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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2012-0175

REBUTTAL TESTIMONY

OF

SAMUEL C. HADAWAY

ON BEHALF OF

KCP&L GREATER MISSOURI OPERATIONS COMPANY

September 2012

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OF

SAMUEL C. HADAWAY

Case No. ER-2012-0175

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Samuel C. Hadaway and my business address is FINANCO, Inc., 3520 Executive Center Drive, Suite 124, Austin, Texas 78731.

Q. Did you previously file direct testimony on behalf of KCP&L Greater Missouri Operations Company ("GMO" or the "Company") in this proceeding?

A. Yes. My testimony supporting GMO's requested rate of return on equity ("ROE") and capital structure was filed on February 27, 2012.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to the ROE recommendations offered by Missouri Public Service Commission Staff ("Staff") witness David Murray, Office of Public Counsel ("OPC") witness Michael P. Gorman, and Federal Executive Agencies ("FEA") witness Matthew I. Kahal. In my analysis, I will demonstrate that their ROE recommendations do not reflect the ongoing volatility that utilities face in the equity markets, that their recommended ROEs are unduly influenced by the current, artificially low interest rate environment, and that their recommendations are well below the average rates allowed for other

vertically integrated electric utility companies like GMO. I will also respond to the other witnesses' comments on the methodology I used in my direct testimony to estimate GMO's cost of equity. Finally, I will update my ROE analysis for current market costs and conditions. In his rebuttal testimony, Company Vice President of Investor Relations and Treasurer Kevin Bryant responds to other parties' cost of debt and capital structure recommendations.

III. REVIEW OF ROE RECOMMENDATIONS

Q. What are the ROE recommendations provided by other parties to this case?

A. Their recommendations are summarized in Table 1 below:

Table 1
Summary of ROE Recommendations

Party/Witness	ROE Recommendation
Staff Witness Murray	9.0%
OPC Witness Gorman	9.1% - 9.5%
FEA Witness Kahal	9.5%

As I will discuss in more detail later in this testimony, based on my updated analysis, the Company is reducing its requested ROE from 10.4 percent to 10.3 percent.

Q. What are your general comments on the technical aspects of these other parties' ROE analyses?

A. The current, artificially low interest rate environment presents a serious challenge for any effort to apply traditional rate of return models to estimate investors' expectations regarding return on equity. The government's stated policy of intervening in the capital markets to keep interest rates low has disrupted normal

supply and demand relationships.[1] Under these circumstances, dividend-paying stocks, like utilities, have become highly sought-after by income-seeking investors, pushing up prices and reducing the dividend yield percentage. This sentiment is echoed in Value Line's recent review of its Electric Utility Industry group:

> With interest rates so low, many investors are interested in dividend-paying issues such as utilities. However, many electric utility stocks are priced within their 2015-2017 Target Price Ranges. This is often a sign that the industry has become overvalued. Thus, long-term investors should be cautious here. (Value Line, Electric Utility (West) Industry, August 3, 2012, p. 2237.)

In the basic "yield plus growth" DCF format, these conditions result in historically low ROE estimates. Similarly, in the equity risk premium models,

[1] On January 25, 2012 the Federal Open Market Committee of the Federal Reserve System ("Fed") issued the following policy statement:

"Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee expects economic growth over coming quarters to be modest and consequently anticipates that the unemployment rate will decline only gradually toward levels that the Committee judges to be consistent with its dual mandate. Strains in global financial markets continue to pose significant downside risks to the economic outlook. The Committee also anticipates that over coming quarters, inflation will run at levels at or below those consistent with the Committee's dual mandate.

"To support a stronger economic recovery and to help ensure that inflation, over time, is at levels consistent with the dual mandate, the Committee expects to maintain a highly accommodative stance for monetary policy. In particular, the Committee decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that economic conditions--including low rates of resource utilization and a subdued outlook for inflation over the medium run--are likely to warrant exceptionally low levels for the federal funds rate at least through late 2014."

On June 20, 2012, the Fed further announced that it is extending "Operation Twist" to the end of the year. In its review of that announcement, Bloomberg offered the following assessment: "The Federal Reserve will expand its Operation Twist program to extend the maturities of assets on its balance sheet and said it stands ready to take further action to put unemployed Americans back to work. The central bank will prolong the program through the end of the year, selling $267 billion of shorter-term securities and buying the same amount of longer-term debt in a bid to reduce borrowing costs and spur the economy." (Bloomberg.com, "Fed Expands Operation Twist by $267 Billion Through 2012," Jeff Kearns and Joshua Zumbrun, June 20, 2012.)

like the CAPM, artificially low interest rates directly reduce ROE estimates. The currently low dividend yields for utilities produce lower DCF estimates and low interest rates produce lower ROE estimates from equity risk premium models.

Given the artificial nature of these DCF and risk premium model results, they should not be used to reduce GMO's allowed cost of equity. While the government's actions reduce borrowing costs, they do not mitigate equity market risks and, therefore, they do not reduce the cost of equity in direct lockstep with the interest rate drop. Furthermore, when the government's stimulus efforts cease, there is little doubt that interest rates will rise quickly. The other parties' low ROE recommendations overemphasize the artificial reduction in interest rates created by government policy and fail to accurately reflect the fair cost of equity for GMO.

Q. How do the other parties' ROE recommendations compare to the ROEs allowed for other vertically-integrated electric utilities like GMO by other state regulatory commissions around the country?

A. They are much lower. The detailed data on allowed ROEs, which are published by SNL's Regulatory Research Associates, an authoritative source for this information that is regularly relied upon by experts in the field of public utility regulation, are presented in Schedule SCH-7. Table 2 below summarizes the quarterly ROE data for vertically-integrated electric utilities:

Table 2
Authorized Equity Returns for Vertically-Integrated Electric Utilities

	2008	2009	2010	2011	2012
1st Quarter	10.49%	10.57%	10.59%	10.09%	10.30%
2nd Quarter	10.48%	10.75%	10.18%	10.26%	9.95%
3rd Quarter	10.48%	10.50%	10.32%	10.11%	
4th Quarter	10.38%	10.59%	10.32%	10.39%	
Full Year Average	10.45%	10.63%	10.38%	10.24%	10.09%

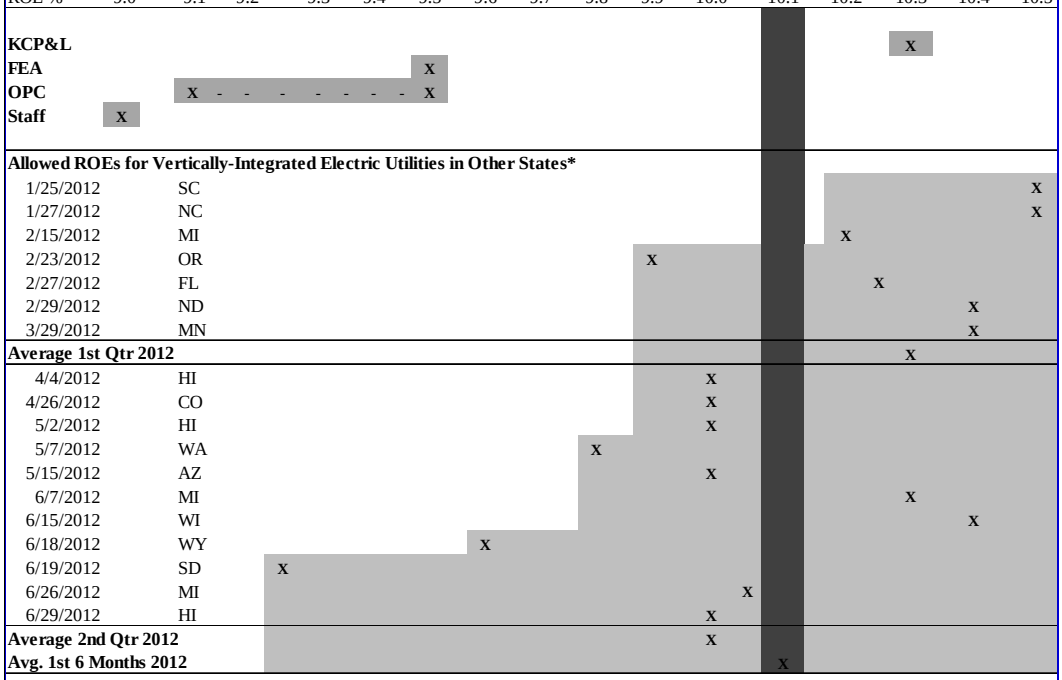
Source: Regulatory Focus, SNL Regulatory Research Associates, Major Rate Case Decisions, July 6, 2012 and Schedule SCH-7.

These data show that there has not been one quarter in the past five years when allowed ROEs for companies like GMO have been as low as the other recommendations in this case. In fact, for the first six months of 2012, the average allowed ROE for vertically-integrated electric companies was 10.09 percent. The Staff's recommended ROE in this case is 109 basis points (1.09%) lower than this contemporaneous average for other electric utility companies similar to GMO (9.0% versus 10.09%), and the FEA and OPC recommendations are 59 to 99 basis points lower (9.1%-9.5% versus 10.09%). These data provide concrete evidence of the unreasonable nature of the other parties' ROE recommendations.

Q. Can you demonstrate the relative levels of the parties' ROE recommendations?

A. Yes. Graph 1 below provides a case-by-case comparison for the vertically-integrated electric utility cases that were decided during the first six months of 2012:

Graph 1
Relative Position of Cost of Equity Estimates
(January - June 2012)



*Source: Regulatory Research Associates, Regulatory Focus, July 6, 2012.

The shaded bar at 10.1 percent is the average allowed ROE for vertically-integrated electric utilities during the first six months of 2012. The Staff's position is lower than any other allowed rate of return for the first half of 2012, and the OPC and FEA positions are below all but one other decision. These data show further that the other parties ROE recommendations are unreasonably low and should not be the basis for reducing GMO's requested rate of return.

Q. What are the results of your updated ROE analysis?

A. In my updated analysis, which I have performed to present the models based on the most recently available market data and that used by the other parties, I find a DCF range of 9.8 percent to 10.3 percent. In my updated risk premium analysis, I find an ROE range of 9.9 percent to 10.1 percent. These results are a realistic

reflection of capital market conditions, but they may not fully reflect the equity market turmoil that remains. My updated results also show that the other parties' recommendations are well below GMO's current cost of equity capital. Given the current difficulties in interpreting technical estimates of the cost of equity and the forecasts for higher interest rates that I will discuss later, the Company's continued reliance on both my original and updated analysis and the Company's revised ROE request of 10.3 percent at the top of my updated analytical range is reasonable.

Q. In your direct testimony, you provided data that illustrated interest rate trends and the spreads between U.S. Treasury bond yields and yields on triple-B rated utility bonds. Have you updated that information?

A. Yes. In Schedule SCH-8, page 1, I have updated the government and utility interest rates and the associated spread data. These data for the past two years are summarized in Table 3 below.

Table 3
Long-Term Interest Rate Trends

Month	Triple-B Utility Rate	30-Year Treasury Rate	Triple-B Utility Spread
Aug-09	6.36	4.37	1.99
Sep-09	6.12	4.19	1.93
Oct-09	6.14	4.19	1.95
Nov-09	6.18	4.31	1.87
Dec-09	6.26	4.49	1.77
Jan-10	6.16	4.60	1.56
Feb-10	6.25	4.62	1.63
Mar-10	6.22	4.64	1.58
Apr-10	6.19	4.69	1.50
May-10	5.97	4.29	1.68
Jun-10	6.18	4.13	2.05
Jul-10	5.98	3.99	1.99
Aug-10	5.55	3.80	1.75
Sep-10	5.53	3.77	1.76
Oct-10	5.62	3.87	1.75
Nov-10	5.85	4.19	1.66
Dec-10	6.04	4.42	1.62
Jan-11	6.06	4.52	1.54
Feb-11	6.10	4.65	1.45
Mar-11	5.97	4.51	1.46
Apr-11	5.98	4.50	1.48
May-11	5.74	4.29	1.45
Jun-11	5.67	4.23	1.44
Jul-11	5.70	4.27	1.43
Aug-11	5.22	3.65	1.57
Sep-11	5.11	3.18	1.93
Oct-11	5.24	3.13	2.11
Nov-11	4.93	3.02	1.91
Dec-11	5.07	2.98	2.09
Jan-12	5.06	3.03	2.03
Feb-12	5.02	3.11	1.91
Mar-12	5.13	3.28	1.85
Apr-12	5.11	3.18	1.93
May-12	4.97	2.93	2.04
Jun-12	4.91	2.70	2.21
Jul-12	4.85	2.59	2.26
3-Mo Avg	**4.91**	**2.74**	**2.17**
12-Mo Avg	**5.05**	**3.07**	**1.99**

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

Three month average is for May 2012-July 2012.

Twelve month average is for August 2011-July 2012.

The data in Table 3 track the steady decline in corporate interest rates that has occurred since 2009. The Federal Reserve's continuing efforts to keep short-term rates near zero and longer-term U.S. Treasury rates at historically low levels hold down corporate debt costs as well. While the effects of these monetary policy efforts are not easily captured in rate of return estimation models, equity market turbulence and the resulting elevated level of risk aversion indicate that the decline in ROEs has been far less than the decline in corporate interest rates.

Q. Do the current spreads between triple-B utility bond yields and U.S. Treasury bonds mean that the markets have fully recovered from the economic turmoil that resulted from the financial crisis?

A. No. While markets have stabilized considerably from the conditions that existed in 2008 and early 2009, concerns remain about high unemployment, large federal deficits, turmoil in the Mideast, the sovereign debt crisis in Europe, as well as other domestic economic issues. These factors combined with sluggish growth in the U.S. gross domestic product ("GDP") continue to raise substantial equity market concerns and contribute to heightened investor risk aversion.

Q. What do interest rate forecasts show for the coming year and beyond?

A. By late this year, interest rates are expected to increase from their currently low levels. In Schedule SCH-8, page 2, I provide S&P's *Trends & Projections* forecasts which extend through 2013. Table 4 below summarizes the interest rate forecasts:

Table 4
Interest Rate Forecast

	July 2012 Average	2012E Average	2013E Average
Treasury Bills	0.1%	0.1%	0.0%
10-Yr. T-Bonds	1.5%	1.8%	2.2%
30-Yr. T-Bonds	2.6%	2.9%	3.2%
Aaa Corp. Bonds	3.4%	3.8%	4.0%

Sources: Current Rates, www.federalreserve.gov.
Projected Rates, S&P *Trends & Projections*, July 2012.

These data show that during 2013 long-term Treasury interest rates are expected to rise by 60 basis points relative to the low levels of July 2012. The yields on high-grade corporate bonds are also expected to rise by a similar amount.

Q. How have utility stocks performed since the market low point reached in March 2009?

A. Prior to May of 2011, utility stock prices had lagged well behind the general market recovery. During the latter part of 2011, however, fears of potential sovereign defaults as well as domestic financial problems caused equity market risk aversion to increase. This situation made dividend oriented stocks like utilities relatively more attractive for income-oriented investors. Although utility stocks have not performed as well since the beginning of 2012, over the past several months the relatively better performance by utilities has produced lower dividend yields in the DCF model i.e., the DCF model results with respect to dividend yields do not reflect the overall market's volatility and heightened risk aversion. This anomaly makes it more difficult to interpret current DCF cost of equity estimates for utility companies.

Q. The other cost of capital witnesses use the CAPM in their analyses. Can you explain why the CAPM currently understates ROE and why CAPM estimates should not be included in estimates of GMO's cost of capital?

A. Yes. As I explained on pages 34-35 of my direct testimony, under present market conditions, and as applied by these other witnesses in their CAPM analyses, the CAPM inputs tend to understate ROE. The risk-free rate, R_f, is understated because of the government's easy money policies and investors' flight to safety. As a result, the U.S. Treasury rates used for R_f are artificially low. The second input, the market risk premium (R_m - R_f) is also understated. This is the case because the other witnesses base their market risk premium estimates on historical data and prior academic studies that do not reflect the recent market turmoil. While there is no objective source for measuring the widening equity risk premium phenomenon, the ongoing equity market volatility is indicative of the effect.

IV. REBUTTAL OF STAFF WITNESS DAVID MURRAY

Q. What is your general impression of Mr. Murray's ROE recommendation?

A. Mr. Murray's recommendation is well below GMO's cost of equity. In this case, Mr. Murray presents the same DCF analysis and the same low DCF growth rates that he submitted in the last GMO rate case.[2] The Commission found that

[2] "As explained in the previous section of this report, Staff is using the same perpetual growth rates used in the last rate case based on data analyzed for the period 1968 through 1999." See Staff Report at 48, lines 24-26.

analysis problematic and rejected it.[3] Mr. Murray continues to present the same outdated, discontinued Mergent Manual data that he relied upon in the prior case (Staff Report at 48 & Schedule 15), which I demonstrated to be incorrect.[4] While Mr. Murray now adds an additional "study" to support his low DCF growth rates, that study is also of questionable value because it includes a group of ten companies, several of which are no longer in existence, and reflects data from Value Line for only the *1968-1999* time period (Staff Report at 43-44 & Schedule 14). Mr. Murray's ad hoc effort to find data that attempts to support his personal opinions should be rejected.

The Staff Report says that ROE estimates should pass a common sense test: "Staff emphasizes that an estimate of a utility's cost of equity should pass the '*common sense*' test when considering the broader current economic and capital market conditions." See Staff Report at 28, lines 11-13 (emphasis added). Mr. Murray's ROE recommendation does not meet this test. As shown previously in Graph 1, Mr. Murray's ROE range of 8.0 percent to 9.0 percent is well below returns allowed for other similarly situated utilities. Even the upper end of the Staff's range is below *any* ROE for *any* vertically-integrated electric utility by *any*

[3] In the last GMO rate case, the Commission found:
"349. Staff witness Murray did not use data that could be confirmed by either government or industry statistics….
350. He then arrived at a 4.0%-5.0% growth rate based upon Staff's expertise and understanding of current market conditions.
351. Admitting that he cited no authority to reduce the 5.97% growth rate by 100 to 200 basis points, Mr. Murray was vague on whom he consulted and how this process of reducing a growth rate based on public information occurred." See Report and Order at 118, Case No. ER-2010-0355 (Apr. 12, 2011).

[4] Rebuttal Testimony of Samuel C. Hadaway at pages 14-15, Case No. ER-2010-0355 (Dec. 8, 2010).

regulatory commission in the country. It is clear, therefore, that Mr. Murray's testimony is not a reliable or reasonable basis to estimate GMO's cost of equity.

Q. Mr. Murray also points to lower growth rates from government agencies and ultimately selects a long-term growth rate of 3.5 percent. What is your view of this analysis?

A. Mr. Murray's 3.5 percent long-term growth rate in the multi-stage DCF model is not based on sound economic data and is designed to assure that his ROE estimates are extremely low. The long-term growth rate in the DCF model (in either the constant growth or multi-stage growth version) is an estimate of what investors should expect for nominal dividend growth (real growth plus inflation) over the very long term (technically in perpetuity). Mr. Murray's 3.5 percent rate is below the average rate of inflation in the U.S. economy over the past 60 years (3.7%) and only barely above the annual change in the GDP price deflator (3.4%). See Schedule SCH-11. I have consistently shown in my GDP growth estimates (Schedules SCH-4 and SCH-11) that the current GDP forecasts from the various government agencies use estimates of permanently low inflation and lower real growth rates that do not reflect the long-term U.S. economy. For Mr. Murray to rely on these low GDP growth rate forecasts, which are the product of the most severe economic downturn since the Great Depression of the 1930s, and then to select an even lower growth rate for his multi-stage DCF analysis is indicative of a biased and unrealistic approach. Given the permanent long-term growth rate required in the DCF model, Mr. Murray's approach is entirely unreasonable.

Q. At pages 56-59, Mr. Murray discusses an August 2011 *Public Utilities Fortnightly* ("PUF") article by Steven Kihm, a former economist with the Wisconsin Public Service Commission. What is your view of the opinions expressed in that article?

A. The opinions expressed in the PUF article are neither reasonable nor well grounded. Mr. Kihm's conclusion is that with an 8 percent nominal GDP growth rate and 4 percent dividend growth for the period he studied (1950-2000), utilities can be expected to grow at about one-half the rate of the economy. Mr. Murray readily endorses this opinion, saying: "…assuming utilities do not need to expand to meet additional load growth, it is logical to assume that utilities should not grow much faster than the rate of inflation in the long-term**."** See Staff Report at 57, lines 24-26. Such a conclusion is entirely at odds with the operation of the DCF model and would result in ROEs well below the returns ordered by numerous regulatory agencies over the past decade.

Q. Is there other evidence that demonstrates why Mr. Kihm's and Mr. Murray's conclusions are not valid?

A. Yes. The SNL Regulatory Research Associates ROE data, discussed above in Section III, shows the Wisconsin Public Service Commission's allowed returns on equity in recent cases. In the data shown above in Graph 1, the June 15, 2012 allowed ROE for Wisconsin Power and Light Company (Docket No. 6680-UR-118) was 10.4 percent. This was a settled case. The most recent fully-litigated case in Wisconsin was for Northern States Power Wisconsin ("NSPW"), decided

on December 22, 2011. In its discussion of ROE in that case, the Wisconsin Commission stated the following:

> In this proceeding, NSPW proposed a rate of return of 10.75 percent. The Commission staff suggested that the appropriate return on equity be set somewhere from 10.00 to 10.50 percent and used 10.30 percent in its revenue requirement calculation. … Balance is struck most reasonably in this proceeding by authorizing a return on equity capital of 10.40 percent. A 10.40 percent return should allow NSPW to attract capital at reasonable terms without unduly burdening consumers with excessive financing costs. (Wisconsin Public Service Commission, Docket 4220-UR-117, Order at 117.)

While it may be helpful for Mr. Murray to cite the opinions of a former Wisconsin staff economist, they have not been accepted by the Wisconsin Commission and should not be endorsed here. Mr. Murray's analysis and recommendations are neither just nor reasonable and should be rejected.

V. REBUTTAL OF OPC WITNESS MICHAEL P. GORMAN

Q. What is the basis for Mr. Gorman's 9.10 percent to 9.50 percent ROE recommendation?

A. Mr. Gorman's results are summarized on page 39 of his testimony. Based on three DCF models (two constant growth models and one multi-stage growth model), a risk premium analysis, and the CAPM, he concludes that the reasonable ROE range is 9.1 percent to 9.5 percent. The midpoint of this range is 9.3 percent.

Q. What is your general assessment of Mr. Gorman's ROE testimony and recommendation?

A. Mr. Gorman's recommendation is understated because he applies improper and inconsistent approaches in reaching his final ROE estimate. In his constant

growth DCF model, he mistakenly retains two companies (Cleco and Edison International) which now have unreliable data. The result of his multi-stage DCF analysis is low because his estimate for long-term GDP growth is understated. Finally, Mr. Gorman's risk premium analysis is flawed because he continues to reject the well documented inverse relationship between equity risk premiums and the level of interest rates. Equity risk premiums increase when interest rates are low, as they are now, and decrease when interest rates are higher. When corrections are made in these areas of Mr. Gorman's analysis, the results support an ROE of 9.9 percent. See Schedule SCH-9, page 1.

Q. What are your areas of disagreement with Mr. Gorman?

A. Mr. Gorman's analysis is negatively skewed by his assumptions and his application of the models. In his constant growth DCF analysis, he includes the ROE result for Edison International, which he determines to be 5.19 percent. See Schedule MPG-4. On its face, this result should have been rejected since it is less than 100 basis points above the current cost of triple-B debt at 4.91 percent. See Schedule SCH-9, page 1. Edison International has erratic earnings prospects due to nonrecurring charges for its non-regulated coal plants. Value Line notes that low power prices have made it unappealing for the company to spend large sums on environmental upgrades that would be needed to keep its coal units operating.[5] Value Line, Zacks, and Thomson forecast earnings growth for Edison International to be 1.0 percent, 3.70 percent, and 0.33 percent, respectively. The average of these rates is less than 1.7 percent. Edison's projected growth rates are so low that, along with its dividend yield of about 3 percent, its DCF estimates are

[5] Value Line Investment Survey, May 4, 2012

not significantly above the cost of debt. For these reasons, Edison International should have been excluded from Mr. Gorman's constant growth DCF proxy group.

Likewise, the constant growth DCF result for Cleco Corporation at 6.14 percent should also be eliminated. On its face, this result for Cleco is not appropriate to use since it is hardly more than 100 basis points above the current cost of triple-B debt (6.14% less 4.91% equals 1.23%). More importantly, there is strong evidence that Cleco's stock price is being artificially inflated by merger speculation. In the latest edition covering Cleco (June 22, 2012), Value Line states: "We believe some takeover speculation is reflected in the [price] quotation." A high stock price influenced by takeover speculation would explain Cleco's abnormally low dividend yield (at just over 3.0 percent). Like Edison International, Cleco should have been eliminated from Mr. Gorman's constant growth DCF proxy group.

As a result, Mr. Gorman's constant growth DCF result is too low because he includes Edison International and Cleco Corporation in his analysis. On page 2 of Schedule SCH-9, I replicate Mr. Gorman's constant growth DCF analysis, but with Edison International and Cleco excluded. As shown on that schedule, by eliminating these two companies, Mr. Gorman's range increases 30-40 basis points (from 9.5 percent to 9.8-9.9 percent).

While Mr. Gorman applies a non-constant growth DCF model similar to mine and agrees with me that GDP growth is acceptable for use in this approach, he relies on relatively short-term GDP growth rate forecasts that are dominated by

recent historically low inflation. Mr. Gorman's GDP growth forecast contains inflation estimates that are almost a full percentage point below longer-term historical averages. This approach is inconsistent with the long-term growth rate assumption that is fundamental to the DCF model.

In his risk premium analysis, Mr. Gorman selects risk premiums that are not consistent with recent risk premium data because he fails to include the well documented inverse relationship between risk premiums and interest rates, *i.e.*, the tendency for risk premiums to widen when interest rates are low and narrow when interest rates are high. This omission causes Mr. Gorman's risk premium estimates to be significantly understated.

Q. Please elaborate on your specific disagreements with Mr. Gorman's multi-stage DCF analyses.

A. Mr. Gorman uses analysts' growth forecasts in the first five years of his multi-stage analysis and a then GDP growth forecast for years 11 and later. In the intermediate years, six through 10, he interpolates between the first and third stages. As a result, Mr. Gorman's estimate of future GDP growth is far too low. His forecasts for five- and 10-year periods are from the *Blue Chip Financial Forecasts*.[6] The current Blue Chip consensus is low because it is dominated by recent, virtually zero growth in the economy, and it is based on assumed long-term inflation rates of only about 2.0 percent.

As shown in my updated GDP forecast (Schedule SCH-11), these inflation rates are lower than in any 10-year period in the last 60 years. The nominal 4.9 percent growth rate that Mr. Gorman uses is itself lower than nominal GDP

[6] Gorman Direct Testimony at 27.

growth in most of the 10-year periods (other than the most recent period), which includes growth rates of -1.2 percent and 0.0 percent for 2008 and 2009, respectively. Mr. Gorman's use of such recent, short-term depressed data for his long-term DCF growth rate creates an unrealistically low estimate of ROE.

Q. If Mr. Gorman had used your updated GDP growth forecast of 5.7 percent in his multi-stage growth DCF analyses, what would his results have been?

A. In Schedule SCH-9, I have reproduced Mr. Gorman's multi-stage growth DCF schedule (Schedule MPG-9) with the 5.7 percent growth rate substituted for his long-term GDP growth estimate. That revised analysis indicates an ROE range of 9.9 percent to 10.1 percent.

Q. Why do you disagree with Mr. Gorman's risk premium analysis?

A. Mr. Gorman's risk premium analysis fails to include the well-documented tendency for risk premiums to expand when interest rates are low.[7] When his analysis is modified to properly reflect wider risk premiums when interest rates are lower, Mr. Gorman's risk premium analysis indicates a much higher ROE.

Q. Why are Mr. Gorman's ROE results so low?

A. Mr. Gorman's risk premium data are presented in Schedules MPG-11 and MPG-12. He discusses the analysis on pages 29-33 of his testimony. The analysis consists of two parts. In one approach Mr. Gorman adds government bond equity risk premiums of 4.41 percent to 6.13 percent to a projected Treasury bond yield of 3.60 percent. This produces an ROE result of 9.20 percent using a one-third weight for the lower end of the range and a two-thirds weight for the upper end.

[7] The relationship is a well-documented fact. A summary of published research on this topic is found at pages 128-29 of Dr. Roger Morin's text *New Regulatory Finance* published by Public Utilities Reports, Inc. in 2006. Mr. Gorman's view is inconsistent with the majority on this topic.

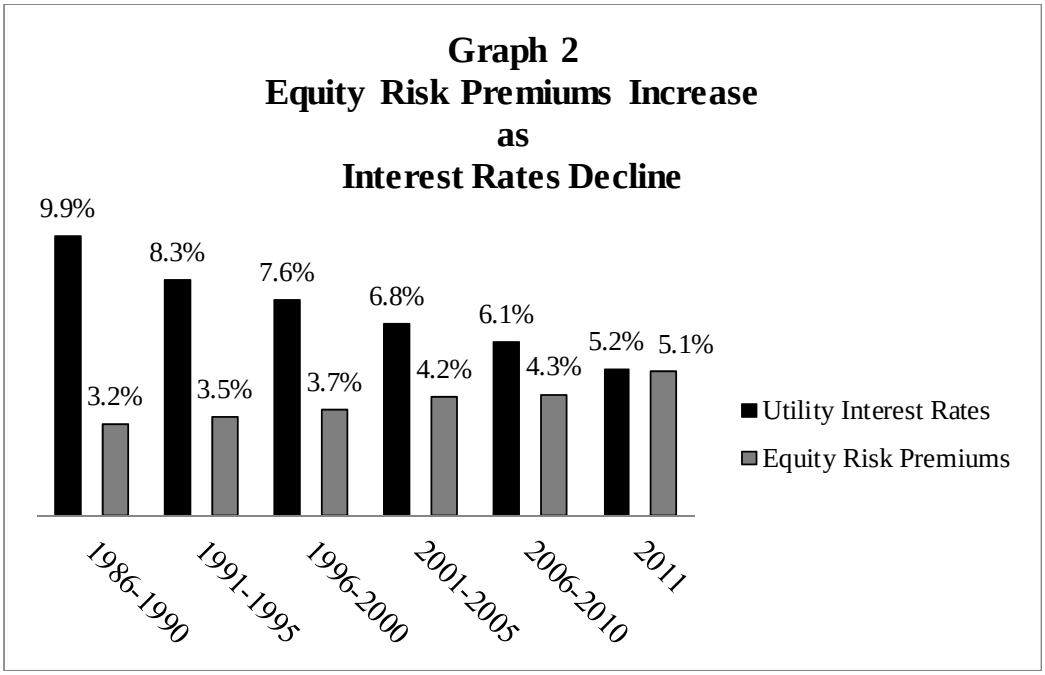
In Mr. Gorman's second approach, he adds a utility bond risk premium of 3.03 percent to 4.62 percent to the recent "Baa" utility bond yield of 4.95 percent. This produces an ROE result of 9.0 percent using the same one-third/two thirds weighting scheme as discussed above. From these two results, Mr. Gorman concludes that an ROE of 9.1 percent is appropriate (midpoint of 9.0 percent and 9.20 percent).

Q. In the risk premium analysis described in your direct testimony at pages 39-40, you used a standard regression analysis to account for the inverse relationship between risk premiums and interest rates. What do Mr. Gorman's risk premium data indicate when this approach is used?

A. In Schedule SCH-9, pages 4-7, I have applied the standard regression analysis to calculate "interest rate adjustment" factors for Mr. Gorman's two risk premium studies. This approach properly takes into account the inverse relationship between equity risk premiums and interest rates. With this adjustment, Mr. Gorman's Treasury bond risk premium analysis indicates an ROE of 9.95 percent, as shown in pages 4-5 of Schedule SCH-9. For his utility bond risk premium analysis, the indicated ROE is 9.95 percent as shown on pages 6-7 of Schedule SCH-9. These results further confirm that Mr. Gorman's risk premium data support an ROE as high as 10.0 percent.

Q. In your direct testimony at pages 40-41, you showed that the inverse relationship between equity risk premiums and interest rates can be seen without using a regression analysis approach. Does that analysis apply to your rebuttal of Mr. Gorman's risk premium analysis as well?

A. Yes. While statistical analysis is often used to substantiate certain economic and financial relationships, for the equity risk premium issue the relationship is so basic that simple observation of the data for various time periods makes the inverse relationship clear. In Graph 2 below, average utility bond yields and average equity risk premiums are presented for each non-overlapping five-year period between 1986 and 2010 and for 2011 from the portion of my equity risk premium data that Mr. Gorman used.



These data clearly show that equity risk premiums have consistently increased as interest rates have declined. This result is a simple reflection of the fact that required rates of return in the stock market are not entirely dependent on changes in interest rates. Because utilities must compete with other types of equity investments for capital, the ROE for utilities does not change by as much as the observed changes in interest rates. For Mr. Gorman to use the unadjusted simple average of long-term equity risk premiums with current, historically low interest

rates is simply wrong. Such an approach will consistently understate the required ROE.

Q. On pages 45-53, Mr. Gorman criticizes various aspects of your ROE analysis. What is your response to his criticisms?

A. Mr. Gorman's criticisms are not accurate. They are principally focused on my use of the GDP growth rate in my DCF model, my use of projected interest rates, and my adjustment to the risk premium data to account for the current, low interest rate environment. I disagree with Mr. Gorman's use of relatively near-term, five- and 10-year Blue Chip forecasts for GDP growth. I also disagree with his criticism of my use of projected interest rates in my risk premium analysis because Mr. Gorman also uses projected interest rates in his analysis. Finally, I disagree with his contention that risk premiums do not increase as interest rates decrease.

Q. On page 46, Mr. Gorman criticizes your GDP growth forecast because it is higher than his Blue Chip forecast, which contains much lower projected inflation rates. How do you respond to Mr. Gorman's criticisms?

A. As noted by Mr. Gorman (at 50, lines 4-6), his Blue Chip forecasts are for only the next five- and 10-year periods and those forecasts indicate inflation rates of only 2.1 percent and 2.2 percent, respectively. My GDP growth rate estimate is based on a much longer time period, which is consistent with the DCF model's requirements, and with what investors can reasonably expect once economic conditions become more stable. While my forecast includes the near-term, low inflation rates that dominate Mr. Gorman's five- and 10-year periods, I also

include longer-term data that cover other economic conditions, which can reasonably be expected to occur over the very long-run DCF model horizon. Although I use data dating back to 1951 from the St. Louis Federal Reserve Bank data base, my forecast is not a simple average or extrapolation of the historical data. Like most econometric forecasts, my approach uses the long-run historical relationships to project what investors may reasonably expect for the long-run future.

However, to account for recent data having a greater influence on current expectations, I applied a weighted averaging process that gives about five times as much weight to the most recent 10 years as compared to the earliest 10 years. Giving more weight to the more recent, low inflation years also lowers the overall forecast. For example, my updated forecast is for a future growth rate of 5.7 percent, while the overall long-run average of the data is a growth rate of 6.6 percent. In this context, Mr. Gorman's criticism of my longer-term GDP growth forecast is unwarranted.

Q. Mr. Gorman criticizes your risk premium analysis because you used projected rates in part of that analysis. How do you respond?

A. Mr. Gorman's criticisms are misplaced. His risk premium analysis is constructed very similar to mine in that we both rely on current rates and projected rates. We both recognize that interest rates are forecast to increase in the coming years and that this near unanimous viewpoint should be reflected in the ROE analysis in this case.

VI. REBUTTAL OF FEA WITNESS MATHEW I. KAHAL

Q. What are your primary areas of disagreement with Mr. Kahal's analysis and recommendation?

A. My principal disagreement relates to Mr. Kahal's routine application of the DCF model without explicit consideration for the current capital market anomalies that he readily acknowledges. Although we also disagree about the appropriate growth rates in our DCF analyses, and I will explain why three of the companies retained in the comparable group by Mr. Kahal should now be eliminated, these technical differences simply expand the differences in our analytical results. The fundamental difference between our recommendations is our disagreement about how traditional model results should be interpreted during the current abnormally low interest rate environment. As noted previously, when the government's stimulus efforts cease, there is little doubt that interest rates will rise quickly. In this context, it is not necessary or appropriate to set ROE at the lowest possible level now based on this temporary market anomaly.

Q. Does Mr. Kahal explicitly adjust his ROE estimates to account for current market conditions?

A. No. Mr. Kahal provides an evenhanded discussion of these factors, but makes no explicit adjustment to account for their effect. At page 9, Mr. Kahal states:

> For the past three years, short-term Treasury rates have been close to zero…. These extraordinarily low rates … are the result of an intentional policy of the Federal Reserve Board of Governors (the Fed) to … promote economic activity. The Fed has also sought to exert downward pressure on long-term interest rates through its policy of "quantitative easing."

Furthermore, at page 10, Mr. Kahal notes that the utility cost of equity does not necessarily move in lockstep with long-term interest rates: Asked whether low long-term interest rates imply a low cost of equity for utilities, Mr. Kahal responds:

> In a very general sense and over time that is normally the case, although the utility cost of debt need not move together in lock step or necessarily in the short run.

In this context, and especially given the artificial, government-induced low interest rate environment, the large proposed reduction to GMO's allowed ROE is inappropriate. The 10 percent ROE set in GMO's last rate case, in the context of the Iatan 2 plant's rate base requirements and other considerations, was well below ROEs allowed for other similarly situated utilities at the time. To reduce that ROE further based on current artificially low interest rates is unreasonable and inappropriate.

Q. What is the technical basis for Mr. Kahal's 9.5 ROE recommendation?

A. Mr. Kahal's recommendation is based solely on his application of the constant growth DCF model. While he also reviews ROE estimates from the CAPM, he finds "…the CAPM approach to be much less useful than the DCF method…." See Kahal Direct Testimony at 7, lines 21-22. He concludes: "…I have not placed reliance on the CAPM return in formulating my return on equity recommendation in this case." See Kahal Direct Testimony at 26, lines 17-18. Therefore, the focus of my response is to Mr. Kahal's application of the DCF model. I will show that his approach produces unreasonably low DCF estimates because he routinely applies the model without adjustment or explicit

consideration of current abnormal market conditions. His analysis produces ROE estimates that are well below GMO's cost of equity capital.

Q. How is Mr. Kahal's DCF analysis structured?

A. Mr. Kahal summarizes his DCF analysis on page 1 of his Schedule MIK-4. Mr. Kahal derives his estimated ROE by applying the constant growth DCF model to the same 22-company group of electric utilities that I used in my direct testimony. From that analysis, Mr. Kahal finds a cost of equity range of 8.8 percent to 9.8 percent.

To estimate the expected dividend yield, Mr. Kahal first averages the historical dividend yields for the comparable groups for the past six months (through June 2012). Mr. Kahal's six-month average historical dividend yield is 4.19 percent. He then adds one-half of his projected dividend growth rate to the base yield to produce an expected yield of 4.3 percent.

For his DCF growth rate, Mr. Kahal recommends an expected growth rate range of 4.5 percent to 5.5 percent. In this portion of his analysis, Mr. Kahal reviews five-year earnings per share growth rate estimated by Value Line and other securities analysts. The average of those forecasts is 4.78 percent. Mr. Kahal also reviews Value Line's historical dividend and book value growth as well as Value Line's projected growth from earnings retention. These sources also provide growth rates that average less than 5 percent. From these results, Mr. Kahal determines that a growth rate range of 4.5 percent to 5.5 percent is "reasonable and conservatively high." See Kahal Direct Testimony at 23, line 12.

Mr. Kahal then adds the lower and upper ends of the growth rate range to his 4.3 percent expected dividend yield to obtain his recommended ROE range of 8.8 percent to 9.8 percent (8.8% ROE = 4.3% yield + 4.5% growth; 9.8% ROE = 4.3% yield + 5.5% growth). While Mr. Kahal's selection of an ROE from above the midpoint of his analytical range might on the surface appear reasonable, had he more reasonably considered the technical aspects of his analysis, his results would have been higher.

Q. What are the technical aspects of Mr. Kahal's DCF analysis with which you disagree?

A. I disagree with Mr. Kahal's routine application of the traditional constant growth DCF model. Under current market conditions, for Mr. Kahal to base his entire recommendation on this approach is not reasonable. Additionally, portions of Mr. Kahal's growth rate analysis are questionable and, as noted previously, at least three of the companies in his comparable group should have been reconsidered. I will show that, without any adjustment to his growth rates, the removal of these three companies causes his average ROE estimate to increase by 65 basis points (from 9.1% to 9.75%). Additionally, when the upper end of Mr. Kahal's growth rate range is used in the modified analysis, the mean result increases further to 9.88 percent.

Q. Which companies did you remove from Mr. Kahal's comparable group analysis?

A. I removed Ameren, Cleco, and Edison International. As I discussed above in my rebuttal to Mr. Gorman in Section V, Cleco and Edison International are currently

undergoing unusual conditions that unreasonably skew their growth rate inputs and, therefore, the ROE estimates from their DCF model results.

Ameren also faces unusual circumstances and had already been removed from the comparable group by Mr. Gorman. Due to problems with its merchant generation activities, Ameren has unsustainably low analysts' growth rate estimates. Value Line, Zacks and Thomson are all projecting negative near-term earnings growth. For Cleco, there is strong evidence that its stock price is inflated by merger speculation. Similarly, Edison International has erratic earnings prospects due to nonrecurring charges for its non-regulated coal plants. For all three of these companies, their current unusual circumstances create unreliable estimates from the DCF model.

Q. Please describe your recalculation of Mr. Kahal's constant growth DCF results after removing Ameren, Cleco, and Edison International.

A. My recalculation is shown on Schedule SCH-10, page 1. In that schedule, I first reproduce Mr. Kahal's DCF analysis based on analysts' growth rate estimates, as shown in his Schedule MIK-4, page 3. The average growth rate in Mr. Kahal's analysis is 4.78 percent and mean ROE estimate from that analysis is 9.1 percent. As shown at the bottom of the growth rate column, however, when Ameren, Cleco, and Edison International are eliminated, the group average growth rate rises to 5.37 percent and the mean ROE estimate increases to 9.75 percent.

On page 2 of Schedule SCH-10, I extend this analysis by including only the upper end of Mr. Kahal's growth rate range (5.5%) in the revised analysis. In that recalculation, the mean ROE increases further to 9.88 percent.

VII. UPDATED ROE ANALYSIS

Q. Have you updated your ROE analysis to take into account recent data and current conditions in the capital markets?

A. Yes. Consistent with my customary practice, I have updated my ROE analysis for current market conditions using the same methodologies that I employed in my previous analysis.

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

A. My updated DCF results are shown in Schedule SCH-12. In the updated analysis, four companies were removed from my original comparable group and three companies were added. As already discussed, I removed Edison International (because of the extraordinary circumstances currently affecting projections of its growth) and Cleco (because of takeover speculation affecting its stock price). I also removed Vectren because its percentage of regulated revenue has fallen below 70 percent. Finally, I removed Ameren because of unsustainably low analysts' growth rate estimates (Value Line, Zacks and Thomson are all projecting negative near-term earnings growth). I added CMS Energy, Integrys and UNS Energy. These companies were added because, in the case of Integrys, its regulated revenue percentage is now above 70 percent, in the case of CMS Energy and UNS Energy, their financial conditions have normalized (their equity ratios are now above 30 percent). These companies now pass my screening criteria. The resulting group, therefore, contains 21 companies. The indicated DCF range is 9.8 percent to 10.3 percent.

Q. Why have you added a fourth DCF model to your analysis?

A. In the fourth version of the DCF model, I apply a terminal value approach. In this model, investors receive the dividend projected by Value Line for the first four years (2013-2016) and are assumed to sell their stock at the prevailing market price at the end of the fourth year (2016). The estimated required return is the investor's internal rate of return from dividends and the selling price over the coming four years. The Year Four selling price is based on the P/E ratio and Value Line's projected earnings at the end of that year. The initial dividend yields in all four of the models are from Value Line's projections of dividends for the coming year. Stock prices are from the three-month average for the months that correspond to the Value Line editions from which the underlying financial data are taken.

Q. Why have you added this "terminal value" model to the three DCF models that you have traditionally used?

A. The "terminal value" P/E ratio model provides balance for the abnormal market conditions that currently affect the traditional "yield plus growth" DCF model. The need for this balance is shown by Mr. Murray's discussion of growth rates in his direct testimony: "Clearly, this [higher P/E/ ratios and moderate growth rates] means that investors are not paying a higher p/e for electric utility stocks for growth, but because of the low comparative returns offered by bonds." See Staff Report at 28, lines 6-7. In this environment that is dominated by artificially low interest rates, ROE estimates from the traditional "yield-plus-growth" DCF format are negatively skewed. The government's ongoing efforts to stimulate the

economy by keeping interest rates abnormally low, therefore, has pushed up utility stock prices and depressed dividend yields. While the terminal value model is not a replacement for the more traditional DCF approaches, its use of current utility P/E ratios to estimate future prices tends to balance the low dividend yield aspects of the traditional models.

Q. What are the results of your updated bond yield plus risk premium analysis?

A. My updated risk premium analysis is presented in Schedule SCH-13. Based on projected triple-B utility interest rates, the risk premium analysis indicates an ROE of 10.14 percent. Based on the most recent three months average single-A rates, the risk premium ROE is 9.87 percent.

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

A. My updated technical analyses indicate a current cost of equity capital in the range of 9.8 percent to 10.3 percent. These results are a realistic reflection of capital market conditions, but given the government's ongoing intervention in the credit markets, they may not fully reflect the equity market risk that remains. My updated results show clearly that the other ROE witnesses' recommendations are below GMO's current cost of equity capital. As stated previously, given current difficulties with interpreting financial model estimates and the forecasts for higher interest rates that I have presented, I believe the Company's requested 10.3 percent is reasonable.

Q. Does this conclude your rebuttal testimony?

A. Yes.

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 General Rate Increase for Electric Service	)))	Case No. ER-2012-0175

AFFIDAVIT OF SAMUEL C. HADAWAY

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

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

1. My name is Samuel C. Hadaway. I am employed by FINANCO, Inc. in Austin, Texas. I have been retained by Great Plains Energy, Inc., the parent company of KC&PL Greater Missouri Operations Company, to serve as an expert witness on behalf of KC&PL Greater Missouri Operations Company.

2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of KC&PL Greater Missouri Operations Company consisting of thirty-one (31) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

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

Samuel C. Hadaway
Samuel C. Hadaway

Subscribed and sworn before me this 11th day of September, 2012.

Notary Public

My commission expires: 9-29-2015

TYMBER DHANS
Notary Public
STATE OF TEXAS
My Comm. Exp. 09-29-2015

KCP&L Greater Missouri Operations Company

Electric Utility ROE Cases (2008)

Panel 1

T&D Utilities vs. Vertically-Integrated Utilities

T&D Utilities

No	Date	Company	State	ROE	Comment
1	1/28/2008	Connecticut Light & Power	CT	9.40%	
2	1/30/2008	Potomac Electric Power	DC	10.00%	
3	2/29/2008	Fitchburg Gas & Electric	MA	10.25%	
4	3/25/2008	Consolidated Edison of New York	NY	9.10%	
5	5/27/2008	UNS Electric	AZ	10.00%	T&D segment of Unisource
6	7/16/2008	Orange and Rockland Utilities	NY	9.40%	
7	9/10/2008	Commonwealth Edison	IL	10.30%	
Average T&D				**9.78%**	
			Min	**9.10%**	
			Max	**10.30%**	

Vertically-Integrated Utilities

No	Date	Company	State	ROE
1	1/8/2008	Northern States Power	WI	10.75%
2	1/17/2008	Wisconsin Electric Power	WI	10.75%
3	1/31/2008	Central Vermont Public Service	VT	10.21%
4	3/12/2008	PacifiCorp	WY	10.25%
5	4/22/2008	MDU Resources	MT	10.25%
6	4/24/2008	Public Service Company of NM	NM	10.10%
7	5/1/2008	Hawaiian Electric Co	HI	10.70%
8	6/10/2008	Consumers Energy	MI	10.70%
9	6/27/2008	Appalachian Power	WV	10.50%
10	6/27/2008	Sierra Pacific Power	NV	10.60%
11	7/10/2008	Otter Tail Corp	MN	10.43%
12	7/30/2008	Empire District Electric	MO	10.80%
13	8/11/2008	PacifiCorp	UT	10.25%
14	8/26/2008	Southwestern Public Service	NM	10.18%
15	9/24/2008	Central Illinois Light	IL	10.65%
16	9/24/2008	Central Illinois Public Service	IL	10.65%
17	9/24/2008	Illinois Power	IL	10.65%
18	9/30/2008	Avista Corp	ID	10.20%
19	10/8/2008	Puget Sound Energy	WA	10.15%
20	11/17/2008	Appalachian Power	VA	10.20%
21	12/1/2008	Tucson Electric	AZ	10.25%
22	12/23/2008	Detroit Edison	MI	11.00%
23	12/29/2008	Portland General	OR	10.10%
24	12/2/2008	Avista Corp	WA	10.20%
25	12/31/2008	Northern States Power	ND	10.75%
Average Vertically-Integrated				**10.45%**
			Min	**10.10%**
			Max	**11.00%**

Other Cases

No	Date	Company	State	ROE	Comment
1	2/6/2008	Interstate Power & Light	IA	11.70%	Power plant only
2	3/31/2008	Virginia Electric Power	VA	12.12%	Power plant only
4	6/16/2008	MidAmerican Energy	IA	11.70%	Power plant only
5	8/27/2008	MidAmerican Energy	IA	11.70%	Power plant only
6	11/13/2008	NorthWestern Corp	MT	10.00%	Power plant only
Average Other				**11.44%**	
Average all Utilities for 2008				**10.46%**	

Panel 2

Summary of Results by Quarter

T&D Utilities

By Quarter	1Q	2Q	3Q	4Q	Total
ROE	9.69%	10.00%	9.85%		**9.78%**
No. Cases	4	1	2	0	**7**

Vertically-Integrated Utilities

By Quarter	1Q	2Q	3Q	4Q	Total
ROE	10.49%	10.48%	10.48%	10.38%	**10.45%**
No. Cases	4	6	8	7	**25**

Other Cases

By Quarter	1Q	2Q	3Q	4Q	Total
ROE	11.91%	11.70%	11.70%	10.00%	**11.44%**
No. Cases	2	1	1	1	**5**

All Utilities

By Quarter	1Q	2Q	3Q	4Q	Total
ROE	10.45%	10.57%	10.47%	10.33%	**10.46%**
No. Cases	10	8	11	8	**37**

Source: Regulatory Research Associates, "Major Rate Case Decisions, January 2007-December 2008," January 12, 2009.

KCP&L Greater Missouri Operations Company
Electric Utility ROE Cases (2009)

Panel 1

T&D Utilities and Vertically-Integrated Utilities

T&D Utilities

No	Date	Company	State	ROE	Comment
1	1/21/2009	Cleveland Electric Illuminating	OH	10.50%	
2	1/21/2009	Ohio Edison	OH	10.50%	
3	1/21/2009	Toledo Edison	OH	10.50%	
4	2/4/2009	United Illuminating	CT	8.75%	
5	4/24/2009	Consolidated Edison of New York	NY	10.00%	
6	6/22/2009	Central Hudson Gas & Electric	NY	10.00%	
7	7/8/2009	Duke Energy Ohio	OH	10.63%	
8	8/31/2009	Oncor Electric Delivery	TX	10.25%	
9	11/30/2009	Mass El./Nantucket El.	MA	10.35%	
10	12/30/2009	Delmarva Power & Light	MD	10.00%	
Average T&D				**10.15%**	
			Min	**8.75%**	
			Max	**10.63%**	

Vertically-Integrated Utilities

No	Date	Company	State	ROE
1	1/14/2009	Public Service Oklahoma	OK	10.50%
2	1/30/2009	Idaho Power	ID	10.50%
3	2/10/2009	Union Electric	MO	10.76%
4	3/4/2009	Indiana Michigan Power	IN	10.50%
5	4/2/2009	Entergy New Orleans	LA	11.10%
6	4/21/2009	PacifiCorp	UT	10.61%
7	4/30/2009	Tampa Electric	FL	11.25%
8	5/4/2009	Minnesota Power	MN	10.74%
9	5/20/2009	Oklahoma Gas & Electric	AR	10.25%
10	5/28/2009	Public Service New Mexico	NM	10.50%
11	6/24/2009	Nevada Power	NV	10.80%
12	7/17/2009	Avista Corp.	ID	10.50%
13	10/14/2009	Cleco Power	LA	10.70%
14	10/23/2009	Northern States Power-Minn	MN	10.88%
15	11/2/2009	Consumers Energy	MI	10.70%
16	11/3/2009	Sierra Pacific Power	CA	10.70%
17	11/24/2009	Southwestern Electric Power	AR	10.25%
18	11/25/2009	Otter Tail Power	ND	10.75%
19	12/7/2009	Duke Energy Carolinas	NC	10.70%
20	12/16/2009	Arizona Public Service	AZ	11.00%
21	12/16/2009	Upper Peninsula Power	MI	10.90%
22	12/18/2009	Wisconsin Electric Power	WI	10.40%
23	12/18/2009	Wisconsin Power and Light	WI	10.40%
24	12/22/2009	Avista Corp.	WA	10.20%
25	12/22/2009	Madison Gas and Electric	WI	10.40%
26	12/22/2009	Northern States Power-Wisc	WI	10.40%
27	12/24/2009	Public Service of Colorado	CO	10.50%
Average Vertically-Integrated				**10.63%**
			Min	**10.20%**
			Max	**11.25%**

Other Cases

No	Date	Company	State	ROE	Comment
1	2/4/2009	Interstate Power & Light	IA	10.10%	Power plant only
2	5/20/2009	NorthWestern Corp	MT	10.25%	Power plant only
Average Other				**10.18%**	
Average All Utilities for 2009				**10.48%**	

Panel 2

Summary of Results by Quarter

T&D Utilities

By Quarter	1Q	2Q	3Q	4Q	**Total**
Avg. ROE	10.06%	10.00%	10.44%	10.18%	**10.15%**
No. Cases	4	2	2	2	**10**

Vertically-Integrated Utilities

By Quarter	1Q	2Q	3Q	4Q	**Total**
Avg. ROE	10.57%	10.75%	10.50%	10.59%	**10.63%**
No. Cases	4	7	1	15	**27**

Other Cases

By Quarter	1Q	2Q	3Q	4Q	**Total**
ROE	10.10%	10.25%			**10.18%**
No. Cases	1	1	0	0	**2**

All Utilities

By Quarter	1Q	2Q	3Q	4Q	**Total**
ROE	10.29%	10.55%	10.46%	10.54%	**10.48%**
No. Cases	9	10	3	17	**39**

Source: Regulatory Research Associates, "Major Rate Case Decisions, January 2009-December 2009," January 8, 2010.

KCP&L Greater Missouri Operations Company
Electric Utility ROE Cases (2010)

Panel 1

T&D Utilities and Vertically-Integrated Utilities

T&D Utilities

No	Date	Company	State	ROE	Comment
1	2/9/2010	Narragansett Electric	RI	9.80%	
2	3/2/2010	Potomac Electric Power	DC	9.63%	
3	3/26/2010	Consolidated Edison of NY	NY	10.15%	
4	4/29/2010	Central Illinois Light	IL	9.90%	
5	4/29/2010	Central Illinois Public Service	IL	10.06%	
6	4/29/2010	Illinois Power	IL	10.26%	
7	5/12/2010	Atlantic City Electric	NJ	10.30%	
8	5/12/2010	Rockland Electric	NJ	10.30%	
9	6/7/2010	Public Service Electric & Gas	NJ	10.30%	
10	6/18/2010	Central Hudson Gas & Electric	NY	10.00%	
11	6/28/2010	Public Service of New Hampshire	NH	9.67%	
12	6/30/2010	Connecticut Light & Power	CT	9.40%	
13	9/16/2010	New York State Electric & Gas	NY	10.00%	
14	9/16/2010	Rochester Gas and Electric	NY	10.00%	
15	12/9/2010	NorthWestern Corp.	MT	10.00%	
Average T&D				**9.98%**	
			Min	**9.40%**	
			Max	**10.30%**	

Vertically-Integrated Utilities

No	Date	Company	State	ROE
1	1/11/2010	Detroit Edison	MI	11.00%
2	1/19/2010	Interstate Power & Light	IA	10.80%
3	1/26/2010	PacifiCorp	OR	10.13%
4	1/27/2010	Westar Energy	KS	10.40%
5	1/27/2010	Kansas Gas & Electric	KS	10.40%
6	1/27/2010	Duke Energy Carolines	SC	10.70%
7	2/18/2010	PacifiCorp	UT	10.60%
8	2/24/2010	Idaho Power	OR	10.18%
9	3/4/2010	Kentucky Utilities	VA	10.50%
10	3/5/2010	Florida Power	FL	10.50%
11	3/11/2010	Virginia Electric and Power	VA	11.90%
12	3/17/2010	Florida Power & Light	FL	10.00%
13	4/2/2010	Puget Sound Energy	WA	10.10%
14	5/26/2010	MDU Resources	WY	10.00%
15	5/28/2010	Union Electric	MO	10.10%
16	6/23/2010	Entergy Arkansas	AR	10.20%
17	6/28/2010	Kentucky Power	KY	10.50%
18	7/1/2010	Wisconsin Electric Power	MI	10.25%
19	7/15/2010	South Carolina Electric & Gas	SC	10.70%
20	7/15/2010	Appalachian Power	VA	10.53%
21	7/30/2010	Maui Electric	HI	10.70%
22	8/4/2010	Black Hills Colorado Electric	CO	10.50%
23	8/6/2010	Potomac Electric Power	MD	9.83%
24	8/25/2010	Northern Indiana Public Service	IN	9.90%
25	9/14/2010	Hawaiian Electric	HI	10.70%
26	9/30/2010	UNS Electric	AZ	9.75%
27	10/14/2010	Indiana Michigan Power	MI	10.35%
28	10/28/2010	Hawaii Electric Light	HI	10.70%
29	11/2/2010	Minnesota Power	MN	10.38%
30	11/4/2010	Consumers Energy	MI	10.70%
31	11/19/2010	Avista Corp.	WA	10.20%
32	11/22/2010	Kansas City Power & Light	KS	10.00%
33	12/1/2010	Entergy Texas	TX	10.13%
34	12/6/2010	Baltimore Gas & Electric	MD	9.86%
35	12/15/2010	Interstate Power & Light	IA	10.00%
36	12/13/2010	Dominion North Carolina Power	NC	10.70%
37	12/14/2010	PacifiCorp	OR	10.13%
38	12/17/2010	Portland General Electric	OR	10.00%
39	12/20/2010	Sierra Pacific Power	NV	10.60%
40	12/21/2010	Upper Peninsula Power	MI	10.30%
41	12/27/2010	PacifiCorp	ID	9.90%
42	12/29/2010	Georgia Power	GA	11.15%
Average Vertically-Integrated				**10.38%**
			Min	**9.75%**
			Max	**11.90%**

Other Cases

No	Date	Company	State	ROE	Comment
1	3/11/2010	Virginia Electric and Power	VA	12.30%	Power plant only
2	3/11/2010	Virginia Electric and Power	VA	12.30%	Power plant only
Average Other				**12.30%**	
Average All Utilities for 2010				**10.34%**	

Panel 2

Summary of Results by Quarter

T&D Utilities

By Quarter	1Q	2Q	3Q	4Q	Total
Avg. ROE	9.86%	10.02%	10.00%	10.00%	**9.98%**
No. Cases	3	9	2	1	**15**

Vertically-Integrated Utilities

By Quarter	1Q	2Q	3Q	4Q	Total
Avg. ROE	10.59%	10.18%	10.32%	10.32%	**10.38%**
No. Cases	12	5	9	16	**42**

Other Cases

By Quarter	1Q	2Q	3Q	4Q	Total
ROE	12.30%				**12.30%**
No. Cases	2	0	0	0	**2**

All Utilities

By Quarter	1Q	2Q	3Q	4Q	Total
ROE	10.66%	10.08%	10.26%	10.30%	**10.34%**
No. Cases	17	14	11	17	**59**

Source: Regulatory Research Associates, "Major Rate Case Decisions, Calendar 2010," January 7, 2011.

KCP&L Greater Missouri Operations Company

Electric Utility ROE Cases (2011)

Panel 1

T&D Utilities and Vertically-Integrated Utilities

T&D Utilities

No	Date	Company	State	ROE	Comment
1	1/18/2011	Delmarva Power & Light Co.	DE	10.00%	
2	1/20/2011	Niagara Mohawk Power Corp.	NY	9.30%	
3	1/20/2011	Texas-New Mexico Power Co.	TX	10.13%	
4	1/31/2011	Western Massachusetts Electric	MA	9.60%	
5	2/3/2011	CenterPoint Energy Houston	TX	10.00%	
6	4/26/2011	Unitil Energy Systems	NH	9.67%	
7	5/24/2011	Commonwealth Edison	IL	10.50%	
8	6/16/2011	Orange and Rockland Utilities	NY	9.20%	
9	8/1/2011	Fitchburg Gas & Electric	MA	9.20%	
10	8/19/2011	Oncor Electric Delivery	TX	10.25%	
11	12/14/2011	Columbus Southern Power	OH	10.00%	
12	12/14/2011	Ohio Power	OH	10.30%	
Average T&D				**9.85%**	
			Min	**9.20%**	
			Max	**10.50%**	

Vertically-Integrated Utilities

No	Date	Company	State	ROE
1	1/5/2011	Public Service Co. of OK	OK	10.15%
2	1/12/2011	Madison Gas and Electric Co.	WI	10.30%
3	1/13/2011	Wisconsin Public Service Corp.	WI	10.30%
4	2/25/2011	Hawaiian Electric Co.	HI	10.00%
5	3/25/2011	PacifiCorp	WA	9.80%
6	3/30/2011	Appalachian Pwr/Wheeling Pwr	WV	10.00%
7	4/12/2011	Kansas City Power & Light	MO	10.00%
8	4/25/2011	Otter Tail Power Co.	MN	10.74%
9	4/27/2011	Southern Indiana Gas & Electric	IN	10.40%
10	5/4/2011	KCP&L Greater Missouri Op. (MPS)	MO	10.00%
11	5/4/2011	KCP&L Greater Missouri Op. (L&P)	MO	10.00%
12	6/8/2011	MDU Resources	ND	10.75%
13	6/17/2011	Oklahoma Gas & Electric	AR	9.95%
14	7/13/2011	Union Electric	MO	10.20%
15	8/8/2011	Public Service Co. of New Mexico	NM	10.00%
16	8/11/2011	PacifiCorp	UT	10.00%
17	8/12/2011	Interstate Power and Light	MN	10.35%
18	9/22/2011	PacifiCorp	WY	10.00%
19	10/12/2011	Kentucky Utilities	VA	10.30%
20	10/20/2011	Detroit Edison	MI	10.50%
21	11/30/2011	Appalachian Power	VA	10.90%
22	11/30/2011	Virginia Electric and Power	VA	10.90%
23	12/20/2011	Upper Peninsula Power	MI	10.20%
24	12/21/2011	Northern Indiana Public Service	IN	10.20%
25	12/22/2011	Black Hills Colorado Elec. Utility Co.	CO	9.90%
26	12/22/2011	Northern States Power-Wisconsin	WI	10.40%
27	12/23/2011	Nevada Power	NV	10.19%
Average Vertically-Integrated				**10.24%**
			Min	**9.80%**
			Max	**10.90%**

Other Cases

No	Date	Company	State	ROE	Comment
1	3/22/2011	Virginia Electric and Power	VA	12.30%	Power plant only
2	3/22/2011	Virginia Electric and Power	VA	12.30%	Power plant only
Average Other				**12.30%**	
Average All Utilities for 2011				**10.22%**	

Panel 2

Summary of Results by Quarter

T&D Utilities

By Quarter	1Q	2Q	3Q	4Q	**Total**
Avg. ROE	9.81%	9.79%	9.73%	10.15%	**9.85%**
No. Cases	5	3	2	2	**12**

Vertically-Integrated Utilities

By Quarter	1Q	2Q	3Q	4Q	**Total**
Avg. ROE	10.09%	10.26%	10.11%	10.39%	**10.24%**
No. Cases	6	7	5	9	**27**

Other Cases

By Quarter	1Q	2Q	3Q	4Q	**Total**
ROE	12.30%				**12.30%**
No. Cases	2	0	0	0	**2**

All Utilities

By Quarter	1Q	2Q	3Q	4Q	**Total**
ROE	10.32%	10.12%	10.00%	10.34%	**10.22%**
No. Cases	13	10	7	11	**41**

Source: Regulatory Research Associates, "Major Rate Case Decisions" Jan 10, 2012.

KCP&L Greater Missouri Operations Company
Electric Utility ROE Cases (2012)

Panel 1

T&D Utilities and Vertically-Integrated Utilities

T&D Utilities

No	Date	Company	State	ROE	Comment
1	5/29/2012	Commonwealth Edison	IL	10.05%	
2	6/14/2012	Orange and Rockland Utilities	NY	9.40%	
Average T&D				**9.73%**	
			Min	**9.40%**	
			Max	**10.05%**	

Vertically-Integrated Utilities

No	Date	Company	State	ROE
1	1/25/2012	Duke Energy Carolinas	SC	10.50%
2	1/27/2012	Duke Energy Carolinas	NC	10.50%
3	2/15/2012	Indiana Michigan Power	MI	10.20%
4	2/23/2012	Idaho Power	OR	9.90%
5	2/27/2012	Gulf Power	FL	10.25%
6	2/29/2012	Northern States Power-Minnesota	ND	10.40%
7	3/29/2012	Northern States Power-Minnesota	MN	10.37%
8	4/4/2012	Hawaii Electric Light	HI	10.00%
9	4/26/2012	Public Service Co. of Colorado	CO	10.00%
10	5/2/2012	Maui Electric Company	HI	10.00%
11	5/7/2012	Puget Sound Energy	WA	9.80%
12	5/15/2012	Arizona Public Service	AZ	10.00%
13	6/7/2012	Consumers Energy	MI	10.30%
14	6/15/2012	Wisconsin Power and Light	WI	10.40%
15	6/18/2012	Cheyenne Light, Fuel and Power	WY	9.60%
16	6/19/2012	Northern States Power-Minnesota	SD	9.25%
17	6/26/2012	Wisconsin Electric Power	MI	10.10%
18	6/29/2012	Hawaiian Electric Company	HI	10.00%
Average Vertically-Integrated				**10.09%**
			Min	**9.25%**
			Max	**10.50%**

Other Cases

No	Date	Company	State	ROE	Comment
1	1/3/2012	Appalachian Power	VA	11.40%	Generation rider
2	2/2/2012	Virginia Electric and Power	VA	11.40%	Generation rider
3	3/16/2012	Virginia Electric and Power	VA	12.40%	Generation rider
4	3/20/2012	Virginia Electric and Power	VA	11.40%	Generation rider
5	3/23/2012	Virginia Electric and Power	VA	11.40%	Generation rider
Average Other				**11.60%**	
Average All Utilities for 2012				**10.36%**	

Panel 2

Summary of Results by Quarter

T&D Utilities

By Quarter	1Q	2Q	3Q	4Q	Total
Avg. ROE		9.73%			
No. Cases		2			**2**

Vertically-Integrated Utilities

By Quarter	1Q	2Q	3Q	4Q	Total
Avg. ROE	10.30%	9.95%			**10.09%**
No. Cases	7	11			**18**

Other Cases

By Quarter	1Q	2Q	3Q	4Q	Total
ROE	11.60%				**11.60%**
No. Cases	5				**5**

All Utilities

By Quarter	1Q	2Q	3Q	4Q	Total
ROE	10.84%	9.92%			**10.36%**
No. Cases	12	13	0	0	**25**

Vertically-Integrated Electrics	
3rd Qtr 2011	**10.11%**
4th Qtr 2011	**10.39%**
1st Qtr 2012	**10.30%**
2nd Qtr 2012	**9.95%**
Last 4-Qtr Average	**10.19%**

Source: Regulatory Research Associates, "Major Rate Case Decisions" July 6, 2012.

KCP&L Greater Missouri Operations Company
Long-Term Interest Rate Trends

Month	Triple-B Utility Rate	30-Year Treasury Rate	Triple-B Utility Spread
Aug-09	6.36	4.37	1.99
Sep-09	6.12	4.19	1.93
Oct-09	6.14	4.19	1.95
Nov-09	6.18	4.31	1.87
Dec-09	6.26	4.49	1.77
Jan-10	6.16	4.60	1.56
Feb-10	6.25	4.62	1.63
Mar-10	6.22	4.64	1.58
Apr-10	6.19	4.69	1.50
May-10	5.97	4.29	1.68
Jun-10	6.18	4.13	2.05
Jul-10	5.98	3.99	1.99
Aug-10	5.55	3.80	1.75
Sep-10	5.53	3.77	1.76
Oct-10	5.62	3.87	1.75
Nov-10	5.85	4.19	1.66
Dec-10	6.04	4.42	1.62
Jan-11	6.06	4.52	1.54
Feb-11	6.10	4.65	1.45
Mar-11	5.97	4.51	1.46
Apr-11	5.98	4.50	1.48
May-11	5.74	4.29	1.45
Jun-11	5.67	4.23	1.44
Jul-11	5.70	4.27	1.43
Aug-11	5.22	3.65	1.57
Sep-11	5.11	3.18	1.93
Oct-11	5.24	3.13	2.11
Nov-11	4.93	3.02	1.91
Dec-11	5.07	2.98	2.09
Jan-12	5.06	3.03	2.03
Feb-12	5.02	3.11	1.91
Mar-12	5.13	3.28	1.85
Apr-12	5.11	3.18	1.93
May-12	4.97	2.93	2.04
Jun-12	4.91	2.70	2.21
Jul-12	4.85	2.59	2.26
3-Mo Avg	**4.91**	**2.74**	**2.17**
12-Mo Avg	**5.05**	**3.07**	**1.99**

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

Three month average is for May 2012-July 2012.

Twelve month average is for August 2011-July 2012.

Economic Indicators

Seasonally Adjusted Annual Rates — Dollar Figures in Billions

----- Annual % Change -----							2011	---------- 2012 ----------				---------- E2013 ----------		
2011	E2012	E2013	2011	E2012	E2013		Q4	RQ1	EQ2	EQ3	EQ4	Q1	Q2	Q3
						Gross Domestic Product								
$15,094.0	$15,649.6	$16,179.0	3.9	3.7	3.4	GDP (current dollars)	$15,319.4	$15,467.8	$15,585.2	$15,710.7	$15,834.9	$15,985.5	$16,105.5	$16,239.1
3.9	3.7	3.4	-	-	-	Annual rate of increase (%)	3.8	3.9	3.1	3.3	3.2	3.9	3.0	3.4
1.7	2.0	2.0	-	-	-	Annual rate of increase–real GDP (%)	3.0	1.9	1.5	1.8	1.8	2.4	1.9	1.7
2.1	1.7	1.4	-	-	-	Annual rate of increase–GDP deflator (%)	0.9	2.0	1.6	1.5	1.4	1.4	1.2	1.6
						***Components of Real GDP**								
$9,421.3	$9,607.5	$9,826.4	2.2	2.0	2.3	Personal consumption expenditures	$9,482.1	$9,540.1	$9,576.4	$9,627.7	$9,685.8	$9,743.9	$9,799.1	$9,857.6
2.2	2.0	2.3	-	-	-	% change	2.1	2.5	1.5	2.2	2.4	2.4	2.3	2.4
1,285.4	1,377.0	1,443.8	8.2	7.1	4.8	Durable goods	1,326.5	1,369.7	1,364.0	1,377.9	1,396.6	1,412.8	1,433.0	1,456.7
2,075.8	2,107.9	2,155.6	1.7	1.5	2.3	Nondurable goods	2,077.6	2,088.3	2,100.2	2,114.9	2,128.3	2,141.0	2,150.8	2,161.9
6,076.1	6,154.6	6,269.1	1.4	1.3	1.9	Services	6,102.1	6,114.6	6,142.0	6,166.5	6,195.2	6,226.7	6,255.3	6,283.3
1,435.5	1,524.9	1,600.6	8.8	6.2	5.0	Nonresidental fixed investment	1,484.2	1,495.6	1,520.9	1,537.0	1,546.3	1,564.3	1,588.3	1,610.2
8.8	6.2	5.0	-	-	-	% change	5.2	3.1	6.9	4.3	2.4	4.7	6.3	5.6
1,125.7	1,210.0	1,294.2	10.4	7.5	7.0	Producers durable equipment	1,166.6	1,176.8	1,202.5	1,223.1	1,237.6	1,257.4	1,284.6	1,306.4
316.6	352.4	392.1	(1.5)	11.3	11.3	Residental fixed investment	324.6	340.3	347.5	356.8	364.9	374.2	382.1	396.6
(1.5)	11.3	11.3	-	-	-	% change	11.8	20.7	8.8	11.1	9.4	10.6	8.7	16.1
34.6	48.2	40.8	-	-	-	Net change in business inventories	52.2	54.4	53.4	46.4	38.7	44.0	42.3	37.8
2,502.7	2,444.3	2,402.6	(2.1)	(2.3)	(1.7)	Gov't purchases of goods & services	2,481.2	2,456.0	2,451.5	2,442.1	2,427.8	2,415.1	2,406.5	2,398.3
1,055.0	1,026.5	996.1	(1.9)	(2.7)	(3.0)	Federal	1,044.7	1,029.0	1,032.9	1,026.8	1,017.2	1,007.9	999.8	992.1
1,453.8	1,423.5	1,411.3	(2.2)	(2.1)	(0.9)	State & local	1,442.4	1,432.5	1,424.4	1,420.9	1,416.0	1,412.3	1,411.5	1,410.8
(413.6)	(409.3)	(414.1)	-	-	-	Net exports	(410.8)	(407.0)	(415.4)	(412.8)	(402.2)	(395.8)	(405.5)	(424.3)
1,774.2	1,830.9	1,913.7	6.7	3.2	4.5	Exports	1,797.0	1,815.7	1,819.8	1,833.5	1,854.5	1,882.8	1,905.5	1,922.8
2,187.7	2,240.2	2,327.8	4.9	2.4	3.9	Imports	2,207.7	2,222.7	2,235.2	2,246.2	2,256.7	2,278.7	2,311.0	2,347.1
						****Income & Profits**								
$12,991.2	$13,409.3	$13,898.0	5.0	3.2	3.6	Personal income	$13,105.7	$13,227.8	$13,339.8	$13,472.6	$13,597.3	$13,705.8	$13,833.8	$13,960.7
11,593.6	11,912.6	12,233.8	3.7	2.8	2.7	Disposable personal income	11,686.3	11,780.4	11,867.0	11,960.2	12,042.9	12,092.3	12,166.6	12,277.0
4.7	3.9	3.2	-	-	-	Savings rate (%)	4.2	3.7	3.9	4.1	3.9	3.4	3.2	3.1
1,896.3	2,095.9	2,353.9	4.2	10.5	12.3	Corporate profits before taxes	1,904.6	2,138.9	2,059.6	2,074.5	2,110.5	2,364.2	2,350.6	2,347.8
1,480.1	1,618.7	1,805.3	5.1	9.4	11.5	Corporate profits after taxes	1,493.9	1,644.9	1,587.0	1,604.8	1,638.0	1,812.1	1,803.6	1,799.5
86.95	94.96	103.18	12.4	9.2	8.7	‡Earnings per share (S&P 500)	86.95	88.54	91.46	93.01	94.96	97.94	98.93	100.81
						†Prices & Interest Rates								
3.1	1.7	1.2	-	-	-	Consumer price index	1.3	2.5	0.7	(0.2)	1.2	1.4	1.3	2.1
0.1	0.1	0.0	-	-	-	Treasury bills	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0
2.8	1.8	2.2	-	-	-	10-yr notes	2.0	2.0	1.8	1.7	1.8	1.7	1.9	2.4
3.9	2.9	3.2	-	-	-	30-yr bonds	3.0	3.1	2.9	2.8	2.9	2.8	3.0	3.4
4.6	3.8	4.0	-	-	-	New issue rate–corporate bonds	3.9	3.9	3.8	3.6	3.7	3.7	3.8	4.2
						Other Key Indicators								
612.1	759.3	916.2	4.5	24.1	20.7	Housing starts (1,000 units SAAR)	678.3	714.7	734.4	784.0	804.2	812.2	870.8	959.7
12.7	14.1	14.7	10.3	10.5	4.4	Auto & truck sales (1,000,000 units)	13.4	14.5	14.0	14.0	13.8	14.1	14.6	15.0
9.0	8.2	8.0	-	-	-	Unemployment rate (%)	8.7	8.3	8.2	8.1	8.1	8.0	8.0	8.0
(5.9)	4.3	5.2	-	-	-	§U.S. dollar	15.6	2.8	5.9	3.1	0.0	5.1	8.6	13.4

Note: Annual changes are from prior year and quarterly changes are from prior quarter. Figures may not add to totals because of rounding. A–Advance data. P–Preliminary. E–Estimated. R–Revised.
*2005 Chain-weighted dollars. **Current dollars. ‡Trailing 4 quarters. †Average for period. §Quarterly % changes at quarterly rates. This forecast prepared by Standard & Poor's.

KCP&L Greater Missouri Operations Company
Summary of Updated Gorman ROE Results

	(1)	(2)
	Summary of Results	
	Gorman Initial ROE	**Updated ROE**
DCF Models		
Constant Growth DCF (Analysts' Growth)	9.46%	9.86%
Constant Growth DCF (Sustainable Growth)	9.15%	NA
Multi-Stage DCF	9.30%	9.92%
DCF (Constant Growth DCF)	**9.50%**	**9.90%**
Risk Premium Average	**9.10%**	**9.90%**
CAPM	8.50%	NA
Average excluding CAPM (Recommended ROE)	**9.30%**	**9.90%**

Notes:
Column 1: Gorman, page 29 (DCF results) and page 39 (summary results).
Column 2: Only change to Constant Growth DCF results is to exclude Edison International and Cleco Corp. from the analysis as discussed by Dr. Hadaway in his rebuttal testimony.
Only change to Multi-Stage DCF result is the use of a third-stage growth rate of 5.7% (see page 3 of this Schedule).
Risk Premium results are an average of Treasury Bond results (see page 4 of this Schedule) and Utility Bond results (see page 6 of this Schedule).
CAPM results are not reliable and are excluded as discussed by Mr. Gorman.

KCP&L Greater Missouri Operations Company

Gorman Constant Growth DCF Analysis (Excluding Edison Internat. & Cleco Corp.)

No.	Company	(1) Price P_0	(2) Analysts' Growth	(3) Dividend D_0	(4) Adjusted Yield	(5) **Constant Growth DCF**
1	ALLETE	$40.45	5.40%	$1.84	4.79%	**10.19%**
2	Alliant Energy Co.	$44.57	6.12%	$1.80	4.29%	**10.41%**
3	American Elec. Pwr.	$39.03	3.86%	$1.88	5.00%	**8.86%**
4	Avista Corp.	$26.03	4.72%	$1.16	4.67%	**9.39%**
5	Black Hills Corp	$32.37	6.00%	$1.48	4.85%	**10.85%**
6	Cleco Corporation	~~$40.96~~	~~3.00%~~	~~$1.25~~	~~3.14%~~	~~**6.14%**~~
7	DTE Energy Co.	$57.28	4.38%	$2.35	4.28%	**8.66%**
8	Edison Internat.	~~$44.67~~	~~2.22%~~	~~$1.30~~	~~2.97%~~	~~**5.19%**~~
9	Great Plains Energy	$20.46	8.42%	$0.87	4.61%	**13.03%**
10	Hawaiian Electric	$27.34	7.46%	$1.24	4.87%	**12.33%**
11	IDACORP	$40.29	4.67%	$1.32	3.43%	**8.10%**
12	Pinnacle West	$49.65	5.67%	$2.10	4.47%	**10.14%**
13	Portland General	$25.67	4.28%	$1.06	4.31%	**8.59%**
14	SCANA Corp.	$46.69	4.69%	$1.98	4.44%	**9.13%**
15	Sempra Energy	$65.75	6.10%	$2.40	3.87%	**9.97%**
16	Southern Co.	$46.21	5.32%	$1.96	4.47%	**9.79%**
17	Teco Energy, Inc.	$17.77	4.37%	$0.88	5.17%	**9.54%**
18	Vectren Corp.	$29.24	5.00%	$1.40	5.03%	**10.03%**
19	Westar Energy	$28.90	5.79%	$1.32	4.83%	**10.62%**
20	Wisconsin Energy	$37.83	5.58%	$1.20	3.35%	**8.93%**
21	Xcel Energy Inc.	$27.77	4.94%	$1.04	3.93%	**8.87%**
	Average (excl Edison & Cleco)	$37.02	5.41%	$1.54	4.46%	**9.86%**
	Median					**9.79%**

Notes:

All data from Schedule MPG-4.

KCP&L Greater Missouri Operations Company

Gorman Multi-Stage Growth DCF Analysis (with Long-Term GDP Growth)

No.	Company	(1) Price P_0	(2) Dividend D_0	(3) First Stage Growth (EPS)	(4) Second Stage Growth Year 6	(5) Year 7	(6) Year 8	(7) Year 9	(8) Year 10	(9) Third Stage Growth (GDP)	(10) **Updated Cost of Equity**
1	ALLETE	$40.45	$1.84	5.40%	5.45%	5.50%	5.55%	5.60%	5.65%	5.70%	**10.42%**
2	Alliant Energy Co.	$44.57	$1.80	6.12%	6.05%	5.98%	5.91%	5.84%	5.77%	5.70%	**10.08%**
3	American Elec. Pwr.	$39.03	$1.88	3.86%	4.17%	4.47%	4.78%	5.09%	5.39%	5.70%	**10.24%**
4	Avista Corp.	$26.03	$1.16	4.72%	4.89%	5.05%	5.21%	5.37%	5.54%	5.70%	**10.13%**
5	Black Hills Corp	$32.37	$1.48	6.00%	5.95%	5.90%	5.85%	5.80%	5.75%	5.70%	**10.62%**
6	Cleco Corporation	$40.96	$1.25	3.00%	3.45%	3.90%	4.35%	4.80%	5.25%	5.70%	**8.38%**
7	DTE Energy Co.	$57.28	$2.35	4.38%	4.60%	4.82%	5.04%	5.26%	5.48%	5.70%	**9.69%**
8	Edison Internat.	$44.67	$1.30	2.22%	2.80%	3.38%	3.96%	4.54%	5.12%	5.70%	**8.12%**
9	Great Plains Energy	$20.46	$0.87	8.42%	7.97%	7.51%	7.06%	6.61%	6.15%	5.70%	**10.99%**
10	Hawaiian Electric	$27.34	$1.24	7.46%	7.17%	6.87%	6.58%	6.29%	5.99%	5.70%	**11.03%**
11	IDACORP	$40.29	$1.32	4.67%	4.84%	5.01%	5.18%	5.36%	5.53%	5.70%	**8.93%**
12	Pinnacle West	$49.65	$2.10	5.67%	5.68%	5.68%	5.69%	5.69%	5.70%	5.70%	**10.16%**
13	Portland General	$25.67	$1.06	4.28%	4.52%	4.75%	4.99%	5.23%	5.46%	5.70%	**9.69%**
14	SCANA Corp.	$46.69	$1.98	4.69%	4.86%	5.03%	5.20%	5.36%	5.53%	5.70%	**9.91%**
15	Sempra Energy	$65.75	$2.40	6.10%	6.03%	5.97%	5.90%	5.83%	5.77%	5.70%	**9.65%**
16	Southern Co.	$46.21	$1.96	5.32%	5.38%	5.45%	5.51%	5.57%	5.64%	5.70%	**10.08%**
17	Teco Energy, Inc.	$17.77	$0.88	4.37%	4.59%	4.81%	5.04%	5.26%	5.48%	5.70%	**10.52%**
18	Vectren Corp.	$29.24	$1.40	5.00%	5.12%	5.23%	5.35%	5.47%	5.58%	5.70%	**10.55%**
19	Westar Energy	$28.90	$1.32	5.79%	5.78%	5.76%	5.75%	5.73%	5.72%	5.70%	**10.55%**
20	Wisconsin Energy	$37.83	$1.20	5.58%	5.60%	5.62%	5.64%	5.66%	5.68%	5.70%	**9.02%**
21	Xcel Energy Inc.	$27.77	$1.04	4.94%	5.07%	5.19%	5.32%	5.45%	5.57%	5.70%	**9.47%**
	Average	$37.57	$1.52	5.14%	5.24%	5.33%	5.42%	5.51%	5.61%	5.70%	**9.92%**
	Median										**10.08%**

Notes:

Columns 1-3: Schedule MPG-9.

Columns 4-8: Linear interpolation between columns 3 and 9.

Column 9: See Schedule SCH-4.

Column 10: The internal rate of return implied by the price in column 1 and dividends for 200 periods. The initial dividend shown in column 2 is assumed to grow for the first five periods at the rate in column 3, then at the rate in columns 4-8 for years 6-10, than at the rate in column 9 for the remaining periods.

KCP&L Greater Missouri Operations Company
Update of Gorman Risk Premium Analysis - Treasury Bond (Projected)

	(1) TREASURY BOND YIELD	(2) AUTHORIZED ELECTRIC RETURNS	(3) INDICATED RISK PREMIUM
1986	7.80%	13.93%	6.13%
1987	8.58%	12.99%	4.41%
1988	8.96%	12.79%	3.83%
1989	8.45%	12.97%	4.52%
1990	8.61%	12.70%	4.09%
1991	8.14%	12.55%	4.41%
1992	7.67%	12.09%	4.42%
1993	6.60%	11.41%	4.81%
1994	7.37%	11.34%	3.97%
1995	6.88%	11.55%	4.67%
1996	6.70%	11.39%	4.69%
1997	6.61%	11.40%	4.79%
1998	5.58%	11.66%	6.08%
1999	5.87%	10.77%	4.90%
2000	5.94%	11.43%	5.49%
2001	5.49%	11.09%	5.60%
2002	5.43%	11.16%	5.73%
2003	4.96%	10.97%	6.01%
2004	5.05%	10.75%	5.70%
2005	4.65%	10.54%	5.89%
2006	4.99%	10.36%	5.37%
2007	4.83%	10.36%	5.53%
2008	4.28%	10.46%	6.18%
2009	4.07%	10.48%	6.41%
2010	4.25%	10.34%	6.09%
2011	3.91%	10.22%	6.31%
AVERAGE	6.22%	11.45%	5.23%

INDICATED COST OF EQUITY

PROJECTED TREASURY BOND YIELD*	3.60%
TREASURY BOND AVG ANNUAL YIELD DURING STUDY	6.22%
INTEREST RATE DIFFERENCE	-2.62%
INTEREST RATE CHANGE COEFFICIENT	-42.74%
ADUSTMENT TO BASIC RISK PREMIUM	1.12%
BASIC RISK PREMIUM	5.23%
INTEREST RATE ADJUSTMENT	1.12%
EQUITY RISK PREMIUM	6.35%
PROJECTED TREASURY BOND YIELD*	3.60%
INDICATED EQUITY RETURN	**9.95%**

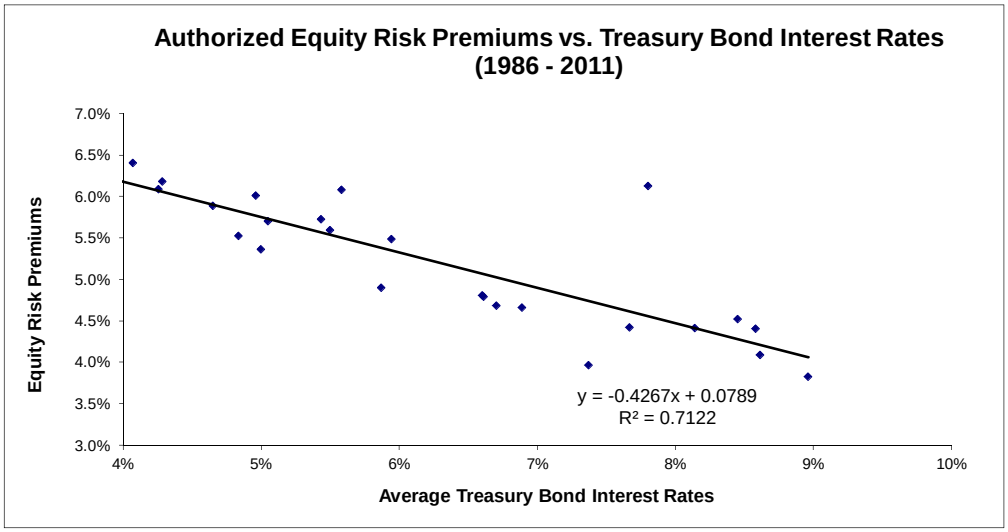
Notes:

Columns 1-3: Schedule MPG-11.

*See Gorman Direct, lines 7-10 for Projected Treasury Bond Yield .

See regression data on page 5 of this Schedule for derivation of "Interest Rate Change Coefficient."

KCP&L Greater Missouri Operations Company
Update of Gorman Risk Premium Analysis - Treasury Bond



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.844661545
R Square	0.713453126
Adjusted R Square	0.701513673
Standard Error	0.004377951
Observations	26

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.00114531	0.00114531	59.75593016	5.76091E-08
Residual	24	0.000459995	1.91665E-05		
Total	25	0.001605305			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.07891278	0.003542359	22.2768977	1.52986E-17	0.071601709	0.0862239	0.071601709	0.08622385
X Variable 1	-0.427433336	0.055293984	-7.730196	5.76091E-08	-0.541554509	-0.313312	-0.54155451	-0.3133122

KCP&L Greater Missouri Operations Company
Update of Gorman Risk Premium Analysis - Utility Bond

	(1) MOODY'S "A" RATED PUBLIC UTILITY BOND YIELD	(2) AUTHORIZED ELECTRIC RETURNS	(3) INDICATED RISK PREMIUM
1986	9.58%	13.93%	4.35%
1987	10.10%	12.99%	2.89%
1988	10.49%	12.79%	2.30%
1989	9.77%	12.97%	3.20%
1990	9.86%	12.70%	2.84%
1991	9.36%	12.55%	3.19%
1992	8.69%	12.09%	3.40%
1993	7.59%	11.41%	3.82%
1994	8.31%	11.34%	3.03%
1995	7.89%	11.55%	3.66%
1996	7.75%	11.39%	3.64%
1997	7.60%	11.40%	3.80%
1998	7.04%	11.66%	4.62%
1999	7.62%	10.77%	3.15%
2000	8.24%	11.43%	3.19%
2001	7.76%	11.09%	3.33%
2002	7.37%	11.16%	3.79%
2003	6.58%	10.97%	4.39%
2004	6.16%	10.75%	4.59%
2005	5.65%	10.54%	4.89%
2006	6.07%	10.36%	4.29%
2007	6.07%	10.36%	4.29%
2008	6.53%	10.46%	3.93%
2009	6.04%	10.48%	4.44%
2010	5.46%	10.34%	4.88%
2011	5.04%	10.22%	5.18%
AVERAGE	7.64%	11.45%	3.81%

INDICATED COST OF EQUITY	
CURRENT "Baa" UTILITY BOND YIELD*	4.95%
MOODY'S AVG ANNUAL YIELD DURING STUDY	7.64%
INTEREST RATE DIFFERENCE	-2.69%
INTEREST RATE CHANGE COEFFICIENT	-40.47%
ADUSTMENT TO BASIC RISK PREMIUM	1.09%
BASIC RISK PREMIUM	3.81%
INTEREST RATE ADJUSTMENT	1.09%
EQUITY RISK PREMIUM	4.90%
CURRENT "Baa" UTILITY BOND YIELD*	4.95%
INDICATED EQUITY RETURN	**9.85%**

Notes:

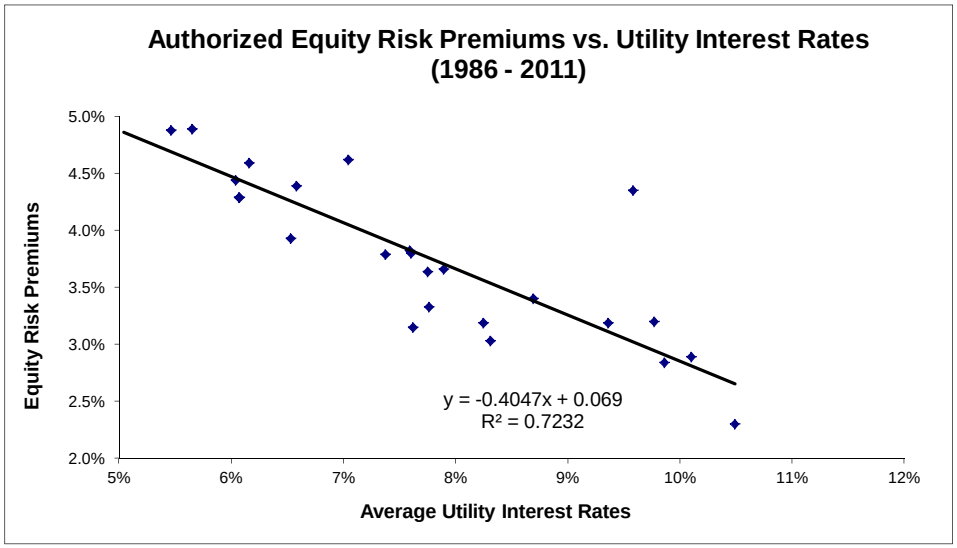
Columns 1-3: Schedule MPG-12.

*See Gorman Direct, lines 15-17 for Current "Baa" Utility Bond Yield.

See regression data on page 7 of this Exhibit for derivation of "Interest Rate Change Coefficient."

KCP&L Greater Missouri Operations Company

Update of Gorman Risk Premium Analysis - Utility Bond



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.850462594
R Square	0.723286624
Adjusted R Square	0.7117569
Standard Error	0.003967936
Observations	26

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.000988	0.000988	62.73235	3.76557E-08
Residual	24	0.000378	1.57E-05		
Total	25	0.001366			

	Coefficients	*tandard Erro*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.069023032	0.00398	17.34211	4.43E-15	0.060808547	0.077237518	0.060808547	0.077237518
X Variable 1	-0.404691794	0.051095	-7.920375	3.77E-08	-0.510146747	-0.29923684	-0.51014675	-0.299236841

KCP&L Greater Missouri Operations Company

Kahal Constant Growth DCF Analysis Excluding Ameren, Cleco & Edison International

No.	Company	(1) Analysts' Growth	(2) Dividend Yield	(3) Adjusted Yield	(4) **Constant Growth DCF**
1	ALLETE	5.73%	4.47%	4.6%	**10.3%**
2	Alliant Energy Co.	6.14%	4.10%	4.2%	**10.4%**
3	Ameren	~~-2.70%~~	~~4.95%~~	~~4.9%~~	~~**2.2%**~~
4	American Elec. Pwr.	3.94%	4.85%	4.9%	**8.9%**
5	Avista Corp.	4.74%	4.47%	4.6%	**9.3%**
6	Black Hills Corp	5.44%	4.50%	4.6%	**10.1%**
7	Cleco Corporation	~~3.88%~~	~~3.12%~~	~~3.2%~~	~~**7.1%**~~
8	DTE Energy Co.	4.33%	4.27%	4.4%	**8.7%**
9	Edison Internat.	~~2.06%~~	~~3.02%~~	~~3.1%~~	~~**5.1%**~~
10	Great Plains Energy	7.31%	4.18%	4.3%	**11.6%**
11	Hawaiian Electric	8.10%	4.70%	4.9%	**13.0%**
12	IDACORP	4.20%	3.22%	3.3%	**7.5%**
13	Pinnacle West	5.68%	4.33%	4.5%	**10.1%**
14	Portland General	4.40%	4.22%	4.3%	**8.7%**
15	SCANA Corp.	4.50%	4.27%	4.4%	**8.9%**
16	Sempra Energy	5.95%	3.73%	3.8%	**9.8%**
17	Southern Co.	5.26%	4.23%	4.3%	**9.6%**
18	Teco Energy, Inc.	4.18%	4.93%	5.0%	**9.2%**
19	Vectren Corp.	5.30%	4.80%	4.9%	**10.2%**
20	Westar Energy	5.69%	4.60%	4.7%	**10.4%**
21	Wisconsin Energy	5.94%	3.32%	3.4%	**9.4%**
22	Xcel Energy Inc.	5.18%	3.87%	4.0%	**9.2%**
	Average (including all companies)	4.78%	4.19%	4.3%	9.1%
	Kahal Cost of Equity Range	4.5-5.5%	4.19%	4.3%	**8.8-9.8%**
	Kahal Recommendation				**9.5%**
	Average (excl Ameren, Cleco & Edison International)	5.37%	4.27%	4.38%	**9.75%**

Column Notes:

(1) See Kahal Schedule MIK-4, page 3.

(2) See Kahal Schedule MIK-4, page 2.

(3) Column 2 multiplied by one plus column 1 divided by two.

(4) Column 1 plus Column 3.

KCP&L Greater Missouri Operations Company

Kahal Constant Growth DCF Analysis Excluding Ameren, Cleco & Edison International

5.5% Growth Rate

No.	Company	(1) 5.50% Growth	(2) Dividend Yield	(3) Adjusted Yield	(4) **Constant Growth DCF**
1	ALLETE	5.50%	4.47%	4.6%	**10.1%**
2	Alliant Energy Co.	5.50%	4.10%	4.2%	**9.7%**
3	Ameren	~~5.50%~~	~~4.95%~~	~~5.1%~~	~~**10.6%**~~
4	American Elec. Pwr.	5.50%	4.85%	5.0%	**10.5%**
5	Avista Corp.	5.50%	4.47%	4.6%	**10.1%**
6	Black Hills Corp	5.50%	4.50%	4.6%	**10.1%**
7	Cleco Corporation	~~5.50%~~	~~3.12%~~	~~3.2%~~	~~**8.7%**~~
8	DTE Energy Co.	5.50%	4.27%	4.4%	**9.9%**
9	Edison Internat.	~~5.50%~~	~~3.02%~~	~~3.1%~~	~~**8.6%**~~
10	Great Plains Energy	5.50%	4.18%	4.3%	**9.8%**
11	Hawaiian Electric	5.50%	4.70%	4.8%	**10.3%**
12	IDACORP	5.50%	3.22%	3.3%	**8.8%**
13	Pinnacle West	5.50%	4.33%	4.4%	**9.9%**
14	Portland General	5.50%	4.22%	4.3%	**9.8%**
15	SCANA Corp.	5.50%	4.27%	4.4%	**9.9%**
16	Sempra Energy	5.50%	3.73%	3.8%	**9.3%**
17	Southern Co.	5.50%	4.23%	4.3%	**9.8%**
18	Teco Energy, Inc.	5.50%	4.93%	5.1%	**10.6%**
19	Vectren Corp.	5.50%	4.80%	4.9%	**10.4%**
20	Westar Energy	5.50%	4.60%	4.7%	**10.2%**
21	Wisconsin Energy	5.50%	3.32%	3.4%	**8.9%**
22	Xcel Energy Inc.	5.50%	3.87%	4.0%	**9.5%**
	Average (including all companies)	5.50%	4.19%	4.3%	9.8%
	Kahal Cost of Equity Range	4.5-5.5%	4.19%	4.3%	**8.8-9.8%**
	Kahal Recommendation				**9.5%**
	Average (excl Ameren, Cleco & Edison International)	5.50%	4.27%	4.38%	**9.88%**

Column Notes:

(1) See Schedule SCH-11.

(2) See Kahal Schedule MIK-4, page 2.

(3) Column 2 multiplied by one plus column 1 divided by two.

(4) Column 1 plus Column 3.

KCP&L Greater Missouri Operations Company
GDP Growth Rate Forecast

	Nominal GDP	% Change	GDP Price Deflator	% Change	CPI	% Change
1951	347.9		15.9		26.5	
1952	371.4	6.8%	16.1	1.5%	26.7	0.9%
1953	375.9	1.2%	16.2	0.8%	26.9	0.6%
1954	389.4	3.6%	16.4	0.8%	26.8	-0.4%
1955	426.0	9.4%	16.8	2.6%	26.9	0.4%
1956	448.1	5.2%	17.4	3.3%	27.6	2.8%
1957	461.5	3.0%	17.8	2.7%	28.5	3.0%
1958	485.0	5.1%	18.3	2.5%	29.0	1.8%
1959	513.2	5.8%	18.4	0.9%	29.4	1.5%
1960	523.7	2.0%	18.7	1.4%	29.8	1.4%
1961	562.6	7.4%	18.9	1.1%	30.0	0.7%
1962	593.3	5.5%	19.2	1.3%	30.4	1.2%
1963	633.5	6.8%	19.4	1.4%	30.9	1.6%
1964	675.6	6.6%	19.7	1.5%	31.3	1.2%
1965	747.5	10.6%	20.1	2.0%	31.9	1.9%
1966	806.9	7.9%	20.8	3.5%	32.9	3.4%
1967	852.7	5.7%	21.4	3.1%	34.0	3.3%
1968	936.2	9.8%	22.4	4.6%	35.6	4.7%
1969	1004.5	7.3%	23.6	5.2%	37.7	5.9%
1970	1052.7	4.8%	24.8	5.0%	39.8	5.6%
1971	1151.4	9.4%	25.9	4.7%	41.1	3.3%
1972	1286.6	11.7%	27.1	4.5%	42.5	3.4%
1973	1431.8	11.3%	28.9	6.8%	46.3	8.9%
1974	1552.8	8.5%	32.0	10.7%	51.9	12.1%
1975	1713.9	10.4%	34.5	7.6%	55.6	7.1%
1976	1884.5	10.0%	36.3	5.4%	58.4	5.0%
1977	2110.8	12.0%	38.8	6.7%	62.3	6.7%
1978	2416.0	14.5%	41.6	7.3%	67.9	9.0%
1979	2659.4	10.1%	45.2	8.7%	76.9	13.3%
1980	2915.3	9.6%	49.6	9.7%	86.4	12.4%
1981	3194.7	9.6%	53.7	8.3%	94.1	8.9%
1982	3312.5	3.7%	56.5	5.2%	97.7	3.8%
1983	3688.1	11.3%	58.4	3.3%	101.4	3.8%
1984	4034.0	9.4%	60.5	3.6%	105.5	4.0%
1985	4318.7	7.1%	62.1	2.8%	109.5	3.8%
1986	4543.3	5.2%	63.6	2.3%	110.8	1.2%
1987	4883.1	7.5%	65.5	3.1%	115.6	4.3%
1988	5251.0	7.5%	68.0	3.7%	120.7	4.4%
1989	5581.7	6.3%	70.3	3.5%	126.3	4.6%
1990	5846.0	4.7%	73.2	4.2%	134.2	6.3%
1991	6092.5	4.2%	75.6	3.2%	138.2	3.0%
1992	6493.6	6.6%	77.2	2.2%	142.3	3.0%
1993	6813.8	4.9%	78.9	2.2%	146.3	2.8%
1994	7248.2	6.4%	80.6	2.1%	150.1	2.6%
1995	7542.5	4.1%	82.2	2.0%	153.9	2.5%
1996	8023.0	6.4%	83.7	1.8%	159.1	3.4%
1997	8505.7	6.0%	85.1	1.6%	161.8	1.7%
1998	9027.5	6.1%	86.0	1.1%	164.4	1.6%
1999	9607.7	6.4%	87.3	1.5%	168.8	2.7%
2000	10129.8	5.4%	89.4	2.5%	174.6	3.4%
2001	10373.1	2.4%	91.2	2.0%	177.4	1.6%
2002	10766.9	3.8%	92.9	1.8%	181.8	2.5%
2003	11414.8	6.0%	94.8	2.1%	185.5	2.0%
2004	12123.9	6.2%	97.9	3.2%	191.7	3.3%
2005	12901.4	6.4%	101.3	3.5%	198.1	3.3%
2006	13584.2	5.3%	104.2	2.8%	203.1	2.5%
2007	14253.2	4.9%	107.0	2.7%	211.4	4.1%
2008	14081.7	-1.2%	109.3	2.2%	211.4	0.0%
2009	14087.4	0.0%	109.9	0.6%	217.3	2.8%
2010	14755.0	4.7%	111.6	1.5%	220.4	1.4%
2011	15320.8	3.8%	114.1	2.2%	227.0	3.0%
10-Year Average		4.0%		2.3%		2.5%
20-Year Average		4.7%		2.1%		2.5%
30-Year Average		5.4%		2.5%		3.0%
40-Year Average		6.7%		3.8%		4.4%
50-Year Average		6.9%		3.7%		4.2%
60-Year Average		6.6%		3.4%		3.7%
Average of Periods		5.7%		3.0%		3.4%

Source: St. Louis Federal Reserve Bank, www.research.stlouisfed.org

KCP&L Greater Missouri Operations Company
Discounted Cash Flow Analysis
Summary Of DCF Model Results

	Company	Constant Growth DCF Model Analysts' Growth Rates	Constant Growth DCF Model Long-Term GDP Growth	Low Near-Term Growth Two-Stage Growth DCF Model	Market Price as Terminal Value DCF Model
1	ALLETE	10.5%	10.3%	9.9%	13.5%
2	Alliant Energy Co.	10.4%	9.9%	9.8%	9.9%
3	American Elec. Pwr.	8.8%	10.7%	10.3%	9.4%
4	Avista Corp.	9.4%	10.3%	10.2%	10.7%
5	Black Hills Corp	11.0%	10.4%	9.9%	7.4%
6	CMS Energy Corp.	10.6%	10.0%	10.0%	8.8%
7	DTE Energy Co.	8.8%	10.0%	9.7%	9.7%
8	Great Plains Energy	10.8%	9.9%	10.1%	13.4%
9	Hawaiian Electric	12.9%	10.2%	10.0%	10.4%
10	IDACORP	7.1%	9.1%	9.6%	7.6%
11	Integrys Energy	10.4%	10.5%	10.0%	12.9%
12	Pinnacle West	10.0%	10.0%	9.8%	9.4%
13	Portland General	8.7%	10.0%	9.8%	9.3%
14	SCANA Corp.	8.7%	10.0%	9.6%	8.4%
15	Sempra Energy	9.8%	9.4%	9.2%	12.8%
16	Southern Co.	9.5%	10.0%	9.8%	9.7%
17	Teco Energy, Inc.	9.7%	10.9%	10.9%	12.2%
18	UNS Energy Corp.	10.4%	10.3%	10.6%	~~20.5%~~
19	Westar Energy	10.4%	10.3%	10.0%	10.9%
20	Wisconsin Energy	9.5%	9.2%	9.6%	9.0%
21	Xcel Energy Inc.	9.2%	9.6%	9.7%	10.8%
	GROUP AVERAGE	9.8%	10.1%	9.9%	10.3%
	GROUP MEDIAN	9.8%	10.0%	9.9%	9.8%

Sources: Value Line Investment Survey, Electric Utility (East), May 25, 2012; (Central), Jun 22, 2012; (West), Aug 3, 2012.

The Market Price result for UNS Energy is considered an outlier and is eliminated.

NOTE: SEE PAGE 6 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

KCP&L Greater Missouri Operations Company
Constant Growth DCF Model
Analysts' Growth Rates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Next		Analysts' Estimated Growth			Average	**ROE**
	Recent	Year's	Dividend	Value			Growth	K=Div Yld+G
Company	Price(P0)	Div(D1)	Yield	Line	Zacks	Thomson	*(Cols 4-6)*	*(Cols 3+7)*
1 ALLETE	40.54	1.88	4.64%	7.50%	5.00%	5.00%	5.83%	10.5%
2 Alliant Energy Co.	45.11	1.90	4.21%	6.00%	6.20%	6.30%	6.17%	10.4%
3 American Elec. Pwr.	39.58	1.96	4.95%	4.50%	3.60%	3.37%	3.82%	8.8%
4 Avista Corp.	26.40	1.22	4.62%	5.50%	4.70%	4.00%	4.73%	9.4%
5 Black Hills Corp	32.23	1.50	4.65%	7.00%	6.00%	6.00%	6.33%	11.0%
6 CMS Energy Corp.	23.49	1.02	4.34%	7.00%	5.60%	6.06%	6.22%	10.6%
7 DTE Energy Co.	58.26	2.49	4.27%	4.00%	4.90%	4.59%	4.50%	8.8%
8 Great Plains Energy	20.88	0.88	4.21%	5.50%	7.80%	6.50%	6.60%	10.8%
9 Hawaiian Electric	27.80	1.24	4.46%	9.00%	7.10%	9.15%	8.42%	12.9%
10 IDACORP	40.93	1.40	3.42%	2.00%	5.00%	4.00%	3.67%	7.1%
11 Integrys Energy	56.16	2.72	4.84%	7.00%	4.70%	5.00%	5.57%	10.4%
12 Pinnacle West	50.64	2.20	4.34%	5.00%	5.70%	6.34%	5.68%	10.0%
13 Portland General	26.03	1.11	4.26%	5.50%	4.10%	3.67%	4.42%	8.7%
14 SCANA Corp.	47.37	2.02	4.26%	4.00%	4.70%	4.50%	4.40%	8.7%
15 Sempra Energy	66.72	2.50	3.75%	4.50%	6.80%	7.00%	6.10%	9.8%
16 Southern Co.	46.69	2.02	4.33%	5.00%	5.10%	5.38%	5.16%	9.5%
17 Teco Energy, Inc.	17.81	0.92	5.17%	7.50%	3.10%	3.12%	4.57%	9.7%
18 UNS Energy Corp.	38.33	1.76	4.59%	5.50%	6.30%	5.50%	5.77%	10.4%
19 Westar Energy	29.27	1.36	4.65%	6.50%	6.20%	4.60%	5.77%	10.4%
20 Wisconsin Energy	38.75	1.36	3.51%	6.50%	5.50%	6.05%	6.02%	9.5%
21 Xcel Energy Inc.	28.29	1.11	3.92%	6.00%	4.90%	5.06%	5.32%	9.2%
GROUP AVERAGE	38.16	1.65	4.35%	5.76%	5.38%	5.29%	5.48%	9.8%
GROUP MEDIAN			4.34%					9.8%

Sources: Value Line Investment Survey, Electric Utility (East), May 25, 2012; (Central), Jun 22, 2012; (West), Aug 3, 2012.

NOTE: SEE PAGE 6 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

KCP&L Greater Missouri Operations Company
Constant Growth DCF Model
Long-Term GDP Growth

		(9)	(10)	(11)	(12)	(13)
			Next			**ROE**
		Recent	Year's	Dividend	GDP	K=Div Yld+G
	Company	Price(P0)	Div(D1)	Yield	Growth	*(Cols 11+12)*
1	ALLETE	40.54	1.88	4.64%	5.70%	10.3%
2	Alliant Energy Co.	45.11	1.90	4.21%	5.70%	9.9%
3	American Elec. Pwr.	39.58	1.96	4.95%	5.70%	10.7%
4	Avista Corp.	26.40	1.22	4.62%	5.70%	10.3%
5	Black Hills Corp	32.23	1.50	4.65%	5.70%	10.4%
6	CMS Energy Corp.	23.49	1.02	4.34%	5.70%	10.0%
7	DTE Energy Co.	58.26	2.49	4.27%	5.70%	10.0%
8	Great Plains Energy	20.88	0.88	4.21%	5.70%	9.9%
9	Hawaiian Electric	27.80	1.24	4.46%	5.70%	10.2%
10	IDACORP	40.93	1.40	3.42%	5.70%	9.1%
11	Integrys Energy	56.16	2.72	4.84%	5.70%	10.5%
12	Pinnacle West	50.64	2.20	4.34%	5.70%	10.0%
13	Portland General	26.03	1.11	4.26%	5.70%	10.0%
14	SCANA Corp.	47.37	2.02	4.26%	5.70%	10.0%
15	Sempra Energy	66.72	2.50	3.75%	5.70%	9.4%
16	Southern Co.	46.69	2.02	4.33%	5.70%	10.0%
17	Teco Energy, Inc.	17.81	0.92	5.17%	5.70%	10.9%
18	UNS Energy Corp.	38.33	1.76	4.59%	5.70%	10.3%
19	Westar Energy	29.27	1.36	4.65%	5.70%	10.3%
20	Wisconsin Energy	38.75	1.36	3.51%	5.70%	9.2%
21	Xcel Energy Inc.	28.29	1.11	3.92%	5.70%	9.6%
	GROUP AVERAGE	38.16	1.65	4.35%	5.70%	10.1%
	GROUP MEDIAN			4.34%		10.0%

Sources: Value Line Investment Survey, Electric Utility (East), May 25, 2012; (Central), Jun 22, 2012; (West), Aug 3, 2012.

NOTE: SEE PAGE 6 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

KCP&L Greater Missouri Operations Company
Low Near-Term Growth
Two-Stage Growth DCF Model

	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
			Annual	CASH FLOWS							ROE=Internal
	2013	2016	Change	Recent	Year 1	Year 2	Year 3	Year 4	Year 5	Year 5-150	Rate of Return
Company	Div	Div	to 2016	Price	Div	Div	Div	Div	Div	Div Growth	*(Yrs 0-150)*
1 ALLETE	1.88	2.00	0.04	-40.54	1.88	1.92	1.96	2.00	2.11	5.70%	9.9%
2 Alliant Energy Co.	1.90	2.20	0.10	-45.11	1.90	2.00	2.10	2.20	2.33	5.70%	9.8%
3 American Elec. Pwr.	1.96	2.15	0.06	-39.58	1.96	2.02	2.09	2.15	2.27	5.70%	10.3%
4 Avista Corp.	1.22	1.40	0.06	-26.40	1.22	1.28	1.34	1.40	1.48	5.70%	10.2%
5 Black Hills Corp	1.50	1.60	0.03	-32.23	1.50	1.53	1.57	1.60	1.69	5.70%	9.9%
6 CMS Energy Corp.	1.02	1.20	0.06	-23.49	1.02	1.08	1.14	1.20	1.27	5.70%	10.0%
7 DTE Energy Co.	2.49	2.75	0.09	-58.26	2.49	2.58	2.66	2.75	2.91	5.70%	9.7%
8 Great Plains Energy	0.88	1.10	0.07	-20.88	0.88	0.95	1.03	1.10	1.16	5.70%	10.1%
9 Hawaiian Electric	1.24	1.40	0.05	-27.80	1.24	1.29	1.35	1.40	1.48	5.70%	10.0%
10 IDACORP	1.40	1.90	0.17	-40.93	1.40	1.57	1.73	1.90	2.01	5.70%	9.6%
11 Integrys Energy	2.72	2.80	0.03	-56.16	2.72	2.75	2.77	2.80	2.96	5.70%	10.0%
12 Pinnacle West	2.20	2.45	0.08	-50.64	2.20	2.28	2.37	2.45	2.59	5.70%	9.8%
13 Portland General	1.11	1.25	0.05	-26.03	1.11	1.16	1.20	1.25	1.32	5.70%	9.8%
14 SCANA Corp.	2.02	2.15	0.04	-47.37	2.02	2.06	2.11	2.15	2.27	5.70%	9.6%
15 Sempra Energy	2.50	2.80	0.10	-66.72	2.50	2.60	2.70	2.80	2.96	5.70%	9.2%
16 Southern Co.	2.02	2.25	0.08	-46.69	2.02	2.10	2.17	2.25	2.38	5.70%	9.8%
17 Teco Energy, Inc.	0.92	1.10	0.06	-17.81	0.92	0.98	1.04	1.10	1.16	5.70%	10.9%
18 UNS Energy Corp.	1.76	2.25	0.16	-38.33	1.76	1.92	2.09	2.25	2.38	5.70%	10.6%
19 Westar Energy	1.36	1.48	0.04	-29.27	1.36	1.40	1.44	1.48	1.56	5.70%	10.0%
20 Wisconsin Energy	1.36	1.80	0.15	-38.75	1.36	1.51	1.65	1.80	1.90	5.70%	9.6%
21 Xcel Energy Inc.	1.11	1.35	0.08	-28.29	1.11	1.19	1.27	1.35	1.43	5.70%	9.7%
GROUP AVERAGE											9.9%
GROUP MEDIAN											9.9%

Sources: Value Line Investment Survey, Electric Utility (East), May 25, 2012; (Central), Jun 22, 2012; (West), Aug 3, 2012.

NOTE: SEE PAGE 6 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

KCP&L Greater Missouri Operations Company
Low Near-Term Growth
Market Price as Terminal Value DCF Model

		(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
		Next		Annual	Value Line			CASH FLOWS					ROE=Internal
		Year's	2016	Change	P/E	2016	2016	Recent	Year 1	Year 2	Year 3	Year 4	Rate of Return
	Company	Div	Div	to 2016	Ratio	EPS	Price	Price	Div	Div	Div	Div+Price	*(Cols 21-25)*
1	ALLETE	1.88	2.00	0.04	16.5	3.50	57.75	-40.54	1.88	1.92	1.96	59.75	13.5%
2	Alliant Energy Co.	1.90	2.20	0.10	16.1	3.50	56.35	-45.11	1.90	2.00	2.10	58.55	9.9%
3	American Elec. Pwr.	1.96	2.15	0.06	12.6	3.75	47.25	-39.58	1.96	2.02	2.09	49.40	9.4%
4	Avista Corp.	1.22	1.40	0.06	14.9	2.25	33.53	-26.40	1.22	1.28	1.34	34.93	10.7%
5	Black Hills Corp	1.50	1.60	0.03	14.4	2.50	36.00	-32.23	1.50	1.53	1.57	37.60	7.4%
6	CMS Energy Corp.	1.02	1.20	0.06	15.1	1.85	27.94	-23.49	1.02	1.08	1.14	29.14	8.8%
7	DTE Energy Co.	2.49	2.75	0.09	16.1	4.50	72.45	-58.26	2.49	2.58	2.66	75.20	9.7%
8	Great Plains Energy	0.88	1.10	0.07	17.0	1.75	29.75	-20.88	0.88	0.95	1.03	30.85	13.4%
9	Hawaiian Electric	1.24	1.40	0.05	17.6	2.00	35.20	-27.80	1.24	1.29	1.35	36.60	10.4%
10	IDACORP	1.40	1.90	0.17	14.0	3.40	47.60	-40.93	1.40	1.57	1.73	49.50	7.6%
11	Integrys Energy	2.72	2.80	0.03	18.3	4.25	77.78	-56.16	2.72	2.75	2.77	80.58	12.9%
12	Pinnacle West	2.20	2.45	0.08	16.5	3.75	61.88	-50.64	2.20	2.28	2.37	64.33	9.4%
13	Portland General	1.11	1.25	0.05	14.1	2.25	31.73	-26.03	1.11	1.16	1.20	32.98	9.3%
14	SCANA Corp.	2.02	2.15	0.04	14.9	3.75	55.88	-47.37	2.02	2.06	2.11	58.03	8.4%
15	Sempra Energy	2.50	2.80	0.10	16.6	5.75	95.45	-66.72	2.50	2.60	2.70	98.25	12.8%
16	Southern Co.	2.02	2.25	0.08	17.8	3.25	57.85	-46.69	2.02	2.10	2.17	60.10	9.7%
17	Teco Energy, Inc.	0.92	1.10	0.06	13.4	1.75	23.45	-17.81	0.92	0.98	1.04	24.55	12.2%
18	UNS Energy Corp.	~~1.76~~	~~2.25~~	~~0.16~~	~~18.7~~	~~3.75~~	~~70.13~~	~~-38.33~~	~~1.76~~	~~1.92~~	~~2.09~~	~~72.38~~	~~20.5%~~
19	Westar Energy	1.36	1.48	0.04	15.7	2.40	37.68	-29.27	1.36	1.40	1.44	39.16	10.9%
20	Wisconsin Energy	1.36	1.80	0.15	17.3	2.75	47.58	-38.75	1.36	1.51	1.65	49.38	9.0%
21	Xcel Energy Inc.	1.11	1.35	0.08	16.4	2.25	36.90	-28.29	1.11	1.19	1.27	38.25	10.8%
	GROUP AVERAGE	1.64	1.86	0.07	15.77	3.06	48.50	-38.15	1.64	1.71	1.78	50.35	10.3%
	GROUP MEDIAN				16.10								9.8%

Sources: Value Line Investment Survey, Electric Utility (East), May 25, 2012; (Central), Jun 22, 2012; (West), Aug 3, 2012.

The result for UNS Energy is considered an outlier and is eliminated.

NOTE: SEE PAGE 6 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

KCP&L Greater Missouri Operations Company
Discounted Cash Flow Analysis
Column Descriptions

Column 1: Three-month Average Price per Share (Apr 2012-Jun 2012)

Column 2: Estimated 2013 Div per Share from Value Line

Column 3: Column 2 Divided by Column 1

Column 4: "Est'd '09-'11 to '15-'17" Earnings Growth Reported by Value Line

Column 5: "Next 5 Years" Company Growth Estimate as Reported by Zacks.com

Column 6: "Next 5 Years (per annum) Growth Estimate Reported by Thomson Financial Network (at Yahoo Finance)

Column 7: Average of Columns 4-6

Column 8: Column 3 Plus Column 7

Column 9: See Column 1

Column 10: See Column 2

Column 11: Column 10 Divided by Column 9

Column 12: Average of GDP Growth During the Last 10 year, 20 year, 30 year, 40 year, 50 year, and 60 year growth periods. See Schedule SCH-11

Column 13: Column 11 Plus Column 12

Column 14: Estimated 2013 Div per Share from Value Line

Column 15: Estimated 2016 Div per Share from Value Line

Column 16: (Column 15 Minus Column 14) Divided by Three

Column 17: See Column 1

Column 18: See Column 14

Column 19: Column 18 Plus Column 16

Column 20: Column 19 Plus Column 16

Column 21: Column 20 Plus Column 16

Column 22: Column 21 Increased by the Growth Rate Shown in Column 23

Column 23: See Column 12

Column 24: The Internal Rate of Return of the Cash Flows in Columns 17-22 along with the Dividends for the Years 6-150 Implied by the Growth Rates shown in Column 23

Column 25: See Column 14

Column 26: See Column 15

Column 27: (Column 26 Minus Column 25) Divided by Three

Column 28: "P/E RATIO" Reported by Value Line

Column 29: Estimated 2016 Earnings per Share from Value Line

Column 30: Column 28 multiplied by Column 29

Column 31: See Column 1

Column 32: See Column 25

Column 33: Column 32 plus Column 27

Column 34: Column 33 plus Column 27

Column 35: Column 34 plus Column 27 plus Column 30

Column 36: The Internal Rate of Return of the Cash Flows in Columns 31-35

KCP&L Greater Missouri Operations Company

Risk Premium Analysis

(Based on Projected Interest Rates)

	MOODY'S AVERAGE PUBLIC UTILITY BOND YIELD (1)	AUTHORIZED ELECTRIC RETURNS (2)	INDICATED RISK PREMIUM
1980	13.15%	14.23%	1.08%
1981	15.62%	15.22%	-0.40%
1982	15.33%	15.78%	0.45%
1983	13.31%	15.36%	2.05%
1984	14.03%	15.32%	1.29%
1985	12.29%	15.20%	2.91%
1986	9.46%	13.93%	4.47%
1987	9.98%	12.99%	3.01%
1988	10.45%	12.79%	2.34%
1989	9.66%	12.97%	3.31%
1990	9.76%	12.70%	2.94%
1991	9.21%	12.55%	3.34%
1992	8.57%	12.09%	3.52%
1993	7.56%	11.41%	3.85%
1994	8.30%	11.34%	3.04%
1995	7.91%	11.55%	3.64%
1996	7.74%	11.39%	3.65%
1997	7.63%	11.40%	3.77%
1998	7.00%	11.66%	4.66%
1999	7.55%	10.77%	3.22%
2000	8.14%	11.43%	3.29%
2001	7.72%	11.09%	3.37%
2002	7.53%	11.16%	3.63%
2003	6.61%	10.97%	4.36%
2004	6.20%	10.75%	4.55%
2005	5.67%	10.54%	4.87%
2006	6.08%	10.36%	4.28%
2007	6.11%	10.36%	4.25%
2008	6.65%	10.46%	3.81%
2009	6.28%	10.48%	4.20%
2010	5.55%	10.34%	4.79%
2011	5.17%	10.22%	5.05%
AVERAGE	8.82%	12.15%	3.33%

INDICATED COST OF EQUITY

PROJECTED TRIPLE-B UTILITY BOND YIELD*	5.37%
MOODY'S AVG ANNUAL YIELD DURING STUDY	8.82%
INTEREST RATE DIFFERENCE	-3.45%
INTEREST RATE CHANGE COEFFICIENT	-41.62%
ADUSTMENT TO AVG RISK PREMIUM	1.44%
BASIC RISK PREMIUM	3.33%
INTEREST RATE ADJUSTMENT	1.44%
EQUITY RISK PREMIUM	4.77%
PROJECTED TRIPLE-B UTILITY BOND YIELD*	5.37%
INDICATED EQUITY RETURN	**10.14%**

(1) Moody's Investors Service

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

*Projected triple-B bond yield is 217 basis points over projected long-term Treasury bond rate of 3.2%.
The triple-B spread is for 3 months ended July 2012 from Schedule SCH-8, p. 1.
The projected Treasury bond rate is from Schedule SCH-8, p. 2.

KCP&L Greater Missouri Operations Company

Risk Premium Analysis

(Based on Current Interest Rates)

	MOODY'S AVERAGE PUBLIC UTILITY BOND YIELD (1)	AUTHORIZED ELECTRIC RETURNS (2)	INDICATED RISK PREMIUM
1980	13.15%	14.23%	1.08%
1981	15.62%	15.22%	-0.40%
1982	15.33%	15.78%	0.45%
1983	13.31%	15.36%	2.05%
1984	14.03%	15.32%	1.29%
1985	12.29%	15.20%	2.91%
1986	9.46%	13.93%	4.47%
1987	9.98%	12.99%	3.01%
1988	10.45%	12.79%	2.34%
1989	9.66%	12.97%	3.31%
1990	9.76%	12.70%	2.94%
1991	9.21%	12.55%	3.34%
1992	8.57%	12.09%	3.52%
1993	7.56%	11.41%	3.85%
1994	8.30%	11.34%	3.04%
1995	7.91%	11.55%	3.64%
1996	7.74%	11.39%	3.65%
1997	7.63%	11.40%	3.77%
1998	7.00%	11.66%	4.66%
1999	7.55%	10.77%	3.22%
2000	8.14%	11.43%	3.29%
2001	7.72%	11.09%	3.37%
2002	7.53%	11.16%	3.63%
2003	6.61%	10.97%	4.36%
2004	6.20%	10.75%	4.55%
2005	5.67%	10.54%	4.87%
2006	6.08%	10.36%	4.28%
2007	6.11%	10.36%	4.25%
2008	6.65%	10.46%	3.81%
2009	6.28%	10.48%	4.20%
2010	5.55%	10.34%	4.79%
2011	5.17%	10.22%	5.05%
AVERAGE	8.82%	12.15%	3.33%

INDICATED COST OF EQUITY

CURRENT TRIPLE-B UTILITY BOND YIELD*	4.91%
MOODY'S AVG ANNUAL YIELD DURING STUDY	8.82%
INTEREST RATE DIFFERENCE	-3.91%
INTEREST RATE CHANGE COEFFICIENT	-41.62%
ADUSTMENT TO AVG RISK PREMIUM	1.63%
BASIC RISK PREMIUM	3.33%
INTEREST RATE ADJUSTMENT	1.63%
EQUITY RISK PREMIUM	4.96%
CURRENT TRIPLE-B UTILITY BOND YIELD*	4.91%
INDICATED EQUITY RETURN	**9.87%**

(1) Moody's Investors Service

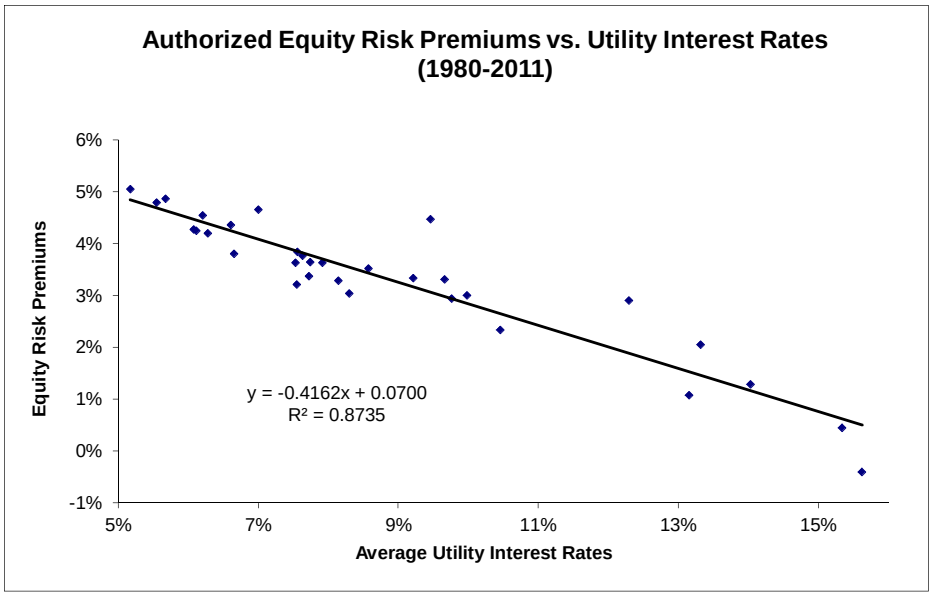
(2) Regulatory Focus, Regulatory Research Associates, Inc.

*Current triple-B utility bond yield is three month average of Moody's Triple-B Public Utility Bond Yield Average through July 2012 from Schedule SCH-8, p. 1.

KCP&L Greater Missouri Operations Company

Risk Premium Analysis

Regression Analysis & Interest Rate Change Coefficient



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.934607488
R Square	0.873491157
Adjusted R Square	0.869274196
Standard Error	0.004645908
Observations	32

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.004470953	0.004470953	207.1375734	5.236E-15
Residual	30	0.000647534	2.15845E-05		
Total	31	0.005118487			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.070011757	0.002679133	26.13224684	3.388E-22	0.064540238	0.075483276	0.064540238	0.075483276
X Variable 1	-0.41615627	0.028915253	-14.39227478	5.236E-15	-0.475209095	-0.357103445	-0.475209095	-0.357103445