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**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

**In the Matter of Kansas City Power &
Light Company's Request for Authority to
Implement A General Rate Increase for
Electric Service**

Case No. ER-2016-0285

Rebuttal Testimony and Schedules of

Michael P. Gorman

On behalf of

Midwest Energy Consumers' Group

December 30, 2016



Project 10290

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**Michael P. Gorman
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Rebuttal Testimony of Michael P. Gorman

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q ARE YOU THE SAME MICHAEL P. GORMAN WHO PREVIOUSLY FILED**
5 **TESTIMONY IN THIS CASE?**

6 A Yes. On November 30, 2016, I filed revenue requirement direct testimony on behalf
7 of the Midwest Energy Consumers' Group ("MECG") regarding Kansas City Power &
8 Light Company's ("KCPL" or "Company") rate increase request.

9 **Q WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

10 A I will respond to KCPL witness Mr. Robert Hevert's recommended return on equity
11 range of 9.75% to 10.50%¹ and KCPL's requested return on equity of 9.90%.² I will
12 also update the return on equity study I developed in my direct testimony following
13 the same methodology but relying on updated inputs.

¹Hevert Direct Testimony at 3.

²Bryant Direct Testimony at 3.

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1 My silence in regards to any issue should not be construed as an
2 endorsement of KCPL's position.

3 **Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND FINDINGS IN YOUR**
4 **REBUTTAL TESTIMONY.**

5 A I respond to the return on equity recommendations of KCPL witness Robert Hevert.
6 The Company's recommended return on equity of 9.9% is overstated and
7 unreasonable. As outlined later in this testimony, corrections to Mr. Hevert's studies
8 or use of more balanced market-based information supports a return on equity for
9 KCPL in the range of 9.0% to 9.5%.

10 I also updated my analysis from my direct testimony. In my direct testimony,
11 based upon data through October 28, 2016, I recommended a return on equity for
12 KCPL in the range of 8.80% to 9.20%. Based on my updated study offered in this
13 rebuttal testimony which relies upon data through December 16, 2016, I now update
14 my recommended return on equity for KCPL to fall within the range of 8.9% to 9.5%,
15 with a point estimate of 9.20%.

16 **I. RESPONSE TO KCPL WITNESS MR. ROBERT B. HEVERT**

17 **I.A. Summary of Rebuttal**

18 **Q WHAT RETURN ON COMMON EQUITY IS KCPL PROPOSING FOR THIS**
19 **PROCEEDING?**

20 A The Company has requested a return on equity of 9.90% based on the recommended
21 range of 9.75% to 10.50% sponsored by its witness, Mr. Robert Hevert.³ Mr. Hevert
22 concludes that his recommended return on equity range is reasonable, but

³Hevert Direct Testimony at 3, and Kevin Bryant Direct Testimony at 3.

1 conservative.⁴ His recommended return on equity is based on: (1) a constant growth
2 Discounted Cash Flow (“DCF”) analysis, (2) a multi-stage growth DCF analysis,
3 (3) Capital Asset Pricing Model (“CAPM”) studies, and (4) a Bond Yield Plus Risk
4 Premium methodology.

5 **Q ARE MR. HEVERT’S RETURN ON EQUITY ESTIMATES REASONABLE?**

6 A No. Mr. Hevert’s estimated return on equity is overstated and should be rejected.
7 Mr. Hevert’s analyses produce excessive results for various reasons, including the
8 following:

- 9 1. His constant growth DCF results are based on unsustainably high growth rates;
- 10 2. his multi-stage growth DCF is based on:
 - 11 a. an unrealistic long-term Gross Domestic Product (“GDP”) growth estimate that
12 is not aligned with market participants’ outlooks,
 - 13 b. a manipulated dividend payout ratio adjustment, and
 - 14 c. a terminal stock price that is produced by an unjustified price-to-earnings
15 (“P/E”) ratio assumption;
- 16 3. his CAPM is based on inflated market risk premiums; and
- 17 4. his Bond Yield Plus Risk Premium studies are based on inflated utility equity risk
18 premiums.

19 **Q PLEASE SUMMARIZE MR. HEVERT’S RETURN ON EQUITY ESTIMATES.**

20 A Mr. Hevert’s return on equity estimates are summarized in Table 1 below. In
21 Column 2, I show the results with prudent and sound adjustments to correct the
22 shortfalls referenced above. With such adjustments to his proxy group’s DCF,
23 CAPM, and Risk Premium return estimates, Mr. Hevert’s own studies show my 9.20%
24 recommended return on equity for KCPL is reasonable.

⁴Hevert Direct Testimony at 3.

TABLE 1

Hevert's Return on Equity Estimates

Description	Mean¹	Adjusted²
	(1)	(2)
<u>Constant Growth DCF:</u>		
30-Day Average	8.76%	8.76%
90-Day Average	8.82%	8.82%
180-Day Average	<u>9.00%</u>	<u>9.00%</u>
Average Constant Growth DCF	8.86%	8.86%
<u>Multi-Stage Growth DCF:</u>		
30-Day Average	9.45%	8.10%
90-Day Average	9.60%	8.17%
180-Day Average	<u>10.08%</u>	<u>8.37%</u>
Average Multi-Stage Growth DCF	9.71%	8.21%
DCF Range	8.9% to 9.7%	8.2% to 8.9%
<u>CAPM Results (Bloomberg Beta)</u>		
Current 30-Yr Treasury (BL – 2.65%)	9.11%	7.45%
Current 30-Yr Treasury (VL – 2.65%)	9.49%	7.45%
Near-Term Projected 30-Yr Treasury (BL – 3.08%)	9.55%	7.89%
Near-Term Projected 30-Yr Treasury (VL – 3.08%)	9.92%	7.89%
<u>CAPM Results (Value Line Beta)</u>		
Current 30-Yr Treasury (BL – 2.65%)	10.72%	8.64%
Current 30-Yr Treasury (VL – 2.65%)	11.18%	8.64%
Near-Term Projected 30-Yr Treasury (BL – 3.08%)	11.15%	9.08%
Near-Term Projected 30-Yr Treasury (VL – 3.08%)	11.62%	9.08%
<u>Risk Premium</u>		
Current 30-Yr Treasury (2.65%)	10.04%	8.75%
Near-Term Projected 30-Yr Treasury (3.08%)	10.05%	9.18%
Long-Term Projected 30-Yr Treasury (4.45%)	10.39%	Reject
<u>Alternative Risk Premium</u>		
Current 30-Yr Treasury (2.65%)	9.74%	9.75%
Near-Term Projected 30-Yr Treasury (3.08%)	9.75%	9.75%
Long-Term Projected 30-Yr Treasury (4.45%)	10.04%	9.75%
Range	9.75% to 10.50%	8.2% to 9.75%

Sources:

¹Hevert Direct Testimony at 22, 32, 38, 41 and 42.

²Schedule MPG-R-1 and Schedule MPG-R-2.

1 **I.B. Hevert DCF**

2 **I.B.1. Hevert Constant Growth DCF**

3 **Q PLEASE DESCRIBE MR. HEVERT'S CONSTANT GROWTH DCF RETURN**
4 **ESTIMATES.**

5 A His constant growth DCF returns are developed in Schedule RBH-1. Mr. Hevert's
6 constant growth DCF models are based on consensus growth rates published by
7 Zacks and First Call and individual growth rate projections made by *Value Line*.

8 He relied on dividend yield calculations based on average stock prices over
9 three different periods: 30-day, 90-day, and 180-day – all reflecting one-half year
10 dividend growth adjustments.

11 **Q ARE THE DCF RESULTS PRODUCED BY MR. HEVERT REASONABLE?**

12 A Mr. Hevert's constant growth DCF studies generally support a return on equity in the
13 range of 8.75% to 9.0%, which is similar to the results of my constant growth DCF
14 study that was presented in my direct testimony.

15 Similar to my constant growth DCF result, Mr. Hevert's constant growth DCF
16 return estimates are reasonable high-end estimates because they are based on a
17 proxy group average growth rate of 5.29% (Schedule RBH-1, pages 1-3). This
18 growth rate is a very optimistic future growth in comparison to my updated long-term
19 GDP growth of 4.25%. As such, his constant growth DCF return estimates should be
20 considered as a high-end estimate of the current market cost of equity.

1 **I.B.2. Hevert Multi-Stage Growth DCF**

2 **Q DID MR. HEVERT PERFORM A MULTI-STAGE GROWTH DCF ANALYSIS?**

3 A Yes, he did. Mr. Hevert's multi-stage growth DCF analysis is impacted by various
4 assumptions Mr. Hevert has modeled in his DCF study, all of which produce a DCF
5 return estimate that is simply inflated. As a comparison, Mr. Hevert's long-term
6 steady-state growth rate used in his multi-stage growth DCF analysis was 5.28%.
7 (Schedule RBH-2, pages 1, 3 and 4 under Column 6). This long-term growth rate is
8 nearly identical to the average growth rate used in his constant growth DCF study of
9 5.29% as reflected in his Schedule RBH-1 under Column 8. While using a virtually
10 identical growth rate, the results of his multi-stage growth DCF analysis were
11 considerably higher than his constant growth DCF study. This inflation to the multi-
12 stage growth DCF results largely reflects assumptions and inputs made by Mr. Hevert
13 to manipulate dividend payout ratios and hence cash flow projections during the
14 transitional stage of his model, and to use an artificial P/E ratio estimate to produce
15 an inflated terminal value stock price in the steady-state growth rate period. The
16 manipulative effect of these multi-growth study assumptions is clearly illustrated by a
17 comparison of his constant growth and multi-stage growth DCF study results. The
18 long-term steady-state growth rate used in the multi-stage growth DCF study is
19 reasonably comparable to the average growth rate used in a constant growth DCF
20 analysis. Therefore, one would reasonably expect the two DCF studies to produce
21 reasonably comparable results. However, Mr. Hevert's multi-stage growth DCF study
22 results are 75 to 100 basis points higher than his constant growth DCF results.
23 Again, this is a suspicious result since the growth rates and dividend yields are nearly
24 identical between the two studies.

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1 Aside from this obvious concern with the irrational results of Mr. Hevert's
2 multi-stage growth DCF study, I believe his multi-stage growth DCF model is also
3 unreliable because he relied on a long-term GDP growth rate that does not reflect
4 consensus market participant outlooks for future GDP growth. Further, his dividend
5 payout ratio assumption is flawed and simply inflates dividend payments and DCF
6 return estimates. Finally, his terminal value P/E ratio is arbitrarily based on the
7 market P/E and/or a flawed assumption that the proxy group P/E ratio will not change
8 as the growth rate outlook declines from the accelerated growth period to the lower
9 sustainable growth period. Further, the terminal P/E ratio assumption is not related to
10 his long-term growth rate assumption. The arbitrary terminal value P/E ratio input has
11 the effect of further inflating Mr. Hevert's multi-stage growth DCF return estimate.

12 **Q HOW DID MR. HEVERT CALCULATE A LONG-TERM GROWTH RATE?**

13 A Mr. Hevert relied on the long-term historical real GDP growth of 3.24%, as measured
14 over the period 1929 through 2015, and a forward inflation rate outlook of 1.98%. Mr.
15 Hevert's inflation rate outlook is based on two projections. First, he derived an
16 inflation rate outlook of 1.76% based on the average of the 180-day average spread
17 between the yields on long-term nominal Treasuries and long-term Treasury
18 Inflation-Protected Securities ("TIPS"). Second, he used the Consumer Price Index
19 ("CPI") projection for 2022-2026 of 2.20% from *Blue Chip Financial Forecasts*. The
20 midpoint inflation rate outlook is 1.98% (1.76% to 2.20%).

21 Using an inflation factor of 1.98% and an historical real GDP growth of 3.24%,
22 Mr. Hevert produced a nominal GDP growth rate outlook of 5.28%.⁵

⁵[1.0324 x 1.0198 – 1], Hevert Direct Testimony at 28.

1 Q IS MR. HEVERT'S LONG-TERM GROWTH RATE ESTIMATE OF 5.28%
2 REASONABLE?

3 A No. The methodology used by Mr. Hevert to calculate this growth rate simply is not
4 based on market participants' outlooks for future growth opportunities of the proxy
5 companies specifically, or even general industry growth. Therefore, Mr. Hevert's
6 GDP growth rate projection simply is not comparable to independent consensus
7 analysts' projections of future GDP growth and, therefore, does not reasonably reflect
8 investors' outlook used to make investment decisions.

9 Q WHY DO MR. HEVERT'S GDP GROWTH PROJECTIONS NOT ALIGN WITH
10 INDEPENDENT MARKET PARTICIPANTS' GDP GROWTH PROJECTIONS?

11 A Mr. Hevert's growth rate of 5.28% is based on an historical real GDP growth rate of
12 3.24% and projected inflation. This historical real GDP growth rate is considerably
13 higher than the real GDP growth projection of 2.2% provided by consensus
14 economists and published in the *Blue Chip Financial Forecasts*.

15 In order to measure the current market cost of equity demanded by investors
16 in today's marketplace, it is necessary to reasonably capture the outlooks by
17 investors that have formed evaluations of observable stock prices used in the various
18 time periods underlying Mr. Hevert's and my DCF studies. In this regard, historical
19 GDP growth rates dated back to 1929 do not reflect the outlooks of current market
20 participants. Mr. Hevert's long-term growth rate simply ignores current consensus
21 independent market participants' outlooks for future growth, and therefore he is not
22 reasonably nor accurately reflecting the data likely relied upon by current market
23 participants to value utility stocks.

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1 A comparison of Mr. Hevert's GDP growth rate and consensus economists'
2 projected growth over the next 5 and 10 years is shown in Table 2 below. As shown
3 in this table, Mr. Hevert's GDP rate of 5.28% reflects real GDP of 3.24% and an
4 inflation adjusted GDP of 1.98%. However, consensus economists' projections of
5 nominal GDP over the next 5 and 10 years are 4.14% to 4.35%, with a midpoint of
6 4.25%.

7 As is clearly evident in Table 2, Mr. Hevert's historical GDP growth is much
8 higher than, and not representative of, consensus market expected forward-looking
9 GDP growth.

<u>Description</u>	<u>GDP Inflation</u>	<u>Real GDP</u>	<u>Nominal GDP</u>
Mr. Hevert ¹	2.0%	3.2%	5.28%
Consensus Economists (5-Year) ²	2.1%	2.2%	4.35%
Consensus Economists (10-Year) ²	2.0%	2.1%	4.14%

Sources:
¹Hevert Direct Testimony at 28-29.
²Blue Chip Financial Forecasts, December 1, 2016 at 14.

1 **Q PLEASE EXPLAIN HOW MR. HEVERT'S MULTI-STAGE GROWTH DCF MODEL**
2 **OVERSTATED DIVIDEND CASH FLOWS BECAUSE OF HIS LONG-TERM**
3 **DIVIDEND PAYOUT RATIO ASSUMPTION.**

4 A Mr. Hevert modified analysts' current dividend payout projections of 63.00% for his
5 proxy group and assumed that eventually they would converge to the historical
6 industry average dividend payout ratio of 66.88%.⁶

7 **Q IS MR. HEVERT'S ASSUMPTION THAT THE PROXY GROUP'S PAYOUT RATIO**
8 **WILL INCREASE TOWARD THE INDUSTRY HISTORIC DIVIDEND PAYOUT**
9 **RATIO REASONABLE?**

10 A No. The proxy group's current dividend payout ratio is reasonably consistent with the
11 projection for the industry average payout ratio expected over time. As such, there is
12 no basis to assume that every utility in the industry will converge upon the same
13 payout ratio. Rather, it is more balanced and logical to assume that payout ratios
14 should be reasonably consistent with the target industry payout ratio over time, and it
15 is important to recognize that the proxy group is already at that target. Because the
16 proxy group is reasonably aligned with outlooks for the industry as a whole going
17 forward, there is simply no logical basis to assume the payout ratio will increase as
18 Mr. Hevert assumed. Further, this assumption has a significant impact on the cash
19 flows underlying Mr. Hevert's projection. Therefore, this unsupported payout ratio
20 model adjustment caused an unjustified increase to the multi-stage growth DCF
21 result.

⁶Hevert Direct Testimony at 32.

1 **Q PLEASE EXPLAIN WHY MR. HEVERT’S ASSUMPTION FOR AN INCREASED**
2 **PAYOUT RATIO FOR HIS PROXY GROUP, BASED ON INDUSTRY AVERAGES**
3 **INCREASES HIS MULTI-STAGE GROWTH DCF ESTIMATE.**

4 A By assuming an increased payout ratio, Mr. Hevert is assuming that dividend growth
5 will exceed earnings growth during the intermediate stage growth period. This
6 elevated growth projection for dividends increases the cash flows in the DCF study,
7 which artificially increases the DCF return estimate. Because this estimate is not
8 based on any market participant’s outlook for the proxy group generally, and since
9 Mr. Hevert has not provided any information that the proxy group is not reasonably
10 consistent with the range of expected payout ratios for the electric utility industry as a
11 whole, this assumption simply is unreliable and inflates the DCF return estimate.

12 **Q PLEASE DESCRIBE MR. HEVERT’S ASSUMPTION IN DERIVING THE TERMINAL**
13 **GROWTH VALUE FOR THE COMPANIES IN HIS MULTI-STAGE GROWTH DCF**
14 **ANALYSIS.**

15 A Mr. Hevert states that he relied on a terminal value based on the current P/E ratio of
16 the companies in his proxy group (Direct at 32-33) and that the projected proxy group
17 P/E ratio will approximate that of the overall market. (Page 32).

18 **Q IS THIS CONSTANT P/E RATIO ASSUMPTION REASONABLE WITHIN HIS**
19 **MULTI-STAGE GROWTH DCF STUDY?**

20 A No. The P/E ratio will change as the growth outlooks for each of the proxy group
21 companies changes. Reflecting the current capital investment period occurring within
22 the industry, the current P/E ratio reflects an outlook for an accelerated growth rate
23 period. This accelerated growth period is then followed by a contraction to a lower

1 sustainable long-term growth rate. Under Mr. Hevert's assumption, however, there
2 will be no contraction. Instead, the current P/E ratio will remain in effect during the
3 terminal growth stage. That is an unreasonable assumption because after the current
4 accelerated growth period ends, and growth declines to a lower sustainable level, it is
5 reasonable to expect that the P/E ratio would also respond to those lower growth
6 outlooks and decline. By overstating the terminal value price, based on a P/E ratio
7 that does not reflect the decline in growth, Mr. Hevert is overstating the cash flows in
8 his DCF study and overstating the multi-stage growth DCF return estimate.

9 **Q HOW CAN MR. HEVERT'S MODEL BE CORRECTED TO ELIMINATE HIS**
10 **UNREASONABLE ASSUMPTIONS?**

11 A By adjusting the GDP growth outlook for long-term sustainable growth, down to the
12 consensus economists' outlooks for future nominal GDP growth of 4.25% (rather than
13 Mr. Hevert's estimate of 5.28% which does not reflect independent market
14 participants' growth outlooks, and reflecting long-term dividend growth in a multi-
15 stage DCF model without the erroneous terminal value price estimate performed by
16 Mr. Hevert), Mr. Hevert's multi-stage growth DCF model would produce a return more
17 reflective of current market participant investment outlooks.

18 Revising Mr. Hevert's multi-stage growth to correct all three of the identified
19 flaws produces the multi-stage growth DCF return estimates shown in Table 3 below.

<u>Description</u>	<u>Mean¹</u> (1)	<u>Adjusted²</u> (2)
30-Day Average	9.45%	8.10%
90-Day Average	9.60%	8.17%
180-Day Average	<u>10.08%</u>	<u>8.37%</u>
Average	9.71%	8.21%

Sources:
¹Hevert Direct Testimony at 32.
²Schedule MPG-R-1.

1 **I.C. Mr. Hevert's CAPM**

2 **Q PLEASE DESCRIBE THE ISSUES YOU TAKE WITH MR. HEVERT'S CAPM**
3 **ANALYSIS.**

4 **A** As indicated in my direct testimony, the CAPM analysis is based upon the theory that
5 the market required rate of return for a security is equal to the risk-free rate, plus a
6 risk premium associated with the specific security. The risk premium associated with
7 the specific security is expressed mathematically as:

8
$$B_i \times (R_m - R_f) \text{ where:}$$

9 B_i = Beta - Measure of the risk for stock
10 R_m = Expected return for the market portfolio
11 R_f = Risk-free rate

12 My major concern with Mr. Hevert's CAPM analysis is his use of an inflated market
13 return or the R_m factor in the equation above.

1 Q PLEASE DESCRIBE MR. HEVERT'S MARKET RISK PREMIUMS.

2 A Mr. Hevert derived his market risk premiums by conducting a DCF analysis for the
3 market. Mr. Hevert used two market risk premium estimates. They are DCF-derived
4 market risk premiums of 10.50% (using a Bloomberg beta coefficient) and 11.10%
5 (using a *Value Line* beta coefficient), which are based on market DCF returns of
6 13.14% and 13.75%, respectively, less the current 30-year Treasury bond yield of
7 2.65%.⁷

8 Q WHAT ISSUES DO YOU HAVE WITH MR. HEVERT'S DCF-DERIVED MARKET
9 RISK PREMIUM ESTIMATES?

10 A Mr. Hevert's DCF-derived market risk premiums are based on market returns of
11 approximately 13.14% and 13.75%, which consist of growth rate components of
12 approximately 11.08% and 11.71% and a market weighted expected dividend yield of
13 approximately 2.06% and 2.04%, respectively.⁸ As discussed in greater detail in my
14 direct testimony, the DCF model requires a long-term sustainable growth rate.
15 Mr. Hevert's sustainable market growth rates of approximately 11.08% and 11.71%
16 are far too high to be a rational outlook for sustainable long-term market growth.
17 These growth rates are more than two times the growth rate of the U.S. GDP
18 long-term growth outlook of 4.25%.

19 As a result of this unreasonable long-term market growth rate estimate,
20 Mr. Hevert's market DCF returns used within his CAPM analysis are inflated and not
21 reliable. Consequently, Mr. Hevert's 10.50% (Bloomberg) and 11.10% (*Value Line*)
22 market risk premiums should be given minimal weight in estimating the Company's
23 required CAPM based cost of common equity.

⁷Hevert Direct Testimony at 35 and Schedule RBH-3.

⁸Schedule RBH-3. (13.14% = 11.08% + 2.06% and 13.75% = 11.71% + 2.04%)

1 Q DO HISTORICAL ACTUAL RETURNS ON THE MARKET SUPPORT
2 MR. HEVERT'S PROJECTED MARKET RETURNS?

3 A No. This is significant because Mr. Hevert does rely on historical market returns to
4 produce real returns on the market for use in developing his GDP growth forecast in
5 his DCF study. Using the same line of logic, historical data shows just how
6 unreasonable Mr. Hevert's projected DCF return on the market is going forward.

7 Q PLEASE EXPLAIN.

8 A Duff & Phelps estimates the actual capital appreciation for the Standard & Poor's
9 ("S&P") 500 over the period 1926 through 2015 to have been 5.8% to 7.7%.⁹ This
10 compares to Mr. Hevert's projected growth of the market of 11.08% to 11.71%.

11 Further, historically the geometric growth of the market of 5.8%¹⁰ has reflected
12 geometric growth of GDP over this same time period of approximately 6.2%.¹¹

13 This review of historical data establishes two facts very clearly. First,
14 historical, actual achieved growth has been substantially less than projected by Mr.
15 Hevert. Second, historical growth on the market has tracked historical growth of the
16 U.S. GDP. Projected growth of the U.S. GDP now is closer to the 4% to 5% area. All
17 of this information strongly supports the conclusion that Mr. Hevert's projected growth
18 on the market of 11.08% to 11.71% is substantially overstated. While I do not
19 endorse the use of an historical growth rate to draw assessments of the market's
20 forward-looking growth rate outlooks, this data can be used to show how the market
21 return estimates produced by Mr. Hevert are unreasonable and inflated.

⁹Duff & Phelps, *2016 Valuation Handbook: Guide to Cost of Capital* at 2-4.

¹⁰Real historical growth 3.25% (Hevert Direct Testimony at 35) and historical inflation of 2.9% (Duff & Phelps, *2016 Valuation Handbook: Guide to Cost of Capital* at 2-4).

¹¹Hevert Direct Testimony at 28-29. Real GDP of 3.24% and historical inflation of 2.9%.

1 Q CAN MR. HEVERT'S CAPM ANALYSIS BE REVISED TO REFLECT A MORE
2 REASONABLE MARKET RISK PREMIUM AND RECENT RISK-FREE RATES?

3 A Yes. Using Mr. Hevert's risk-free rates of 2.65% and 3.08%, the average published
4 Bloomberg and *Value Line* beta estimates of 0.616 and 0.769,¹² respectively; and my
5 calculated high-end market risk premium of 7.8%, Mr. Hevert's CAPM would be no
6 higher than 9.1%.

7 **I.D. Bond Yield Plus Risk Premium**

8 Q PLEASE DESCRIBE MR. HEVERT'S BOND YIELD PLUS RISK PREMIUM
9 STUDIES.

10 A Mr. Hevert proposes two risk premium studies: (1) a Primary bond yield plus ("BYP")
11 risk premium study; and (2) an Alternative BYP risk premium study. The Primary
12 BYP risk premium reflects a simple regression analysis based on a simple inverse
13 relationship between interest rates and equity risk premiums. His Alternative BYP
14 risk premium also uses a regression study but explains risk premiums by changes in
15 interest rates, market volatility, and yield spreads between A-rated utility bonds and
16 Treasury bond yields.

17 Mr. Hevert supports his risk premium findings by placing primary reliance on
18 his Primary BYP risk premium. He concludes his risk premium methodology supports
19 a return on equity in the range of 10.04% to 10.39%. I will comment on both Mr.
20 Hevert's BYP risk premium studies and his conclusion on what these methodologies
21 support as a fair return on equity on KCPL.

¹²Schedule RBH-5.

1 **I.D.1. Primary BYP Risk Premium**

2 **Q PLEASE DESCRIBE MR. HEVERT'S PRIMARY BYP RISK PREMIUM.**

3 A As shown on Schedule RBH-6, Mr. Hevert constructs a risk premium return on equity
4 estimate based on the premise that equity risk premiums are inversely related to
5 interest rates. He estimates an average electric risk premium of 4.50% over the
6 period January 1980 through April 29, 2016. Then he applies a regression formula to
7 the current, near-term, and long-term projected 30-year Treasury bond yields of
8 2.65%, 3.08%, and 4.45% to produce electric risk premiums of 7.39%, 6.97%, and
9 5.94%, respectively. Thus, he calculates return on equity estimates of 10.04%,
10 10.05%, and 10.39%, respectively.

11 **Q IS MR. HEVERT'S PRIMARY BYP RISK PREMIUM METHODOLOGY**
12 **REASONABLE?**

13 A No. Mr. Hevert's contention that there is a simplistic inverse relationship between
14 equity risk premiums and interest rates is not supported by academic research. While
15 academic studies have shown that, in the past, there has been an inverse
16 relationship among these variables, researchers have found that the relationship
17 changes over time and is influenced by changes in perception of the risk of bond
18 investments relative to equity investments, and not simply changes to interest rates.¹³

19 In the 1980s, equity risk premiums were inversely related to interest rates but
20 that was likely attributable to the interest rate volatility that existed at that time. As
21 such, when interest rates were more volatile, the relative perception of bond

¹³"The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts," Robert S. Harris and Felicia C. Marston, *Journal of Applied Finance*, Volume 11, No. 1, 2001 and "The Risk Premium Approach to Measuring a Utility's Cost of Equity," Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *Financial Management*, Spring 1985.

1 investment risk increased relative to the investment risk of equities. This changing
2 investment risk perception caused changes in equity risk premiums.

3 In today's marketplace, interest rate volatility is not as extreme as it was
4 during the 1980s.¹⁴ Nevertheless, changes in the perceived risk of bond investments
5 relative to equity investments still drive changes in equity premiums and cannot be
6 measured simply by observing nominal interest rates. Changes in nominal interest
7 rates are heavily influenced by changes to inflation outlooks, which also change
8 equity return expectations. As such, the relevant factor needed to explain changes in
9 equity risk premiums is the relative changes to the risk of equity versus debt
10 securities investments, and not simply changes in interest rates.

11 Importantly, Mr. Hevert's analysis simply ignores investment risk differentials.
12 He bases his adjustment to the equity risk premium exclusively on changes in
13 nominal interest rates. This is a flawed methodology that does not produce accurate
14 or reliable risk premium estimates.

15 **Q DO YOU HAVE ANY OTHER COMMENTS CONCERNING MR. HEVERT'S BYP**
16 **RISK PREMIUM METHODOLOGY?**

17 **A** Yes. Mr. Hevert's use of a long-term projected bond yield of 4.45% is not reflective of
18 market participants' outlooks for KCPL's cost of capital during the period rates
19 determined in this proceeding will be in effect. This bond yield is largely based on
20 projections of Treasury bond yields five to 10 years out. Those projections are highly
21 uncertain and in any event do not reflect the cost of capital in the test period, the
22 true-up period, or even the period over the next two to three years, the period rates
23 determined in this proceeding will largely be in effect. As such, the risk premium

¹⁴The Risk Premium Approach to Measuring a Utility's Cost of Equity," Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *Financial Management*, Spring 1985, at 44.

1 methodology should be based on observable bond yields in the market today but at
2 most reflect bond yield projections only over the next two to three years, a period that
3 reflects the rate-effective period from this case.

4 **Q CAN MR. HEVERT'S BYP RISK PREMIUM ANALYSIS BE REVISED TO REFLECT**
5 **CURRENT PROJECTIONS OF TREASURY YIELDS?**

6 A Yes. Mr. Hevert's simplistic and incomplete notion that equity risk premiums change
7 only with changes to nominal interest rates should be rejected, or corrected to reflect
8 a risk premium that reflects the current market required return differences based on
9 investment risk as I have proposed above. Adding my weighted average equity risk
10 premium over Treasury bonds of 6.1% as described in my direct testimony to his
11 Treasury yields of 2.65% and 3.08%, produces a BYP of 8.75% to 9.18%.

12 **I.D.2. Alternative BYP Risk Premium**

13 **Q PLEASE DESCRIBE MR. HEVERT'S ALTERNATIVE BYP RISK PREMIUM**
14 **ANALYSIS?**

15 A Mr. Hevert developed an Alternative BYP risk premium analysis to test how market
16 conditions affect the relationship between interest rates and equity risk premiums.
17 Specifically, he developed a regression analysis in which the equity risk premium was
18 the dependent variable and the Treasury bond yields, the spreads between Moody's
19 A-rated yields and Treasury yields, and a market volatility index as measured by the
20 Chicago Board Options Exchange ("CBOE") Volatility Index ("VIX") were the
21 independent variables. Based on this analysis, he concluded these additional

1 variables (the credit spreads and the VIX) did not add statistical significance to the
2 explanatory power of his Primary BYP risk premium study rates.¹⁵

3 His Alternative BYP risk premium supported a return on equity in the range of
4 9.74% to 10.04%.¹⁶

5 **Q WHAT ISSUES DO YOU HAVE WITH MR. HEVERT'S ALTERNATIVE BYP RISK**
6 **PREMIUM METHODOLOGY?**

7 A Mr. Hevert's Alternative BYP risk premium was developed on Schedule RBH-7 and is
8 a substantial improvement to his simplistic Primary BYP risk premium. As noted
9 above, the Primary BYP risk premium assumes current risk premiums in the market
10 can be measured by simply changes in interest rates. This simplistic relationship is
11 not supported in academic literature nor a reasonable outlook for changes in invested
12 capital. As illustrated above, inflation outlooks can impact both equity returns and
13 bond yields in a similar manner. Hence, declines in inflation outlooks can impact the
14 equity return in bond interest rates without impacting the equity risk premium. Mr.
15 Hevert's Primary BYP risk premium simply ignores this indisputable relationship.

16 Mr. Hevert applies his regression analysis to risk premiums based on
17 individual rate case decisions with contemporary Treasury yields, A-rated utility bond
18 and Treasury yield spreads, and the VIX market volatility index. He adjusted for rate
19 case lag based on when the case was filed and when the case was decided. His
20 analysis had 622 individual observations since December 1992. By including all of
21 these individual observations with his speculative lag adjustment, his analysis
22 produced a result with limited explanatory power (measured through the Adjusted
23 R-Squared measure) and a higher standard error.

¹⁵Hevert Direct Testimony at 42.

¹⁶Schedule RBH-7.

1 **Q PLEASE COMMENT ON THE ALTERNATIVE BYP RISK PREMIUM STUDY.**

2 A Mr. Hevert's Alternative BYP risk premium study, while better than his Primary BYP
3 risk premium, still needs improvement. Mr. Hevert has not shown that the volatility
4 index he uses can accurately describe the difference between expected returns for
5 utility securities and the general stock market. Investment return volatility for utility
6 investors is far more stable than that of the overall stock market. This is illustrated by
7 the fact utility companies have lower betas than that of the overall market. Hence,
8 market volatility may explain increases in market return, but may overstate a fair
9 return for a lower risk utility stock.

10 A spread between a utility bond security and Treasury market is a much better
11 indication of changes in investment risk outlooks by the marketplace for utility versus
12 general market investments. Had Mr. Hevert's Alternative BYP risk premium
13 regressed changes in interest rates and utility to Treasury yield spread, it would have
14 substantially improved the reasonableness of Mr. Hevert's BYP risk premium study.

15 **Q HOW WOULD MR. HEVERT'S ALTERNATIVE BYP RISK PREMIUM STUDY BE**
16 **IMPACTED IF YOU REMOVE MR. HEVERT'S LAG ADJUSTMENT AND EXCLUDE**
17 **THE VIX INDEX IN THE REGRESSION ANALYSIS?**

18 A I reproduced two versions of a multi-factor regression analysis. In my first analysis, I
19 regressed risk premium (dependent) to (1) 30-year Treasury yield; and (2) yield
20 spreads (A-rated utility to Treasury bond). This regression study produced stronger
21 regression metrics than Mr. Hevert's risk premium study – an adjusted R-squared of
22 84.5% and a standard error of approximately 0.0037, compared to Mr. Hevert's
23 adjusted R-squared and standard error of 68.6% and 0.0054, respectively.

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1 When applying the current 13-week average 30-Year Treasury yield of 2.74%,
2 the current A utility-Treasury bond spread is 1.23%. This data produces a risk
3 premium of 7.01% and a cost of equity of approximately 9.76% (7.01% plus 2.74%,
4 as shown on page 1 of Schedule MPG-R-2).

5 In my second analysis, I again regressed risk premium against two variables:
6 (1) Treasury bond yields; and (2) yield spread (Baa utility to Treasury). This analysis
7 produced very similar results to my first study regression -- adjusted R-squared of
8 83.7% and standard error of 0.0038.

9 Applying the current 13-week average 30-Year Treasury yield of 2.74% and a
10 Baa utility bond/Treasury yield spread of 1.81%, produces an estimated risk premium
11 of 6.98% and a cost of equity of 9.73%, as shown on page 2 of Schedule MPG-R-2.

12 This revised Alternative BYP risk premium study supports a return on equity
13 for KCPL no higher than 9.75%.

14 **Q WOULD IT BE APPROPRIATE TO USE PROJECTED TREASURY BOND YIELDS**
15 **IN THIS REGRESSION STUDY TO MEASURE EQUITY RISK PREMIUMS?**

16 **A No.** This model is specifically designed to capture relationships between observable
17 Treasury bond yields and utility bond to Treasury bond yield spreads. If a projected
18 Treasury bond yield was used, it would be necessary to also project the yield spreads
19 between utility bond yields and Treasury yields. This yield spread data simply is not
20 available. Therefore, this model can only be reliably applied to current observable
21 Treasury bond yields, and yield spreads.

1 **I.E. Additional Risks**

2 **Q DID MR. HEVERT CONSIDER ADDITIONAL BUSINESS RISKS TO JUSTIFY A**
3 **RETURN ON EQUITY WITHIN HIS RANGE?**

4 A Mr. Hevert believes KCPL's regulatory environment, the environmental regulations
5 associated with its generation portfolio, and its substantial capital expenditure plan
6 relative to the proxy group conservatively support a return on equity within Mr.
7 Hevert's range. I disagree. Setting the return on equity within Mr. Hevert's range will
8 place an unreasonable burden on the ratepayers and should be rejected. As
9 discussed below, KCPL's relative risk is comparable to the risk of the utility
10 companies included in the proxy group.

11 **Q WHY DO YOU BELIEVE THAT KCPL FACES RISKS THAT ARE COMPARABLE**
12 **TO THE RISKS FACED BY MR. HEVERT'S AND YOUR PROXY GROUP**
13 **COMPANIES?**

14 A The business risks identified by Mr. Hevert (regulatory environment, environmental
15 regulations and capital expenditures) as well as all other relevant business risks are
16 considered in the establishment of a credit rating by the various credit rating
17 agencies. As shown on my Schedule MPG-4 included in my direct testimony and
18 presented as Schedule MPG-R-4 in this testimony, the average S&P credit rating for
19 my proxy group of "BBB+" is the same as KCPL's credit rating. The relative risks
20 discussed on pages 43-53 of Mr. Hevert's testimony are already incorporated in the
21 credit ratings of the proxy group companies. S&P and other credit rating agencies go
22 through great detail in assessing a utility's business risk and financial risk in order to
23 evaluate their assessment of its total investment risk. Therefore, this total risk
24 investment assessment of KCPL, in comparison to a proxy group, is fully absorbed

1 into the market's perception of KCPL's risk and the proxy group fully captures the
2 investment risk of KCPL.

3 **Q HOW DOES S&P ASSIGN CORPORATE CREDIT RATINGS FOR REGULATED**
4 **UTILITIES?**

5 A In assigning corporate credit ratings, the credit rating agency considers both business
6 and financial risks. Business risks, among others, include company's size and
7 competitive position, generation portfolio, capital expenditure programs, consideration
8 of the regulatory environment, current state of the industry, and the economy as
9 whole. Specifically, S&P states:

10 To determine the assessment for a corporate issuer's business risk
11 profile, the criteria combine our assessments of industry risk, country
12 risk, and competitive position. Cash flow/leverage analysis determines
13 a company's financial risk profile assessment. The analysis then
14 combines the corporate issuer's business risk profile assessment and
15 its financial risk profile assessment to determine its anchor. In general,
16 the analysis weighs the business risk profile more heavily for
17 investment-grade anchors, while the financial risk profile carries more
18 weight for speculative-grade anchors.¹⁷

19 **Q DID MR. HEVERT ALSO OFFER AN ASSESSMENT OF CURRENT MARKET**
20 **CONDITIONS IN SUPPORT OF HIS RECOMMENDED RETURN ON EQUITY**
21 **RANGE?**

22 A Yes. Mr. Hevert suggests a few factors that gauge investor sentiment, including the
23 relationship between the Federal Reserve's balance sheet and market volatility,
24 measured by the CBOE Volatility Index, known as the VIX.¹⁸ He concludes these
25 metrics indicate that current levels of instability and risk aversion are at historically

¹⁷Standard & Poor's RatingsDirect: "Criteria/Corporates/General: Corporate Methodology,"
November 19, 2013.

¹⁸Hevert Direct Testimony at 53-59.

1 low levels and that the constant growth DCF results are at odds with market
2 conditions.

3 **Q DO YOU BELIEVE THAT MR. HEVERT’S USE OF THESE MARKET SENTIMENTS**
4 **SUPPORTS HIS FINDINGS THAT KCPL’S MARKET COST OF EQUITY IS**
5 **CURRENTLY IN THE RANGE OF 9.75% TO 10.50%?**

6 A No. In many instances Mr. Hevert’s analysis simply ignores market sentiments
7 favorable toward utility companies and instead lumps utility investments in with
8 general corporate investments. A fair analysis of utility securities shows the market
9 generally regards utility securities as low-risk investment instruments and supports
10 the finding that utilities’ cost of capital is very low in today’s marketplace.

11 **Q WHAT IS THE MARKET SENTIMENT FOR UTILITY INVESTMENTS?**

12 A The market sentiment toward utility investments, rather than just general corporate
13 investments, is that the market is placing high value on utility securities recognizing
14 their low risk and stable characteristics.

15 For example, this is illustrated by my Schedule MPG-15 filed with my direct
16 testimony and presented as Schedule MPG-R-15 in my rebuttal testimony, under
17 column 11 showing the spread between “A” rated utility bond yields and “Aaa” rated
18 corporate bond yields. Currently, the spread is approximately 0.28%. This is a
19 relatively low spread over the 36-year time horizon. Indeed, current spreads of utility
20 versus high-grade corporate bond yields are at the lowest level they have been in
21 most periods over the last 36 years. This is also reflective of the spreads between
22 “Baa” utility bond yields relative to “Baa” corporate bond yields. Currently, utility
23 bonds are trading at a premium to corporate bonds. This has been largely the case

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1 during the significant market turbulence that has occurred over the last five to eight
2 years. However, over longer periods of time, utility bond yields on average trade at
3 parity to a premium to corporate “Baa” rated bond yields. The current strong utility
4 bond valuation is an indication of the market’s sentiment that utility bonds have lower
5 risk than general corporate bonds and are generally regarded as a safe haven by the
6 investment industry.

7 Further, other measures of utility stock valuations also support a robust
8 market for utility stocks. As shown on my Schedule MPG-3 included in my direct
9 testimony, utility valuation measures – e.g., P/E ratio and market price to cash flow
10 ratio – show stock valuation measures for the proxy group are robust. For example,
11 for the proxy group, the current P/E ratio is comparable to and the cash flow ratio is
12 stronger than the 14-year average valuation metrics.

13 For all these reasons, direct assessments of valuation measures and market
14 sentiment toward utility securities support the credit rating agencies’ findings, as
15 quoted above, that the utility industry is largely regarded as a low-risk, safe haven
16 investment. All of this supports my findings that utilities’ market cost of equity is very
17 low in today’s very low cost capital market environment.

18 **Q DO YOU HAVE ANY COMMENTS CONCERNING MR. HEVERT’S CONTENTION**
19 **THAT INTEREST RATES ARE GOING TO INCREASE?**

20 **A** Yes. Mr. Hevert develops his risk premium studies mainly relying on near-term and
21 long-term projected interest rates, which he believes are expected to increase (Hevert
22 Direct Testimony at 57-58). Mr. Hevert’s proposal to rely mainly on forecasted
23 Treasury bond yields is unreasonable because he is not considering the highly likely
24 outcome that current observable interest rates will prevail during the period rates

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1 determined in this proceeding will be in effect. This is important because, while
2 current observable interest rates are actual market data that provides a measure of
3 the current cost of capital, the accuracy of forecasted interest rates is problematic at
4 best.

5 **Q WHY DO YOU BELIEVE THAT THE ACCURACY OF FORECASTED INTEREST**
6 **RATES IS HIGHLY PROBLEMATIC?**

7 A Over the last several years, observable current interest rates have been a more
8 accurate predictor of future interest rates than economists' consensus projections.
9 Schedule MPG-R-3 illustrates this point. On this schedule, under Columns 1 and 2, I
10 show the actual market yield at the time a projection is made for Treasury bond yields
11 two years in the future. In Column 1, I show the actual Treasury yield. In Column 2, I
12 show the projected yield two years out.

13 As shown in Columns 1 and 2, over the last several years, Treasury yields
14 were projected to increase relative to the actual Treasury yields at the time of the
15 projection. In Column 4, I show what the Treasury yield actually turned out to be two
16 years after the forecast. In Column 5, I show the actual yield change at the time of
17 the projections relative to the projected yield change.

18 As shown in this schedule, economists consistently have been projecting that
19 interest rates will increase over several years. However, as shown in Column 5,
20 those yield projections have turned out to be overstated in almost every case.
21 Indeed, actual Treasury yields have decreased or remained flat over the last several
22 years rather than increased as the economists' projections indicated. As such,
23 current observable interest rates are just as likely to accurately predict future interest
24 rates as are economists' projections.

1 **Q DO YOU HAVE ANY FURTHER COMMENTS IN REGARD TO MR. HEVERT'S**
2 **INTEREST RATE PROJECTIONS?**

3 A Yes. First, it is simply not known how much, if any, long-term interest rates will
4 increase from current levels or whether they have already fully accounted for the
5 termination of the Federal Reserve's Quantitative Easing program and the increase in
6 the Federal Funds rate. Nevertheless, I do agree this Federal Reserve program
7 introduced risk or uncertainty in long-term interest rate markets. Because of this
8 uncertainty, caution should be taken in estimating KCPL's current return on common
9 equity in this case. However, as noted in the Edison Electric Institute ("EEI") quote
10 below, the increase in short-term interest rates had no impact on longer-term yields
11 that "remain at historically low levels and are influenced more by the level of inflation
12 and economic strength than by the Fed's short-term rate policy."¹⁹

13 Second, I would note KCPL is largely shielded from significant changes in
14 capital market costs. To the extent interest rates ultimately increase above current
15 levels, which may have an impact on required returns on common equity, at that point
16 in time, KCPL, like all other utilities, can file to change rates to restate its authorized
17 rate of return at the prevailing market levels.

18 **II. UPDATED RETURN ON EQUITY**

19 **Q DID YOU UPDATE YOUR RETURN ON EQUITY STUDY?**

20 A Yes. While relying on the same methodology described in my direct testimony, I
21 updated the inputs used in my DCF, CAPM and risk premium studies. My results are
22 summarized in Table 4 below. Under Column 1, I show the results of my studies as
23 discussed in my direct testimony and under Column 2, I show the updated results.

¹⁹EEI Q4 2015 Financial Update: "Stock Performance" at 4.

TABLE 4		
<u>Updated Return on Equity Studies</u>		
<u>Description</u>	<u>Original</u> (1)	<u>Updated</u> (2)
DCF	8.80%	9.00%
Risk Premium	9.20%	9.50%
CAPM	8.90%	8.90%

1 **Q PLEASE SUMMARIZE YOUR CONCLUSIONS AND RETURN ON EQUITY**
2 **RECOMMENDATION.**

3 A The results of these updated studies are shown in my attached Schedules MPG-R-4
4 through MPG-R-18. As shown on these studies, the DCF studies were based on
5 stock prices for the 13-week period ending December 16, 2016, updated analysts'
6 growth rates in December forecast for future interest rates and GDP growth. The
7 analysis was updated for the most recent *Value Line* reports, utility and Treasury
8 bond yields through December 16, 2016.

9 The updated analyses were based on the same methodologies described in
10 my direct testimony, but adjusted to reflect more recent market and/or published data.

11 **Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

12 A Yes.

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Kansas City Power & Light Company

Alternative Risk Premium Analysis Using A-Rated Utility Bond Yield Spreads

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.9250
R Square	0.8556
Adjusted R Square	0.8452
Standard Error	0.0037
Observations	31

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.0022	0.0011	82.9234	1.72103E-12
Residual	28	0.0004	1.34031E-05		
Total	30	0.0026			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	-0.0212	0.0060	-3.5101	0.0015	-0.0335	-0.0088
LN of 30-Yr Treasury	-0.0238	0.0019	-12.6283	4.42727E-13	-0.0277	-0.0200
A-Rated Spread	0.4505	0.1612	2.7939	0.0093	0.1202	0.7808

Intercept	-2.12%
LN of 30-Yr Treasury	8.57% $=(-0.0238 * \text{LN}(2.74\%))$
A-Rated Spread	0.56% $=(0.4505 * 1.24\%)$
Risk Premium	7.01%
Current 30-Yr Treasury	2.74%
Cost of Equity	9.76%

Kansas City Power & Light Company

Alternative Risk Premium Analysis Using Baa-Rated Utility Bond Yield Spreads

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.9207
R Square	0.8477
Adjusted R Square	0.8369
Standard Error	0.0038
Observations	31

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.0022	0.0011	77.9460	3.60023E-12
Residual	28	0.0004	1.41E-05		
Total	30	0.0026			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	-0.0170	0.0058	-2.9321	0.0066	-0.0288	-0.0051
LN of 30-Yr Treasury	-0.0224	0.0020	-11.1430	8.38E-12	-0.0265	-0.0183
Baa-Rated Spread	0.3443	0.1409	2.4428	0.0211	0.0556	0.6330

Intercept	-1.70%
LN of 30-Yr Treasury	8.06% $=(-0.0224 * \text{LN}(2.74\%))$
Baa-Rated Spread	0.62% $=(0.3443 * 1.81\%)$
Risk Premium	6.98%
Current 30-Yr Treasury	2.74%
Cost of Equity	9.73%

Kansas City Power & Light Company

Accuracy of Interest Rate Forecasts (Long-Term Treasury Bond Yields - Projected Vs. Actual)

Line	Date	Publication Data			Actual Yield in Projected Quarter	Projected Yield Higher (Lower) Than Actual Yield*
		Prior Quarter	Projected	Projected		
		Actual Yield (1)	Yield (2)	Quarter (3)		
1	Dec-00	5.8%	5.8%	1Q, 02	5.6%	0.2%
2	Mar-01	5.7%	5.6%	2Q, 02	5.8%	-0.2%
3	Jun-01	5.4%	5.8%	3Q, 02	5.2%	0.6%
4	Sep-01	5.7%	5.9%	4Q, 02	5.1%	0.8%
5	Dec-01	5.5%	5.7%	1Q, 03	5.0%	0.7%
6	Mar-02	5.3%	5.9%	2Q, 03	4.7%	1.2%
7	Jun-02	5.6%	6.2%	3Q, 03	5.2%	1.0%
8	Sep-02	5.8%	5.9%	4Q, 03	5.2%	0.7%
9	Dec-02	5.2%	5.7%	1Q, 04	4.9%	0.8%
10	Mar-03	5.1%	5.7%	2Q, 04	5.4%	0.3%
11	Jun-03	5.0%	5.4%	3Q, 04	5.1%	0.3%
12	Sep-03	4.7%	5.8%	4Q, 04	4.9%	0.9%
13	Dec-03	5.2%	5.9%	1Q, 05	4.8%	1.1%
14	Mar-04	5.2%	5.9%	2Q, 05	4.6%	1.4%
15	Jun-04	4.9%	6.2%	3Q, 05	4.5%	1.7%
16	Sep-04	5.4%	6.0%	4Q, 05	4.8%	1.2%
17	Dec-04	5.1%	5.8%	1Q, 06	4.6%	1.2%
18	Mar-05	4.9%	5.6%	2Q, 06	5.1%	0.5%
19	Jun-05	4.8%	5.5%	3Q, 06	5.0%	0.5%
20	Sep-05	4.6%	5.2%	4Q, 06	4.7%	0.5%
21	Dec-05	4.5%	5.3%	1Q, 07	4.8%	0.5%
22	Mar-06	4.8%	5.1%	2Q, 07	5.0%	0.1%
23	Jun-06	4.6%	5.3%	3Q, 07	4.9%	0.4%
24	Sep-06	5.1%	5.2%	4Q, 07	4.6%	0.6%
25	Dec-06	5.0%	5.0%	1Q, 08	4.4%	0.6%
26	Mar-07	4.7%	5.1%	2Q, 08	4.6%	0.5%
27	Jun-07	4.8%	5.1%	3Q, 08	4.5%	0.7%
28	Sep-07	5.0%	5.2%	4Q, 08	3.7%	1.5%
29	Dec-07	4.9%	4.8%	1Q, 09	3.5%	1.4%
30	Mar-08	4.6%	4.8%	2Q, 09	4.0%	0.8%
31	Jun-08	4.4%	4.9%	3Q, 09	4.3%	0.6%
32	Sep-08	4.6%	5.1%	4Q, 09	4.3%	0.8%
33	Dec-08	4.5%	4.6%	1Q, 10	4.6%	0.0%
34	Mar-09	3.7%	4.1%	2Q, 10	4.4%	-0.3%
35	Jun-09	3.5%	4.6%	3Q, 10	3.9%	0.8%
36	Sep-09	4.0%	5.0%	4Q, 10	4.2%	0.8%
37	Dec-09	4.3%	5.0%	1Q, 11	4.6%	0.4%
38	Mar-10	4.3%	5.2%	2Q, 11	4.3%	0.9%
39	Jun-10	4.6%	5.2%	3Q, 11	3.7%	1.5%
40	Sep-10	4.4%	4.7%	4Q, 11	3.0%	1.7%
41	Dec-10	3.9%	4.6%	1Q, 12	3.1%	1.5%
42	Mar-11	4.2%	5.1%	2Q, 12	2.9%	2.2%
43	Jun-11	4.6%	5.2%	3Q, 12	2.8%	2.5%
44	Sep-11	4.3%	4.2%	4Q, 12	2.9%	1.3%
45	Dec-11	3.7%	3.8%	1Q, 13	3.1%	0.7%
46	Mar-12	3.0%	3.8%	2Q, 13	3.2%	0.7%
47	Jun-12	3.1%	3.7%	3Q, 13	3.7%	0.0%
48	Sep-12	2.9%	3.4%	4Q, 13	3.8%	-0.4%
49	Dec-12	2.8%	3.4%	1Q, 14	3.7%	-0.3%
50	Mar-13	2.9%	3.6%	2Q, 14	3.4%	0.2%
51	Jun-13	3.1%	3.7%	3Q, 14	3.3%	0.4%
52	Sep-13	3.2%	4.2%	4Q, 14	3.0%	1.2%
53	Dec-13	3.7%	4.2%	1Q, 15	2.6%	1.7%
54	Mar-14	3.8%	4.4%	2Q, 15	2.9%	1.5%
55	Jun-14	3.7%	4.3%	3Q, 15	2.8%	1.5%
56	Sep-14	3.4%	4.3%	4Q, 15	3.0%	1.3%
57	Dec-14	3.3%	4.0%	1Q, 16	2.7%	1.3%
58	Mar-15	3.0%	3.7%	2Q, 16	2.6%	1.1%
59	Jun-15	2.6%	3.7%	3Q, 16	2.3%	1.4%
60	Jul-15	2.7%	4.0%	4Q, 16		
61	Aug-15	2.9%	3.9%	4Q, 16		
62	Sep-15	2.9%	3.8%	4Q, 16		
63	Oct-15	2.8%	3.9%	1Q, 17		
64	Nov-15	2.8%	3.8%	1Q, 17		
65	Dec-15	2.8%	3.7%	1Q, 17		
66	Jan-15	3.0%	3.8%	2Q, 17		
67	Feb-16	3.0%	3.7%	2Q, 17		
68	Mar-16	3.0%	3.5%	2Q, 17		
69	Apr-16	2.7%	3.6%	3Q, 17		
70	May-16	2.7%	3.5%	3Q, 17		
71	Jun-16	2.7%	3.4%	3Q, 17		
72	Jul-16	2.7%	3.4%	4Q, 17		
73	Aug-16	2.6%	3.1%	4Q, 17		
74	Sep-16	2.6%	3.1%	4Q, 17		
75	Oct-16	2.3%	3.1%	1Q, 18		
76	Nov-16	2.3%	3.1%	1Q, 18		
77	Dec-16	2.3%	3.4%	1Q, 18		

Source:
Blue Chip Financial Forecasts, Various Dates.
* Col. 2 - Col. 4.

Kansas City Power & Light Company

Proxy Group

<u>Line</u>	<u>Company</u>	<u>Credit Ratings¹</u>		<u>Common Equity Ratios</u>	
		<u>S&P</u> (1)	<u>Moody's</u> (2)	<u>SNL¹</u> (3)	<u>Value Line²</u> (4)
1	ALLETE, Inc.	BBB+	A3	53.3%	53.7%
2	Alliant Energy Corporation	A-	Baa1	46.5%	51.4%
3	Ameren Corporation	BBB+	Baa1	47.4%	49.7%
4	American Electric Power Company, Inc.	BBB+	Baa1	46.3%	50.2%
5	Avista Corporation	BBB	Baa1	46.9%	50.0%
6	CMS Energy Corporation	BBB+	Baa2	29.3%	31.4%
7	DTE Energy Company	BBB+	Baa1	47.3%	49.8%
8	IDACORP, Inc.	BBB	Baa1	54.0%	54.4%
9	NorthWestern Corporation	BBB	A3	44.1%	46.9%
10	OGE Energy Corp.	A-	A3	54.8%	55.7%
11	Pinnacle West Capital Corporation	A-	A3	53.7%	57.0%
12	PNM Resources, Inc.	BBB+	Baa3	40.6%	45.5%
13	Portland General Electric Company	BBB	A3	50.7%	52.2%
14	SCANA Corporation	BBB+	Baa3	45.5%	48.1%
15	Xcel Energy Inc.	A-	A3	43.3%	45.9%
16	Average	BBB+	Baa1	46.9%	49.5%
17	Kansas City Power & Light Company	BBB+	Baa1		49.9%³

Sources:

¹ SNL Financial, Downloaded on December 16, 2016.

² *The Value Line Investment Survey*, October 28, November 18, and December 16, 2016.

³ Bryant Direct at 6.

Kansas City Power & Light Company

Consensus Analysts' Growth Rates

<u>Line</u>	<u>Company</u>	<u>Zacks</u>		<u>SNL</u>		<u>Reuters</u>		<u>Average of Growth Rates (7)</u>
		<u>Estimated Growth %¹</u>	<u>Number of Estimates</u>	<u>Estimated Growth %²</u>	<u>Number of Estimates</u>	<u>Estimated Growth %³</u>	<u>Number of Estimates</u>	
		(1)	(2)	(3)	(4)	(5)	(6)	
1	ALLETE, Inc.	5.50%	N/A	6.00%	1	5.00%	1	5.50%
2	Alliant Energy Corporation	5.50%	N/A	7.90%	1	6.00%	1	6.47%
3	Ameren Corporation	6.50%	N/A	7.00%	2	5.65%	2	6.38%
4	American Electric Power Company, Inc.	5.40%	N/A	3.10%	5	1.89%	1	3.46%
5	Avista Corporation	5.30%	N/A	5.30%	1	5.65%	2	5.42%
6	CMS Energy Corporation	6.00%	N/A	7.20%	3	7.26%	2	6.82%
7	DTE Energy Company	5.80%	N/A	5.40%	4	5.63%	3	5.61%
8	IDACORP, Inc.	4.30%	N/A	4.40%	2	4.10%	2	4.27%
9	NorthWestern Corporation	5.00%	N/A	4.70%	3	4.50%	2	4.73%
10	OGE Energy Corp.	5.30%	N/A	5.40%	2	4.00%	1	4.90%
11	Pinnacle West Capital Corporation	4.70%	N/A	4.90%	5	4.63%	3	4.74%
12	PNM Resources, Inc.	6.80%	N/A	7.00%	4	6.85%	2	6.88%
13	Portland General Electric Company	6.30%	N/A	5.90%	3	6.67%	3	6.29%
14	SCANA Corporation	5.50%	N/A	6.10%	3	6.03%	3	5.88%
15	Xcel Energy Inc.	5.40%	N/A	5.10%	4	5.65%	3	5.38%
16	Average	5.55%	N/A	5.69%	3	5.30%	2	5.52%

Sources:

¹ Zacks Elite, <http://www.zackselite.com/>, downloaded on December 16, 2016.

² SNL Interactive, <http://www.snl.com/>, downloaded on December 16, 2016.

³ Reuters, <http://www.reuters.com/>, downloaded on December 16, 2016.

Kansas City Power & Light Company

Constant Growth DCF Model (Consensus Analysts' Growth Rates)

<u>Line</u>	<u>Company</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Analysts' Growth²</u> (2)	<u>Annualized Dividend³</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	ALLETE, Inc.	\$60.61	5.50%	\$2.08	3.62%	9.12%
2	Alliant Energy Corporation	\$37.16	6.47%	\$1.18	3.38%	9.85%
3	Ameren Corporation	\$49.29	6.38%	\$1.76	3.80%	10.18%
4	American Electric Power Company, Inc.	\$62.03	3.46%	\$2.36	3.94%	7.40%
5	Avista Corporation	\$40.82	5.42%	\$1.37	3.54%	8.95%
6	CMS Energy Corporation	\$41.14	6.82%	\$1.24	3.22%	10.04%
7	DTE Energy Company	\$93.97	5.61%	\$3.30	3.71%	9.32%
8	IDACORP, Inc.	\$76.99	4.27%	\$2.20	2.98%	7.25%
9	NorthWestern Corporation	\$56.57	4.73%	\$2.00	3.70%	8.44%
10	OGE Energy Corp.	\$31.39	4.90%	\$1.21	4.04%	8.94%
11	Pinnacle West Capital Corporation	\$75.02	4.74%	\$2.50	3.49%	8.23%
12	PNM Resources, Inc.	\$32.45	6.88%	\$0.88	2.90%	9.78%
13	Portland General Electric Company	\$42.27	6.29%	\$1.28	3.22%	9.51%
14	SCANA Corporation	\$71.35	5.88%	\$2.30	3.41%	9.29%
15	Xcel Energy Inc.	\$40.23	5.38%	\$1.36	3.56%	8.95%
16	Average	\$54.09	5.52%	\$1.80	3.50%	9.02%
17	Median					9.12%

Sources:

¹ SNL Financial, Downloaded on December 17, 2016.

² Schedule MPG-R-5.

³ *The Value Line Investment Survey*, October 28, November 18, and December 16, 2016.

Kansas City Power & Light Company

Payout Ratios

<u>Line</u>	<u>Company</u>	<u>Dividends Per Share</u>		<u>Earnings Per Share</u>		<u>Payout Ratio</u>	
		<u>2015</u> (1)	<u>Projected</u> (2)	<u>2015</u> (3)	<u>Projected</u> (4)	<u>2015</u> (5)	<u>Projected</u> (6)
1	ALLETE, Inc.	\$2.02	\$2.40	\$3.38	\$3.75	59.76%	64.00%
2	Alliant Energy Corporation	\$1.10	\$1.50	\$1.69	\$2.45	65.09%	61.22%
3	Ameren Corporation	\$1.66	\$2.05	\$2.38	\$3.25	69.75%	63.08%
4	American Electric Power Company, Inc.	\$2.15	\$2.75	\$3.59	\$4.50	59.89%	61.11%
5	Avista Corporation	\$1.32	\$1.60	\$1.89	\$2.50	69.84%	64.00%
6	CMS Energy Corporation	\$1.16	\$1.60	\$1.89	\$2.50	61.38%	64.00%
7	DTE Energy Company	\$2.84	\$4.00	\$4.45	\$6.25	63.82%	64.00%
8	IDACORP, Inc.	\$1.92	\$2.70	\$3.87	\$4.50	49.61%	60.00%
9	NorthWestern Corporation	\$1.92	\$2.32	\$2.90	\$4.00	66.21%	58.00%
10	OGE Energy Corp.	\$1.05	\$1.65	\$1.69	\$2.25	62.13%	73.33%
11	Pinnacle West Capital Corporation	\$2.44	\$3.10	\$3.92	\$4.75	62.24%	65.26%
12	PNM Resources, Inc.	\$0.80	\$1.30	\$1.64	\$2.35	48.78%	55.32%
13	Portland General Electric Company	\$1.18	\$1.60	\$2.04	\$2.75	57.84%	58.18%
14	SCANA Corporation	\$2.18	\$2.80	\$3.81	\$4.75	57.22%	58.95%
15	Xcel Energy Inc.	\$1.28	\$1.70	\$2.10	\$2.75	60.95%	61.82%
16	Average	\$1.67	\$2.20	\$2.75	\$3.55	60.97%	62.15%

Source:

The Value Line Investment Survey, October 28, November 18, and December 16, 2016.

Kansas City Power & Light Company

Sustainable Growth Rate

Line	Company	3 to 5 Year Projections									Sustainable	
		Dividends	Earnings	Book Value	Book Value		Adjustment	Adjusted	Payout	Retention	Internal	Growth
		Per Share	Per Share	Per Share	Growth	ROE	Factor	ROE	Ratio	Rate	Growth Rate	Rate
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	ALLETE, Inc.	\$2.40	\$3.75	\$43.00	3.01%	8.72%	1.01	8.85%	64.00%	36.00%	3.19%	3.70%
2	Alliant Energy Corporation	\$1.50	\$2.45	\$20.00	4.04%	12.25%	1.02	12.49%	61.22%	38.78%	4.84%	5.19%
3	Ameren Corporation	\$2.05	\$3.25	\$34.00	3.50%	9.56%	1.02	9.72%	63.08%	36.92%	3.59%	3.59%
4	American Electric Power Company, Inc.	\$2.75	\$4.50	\$41.75	2.76%	10.78%	1.01	10.93%	61.11%	38.89%	4.25%	4.28%
5	Avista Corporation	\$1.60	\$2.50	\$28.50	3.05%	8.77%	1.01	8.90%	64.00%	36.00%	3.21%	4.08%
6	CMS Energy Corporation	\$1.60	\$2.50	\$19.50	6.53%	12.82%	1.03	13.23%	64.00%	36.00%	4.76%	6.22%
7	DTE Energy Company	\$4.00	\$6.25	\$60.50	4.36%	10.33%	1.02	10.55%	64.00%	36.00%	3.80%	4.56%
8	IDACORP, Inc.	\$2.70	\$4.50	\$49.50	3.90%	9.09%	1.02	9.26%	60.00%	40.00%	3.71%	3.85%
9	NorthWestern Corporation	\$2.32	\$4.00	\$40.00	3.78%	10.00%	1.02	10.19%	58.00%	42.00%	4.28%	4.66%
10	OGE Energy Corp.	\$1.65	\$2.25	\$19.75	3.46%	11.39%	1.02	11.59%	73.33%	26.67%	3.09%	3.25%
11	Pinnacle West Capital Corporation	\$3.10	\$4.75	\$49.00	3.48%	9.69%	1.02	9.86%	65.26%	34.74%	3.42%	3.79%
12	PNM Resources, Inc.	\$1.30	\$2.35	\$25.50	4.18%	9.22%	1.02	9.40%	55.32%	44.68%	4.20%	4.25%
13	Portland General Electric Company	\$1.60	\$2.75	\$30.25	3.53%	9.09%	1.02	9.25%	58.18%	41.82%	3.87%	4.02%
14	SCANA Corporation	\$2.80	\$4.75	\$47.75	4.62%	9.95%	1.02	10.17%	58.95%	41.05%	4.18%	4.79%
15	Xcel Energy Inc.	\$1.70	\$2.75	\$25.50	4.07%	10.78%	1.02	11.00%	61.82%	38.18%	4.20%	4.22%
16	Average	\$2.20	\$3.55	\$35.63	3.88%	10.16%	1.02	10.36%	62.15%	37.85%	3.91%	4.30%

Sources and Notes:

Cols. (1), (2) and (3): *The Value Line Investment Survey*, October 28, November 18, and December 16, 2016.

Col. (4): [Col. (3) / Page 2 Col. (2)] ^ (1/5) - 1.

Col. (5): Col. (2) / Col. (3).

Col. (6): [2 * (1 + Col. (4))] / (2 + Col. (4)).

Col. (7): Col. (6) * Col. (5).

Col. (8): Col. (1) / Col. (2).

Col. (9): 1 - Col. (8).

Col. (10): Col. (9) * Col. (7).

Col. (11): Col. (10) + Page 2 Col. (9).

Kansas City Power & Light Company

Sustainable Growth Rate

Line	Company	13-Week	2015	Market	Common Shares		Growth	S Factor ³	V Factor ⁴	S * V
		Average	Book Value	to Book	Outstanding (in Millions) ²					
		Stock Price ¹	Per Share ²	Ratio	2015	3-5 Years	(6)	(7)	(8)	(9)
		(1)	(2)	(3)	(4)	(5)				
1	ALLETE, Inc.	\$60.61	\$37.07	1.64	49.10	51.10	0.80%	1.31%	38.84%	0.51%
2	Alliant Energy Corporation	\$37.16	\$16.41	2.26	226.92	230.00	0.27%	0.61%	55.84%	0.34%
3	Ameren Corporation	\$49.29	\$28.63	1.72	242.63	242.63	0.00%	0.00%	41.92%	0.00%
4	American Electric Power Company, Inc.	\$62.03	\$36.44	1.70	491.05	492.00	0.04%	0.07%	41.26%	0.03%
5	Avista Corporation	\$40.82	\$24.53	1.66	62.31	66.50	1.31%	2.18%	39.90%	0.87%
6	CMS Energy Corporation	\$41.14	\$14.21	2.90	277.16	288.00	0.77%	2.23%	65.46%	1.46%
7	DTE Energy Company	\$93.97	\$48.88	1.92	179.47	187.00	0.83%	1.59%	47.98%	0.76%
8	IDACORP, Inc.	\$76.99	\$40.88	1.88	50.34	50.75	0.16%	0.31%	46.90%	0.14%
9	NorthWestern Corporation	\$56.57	\$33.22	1.70	48.17	49.50	0.55%	0.93%	41.28%	0.38%
10	OGE Energy Corp.	\$31.39	\$16.66	1.88	199.70	201.50	0.18%	0.34%	46.93%	0.16%
11	Pinnacle West Capital Corporation	\$75.02	\$41.30	1.82	110.98	113.50	0.45%	0.82%	44.95%	0.37%
12	PNM Resources, Inc.	\$32.45	\$20.78	1.56	79.65	80.00	0.09%	0.14%	35.97%	0.05%
13	Portland General Electric Company	\$42.27	\$25.43	1.66	88.79	89.80	0.23%	0.38%	39.83%	0.15%
14	SCANA Corporation	\$71.35	\$38.09	1.87	142.90	148.00	0.70%	1.32%	46.61%	0.61%
15	Xcel Energy Inc.	\$40.23	\$20.89	1.93	507.54	508.00	0.02%	0.03%	48.07%	0.02%
16	Average	\$54.09	\$29.56	1.87	183.78	186.55	0.43%	0.82%	45.45%	0.39%

Sources and Notes:

¹ SNL Financial, Downloaded on December 17, 2016.

² *The Value Line Investment Survey*, October 28, November 18, and December 16, 2016.

³ Expected Growth in the Number of Shares, Column (3) * Column (6).

⁴ Expected Profit of Stock Investment, [1 - 1 / Column (3)].

Kansas City Power & Light Company

Constant Growth DCF Model (Sustainable Growth Rate)

<u>Line</u>	<u>Company</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Sustainable Growth²</u> (2)	<u>Annualized Dividend³</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	ALLETE, Inc.	\$60.61	3.70%	\$2.08	3.56%	7.25%
2	Alliant Energy Corporation	\$37.16	5.19%	\$1.18	3.34%	8.53%
3	Ameren Corporation	\$49.29	3.59%	\$1.76	3.70%	7.29%
4	American Electric Power Company, Inc.	\$62.03	4.28%	\$2.36	3.97%	8.24%
5	Avista Corporation	\$40.82	4.08%	\$1.37	3.49%	7.57%
6	CMS Energy Corporation	\$41.14	6.22%	\$1.24	3.20%	9.42%
7	DTE Energy Company	\$93.97	4.56%	\$3.30	3.67%	8.23%
8	IDACORP, Inc.	\$76.99	3.85%	\$2.20	2.97%	6.82%
9	NorthWestern Corporation	\$56.57	4.66%	\$2.00	3.70%	8.36%
10	OGE Energy Corp.	\$31.39	3.25%	\$1.21	3.98%	7.23%
11	Pinnacle West Capital Corporation	\$75.02	3.79%	\$2.50	3.46%	7.25%
12	PNM Resources, Inc.	\$32.45	4.25%	\$0.88	2.83%	7.08%
13	Portland General Electric Company	\$42.27	4.02%	\$1.28	3.15%	7.17%
14	SCANA Corporation	\$71.35	4.79%	\$2.30	3.38%	8.17%
15	Xcel Energy Inc.	\$40.23	4.22%	\$1.36	3.52%	7.74%
16	Average	\$54.09	4.30%	\$1.80	3.46%	7.76%
17	Median					7.57%

Sources:

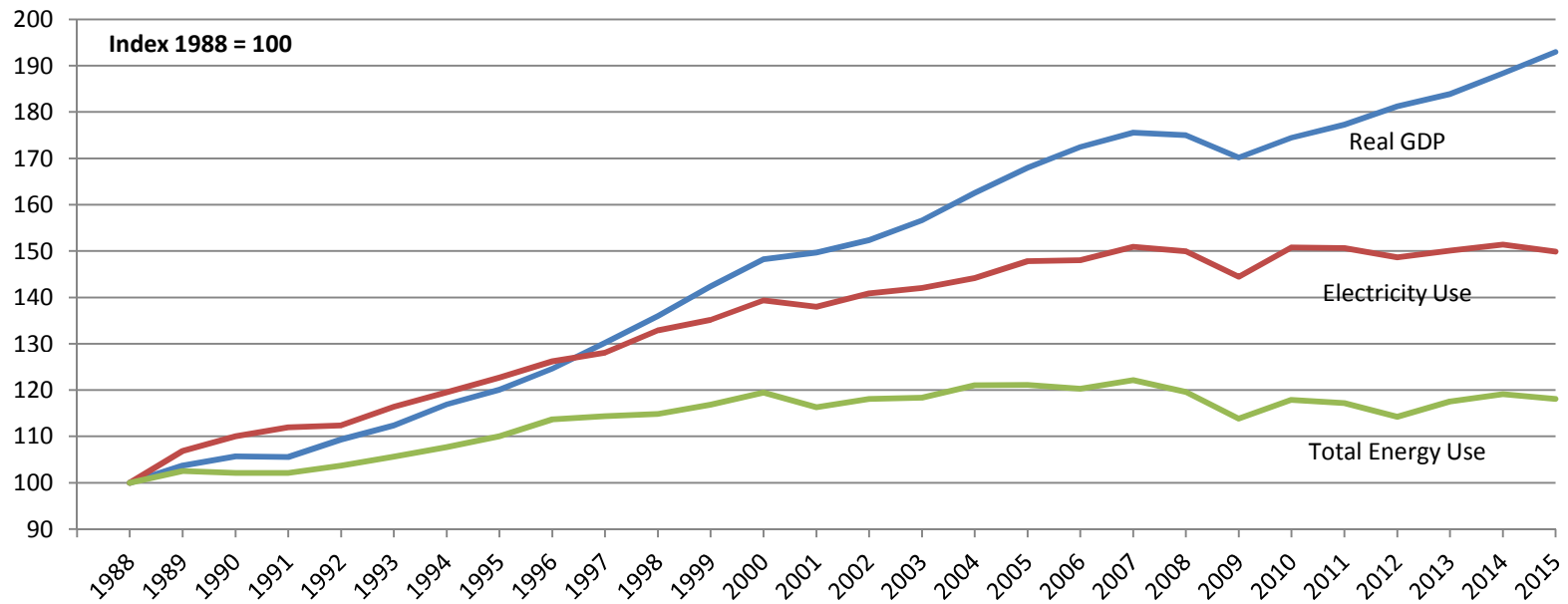
¹ SNL Financial, Downloaded on December 17, 2016.

² Schedule MPG-R-8, page 1.

³ *The Value Line Investment Survey*, October 28, November 18, and December 16, 2016.

Kansas City Power & Light Company

Electricity Sales Are Linked to U.S. Economic Growth



Note:

1988 represents the base year. Graph depicts increases or decreases from the base year.

Sources:

U.S. Energy Information Administration
Federal Reserve Bank of St. Louis

Kansas City Power & Light Company

Multi-Stage Growth DCF Model

Line	Company	13-Week AVG Stock Price ¹ (1)	Annualized Dividend ² (2)	First Stage Growth ³ (3)	Second Stage Growth					Third Stage Growth ⁴ (9)	Multi-Stage Growth DCF (10)
					Year 6 (4)	Year 7 (5)	Year 8 (6)	Year 9 (7)	Year 10 (8)		
1	ALLETE, Inc.	\$60.61	\$2.08	5.50%	5.29%	5.08%	4.88%	4.67%	4.46%	4.25%	8.12%
2	Alliant Energy Corporation	\$37.16	\$1.18	6.47%	6.10%	5.73%	5.36%	4.99%	4.62%	4.25%	8.06%
3	Ameren Corporation	\$49.29	\$1.76	6.38%	6.03%	5.67%	5.32%	4.96%	4.61%	4.25%	8.50%
4	American Electric Power Company, Inc.	\$62.03	\$2.36	3.46%	3.59%	3.73%	3.86%	3.99%	4.12%	4.25%	8.02%
5	Avista Corporation	\$40.82	\$1.37	5.42%	5.22%	5.03%	4.83%	4.64%	4.44%	4.25%	8.02%
6	CMS Energy Corporation	\$41.14	\$1.24	6.82%	6.39%	5.96%	5.54%	5.11%	4.68%	4.25%	7.95%
7	DTE Energy Company	\$93.97	\$3.30	5.61%	5.38%	5.16%	4.93%	4.70%	4.48%	4.25%	8.24%
8	IDACORP, Inc.	\$76.99	\$2.20	4.27%	4.26%	4.26%	4.26%	4.26%	4.25%	4.25%	7.22%
9	NorthWestern Corporation	\$56.57	\$2.00	4.73%	4.65%	4.57%	4.49%	4.41%	4.33%	4.25%	8.05%
10	OGE Energy Corp.	\$31.39	\$1.21	4.90%	4.79%	4.68%	4.58%	4.47%	4.36%	4.25%	8.43%
11	Pinnacle West Capital Corporation	\$75.02	\$2.50	4.74%	4.66%	4.58%	4.50%	4.41%	4.33%	4.25%	7.83%
12	PNM Resources, Inc.	\$32.45	\$0.88	6.88%	6.44%	6.01%	5.57%	5.13%	4.69%	4.25%	7.59%
13	Portland General Electric Company	\$42.27	\$1.28	6.29%	5.95%	5.61%	5.27%	4.93%	4.59%	4.25%	7.84%
14	SCANA Corporation	\$71.35	\$2.30	5.88%	5.61%	5.33%	5.06%	4.79%	4.52%	4.25%	7.97%
15	Xcel Energy Inc.	\$40.23	\$1.36	5.38%	5.19%	5.01%	4.82%	4.63%	4.44%	4.25%	8.04%
16	Average	\$54.09	\$1.80	5.52%	5.30%	5.09%	4.88%	4.67%	4.46%	4.25%	7.99%
17	Median										8.02%

Sources:

¹ SNL Financial, Downloaded on December 17, 2016.

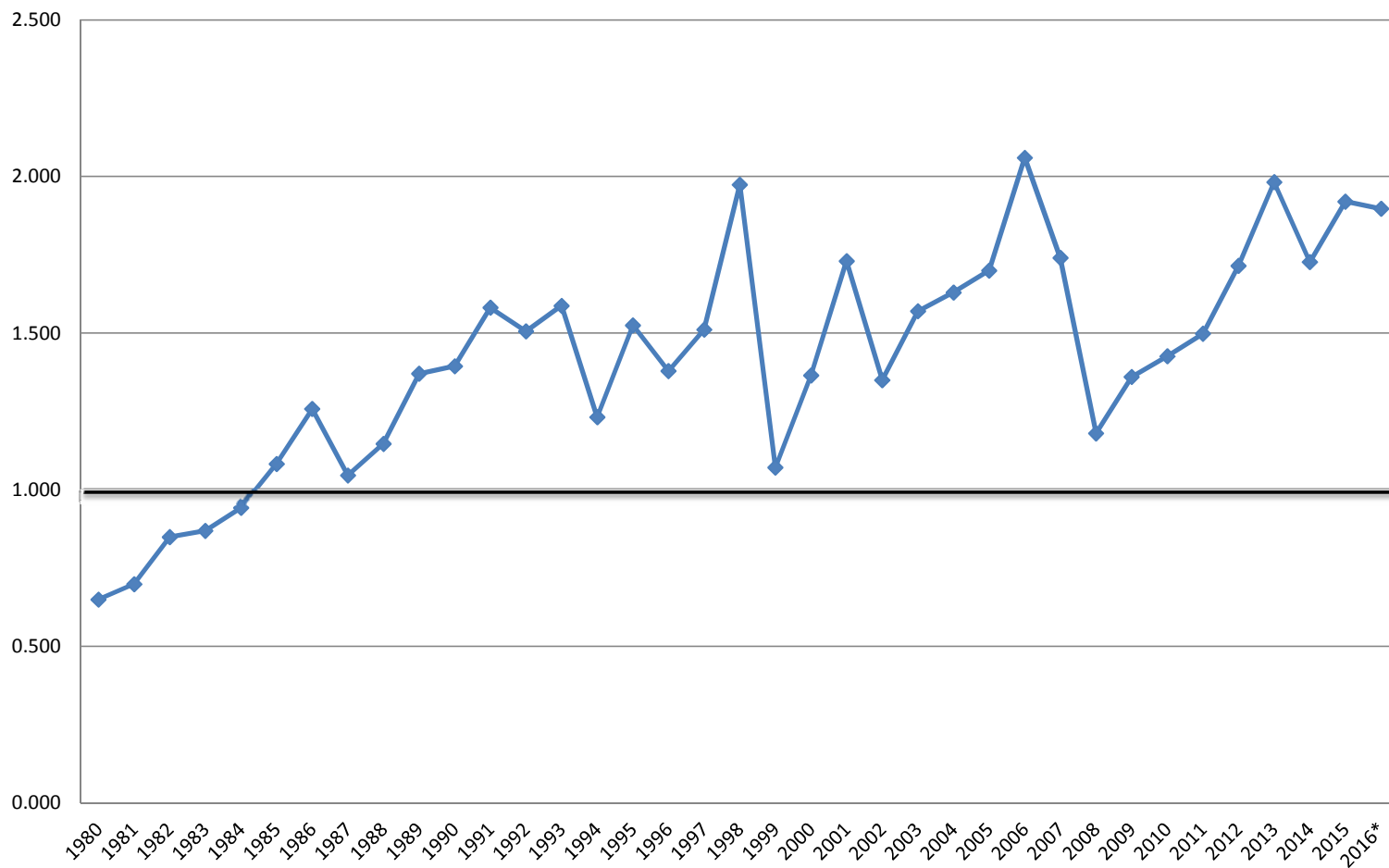
² *The Value Line Investment Survey*, October 28, November 18, and December 16, 2016.

³ Schedule MPG-R-5.

⁴ Blue Chip Financial Forecasts, December 1, 2016 at 14.

Kansas City Power & Light Company

Common Stock Market/Book Ratio



* through June 2016

Source:

1980 - 2000: Mergent Public Utility Manual.

2001 - 2016: AUS Utility Reports, various dates.

Kansas City Power & Light Company

Equity Risk Premium - Treasury Bond

<u>Line</u>	<u>Year</u>	<u>Authorized Electric Returns¹</u> (1)	<u>30 yr. Treasury Bond Yield²</u> (2)	<u>Indicated Risk Premium</u> (3)	<u>Rolling 5 - Year Average</u> (4)	<u>Rolling 10 - Year Average</u> (5)
1	1986	13.93%	7.80%	6.13%		
2	1987	12.99%	8.58%	4.41%		
3	1988	12.79%	8.96%	3.83%		
4	1989	12.97%	8.45%	4.52%		
5	1990	12.70%	8.61%	4.09%	4.60%	
6	1991	12.55%	8.14%	4.41%	4.25%	
7	1992	12.09%	7.67%	4.42%	4.26%	
8	1993	11.41%	6.60%	4.81%	4.45%	
9	1994	11.34%	7.37%	3.97%	4.34%	
10	1995	11.55%	6.88%	4.67%	4.46%	4.53%
11	1996	11.39%	6.70%	4.69%	4.51%	4.38%
12	1997	11.40%	6.61%	4.79%	4.59%	4.42%
13	1998	11.66%	5.58%	6.08%	4.84%	4.65%
14	1999	10.77%	5.87%	4.90%	5.03%	4.68%
15	2000	11.43%	5.94%	5.49%	5.19%	4.82%
16	2001	11.09%	5.49%	5.60%	5.37%	4.94%
17	2002	11.16%	5.43%	5.73%	5.56%	5.07%
18	2003	10.97%	4.96%	6.01%	5.55%	5.19%
19	2004	10.75%	5.05%	5.70%	5.71%	5.37%
20	2005	10.54%	4.65%	5.89%	5.79%	5.49%
21	2006	10.34%	4.99%	5.35%	5.74%	5.56%
22	2007	10.31%	4.83%	5.48%	5.69%	5.62%
23	2008	10.37%	4.28%	6.09%	5.70%	5.62%
24	2009	10.52%	4.07%	6.45%	5.85%	5.78%
25	2010	10.29%	4.25%	6.04%	5.88%	5.83%
26	2011	10.19%	3.91%	6.28%	6.07%	5.90%
27	2012	10.01%	2.92%	7.09%	6.39%	6.04%
28	2013	9.81%	3.45%	6.36%	6.44%	6.07%
29	2014	9.75%	3.34%	6.41%	6.44%	6.14%
30	2015	9.60%	2.84%	6.76%	6.58%	6.23%
31	2016 ³	9.64%	2.52%	7.12%	6.75%	6.41%
32	Average	11.17%	5.70%	5.47%	5.41%	5.40%
33	Minimum				4.25%	4.38%
34	Maximum				6.75%	6.41%

Sources:

¹ Regulatory Research Associates, Inc., Regulatory Focus, Major Rate Case Decisions, January 1997 page 5, January 2011 page 3, and October 2016 page 6.

² St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>.
The yields from 2002 to 2005 represent the 20-Year Treasury yields obtained from the Federal Reserve Bank.

³ The data includes the period Jan - Sep 2016.

Kansas City Power & Light Company

Equity Risk Premium - Utility Bond

<u>Line</u>	<u>Year</u>	<u>Authorized Electric Returns¹</u> (1)	<u>Average "A" Rated Utility Bond Yield²</u> (2)	<u>Indicated Risk Premium</u> (3)	<u>Rolling 5 - Year Average</u> (4)	<u>Rolling 10 - Year Average</u> (5)
1	1986	13.93%	9.58%	4.35%		
2	1987	12.99%	10.10%	2.89%		
3	1988	12.79%	10.49%	2.30%		
4	1989	12.97%	9.77%	3.20%		
5	1990	12.70%	9.86%	2.84%	3.12%	
6	1991	12.55%	9.36%	3.19%	2.88%	
7	1992	12.09%	8.69%	3.40%	2.99%	
8	1993	11.41%	7.59%	3.82%	3.29%	
9	1994	11.34%	8.31%	3.03%	3.26%	
10	1995	11.55%	7.89%	3.66%	3.42%	3.27%
11	1996	11.39%	7.75%	3.64%	3.51%	3.20%
12	1997	11.40%	7.60%	3.80%	3.59%	3.29%
13	1998	11.66%	7.04%	4.62%	3.75%	3.52%
14	1999	10.77%	7.62%	3.15%	3.77%	3.52%
15	2000	11.43%	8.24%	3.19%	3.68%	3.55%
16	2001	11.09%	7.76%	3.33%	3.62%	3.56%
17	2002	11.16%	7.37%	3.79%	3.61%	3.60%
18	2003	10.97%	6.58%	4.39%	3.57%	3.66%
19	2004	10.75%	6.16%	4.59%	3.86%	3.81%
20	2005	10.54%	5.65%	4.89%	4.20%	3.94%
21	2006	10.34%	6.07%	4.27%	4.39%	4.00%
22	2007	10.31%	6.07%	4.24%	4.48%	4.04%
23	2008	10.37%	6.53%	3.84%	4.37%	3.97%
24	2009	10.52%	6.04%	4.48%	4.34%	4.10%
25	2010	10.29%	5.46%	4.83%	4.33%	4.26%
26	2011	10.19%	5.04%	5.15%	4.51%	4.45%
27	2012	10.01%	4.13%	5.88%	4.84%	4.66%
28	2013	9.81%	4.48%	5.33%	5.13%	4.75%
29	2014	9.75%	4.28%	5.47%	5.33%	4.84%
30	2015	9.60%	4.12%	5.48%	5.46%	4.90%
31	2016 ³	9.64%	3.89%	5.75%	5.58%	5.05%
32	Average	11.17%	7.08%	4.09%	4.03%	4.00%
33	Minimum				2.88%	3.20%
34	Maximum				5.58%	5.05%

Sources:

¹ Regulatory Research Associates, Inc., Regulatory Focus, Major Rate Case Decisions, January 1997 page 5, January 2011 page 3, and October 2016 page 6.

² Mergent Public Utility Manual, Mergent Weekly News Reports, 2003. The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record. The utility yields from 2010-2016 were obtained from <http://credittrends.moody.com/>.

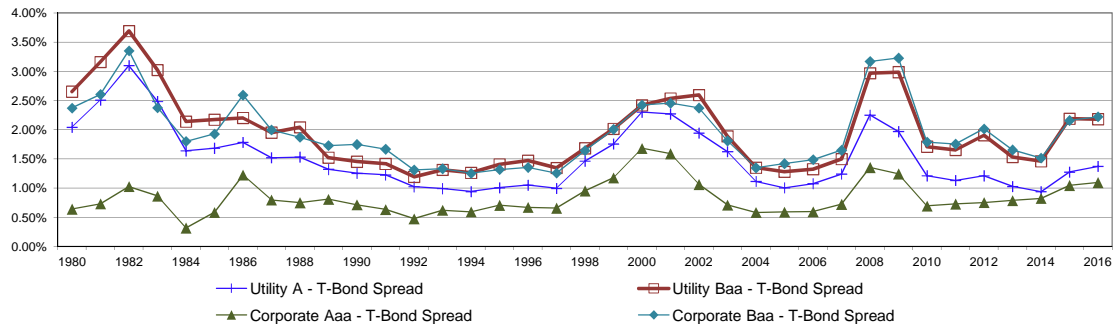
³ The data includes the period Jan - Sep 2016.

Kansas City Power & Light Company

Bond Yield Spreads

Line	Year	T-Bond Yield ¹ (1)	Public Utility Bond				Corporate Bond				Utility to Corporate	
			A ² (2)	Baa ² (3)	A-T-Bond Spread (4)	Baa-T-Bond Spread (5)	Aaa ¹ (6)	Baa ¹ (7)	Aaa-T-Bond Spread (8)	Baa-T-Bond Spread (9)	Baa Spread (10)	A-Aaa Spread (11)
1	1980	11.30%	13.34%	13.95%	2.04%	2.65%	11.94%	13.67%	0.64%	2.37%	0.28%	1.40%
2	1981	13.44%	15.95%	16.60%	2.51%	3.16%	14.17%	16.04%	0.73%	2.60%	0.56%	1.78%
3	1982	12.76%	15.86%	16.45%	3.10%	3.69%	13.79%	16.11%	1.03%	3.35%	0.34%	2.07%
4	1983	11.18%	13.66%	14.20%	2.48%	3.02%	12.04%	13.55%	0.86%	2.38%	0.65%	1.62%
5	1984	12.39%	14.03%	14.53%	1.64%	2.14%	12.71%	14.19%	0.32%	1.80%	0.34%	1.32%
6	1985	10.79%	12.47%	12.96%	1.68%	2.17%	11.37%	12.72%	0.58%	1.93%	0.24%	1.10%
7	1986	7.80%	9.58%	10.00%	1.78%	2.20%	9.02%	10.39%	1.22%	2.59%	-0.39%	0.56%
8	1987	8.58%	10.10%	10.53%	1.52%	1.95%	9.38%	10.58%	0.80%	2.00%	-0.05%	0.72%
9	1988	8.96%	10.49%	11.00%	1.53%	2.04%	9.71%	10.83%	0.75%	1.87%	0.17%	0.78%
10	1989	8.45%	9.77%	9.97%	1.32%	1.52%	9.26%	10.18%	0.81%	1.73%	-0.21%	0.51%
11	1990	8.61%	9.86%	10.06%	1.25%	1.45%	9.32%	10.36%	0.71%	1.75%	-0.29%	0.54%
12	1991	8.14%	9.36%	9.55%	1.22%	1.41%	8.77%	9.80%	0.63%	1.67%	-0.25%	0.59%
13	1992	7.67%	8.69%	8.86%	1.02%	1.19%	8.14%	8.98%	0.47%	1.31%	-0.12%	0.55%
14	1993	6.60%	7.59%	7.91%	0.99%	1.31%	7.22%	7.93%	0.62%	1.33%	-0.02%	0.37%
15	1994	7.37%	8.31%	8.63%	0.94%	1.26%	7.96%	8.62%	0.59%	1.25%	0.01%	0.35%
16	1995	6.88%	7.89%	8.29%	1.01%	1.41%	7.59%	8.20%	0.71%	1.32%	0.09%	0.30%
17	1996	6.70%	7.75%	8.17%	1.05%	1.47%	7.37%	8.05%	0.67%	1.35%	0.12%	0.38%
18	1997	6.61%	7.60%	7.95%	0.99%	1.34%	7.26%	7.86%	0.66%	1.26%	0.09%	0.34%
19	1998	5.58%	7.04%	7.26%	1.46%	1.68%	6.53%	7.22%	0.95%	1.64%	0.04%	0.51%
20	1999	5.87%	7.62%	7.88%	1.75%	2.01%	7.04%	7.87%	1.18%	2.01%	0.01%	0.58%
21	2000	5.94%	8.24%	8.36%	2.30%	2.42%	7.62%	8.36%	1.68%	2.42%	-0.01%	0.62%
22	2001	5.49%	7.76%	8.03%	2.27%	2.54%	7.08%	7.95%	1.59%	2.45%	0.08%	0.68%
23	2002	5.43%	7.37%	8.02%	1.94%	2.59%	6.49%	7.80%	1.06%	2.37%	0.22%	0.88%
24	2003	4.96%	6.58%	6.84%	1.62%	1.89%	5.67%	6.77%	0.71%	1.81%	0.08%	0.91%
25	2004	5.05%	6.16%	6.40%	1.11%	1.35%	5.63%	6.39%	0.58%	1.35%	0.00%	0.53%
26	2005	4.65%	5.65%	5.93%	1.00%	1.28%	5.24%	6.06%	0.59%	1.42%	-0.14%	0.41%
27	2006	4.99%	6.07%	6.32%	1.08%	1.32%	5.59%	6.48%	0.60%	1.49%	-0.16%	0.48%
28	2007	4.83%	6.07%	6.33%	1.24%	1.50%	5.56%	6.48%	0.72%	1.65%	-0.15%	0.52%
29	2008	4.28%	6.53%	7.25%	2.25%	2.97%	5.63%	7.45%	1.35%	3.17%	-0.20%	0.90%
30	2009	4.07%	6.04%	7.06%	1.97%	2.99%	5.31%	7.30%	1.24%	3.23%	-0.24%	0.72%
31	2010	4.25%	5.46%	5.96%	1.21%	1.71%	4.94%	6.04%	0.69%	1.79%	-0.08%	0.52%
32	2011	3.91%	5.04%	5.56%	1.13%	1.65%	4.64%	5.66%	0.73%	1.75%	-0.10%	0.40%
33	2012	2.92%	4.13%	4.83%	1.21%	1.91%	3.67%	4.94%	0.75%	2.01%	-0.11%	0.46%
34	2013	3.45%	4.48%	4.98%	1.03%	1.53%	4.24%	5.10%	0.79%	1.65%	-0.12%	0.24%
35	2014	3.34%	4.28%	4.80%	0.94%	1.46%	4.16%	4.85%	0.82%	1.51%	-0.06%	0.11%
36	2015	2.84%	4.12%	5.03%	1.27%	2.19%	3.89%	5.00%	1.05%	2.16%	0.03%	0.23%
37	2016 ³	2.52%	3.89%	4.70%	1.37%	2.18%	3.62%	4.74%	1.10%	2.22%	-0.04%	0.28%
38	Average	6.72%	8.24%	8.68%	1.52%	1.96%	7.56%	8.66%	0.84%	1.94%	0.02%	0.68%

Yield Spreads
Treasury Vs. Corporate & Treasury Vs. Utility



Sources:

¹ St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>.

² Mergent Public Utility Manual, Mergent Weekly News Reports, 2003. The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record. The utility yields from 2010-2016 were obtained from <http://credittrends.moodys.com/>.

³ The data includes the period Jan - Sep 2016.

Kansas City Power & Light Company

Treasury and Utility Bond Yields

<u>Line</u>	<u>Date</u>	<u>Treasury Bond Yield¹</u> (1)	<u>"A" Rated Utility Bond Yield²</u> (2)	<u>"Baa" Rated Utility Bond Yield²</u> (3)
1	12/16/16	3.19%	4.33%	4.85%
2	12/09/16	3.16%	4.32%	4.86%
3	12/02/16	3.08%	4.26%	4.79%
4	11/25/16	3.01%	4.22%	4.79%
5	11/18/16	3.01%	4.22%	4.79%
6	11/10/16	2.94%	4.12%	4.70%
7	11/04/16	2.56%	3.81%	4.38%
8	10/28/16	2.62%	3.86%	4.40%
9	10/21/16	2.48%	3.75%	4.30%
10	10/14/16	2.55%	3.83%	4.41%
11	10/07/16	2.46%	3.76%	4.33%
12	09/30/16	2.32%	3.64%	4.26%
13	09/23/16	2.34%	3.65%	4.26%
14	Average	2.75%	3.98%	4.55%
15	Spread To Treasury		1.23%	1.80%

Sources:

¹ St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org>.

² <http://credittrends.moody.com/>.

Kansas City Power & Light Company

Trends in Bond Yields



Sources:

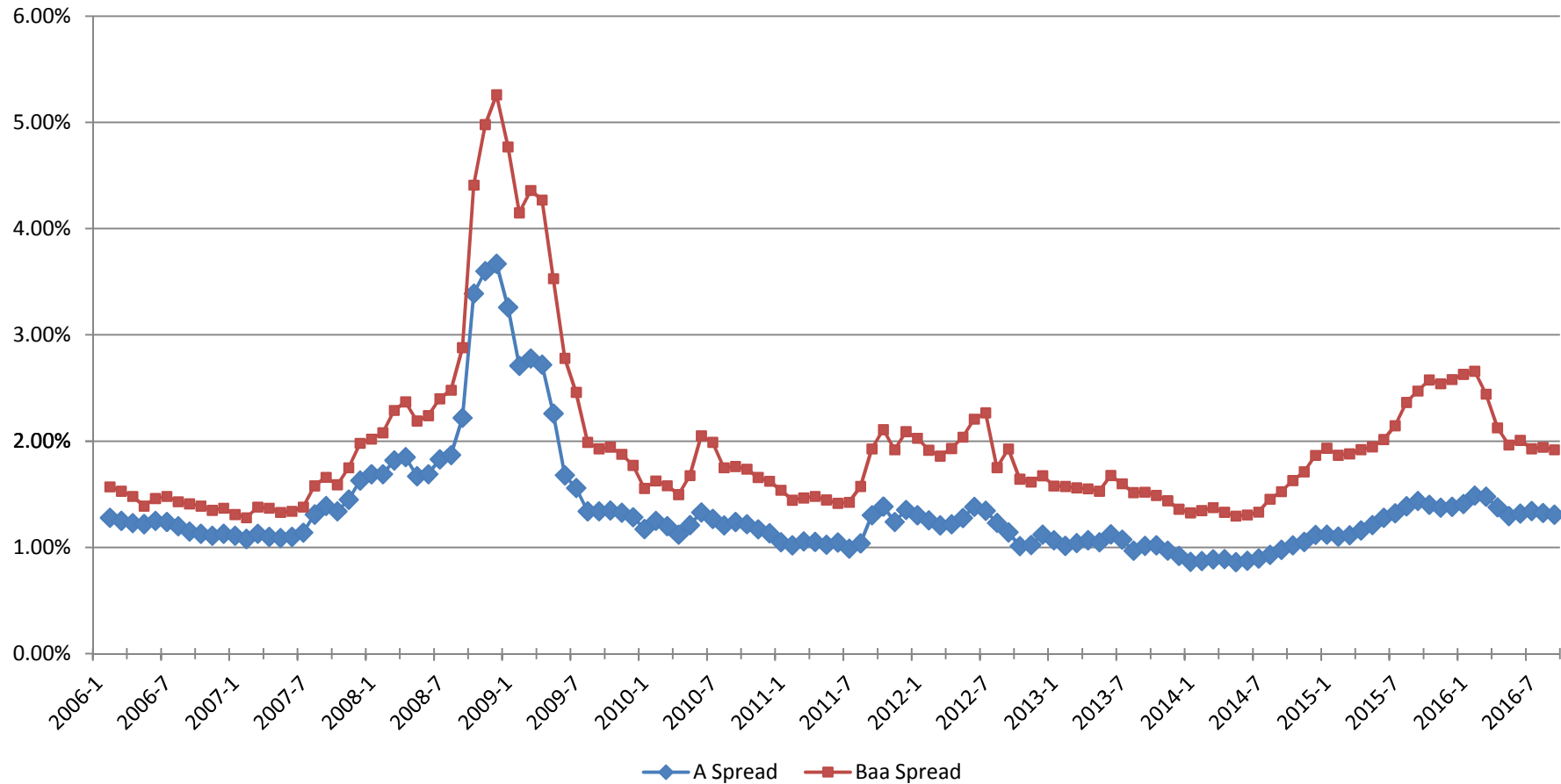
Mergent Bond Record.

www.moodys.com, Bond Yields and Key Indicators.

St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>

Kansas City Power & Light Company

Yield Spread Between Utility Bonds and 30-Year Treasury Bonds



Sources:

Mergent Bond Record.

www.moodys.com, Bond Yields and Key Indicators.

St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>

Kansas City Power & Light Company

Value Line Beta

<u>Line</u>	<u>Company</u>	<u>Beta</u>
1	ALLETE, Inc.	0.75
2	Alliant Energy Corporation	0.70
3	Ameren Corporation	0.65
4	American Electric Power Company, Inc.	0.65
5	Avista Corporation	0.70
6	CMS Energy Corporation	0.65
7	DTE Energy Company	0.65
8	IDACORP, Inc.	0.75
9	NorthWestern Corporation	0.70
10	OGE Energy Corp.	0.90
11	Pinnacle West Capital Corporation	0.70
12	PNM Resources, Inc.	0.75
13	Portland General Electric Company	0.70
14	SCANA Corporation	0.70
15	Xcel Energy Inc.	0.60
16	Average	0.70

Source:

The Value Line Investment Survey,

October 28, November 18, and December 16, 2016.

Kansas City Power & Light Company

CAPM Return

<u>Line</u>	<u>Description</u>	<u>High Market Risk Premium (1)</u>	<u>Low Market Risk Premium (2)</u>
1	Risk-Free Rate ¹	3.40%	3.40%
2	Risk Premium ²	7.80%	6.00%
3	Beta ³	0.70	0.70
4	CAPM	8.89%	7.62%

Sources:

¹ Blue Chip Financial Forecasts; December 1, 2016, at 2.

² *Duff & Phelps, 2016 Valuation Handbook Guide to Cost of Capital*
at 2-4, 3-31, and 3-40.

³ Schedule MPG-R-17.