Exhibit No.: Issue: Witness: Type of Exhibit: Sponsoring Parties:

Date Testimony Prepared:

Case No.:

Revenue Requirement Michael P. Gorman Direct Testimony Missouri Industrial Energy Consumers and Midwest Energy Consumers' Group ER-2014-0370 April 2, 2015

#### 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-2014-0370

Direct Testimony and Schedules of

Michael P. Gorman

On behalf of

Missouri Industrial Energy Consumers and Midwest Energy Consumers' Group

April 2, 2015



Project 10005

#### **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-2014-0370

STATE OF MISSOURI

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COUNTY OF ST. LOUIS

MARIA E. DECKER Notary Public - Notary Seal STATE OF MISSOURI St. Louis City Commission Expires: May 5, 2017 Commission # 13706793

#### Affidavit of Michael P. Gorman

Michael P. Gorman, being first duly sworn, on his oath states:

1. My name is Michael P. Gorman. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by the Missouri Industrial Energy Consumers and Midwest Energy Consumers' Group in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes are my direct testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2014-0370.

3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show,

Michael P. Gorman

Subscribed and sworn to before me this 1st day of April, 2015.

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

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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-2014-0370

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

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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-2014-0370

#### **Direct 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 WHAT IS YOUR OCCUPATION?

- 5 A I am a consultant in the field of public utility regulation and a Managing Principal of
- 6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

#### 7 Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

8 A This information is included in Appendix A to this testimony.

#### 9 Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

10 A This testimony is presented on behalf of the Missouri Industrial Energy Consumers

11 ("MIEC") and Midwest Energy Consumers' Group ("MECG"). Member companies

- 12 purchase large amounts of electricity from Kansas City Power & Light Company
- 13 ("KCPL" or "Company) and will be impacted by the decision in this case.

1 Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A My testimony will address Kansas City Power & Light Company's ("KCPL" or
"Company") overall rate of return including return on equity, embedded debt cost, and
capital structure.

5

#### I. SUMMARY

### Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS ON 7 KCPL'S RATE OF RETURN.

A I recommend the Missouri Public Service Commission (the "Commission") award KCPL a return on common equity of 9.10%, which is the midpoint of my recommended range of 8.80% to 9.40%. My recommended return on equity will fairly compensate KCPL for its current market cost of common equity, and it will mitigate the claimed revenue deficiency in this proceeding by providing KCPL fair compensation with the lowest cost to customers.

My recommended return on equity is developed on my Schedule MPG-1, and produces an overall rate of return of 7.33%. This rate of return is based on my recommended return on equity, and the Company's proposed capital structure and embedded cost of debt.

## 18 Q WHY ARE YOU RECOMMENDING THE MIDPOINT OF YOUR RECOMMENDED 19 RANGE?

A My estimated range represents a reasonable estimate of the current cost of equity. But for rate-setting purposes, the most balanced and reasonable return on equity is the midpoint of the range, which is my recommendation in this case. Rate-setting is intended to balance the interests of customers and shareholders. The high end of the range would tilt the balance in favor of investors, and the low end of the range would
tilt the balance in favor of customers. The midpoint is a balanced authorized return
on equity estimate, and should be used unless there are extenuating circumstances
which justify moving above or below the midpoint. For example, if the Commission
authorized a new rider mechanism which would reduce the utility company's
operating risk, it would be appropriate to move below the midpoint.

# Q DOES YOUR RECOMMENDED RATE OF RETURN REFLECT ANY CHANGES TO KCPL'S INVESTMENT RISK CREATED BY THE NEW REGULATORY MECHANISMS PROPOSED IN THIS PROCEEDING?

10 А No. My recommended rate of return reflects KCPL's risk as it exists at the time of my 11 To the extent new regulatory mechanisms are implemented in this analysis. 12 proceeding which improve KCPL's likelihood of fully recovering fuel, capital and other 13 costs of service, then its operating risk will be reduced prospectively. Hence, my rate 14 of return on common equity would not reflect the prospective risk reductions created if 15 KCPL's new regulatory mechanisms are approved. I will comment further on KCPL's 16 investment risk concerning these regulatory mechanisms in responding to KCPL's 17 witnesses in my rebuttal testimony.

18

#### II. RATE OF RETURN

#### 19 Q PLEASE DESCRIBE THIS SECTION OF YOUR TESTIMONY.

A I begin my estimate of a fair return on equity for KCPL by reviewing the market's
 assessment of the regulated utility industry investment risk, credit standing, and stock
 price performance. I used this information to get a sense of the market's perception
 of the risk characteristics of regulated utility investments in general, which is then

used to produce a refined estimate of the market's return requirement for assuming
 investment risk similar to KCPL's utility operations.

3 As described below, I find the credit rating outlook of the industry to be strong, 4 supportive of the industry's financial integrity and access to capital. Further, 5 regulated utilities' stocks have exhibited strong price performance over the last 6 several years, which is evidence of utility access to capital.

Based on this review of credit outlooks and stock price performance, I
conclude that the market continues to embrace the regulated utility industry as a
safe-haven investment, and views utility equity and debt investments as low-risk
securities.

#### 11 II.A. Regulated Utility Industry Market Outlook

#### 12 Q PLEASE DESCRIBE REGULATED UTILITIES' CREDIT RATING OUTLOOK.

13 A Utilities' credit ratings have improved over the recent past and the credit outlook is

14 Stable to Improving. Further, credit analysts have observed that utilities currently

15 have strong access to capital at attractive pricing (i.e., low capital costs).

Standard & Poor's ("S&P") recently published a report titled "The Outlook For

- 17 U.S. Regulated Utilities Remains Stable On Increasing Capital Spending And Robust
- 18 Financial Performance." In that report, S&P noted the following:
- 19 Capital Spo

16

#### Capital Spending Will Grow

20 Consistent with the trend over the past 10 years, we expect that utility 21 company capital spending will continue to grow (see related article 22 "U.S. Regulated Electric Utilities' Annual Capital Spending Is Poised 23 To Eclipse \$100 Billion," July 29, 2014). We project that capital spending will reach an all-time high of about \$95 billion in 2014, 24 reflecting growing funding needs for environmental compliance 25 26 projects and new transmission investments. For 2015-2016, we 27 expect capital spending overall to slow somewhat, but transmission 28 investments to continue to grow to address reliability, accommodate

new generation, and integrate renewable energy projects into the grid. The slowdown in the next few years is due to environmental compliance-related capital spending that reflects the completion of of [sic] the necessary projects for much of coal-fired generation to meet the existing U.S. Environmental Protection Agency's (EPA) Mercury and Air Toxics Standards (MATS). Beginning in 2017, we expect the industry's generation and overall capital spending needs to pick up significantly, consistently exceeding \$100 billion annually. This hike reflects some utilities' decisions to proactively boost lower carbonintensive generation capital spending in order to meet the EPA's recently announced proposed carbon pollution rules.

- 12 \* \*
- 13 INDUSTRY RATINGS OUTLOOK: STABLE
- 14 Our outlook on the regulated utility sector, which encompasses electric, natural gas, and water companies, is stable with a slightly 15 16 positive bias, with about 20% of companies in the sector having a 17 positive outlook. The positive bias is not industrywide, rather it is the result of certain issuers undertaking actions that can benefit their credit 18 19 profiles, a trend that has been making its way through the industry over 20 the past few years. We have seen companies, when opportune, 21 endeavor to reduce business risk while maintaining or slightly 22 enhancing their financial profiles. Overall, our fundamental view of the 23 sector is a stable one, supported by the essential nature of the 24 services provided, making the companies somewhat insensitive to 25 economic fluctuations; the rate-regulated nature of the business, which 26 lends a measure of stability and predictability to cash flow generation; 27 and the generally supportive posture of regulators toward cost 28 recovery of incremental investments facilitated by the ongoing low 29 power prices.<sup>1</sup>
- 30 Similarly, Fitch states:

31 Stable Sector Outlook: Fitch Ratings' stable outlook for the U.S. 32 Utilities, Power and Gas (UPG) sector reflects modest recovery in 33 electricity sales after three years of stagnant growth. The recently 34 observed positive momentum in industrial sales could sustain in line 35 with the broader economic recovery and potentially spill over to other 36 sectors. This is welcome news for electric utilities wrestling with structural headwinds posed by energy efficiency and distributed 37 generation, and pressure on retail prices as costs are spread over 38 39 declining units of sales.

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<sup>&</sup>lt;sup>1</sup>*Standard & Poor's RatingsDirect.* "Industry Report Card: The Outlook For U.S. Regulated Utilities Remains Stable On Increasing Capital Spending And Robust Financial Performance," December 16, 2014 at 4, emphasis added.

- 1 **Divergence in Subsector Rating Outlook** 2 The outlook for electric and gas utilities and utility parent companies is 3 stable given the backdrop of gradual economic recovery, low inflation and subdued interest rates, and stable commodity prices. Issuer 4 5 Default Ratings should remain on the cusp of 'BBB+' to 'A-', with more 6 than 90% of debt issuances being rated in the 'A' category. Long-term 7 debt instrument ratings of Fitch's entire universe of regulated utilities 8 carry investment-grade ratings, a testament to the sound credit profile 9 of the industry. The outlook for gencos is negative, reflecting poor sector fundamentals, including weak electricity demand and low power 10 11 prices. Affiliated gencos generally have investment-grade ratings and 12 may be under greater rating pressure. Recent consolidation among 13 independent gencos has added scale and diversity, and is a credit positive.<sup>2</sup> 14
- 15 Moody's recent comments on the U.S. Utility Sector state as follows:
- 16Our outlook for the US regulated utilities industry is stable.17outlook reflects our expectation for the fundamental business18conditions in the industry over the next 12 to 18 months.
- 19 » Regulatory support is the most important driver of our stable outlook. Our stable outlook for the US regulated utility industry is based on our expectation that regulators will continue to help utilities recover costs and maintain stable cash flow, such that the ratio of cash flow from operations (CFO) to debt will remain close to 20%, on average, for the industry.
- 25 » Capital spending will decline in 2015, which reduces borrowing
   26 needs. The credit profiles of large, integrated utilities that generate,
   27 transmit and distribute power will benefit from a drop in capital
   28 spending in 2015, because most of the heavy capital expenditures
   29 for environmental compliance have been made. This will reduce the
   30 industry's debt needs and stabilize financial metrics, at least for the
   31 next two years.<sup>3</sup>

#### 32 Q PLEASE DESCRIBE UTILITY STOCK PRICE PERFORMANCE OVER THE LAST

- 33 SEVERAL YEARS.
- A As shown in the graph below, the Edison Electric Institute ("EEI") has recorded utility
- 35 stock price performance compared to the market. The EEI data shows that its Utility

<sup>&</sup>lt;sup>2</sup>*Fitch Ratings*: "2015 Outlook: U.S. Utilities, Power and Gas," December 16, 2014 at 1-2, emphasis added.

<sup>&</sup>lt;sup>3</sup>*Moody's Investors Service*: "2015 Outlook – US Regulated Utilities: Regulatory Support Drives Our Stable Outlook," December 15, 2014 at 1, emphasis added.

Index has outperformed the market in downturns and trailed the market during
 recovery. This supports my conclusion that utility stock investments are regarded by
 market participants as a moderate- to low-risk investment.



#### 4 Q WHAT ARE THE IMPORTANT TAKEAWAY POINTS FROM THIS ASSESSMENT

#### 5 OF UTILITY INDUSTRY CREDIT AND INVESTMENT RISK OUTLOOKS?

A Credit rating agencies consider the regulated utility industry to be stable and believe
 investors will continue to provide an abundance of capital to support utilities' large
 capital programs at moderate capital costs. All of this supports the continued belief
 that utility investments are generally regarded as safe-haven or low-risk investments,
 and the market embraces low-risk investments, such as utility investments. The
 demand for low-risk investments will provide funding for regulated utilities in general.

Michael P. Gorman Page 7

#### 1 **II.B. KCPL Investment Risk**

#### 2 Q PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF THE INVESTMENT RISK

#### 3 **OF KCPL.**

- 4 A The market's assessment of KCPL's investment risk is described by credit rating
- 5 analysts' reports. KCPL's current corporate and senior secured bond ratings from
- 6 S&P and Moody's are BBB+ and A, and Baa1 and A2, respectively.<sup>4</sup> Both rating
- 7 agencies have a Stable outlook for KCPL.
- 8 Specifically, S&P states the following:

9 Our stable rating outlook on parent company Great Plains Energy Inc. (GPE) and utility subsidiary Kansas City Power & Light Co. (KCP&L) 10 reflects our expectation that management will continue to focus on 11 12 core utility operations and reach constructive regulatory outcomes to 13 avoid any weakening of the company's business risk profile. The 14 outlook also reflects our consolidated base case forecast level of 15 adjusted FFO to debt of 18%, in line with the existing "significant" 16 financial risk profile.

- 17 Downside scenario
- 18We could lower the ratings if core financial measures were to19consistently underperform our consolidated base case forecast and20were to remain consistently at less credit-supportive levels, including21adjusted FFO to total debt below 13%. This could occur if rate case22outcomes are consistently less than expected, regulatory lag materially23rises, or if capital spending increases and is primarily debt financed.
- 24 Upside scenario

25 We could raise the ratings if the company's business risk profile 26 strengthens. Economic growth in the company's service territories 27 could strengthen, boosting operating cash flow from the utilities, 28 thereby bolstering the business risk profile. We could also raise the 29 ratings if financial measures strengthened and consistently exceeded 30 our base case forecast, including adjusted FFO to total debt 31 consistently at the high end of the "significant" financial risk profile category. Improved financial measures could occur through stronger 32 33 operating cash flow or greater equity funding of capital investments.<sup>5</sup>

<sup>&</sup>lt;sup>4</sup>SNL Financial, March 9, 2015.

<sup>&</sup>lt;sup>5</sup>Standard & Poor's RatingsDirect: "Summary: Kansas City Power & Light Co.," May 2, 2014, at 3, emphasis added.

1 Moody's recent upgrade to KCPL's credit rating included the following

2 rationale:

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#### Approximately \$3.8 Billion of Debt Affected

- New York, January 31, 2014 -- Moody's Investors Service upgraded the ratings of Great Plains Energy (Great Plains; including its senior unsecured rating to Baa2 from Baa3) and its operating subsidiaries Kansas City Power & Light (KCPL; including its senior unsecured to Baa1 from Baa2) and Kansas City Power & Light – Greater Missouri Operations (GMO; including its senior unsecured to Baa2 from Baa3). Moody's also affirmed the commercial paper rating of KCPL (P-2).
- 11 \* \* \*
- 12 RATING RATIONALE
- 13 The primary driver of today's rating action is Moody's more favorable view of the relative credit supportiveness of the US regulatory 14 15 framework, as detailed in our September 23, 2013 Request for 16 Comment: "Proposed Refinements to the Regulated Utilities Rating 17 Methodology and our Evolving View of US Utility Regulation." Factors 18 supporting this view include better cost recovery provisions, reduced regulatory lag, and generally fair and open relationships between 19 utilities and regulators. The US utility sector's low number of defaults, 20 21 high recovery rates, and generally strong financial metrics from a 22 global perspective provide additional corroboration for these upgrades.

\* \*

- 23
- 24 Rating Outlook

25 The stable outlook for each company incorporates our expectation that 26 ongoing regulatory support of cost recovery and environmental capex will continue in Missouri and Kansas. We expect that the MPSC and 27 KCC decisions, along with significant tax offset potential provided by 28 net operating loss carryforwards, will stabilize current financial metric 29 30 levels at each company; such as CFO pre-WC to debt metrics in the 31 mid-teens for Great Plains, mid to high teens for KCPL and low to midteens for GMO.<sup>6</sup> 32

<sup>&</sup>lt;sup>6</sup>*Moody's Investors Service:* "Rating Action: Moody's upgrades Great Plains and subsidiaries by one notch; outlooks stable," January 31, 2014, at 1, emphasis added.

#### 1 II.C. KCPL's Proposed Capital Structure

#### 2 Q WHAT IS KCPL'S PROPOSED CAPITAL STRUCTURE?

3 A KCPL's proposed capital structure is shown in Table 1 below:

TABLE 1 <u>KCPL's Proposed Capital Structure</u> (May 31, 2015)			
Description	Weight		
Long-Term Debt Preferred Stock Common Equity Total Regulatory Capital Structure	49.09% 0.55% <u>50.36%</u> 100.00%		
Source: Direct Testimony of Robert Hevert.			

KCPL's proposed capital structure is sponsored by its witness Robert Hevert.
This proposed capital structure is based on KCPL parent company Great Plains
Energy's actual capital structure at August 31, 2014, adjusted for known and
measurable changes through May 31, 2015.

#### 8 II.D. Embedded Cost of Debt

### 9 Q WHAT IS THE EMBEDDED COST OF DEBT THAT THE COMPANY IS 10 PROPOSING IN THIS PROCEEDING?

A The Company is proposing an embedded debt cost of 5.55%. The embedded debt
 cost is sponsored by Company witness Mr. Hevert, who develops the proposed
 embedded cost of debt on his Schedule RBH-9.

#### 1 II.E. Return on Equity

#### 2 Q PLEASE DESCRIBE WHAT IS MEANT BY A "UTILITY'S COST OF COMMON 3 EQUITY."

A A utility's cost of common equity is the return investors require on an investment in
the utility. Investors expect to achieve their return requirement from receiving
dividends and stock price appreciation.

### 7 Q PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED 8 UTILITY'S COST OF COMMON EQUITY.

- 9 A In general, determining a fair cost of common equity for a regulated utility has been
  10 framed by two hallmark decisions of the U.S. Supreme Court: <u>Bluefield Water Works</u>
  11 <u>& Improvement Co. v. Pub. Serv. Comm'n of W. Va.</u>, 262 U.S. 679 (1923) and <u>Fed.</u>
  12 <u>Power Comm'n v. Hope Natural Gas Co.</u>, 320 U.S. 591 (1944).
- These decisions identify the general standards to be considered in establishing the cost of common equity for a public utility. Those general standards provide that the authorized return should: (1) be sufficient to maintain financial integrity; (2) attract capital under reasonable terms; and (3) be commensurate with returns investors could earn by investing in other enterprises of comparable risk.

### 18 Q PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE KCPL'S 19 COST OF COMMON EQUITY.

A I have used several models based on financial theory to estimate KCPL's cost of common equity. These models are: (1) a constant growth Discounted Cash Flow ("DCF") model using consensus analysts' growth rate projections; (2) a constant growth DCF using sustainable growth rate estimates; (3) a multi-stage growth DCF model; (4) a Risk Premium model; and (5) a Capital Asset Pricing Model ("CAPM"). I
 have applied these models to a group of publicly traded utilities that have investment
 risk similar to KCPL.

#### 4 II.F. Risk Proxy Group

# G HOW DID YOU SELECT A UTILITY PROXY GROUP SIMILAR IN INVESTMENT RISK TO KCPL TO ESTIMATE ITS CURRENT MARKET COST OF EQUITY?

7 A I relied on an electric utility proxy group that I determined to be comparable in
8 investment risk to KCPL. My recommended proxy group is based on the same proxy
9 group used by KCPL witness Mr. Robert Hevert to estimate KCPL's return on equity.

I started with the same proxy group used by KCPL witness Mr. Hevert,
 however, I excluded three companies from Mr. Hevert's proxy group which are not
 reasonable risk proxy companies: Hawaiian Electric Industries, NextEra Energy and
 Cleco Corporation. All of these companies were excluded because they are involved
 in merger and acquisition activity,<sup>7</sup> and therefore are not appropriate for including in
 my proxy group.

16 Q WHY IS IT APPROPRIATE TO EXCLUDE COMPANIES WHICH ARE INVOLVED

#### 17 IN MERGER AND ACQUISITION ACTIVITY FROM THE PROXY GROUP?

A Companies generally enter into mergers and acquisitions in order to produce greater
 shareholder value by combining companies. The enhanced shareholder value
 normally could not be realized had the two companies not combined.

<sup>&</sup>lt;sup>7</sup>For example, NextEra has proposed to acquire Hawaiian Electric. This deal was announced on December 3, 2014 for approximately \$4 billion. Cleco Corporation has been seeking a purchaser since early summer 2014, and on October 20, 2014, Cleco Corporation entered into a definitive agreement to be acquired by an investor group.

1 When companies announce a merger and acquisition, the public assesses the 2 proposed merger and develops outlooks on the value of the two companies after the 3 combination based on expected synergies or other value adds created by the 4 merger/acquisition.

5 As a result, the stock value before the merger is completed may not reflect the 6 forward-looking earnings and dividend payments for the company absent the merger 7 or on a stand-alone basis. Therefore, an accurate DCF return estimate on 8 companies involved in merger and acquisition activities cannot be produced because 9 their stock prices do not reflect the stand-alone investment characteristics of the 10 companies. Rather, the stock price more likely reflects the shareholder enhancement 11 produced by the proposed transaction. Therefore, it is appropriate to remove 12 companies involved in merger and acquisition activity from a proxy group used to 13 estimate a fair return on equity for a utility.

# 14QDOES MR. HEVERT EXCLUDE PROXY GROUP COMPANIES THAT ARE15INVOLVED IN MERGER AND ACQUISITION ACTIVITY?

A Yes. Mr. Hevert states at page 19 of his direct testimony, that proxy group selection
 criteria include removing companies that are currently involved in merger and
 acquisition activity.<sup>8</sup>

# 19QPLEASE DESCRIBE WHY YOU BELIEVE YOUR PROXY GROUP IS20REASONABLY COMPARABLE IN INVESTMENT RISK TO KCPL.

A The proxy group is shown in Schedule MPG-2. The proxy group has an average
 corporate credit rating from S&P of BBB+, which is identical to S&P's corporate credit

<sup>&</sup>lt;sup>8</sup>Hevert Direct Testimony at 19.

rating for KCPL of BBB+. The proxy group's average corporate credit rating from
 Moody's of Baa1 is the same as KCPL's corporate credit rating from Moody's.

The proxy group has an average common equity ratio of 49.1% (including
short-term debt) from SNL Financial ("SNL") and 51.9% (excluding short-term debt)
from *The Value Line Investment Survey* ("*Value Line*") in 2013.

KCPL's requested 50.36% common equity ratio is comparable to the proxy
group. Based on these risk factors, I conclude the proxy group reasonably
approximates the investment risk of KCPL.

9 II.G. Discounted Cash Flow Model

#### 10 Q PLEASE DESCRIBE THE DCF MODEL.

11 A The DCF model posits that a stock price is valued by summing the present value of 12 expected future cash flows discounted at the investor's required rate of return or cost

13 of capital. This model is expressed mathematically as follows:

14  $P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} \dots \frac{D_{\infty}}{(1+K)^{\infty}}$  (Equation 1) 15

16  $P_0$  = Current stock price

18

22

17 D = Dividends in periods  $1 - \infty$ 

K = Investor's required return

19 This model can be rearranged in order to estimate the discount rate or 20 investor-required return, "K." If it is reasonable to assume that earnings and 21 dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

(Equation 2)

 $K = D_1/P_0 + G$ 

23 K = Investor's required return
24 D<sub>1</sub> = Dividend in first year

- 25  $P_0 = Current stock price$
- 26 G = Expected constant dividend growth rate
- 27 Equation 2 is referred to as the annual "constant growth" DCF model.

#### 1 Q

#### PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.

As shown in Equation 2 above, the DCF model requires a current stock price, 2 А 3 expected dividend, and expected growth rate in dividends.

#### 4 Q WHAT STOCK PRICE HAVE YOU RELIED ON IN YOUR CONSTANT GROWTH 5

#### DCF MODEL?

6 I relied on the average of the weekly high and low stock prices of the utilities in the А 7 proxy group over a 13-week and 26-week period ending on March 6, 2015. An 8 average stock price is less susceptible to market price variations than a spot price. 9 Therefore, an average stock price is less susceptible to aberrant market price 10 movements, which may not reflect the stock's long-term value.

11 An average stock price reflects a period that is still short enough to contain 12 data that reasonably reflects current market expectations, but the period is not so 13 short as to be susceptible to market price variations that may not reflect the stock's 14 long-term value. In my judgment, an average stock price is a reasonable balance 15 between the need to reflect current market expectations and the need to capture 16 sufficient data to smooth out aberrant market movements.

17 Market utility stock prices were substantially bid up in December 2014, and 18 January 2015, which caused dividend yields to decline. Utility stock prices have 19 since declined. This increase in utility stock prices caused dividend yields to decline. 20 Because a 13-week period was highly impacted by this run-up in stock prices through 21 January 2015, I also considered a 26-week average stock price to reflect a more 22 normalized value of utility stocks in today's current market environment. Considering 23 both 13-week and 26-week dividend components of a DCF model will provide more 24 information and a robust estimate of the current market cost of equity for KCPL.

#### 1 Q WHAT DIVIDEND DID YOU USE IN YOUR CONSTANT GROWTH DCF MODEL?

A I used the most recently paid quarterly dividend, as reported in *Value Line.*<sup>9</sup> This
dividend was annualized (multiplied by 4) and adjusted for next year's growth to
produce the D<sub>1</sub> factor for use in Equation 2 above.

### 5 Q WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR CONSTANT 6 GROWTH DCF MODEL?

7 A There are several methods that can be used to estimate the expected growth in
8 dividends. However, regardless of the method, for purposes of determining the
9 market-required return on common equity, one must attempt to estimate investors'
10 consensus about what the dividend or earnings growth rate will be, and not what an
11 individual investor or analyst may use to make individual investment decisions.

As predictors of future returns, security analysts' growth estimates have been shown to be more accurate than growth rates derived from historical data.<sup>10</sup> That is, assuming the market generally makes rational investment decisions, analysts' growth projections are more likely to influence investors' decisions which are captured in observable stock prices than growth rates derived only from historical data.

For my constant growth DCF analysis, I have relied on a consensus, or mean, of professional security analysts' earnings growth estimates as a proxy for investor consensus dividend growth rate expectations. I used the average of analysts' growth rate estimates from three sources: Zacks, SNL, and Reuters. All such projections were available on March 6, 2015, and all were reported online.

<sup>&</sup>lt;sup>9</sup>*The Value Line Investment Survey*, December 19, 2014, January 30, and February 20, 2015. <sup>10</sup>*See, e.g.,* David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

1 Each consensus growth rate projection is based on a survey of security 2 analysts. There is no clear evidence whether a particular analyst is most influential 3 on general market investors. Therefore, a single analyst's projection does not as 4 reliably predict consensus investor outlooks as does a consensus of market analysts' 5 projections. The consensus estimate is a simple arithmetic average, or mean, of 6 surveyed analysts' earnings growth forecasts. A simple average of the growth 7 forecasts gives equal weight to all surveyed analysts' projections. Therefore, a 8 simple average, or arithmetic mean, of analyst forecasts is a good proxy for market 9 consensus expectations.

#### 10 Q WHAT ARE THE GROWTH RATES YOU USED IN YOUR CONSTANT GROWTH 11 DCF MODEL?

A The growth rates I used in my DCF analysis are shown in Schedule MPG-3. The
average growth rate for my proxy group is 4.89%.

#### 14 Q WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?

- A As shown in Schedule MPG-4, page 1, the average and median constant growth DCF
  returns for my proxy group for the 13-week analysis are 8.44% and 8.42%,
  respectively.
- As shown in Schedule MPG-4, page 2, the average and median constant growth DCF returns for my proxy group for the 26-week analysis are 8.60% and 8.55%, respectively.

### 1 Q DO YOU HAVE ANY COMMENTS ON THE RESULTS OF YOUR CONSTANT 2 GROWTH DCF ANALYSIS?

A Yes. The constant growth DCF analysis for my proxy group is based on a long-term
sustainable growth rate of 4.89%. This growth rate is comparable to, but higher than,
my estimate of a maximum long-term sustainable growth rate of 4.6%. I believe the
constant growth DCF analysis produces a reasonable result.

#### 7 Q HOW DID YOU ESTIMATE A MAXIMUM LONG-TERM SUSTAINABLE GROWTH

#### 8 **RATE?**

9 А A long-term sustainable growth rate for a utility stock cannot exceed the growth rate 10 of the economy in which it sells its goods and services. Hence, a reasonable proxy 11 for the long-term maximum sustainable growth rate for a utility investment is best 12 proxied by the projected long-term Gross Domestic Product ("GDP"). Blue Chip 13 Economic Indicators projects that over the next 5 and 10 years, the U.S. nominal 14 GDP will grow in the range of 4.7% to 4.4%. As such, the average growth rate over 15 the next 10 years is around 4.6%, which I believe is a reasonable proxy of long-term 16 sustainable growth.<sup>11</sup>

I discuss in my multi-stage growth DCF analysis academic and investment
 practitioner evidence that accepts the projected long-term GDP growth outlook as a
 maximum sustainable growth rate projection. Hence, recognizing the long-term GDP
 growth rate as a maximum sustainable growth is logical, and generally consistent with
 academic and economic practitioner accepted practices.

<sup>11</sup>Blue Chip Economic Indicators, March 10, 2015, at 14.

#### 1 II.H. Sustainable Growth DCF

### 2 Q PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE LONG-TERM 3 GROWTH RATE FOR YOUR SUSTAINABLE GROWTH DCF MODEL.

A A sustainable growth rate is based on the percentage of the utility's earnings that is
retained and reinvested in utility plant and equipment. These reinvested earnings
increase the earnings base (rate base). Earnings grow when plant funded by
reinvested earnings is put into service, and the utility is allowed to earn its authorized
return on such additional rate base investment.

9 The internal growth methodology is tied to the percentage of earnings retained 10 in the company and not paid out as dividends. The earnings retention ratio is 1 minus 11 the dividend payout ratio. As the payout ratio declines, the earnings retention ratio 12 increases. An increased earnings retention ratio will fuel stronger growth because 13 the business funds more investments with retained earnings.

The payout ratios of the proxy group are shown in my Schedule MPG-5. These dividend payout ratios and earnings retention ratios then can be used to develop a sustainable long-term earnings retention growth rate. A sustainable long-term earnings retention ratio will help gauge whether analysts' current three- to five-year growth rate projections can be sustained over an indefinite period of time.

19 The data used to estimate the long-term sustainable growth rate is based on 20 the Company's current market-to-book ratio and on *Value Line*'s three- to five-year 21 projections of earnings, dividends, earned returns on book equity, and stock 22 issuances.

As shown in Schedule MPG-6, pages 1 and 2, the average sustainable growth rate for the proxy group using this internal growth rate model is 4.80% for the 13-week period. As shown on pages 3 and 4 of Schedule MPG-6, the average sustainable growth rate for the proxy group using the internal growth rate model is
 4.72%.

### 3 Q WHAT IS THE DCF ESTIMATE USING THESE SUSTAINABLE LONG-TERM 4 GROWTH RATES?

A DCF estimate based on these sustainable growth rates is developed in Schedule
MPG-7. As shown on page 1, a sustainable growth DCF analysis produces proxy
group average and median DCF results for the 13-week period of 8.39% and 7.97%,
respectively. As shown on page 2, the sustainable growth DCF analysis for the 26week period produces proxy group average and median DCF results of 8.48% and
8.01%, respectively.

#### 11 II.I. Multi-Stage Growth DCF Model

#### 12 Q HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?

A Yes. My first constant growth DCF is based on consensus analysts' growth rate projections, so it is a reasonable reflection of rational investment expectations over the next three to five years. The limitation on the constant growth DCF model is that it cannot reflect a rational expectation that a period of high/low short-term growth can be followed by a change in growth to a rate that is more reflective of long-term sustainable growth. Hence, I performed a multi-stage growth DCF analysis to reflect this outlook of changing growth expectations.

#### 20 Q WHY DO YOU BELIEVE GROWTH RATES CAN CHANGE OVER TIME?

A Analyst projected growth rates over the next three to five years will change as utility earnings growth outlooks change. Utility companies go through cycles in making

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investments in their systems. When utility companies are making large investments,
their rate base grows rapidly, which accelerates their earnings growth. Once a major
construction cycle is completed or levels off, growth in the utility rate base slows, and
its earnings growth slows from an abnormally high three- to five-year rate to a lower
sustainable growth rate.

6 As major construction cycles extend over longer periods of time, even with an 7 accelerated construction program, the growth rate of the utility will slow simply 8 because rate base growth will slow and the utility has limited human and capital 9 resources available to expand its construction program. Hence, the three- to five-10 year growth rate projection should be used as a long-term sustainable growth rate but 11 not without making a reasonable informed judgment to determine whether it 12 considers the current market environment, the industry, and whether the three- to 13 five-year growth outlook is sustainable.

#### 14 Q PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.

15 A The multi-stage growth DCF model reflects the possibility of non-constant growth for 16 a company over time. The multi-stage growth DCF model reflects three growth 17 periods: (1) a short-term growth period, which consists of the first five years; (2) a 18 transition period, which consists of the next five years (6 through 10); and (3) a 19 long-term growth period, starting in year 11 through perpetuity.

For the short-term growth period, I relied on the consensus analysts' growth projections described above in relationship to my constant growth DCF model. For the transition period, the growth rates were reduced or increased by an equal factor, which reflects the difference between the analysts' growth rates and the long-term 1

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sustainable growth rate. For the long-term growth period, I assumed each company's growth would converge to the maximum sustainable long-term growth rate.

Q WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR THE
 MAXIMUM SUSTAINABLE LONG-TERM GROWTH RATE?

5 A Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the 6 economy in which they sell services. Utilities' earnings/dividend growth is created by 7 increased utility investment or rate base. Such investment, in turn, is driven by 8 service area economic growth and demand for utility service. In other words, utilities 9 invest in plant to meet sales demand growth, and sales growth, in turn, is tied to 10 economic growth in their service areas.

11 The U.S. Department of Energy, Energy Information Administration ("EIA") 12 has observed that utility sales growth tracks the U.S. GDP growth, albeit at a lower 13 level, as shown in Schedule MPG-8. Utility sales growth has lagged behind GDP 14 growth for more than a decade. As a result, nominal GDP growth is a very 15 conservative proxy for utility sales growth, rate base growth, and earnings growth. 16 Therefore, the U.S. GDP nominal growth rate is a conservative proxy for the highest 17 sustainable long-term growth rate of a utility.

18QIS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER THE19LONG TERM, A COMPANY'S EARNINGS AND DIVIDENDS CANNOT GROW AT

20 A RATE GREATER THAN THE GROWTH OF THE U.S. GDP?

A Yes. This concept is supported in both published analyst literature and academic
work. Specifically, in a textbook entitled "Fundamentals of Financial Management,"
published by Eugene Brigham and Joel F. Houston, the authors state as follows:

The constant growth model is most appropriate for mature companies with a stable history of growth and stable future expectations. Expected growth rates vary somewhat among companies, but dividends for mature firms are often expected to grow in the future at about the same rate as nominal gross domestic product (real GDP plus inflation).<sup>12</sup>

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# Q IS THERE ANY ACTUAL INVESTMENT HISTORY THAT SUPPORTS THE NOTION THAT THE CAPITAL APPRECIATION FOR STOCK INVESTMENTS WILL NOT EXCEED THE NOMINAL GROWTH OF THE U.S. GDP?

10 A Yes. This is evident by a comparison of the compound annual growth of the U.S. 11 GDP compared to the geometric growth of the U.S. stock market. Morningstar 12 measures the historical geometric growth of the U.S. stock market over the period 13 1926-2013 to be approximately 5.8%. During this same time period, the U.S. nominal 14 compound annual growth of the U.S. GDP was approximately 6.2%.<sup>13</sup>

As such, the compound geometric growth of the U.S. nominal GDP has been higher but comparable to the nominal growth of the U.S. stock market capital appreciation. This historical relationship indicates the U.S. GDP growth outlook is a conservative estimate of the long-term sustainable growth of U.S. stock investments.

19 Q HOW DID YOU DETERMINE A SUSTAINABLE LONG-TERM GROWTH RATE

#### 20 THAT REFLECTS THE CURRENT CONSENSUS OUTLOOK OF THE MARKET?

- 21 A I relied on the consensus analysts' projections of long-term GDP growth. Blue Chip
- 22 Economic Indicators publishes consensus economists' GDP growth projections twice
- 23 a year. These consensus analysts' GDP growth outlooks are the best available

<sup>&</sup>lt;sup>12</sup> "Fundamentals of Financial Management," Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298.

<sup>&</sup>lt;sup>13</sup>*Morningstar, Inc., Ibbotson SBBI 2014 Classic Yearbook* inflation rate of 3.0%, and U.S. Bureau of Economic Analysis, February 27, 2015.

measure of the market's assessment of long-term GDP growth. These analyst
projections reflect all current outlooks for GDP, as reflected in analyst projections, and
are likely the most influential on investors' expectations of future growth outlooks.
The consensus economists' published GDP growth rate outlook is 4.7% to 4.4% over
the next 10 years.<sup>14</sup>

6 Therefore, I propose to use the consensus economists' projected 5- and 7 10-year average GDP consensus growth rates of 4.7% and 4.4%, respectively, as 8 published by Blue Chip Economic Indicators, as an estimate of long-term sustainable 9 Blue Chip Economic Indicators projections provide real GDP growth growth. projections of 2.5% and 2.3%, and GDP inflation of 2.1%<sup>15</sup> over the 5-year and 10 10-year projection periods, respectively. These consensus GDP growth forecasts 11 12 represent the most likely views of market participants because they are based on 13 published consensus economist projections.

### 14 Q DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-TERM GDP 15 GROWTH?

- A Yes, and these sources corroborate my consensus analysts' projections. The U.S.
  EIA in its *Annual Energy Outlook* projects real GDP out until 2040. In its 2014 Annual
  Report, the EIA projects real GDP through 2040 to be in the range of 1.9% to 2.8%,
  with a midpoint or reference case of 2.4% with GDP price inflation of 1.8%. This
  produces a long-term nominal GDP growth outlook of 4.2%.<sup>16</sup>
- Also, the Congressional Budget Office ("CBO") makes long-term economic projections. The CBO is projecting real GDP growth of 2.4% to 2.1% during the next

<sup>&</sup>lt;sup>14</sup>Blue Chip Economic Indicators, March 10, 2014 at 14.

<sup>&</sup>lt;sup>15</sup>*Id.* 

<sup>&</sup>lt;sup>16</sup>DOE/EIA Annual Energy Outlook 2014 With Projections to 2040, April 2014 at MT-2.

5 and 10 years, respectively, with GDP price inflation of 2.0%.<sup>17</sup> The CBO's real GDP
and GDP inflation projections are slightly lower than the consensus economists. The
five- and 10-year outlooks for nominal GDP based on these projections are 4.4% and
4.1%, respectively.

Moody's Analytics also makes long-term economic projections. In its recent
30-year outlook to 2044, Moody's Analytics is projecting real GDP growth of 2.1%
with GDP inflation of 2.0%.<sup>18</sup> Moody's projection of real GDP and GDP inflation is
slightly below the consensus economists. Based on these projections, Moody's is
projecting nominal GDP growth of 4.1% over the next 30 years.

10 The Social Security Administration makes long-term economic projections out 11 to 2090. The Social Security Administration's nominal GDP projections, under its 12 intermediate cost scenario for 30 and 90 years, ranges from 4.6% to 4.5%, 13 respectively.<sup>19</sup> These projections are in line with the consensus economists.

The Economist Intelligence Unit, a division of *The Economist* and a third-party data provider to SNL Financial, makes a long-term economic projection out to 2030.<sup>20</sup> The Economist Intelligence Unit is projecting real GDP growth of 2.4% with an inflation rate of 2.3% out to 2030. The real GDP growth projection is in line with the consensus economists, while projected inflation is slightly higher. The long-term nominal GDP projection based on these outlooks is approximately 4.7%.

The real GDP and nominal GDP growth projections made by these independent sources support the use of the consensus economist 5-year and 10-year projected GDP growth outlooks as a reasonable estimate of market participants' long-term GDP growth outlooks.

<sup>&</sup>lt;sup>17</sup>*CBO: The Budget and Economic Outlook:* Fiscal Years 2015 to 2025, January 2015 at 154. <sup>18</sup><u>www.economy.com</u>, *Moody's Analytics Forecast*, February 11, 2015.

<sup>&</sup>lt;sup>19</sup>www.ssa.gov, "2014 OASDI Trustees Report," Table VI.G4.

<sup>&</sup>lt;sup>20</sup>SNL Financial, Economist Intelligence Unit, downloaded on March 11, 2015.

### Q WHAT STOCK PRICE, DIVIDEND, AND GROWTH RATES DID YOU USE IN YOUR MULTI-STAGE GROWTH DCF ANALYSIS?

3 А I relied on the same 13-week and 26-week average stock prices and the most recent 4 quarterly dividend payment data discussed above. For stage one growth, I used the 5 consensus analysts' growth rate projections discussed above in my constant growth 6 DCF model. The first stage growth covers the first five years, consistent with the term 7 of the analyst growth rate projections. The second stage, or transition stage, begins 8 in year 6 and extends through year 10. The second stage growth transitions the 9 growth rate from the first stage to the third stage using a linear trend. For the third 10 stage, or long-term sustainable growth stage, which starts in year 11, I used a 4.6% 11 long-term sustainable growth rate, which is based on the consensus economists' 12 long-term projected nominal GDP growth rate.

#### 13 Q WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF MODEL?

A As shown in Schedule MPG-9, page 1, the average and median DCF returns on equity for my proxy group using the 13-week average stock price are 8.19% and 8.23%, respectively. As shown on page 2, the average and median DCF returns on equity for my proxy group using the 26-week average stock price are 8.36% and 8.41%, respectively.

#### 19 Q PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.

20 A The results from my DCF analyses are summarized in Table 2 below:

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TABLE 2				
Summary of DCF Results				
Description	13-Week Proxy Group <u>Average</u>	26-Week Proxy Group <u>Average</u>		
Constant Growth DCF Model (Analysts' Growth)	8.44%	8.60%		
Constant Growth DCF Model (Sustainable Growth)	8.39%	8.48%		
Multi-Stage Growth DCF Model	<u>8.19%</u>	<u>8.36%</u>		
Average	8.34%	8.48%		

1 I concluded that my DCF studies indicate a return on equity of 8.60% for 2 KCPL. This return on equity is at the high-end of all my DCF studies in this 3 proceeding. I believe the constant growth DCF in this case using analysts' growth 4 rate projections produces a robust estimate of the current market cost of equity 5 because the three- to five-year analysts' growth rates are reasonable in comparison 6 to long-term sustainable growth. Further, a 26-week period produces a dividend yield 7 which is more reflective of normalized yields under today's volatile stock price 8 environment. For all these reasons, I believe a conservative estimate of a DCF 9 required return on equity for my proxy group, and KCPL, is 8.60%.

10

#### II.J. Risk Premium Model

#### 11 Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.

12 A This model is based on the principle that investors require a higher return to assume 13 greater risk. Common equity investments have greater risk than bonds because 14 bonds have more security of payment in bankruptcy proceedings than common equity 15 and the coupon payments on bonds represent contractual obligations. In contrast, companies are not required to pay dividends or guarantee returns on common equity
 investments. Therefore, common equity securities are considered to be more risky
 than bond securities.

4 This risk premium model is based on two estimates of an equity risk premium. 5 First, I estimated the difference between the required return on utility common equity 6 investments and U.S. Treasury bonds. The difference between the required return on 7 common equity and the Treasury bond yield is the risk premium. I estimated the risk 8 premium on an annual basis for each year over the period 1986 through 2014. The 9 common equity required returns were based on regulatory commission-authorized 10 returns for electric utility companies. Authorized returns are typically based on expert 11 witnesses' estimates of the contemporary investor-required return.

12 The second equity risk premium estimate is based on the difference between 13 regulatory commission-authorized returns on common equity and contemporary 14 "A" rated utility bond yields by Moody's. I selected the period 1986 through 2014 15 because public utility stocks consistently traded at a premium to book value during 16 that period. This is illustrated in Schedule MPG-10, which shows that the market to 17 book ratio since 1986 for the electric utility industry was consistently above a multiple 18 of 1.0x. Over this period, regulatory authorized returns were sufficient to support 19 market prices that at least exceeded book value. This is an indication that regulatory 20 authorized returns on common equity supported a utility's ability to issue additional 21 common stock without diluting existing shares. It further demonstrates that utilities 22 were able to access equity markets without a detrimental impact on current 23 shareholders.

Based on this analysis, as shown in Schedule MPG-11, the average indicated
equity risk premium over U.S. Treasury bond yields has been 5.37%. Since the risk

premium can vary depending upon market conditions and changing investor risk
 perceptions, I believe using an estimated range of risk premiums provides the best
 method to measure the current return on common equity using this methodology.

This is best measured by using a periodic rolling average methodology. The periodic rolling average measures I incorporated in my study were five and 10 years. These periodic averages should mitigate the impact of anomalous market conditions and likely captures the risk premium over an entire business cycle. As shown on my Schedule MPG-12, the five-year rolling average risk premium over Treasury bonds ranged from 4.25% to 6.40%, while the 10-year rolling average risk premium ranged from 4.38% to 6.14%.

As shown on my Schedule MPG-12, the average indicated equity risk premium over contemporary Moody's utility bond yields was 3.98%. The five-year and 10-year rolling average ranged from 2.88% to 5.30% and 3.20% to 4.83%, respectively.

15QDO YOU BELIEVE THAT THESE EQUITY RISK PREMIUM ESTIMATES ARE16BASED ON A TIME PERIOD THAT IS TOO LONG OR TOO SHORT TO DRAW17ACCURATE CONCLUSIONS CONCERNING CONTEMPORARY MARKET18CONDITIONS?

A No. The time period I use in this risk premium study is a generally accepted period to
develop a risk premium study using "expectational" data.

21 Contemporary market conditions can change dramatically during the period 22 that rates determined in this proceeding will be in effect. A relatively long period of 23 time where stock valuations reflect premiums to book value is an indication that the 24 authorized returns on equity and the corresponding equity risk premiums were supportive of investors' return expectations and provided utilities access to the equity
markets under reasonable terms and conditions. Further, this time period is long
enough to smooth abnormal market movement that might distort equity risk
premiums. While market conditions and risk premiums do vary over time, this
historical time period is a reasonable period to estimate contemporary risk premiums.

6 Alternatively, studies have recommended that use of "actual achieved 7 investment return data" in a risk premium study should be based on long historical 8 time periods. The studies find that achieved returns over short time periods may not 9 reflect investors' expected returns due to unexpected and abnormal stock price 10 performance. Short-term abnormal actual returns would be smoothed over time and 11 the achieved actual investment returns over long time periods would approximate 12 investors' expected returns. Therefore, it is reasonable to assume that averages of 13 annual achieved returns over long time periods will generally converge on the 14 investors' expected returns.

15 My risk premium study is based on expectational data, not actual investment 16 returns, and, thus, need not encompass a very long historical time period.

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#### Q BASED ON HISTORICAL DATA, WHAT RISK PREMIUM HAVE YOU USED TO ESTIMATE KCPL'S COST OF COMMON EQUITY IN THIS PROCEEDING?

19 A The equity risk premium should reflect the relative market perception of risk in the 20 utility industry today. I have gauged investor perceptions in utility risk today in 21 Schedule MPG-13. In that exhibit, I show the yield spread between utility bonds and 22 Treasury bonds over the last 35 years. As shown in this exhibit, the average utility 23 bond yield spreads over Treasury bonds for "A" and "Baa" rated utility bonds for this 24 historical period are 1.53% and 1.95%, respectively. The utility bond yield spreads over Treasury bonds for "A" and "Baa" rated utilities during 2014 were 0.94% and
 1.46%, respectively. The current average "A" and "Baa" rated utility bond yield
 spreads over Treasury bond yields are now lower than the 35-year average spreads.

A current 13-week average "A" rated utility bond yield of 3.73%, when compared to the current Treasury bond yield of 2.61% as shown in Schedule MPG-14, page 1, implies a yield spread of around 112 basis points. This current utility bond yield spread is lower than the 35-year average spread for "A" rated utility bonds of 1.53%. Similarly, the current spread for the "Baa" rated utility bond yield of 1.90% is lower than the 35-year average spread of 1.95%.

10 These utility bond yield spreads are clear evidence that the market considers 11 the utility industry to be a relatively low-risk investment and demonstrates that utilities 12 continue to have strong access to capital.

#### 13 Q HOW DID YOU ESTIMATE KCPL'S COST OF COMMON EQUITY WITH THIS RISK

#### 14

#### PREMIUM MODEL?

15 А I added a projected long-term Treasury bond yield to my estimated equity risk 16 premium over Treasury yields. The 13-week average 30-year Treasury bond yield, 17 ending March 6, 2015, was 2.61%, as shown in Schedule MPG-14, page 1. Blue 18 Chip Financial Forecasts projects the 30-year Treasury bond yield to be 3.70%, and a 10-year Treasury bond yield to be 3.10%.<sup>21</sup> Using the projected 30-year Treasury 19 20 bond yield of 3.70%, and a Treasury bond risk premium of 4.25% to 6.40%, as 21 developed above, produces an estimated common equity return in the range of 22 7.95% (3.70% + 4.25%) to 10.10% (3.70% + 6.40%). My risk premium estimates fall 23 in the range of 7.95% to 10.10%.

<sup>&</sup>lt;sup>21</sup>Blue Chip Financial Forecasts, November 1, 2014 at 2.

I next added my equity risk premium over utility bond yields to a current
 13-week average yield on "Baa" rated utility bonds for the period ending March 6,
 2015 of 4.51%. Adding the utility equity risk premium of 2.88% to 5.30%, as
 developed above, to a "Baa" rated bond yield of 4.51%, produces a cost of equity in
 the range of 7.39% (4.51% + 2.88%) to 9.81% (4.51% + 5.30%).

### 6 Q WHAT IS YOUR RECOMMENDED RETURN FOR KCPL BASED ON YOUR RISK 7 PREMIUM STUDY?

8 My recommendation considers both utility security risk and market interest rate risk. А 9 Current interest rate spreads suggest the market is embracing utility investments as 10 relatively low-risk investment alternatives. This is clearly evident from the low utility 11 bond spreads relative to Treasury bonds currently compared to the historical time period studied.<sup>22</sup> Also, the market is pricing Baa utility bonds to produce lower yields 12 13 compared to general corporate Baa bonds. On average over time, Baa utility bond yields are higher than Baa corporate bond yields, but not currently.<sup>23</sup> All of this 14 15 supports my conclusion that the utility industry is perceived as a low-risk stable 16 investment.

On the other hand, the Federal Reserve has been procuring long-term Treasury and collateralized bonds in an effort to stimulate the U.S. economy. This stimulus has reduced long-term interest rates. This government stimulus initiative was terminated in October 2014. The termination of the Federal Reserve's stimulus has not caused long-term interest rates to increase; however, I believe there continues to be risk in long-term interest rate markets.

> <sup>22</sup>See Schedules MPG-13 and MPG-14. <sup>23</sup>*Id.*

1 I recommend giving more weight to the high-end of my risk premium results to 2 reflect the greater current market interest rate risk. I propose to provide 75% weight 3 to the high-end of my risk premium estimates and 25% to the low-end of my risk 4 premium estimates. Providing more weight to the high-end risk premium captures the 5 greater market interest rate risk. This results in a risk premium estimate over Treasury bond yields of 9.56%,<sup>24</sup> and a risk premium estimate over Baa utility bond 6 vields of 9.21%.<sup>25</sup> 7

8 My risk premium analyses produce a return estimate in the range of 9.21% to 9 9.56%, with a midpoint of 9.40%.

#### II.K. Capital Asset Pricing Model ("CAPM") 10

#### 11 Q PLEASE DESCRIBE THE CAPM.

12 The CAPM method of analysis is based upon the theory that the market-required rate А 13 of return for a security is equal to the risk-free rate, plus a risk premium associated 14 with the specific security. This relationship between risk and return can be expressed 15 mathematically as follows:

- $R_i = R_f + B_i x (R_m R_f)$  where: 16
- 17  $R_i$  = Required return for stock i
- 18  $R_f$  = Risk-free rate
- R<sub>m</sub> = Expected return for the market portfolio 19 20
  - $B_i$  = Beta Measure of the risk for stock

21 The stock-specific risk term in the above equation is beta. Beta represents 22 the investment risk that cannot be diversified away when the security is held in a 23 diversified portfolio. When stocks are held in a diversified portfolio, firm-specific risks 24 can be eliminated by balancing the portfolio with securities that react in the opposite

 $<sup>^{24}75\%</sup>$  (10.10%) + 25% (7.95%) = 9.56%.

<sup>&</sup>lt;sup>25</sup>75% (9.81%) + 25% (7.39%) = 9.21%.
direction to firm-specific risk factors (e.g., business cycle, competition, product mix,
 and production limitations).

3 The risks that cannot be eliminated when held in a diversified portfolio are 4 non-diversifiable risks. Non-diversifiable risks are related to the market in general 5 and are referred to as systematic risks. Risks that can be eliminated by diversification 6 are regarded as non-systematic risks. In a broad sense, systematic risks are market 7 risks, and non-systematic risks are business risks. The CAPM theory suggests that 8 the market will not compensate investors for assuming risks that can be diversified 9 away. Therefore, the only risk that investors will be compensated for are systematic 10 or non-diversifiable risks. The beta is a measure of the systematic or 11 non-diversifiable risks.

#### 12 Q PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.

A The CAPM requires an estimate of the market risk-free rate, the company's beta, and
the market risk premium.

#### 15 Q WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE RATE?

A As previously noted, *Blue Chip Financial Forecasts*' projected 30-year Treasury bond
 yield is 3.70%.<sup>26</sup> The current 30-year Treasury bond yield is 2.61%, as shown in
 Schedule MPG-14, page 1. I used *Blue Chip Financial Forecasts*' projected 30-year
 Treasury bond yield of 3.70% for my CAPM analysis.

<sup>26</sup>Blue Chip Financial Forecasts, March 1, 2015 at 2.

# 1 Q WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN ESTIMATE

#### 2 OF THE RISK-FREE RATE?

3 Treasury securities are backed by the full faith and credit of the United States А 4 government, so long-term Treasury bonds are considered to have negligible credit 5 risk. Also, long-term Treasury bonds have an investment horizon similar to that of 6 common stock. As a result, investor-anticipated long-run inflation expectations are 7 reflected in both common stock required returns and long-term bond yields. 8 Therefore, the nominal risk-free rate (or expected inflation rate and real risk-free rate) 9 included in a long-term bond yield is a reasonable estimate of the nominal risk-free 10 rate included in common stock returns.

11 Treasury bond yields, however, do include risk premiums related to 12 unanticipated future inflation and interest rates. A Treasury bond yield is not a 13 risk-free rate. Risk premiums related to unanticipated inflation and interest rates are 14 systematic or market risks. Consequently, for companies with betas less than 1.0, 15 using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis 16 can produce an overstated estimate of the CAPM return.

#### 17 Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?

A As shown in Schedule MPG-15, the proxy group average *Value Line* beta estimate is
0.74.

#### 20 Q HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?

A I derived two market risk premium estimates, a forward-looking estimate and one
based on a long-term historical average.

1 The forward-looking estimate was derived by estimating the expected return 2 on the market (as represented by the S&P 500) and subtracting the risk-free rate from 3 this estimate. I estimated the expected return on the S&P 500 by adding an expected 4 inflation rate to the long-term historical arithmetic average real return on the market. 5 The real return on the market represents the achieved return above the rate of 6 inflation.

7 Morningstar's Stocks, Bonds, Bills and Inflation 2014 Classic Yearbook 8 estimates the historical arithmetic average real market return over the period 1926 to 2013 as 8.9%.<sup>27</sup> A current consensus analysts' inflation projection, as measured by 9 the Consumer Price Index, is 2.2%.<sup>28</sup> Using these estimates, the expected market 10 return is 11.30%.<sup>29</sup> The market risk premium then is the difference between the 11 12 11.30% expected market return, and my 3.70% risk-free rate estimate, or 13 approximately 7.6%.

14 The historical estimate of the market risk premium was also estimated by Morningstar in Stocks, Bonds, Bills and Inflation 2014 Classic Yearbook. Over the 15 16 period 1926 through 2013. Morningstar's study estimated that the arithmetic average of the achieved total return on the S&P 500 was 12.1%,30 and the total return on 17 long-term Treasury bonds was 5.9%.<sup>31</sup> The indicated market risk premium is 6.2% 18 19 (12.1% - 5.9% = 6.2%). The average of my market risk premium estimates is 6.90% 20 (6.2% to 7.6%).

<sup>&</sup>lt;sup>27</sup> Morningstar, Inc., Ibbotson SBBI 2014 Classic Yearbook at 92. <sup>28</sup>Blue Chip Financial Forecasts, March 1, 2015 at 2.

<sup>&</sup>lt;sup>29</sup>{ [ (1 + 0.089) \* (1 + 0.022) ] - 1 } \* 100.

<sup>&</sup>lt;sup>30</sup>*Morningstar, Inc., Ibbotson SBBI 2014 Classic Yearbook* at 91. <sup>31</sup>*Id.* 

1 Q HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO

2

#### THAT ESTIMATED BY MORNINGSTAR?

A Morningstar's analysis indicates that a market risk premium falls somewhere in the
range of 6.2% to 7.0%. My market risk premium falls in the range of 6.2% to 7.6%.
My average market risk premium of 6.90% is within Morningstar's range.

6 Morningstar estimates a forward-looking market risk premium based on actual 7 achieved data from the historical period of 1926 through 2013. Using this data, 8 Morningstar estimates a market risk premium derived from the total return on large 9 company stocks (S&P 500), less the income return on Treasury bonds. The total 10 return includes capital appreciation, dividend or coupon reinvestment returns, and 11 annual yields received from coupons and/or dividend payments. The income return, 12 in contrast, only reflects the income return received from dividend payments or 13 coupon yields. Morningstar argues that the income return is the only true risk-free 14 rate associated with Treasury bonds and is the best approximation of a truly risk-free rate.<sup>32</sup> I disagree with this assessment from Morningstar, because it does not reflect a 15 16 true investment option available to the marketplace and therefore does not produce a 17 legitimate estimate of the expected premium of investing in the stock market versus 18 that of Treasury bonds. Nevertheless, I will use Morningstar's conclusion to show the 19 reasonableness of my market risk premium estimates.

20 Morningstar's range is based on several methodologies. First, Morningstar 21 estimates a market risk premium of 7.0% based on the difference between the total 22 market return on common stocks (S&P 500) less the income return on Treasury bond 23 investments. Second, Morningstar found that if the New York Stock Exchange 24 ("NYSE") was used as the market index rather than the S&P 500, that the market risk

<sup>32</sup>*Id.* at 153.

premium would be 6.8%, not 7.0%. Third, if only the two deciles of the largest
 companies included in the NYSE were considered, the market risk premium would be
 6.2%.<sup>33</sup>

4 Finally, Morningstar found that the 7.0% market risk premium based on the 5 S&P 500 was influenced by an abnormal expansion of price-to-earnings ("P/E") ratios 6 relative to earnings and dividend growth during the period 1980 through 2001. Morningstar believes this abnormal P/E expansion is not sustainable.<sup>34</sup> Therefore, 7 8 Morningstar adjusted this market risk premium estimate to normalize the growth in the 9 P/E ratio to be more in line with the growth in dividends and earnings. Based on this 10 alternative methodology, Morningstar published a long-horizon supply-side market risk premium of 6.1%.<sup>35</sup> 11

#### 12 Q WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?

A As shown in Schedule MPG-16, based on Morningstar's market risk premium of 6.2% and my market risk premium of 7.6%, a risk-free rate of 3.7%, and a beta of 0.74, my CAPM analysis produces a return of 8.27% to 9.30%. Because of the relatively low historical level of the risk-free rates, I recommend giving 75% weight to my high-end CAPM return estimate and 25% weight to the low-end return estimate. This produces a recommended CAPM return estimate of 9.04%, which I have rounded to 9.05%.

19This CAPM estimate reflects a projected risk-free rate that is 109 basis points20higher than the current long-term risk-free rate as proxied by the U.S. Treasury21security. Using this projected Treasury bond yield largely captures the additional risk

<sup>33</sup>Morningstar observes that the S&P 500 and the NYSE Decile 1-2 are both large capitalization benchmarks. *Id.* at 152.
 <sup>34</sup>*Id.* at 156.
 <sup>35</sup>*Id.* at 157.

- 1 in the marketplace related to the uncertainty of long-term interest rates after the
- 2 Federal Reserve discontinues its economic stimulus intervention.

#### 3 II.L. Return on Equity Summary

- 4 Q BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY
- 5 ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO

#### 6 YOU RECOMMEND FOR KCPL?

7 A Based on my analyses, I estimate KCPL's current market cost of equity to be 9.10%.

TABLE 3								
Return on Common Equity Summary								
Description	<u>Results</u>							
DCF	8.60%							
Risk Premium	9.40%							
САРМ	9.05%							

8 My recommended return on common equity of 9.10% is at the midpoint of my 9 estimated range of 8.80% to 9.40%. The high-end of my estimated range is based on 10 my risk premium studies. The low-end is based on the average of my DCF studies 11 and CAPM return estimate.

12 This range reflects current market capital costs, increased interest rate risk in 13 the current market due to Federal Reserve policies and other factors, and represents 14 fair compensation to KCPL's investors for the total investment risk of its regulated 15 utility.

#### 1 **II.M. Financial Integrity**

# 2 Q WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT AN 3 INVESTMENT GRADE BOND RATING FOR KCPL?

4 A Yes. I have reached this conclusion by comparing the key credit rating financial
5 ratios for KCPL, at my proposed return on equity, and the Company's proposed
6 capital structure, to S&P's benchmark financial ratios using S&P's new credit metric
7 ranges.

# 8 Q PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO CREDIT 9 METRIC METHODOLOGY.

A S&P publishes a matrix of financial ratios that correspond to its assessment of the
 business risk of utility companies and related bond ratings. On May 27, 2009, S&P
 expanded its matrix criteria by including additional business and financial risk
 categories.<sup>36</sup>

Based on S&P's most recent credit matrix, the business risk profile categories
are "Excellent," "Strong," "Satisfactory," "Fair," "Weak," and "Vulnerable." Most
utilities have a business risk profile of "Excellent" or "Strong."

17 The financial risk profile categories are "Minimal," "Modest," "Intermediate," 18 "Significant," "Aggressive," and "Highly Leveraged." Most of the utilities have a 19 financial risk profile of "Aggressive." KCPL has an "Excellent" business risk profile 20 and a "Significant" financial risk profile.

<sup>&</sup>lt;sup>36</sup>S&P updated its 2008 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics. *Standard & Poor's RatingsDirect*: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

# 1 Q PLEASE DESCRIBE S&P'S USE OF THE FINANCIAL BENCHMARK RATIOS IN 2 ITS CREDIT RATING REVIEW.

A S&P evaluates a utility's credit rating based on an assessment of its financial and
business risks. A combination of financial and business risks equates to the overall
assessment of KCPL's total credit risk exposure. On November 19, 2013, S&P
updated its methodology. In its update, S&P published a matrix of financial ratios that
defines the level of financial risk as a function of the level of business risk.

8 S&P publishes ranges for three primary financial ratios that it uses as 9 guidance in its credit review for utility companies. The two core financial ratio 10 benchmarks it relies on in its credit rating process include: (1) Debt to Earnings 11 Before Interest, Taxes, Depreciation and Amortization ("EBITDA"); and (2) Funds 12 From Operations ("FFO") to Total Debt.<sup>37</sup>

# 13QHOWDIDYOUAPPLYS&P'SFINANCIALRATIOSTOTESTTHE14REASONABLENESS OF YOUR RATE OF RETURN RECOMMENDATIONS?

15 А I calculated each of S&P's financial ratios based on KCPL's cost of service for its 16 retail jurisdictional operations. While S&P would normally look at total consolidated 17 KCPL financial ratios in its credit review process, my investigation in this proceeding 18 is not the same as S&P's. I am attempting to judge the reasonableness of my 19 proposed cost of capital for rate-setting in KCPL's retail regulated utility operations. 20 Hence, I am attempting to determine whether my proposed rate of return will in turn 21 support cash flow metrics, balance sheet strength, and earnings that will support an 22 investment grade bond rating and KCPL's financial integrity.

<sup>37</sup>*Standard & Poor's RatingsDirect.* "Criteria: Corporate Methodology," November 19, 2013.

#### 1 Q DID YOU INCLUDE ANY OFF-BALANCE SHEET DEBT EQUIVALENTS?

2 А Yes. As shown on page 3 of my Schedule MPG-17, I included \$56.9 million of 3 off-balance sheet debt equivalents including PPAs and operating leases and their 4 associated interest and depreciation expenses. I did not include some of the 5 off-balance sheet debt equivalents that S&P includes in its credit rating review. 6 Certain off-balance sheet debt equivalents, such as pension and other post-7 employment benefits ("OPEB"), and accrued interest expense, were excluded from 8 my jurisdictional credit metric study because these items are controllable by utility 9 management or do not relate to regulated cost of service.

# 10 Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS FOR 11 KCPL.

- A The S&P financial metric calculations for KCPL at a 9.10% return are developed on
  Schedule MPG-17, page 1.
- KCPL's adjusted total debt ratio is approximately 49.5%. This adjusted total
  debt ratio will support an investment grade bond rating.

Based on an equity return of 9.10%, KCPL will be provided an opportunity to
produce a debt to EBITDA ratio of 3.1x. This is within S&P's "Intermediate" guideline
range of 2.5x to 3.5x.<sup>38</sup> This ratio also supports an investment grade credit rating.

KCPL's retail operations FFO to total debt coverage at a 9.10% equity return
is 21%, which is within S&P's "Significant" metric guideline range of 13% to 23%.
This FFO/total debt ratio will support an investment grade bond rating.

1 At my recommended return on equity of 9.10% and the Company's proposed 2 embedded debt cost and capital structure, KCPL's financial credit metrics are 3 supportive of its investment grade utility bond rating.

#### 4 Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

5 A Yes.

#### **Qualifications of Michael P. Gorman**

1	Q	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
2	А	Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,
3		Chesterfield, MO 63017.
4	Q	PLEASE STATE YOUR OCCUPATION.
5	А	I am a consultant in the field of public utility regulation and a Managing Principal with
6		Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory consultants.
7	Q	PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK
8		EXPERIENCE.
9	А	In 1983 I received a Bachelors of Science Degree in Electrical Engineering from
10		Southern Illinois University, and in 1986, I received a Masters Degree in Business
11		Administration with a concentration in Finance from the University of Illinois at
12		Springfield. I have also completed several graduate level economics courses.
13		In August of 1983, I accepted an analyst position with the Illinois Commerce
14		Commission ("ICC"). In this position, I performed a variety of analyses for both formal
15		and informal investigations before the ICC, including: marginal cost of energy, central
16		dispatch, avoided cost of energy, annual system production costs, and working
17		capital. In October of 1986, I was promoted to the position of Senior Analyst. In this
18		position, I assumed the additional responsibilities of technical leader on projects, and
19		my areas of responsibility were expanded to include utility financial modeling and
20		financial analyses.

Michael P. Gorman Appendix A Page 1 In 1987, I was promoted to Director of the Financial Analysis Department. In
this position, I was responsible for all financial analyses conducted by the Staff.
Among other things, I conducted analyses and sponsored testimony before the ICC
on rate of return, financial integrity, financial modeling and related issues. I also
supervised the development of all Staff analyses and testimony on these same
issues. In addition, I supervised the Staff's review and recommendations to the
Commission concerning utility plans to issue debt and equity securities.

8 In August of 1989, I accepted a position with Merrill-Lynch as a financial 9 consultant. After receiving all required securities licenses, I worked with individual 10 investors and small businesses in evaluating and selecting investments suitable to 11 their requirements.

12 In September of 1990, I accepted a position with Drazen-Brubaker & 13 Associates, Inc. ("DBA"). In April 1995, the firm of Brubaker & Associates, Inc. was 14 formed. It includes most of the former DBA principals and Staff. Since 1990, I have 15 performed various analyses and sponsored testimony on cost of capital, cost/benefits 16 of utility mergers and acquisitions, utility reorganizations, level of operating expenses 17 and rate base, cost of service studies, and analyses relating to industrial jobs and 18 economic development. I also participated in a study used to revise the financial 19 policy for the municipal utility in Kansas City, Kansas.

At BAI, I also have extensive experience working with large energy users to distribute and critically evaluate responses to requests for proposals ("RFPs") for electric, steam, and gas energy supply from competitive energy suppliers. These analyses include the evaluation of gas supply and delivery charges, cogeneration and/or combined cycle unit feasibility studies, and the evaluation of third-party asset/supply management agreements. I have participated in rate cases on rate

> Michael P. Gorman Appendix A Page 2

design and class cost of service for electric, natural gas, water and wastewater
 utilities. I have also analyzed commodity pricing indices and forward pricing methods
 for third party supply agreements, and have also conducted regional electric market
 price forecasts.

In addition to our main office in St. Louis, the firm also has branch offices in
Phoenix, Arizona and Corpus Christi, Texas.

7

#### **Q** HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?

8 Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of А 9 service and other issues before the Federal Energy Regulatory Commission and 10 numerous state regulatory commissions including: Arkansas, Arizona, California, 11 Colorado, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, 12 Louisiana, Michigan, Missouri, Montana, New Jersey, New Mexico, New York, North 13 Carolina, Ohio, Oklahoma, Oregon, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, and before the 14 15 provincial regulatory boards in Alberta and Nova Scotia, Canada. I have also sponsored testimony before the Board of Public Utilities in Kansas City, Kansas; 16 17 presented rate setting position reports to the regulatory board of the municipal utility 18 in Austin, Texas, and Salt River Project, Arizona, on behalf of industrial customers; 19 and negotiated rate disputes for industrial customers of the Municipal Electric 20 Authority of Georgia in the LaGrange, Georgia district.

> Michael P. Gorman Appendix A Page 3

# 1QPLEASEDESCRIBEANYPROFESSIONALREGISTRATIONSOR2ORGANIZATIONS TO WHICH YOU BELONG.

A I earned the designation of Chartered Financial Analyst ("CFA") from the CFA
Institute. The CFA charter was awarded after successfully completing three
examinations which covered the subject areas of financial accounting, economics,
fixed income and equity valuation and professional and ethical conduct. I am a
member of the CFA Institute's Financial Analyst Society.

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Michael P. Gorman Appendix A Page 4

BRUBAKER & ASSOCIATES, INC.

# Rate of Return

<u>Line</u>	<b>Description</b>	Amount <sup>1</sup> (1)	<u>Weight</u> (2)	<u>Cost</u> <sup>2/1</sup> (3)	Weighted <u>Cost</u> (4)
1	Common Equity	\$ 3,578,356	50.36%	9.10%	4.58%
2	Preferred Stock	\$ 39,000	0.55%	4.29%	0.02%
3	Long-Term Debt	<u>\$ 3,487,869</u>	<u>49.09%</u>	5.56%	<u>2.73%</u>
4	Total	\$ 7,105,225	100.00%		7.33%

Sources:

<sup>1</sup>Schedule RBH-9.

<sup>2</sup>Gorman Direct Testimony at 2.

### Proxy Group

		Credit	Ratings <sup>1</sup>	Common	Equity Ratios
Line	Company	<u>S&amp;P</u>	Moody's	SNL <sup>1</sup>	Value Line <sup>2</sup>
		(1)	(2)	(3)	(4)
1	American Electric Power Company, Inc.	BBB	Baa1	45.0%	48.9%
2	Duke Energy Corporation	BBB+	A3	50.1%	52.0%
3	Empire District Electric Company	BBB	Baa1	50.1%	50.2%
4	Eversource Energy (Northeast Utilities)	A-	Baa1	50.1%	54.8%
5	IDACORP, Inc.	BBB	Baa1	52.5%	53.4%
6	Otter Tail Corporation	BBB	Baa2	54.8%	57.9%
7	Pinnacle West Capital Corporation	A-	Baa1	53.6%	60.0%
8	PNM Resources, Inc.	BBB	Baa3	45.8%	49.7%
9	Portland General Electric Company	BBB	A3	48.7%	48.7%
10	Southern Company	А	Baa1	43.8%	45.8%
11	Westar Energy, Inc.	BBB+	Baa1	45.7%	50.0%
12	Average	BBB+	Baa1	49.1%	51.9%
13	Kansas City Power & Light Company	BBB+	Baa1	50	).4% <sup>3</sup>

#### Sources:

<sup>2</sup> The Value Line Investment Survey, December 19, 2014, January 30, and February 20, 2015.

<sup>3</sup> Hevert Direct at 3.

<sup>&</sup>lt;sup>1</sup> SNL Financial, Downloaded on March 9, 2015.

#### **Consensus Analysts' Growth Rates**

		Za	cks	SI	NL	Reu	Average of	
<u>Line</u>	Company	Estimated Growth % <sup>1</sup>	Number of Estimates	Estimated Growth % <sup>2</sup>	Number of Estimates	Estimated Growth % <sup>3</sup> (5)	Number of Estimates	Growth <u>Rates</u>
		(1)	(2)	(3)	(4)	(3)	(0)	(1)
1	American Electric Power Company, Inc.	4.80%	N/A	5.50%	6	5.05%	4	5.12%
2	Duke Energy Corporation	4.70%	N/A	4.90%	4	4.41%	4	4.67%
3	Empire District Electric Company	3.00%	N/A	3.00%	1	NA	NA	3.00%
4	Eversource Energy (Northeast Utilities)	6.40%	N/A	6.70%	3	6.24%	2	6.45%
5	IDACORP, Inc.	4.00%	N/A	3.00%	1	3.00%	1	3.33%
6	Otter Tail Corporation	NA	N/A	N/A	N/A	NA	NA	N/A
7	Pinnacle West Capital Corporation	4.00%	N/A	4.90%	4	4.20%	2	4.37%
8	PNM Resources, Inc.	8.90%	N/A	6.80%	2	9.86%	2	8.52%
9	Portland General Electric Company	5.90%	N/A	6.30%	3	5.26%	4	5.82%
10	Southern Company	3.70%	N/A	4.00%	5	3.40%	5	3.70%
11	Westar Energy, Inc.	3.80%	N/A	4.70%	2	3.37%	3	3.96%
12	Average	4.92%	N/A	4.98%	3	4.98%	3	4.89%

Sources:

<sup>1</sup> Zacks Elite, http://www.zackselite.com/, downloaded on March 6, 2015.

<sup>2</sup> SNL Interactive, http://www.snl.com/, downloaded on March 6, 2015.

<sup>3</sup> Reuters, http://www.reuters.com/, downloaded on March 6, 2015.

#### Constant Growth DCF Model (Consensus Analysts' Growth Rates)

<u>Line</u>	Company	13-Week AVG <u>Stock Price<sup>1</sup></u> (1)	Analysts' <u>Growth<sup>2</sup></u> (2)	Annualized <u>Dividend<sup>3</sup></u> (3)	Adjusted <u>Yield</u> (4)	Constant <u>Growth DCF</u> (5)
1	American Electric Power Company, Inc.	\$60.31	5.12%	\$2.12	3.70%	8.81%
2	Duke Energy Corporation	\$83.26	4.67%	\$3.18	4.00%	8.67%
3	Empire District Electric Company	\$28.41	3.00%	\$1.04	3.77%	6.77%
4	Eversource Energy (Northeast Utilities)	\$53.41	6.45%	\$1.67	3.33%	9.77%
5	IDACORP, Inc.	\$65.28	3.33%	\$1.88	2.98%	6.31%
6	Otter Tail Corporation	\$31.33	N/A	\$1.21	N/A	N/A
7	Pinnacle West Capital Corporation	\$67.81	4.37%	\$2.38	3.66%	8.03%
8	PNM Resources, Inc.	\$29.43	8.52%	\$0.80	2.95%	11.47%
9	Portland General Electric Company	\$38.28	5.82%	\$1.12	3.10%	8.92%
10	Southern Company	\$48.79	3.70%	\$2.10	4.46%	8.16%
11	Westar Energy, Inc.	\$40.79	3.96%	\$1.40	3.57%	7.52%
12	Average	\$49.74	4.89%	\$1.72	3.55%	8.44%
13	Median					8.42%

#### Sources:

<sup>1</sup> SNL Financial, Downloaded on March 9, 2015.

<sup>2</sup> Schedule MPG-3.

<sup>3</sup> The Value Line Investment Survey, December 19, 2014, January 30, and February 20, 2015.

#### Constant Growth DCF Model (Consensus Analysts' Growth Rates)

<u>Line</u>	Company	26-Week AVG <u>Stock Price<sup>1</sup></u> (1)	Analysts' <u>Growth<sup>2</sup></u> (2)	Annualized <u>Dividend<sup>3</sup> (3)</u>	Adjusted <u>Yield</u> (4)	Constant <u>Growth DCF</u> (5)
1	American Electric Power Company, Inc.	\$57.82	5.12%	\$2.12	3.85%	8.97%
2	Duke Energy Corporation	\$80.72	4.67%	\$3.18	4.12%	8.79%
3	Empire District Electric Company	\$27.44	3.00%	\$1.04	3.90%	6.90%
4	Eversource Energy (Northeast Utilities)	\$50.58	6.45%	\$1.67	3.51%	9.96%
5	IDACORP, Inc.	\$61.95	3.33%	\$1.88	3.14%	6.47%
6	Otter Tail Corporation	\$30.00	N/A	\$1.21	N/A	N/A
7	Pinnacle West Capital Corporation	\$63.50	4.37%	\$2.38	3.91%	8.28%
8	PNM Resources, Inc.	\$28.42	8.52%	\$0.80	3.05%	11.57%
9	Portland General Electric Company	\$36.53	5.82%	\$1.12	3.24%	9.06%
10	Southern Company	\$47.30	3.70%	\$2.10	4.60%	8.30%
11	Westar Energy, Inc.	\$38.74	3.96%	\$1.40	3.76%	7.71%
12	Average	\$47.54	4.89%	\$1.72	3.71%	8.60%
13	Median	•				8.55%

#### Sources:

<sup>1</sup> SNL Financial, Downloaded on March 9, 2015.

<sup>2</sup> Schedule MPG-3.

<sup>3</sup> The Value Line Investment Survey, December 19, 2014, January 30, and February 20, 2015.

#### **Payout Ratios**

		Dividend	s Per Share	Earnings	Per Share	Payout Ratio		
Line	<u>Company</u>	<u>2013</u>	Projected	<u>2013</u>	Projected	<u>2013</u>	Projected	
		(1)	(2)	(3)	(4)	(5)	(6)	
1	American Electric Power Company, Inc.	\$1.95	\$2.50	\$3.18	\$4.00	61.32%	62.50%	
2	Duke Energy Corporation	\$3.09	\$3.55	\$3.98	\$5.50	77.64%	64.55%	
3	Empire District Electric Company	\$1.01	\$1.15	\$1.48	\$1.75	68.24%	65.71%	
4	Eversource Energy (Northeast Utilities)	\$1.47	\$2.10	\$2.49	\$3.75	59.04%	56.00%	
5	IDACORP, Inc.	\$1.57	\$2.20	\$3.64	\$3.75	43.13%	58.67%	
6	Otter Tail Corporation	\$1.19	\$1.30	\$1.37	\$2.30	86.86%	56.52%	
7	Pinnacle West Capital Corporation	\$2.23	\$2.80	\$3.66	\$4.25	60.93%	65.88%	
8	PNM Resources, Inc.	\$0.68	\$1.15	\$1.41	\$2.35	48.23%	48.94%	
9	Portland General Electric Company	\$1.10	\$1.40	\$1.77	\$2.50	62.15%	56.00%	
10	Southern Company	\$2.01	\$2.43	\$2.70	\$3.50	74.44%	69.43%	
11	Westar Energy, Inc.	\$1.36	\$1.60	\$2.27	\$2.90	59.91%	55.17%	
12	Average	\$1.61	\$2.02	\$2.54	\$3.32	63.81%	59.94%	

Source:

The Value Line Investment Survey, December 19, 2014, January 30, and February 20, 2015.

#### Sustainable Growth Rate

		3 to 5 Year Projections									Sustainabl	
		Dividends	Earnings	Book Value	Book Value		Adjustment	Adjusted	Payout	Retention	Internal	Growth
Line	<u>Company</u>	Per Share	Per Share	Per Share	Growth	ROE	Factor	ROE	<u>Ratio</u>	Rate	Growth Rate	Rate
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	American Electric Power Company, Inc.	\$2.50	\$4.00	\$40.25	4.06%	9.94%	1.02	10.14%	62.50%	37.50%	3.80%	4.15%
2	Duke Energy Corporation	\$3.55	\$5.50	\$66.00	2.43%	8.33%	1.01	8.43%	64.55%	35.45%	2.99%	3.06%
3	Empire District Electric Company	\$1.15	\$1.75	\$20.00	2.79%	8.75%	1.01	8.87%	65.71%	34.29%	3.04%	4.16%
4	Eversource Energy (Northeast Utilities)	\$2.10	\$3.75	\$38.00	4.50%	9.87%	1.02	10.09%	56.00%	44.00%	4.44%	4.76%
5	IDACORP, Inc.	\$2.20	\$3.75	\$44.90	4.04%	8.35%	1.02	8.52%	58.67%	41.33%	3.52%	3.52%
6	Otter Tail Corporation	\$1.30	\$2.30	\$18.15	4.25%	12.67%	1.02	12.94%	56.52%	43.48%	5.62%	7.85%
7	Pinnacle West Capital Corporation	\$2.80	\$4.25	\$45.50	3.63%	9.34%	1.02	9.51%	65.88%	34.12%	3.24%	4.26%
8	PNM Resources, Inc.	\$1.15	\$2.35	\$24.50	3.26%	9.59%	1.02	9.75%	48.94%	51.06%	4.98%	5.01%
9	Portland General Electric Company	\$1.40	\$2.50	\$29.00	4.47%	8.62%	1.02	8.81%	56.00%	44.00%	3.88%	5.69%
10	Southern Company	\$2.43	\$3.50	\$26.00	3.94%	13.46%	1.02	13.72%	69.43%	30.57%	4.19%	5.10%
11	Westar Energy, Inc.	\$1.60	\$2.90	\$29.65	4.42%	9.78%	1.02	9.99%	55.17%	44.83%	4.48%	5.21%
12	Average	\$2.02	\$3.32	\$34.72	3.80%	9.88%	1.02	10.07%	59.94%	40.06%	4.02%	4.80%

Sources and Notes:

Cols. (1), (2) and (3): *The Value Line Investment Survey,* December 19, 2014, January 30, and February 20, 2015. 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).

#### Sustainable Growth Rate

		13-Week	2013	Market	Commo	n Shares				
		Average	Book Value	lue to Book	Outstanding (in Millions) <sup>2</sup>					
Line	<u>Company</u>	Stock Price <sup>1</sup>	Per Share <sup>2</sup>	Ratio	2013	3-5 Years	Growth	S Factor <sup>3</sup>	V Factor <sup>4</sup>	<u>S * V</u>
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	American Electric Power Company, Inc.	\$60.31	\$32.98	1.83	487.78	498.00	0.42%	0.76%	45.31%	0.34%
2	Duke Energy Corporation	\$83.26	\$58.54	1.42	706.00	712.00	0.17%	0.24%	29.69%	0.07%
3	Empire District Electric Company	\$28.41	\$17.43	1.63	43.04	47.00	1.78%	2.89%	38.64%	1.12%
4	Eversource Energy (Northeast Utilities)	\$53.41	\$30.49	1.75	315.27	322.00	0.42%	0.74%	42.91%	0.32%
5	IDACORP, Inc.	\$65.28	\$36.84	1.77	50.23	50.20	-0.01%	-0.02%	43.57%	-0.01%
6	Otter Tail Corporation	\$31.33	\$14.74	2.13	36.27	40.00	1.98%	4.20%	52.95%	2.22%
7	Pinnacle West Capital Corporation	\$67.81	\$38.07	1.78	110.18	117.50	1.29%	2.31%	43.86%	1.01%
8	PNM Resources, Inc.	\$29.43	\$20.87	1.41	79.65	80.00	0.09%	0.12%	29.10%	0.04%
9	Portland General Electric Company	\$38.28	\$23.30	1.64	78.09	89.75	2.82%	4.64%	39.12%	1.81%
10	Southern Company	\$48.79	\$21.43	2.28	887.09	919.00	0.71%	1.61%	56.08%	0.91%
11	Westar Energy, Inc.	\$40.79	\$23.88	1.71	128.25	135.00	1.03%	1.76%	41.46%	0.73%
12	Average	\$49.74	\$28.96	1.76	265.62	273.68	1.07%	1.93%	42.06%	0.86%

Sources and Notes:

<sup>1</sup> SNL Financial, Downloaded on March 9, 2015.

<sup>2</sup> The Value Line Investment Survey, December 19, 2014, January 30, and February 20, 2015.

<sup>3</sup> Expected Growth in the Number of Shares, Column (3) \* Column (6).

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

#### Sustainable Growth Rate

		3 to 5 Year Projections									Sustainable	
		Dividends	Earnings	Book Value	Book Value		Adjustment	Adjusted	Payout	Retention	Internal	Growth
Line	Company	Per Share	Per Share	Per Share	Growth	ROE	Factor	ROE	<u>Ratio</u>	Rate	Growth Rate	Rate
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	American Electric Power Company, Inc.	\$2.50	\$4.00	\$40.25	4.06%	9.94%	1.02	10.14%	62.50%	37.50%	3.80%	4.11%
2	Duke Energy Corporation	\$3.55	\$5.50	\$66.00	2.43%	8.33%	1.01	8.43%	64.55%	35.45%	2.99%	3.05%
3	Empire District Electric Company	\$1.15	\$1.75	\$20.00	2.79%	8.75%	1.01	8.87%	65.71%	34.29%	3.04%	4.06%
4	Eversource Energy (Northeast Utilities)	\$2.10	\$3.75	\$38.00	4.50%	9.87%	1.02	10.09%	56.00%	44.00%	4.44%	4.72%
5	IDACORP, Inc.	\$2.20	\$3.75	\$44.90	4.04%	8.35%	1.02	8.52%	58.67%	41.33%	3.52%	3.52%
6	Otter Tail Corporation	\$1.30	\$2.30	\$18.15	4.25%	12.67%	1.02	12.94%	56.52%	43.48%	5.62%	7.67%
7	Pinnacle West Capital Corporation	\$2.80	\$4.25	\$45.50	3.63%	9.34%	1.02	9.51%	65.88%	34.12%	3.24%	4.11%
8	PNM Resources, Inc.	\$1.15	\$2.35	\$24.50	3.26%	9.59%	1.02	9.75%	48.94%	51.06%	4.98%	5.01%
9	Portland General Electric Company	\$1.40	\$2.50	\$29.00	4.47%	8.62%	1.02	8.81%	56.00%	44.00%	3.88%	5.48%
10	Southern Company	\$2.43	\$3.50	\$26.00	3.94%	13.46%	1.02	13.72%	69.43%	30.57%	4.19%	5.05%
11	Westar Energy, Inc.	\$1.60	\$2.90	\$29.65	4.42%	9.78%	1.02	9.99%	55.17%	44.83%	4.48%	5.12%
12	Average	\$2.02	\$3.32	\$34.72	3.80%	9.88%	1.02	10.07%	59.94%	40.06%	4.02%	4.72%

Sources and Notes: Cols. (1), (2) and (3): *The Value Line Investment Survey,* December 19, 2014, January 30, and February 20, 2015. 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. (9): 1 - Col. (8). Col. (10): Col. (9) \* Col. (7). Col. (11): Col. (10) + Page 2 Col. (9).

#### Sustainable Growth Rate

		26-Week	2013	Market	Commo	n Shares				
		Average	Book Value	/alue to Book	Outstanding (in Millions) <sup>2</sup>					
Line	<u>Company</u>	Stock Price <sup>1</sup>	Per Share <sup>2</sup>	Ratio	<u>2013</u>	3-5 Years	Growth	S Factor <sup>3</sup>	V Factor <sup>4</sup>	<u>S * V</u>
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	American Electric Power Company, Inc.	\$57.82	\$32.98	1.75	487.78	498.00	0.42%	0.73%	42.96%	0.31%
2	Duke Energy Corporation	\$80.72	\$58.54	1.38	706.00	712.00	0.17%	0.23%	27.48%	0.06%
3	Empire District Electric Company	\$27.44	\$17.43	1.57	43.04	47.00	1.78%	2.80%	36.48%	1.02%
4	Eversource Energy (Northeast Utilities)	\$50.58	\$30.49	1.66	315.27	322.00	0.42%	0.70%	39.72%	0.28%
5	IDACORP, Inc.	\$61.95	\$36.84	1.68	50.23	50.20	-0.01%	-0.02%	40.53%	-0.01%
6	Otter Tail Corporation	\$30.00	\$14.74	2.04	36.27	40.00	1.98%	4.02%	50.87%	2.05%
7	Pinnacle West Capital Corporation	\$63.50	\$38.07	1.67	110.18	117.50	1.29%	2.16%	40.04%	0.86%
8	PNM Resources, Inc.	\$28.42	\$20.87	1.36	79.65	80.00	0.09%	0.12%	26.56%	0.03%
9	Portland General Electric Company	\$36.53	\$23.30	1.57	78.09	89.75	2.82%	4.43%	36.23%	1.60%
10	Southern Company	\$47.30	\$21.43	2.21	887.09	919.00	0.71%	1.57%	54.69%	0.86%
11	Westar Energy, Inc.	\$38.74	\$23.88	1.62	128.25	135.00	1.03%	1.67%	38.36%	0.64%
12	Average	\$47.54	\$28.96	1.68	265.62	273.68	1.07%	1.84%	39.45%	0.77%

Sources and Notes:

<sup>1</sup> SNL Financial, Downloaded on March 9, 2015.

<sup>2</sup> The Value Line Investment Survey, December 19, 2014, January 30, and February 20, 2015.

<sup>3</sup> Expected Growth in the Number of Shares, Column (3) \* Column (6).

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

#### Constant Growth DCF Model (Sustainable Growth Rate)

<u>Line</u>	Company	13-Week AVG <u>Stock Price<sup>1</sup></u> (1)	Sustainable <u>Growth<sup>2</sup></u> (2)	Annualized <u>Dividend<sup>3</sup></u> (3)	Adjusted <u>Yield</u> (4)	Constant <u>Growth DCF</u> (5)
1	American Electric Power Company, Inc.	\$60.31	4.15%	\$2.12	3.66%	7.81%
2	Duke Energy Corporation	\$83.26	3.06%	\$3.18	3.94%	7.00%
3	Empire District Electric Company	\$28.41	4.16%	\$1.04	3.81%	7.97%
4	Eversource Energy (Northeast Utilities)	\$53.41	4.76%	\$1.67	3.28%	8.03%
5	IDACORP, Inc.	\$65.28	3.52%	\$1.88	2.98%	6.50%
6	Otter Tail Corporation	\$31.33	7.85%	\$1.21	4.17%	12.02%
7	Pinnacle West Capital Corporation	\$67.81	4.26%	\$2.38	3.66%	7.91%
8	PNM Resources, Inc.	\$29.43	5.01%	\$0.80	2.85%	7.87%
9	Portland General Electric Company	\$38.28	5.69%	\$1.12	3.09%	8.78%
10	Southern Company	\$48.79	5.10%	\$2.10	4.52%	9.62%
11	Westar Energy, Inc.	\$40.79	5.21%	\$1.40	3.61%	8.82%
12	Average	\$49.74	4.80%	\$1.72	3.60%	8.39%
13	Median					7.97%

Sources:

<sup>2</sup> Schedule MPG-6, page 1.

<sup>3</sup> The Value Line Investment Survey, December 19, 2014, January 30, and February 20, 2015.

<sup>&</sup>lt;sup>1</sup> SNL Financial, Downloaded on March 9, 2015.

#### Constant Growth DCF Model (Sustainable Growth Rate)

<u>Line</u>	Company	26-Week AVG <u>Stock Price<sup>1</sup></u> (1)	Sustainable <u>Growth<sup>2</sup></u> (2)	Annualized <u>Dividend<sup>3</sup></u> (3)	Adjusted <u>Yield</u> (4)	Constant <u>Growth DCF</u> (5)
1	American Electric Power Company, Inc.	\$57.82	4.11%	\$2.12	3.82%	7.93%
2	Duke Energy Corporation	\$80.72	3.05%	\$3.18	4.06%	7.11%
3	Empire District Electric Company	\$27.44	4.06%	\$1.04	3.94%	8.01%
4	Eversource Energy (Northeast Utilities)	\$50.58	4.72%	\$1.67	3.46%	8.17%
5	IDACORP, Inc.	\$61.95	3.52%	\$1.88	3.14%	6.66%
6	Otter Tail Corporation	\$30.00	7.67%	\$1.21	4.35%	12.02%
7	Pinnacle West Capital Corporation	\$63.50	4.11%	\$2.38	3.90%	8.01%
8	PNM Resources, Inc.	\$28.42	5.01%	\$0.80	2.96%	7.96%
9	Portland General Electric Company	\$36.53	5.48%	\$1.12	3.23%	8.71%
10	Southern Company	\$47.30	5.05%	\$2.10	4.66%	9.72%
11	Westar Energy, Inc.	\$38.74	5.12%	\$1.40	3.80%	8.92%
12	Average	\$47.54	4.72%	\$1.72	3.76%	8.48%
13	Median					8.01%

Sources:

<sup>3</sup> The Value Line Investment Survey, December 19, 2014, January 30, and February 20, 2015.

<sup>&</sup>lt;sup>1</sup> SNL Financial, Downloaded on March 9, 2015.

<sup>&</sup>lt;sup>2</sup> Schedule MPG-6, page 3.

# 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. Department of Energy, Energy Information Administration.

Edison Electric Institute, http://www.eei.org.

		13-Week AVG	Annualized	First Stage	Second Stage Growth					Third Stage	Multi-Stage
<u>Line</u>	Company	Stock Price <sup>1</sup>	Dividend <sup>2</sup>	Growth <sup>3</sup>	Year 6	Year 7	Year 8	Year 9	<u>Year 10</u>	Growth <sup>4</sup>	Growth DCF
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	American Electric Power Company, Inc.	\$60.31	\$2.12	5.12%	5.03%	4.94%	4.86%	4.77%	4.69%	4.60%	8.40%
2	Duke Energy Corporation	\$83.26	\$3.18	4.67%	4.66%	4.65%	4.64%	4.62%	4.61%	4.60%	8.61%
3	Empire District Electric Company	\$28.41	\$1.04	3.00%	3.27%	3.53%	3.80%	4.07%	4.33%	4.60%	8.05%
4	Eversource Energy (Northeast Utilities)	\$53.41	\$1.67	6.45%	6.14%	5.83%	5.52%	5.22%	4.91%	4.60%	8.27%
5	IDACORP, Inc.	\$65.28	\$1.88	3.33%	3.54%	3.76%	3.97%	4.18%	4.39%	4.60%	7.36%
6	Otter Tail Corporation	\$31.33	\$1.21	N/A	N/A	N/A	N/A	N/A	N/A	4.60%	N/A
7	Pinnacle West Capital Corporation	\$67.81	\$2.38	4.37%	4.41%	4.44%	4.48%	4.52%	4.56%	4.60%	8.21%
8	PNM Resources, Inc.	\$29.43	\$0.80	8.52%	7.87%	7.21%	6.56%	5.91%	5.25%	4.60%	8.24%
9	Portland General Electric Company	\$38.28	\$1.12	5.82%	5.62%	5.41%	5.21%	5.01%	4.80%	4.60%	7.90%
10	Southern Company	\$48.79	\$2.10	3.70%	3.85%	4.00%	4.15%	4.30%	4.45%	4.60%	8.85%
11	Westar Energy, Inc.	\$40.79	\$1.40	3.96%	4.06%	4.17%	4.28%	4.39%	4.49%	4.60%	8.04%
12	Average	\$49.74	\$1.72	4.89%	4.84%	4.80%	4.75%	4.70%	4.65%	4.60%	8.19%
13	Median										8.23%

#### Multi-Stage Growth DCF Model

Sources:

<sup>1</sup> SNL Financial, Downloaded on March 9, 2015.

<sup>2</sup> The Value Line Investment Survey, December 19, 2014, January 30, and February 20, 2015.

<sup>3</sup> Schedule MPG-4.

<sup>4</sup> Blue Chip Economic Indicators, March 10, 2015 at 14.

		26-Week AVG	Annualized	First Stage	Second Stage Growth					Third Stage	Multi-Stage
Line	Company	Stock Price <sup>1</sup>	Dividend <sup>2</sup>	Growth <sup>3</sup>	Year 6	Year 7	Year 8	Year 9	Year 10	Growth <sup>4</sup>	Growth DCF
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	American Electric Power Company, Inc.	\$57.82	\$2.12	5.12%	5.03%	4.94%	4.86%	4.77%	4.69%	4.60%	8.56%
2	Duke Energy Corporation	\$80.72	\$3.18	4.67%	4.66%	4.65%	4.64%	4.62%	4.61%	4.60%	8.74%
3	Empire District Electric Company	\$27.44	\$1.04	3.00%	3.27%	3.53%	3.80%	4.07%	4.33%	4.60%	8.17%
4	Eversource Energy (Northeast Utilities)	\$50.58	\$1.67	6.45%	6.14%	5.83%	5.52%	5.22%	4.91%	4.60%	8.48%
5	IDACORP, Inc.	\$61.95	\$1.88	3.33%	3.54%	3.76%	3.97%	4.18%	4.39%	4.60%	7.51%
6	Otter Tail Corporation	\$30.00	\$1.21	N/A	N/A	N/A	N/A	N/A	N/A	4.60%	N/A
7	Pinnacle West Capital Corporation	\$63.50	\$2.38	4.37%	4.41%	4.44%	4.48%	4.52%	4.56%	4.60%	8.46%
8	PNM Resources, Inc.	\$28.42	\$0.80	8.52%	7.87%	7.21%	6.56%	5.91%	5.25%	4.60%	8.37%
9	Portland General Electric Company	\$36.53	\$1.12	5.82%	5.62%	5.41%	5.21%	5.01%	4.80%	4.60%	8.06%
10	Southern Company	\$47.30	\$2.10	3.70%	3.85%	4.00%	4.15%	4.30%	4.45%	4.60%	8.99%
11	Westar Energy, Inc.	\$38.74	\$1.40	3.96%	4.06%	4.17%	4.28%	4.39%	4.49%	4.60%	8.22%
12	Average	\$47.54	\$1.72	4.89%	4.84%	4.80%	4.75%	4.70%	4.65%	4.60%	8.36%
13	Median										8.41%

#### Multi-Stage Growth DCF Model

Sources:

<sup>1</sup> SNL Financial, Downloaded on March 9, 2015.

<sup>2</sup> The Value Line Investment Survey, December 19, 2014, January 30, and February 20, 2015.

<sup>3</sup> Schedule MPG-4, Page 2.

<sup>4</sup> Blue Chip Economic Indicators, March 10, 2015 at 14.



#### **Common Stock Market/Book Ratio**

\* through September 2014

Sources:

1980 - 2000: Mergent Public Utility Manual.

2001 - 2014: AUS Utility Reports, various dates.

### Equity Risk Premium - Treasury Bond

Line	Vear	Authorized Electric Returns <sup>1</sup>	Treasury Bond Vield <sup>2</sup>	Indicated Risk Premium	Rolling 5 - Year Average	Rolling 10 - Year
	<u>1001</u>	(1)	(2)	(3)	(4)	(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	10.36%	4.99%	5.37%	5.74%	5.56%
22	2007	10.36%	4.83%	5.53%	5.70%	5.63%
23	2008	10.46%	4.28%	6.18%	5.73%	5.64%
24	2009	10.48%	4.07%	6.41%	5.88%	5.79%
25	2010	10.24%	4.25%	5.99%	5.89%	5.84%
26	2011	10.07%	3.91%	6.16%	6.05%	5.90%
27	2012	10.01%	2.92%	7.09%	6.37%	6.03%
28	2013	9.79%	3.45%	6.34%	6.40%	6.07%
29	2014	9.76%	3.34%	6.42%	6.40%	6.14%
30	Average	11.28%	5.91%	5.37%	5.31%	5.31%
31	Minimum				4.25%	4.38%
32	Maximum				6.40%	6.14%

Sources:

<sup>1</sup> Regulatory Research Associates, Inc., Regulatory Focus, Major Rate Case Decisions, Jan. 1997 through Jan. 2015. In 2010 forward, the Virginia electric utility cases, which are subject to an adjustment for certain generation assets up to 200 basis points, are excluded.

<sup>2</sup> 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.

### Equity Risk Premium - Utility Bond

<u>Line</u>	<u>Year</u>	Authorized Electric <u>Returns<sup>1</sup></u> (1)	Average "A" Rated Utility <u>Bond Yield<sup>2</sup></u> (2)	Indicated Risk <u>Premium</u> (3)	Rolling 5 - Year <u>Average</u> (4)	Rolling 10 - Year <u>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	10.36%	6.07%	4.29%	4.39%	4.00%
22	2007	10.36%	6.07%	4.29%	4.49%	4.05%
23	2008	10.46%	6.53%	3.93%	4.40%	3.98%
24	2009	10.48%	6.04%	4.44%	4.37%	4.11%
25	2010	10.24%	5.46%	4.78%	4.35%	4.27%
26	2011	10.07%	5.04%	5.03%	4.49%	4.44%
27	2012	10.01%	4.13%	5.88%	4.81%	4.65%
28	2013	9.79%	4.48%	5.31%	5.09%	4.74%
29	2014	9.76%	4.28%	5.48%	5.30%	4.83%
30	Average	11.28%	7.29%	3.98%	3.91%	3.90%
31	Minimum				2.88%	3.20%
32	Maximum				5.30%	4.83%

Sources:

<sup>1</sup> Regulatory Research Associates, Inc., Regulatory Focus, Major Rate Case Decisions, Jan. 1997 through Jan. 2015. In 2010 forward, the Virginia electric utility cases, which are subject to an adjustment for certain generation assets up to 200 basis points, are excluded.

<sup>2</sup> 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 2010-2014 were obtained from http://credittrends.moodys.com/.

#### **Bond Yield Spreads**

			Public Utility Bond			Corporate Bond				Utility to Corporate		
		T-Bond			A-T-Bond	Baa-T-Bond			Aaa-T-Bond	Baa-T-Bond	Baa	A-Aaa
Line	Year	Yield <sup>1</sup>	A <sup>2</sup>	Baa <sup>2</sup>	Spread	Spread	Aaa <sup>1</sup>	Baa <sup>1</sup>	Spread	Spread	Spread	Spread
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(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	Average	6.95%	8.48%	8.90%	1.53%	1.95%	7.77%	8.88%	0.82%	1.93%	0.02%	0.71%

Yield Spreads Treasury Vs. Corporate & Treasury Vs. Utility



Sources:

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

<sup>2</sup> 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 2010-2014 were obtained from http://credittrends.moodys.com/.

# **Treasury and Utility Bond Yields**

	Treasury	"A" Rated Utility	"Baa" Rated Utility
Date	Bond Yield <sup>1</sup>	Bond Yield <sup>2</sup>	Bond Yield <sup>2</sup>
	(1)	(2)	(3)
03/06/15	2.83%	3.91%	4.64%
02/27/15	2.60%	3.69%	4.39%
02/20/15	2.73%	3.83%	4.57%
02/13/15	2.63%	3.74%	4.50%
02/06/15	2.51%	3.64%	4.44%
01/30/15	2.25%	3.38%	4.21%
01/23/15	2.38%	3.51%	4.33%
01/16/15	2.44%	3.55%	4.38%
01/09/15	2.55%	3.68%	4.49%
01/02/15	2.69%	3.82%	4.60%
12/26/14	2.81%	3.94%	4.72%
12/19/14	2.77%	3.90%	4.71%
12/12/14	2.75%	3.87%	4.63%
Average	2.61%	3.73%	4.51%
Spread To Treasury		1.12%	1.90%
	Date 03/06/15 02/27/15 02/20/15 02/20/15 02/13/15 02/06/15 01/30/15 01/23/15 01/09/15 01/09/15 01/02/15 12/26/14 12/19/14 12/19/14 12/12/14 Average Spread To Treasury	Date         Treasury Bond Yield <sup>1</sup> (1)           03/06/15         2.83%           02/27/15         2.60%           02/20/15         2.73%           02/20/15         2.73%           02/13/15         2.63%           02/06/15         2.51%           01/30/15         2.25%           01/30/15         2.38%           01/16/15         2.44%           01/09/15         2.69%           12/26/14         2.81%           12/19/14         2.77%           12/12/14         2.75%           Average         2.61%           Spread To Treasury         2.61%	Date         Bond Yield <sup>1</sup> (1)         Mark Rated Utility Bond Yield <sup>2</sup> (2)           03/06/15         2.83%         3.91%           02/27/15         2.60%         3.69%           02/20/15         2.73%         3.83%           02/20/15         2.73%         3.83%           02/20/15         2.73%         3.83%           02/20/15         2.73%         3.83%           02/20/15         2.73%         3.83%           02/20/15         2.73%         3.83%           02/20/15         2.73%         3.83%           02/20/15         2.63%         3.74%           02/06/15         2.51%         3.64%           01/30/15         2.25%         3.38%           01/23/15         2.38%         3.51%           01/09/15         2.55%         3.68%           01/02/15         2.69%         3.82%           12/26/14         2.81%         3.94%           12/19/14         2.77%         3.90%           12/12/14         2.75%         3.87%           Average         2.61%         3.73%           Spread To Treasury         1.12%

Sources:

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

<sup>2</sup> http://credittrends.moodys.com/.

# **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/

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# 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/

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## Value Line Beta

Line	<u>Company</u>	<u>Beta</u>
1	American Electric Power Company, Inc.	0.70
2	Duke Energy Corporation	0.60
3	Empire District Electric Company	0.70
4	Eversource Energy (Northeast Utilities)	0.75
5	IDACORP, Inc.	0.80
6	Otter Tail Corporation	0.90
7	Pinnacle West Capital Corporation	0.70
8	PNM Resources, Inc.	0.85
9	Portland General Electric Company	0.80
10	Southern Company	0.55
11	Westar Energy, Inc.	0.75

### 12 Average

### 0.74

Source: *The Value Line Investment Survey,* December 19, 2014, January 30, and February 20, 2015.

### **CAPM Return**

<u>Line</u>	<b>Description</b>	High Market Risk <u>Premium</u> (1)	Low Market Risk <u>Premium</u> (2)
1	Risk-Free Rate <sup>1</sup>	3.70%	3.70%
2	Risk Premium <sup>2</sup>	7.60%	6.20%
3	Beta <sup>3</sup>	0.74	0.74
4	САРМ	9.30%	8.27%
5	Average	8.7	8%

Sources:

<sup>1</sup> Blue Chip Financial Forecasts; March 1, 2015, at 2.

<sup>2</sup> Morningstar, Inc. Ibbotson SBBI 2014 Classic Yearbook at 91 and 152.

<sup>3</sup> Schedule MPG-15.

#### **Standard & Poor's Credit Metrics**

Thousands of Dollars

			Retail					
		Cost of Service		S&P Benchmark (Medial Volatility) <sup>1/2</sup>				
<u>Line</u>	<u>Description</u>		Amount (1)	Intermediate (2)	<u>Significant</u> (3)	<u>Aggressive</u> (4)	<u>Reference</u> (5)	
1	Rate Base - MO	\$	2,557,090				Schedule RAK-1	
2	Weighted Common Return		4.58%				Page 2, Line 1, Col. 3.	
3	Pre-Tax Rate of Return		10.19%				Page 2, Line 4, Col. 4.	
4	Income to Common	\$	117,191				Line 1 x Line 2.	
5	EBIT	\$	260,550				Line 1 x Line 3.	
6	Depreciation & Amortization	\$	132,619				Schedule RAK-3	
7	Imputed Amortization	\$	3,416				Schedule MPG-17, page 4	
8	Deferred Income Taxes & ITC	\$	15,670				Schedule RAK-3	
9	Funds from Operations (FFO)	\$	268,895				Sum of Line 4 and Lines 6 through 8.	
10	Imputed & Capitalized Interest Expense	\$	9,550				Schedule MPG-17, page 4	
11	EBITDA	\$	406,134				Sum of Lines 5 through 7 and Line 10.	
12	Total Adjusted Debt Ratio		49.5%				Page 3, Line 4, Col. 2.	
13	Debt to EBITDA		3.1x	2.5x - 3.5x	3.5x - 4.5x	4.5x - 5.5x	(Line 1 x Line 12) / Line 11.	
14	FFO to Total Debt		21%	23% - 35%	13% - 23%	9% - 13%	Line 9 / (Line 1 x Line 12).	
							-	

Sources:

<sup>2</sup> Standard & Poor's RatingsDirect: "Summary: Kansas City Power & Light Co.," May 2, 2014.

#### Note:

<sup>&</sup>lt;sup>1</sup> Standard & Poor's RatingsDirect: "Criteria: Corporate Methodology," November 19, 2013.

Based on the May 2014 S&P report, KCPL has an "Excellent" business profile and a "Significant" financial profile, and falls under the 'Medial Volatility' matrix.

## Standard & Poor's Credit Metrics (Pre-Tax Rate of Return)

<u>Line</u>	<b>Description</b>	<u>Weight</u> 1 (1)	<u>Cost</u> (2)	Weighted <u>Cost</u> (3)	Pre-Tax Weighted <u>Cost</u> (4)
1	Common Equity	50.4%	9.10%	4.58%	7.44%
2	Preferred Stock	0.5%	4.29%	0.02%	0.02%
3	Long-Term Debt	<u>49.1%</u>	5.56%	<u>2.73%</u>	<u>2.73%</u>
4	Total	100.0%		7.33%	10.19%

5 Tax Conversion Factor<sup>2</sup>

1.6231131

Sources: <sup>1</sup>Schedule MPG-1. <sup>2</sup>Direct Testimony of Ronald Klote, page 70.

## Standard & Poor's Credit Metrics (Financial Capital Structure)

Thousands of Dollars

<u>Line</u>	Description		<u>Amount</u> <sup>1</sup> (1)	<u>Weight</u> (2)
1	Long-Term Debt	\$	3,487,869	48.7%
2	Off-Balance Sheet Debt for Operating Leases <sup>2</sup>	\$	56,872	0.8%
3	Off-Balance Sheet Debt for PPAs	<u>\$</u>	-	<u>0.0%</u>
4	Total Long-Term Debt	\$	3,544,741	49.5%
5	Preferred Stock	\$	39,000	0.5%
6	Common Equity	<u>\$</u>	3,578,356	<u>50.0%</u>
7	Total	\$	7,162,097	100.0%

Sources:

<sup>1</sup>Schedule MPG-1.

<sup>2</sup>Schedule MPG-17, page 4.

### Allocation of Off-Balance Sheet Debt Equivalents

<u>Line</u>	Description	<u>Amount</u>
1	Allocation Factor <sup>1</sup>	53.575%
2	Total Off-Balance Sheet Debt Equivalents <sup>2</sup>	\$106,154
3	KCPL MO Jurisdictional Amount	<b>\$56,872</b>
4	Total Imputed & Capitalized Interest Expense <sup>2</sup>	\$  17,825
5	KCPL MO Jurisdictional Amount	<b>\$   9,550</b>
6	Total Imputed Amortization <sup>2</sup>	\$ 6,375
7	KCPL MO Jurisdictional Amount	<b>\$ 3,416</b>

### Source:

<sup>1</sup>Schedule RAK-6.

<sup>2</sup>S&P Global Credit Portal, downloaded on March 11, 2015.