff	RTO Membership
378.	ER11080469 April 2012	Atlantic City Electric	New Jersey	Rate Counsel	Cost of capital
379.	R-2012-2285985 May 2012	Peoples Natural Gas Company	Pennsylvania	Office of Consumer Advocate	Cost of capital

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	Docket Number	Utility	Jurisdiction	Client	Subject
380.	U-32153 July 2012	Cleco Power	Louisiana	Commission Staff	Environmental Compliance Plan
381.	U-32435 August 2012	Entergy Gulf States Louisiana LLC	Louisiana	Commission Staff	Cost of equity
382.	ER-2012-0174 August 2012	Kansas City Power & Light Company	Missouri	U. S. Department of Energy	Rate of return
383.	U-31196 August 2012	Entergy Louisiana/ Entergy Gulf States	Louisiana	Commission Staff	Power Plant Joint Ownership

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

IN THE MATTER OF KCP&L GREATER MISSOURI OPERATIONS COMPANY'S REQUEST FOR AUTHORITY TO IMPLEMENT A GENERAL RATE INCREASE FOR ELECTRIC SERVICE	)))))	CASE NO. ER-2012-0175

AFFIDAVIT OF MATTHEW I. KAHAL

STATE OF MARYLAND)
) SS
COUNTY OF HOWARD)

Matthew I. Kahal, being first duly sworn, on his oath states:

1. My name is Matthew I. Kahal. I am an independent consultant having a place of business at 10480 Little Patuxent Parkway, Suite 300, Columbia, Maryland 21044.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of the United States Department of Energy which was prepared in written form for introduction into evidence in the above-captioned docket.

3. 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.

Matthew I. Kahal

Subscribed and sworn before me this 8th day of August, 2012.

Notary Public

My commission expires: ______

Susan K. Hon
NOTARY PUBLIC
Howard County, Maryland
My Commission Expires 12/04/2015