Exhibit No.:

Issue:Revenue RequirementWitness:Michael P. GormanType of Exhibit:Direct Testimony

Sponsoring Party: Midwest Energy Consumers Group Case Nos.: ER-2018-0145 and ER-2018-0146

Date Testimony Prepared: June 19, 2018

### DEFORE 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-2018-0145

In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service Case No. ER-2018-0146

Direct Testimony and Schedules of

Michael P. Gorman

On behalf of

**Midwest Energy Consumers Group** 

June 19, 2018



Projects 10551.1 and 10552.1

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

In the Matter of Kans Company's Request Implement a General Electric Service	)	Case No. ER-2018-0145		
In the Matter of KCP& Operations Company Authority to Impleme Increase for Electric	y's Rec ent a G	quest for eneral Rate	)	Case No. ER-2018-0146
STATE OF MISSOURI	) ) )	ss		

### 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 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 Nos. ER-2018-0145 and ER-2018-0146.

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 & Gorman

Subscribed and sworn to before me this 19th day of June, 2018.

MARIA E. DECKER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis City
My Commission Expires: May 5, 2021
Commission # 13706793

Notary Public

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

In the Matter of Kansas City Power & Light	) Case No. ER-2018-0145
Company's Request for Authority to	)
Implement a General Rate Increase for	)
Electric Service	)
In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service	) ) Case No. ER-2018-0146 ) ) )

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

In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service	) ) Case No. ER-2018-0145 ) ) ) )
In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service	

### **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 with
- 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 my testimony.

4		ON WHOSE BEHALE	<b>ARE YOU APPEARING</b>	IN THIS DROCEEDINGS
ı	ı Q	ON MUOSE DEUALE	ARE TOU APPEARING	IN 1019 PROCEEDING!

2 A I am testifying on behalf of the Midwest Energy Consumers Group ("MECG").

#### Q WHAT IS THE SUBJECT MATTER OF YOUR TESTIMONY?

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My testimony will address the current market cost of equity, and resulting overall rate of return, for Kansas City Power & Light Company ("KCPL" or "Company") and KCP&L Greater Missouri Operations Company ("GMO" or "Company"). In my analyses, I consider the results of several market models, the current economic environment and outlook for the electric utility industry, as well as the financial integrity of KCPL / GMO given my recommended return on equity.

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

### I. SUMMARY

### PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS ON RATE OF RETURN.

I recommend the Missouri Public Service Commission ("Commission") award KCPL and GMO a return on common equity of 9.30%, which is the midpoint of my recommended range of 9.10% to 9.50%. My recommended return on equity will fairly compensate KCPL / GMO for their current market cost of common equity, and it will mitigate the claimed revenue deficiency in this proceeding by providing them fair compensation but at a lower cost to their customers.

In my testimony, I also respond to the Company's proposed capital structures.

While I do not take issue with KCPL's proposed Company-specific capital structure, I will propose adjustments to the capital structure proposed by GMO. GMO's capital

structure has an inflated common equity component due to the existence of a significant goodwill asset on its balance sheet. This goodwill asset does not reflect investments in utility rate base investments and therefore the equity capital supporting this goodwill asset should be removed in developing a capital structure appropriate for ratemaking purposes.

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My recommended return on equity reflects all factors known to the market including the Tax Cuts and Jobs Act ("TCJA") change in federal tax rate, impact on cash flow, recent state legislative enactment and KCPL / GMO's current regulatory mechanisms. Moreover, I point out that my recommended 9.30% return on equity is consistent with the return on equity agreed to by KCPL and Westar in the recent Kansas merger proceeding. Certainly then, 9.30% is a reasonable return and anything greater than that amount is simply designed to inflate corporate profits at the cost of Missouri ratepayers.

As shown on my Schedule MPG-1, pages 1 and 2, respectively, my recommended overall rate of return is 7.18% for KCPL and 7.09% for GMO.

### II. MARKET CAPITAL COST CHANGES SINCE KCPL / GMO'S LAST RATE CASES

## HAS THE COMMISSION RECENTLY APPROVED A RETURN ON EQUITY FOR KCPL AND GMO FOR THEIR RETAIL OPERATIONS IN MISSOURI?

Yes. Most recently, in Case No. ER-2016-0285, the Commission awarded KCPL a return on equity of 9.5%. This maintained KCPL's previously authorized return on equity of 9.50% that was awarded by this Commission on September 2, 2015 (Case No. ER-2014-0370). This return on equity in calendar years 2016-2017 was in line with industry average authorized returns on equity of around 9.6% during the same

1	time period. Eight days later on September 10, 2015, the Kansas Corporation
2	Commission authorized KCPL a return on equity of 9.3% in Docket No. 15-KCPE-
3	116-RTS. GMO has not had a fully litigated rate case since January of 2013. Thus
4	the Commission has not decided an appropriate return on equity for GMO in over five
5	years.

- 6 Q IS THERE OBSERVABLE MARKET EVIDENCE TO SUPPORT THE
  7 COMMISSION'S FINDINGS THAT THE RETURN ON EQUITY AWARDED IN
  8 KCPL'S LAST TWO LITIGATED RATE CASES WAS FAIR AND REASONABLE?
- 9 A Yes. Since its last rate case the following market factors indicate market support for 10 the reasonableness of the Commission's decisions, including:
- 1. KCPL / GMO's credit rating has been upgraded.

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- 2. As shown on Schedule MPG-1, pages 3 and 4, respectively, KCPL and GMO have been able to collectively pay \$655 million of dividends (or 108% of their aggregate earnings) since September 2015 up to their parent company, Great Plains Energy ("GPE"). All increases to KCPL and GMO's equity capital have been based on cash provided by outside sources (infusions from GPE). GPE's funding source for these infusions may have been from debt issuances or other leveraged funding sources. GPE's capital management of KCPL and GMO over the last two years is highly suspect as to maintenance of a financially sound utility.
- 3. KCPL has issued \$600 million of bonds at market rates to support infrastructure investment.<sup>1</sup>
  - 4. Recognizing that KCPL / GMO's parent company, GPE, relies almost entirely on dividends from KCPL/GMO for its cash flow and net income, the dividends have effectively allowed GPE to recently merge with Westar Energy, Inc. ("Westar").
  - 5. KCPL and GMO's parent company, GPE, and its shareholders have experienced a total stock return of 50.1% from September 1, 2015 through June 1, 2018. This compares to a 33.9% total return for the S&P 500 Utilities Index. GPE's stock has significantly outperformed this utility company stock index.

<sup>&</sup>lt;sup>1</sup>Schedule MPG-1, page 3.

1	Q	AS PART OF THE GPE MERGER WITH WESTAR, DID GPE MAKE ANY
2		CONCESSION CONCERNING RATEMAKING PROTOCOLS FOR ITS UTILITY
3		COMPANIES?
4	Α	Yes. In Kansas, GPE agreed to a five-year rate moratorium and a 9.3% return on
5		equity for both Westar and KCPL in Kansas. <sup>2</sup> While there was not as comprehensive
6		a settlement in Missouri, it is important to note that KCPL would likely not have
7		agreed to an unreasonable return on equity in Kansas. As such, the 9.30% return on
8		equity to be used in Kansas, and which I have recommended in Missouri, must be
9		inherently reasonable.
10	Q	PLEASE DESCRIBE THE MARKET EVIDENCE THAT SHOWS THE
11		COMMISSION'S AWARD OF A 9.5% RETURN ON EQUITY IN KCPL'S LAST
12		RATE CASE WAS CONSISTENT WITH INDUSTRY AUTHORIZED RETURN

MEDIANS.

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<sup>2</sup>Docket No. 18-KCPE-095-MER, Order Approving Merger, May 24, 2018, Attachment A: Non-unanimous Settlement Agreement, Paragraph 32(iv)(1).

As shown below in Table 1, the median authorized return on equity for regulated

electric utilities has ranged from 9.57% to 9.60% since 2015.

TABLE 1

<u>Trends in State Authorized Return on Equity</u>
(Industry)

		Natura	al Gas	Elec	tric
<u>Line</u>	<u>Year</u>	Average	<u>Median</u>	Average	Median
	(1)	(2)	(3)	(4)	(5)
1	2010	10.15%	10.10%	10.29%	10.26%
2	2011	9.91%	10.05%	10.19%	10.14%
3	2012	9.93%	10.00%	10.01%	10.00%
4	2013	9.68%	9.72%	9.81%	9.80%
5	2014	9.78%	9.78%	9.75%	9.75%
6	2015	9.60%	9.68%	9.60%	9.57%
7	2016	9.53%	9.50%	9.60%	9.60%
8	2017	9.72%	9.60%	9.67%	9.60%

Source and Notes:

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S&P Market Intelligence, data through December 2017

**Excludes Limited Issue Rider Cases** 

Later in this testimony, I give more detail on the frequency of authorized returns on equity for natural gas and electric utility companies. Specifically, I conclude that the averages and the medians are inflated due to the existence of highend outliers in certain jurisdictions that regularly authorize returns on equity well above industry averages and medians. Because of this predictable nature of certain jurisdictions, I think it is important to look at the individual frequency of authorized returns on equity, which shows that a majority of the authorized returns on equity have been in line with what the Missouri and Kansas Commissions found to be reasonable and appropriate for KCPL, or 9.5% and 9.3% in Missouri and Kansas, respectively, since their last rate case. These observations of returns on equity in this range that have supported the industry's improving credit rating, strong access to capital, and strong stock performance, are all observable evidence of the market's

•		acceptance as fair and reasonable returns on equity in the range of what Missouri
2		and Kansas previously found appropriate for these utilities.
3	Q	PLEASE EXPLAIN YOUR STATEMENT THAT SINCE ITS LAST RATE CASE,
4		KCPL HAS BEEN ABLE TO ACCESS SIGNIFICANT AMOUNTS OF DEBT IN
5		CAPITAL MARKETS AT COMPETITIVE MARKET RATES.
6	Α	Since the Commission first authorized KCPL a return on equity of 9.5% in 2015, it has
7		issued \$600 million of long-term debt at a coupon rate of 4.2%.3
8	Q	HAS KCPL / GMO'S RATE BASE GROWN SINCE THEIR LAST RATE CASES?
9	Α	Yes. In the current case, the Company is requesting a rate base of \$2.63 billion. In
10		KCPL's 2017 rate case, the Missouri Commission approved a rate base of
11		\$2.53 billion, based on a 9.5% return on equity and 49.2% common equity ratio.
12	Q	PLEASE DESCRIBE THE MARKET'S REACTION TO THE APPROVAL OF GPE,
13		KCPL / GMO'S PARENT COMPANY, AND WESTAR'S REVISED MERGER
14		REQUEST?
15	Α	Upon completion of the merger transaction, Standard & Poor's ("S&P") upgraded the
16		ratings of GPE's subsidiary utility companies, including KCPL and GMO. These
17		company ratings were increased from BBB+ to A- on June 4, 2018.
18		Rating Action
19 20 21 22 23		On June 4, 2018, S&P Global Ratings raised its issuer credit ratings on Great Plains Energy Inc. and subsidiaries Kansas City Power & Light Co. (KCP&L) and KCP&L Greater Missouri Operations Co. (GMO) to 'A-' from 'BBB+'. At the same time, we also raised our issuer credit ratings on Westar Energy Inc. and subsidiary Kansas Gas & Electric

<sup>3</sup>While KCPL largely issues its own debt, GMO still predominantly relies on affiliate loan agreements with Great Plains Energy to support its investment in utility infrastructure.

Michael P. Gorman Page 7

(	Co.	(KGE)	to	'A-'	from	'BBB+'.	The	outlook	on	all	these	entities	is
•	stabl	le.											

#### Rationale

GPE is in the final stages of completing the merger with Westar. The upgrades of GPE and its subsidiaries reflect our view that the newly merged company will have an enhanced business risk profile. This is because Westar's and KGE's regulated electric utility operations benefit from a generally constructive regulatory framework in Kansas and service territories adjacent to GPE's utilities. In addition, the combined entity will have more diverse electric utility cash flow sources, a more balanced regulatory framework, a larger customer base of about 1.6 million customers, and almost full ownership of the Wolf Creek nuclear plant, allowing for greater control under the consolidated entity. These factors should strengthen the combined entity's business risk profile from what it was for GPE on a stand-alone basis.<sup>4</sup>

# Q HAS MISSOURI PASSED LAWS THAT ALLOW FOR NEW REGULATORY MECHANISMS THAT CAN MITIGATE KCPL / GMO'S PLANT INVESTMENT

**RISK?** 

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Yes. In Senate Bill No. 564, I understand that Missouri has passed a law that allows for certain electric utilities to elect to create regulatory assets for return and depreciation associated with 85% of their investment. The effect of this new law will be to grant electric utilities more flexibility in filing rate cases, without experiencing loss of return or depreciation on new plant investment. This new law also mitigates the risk of under-recovering new plant investment to the extent rate base filings cannot be timed with expected in-service dates of new grid modernization investments.

It is not clear how Missouri utilities will use this new regulatory mechanism to mitigate investment risk, and what effect it will have ultimately on the utilities' bond

<sup>&</sup>lt;sup>4</sup>S&P RatingsDirect: "Research Update: Great Plains Energy Inc. And Utility Subsidiaries Upgraded To 'A-' Due To Imminent Merger; Outlook Stable," June 4, 2018 at 3-4.

ratings and level of grid modernization they plan to make on an annual basis. As such, this new provision mitigates investment risk and may encourage utilities to significantly increase investments because of the reduction in regulatory lag associated with these qualifying investments. I did not make an explicit adjustment to the authorized return on equity to reflect this new regulatory mechanism, but I believe it does clearly reduce risk and a reduction in return on equity to reflect that risk reduction would be appropriate.

### III. RATE OF RETURN

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

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In this section of my testimony, I will explain the analyses I performed to determine a reasonable rate of return for KCPL / GMO and present the results of my analyses. I begin my estimate of a fair return on equity by reviewing the authorized returns approved by the regulatory commissions throughout the United States, and the market's assessment of the regulated utility industry's 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 electric utility investments in general, which is then used to produce a refined estimate of the market's required return for assuming investment risk comparable to that of KCPL / GMO's utility operations.

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

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

### III.A. Electric Industry Authorized Returns on Equity, Access to Capital, and Credit Strength

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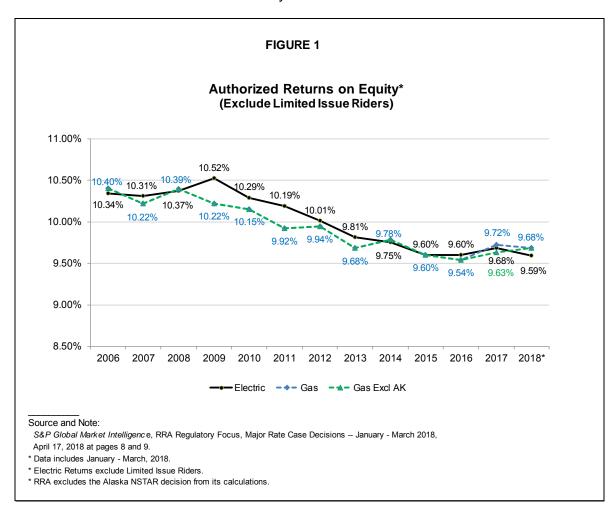
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### 6 Q PLEASE DESCRIBE THE OBSERVABLE EVIDENCE ON TRENDS IN 7 AUTHORIZED RETURNS ON EQUITY FOR REGULATED UTILITIES.

Authorized returns on equity for both electric and gas utilities have declined over the last ten years, as illustrated in Figure 1 below, and have been reasonably stable well below 10.0% for about the last six years.



## Q PLEASE DESCRIBE THE DISTRIBUTION OF AUTHORIZED RETURNS ON EQUITY FOR THE LAST FEW YEARS.

Α

The industry average authorized return on equity is inflated by certain jurisdictions that generally award returns on equity much higher than the rest of the industry. As shown on my Schedule MPG-3, page 1, in 2016 approximately 53% of the industry's authorized returns on equity, or 17 of the 32 observations, were at or below 9.7%. In 2017, the number of observations for authorized returns on equity at or below 9.7% increased as a percentage of total observations in the industry. Specifically, in 2017, 29 of 43 (or 67%) of the authorized returns on equity were between 8.4% and 9.7%. This trend continued into the first quarter of 2018, where seven of the 12 authorized returns on equity fell at or below 9.7%, ranging from 9.0% to 9.7%.

For vertically integrated electric utilities only, the tendency has also been a decline to below 9.7%. As shown on page 2 of Schedule MPG-3, in 2016, nine out of the 20 observations for vertically integrated electric utility companies were below 9.7%. By 2017, 17 of the 28 observations, or 60.7%, were at or below 9.7%, with 9.5% being the most common authorized return. This trend continued into 2018, where five out of the 10 authorized returns on equity were at 9.7% or less.

The distribution of returns shows that over the last few years, the share of authorized returns below 9.7% has grown, and the most frequent distribution of authorized equity returns is less than 9.7%, with the majority below 9.5%.

## 1 Q PLEASE DESCRIBE THE TREND IN CREDIT RATING CHANGES IN THE 2 ELECTRIC UTILITY INDUSTRY OVER THE LAST FIVE YEARS.

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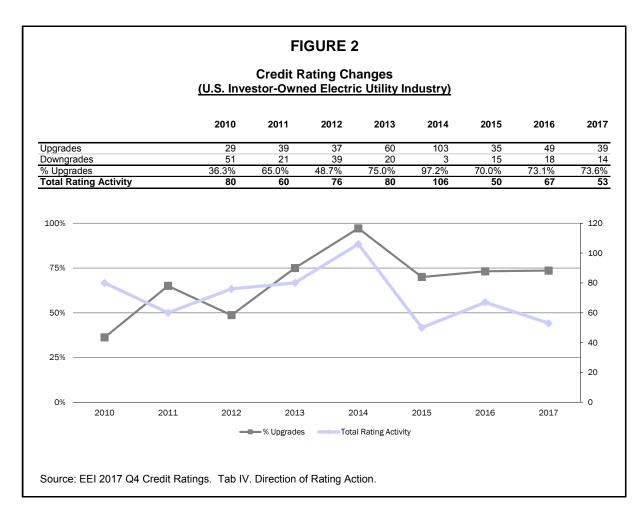
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As shown in Figure 2 below, over the period 2010 – Q4, 2017, the electric utility industry has experienced a significant number of upgrades in credit ratings by all of the major credit rating agencies (Fitch Ratings, Moody's, and Standard & Poor's).



As shown above in Figure 2, the upgrades in utility credit ratings started outpacing downgrades in 2011, and more recently, the number of upgrades has substantially exceeded the number of downgrades. For example, in 2014, there were 103 upgrades and only three downgrades. In 2015, the number of upgrades was

more than twice the number of downgrades (35 upgrades and 15 downgrades). This trend was even more profound in 2016 and continued with data available for 2017.

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### Q IS THERE REASON TO BELIEVE THAT THE CHANGE IN FEDERAL TAX LAW WILL INCREASE UTILITIES' COST OF EQUITY?

No. For some utilities the TCJA will impact cash flows. The impact on cash flows, however, is not significant enough to threaten the credit standing of the industry in general. There are certain utilities whose credit metrics were marginal to support their existing credit ratings and were, or are, subject to a slight downgrade as a result of the TCJA. KCPL / GMO, however, have a "Stable" outlook by both Moody's and S&P, so the impact from the TCJA is not a threat. In fact, as I will discuss in more detail later, KCPL / GMO were upgraded on June 4, 2018 to A- by S&P.

More importantly, the TCJA will reduce the income tax payable on dividends, which may have a positive impact on the Discounted Cash Flow ("DCF") results. Specifically, because the income tax cost of a dividend will decline, the value of utility stock may go up. Recognizing that stock price is the denominator in the dividend yield component of the DCF, as stock price increases, return on equity under the DCF will decrease. Utility stocks compete with non-taxable investment options such as municipal bonds. With the change in federal tax law, utility stocks will be more competitive compared to these investment options and the higher after-tax return may be reflected in higher stock prices.

## Q HOW HAS CREDIT RATING ACTIVITY SINCE 2011 IMPACTED THE CREDIT RATING OF THE ELECTRIC UTILITY INDUSTRY?

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The credit rating changes for the electric utility industry over the last several years are the result of marked improvement in overall financial health and credit quality as shown below in Table 2. As shown in this table, in 2008, approximately 69% of the electric utility industry was rated from BBB- to BBB+, 18% had a bond rating better than BBB+, and around 13% of the industry was below investment grade.

The overall industry rating improved steadily over the subsequent eight years. By 2017, none of the industry was below investment grade, and around 69% are BBB+ or stronger. Overall, the improvement in the electric utility industry's overall credit quality has been quite significant.

Table 2
S&P Ratings by Category
(Year End)

<u>Description</u>	2008	2009	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Regulated										
A or higher	8%	7%	9%	8%	200%	3%	3%	3%	6%	6%
A-	10%	15%	14%	14%	17%	20%	21%	22%	28%	34%
BBB+	23%	22%	17%	19%	14%	17%	32%	33%	36%	29%
BBB	23%	27%	31%	35%	36%	49%	37%	33%	22%	20%
BBB-	23%	20%	17%	14%	17%	6%	3%	3%	8%	11%
Below BBB-	<u>13%</u>	<u>10%</u>	<u>11%</u>	<u>11%</u>	<u>11%</u>	<u>6%</u>	<u>5%</u>	<u>6%</u>	<u>0%</u>	<u>0%</u>
Total	100%	100%	100%	100%	294%	100%	100%	100%	100%	100%

Source: EEI 2017 Q4 Credit Ratings. Tab V. S&P Rating by Comp. Category.

1	Q	HAVE UTILITIES BEEN ABLE TO ACCESS EXTERNAL CAPITAL TO SUPPORT
2		INFRASTRUCTURE CAPITAL PROGRAMS?
3	Α	Yes. In its April 20, 2018 Capital Expenditure Update report, RRA Financial Focus, a
4		division of S&P Global Market Intelligence, made several relevant comments about
5		utility investments generally:
6 7 8 9		<ul> <li>Forecasted 2018 capital expenditures for the 52 electric and gas utilities in the RRA universe climbed to an all-time high of \$131.1 billion, up from utilities' prior forecast of \$111.7 billion that was tallied last fall.</li> </ul>
10 11 12 13 14 15		<ul> <li>A sizeable chunk of the increase involves \$9.45 billion in merger consideration paid by Sempra Energy for Energy Future Holdings, which Sempra acquired in March 2018. Absent the Oncor acquisition expense, forecasted 2018 capital expenditures are still 10% higher than actual 2017 expenditures.</li> </ul>
16 17 18 19 20		<ul> <li>CapEx projections for 2019 increased 10% from our October 2017 analysis, rising to \$112.9 billion for the year from \$102.3 billion, as companies' plans for future projects solidified and new opportunities arose. Our latest report provides a new capital expenditure forecast of \$93.3 billion for 2020.5</li> </ul>
21		Historical versus projected outlooks for the electric and gas industries' capital
22		investments are shown in Figure 3 below. As shown in this graph, regulated industry
23		investment outlooks are expected to be higher in the near term forecast (2017-2019),
24		relative to the last ten-year historical period. As noted by S&P Global Market

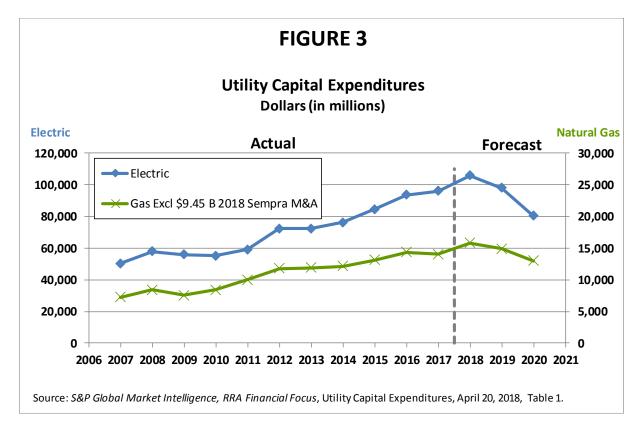
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<sup>5</sup>S&P Global Market Intelligence, RRA Financial Focus: "Utility Capital Expenditures," April 2018, Table 1.

Intelligence, this capital investment is exceeding internal sources of funds for the

regulated utilities, requiring them to seek external capital to fund capital investments.



As shown in Figure 3 above, the capital investments for the electric utility industry are significantly higher than the capital investments for the gas industry but they follow the same trend over the historical and forecasted period.

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## IS THERE EVIDENCE OF ROBUST VALUATIONS OF REGULATED UTILITY EQUITY SECURITIES?

Yes. Robust valuations are an indication that utilities can sell securities at high prices, which is a strong indication that they can access equity capital under reasonable terms and conditions, and at relatively low cost. As shown on Schedule MPG-2, the historical valuation of electric and gas utilities followed by *Value Line*, based on a price-to-earnings ("P/E") ratio, price-to-cash flow ("P/CF") ratio, and market price-to-book value ("M/B") ratio, indicates utility security valuations today are very strong and robust relative to the last several years. These strong valuations of

1		utility stocks indicate that utilities have access to equity capital under reasonable
2		terms and at lower costs.
•	•	HOW OUGHED THE COMMISSION HOE THE MARKET INFORMATION IN
3	Q	HOW SHOULD THE COMMISSION USE THIS MARKET INFORMATION IN
4		ASSESSING A FAIR RETURN FOR KCPL / GMO?
5	Α	Observable market evidence is quite clear that capital market costs are near
6		historically low levels. While authorized returns on equity have fallen to the mid 9.0%
7		range; utilities continue to have access to large amounts of external capital even as
8		they are funding large capital programs. Furthermore, utilities' investment-grade
9		credit ratings are stable and have improved due, in part, to supportive regulatory
0		treatment. The Commission should carefully weigh all this important observable
11		market evidence in assessing a fair return on equity for KCPL / GMO.
12	III.B.	Regulated Utility Industry Market Outlook
13	Q	PLEASE DESCRIBE THE CREDIT RATING OUTLOOK FOR REGULATED
14	Q	PLEASE DESCRIBE THE CREDIT RATING OUTLOOK FOR REGULATED UTILITIES.
	<b>Q</b> A	
14		UTILITIES.
4  5		UTILITIES.  Regulated utilities' credit ratings have improved over the last few years and the
4  5  6		UTILITIES.  Regulated utilities' credit ratings have improved over the last few years and the outlook has been labeled "Stable" by credit rating agencies. Credit analysts have
4  5  6		UTILITIES.  Regulated utilities' credit ratings have improved over the last few years and the outlook has been labeled "Stable" by credit rating agencies. Credit analysts have also observed that utilities have strong access to capital at attractive pricing (i.e., low
4  5  6  7		UTILITIES.  Regulated utilities' credit ratings have improved over the last few years and the outlook has been labeled "Stable" by credit rating agencies. Credit analysts have also observed that utilities have strong access to capital at attractive pricing (i.e., low capital costs), which has supported very large capital programs.
14 15 16 17		UTILITIES.  Regulated utilities' credit ratings have improved over the last few years and the outlook has been labeled "Stable" by credit rating agencies. Credit analysts have also observed that utilities have strong access to capital at attractive pricing (i.e., low capital costs), which has supported very large capital programs.  S&P recently published a report titled "Corporate Industry Credit Research"

1 2 3 4 5 6 7	that will keep credit metrics from improving and weaken some entities depending on individual tax situations and regulatory/management responses. Emerging new technological and regulatory trends in historically stable Canada and the U.S. may have far-reaching effect on utilities over time, but we see <a href="mailto:limited influence from those factors in 2018.">limited influence from those factors in 2018.</a>
8 9 10 11 12	- Forecasts: Credit ratios are likely to be stable to slightly lower in 2018 with some downside risk as U.S. utilities grapple with tax reform. Revenue growth will be modest in most areas in keeping with the flat demand growth. Margins across the industry in North America are expected to be flat to improving slightly as operating conditions and favorable fuel cost trends are maintained.
14 15 16 17 18 19	- Assumptions: Sales growth at most utilities is loosely tied to the general economic outlook in its service territory, with low demand keeping growth flat or very low for most. We project continued regulatory support for utility earnings and cash flow, with the occasional exception due to specific political or policy issues at the local level. Capital spending will continue to be elevated for most utilities, as infrastructure needs are not abating.
21 22 23 24 25 26 27	- Risks: Transformative risks abound in the Canadian and U.S. utility sector, especially in electric utilities. Corporate transformations (M&A) are an ever-present risk to ratings. Electric generation transformation is ongoing as carbon concerns and other environmental considerations lead utilities to change the mix of fuel sources. Grid transformation is becoming more prominent as utilities react to technological advances and other disruptive forces.
28 29 30 31 32 33	- Industry Trends: The utility sector in the U.S. and Canada is stable with some modest downside ratings exposure, consistent with our general ratings outlook and the nature of the essential products and services utilities sell. Tax reform in the U.S. has emerged as a more urgent issue and could on a case-by-case basis result in downgrades. However, the industry as a whole is well positioned to withstand mild shocks, and we see steady growth and stable credit quality overall. 6
35	Similarly, Moody's states:
36 37 38 39 40 41	"Today's action primarily applies to companies that already had limited cushion in their rating for deterioration in financial performance, will be incrementally impacted by changes in the tax law and where we now expect key credit metrics to be lower for longer," said Jim Hempstead, a Managing Director at Moody's. "Utilities will work closely with state regulators to try to mitigate the negative impact of tax reform and in

<sup>&</sup>lt;sup>6</sup>Standard & Poor's Global Ratings: "Industry Top Trends 2018: North America Regulated Utilities," January 25, 2018, at 1, emphasis added.

1 2	some cases they may seek to refine their corporate financial policies. Where successful, their rating outlooks could revert to stable."
3	* * *
4 5 6 7 8 9	The vast majority of US regulated utilities, however, continue to maintain stable rating outlooks. We do not expect the cash flow reduction associated with tax reform to materially impact their credit profiles because sufficient cushion exists within projected financial metrics for their current ratings. Nonetheless, further actions could occur on a company specific basis.
10 11 12 13 14 15 16 17	Over the next 12 to 18 months, Moody's will continue to monitor the financial impact of tax reform on each company, including its regulatory approach to rate treatment and any changes to corporate finance strategies. This will include balance sheet changes due to the reclassification of excess deferred tax liabilities as a regulatory liability and the magnitude of any amounts to be refunded to customers. If the financial impact of tax reform is more severe than Moody's initial estimates or the companies fail to materially mitigate any weaknesses in their financial profiles, the ratings could be downgraded. <sup>7</sup>
19	In a recent report, Fitch states:
20 21 22 23 24 25 26 27 28	The Tax Cuts and Jobs Act signed into law on Dec. 22, 2017 has negative credit implications for U.S. regulated utilities and utility holding companies over the short-to-medium term, according to Fitch Ratings. A reduction in customer bills to reflect lower federal income taxes and return of excess accumulated deferred income taxes is expected to lower revenues and funds from operations (FFO) across the sector. Absent mitigating strategies on the regulatory front, this is expected to lead to weaker credit metrics and negative rating actions for those issuers that have limited headroom to absorb the leverage creep.
30	* * *
31 32 33 34 35 36 37	Over a longer-term perspective, Fitch views tax reform as modestly positive for utilities. The sector retained the deductibility of interest expense, which would have otherwise significantly impacted cost of capital for this capital intensive sector. The exemption from 100% capex expensing is also welcome news for the sector, which has seen years of bonus depreciation reduce rate base leading to lower earnings. Finally, the reduction in federal income taxes lowers cost of

<sup>&</sup>lt;sup>7</sup>*Moody's Investors Service*: "Rating Action: Moody's changes outlooks on 25 US regulated utilities primarily impacted by tax reform," January 19, 2018, emphasis added.

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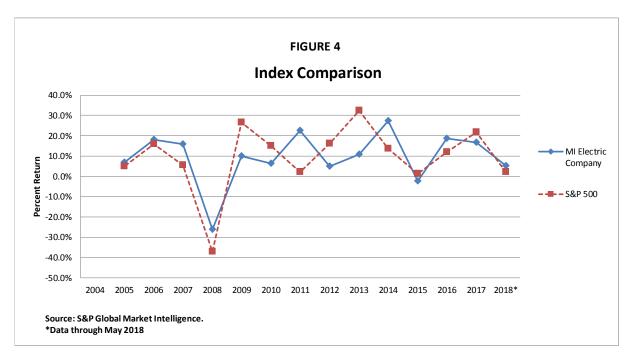
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### Q PLEASE DESCRIBE UTILITY STOCK PRICE PERFORMANCE OVER THE LAST SEVERAL YEARS.

As shown in Figure 4 below, S&P Global Market Intelligence ("MI") has recorded utility stock price performance compared to the overall market. The utility industry's stock performance data from 2004 through May 2018 shows that the MI Electric Index has followed the market through downturns and recoveries. However, utility investments have exhibited less volatility during extreme market downturns. This more stable price performance for utilities supports my conclusion that market participants regard electric utility stock investments as moderate- to low-risk investments.



<sup>&</sup>lt;sup>8</sup> Fitch Ratings: "Tax Reform Creates Near-term Credit Pressure for U.S. Utilities," January 24, 2018.

1	Q	HAVE ELECTRIC UTILITY INDUSTRY TRADE ORGANIZATIONS COMMENTED
2		ON ELECTRIC UTILITY STOCK PRICE PERFORMANCE?
3	Α	Yes. In its 4th Quarter 2017 Financial Update, the Edison Electric Institute ("EEI")
4		stated the following concerning the EEI Electric Utility Stock Index ("EEI Index"):
5		COMMENTARY
6 7 8 9 10 11 12 13 14 15 16 17		Utility investors began 2017 with the now-perennial fear of rising interest rates, amplified by the Federal Reserve's desire to finally wean markets off the near-zero short-term yields in place since the 2008/2009 financial crisis. The Fed did raise the Federal Funds target rates by 25 basis points three times in 2017 (in March, June and December) and the three-month Treasury Bill rate ended the year at 1.4% up from 0.5% when 2017 began. But longer-term rates again defied market expectations. The 10-year Treasury began the year at 2.45%. But instead of rising it fell — to almost 2.0% by September — before climbing back to end the year about where it began, at just over 2.4%.
18		Industry Fundamentals Remain Healthy
19 20 21 22		The industry's stock performance in 2017 was something of a reflection of its strong fundamentals, which include healthy balance sheets, steady mid-single-digit earnings growth from capital investment programs and an industry average dividend yield just above 3%.
23		* * *
24		Outlook Remains Steady
25 26 27 28 29 30 31 32 33 34		Most analysts see the industry set to continue its mid-single-digit earnings growth over the next several years, with growing dividends and healthy balance sheets, and with regional pockets of opportunity for higher growth rates. Of course, this optimism is reliant on continued support from state regulators for utility investment (and the jobs thereby produced); a trend that could be threatened if fuel prices rise and pressure rates upward rather than down. The Trump Administration's tax reform provides an additional benefit for regulated utilities; savings passed to customers are one more measure that can limit bill increases in a time of rising capex.

<sup>&</sup>lt;sup>9</sup>EEI Q4 2017 Financial Update: "Stock Performance" at 1 and 4-6, emphasis added.

### III.C. Federal Reserve and Market Capital Costs Outlook

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2	Q	HAVE YOU CONSIDERED CONSENSUS MARKET OUTLOOKS FOR CHANGES
3		IN BOTH SHORT AND LONG-TERM INTEREST RATES IN FORMING YOUR
4		RECOMMENDED RETURN ON EQUITY IN THIS CASE?

Yes. The outlook for changes in interest rates, inflation, and Gross Domestic Product ("GDP") growth has been impacted by expectations that the Federal Open Market Committee ("FOMC") will raise short-term interest rates. The consensus shows expectations of continued increases in the Federal Funds Rate as the FOMC continues to normalize interest rates in response to the strengthening of the U.S. economy.

This is evident from a comparison of current and forecasted changes in the Federal Funds Rate. Table 3 below shows that while the Federal Funds Rate (the short-term rate) is expected to increase over the next several years (a consensus increase of 1.2% to 2.7%), the consensus for increases in <u>long-term</u> interest rates is not as significant (a consensus increase of 2.8% to 3.8%).

TABLE 3

Blue Chip Financial Forecasts

Projected Federal Funds Rate, 30-Year Treasury Bond Yields, and GDP Price Index

	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q
Publication Date	<u> 2017</u>	<u>2018</u>	<u> 2018</u>	<u>2018</u>	<u> 2018</u>	<u>2019</u>	<u>2019</u>	<u> 2019</u>
Federal Funds Rate								
Jan-18	1.2	1.5	1.7	1.9	2.0	2.2	2.4	
Feb-18	1.2	1.5	1.7	1.9	2.1	2.3	2.5	
Mar-18	1.2	1.5	1.7	1.9	2.2	2.3	2.5	
Apr-18		1.4	1.7	2.0	2.2	2.4	2.6	2.7
May-18		1.4	1.7	2.0	2.2	2.4	2.6	2.8
Jun-18		1.4	1.7	2.0	2.2	2.4	2.6	2.8
T-Bond, 30 yr.								
Jan-18	2.8	3.0	3.1	3.3	3.4	3.5	3.6	
Feb-18	2.8	3.0	3.1	3.3	3.4	3.5	3.6	
Mar-18	2.8	3.1	3.2	3.4	3.5	3.6	3.7	
Apr-18		3.0	3.2	3.3	3.5	3.6	3.7	3.8
May-18		3.0	3.2	3.3	3.5	3.6	3.7	3.8
Jun-18		3.0	3.2	3.3	3.4	3.5	3.7	3.8
GDP Price Index								
Jan-18	2.2	2.0	1.9	2.0	2.1	2.2	2.0	
Feb-18	2.4	2.0	2.0	2.1	2.1	2.2	2.1	
Mar-18	2.4	2.1	2.0	2.2	2.1	2.2	2.2	
Apr-18		2.3	2.0	2.2	2.1	2.2	2.1	2.2
May-18		2.0	2.0	2.2	2.1	2.2	2.2	2.3
Jun-18		2.0	2.1	2.2	2.1	2.2	2.2	2.2

Source and Note:

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Blue Chip Financial Forecasts, January 2018 through June 2018.

Actual Yields in Bold

Importantly, one should recognize that an increase in the Federal Funds Rate does not automatically result in an increase in long-term interest rates. Specifically, I note that none of the six increases in the Federal Funds Rate experienced over the last few years caused comparable changes in long-term interest rates. This is illustrated on my Schedule MPG-4. As shown on that schedule, the actions taken by the FOMC to increase the Federal Funds Rate have simply flattened the yield curve,

and have not resulted in an equal increase in long-term interest rates. This is significant because the cost of common equity is impacted by long-term interest rates, not short-term interest rates. As a result, the recent increases in the Federal Funds Rate, and the expectation of continued increases in the Federal Funds Rate, have not, and are not expected to, significantly impact long-term interest rates.

It is worth noting that the Federal Reserve has also recently implemented a strategy to begin to unwind its balance sheet position in long-term securities. The Federal Reserve built up approximately \$4.7 trillion of Treasury and mortgage-backed security holdings as part of a quantitative easing ("QE") program that spanned 2008 to 2014. During the QE program, the Federal Reserve procured long-term securities in an effort to support the Federal Reserve's monetary policy, mitigate long-term interest rates, and to support a recovering economy. In essence, by purchasing these securities, the Federal Reserve was making capital more readily available at lower long-term interest rates.

The Federal Reserve recently started to unwind its balance sheet positions of mortgage-backed securities and Treasury bonds. The Fed now engages in a slow and systematic reduction to its balance sheet position. This Fed balance sheet action has been fully disclosed to the market, and the impact on capital markets valuation and interest rates is captured in current and projected interest rates.

For these reasons, the Federal Reserve actions on short-term interest rates have not resulted in matched increases in long-term interest rates. Further, the Federal Reserve's proposed plan for unwinding its balance sheet position is not expected to have a significant impact on long-term interest rates. In sum, the observable data and consensus projections indicate that the Federal Reserve's monetary policy changes related to a strengthening economy have not and are not

expected to increase long-term interest rates. Further, this outlook is reflected in economic consensus forecasts of long-term interest rates, which indicate a relatively low capital market cost period for at least the intermediate period.

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### HAVE LONGER-TERM PROJECTIONS OF INTEREST RATES MODERATED MORE RECENTLY RELATIVE TO THE LAST FEW YEARS?

Yes. This is shown below in Table 4. There, I show the prevailing quarterly average Treasury bond yield, and the projections of Treasury bond yields 18 months out and five to ten years out. Significantly, Treasury bond yields in 2017 were relatively moderate and comparable to those in 2015 and 2016; however, projections of future Treasury bond yields are now much lower five to ten years out than they were for the last three years. In 2014, forecasted Treasury bond yields five to ten years out were projected to increase to 5.6% from the 3.26% to 3.79% prevailing yields. These five to ten-year projections have steadily declined through 2015 and 2016. Most recently, long-term projections of Treasury bond yields are now expected to remain relatively low in the 4.1% to 4.3% area.

It is significant that the consensus now projects out relatively low levels of capital market costs will be sustained at least over the next five to ten years. This outlook represents a material moderation in capital market cost outlooks over the forecast period. Recognizing that Treasury bond yields are not expected to increase over the next five to ten years, it is reasonable to expect that return on equity should also remain low.

TABLE 4

<u>30-Year Treasury Bond Yield Actual Vs. Projection</u>

<u>Description</u>	Quarterly <u>Average</u>	2-Year Projected	5- to 10-Year <u>Projected</u>
<u>2014</u>	2 700/	4.400/	5.0% - 5.5%
Q1 Q2	3.79% 3.69%	4.40% 4.50%	5.0% - 5.5%
Q2 Q3	3.44%	4.30%	5.3% - 5.6%
Q3 Q4	3.26%	4.30%	3.5 /0 - 3.0 /0
	00,0		
<u>2015</u>			
Q1	2.97%	4.00%	4.9% - 5.1%
Q2	2.55%	3.70%	
Q3	2.83%	4.00%	4.8% - 5.0%
Q4	2.84%	3.90%	
2016			
<u>2016</u> Q1	2.96%	3.80%	4.5% - 4.8%
Q2	2.72%	3.60%	4.5 /0 - 4.0 /0
Q3	2.64%	3.40%	4.3% - 4.6%
Q4	2.29%	3.10%	1.070 1.070
<u> </u>	,	00,0	
<u>2017</u>			
Q1	2.82%	3.70%	4.2% - 4.5%
Q2	3.05%	3.80%	
Q3	2.91%	3.70%	4.3% - 4.5%
Q4	2.82%	3.60%	
2019			
<u>2018</u> Q1	2.82%	3.60%	4.1% - 4.3%
Q2	2.02% 3.02%	3.80%	<del>1</del> .1/0 - <del>1</del> .3/0
QZ	J.UZ /U	3.00 /0	

Sources:

Blue Chip Financial Forecasts, December 2013 through June 2018.

### III.D. KCPL / GMO Investment Risk

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2	Q	PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF THE INVESTMENT RISK
3		OF KCPL AND GMO.
4	Α	The market's assessment of KCPL / GMO's investment risk is described by credit
5		rating analysts' reports. KCPL's current corporate bond ratings from S&P and
6		Moody's are A- and Baa1, respectively. GMO's current corporate bond ratings from
7		S&P and Moody's are A- and Baa2, respectively. Both rating agencies currently have
8		a "stable" outlook for KCPL / GMO. In fact, S&P recently upgraded KCPL / GMO.
9		Prior to its upgrade of KCPL, S&P stated the following:
10 11 12 13 14 15 16 17 18 19 20 21 22 23 24		The outlook on Kansas City Power & Light Co. (KCP&L) reflects the outlook on parent Great Plains Energy Inc. (GPE). The positive outlook on GPE and its subsidiaries reflects S&P Global Ratings' base-case scenario that the combined entity's regulated utility operations will continue to generate sufficient cash flow to consistently achieve financial measures that support funds from operations (FFO) to debt in the 17%-19% range from 2019 through 2021. This range of FFO to debt places the company comfortably in the midpoint of our significant financial risk profile assessment. The positive outlook reflects our expectation of an upgrade if the combined companies are able to demonstrate a strengthened business risk profile along with financial measures that remain consistently within the expected 17%-19% range after the merger close. <sup>10</sup>
25		For GMO, S&P stated the following:
26 27 28 29 30 31 32 33 34 35		The outlook on KCP&L Greater Missouri Operations Co. (GMO) reflects the outlook on parent Great Plains Energy Inc. (GPE). The positive outlook on GPE and its subsidiaries reflects S&P Global Ratings' base-case scenario that the combined entity's regulated utility operations will continue to generate sufficient cash flow to consistently achieve financial measures that support funds from operations (FFO) to debt in the 17%-19% range from 2019 through 2021. This range of FFO to debt places the company comfortably in the midpoint of our significant financial risk profile assessment. The positive
35 36		our significant financial risk profile assessment. The positive outlook reflects our expectation of an upgrade if the combined

<sup>&</sup>lt;sup>10</sup>S&P RatingsDirect. "Summary: Kansas City Power & Light Co.," August 17, 2017 at 3.

1	companies are able to demonstrate a strengthened business
2	risk profile along with financial measures that remain
3	consistently within the expected 17%-19% range after the
4	merger close. <sup>11</sup>

### 5 III.E. Proposed Capital Structure

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

- 7 A KCPL's proposed capital structure based on investor's capital is shown in Table 5
- 8 below:

#### **TABLE 5**

KCPL's Proposed Capital Structure (June 30, 2018)

Description	Total <u>Capital</u>
Long-Term Debt	49.97%
Common Equity	50.03%
Total	100.00%
	_

Source: Hevert Direct at 68.

#### 9 Q WHAT IS GMO'S PROPOSED CAPITAL STRUCTURE?

10 A GMO's proposed capital structure based on investor's capital is shown in Table 6
11 below:

<sup>11</sup>S&P RatingsDirect: "Summary: KCP&L Greater Missouri Operations Co.," August 17, 2017 at 3.

#### TABLE 6

## GMO's Proposed Capital Structure (June 30, 2018)

Description	Total <u>Capital</u>
Long-Term Debt	45.60%
Common Equity	54.40%
Total	100.00%
	_

Source: Hevert Direct at 68.

#### 1 Q DO YOU BELIEVE THE COMPANY'S PROPOSED CAPITAL STRUCTURES ARE

#### 2 **REASONABLE FOR SETTING RATES?**

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- 3 A I will not take issue with the Company's proposed capital structure for KCPL,
- 4 however, I do take issue with the Company's proposed capital structure for GMO.
- 5 Specifically, the Company's proposed ratemaking capital structure for GMO should be
- 6 adjusted for several factors. Those include the following:
  - The amount of common equity that supports a goodwill asset should be removed from the ratemaking capital structure.
    - 2. The Company has paid out more than 100% of its earnings over the last several years, and it substitutes notes payable to support the GMO investments. Payment of dividends up to its parent company, Great Plains Energy, appears to have been in support of GPE's proposed acquisition and merger activity. Nevertheless, the impact on GMO is the remaining capital on the Company's balance sheet is far more leveraged than that reflected by the Company for setting rates for GMO. In order to fully reflect GMO's actual cost of capital supporting utility rate base, notes payable, which has been a substitute for common equity capital, must be reflected in the ratemaking capital structure.

#### 1 Q PLEASE DESCRIBE YOUR PROPOSED CAPITAL STRUCTURE FOR GMO.

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As shown on my Schedule MPG-1, page 2, I started with the Company's proposed capital structure and made an adjustment. I removed the amount of common equity used to support a goodwill asset from the ratemaking capital structure. This reduced the amount of common equity available for supporting regulated rate base by approximately \$168.97 million. This results in a capital structure for ratemaking purposes shown below in Table 7.

#### TABLE 7

KCPL / GMO MECG's Proposed Capital Structure (June 30, 2018)

Description	Total <u>Capital</u>
Long-Term Debt	49.1%
Common Equity	50.9%
Total	100.0%

Source: Schedule MPG-1, page 2.

I developed my proposed capital structure on my Schedule MPG-1.

AVAILABLE TO SUPPORT UTILITY RATE BASE BY REMOVING THE AMOUNT

WHY IS IT APPROPRIATE TO REDUCE THE COMMON EQUITY CAPITAL

#### OF EQUITY CAPITAL SUPPORTING A GOODWILL ASSET?

GMO's goodwill asset reflects acquisition activity related to when Great Plains Energy initially acquired GMO from Aquila. A goodwill asset is not an asset that can be used to provide utility service. In fact, a goodwill asset is simply a paper asset that simply

reflects transactions between current owners of the GMO utility and the investors that
the utility was acquired from. A goodwill asset does not produce cash flows, and
therefore cannot be supported by utility debt. This is true because the goodwill asset
is not included in rate base, does not increase the utility's earnings or cash flows and
therefore can only be supported by equity capital.

Further, in GMO's last rate case, KCPL witness Chief Financial Officer Kevin Bryant agreed that common equity supporting goodwill should be excluded from the utility's ratemaking capital structure.<sup>12</sup>

#### IV. EMBEDDED COST OF DEBT

## 10 Q WHAT IS THE EMBEDDED COST OF DEBT THAT THE COMPANY IS 11 PROPOSING IN THIS PROCEEDING?

A As described on page 2 of Mr. Hevert's testimony, the Company is proposing an embedded debt cost of 5.06% for KCPL and GMO.<sup>13</sup>

### 14 Q DO YOU HAVE ANY CONCERNS WITH THE COMPANY'S ESTIMATED 15 EMBEDDED DEBT COST?

Yes. As referenced previously, unlike KCPL, GMO does not issue its own debt. Instead, GMO relies upon affiliate loan agreements with GPE for its capital funding. For GMO, approximately 60% of the Company's total test year long-term debt balance of \$1.08 billion is supported by these affiliate loans. These affiliate loans consist of \$347 million of affiliate notes payable to GPE at a stated interest rate of 4.97%. Also, it includes affiliate notes payable to GPE at a stated interest rate of 5.15%. These notes were issued in 2011 and 2012, and they will mature in 2021 and

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<sup>&</sup>lt;sup>12</sup>Case No. ER-2016-0156, Rebuttal Testimony of Kevin E. Bryant, August 15, 2016, at 4-5.

<sup>&</sup>lt;sup>13</sup>Hevert Direct at 68 each testimony.

1		2022. Both of these notes can be refinanced in the test year and up to the true-up
2		period at the current prevailing market interest rate. Both KCPL and GMO's bond
3		rating has been improved following the approval of the merger proceeding. Both now
4		have an S&P bond rating of A
5		The current prevailing interest rates for an A- utility bond is approximately
6		4.2%. The refinancing terms of each of these proceedings require a 40 basis point
7		premium at the point of refinancing.
8		I recommend each of these affiliate loan agreements be repriced down to a
9		4.6% or prevailing market interest rate plus 40 basis points to reflect the embedded
10		cost of debt for GMO.
11		Reflecting this change to the embedded cost of debt for GMO reduces GMO's
12		embedded cost of debt from 5.06% down to 4.79%, as shown on my Schedule
13		MPG-5.
14		V. RETURN ON EQUITY
15	Q	PLEASE DESCRIBE WHAT IS MEANT BY A "UTILITY'S COST OF COMMON
16		EQUITY."
17	Α	A utility's cost of common equity is the expected return that investors require on an
18		investment in the utility. Investors expect to earn their required return from receiving
19		dividends and through stock price appreciation.
20	Q	PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED
21		UTILITY'S COST OF COMMON EQUITY.

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In general, determining a fair cost of common equity for a regulated utility has been

framed by two hallmark decisions of the U.S. Supreme Court: Bluefield Water Works

1	& Improvement Co. v. Pub. Serv. Comm'n of W. Va., 262 U.S. 679 (1923) and Fed.
2	Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944).

These decisions identify the general financial and economic standards to be considered in establishing the cost of common equity for a public utility. Those general standards provide 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.

### 9 Q PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE KCPL / 10 GMO'S COST OF COMMON EQUITY.

I have used several models based on financial theory to estimate KCPL / GMO'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 with investment risk similar to KCPL / GMO.

### V.A. Risk Proxy Group

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- 19 Q PLEASE DESCRIBE HOW YOU IDENTIFIED A PROXY UTILITY GROUP THAT
  20 COULD BE USED TO ESTIMATE KCPL / GMO'S CURRENT MARKET COST OF
  21 EQUITY.
- 22 A I relied on the same proxy group developed by KCPL / GMO witness Mr. Hevert with 23 two exceptions. I excluded Dominion Resources based on its proposed acquisition of

SCANA that was announced on January 3, 2018. I also excluded Southern Company
because on May 21, 2018 it announced its planned divestiture of Gulf Power
Company and Florida City Gas utility companies.

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IN MERGER AND ACQUISITION ("M&A") ACTIVITY FROM THE PROXY GROUP?

M&A activity can distort the market factors used in DCF and risk premium studies.

M&A activity can have impacts on stock prices, growth outlooks, and relative volatility in historical stock prices if the market was anticipating or expecting the M&A activity prior to it actually being announced. This distortion in the market data thus impacts the reliability of the DCF and risk premium estimates for a company involved in M&A.

Moreover, companies generally enter into M&A 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.

When companies announce a merger or acquisition, the public assesses the proposed merger and develops outlooks on the value of the two companies after the combination based on expected synergies or other benefits created by the transaction.

As a result, the stock value before the merger is completed may not reflect the forward-looking earnings and dividend payments for the company absent the merger or on a stand-alone basis. Therefore, an accurate DCF return estimate on companies involved in M&A activities cannot be produced because their stock prices do not reflect the stand-alone investment characteristics of the companies. Rather, the stock price more likely reflects the shareholder enhancement produced by the proposed transaction. For these reasons, it is appropriate to remove companies

1	involved in M&A activities from a proxy group used to estimate a fair return on equity
2	for a utility.

### Q PLEASE DESCRIBE YOUR PROXY GROUP'S INDICATED INVESTMENT RISK 4 RELATIVE TO KCPL / GMO.

The proxy group shown in Schedule MPG-6 has an average corporate credit rating from S&P of BBB+, which is one notch lower than KCPL / GMO's recently upgraded A- credit rating from S&P. The proxy group has an average corporate credit rating from Moody's of Baa1, which is identical to KCPL / GMO's credit rating from Moody's.

I also note that the proxy group has an average common equity ratio of 45.9% (including short-term debt) from S&P Global Market Intelligence ("MI") and 49.2% (excluding short-term debt) from *The Value Line Investment Survey* ("*Value Line*"). KCPL's proposed common equity ratio of 50.03% is comparable to the proxy group average common equity ratio of 49.2%. Similarly, my recommended capital structure for GMO, 50.90%, is similar to the proxy group.

Based on this information, I conclude that cost of equity models applied to my proxy group will reasonably estimate the cost of equity for KCPL and GMO.

#### V.B. Discounted Cash Flow Model

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

The DCF model posits that a stock price is valued by summing the present value of expected future cash flows discounted at the investor's required rate of return or cost of capital. This model is expressed mathematically as follows:

 $P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \dots + \frac{D_{\infty}}{(1+K)^{\infty}}$  (Equation 1)  $P_0 = \text{Current stock price}$  $D = \text{Dividends in periods } 1 - \infty$ K = Investor's required return

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

- 10  $K = D_1/P_0 + G$  (Equation 2)
- 11 K = Investor's required return
- 12  $D_1$  = Dividend in first year
- 13  $P_0$  = Current stock price

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- 14 G = Expected constant dividend growth rate
- 15 Equation 2 is referred to as the annual "constant growth" DCF model.

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

- A As shown in Equation 2 above, the constant growth DCF model requires a current stock price, expected dividend, and expected growth rate in dividends.
- 19 Q WHAT STOCK PRICE HAVE YOU RELIED ON IN YOUR CONSTANT GROWTH
- 20 **DCF MODEL?**
- 21 A I relied on the average of the weekly high and low stock prices of the utilities in the
- 22 proxy group over a 13-week period ending on May 25, 2018. An average stock price
- is less susceptible to market price variations than a price at a single point in time.
- 24 Therefore, an average stock price is less susceptible to aberrant market price
- 25 movements, which may not reflect the stock's long-term value.

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

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

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I used the most recently paid quarterly dividend as reported in *Value Line*.<sup>14</sup> This dividend was annualized (multiplied by 4) and adjusted for next year's growth to produce the  $D_1$  factor for use in Equation 2 above. In other words, I calculate  $D_1$  by multiplying the annualized dividend ( $D_0$ ) by (1+G).

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

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

<sup>&</sup>lt;sup>14</sup>The Value Line Investment Survey, March 16, April 27, and May 18, 2018.

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As predictors of future returns, securities analysts' growth estimates have been shown to be more accurate than growth rates derived from historical data. 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 securities 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, MI, and Reuters. All such projections were available on May 25, 2018, and all were reported online.<sup>16</sup>

Each consensus growth rate projection is based on a survey of securities analysts. There is no clear evidence whether a particular analyst is most influential on general market investors. Therefore, a single analyst's projection is not as reliable as a consensus of market analysts' projections. The consensus estimate is a simple arithmetic average, or mean, of surveyed analysts' earnings growth forecasts. A simple average of the growth forecasts gives equal weight to all surveyed analysts' projections. Therefore, a simple average, or arithmetic mean, of analyst forecasts is a good proxy for market consensus expectations.

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

<sup>16</sup>Schedule MPG-7.

1	Q	WHAT ARE THE GROWTH RATES YOU USED IN YOUR CONSTANT GROWTH
2		DCF MODEL?
3	Α	The growth rates I used in my DCF analysis are shown in Schedule MPG-7. The
4		average growth rate for my proxy group is 5.30%.
5	Q	WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?
6	Α	As shown in Schedule MPG-8, the average and median constant growth DCF returns
7		for my proxy group for the 13-week analysis are 8.90% and 9.10%, respectively.
8	Q	DO YOU HAVE ANY COMMENTS ON THE RESULTS OF YOUR CONSTANT
9		GROWTH DCF ANALYSIS?
10	Α	Yes. The constant growth DCF analysis for my proxy group is based on a group
11		average long-term sustainable growth rate of 5.30%. The three- to five-year growth
12		rates are higher than my estimate of a maximum long-term sustainable growth rate of
13		4.20%.
14	Q	HOW DID YOU ESTIMATE A MAXIMUM LONG-TERM SUSTAINABLE GROWTH
15		RATE?
16	Α	A long-term sustainable growth rate for a utility cannot exceed the growth rate of the
17		economy in which it sells its goods and services. For this reason, the projected
18		long-term Gross Domestic Product ("GDP") growth rate is the best proxy for the
19		maximum long-term sustainable growth rate for a utility investment. Blue Chip
20		Financial Forecasts projects that over the next 5 and 10 years, the U.S. nominal GDP
21		will grow at an annual rate of approximately 4.20%. These GDP growth projections

reflect a real growth outlook of around 2.1% and an inflation outlook of around 2.1%

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going forward. As such, the average GDP growth rate over the next 10 years is around 4.20%, which I believe is a reasonable proxy of long-term sustainable growth.<sup>17</sup>

In my multi-stage growth DCF analysis, I discuss academic and investment practitioner support for using the projected long-term GDP growth outlook as a maximum sustainable growth rate projection; but using the long-term GDP growth rate as a conservative projection for the maximum sustainable growth rate is logical, and is generally consistent with academic and economic practitioner accepted practices.

#### V.C. Sustainable Growth DCF

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#### Q WHAT IS THE SUSTAINABLE GROWTH DCF AND HOW DOES IT DIFFER FROM

#### THE CONSTANT GROWTH DCF?

The sustainable growth DCF model relies on projections of utilities' earnings, dividends, book value, and earned return on equity to derive an estimate of a long-term sustainable growth rate. This model differs from a DCF model using analysts' growth rate projections in that it derives growth based on the operating performance of the utility, issuance of new shares, and specific factors that can influence long-term growth for the utility company.

### 19 Q PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE LONG-TERM 20 GROWTH RATE FOR YOUR SUSTAINABLE GROWTH DCF MODEL.

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

Michael P. Gorman Page 40

<sup>&</sup>lt;sup>17</sup>Blue Chip Financial Forecasts, June 1, 2018, at 14.

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.

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

The payout ratios of the proxy group are shown in my Schedule MPG-9. 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.

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

As shown in Schedule MPG-10, the average sustainable growth rate for the proxy group using this internal growth rate model is 4.45%.

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

A DCF estimate based on these sustainable growth rates is developed in Schedule MPG-11. As shown there, and using the same formula in Equation 2 above, a

sustainable growth DCF analysis produces proxy group average and median DCF results for the 13-week period of 8.02%.

#### V.D. Multi-Stage Growth DCF Model

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

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. A limitation of the constant growth DCF model is that it cannot reflect a rational expectation that a period of high or low short-term growth can be followed by a change in growth to a rate that is more reflective of long-term sustainable growth. Because of this inherent limitation, I also performed a multi-stage growth DCF analysis to reflect this outlook of changing growth expectations.

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

Analyst-projected growth rates over the next three to five years will change as utility earnings growth outlooks change. Utility companies go through cycles of making investments in their systems. When utility companies are making large investments, their rate base grows rapidly, which in turn accelerates 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.

As major construction cycles extend over longer periods of time, even with an accelerated construction program, the growth rate of the utility will slow simply because the percentage growth in rate base will slow as a simple function of the fact that each new increment invested will produce a smaller percentage change than the

last. In addition, the utility has limited human and capital resources available to expand its construction program. Therefore, the three- to five-year growth rate projection should be used as a long-term sustainable growth rate but not without making a reasonable informed judgment to determine whether it considers the current market environment, the industry, and whether the three- to five-year growth outlook is sustainable.

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

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The multi-stage growth DCF model reflects the possibility of non-constant growth for a company over time. The multi-stage growth DCF model reflects three growth periods: (1) a short-term growth period consisting of the first five years; (2) a transition period, consisting of the next five years (6 through 10); and (3) a 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 reflecting the difference between the analysts' growth rates and the long-term 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 – the GDP growth rate.

### 20 Q WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR THE 21 MAXIMUM SUSTAINABLE LONG-TERM GROWTH RATE?

Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the economy in which they sell services. Utilities' earnings/dividend growth is created by

1		increased utility investment or rate base. Such investment, in turn, is driven by
2		service area economic growth and demand for utility service or infrastructure
3		modernization or compliance with environmental mandates. In other words, utilities
4		invest in plant to meet sales demand growth. Sales growth, in turn, is tied to
5		economic growth in their service areas.
6		The U.S. Department of Energy, Energy Information Administration ("EIA")
7		has observed utility sales growth tracks the U.S. GDP growth, albeit at a lower level,
8		as shown in Schedule MPG-12. Utility sales growth has lagged behind GDP growth
9		for more than a decade. As a result, nominal GDP growth is a very conservative
10		proxy for utility sales growth, rate base growth, and earnings growth. 18 Therefore, the
11		U.S. GDP nominal growth rate is a conservative proxy for the highest sustainable
12		long-term growth rate of a utility.
13	Q	IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER THE
14		LONG TERM, A COMPANY'S EARNINGS AND DIVIDENDS CANNOT GROW AT
15		A RATE GREATER THAN THE GROWTH OF THE U.S. GDP?
16	Α	Yes. This concept is supported in published analyst literature and academic work.
17		Specifically, in a textbook titled "Fundamentals of Financial Management," published
18		by Eugene Brigham and Joel F. Houston, the authors state as follows:
19 20 21		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

<sup>18</sup>For purposes of this testimony, the use of the word "conservative" indicates that my assumption leads to a higher return on equity.

dividends for mature firms are often expected to grow in the future at

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2		plus inflation). <sup>19</sup>
3		The use of the economic growth rate is also supported by investment
4		practitioners as outlined as follows:
5		Estimating Growth Rates
6 7 8 9 10		One of the advantages of a three-stage discounted cash flow model is that it fits with life cycle theories in regards to company growth. In these theories, companies are assumed to have a life cycle with varying growth characteristics. Typically, the potential for extraordinary growth in the near term eases over time and eventually growth slows to a more stable level.
12		* * *
13 14 15 16 17 18 19 20		Another approach to estimating long-term growth rates is to focus on estimating the overall economic growth rate. Again, this is the approach used in the <i>Ibbotson Cost of Capital Yearbook</i> . To obtain the economic growth rate, a forecast is made of the growth rate's component parts. Expected growth can be broken into two main parts: expected inflation and expected real growth. By analyzing these components separately, it is easier to see the factors that drive growth. <sup>20</sup>
21	Q	IS THERE ANY ACTUAL INVESTMENT HISTORY THAT SUPPORTS THE
22		NOTION THAT THE CAPITAL APPRECIATION FOR STOCK INVESTMENTS WILL
23		NOT EXCEED THE NOMINAL GROWTH OF THE U.S. GDP?
24	Α	Yes. This is evident by a comparison of the compound annual growth, or geometric
25		average growth, of the U.S. GDP compared to the compound annual growth of the
26		U.S. stock market. Duff & Phelps measured the historical geometric growth of the
27		U.S. stock market over the period 1926-2017 to be approximately 6.0%. <sup>21</sup> During this

about the same rate as nominal gross domestic product (real GDP

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<sup>&</sup>lt;sup>19</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, emphasis added.

<sup>&</sup>lt;sup>20</sup>Morningstar, Inc., Ibbotson SBBI 2013 Valuation Yearbook at 51 and 52.

<sup>&</sup>lt;sup>21</sup>Duff & Phelps, 2018 SBBI Yearbook at 6-17.

same	time per	riod, the	U.S.	nominal	compound	annual	growth	of the	U.S.	GDP	was
approx	ximately	6.4%.22									

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As such, over the past 90 years, the geometric average growth of the U.S. nominal GDP has been higher but comparable to the average geometric growth of the U.S. stock market capital appreciation. This historical relationship indicates that the U.S. GDP growth outlook is a conservative estimate of the long-term sustainable growth of U.S. stock investments.

# WHAT IS THE GEOMETRIC AVERAGE AND WHY IS IT APPROPRIATE TO USE THIS MEASURE TO COMPARE GDP GROWTH TO CAPITAL APPRECIATION IN THE STOCK MARKET?

The geometric average growth rate and compound annual growth rate are used interchangeably. The geometric annual growth rate is the calculated growth rate, or return, that measures the magnitude of growth from start to finish. The geometric average is best, and most often, used as a measurement of performance or growth over a long period of time.<sup>23</sup> Because I am comparing achieved growth in the stock market to achieved growth in U.S. GDP over a long period of time, the geometric average growth rate is most appropriate.

# HOW DID YOU DETERMINE A SUSTAINABLE LONG-TERM GROWTH RATE THAT REFLECTS THE CURRENT CONSENSUS OUTLOOK OF THE MARKET? I relied on the economic consensus of long-term GDP growth projections. Blue Chip Financial Forecasts publishes the consensus for GDP growth projections twice a year. These GDP growth outlooks are the best available measure of the market's

<sup>&</sup>lt;sup>22</sup>U.S. Bureau of Economic Analysis, February 28, 2018.

<sup>&</sup>lt;sup>23</sup>New Regulatory Finance, Roger Morin, PhD, at 133-134.

assessment of long-term GDP growth. These analyst projections reflect all current
outlooks for GDP and are likely the most influential on investors' expectations of
future growth outlooks. The consensus projections published GDP growth rate
outlook is 4.20% over the next 10 years. <sup>24</sup>

Therefore, I propose to use the consensus for projected 5- and 10-year average GDP growth rates of 4.20%, as published by *Blue Chip Financial Forecasts*, as an estimate of long-term sustainable growth. *Blue Chip Financial Forecasts* projections provide real GDP growth projections of 2.1% and GDP inflation of 2.1%<sup>25</sup> over the 5-year and 10-year projection periods, of 4.2% on the nominal projections. These GDP growth forecasts represent the most likely views of market participants because they are based on published economic consensus projections.

### 12 Q DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-TERM GDP 13 GROWTH?

14 A Yes, and these sources corroborate my use of the consensus projections, as shown below in Table 8.

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<sup>&</sup>lt;sup>24</sup>Blue Chip Financial Forecasts, June 1, 2018, at 14.

TABLE 8								
GDP Forecasts								
Source	<u>Term</u>	Real GDP	<u>Inflation</u>	Nominal <u>GDP</u>				
Blue Chip Financial Forecasts EIA - Annual Earnings Outlook Congressional Budget Office Moody's Analytics Social Security Administration The Economist Intelligence Unit	5-10 Yrs 28 Yrs 6 Yrs 25 Yrs 49 Yrs 25 Yrs	2.1% 2.0% 1.8% 2.0%	2.1% 2.3% 2.1% 1.8%	4.2% 4.4% 4.0% 3.8% 4.4% 3.7%				

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2018.

The EIA in its *Annual Energy Outlook* projects real GDP out until 2050. In its 2018 Annual Report, the EIA projects real GDP through 2050 to be 2.0% and a long-term GDP price inflation projection of 2.3%. The EIA data supports a long-term nominal GDP growth outlook of 4.4%.<sup>26</sup>

Also, the Congressional Budget Office ("CBO") makes long-term economic projections. The CBO is projecting real GDP growth to be 1.8% during the next 6 years, with a GDP price inflation outlook of 2.1%. The CBO 6-year outlook for nominal GDP based on this projection is 4.0%.<sup>27</sup>

Moody's Analytics also makes long-term economic projections. In its recent 25-year outlook to 2047, Moody's Analytics is projecting real GDP growth of 2.0% with GDP inflation of 1.8%.<sup>28</sup> Based on these projections, Moody's is projecting nominal GDP growth of 3.8% over the next 25 years.

 <sup>&</sup>lt;sup>26</sup>DOE/EIA Annual Energy Outlook 2018 With Projections to 2050, February 2018, Table 20.
 <sup>27</sup>CBO: The Budget and Economic Outlook: 2017 to 2027, April 2018, downloaded April 17,

<sup>&</sup>lt;sup>28</sup>www.economy.com, *Moody's Analytics Forecast*, January 24, 2018.

-	The	Social	Security	Administration	("SSA")	makes	long-term	economic
projection	ons c	out to 20	95. The	SSA's nominal	GDP proj	ection, u	ınder its "in	termediate
cost" sc	enari	io of apr	oroximatel	v 50 years is 4	4%. <sup>29</sup>			

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The Economist Intelligence Unit, a division of *The Economist* and a third-party data provider to MI, makes a long-term economic projection out to 2050. The Economist Intelligence Unit is projecting real GDP growth of 1.9% with an inflation rate of 1.8% out to 2050. The real GDP growth projection is in line with the consensus. The long-term nominal GDP projection based on these outlooks is approximately 3.7%.<sup>30</sup>

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

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

I relied on the same 13-week average stock prices and the most recent quarterly dividend payment data discussed above. For stage one growth, I used the consensus of analysts' growth rate projections discussed above in my constant growth DCF model. The first stage covers the first five years, consistent with the time horizon of the securities analysts' growth rate projections. The second stage, or transition stage, begins in year 6 and extends through year 10. The second stage growth transitions the growth rate from the first stage to the third stage using a

<sup>&</sup>lt;sup>29</sup>www.ssa.gov, "2017 OASDI Trustees Report," Table VI.G4.

<sup>&</sup>lt;sup>30</sup>S&P Global Market Intelligence, Economist Intelligence Unit, downloaded on March 14, 2018.

- straight linear trend. For the third stage, or long-term sustainable growth stage,

  starting in year 11, I used a 4.20% long-term sustainable growth rate based on the

  consensus long-term projected nominal GDP growth rate.
- 4 Q WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF MODEL?
- As shown in Schedule MPG-13, the average and median DCF returns on equity for my proxy group using the 13-week average stock price are 8.01% and 8.10%, respectively.
- 8 Q PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.
- 9 A The results from my DCF analyses are summarized in Table 9 below:

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TABLE 9 Summary of DCF Results		
Description	Proxy Average	Group <u>Median</u>
Constant Growth DCF Model (Analysts' Growth)	8.90%	9.10%
Constant Growth DCF Model (Sustainable Growth)	8.02%	8.02%
Multi-Stage Growth DCF Model	8.01%	8.10%

Based on these results, I conclude that my DCF analysis indicates a cost of equity of 8.90%. I am placing primary reliance on my constant growth DCF model based on analyst growth rate estimates, because my review of the models demonstrates that this is most representative of observable data regarding the current market cost of equity for regulated utilities.

#### V.E. Risk Premium Model

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

This model is based on the principle that investors require a higher return to assume greater risk. Common equity investments have greater risk than bonds because bonds have more security of payment in bankruptcy proceedings than common equity 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 riskier than bond securities.

This risk premium model is based on two estimates of an equity risk premium. First, I quantify the difference between regulatory commission-authorized returns on common equity and contemporary U.S. Treasury bonds. The difference between the authorized return on common equity and the Treasury bond yield is the risk premium. I estimated the risk premium on an annual basis for each year since January 1986. The authorized returns on equity were based on regulatory commission-authorized returns for electric utility companies. Authorized returns are typically based on expert witnesses' estimates of the investor-required return at the time of the proceeding.

The second equity risk premium estimate is based on the difference between regulatory commission-authorized returns on common equity and contemporary "A" rated utility bond yields by Moody's. I selected the period 1986 through March 2018 because public utility stocks consistently traded at a premium to book value during that period. This is illustrated in Schedule MPG-14, which shows the market-to-book ratio since 1986 for the electric utility industry was consistently above a multiple of 1.0x. Over this period, an analyst can infer that authorized returns on equity were sufficient to support market prices that at least exceeded book value.

This is an indication that commission authorized returns on common equity supported a utility's ability to issue additional common stock without diluting existing shares. It further demonstrates utilities were able to access equity markets without a detrimental impact on current shareholders.

Based on this analysis, as shown in Schedule MPG-15, the average indicated equity risk premium over U.S. Treasury bond yields has been 5.54%. 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 for a risk premium methodology.

I incorporated five-year and 10-year rolling average risk premiums over the study period to gauge the variability over time of risk premiums. These rolling average risk premiums mitigate the impact of anomalous market conditions and skewed risk premiums over an entire business cycle. As shown on my Schedule MPG-15, the five-year rolling average risk premium over Treasury bonds ranged from 4.25% to 6.72%, while the 10-year rolling average risk premium ranged from 4.38% to 6.57%.

As shown on my Schedule MPG-16, the average indicated equity risk premium over contemporary Baa Moody's utility bond yields was 4.18%. The five-year and 10-year rolling average risk premiums ranged from 2.88% to 5.57% and 3.20% to 5.35%, respectively.

# DO YOU BELIEVE THAT THE TIME PERIOD USED TO DERIVE THESE EQUITY RISK PREMIUM ESTIMATES IS APPROPRIATE TO FORM ACCURATE CONCLUSIONS ABOUT CONTEMPORARY MARKET CONDITIONS?

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Yes. Contemporary market conditions can change dramatically during the period that rates determined in this proceeding will be in effect. A relatively long period of time where stock valuations reflect premiums to book value indicates that the 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.

Alternatively, some studies, such as Duff & Phelps referred to later in this testimony, have recommended that use of "actual achieved investment return data" in a risk premium study should be based on long historical time periods. The studies find that achieved returns over short time periods may not reflect investors' expected returns due to unexpected and abnormal stock price performance. Short-term, abnormal actual returns would be smoothed over time and the achieved actual investment returns over long time periods would approximate investors' expected returns. Therefore, it is reasonable to assume that averages of annual achieved returns over long time periods will generally converge on the investors' expected returns.

My risk premium study is based on data that inherently relied on investor expectations, not actual investment returns, and, thus, need not encompass a very long historical time period.

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

Α

The equity risk premium should reflect the relative market perception of risk in the utility industry today. I have gauged investor perceptions in utility risk today in Schedule MPG-17, where I show the yield spread between utility bonds and Treasury bonds over the last 39 years. As shown in this exhibit, the average utility bond yield spreads over Treasury bonds for "A" and "Baa" rated utility bonds for this historical period are 1.50% and 1.93%, respectively. Yield spreads of "A" and "Baa" rated utility bonds over Treasury bonds during 2017 were 1.10% and 1.48%, respectively, which are lower than the 39-year averages. Similarly, yield spreads of "A" and "Baa" rated utility bonds over Treasury bonds during the first quarter of 2018 were 0.99% and 1.34%, respectively, which are lower than the 39-year averages.

A current 13-week average "A" rated utility bond yield of 4.19% when compared to the current Treasury bond yield of 3.09%, as shown in Schedule MPG-18, page 1, implies a yield spread of 110 basis points. This current utility bond yield spread is lower than the 39-year average spread for "A" rated utility bonds of 1.50%. The current spread for the "Baa" rated utility bond yield of 151 basis points is 42 basis points lower than the 39-year average of 1.93%.

These utility bond yield spreads are evidence that the market perception of utility risk is below average, or in-line, relative to the historical time period and demonstrate that utilities continue to have strong access to capital in the current market.

#### WHAT IS YOUR RECOMMENDED RETURN FOR KCPL / GMO BASED ON YOUR

#### **RISK PREMIUM STUDY?**

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Because of today's relatively low level of interest rates and uncertainty revolving around forecasted interest rates, I am recommending more weight be given to the high-end risk premium estimates than the low-end in order to be conservative. To calculate the equity risk premium estimate, I applied 75% weight to my high-end risk premium estimates and 25% to the low-end. Applying these weights, the risk premium for Treasury bond yields would be approximately 6.1%,<sup>31</sup> which is considerably higher than the 33-year average risk premium of 5.54% and reasonably reflective of the 3.8% projected Treasury bond yield. An equity risk premium of 6.1% added to the projected Treasury bond yield of 3.8% produces an estimated cost of equity of 9.9%.

Similarly, applying these weights to the utility risk premium indicates a risk premium of 4.9%.<sup>32</sup> This risk premium is above the 33-year historical average risk premium of 4.18%. Adding this risk premium to the average of current observable A-rated utility bond yields of 4.19%, produces an estimated cost of equity of approximately 9.1%.

Based on this methodology, my Treasury bond risk premium and my utility bond risk premium indicate a return in the range of 9.1% to 9.9%, with a midpoint of 9.5%.

 $<sup>^{31}(4.25\% * 25\%) + (6.72\% * 75\%) = 6.10\%.</sup>$ 

 $<sup>^{32}(2.88\% * 25\%) + (5.57\% * 75\%) = 4.90\%.</sup>$ 

#### V.F. Capital Asset Pricing Model ("CAPM")

#### 2 Q PLEASE DESCRIBE THE CAPM.

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

 $R_i = R_f + B_i x (R_m - R_f)$  where:

R<sub>i</sub> = Required return for stock i

 $R_f$  = Risk-free rate

R<sub>m</sub> = Expected return for the market portfolio

 $B_i$  = Beta - Measure of the risk for stock

The stock-specific risk term in the above equation is beta. Beta represents the investment risk that cannot be diversified away when the security is held in a diversified portfolio. When stocks are held in a diversified portfolio, stock-specific risks can be eliminated by balancing the portfolio with securities that react in the opposite direction to firm-specific risk factors (e.g., business cycle, competition, product mix, and production limitations).

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

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

2 A The CAPM requires an estimate of the market risk-free rate, the Company's beta, and 3 the market risk premium.

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

As previously noted, *Blue Chip Financial Forecasts*' projected 30-year Treasury bond yield is 3.80%.<sup>33</sup> The current 30-year Treasury bond yield is 3.09%, as shown in Schedule MPG-18. Again, in an effort to provide a conservative return on equity estimate, I used *Blue Chip Financial Forecasts*' projected 30-year Treasury bond yield of 3.80% for my CAPM analysis.

### WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN ESTIMATE OF THE RISK-FREE RATE?

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

Treasury bond yields, however, do include risk premiums related to unanticipated future inflation and interest rates. As such, in this regard, a Treasury bond yield is not a risk-free rate. Risk premiums related to unanticipated inflation and

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<sup>&</sup>lt;sup>33</sup>Blue Chip Financial Forecasts, June 1, 2018 at 2.

interest rates reflect systematic market risks. Consequently, for companies with betas less than 1.0, using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis can produce an overstated estimate of the CAPM return.

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

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5 A As shown in Schedule MPG-19, the proxy group average *Value Line* beta estimate is 0.70.

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

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

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

Duff & Phelps' *2018 SBBI Yearbook* estimates the historical arithmetic average real market return over the period 1926 to 2017 to be 9.0%.<sup>34</sup> A current consensus for projected inflation, as measured by the Consumer Price Index, is 2.3%.<sup>35</sup> Using these estimates, the expected market return is 11.5%.<sup>36</sup> The market risk premium then is the difference between the 11.5% expected market return and my 3.8% risk-free rate estimate, or 7.7%.

<sup>&</sup>lt;sup>34</sup>Duff & Phelps, 2018 SBBI Yearbook at 6-18.

<sup>&</sup>lt;sup>35</sup>Blue Chip Financial Forecasts, June 1, 2018 at 2.

 $<sup>^{36}\{ [(1 + 0.090) * (1 + 0.023)] - 1 \} * 100.</sup>$ 

My historical estimate of the market risk premium was also calculated by using data provided by Duff & Phelps in its *2018 SBBI Yearbook*. Over the period 1926 through 2017, the Duff & Phelps study estimated that the arithmetic average of the achieved total return on the S&P 500 was  $12.1\%^{37}$  and the total return on long-term Treasury bonds was  $6.00\%.^{38}$  The indicated market risk premium is 6.1% ( $12.1\%.^{28}$ ).

The long-term government bond yield of 6.0% occurred during a period of inflation of around 3.0%, thus implying a real return on long-term government bonds of around 3.0%.

### 10 Q HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO 11 THAT ESTIMATED BY DUFF & PHELPS?

The Duff & Phelps analysis indicates a market risk premium falls somewhere in the range of 5.0% to 7.1%. My market risk premium falls in the range of 6.1% to 7.7%. My average market risk premium of 6.9% is at the high end of the Duff & Phelps range.

#### Q HOW DOES DUFF & PHELPS MEASURE A MARKET RISK PREMIUM?

Duff & Phelps makes several estimates of a forward-looking market risk premium based on actual achieved data from the historical period of 1926 through 2017 as well as normalized data. Using this data, Duff & Phelps estimates a market risk premium derived from the total return on large company stocks (S&P 500), less the income return on Treasury bonds. The total return includes capital appreciation, dividend or coupon reinvestment returns, and annual yields received from coupons and/or

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<sup>&</sup>lt;sup>37</sup>Duff & Phelps, 2018 Yearbook at 6-17.

 $<sup>^{38}</sup>$ Id

dividend payments. The income return, in contrast, only reflects the income return

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received from dividend payments or coupon yields. Duff & Phelps claims the income return is the only true risk-free rate associated with Treasury bonds and is the best approximation of a truly risk-free rate.<sup>39</sup> I disagree with this assessment from Duff & Phelps because it does not reflect a true investment option available to the marketplace and therefore does not produce a legitimate estimate of the expected premium of investing in the stock market versus that of Treasury bonds. Nevertheless, I will use Duff & Phelps' conclusion to show the reasonableness of my market risk premium estimates.

Duff & Phelps' range is based on several methodologies. First, Duff & Phelps estimates a market risk premium of 7.07% based on the difference between the total market return on common stocks (S&P 500) less the income return on 20-year Treasury bond investments over the 1926-2017 period.<sup>40</sup>

Second, Duff & Phelps used the Ibbotson & Chen supply-side model which produced a market risk premium estimate of 6.04%.41

Duff & Phelps explains that the historical market risk premium based on the S&P 500 was influenced by an abnormal expansion of price-to-earnings ("P/E") ratios relative to earnings and dividend growth during the period, primarily over the last 30 years. Duff & Phelps believes this abnormal P/E expansion is not sustainable.42 Therefore, Duff & Phelps adjusted this market risk premium estimate to normalize the growth in the P/E ratio to be more in line with the growth in dividends and earnings.

Finally, Duff & Phelps develops its own recommended equity, or market risk premium by employing an analysis that takes into consideration a wide range of

<sup>42</sup>Duff & Phelps 2018 Valuation Handbook at 3-43.

<sup>&</sup>lt;sup>39</sup>Duff & Phelps 2017 Valuation Handbook at 3-32.

<sup>&</sup>lt;sup>40</sup>Duff & Phelps 2018 Valuation Handbook at 3-45.

economic information, multiple risk premium estimation methodologies, and the current state of the economy by observing measures such as the level of stock indices and corporate spreads as indicators of perceived risk. Based on this methodology, and utilizing a "normalized" risk-free rate of 3.5%, Duff & Phelps concludes the current expected, or forward-looking, market risk premium is 5.0%, implying an expected return on the market of 8.5%.<sup>43</sup>

It should be noted that Duff & Phelps' market risk premiums are measured over a 20-year Treasury bond. Because I am relying on a projected 30-year Treasury bond yield, the results of my CAPM analysis should be considered conservative estimates for the cost of equity.

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

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As shown in Schedule MPG-20 based on my low market risk premium of 6.1% and my high market risk premium of 7.7%, a risk-free rate of 3.8%, and a beta of 0.70, my CAPM analysis produces a return of approximately 8.07% to 9.19%. Based on my assessment of risk premiums in the current market, as discussed above, I recommend the high-end CAPM return estimate because it closely aligns the market risk premium with the prevailing risk-free rate. I recommend a CAPM return of 9.19%, rounded to 9.20%.

<sup>&</sup>lt;sup>43</sup>Duff & Phelps 2018 Valuation Handbook at 3-32 and 3-33.

#### V.G. Return on Equity Summary

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- 2 Q BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY
- 3 ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO
- 4 YOU RECOMMEND FOR KCPL / GMO?
- 5 A Based on my analyses, I estimate KCPL / GMO's current market cost of equity to be 9.30%.

TABL	E 10
Return on Common	<b>Equity Summary</b>
<u>Description</u>	<u>Results</u>
DCF	8.90%
Risk Premium	9.50%
CAPM	9.20%

My recommended return on common equity of 9.30% is the midpoint of my estimated range of 9.10% to 9.50%. My low end is based on my DCF and CAPM, and my high end is based on my risk premium. My return on equity estimates reflect observable market evidence, the impact of Federal Reserve policies on current and expected long-term capital market costs, an assessment of the current risk premium built into current market securities, and a general assessment of the current investment risk characteristics of the electric utility industry and the market's demand for utility securities.

#### V.H. Financial Integrity

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Total Debt.44

2	Q	WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT AN
3		INVESTMENT GRADE BOND RATING FOR KCPL / GMO?
4	Α	Yes. I have reached this conclusion by comparing the key credit rating financial
5		ratios for KCPL / GMO at my proposed return on equity, KCPL's proposed capital
6		structure, and my proposed capital structure for GMO, to S&P's benchmark financial
7		ratios using S&P's credit metric ranges.
8	Q	PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO CREDIT
9		METRIC METHODOLOGY.
10	Α	S&P evaluates a utility's credit rating based on an assessment of its financial and
11		business risks. A combination of financial and business risks equates to the overall
12		assessment of KCPL / GMO's total credit risk exposure. On November 19, 2013,
13		S&P updated its methodology. In its update, S&P published a matrix of financial
14		ratios that defines the level of financial risk as a function of the level of business risk.
15		S&P publishes ranges for primary financial ratios that it uses as guidance in its
16		credit review for utility companies. The two core financial ratio benchmarks it relies
17		on in its credit rating process include: (1) Debt to Earnings Before Interest, Taxes,
18		Depreciation and Amortization ("EBITDA"); and (2) Funds From Operations ("FFO") to

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."

Michael P. Gorman Page 63

<sup>&</sup>lt;sup>44</sup>Standard & Poor's RatingsDirect. "Criteria: Corporate Methodology," November 19, 2013.

1	The financial risk profile categories are "Minimal," "Modest," "Intermediate,"
2	"Significant," "Aggressive," and "Highly Leveraged." Most of the utilities have a
3	financial risk profile between "Intermediate" and "Aggressive." KCPL / GMO has an
4	"Excellent" business risk profile and a "Significant" financial risk profile.

### Q HOW DID YOU APPLY S&P'S FINANCIAL RATIOS TO TEST THE REASONABLENESS OF YOUR RATE OF RETURN RECOMMENDATIONS?

I calculated each of S&P's core financial ratios based on KCPL / GMO's cost of service for their retail operations in their Missouri jurisdiction. While S&P would normally look at total consolidated KCPL / GMO financial ratios in its credit review process, my investigation in this proceeding is not the same as S&P's. I am attempting to judge the reasonableness of my proposed cost of capital for rate-setting in KCPL / GMO's retail regulated utility operations. Hence, I am attempting to determine if my proposed rate of return will provide sufficient cash flow, balance sheet strength, and earnings that will support an investment grade bond rating and KCPL / GMO's financial integrity.

#### V.H.A. KCPL

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

Yes, I did. I have included approximately \$131 million of off-balance sheet debt equivalents in calculating KCPL's adjusted debt balance. This is reported operating leases and purchased power debt equivalents for KCPL at year-end 2017.

I also included an allocated amount of the imputed interest expenses and amortized expenses for the off-balance sheet obligations. Finally, I reflected KCPL's capitalized interest cost as reported by S&P for 2017.

1	Q	PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS AS IT
2		RELATES TO KCPL.

The S&P credit metric calculations for KCPL at a 9.30% return on equity are developed on Schedule MPG-21, page 1. The credit metrics produced below, with KCPL's financial risk profile from S&P of "Significant" and business risk score by S&P of "Excellent," will be used to assess the strength of the credit metrics based on KCPL's retail operations in the state of Missouri.

KCPL's adjusted total debt ratio, based on its requested capital structure is approximately 51.2%. As shown on Schedule MPG-21, this adjusted debt ratio is reasonably consistent with the adjusted debt ratios for an A- rated utility. Hence, I concluded this capital structure reasonably supports KCPL's current investment grade bond rating.

Based on an equity return of 9.30%, KCPL will be provided an opportunity to produce a Debt to Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA") ratio of 3.5x. This is within S&P's "Significant" guideline range of 3.5x to 4.5x,<sup>45</sup> which supports KCPL's "Significant" financial risk profile and A- bond rating.

KCPL's retail operations FFO to total debt coverage at a 9.30% equity return is 20%, which is within S&P's "Significant" metric guideline range of 13% to 23%. This FFO/total debt ratio will support KCPL's "Significant" financial risk profile and its A- bond rating.

<sup>&</sup>lt;sup>45</sup>*Id*.

#### V.H.B. GMO

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2	O	DID YOU INCLUDE	ANY OFF-BALANCE	SHEET DEBT EQUIV	<b>ALENTS?</b>
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Great Plains Energy is not reporting SEC 10-K information for GMO in 2017. Therefore, there is no separate identification of off-balance sheet debt equivalents for GMO during the test year. Therefore, no off-balance sheet debt equivalents were considered in this credit metric analysis. However, I did consider approximately \$210 million of notes payable at a stated interest rate of around 1.5% as additional interest expense. I assume that this interest expense supports construction work in progress and will be recorded as capitalized interest.

### 10 Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS AS IT 11 RELATES TO GMO.

The S&P credit metric calculations for GMO at a 9.30% return on equity are developed on Schedule MPG-21, page 5. The credit metrics produced below, with GMO's financial risk profile from S&P of "Significant" and business risk score by S&P of "Excellent," will be used to assess the strength of the credit metrics based on GMO's retail operations in the state of Missouri.

GMO's adjusted total debt ratio, based on its requested capital structure is approximately 49.1%. As shown on Schedule MPG-21, this adjusted debt ratio is reasonably consistent with the adjusted debt ratios for an A- rated utility. Hence, I concluded this capital structure reasonably supports GMO's current investment grade bond rating.

Based on an equity return of 9.30%, GMO will be provided an opportunity to produce a Debt to Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA") ratio of 3.5x. This is within S&P's "Significant" guideline range of 3.5x to

1	4.5x.40 This ratio supports GMO's "Significant" financial risk profile and A- bond
2	rating.
3	GMO's retail operations FFO to total debt coverage at a 9.30% equity return is
4	20%, which is within S&P's "Significant" metric guideline range of 13% to 23%. This
5	FFO/total debt ratio will support GMO's "Significant" financial risk profile and A- bond

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

8 A Yes, it does.

rating.

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#### Appendix A

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

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

my areas of responsibility were expanded to include utility financial modeling and financial analyses.

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.

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

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

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

Α

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

1	Q	PLEASE	DESCRIBE	ANY	PROFESSIONAL	REGISTRATIONS	OR
2		ORGANIZA	ATIONS TO WH	ICH YOU	BELONG.		
3	Α	I earned t	he designation	of Char	tered Financial Anal	yst ("CFA") from the	CFA
4		Institute.	The CFA cha	rter was	awarded after suc	cessfully completing	three
5		examination	ns which covere	ed the su	ubject areas of financ	cial accounting, econo	omics,
6		fixed incom	ne and equity v	/aluation	and professional and	d ethical conduct. I	am a

member of the CFA Institute's Financial Analyst Society.

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## **KCPL Capital Structure**

<u>Line</u>	<u>Description</u>	Amount <sup>1</sup> (1)	Weight (2)	Cost 1/2 (3)	Weighted <u>Cost</u> (4)
1	Common Equity	\$2,552,787,000	50.03%	9.30%	4.65%
2	Long-Term Debt	2,549,380,000	<u>49.97%</u>	5.06%	<u>2.53%</u>
3	Total	5,102,167,000	100.00%		7.18%

<sup>&</sup>lt;sup>1</sup> Schedule RBH-10, page 1. <sup>2</sup> Gorman Direct Testimony.

## **GMO Capital Structure**

<u>Line</u>	<u>Description</u>	Amount <sup>1</sup> (1)	Goodwill <u>Asset<sup>2</sup></u> (2)	Adjusted <u>Amount</u> (3)	Weight (4)	Cost 3/4 (5)	Weighted <u>Cost</u> (6)
1	Common Equity	\$1,287,188,000	\$168,969,590	\$1,118,218,410	50.89%	9.30%	4.73%
2	Long-Term Debt	<u>1,079,114,000</u>		<u>\$1,079,114,000</u>	<u>49.11%</u>	4.79%	2.35%
3	Total	2.366.302.000		2.197.332.410	100.00%		7.09%

<sup>&</sup>lt;sup>1</sup> Schedule RBH-10, page 1.

<sup>&</sup>lt;sup>2</sup> GMO 2017 FERC Form 1, page 233.

<sup>&</sup>lt;sup>3</sup> Gorman Direct Testimony.

<sup>&</sup>lt;sup>4</sup> Schedule MPG-5.

### **KCPL Historical Cash Flows**

## Kansas City Power & Light Company | Electric Utility Cash Flow (MI KEY: 4072456; SPCIQ KEY: 3097815)

Line		1Q 2018 (1)	2017 Y (2)	2016 Y (3)	4Q 2015 (4)	<u>3Q 2015</u> (5)
	Operating Cash Flows (\$000)	(1)	(2)	(0)	(4)	(0)
1	Net Income	20,181	179,763	224,970	25,837	84,321
2	Depreciation and Depletion	66,593	266,246	247,477	60,465	58,929
3	Amortization	9,459	42,037	37,735	11,268	11,209
4	Deferred Income Taxes (net)	5,581	83,383	93,316	79,611	(1,146)
5	Investment Tax Credit Adjustments (net)	(262)	(1,049)	(1,049)	(262)	271
6	Net Decrease in Receivables, Operating	47,814	26,250	60,060	(68,986)	(2,246)
7	Net Decrease in Inventory, Operating	(2,674)	(5,184)	6,341	(13,654)	(3,800)
8	Net Decrease in Allowances	(9)	(20)	(32)	32	(13)
9	Net Increase in Payables & Accruals-Op	(64,527)	11,445	(19,580)	(45,096)	69,060
10	Net Decrease in Other Regulatory Assets	6,698	22,220	(36,755)	(6,799)	(1,129)
11	Net Increase in Other Regulatory Liab	(1,214)	(4,827)	(1,904)	(1,858)	(262)
12	Less: Allow for Oth Funds Used During Constr - Op	1,404	6,029	6,603	901	197
13	Less: Undistributed Earn From Subsidiary Companies	1,610	4,959	6,127	1,176	2,050
14	Other Cash-Operating Activities	21,957	21,553	25,448	(20,999)	33,006
15	Net Cash Flow from Operating Activities	106,584	630,829	623,298	17,479	245,953
	Investing Cash Flows (\$000)					
16	Cash Outflows for Plant	(97,852)	(444,180)	(425,090)	(109,080)	(113,350)
17	Proceeds From Disposal of Noncurrent Assets	0	0	0	0	0
18	Investments in and Advances to Assoc Co/Subsid Co	0	0	0	0	0
19	Contributions & Advances from Assoc Co/Subsid Co	0	0	0	0	0
20	Disposition of Investment In Assoc Co/Subsid Co	0	0	0	0	0
21	Purchase of Investment Securities	(12,097)	(33,638)	(31,906)	(15,673)	(12,969)
22	Proceeds From Sales of Investment Securities	11,267	30,321	28,588	14,844	12,140
23	Loans Made Or Purchased	0	0	0	0	0
24	Collections on Loans	0	0	0	0	0
25	Miscellaneous Cash Flow from Investing	(3,750)	(23,404)	(23,085)	(5,662)	(4,392)
26	Net Cash Flow from Investing Activities	(102,431)	(470,902)	(451,493)	(115,572)	(118,571)
	Financing Cash Flows (\$000]					
27	Cash Provided By Outside Sources	420,548	333,800	0	0	223,036
28	Long-term Debt Retirement	(350,000)	(281,000)	0	0	(71,940)
29	Preferred Stock Retirement	0	0	0	0	0
30	Common Stock Retirement	0	0	0	0	0
31	Other Security Retirements	(3,137)	(3,011)	(193)	(440)	(2,553)
32	Net Decrease In Short-term Debt	0	0	(47,400)	98,200	(276,200)
33	Dividends on Preferred Stock	0	0	0	0	0
34	Dividends on Common Stock	(60,000)	(212,000)	(122,000)	0	0
35	Net Cash Flow from Financing Activities	7,411	(162,211)	(169,593)	97,760	(127,657)
36	Net Increase in Cash and Cash Equivalents	11,564	(2,284)	2,213	(332)	(275)
37	Cash and Cash Equivalents At Beginning of Year	2,162	4,447	2,234	2,566	2,841
38	Cash and Cash Equivalents at End of Year	13,727	2,162	4,447	2,234	2,566
	Data is sourced from the FERC Form 1/1-F, FERC Form 3/3 Energy Filings Quick Reference Guide	-A or EIA 861 filings.				
	9/2015 - 3/2018					
39	Dividends (\$000) \$394,000	60,000	212,000	122,000	0	0
40	Income (\$000) \$535,072	20,181	179,763	224,970	25,837	84,321
41	Ratio 74%	297%	118%	54%	0%	0%

Source: S&P Global Market Intelligence, downloaded June 15, 2018.

### **GMO Historical Cash Flows**

## KCP&L Greater Missouri Operations Company | Electric Utility Cash Flow (MI KEY: 4000843; SPCIQ KEY: 311595)

<u>Line</u>		1Q 2018 (1)	2017 Y (2)	<u>2016 Y</u> (3)	4Q 2015 (4)	<u>3Q 2015</u> (5)
1	Operating Cash Flows (\$000) Net Income	9,789	(40,541)	60,817	(2,793)	43,881
2	Depreciation and Depletion	26,667	104,717	97,294	23,966	23,776
3	Amortization	105	414	448	23,900	114
4	Deferred Income Taxes (net)	(1,637)	148,899	50,933	(59,848)	77,484
5	Investment Tax Credit Adjustments (net)	(60)	(315)	2,128	(102)	(102)
6	Net Decrease in Receivables, Operating	7,727	(25,014)	22,937	(15,674)	26,485
7	Net Decrease in Inventory, Operating	(285)	1,837	(2,981)	(3,941)	1,433
8	Net Decrease in Allowances	(10)	(4)	(2,981)	(3,341)	530
9	Net Increase in Payables & Accruals-Op	(45,326)	22,254	(71,754)	158,638	(12,812)
10	Net Decrease in Other Regulatory Assets	3,587	1,010	2,754	6,888	12,104
11	Net Increase in Other Regulatory Liab	(158)	(9,177)	1,833	2,232	2,360
12	Less: Allow for Oth Funds Used During Constr - Op	0	(4)	(8)	121	73
13	Less: Undistributed Earn From Subsidiary Companie		3,366	(2,138)	630	1.133
14	Other Cash-Operating Activities	8,837	4,316	6,229	(1,539)	453
15	Net Cash Flow from Operating Activities	8,405	205,032	172,500	107,261	174,501
	Investing Cash Flows (\$000)					
16	Cash Outflows for Plant	(27,523)	(137,039)	(191,722)	(48,754)	(41,556)
17	Proceeds From Disposal of Noncurrent Assets	0	0	0	0	0
18	Investments in and Advances to Assoc Co/Subsid Co	0	0	0	0	0
19	Contributions & Advances from Assoc Co/Subsid Co	0	0	0	0	0
20	Disposition of Investment In Assoc Co/Subsid Co	0	0	0	0	0
21	Purchase of Investment Securities	0	0	0	0	0
22	Proceeds From Sales of Investment Securities	0	0	0	0	0
23	Loans Made Or Purchased	0	0	0	0	0
24	Collections on Loans	0	0	0	0	0
25	Miscellaneous Cash Flow from Investing	(1,158)	(11,054)	(17,680)	(4,731)	(4,085)
26	Net Cash Flow from Investing Activities	(28,681)	(148,093)	(209,402)	(53,484)	(45,642)
	Financing Cash Flows (\$000)					
27	Cash Provided By Outside Sources	26,200	7,400	158,200	(12,925)	(88,590)
28	Long-term Debt Retirement	(1,125)	(1,125)	(1,125)	0	0
29	Preferred Stock Retirement	0	0	0	0	0
30	Common Stock Retirement	0	0	0	0	0
31	Other Security Retirements	0	0	0	0	0
32	Net Decrease In Short-term Debt	0	0	0	0	0
33	Dividends on Preferred Stock	0	0	0	0	0
34	Dividends on Common Stock	0	(63,000)	(117,000)	(41,000)	(40,000)
35	Net Cash Flow from Financing Activities	25,075	(56,725)	36,330	(53,925)	(128,590)
36	Net Increase in Cash and Cash Equivalents	4,799	214	(572)	(148)	269
37	Cash and Cash Equivalents At Beginning of Year	3,319	3,105	3,677	3,826	3,557
38	Cash and Cash Equivalents at End of Year	8,118	3,319	3,105	3,677	3,826
	Data is sourced from the FERC Form 1/1-F, FERC Form 3 Energy Filings Quick Reference Guide	8/3-A or EIA 861 filings.				
	<u>9/2015 - 3/2</u>	018				
39	<b>Dividends (\$000)</b> \$261,000	0	63,000	117,000	41,000	40,000
40	Income (\$000) \$71,153		(40,541)	60,817	(2,793)	43,881
41	Ratio 367%	0%	-155%	192%	-1468%	91%

Source: S&P Global Market Intelligence, downloaded June 15, 2018.

### **KCPL and GMO Combined Historical Cash Flows**

## KCP&L Greater Missouri Operations Company | Electric Utility Cash Flow (MI KEY: 4000843; SPCIQ KEY: 311595)

<u>Line</u>		<u>1Q 2018</u> (1)	2017 Y (2)	2016 Y (3)	4Q 2015 (4)	<u>3Q 2015</u> (5)
	Operating Cash Flows (\$000)	00.070	400,000	005.707	00.044	400,000
1	Net Income	29,970	139,222	285,787	23,044	128,202
2	Depreciation and Depletion	93,260	370,963	344,771	84,431	82,705
3	Amortization	9,564	42,451	38,183	11,385	11,323
4	Deferred Income Taxes (net)	3,944	232,282	144,249	19,763	76,338
5	Investment Tax Credit Adjustments (net)	(322)	(1,364)	1,079	(364)	169
6	Net Decrease in Receivables, Operating	55,541	1,236	82,997	(84,660)	24,239
7	Net Decrease in Inventory, Operating	(2,959)	(3,347)	3,360	(17,595)	(2,367)
8	Net Decrease in Allowances	(19)	(24)	(317)	99	517
9	Net Increase in Payables & Accruals-Op	(109,853)	33,699	(91,334)	113,542	56,248
10	Net Decrease in Other Regulatory Assets	10,285	23,230	(34,001)	89	10,975
11	Net Increase in Other Regulatory Liab	(1,372)	(14,004)	(71)	374	2,098
12	Less: Allow for Oth Funds Used During Constr - Op	1,404	6,025	6,595	1,022	270
13	Less: Undistributed Earn From Subsidiary Companies	2,443	8,325	3,989	1,806	3,183
14	Other Cash-Operating Activities	30,794	25,869	31,677	(22,538)	33,459
15	Net Cash Flow from Operating Activities	114,989	835,861	795,798	124,740	420,454
	Investing Cash Flows (\$000)					
16	Cash Outflows for Plant	(125,375)	(581,219)	(616,812)	(157,834)	(154,906)
17	Proceeds From Disposal of Noncurrent Assets	0	0	0	0	0
18	Investments in and Advances to Assoc Co/Subsid Co	0	0	0	0	0
19	Contributions & Advances from Assoc Co/Subsid Co	0	0	0	0	0
20	Disposition of Investment In Assoc Co/Subsid Co	0	0	0	0	0
21	Purchase of Investment Securities	(12,097)	(33,638)	(31,906)	(15,673)	(12,969)
22	Proceeds From Sales of Investment Securities	11,267	30,321	28,588	14,844	12,140
23	Loans Made Or Purchased	0	0	0	0	0
24	Collections on Loans	0	0	0	0	0
25	Miscellaneous Cash Flow from Investing	(4,908)	(34,458)	(40,765)	(10,393)	(8,477)
26	Net Cash Flow from Investing Activities	(131,112)	(618,995)	(660,895)	(169,056)	(164,213)
	Financing Cash Flows (\$000)					
27	Cash Provided By Outside Sources	446,748	341,200	158,200	(12,925)	134,446
28	Long-term Debt Retirement	(351,125)	(282,125)	(1,125)	0	(71,940)
29	Preferred Stock Retirement	0	0	0	0	0
30	Common Stock Retirement	0	0	0	0	0
31	Other Security Retirements	(3,137)	(3,011)	(193)	(440)	(2,553)
32	Net Decrease In Short-term Debt	0	0	(47,400)	98,200	(276,200)
33	Dividends on Preferred Stock	0	0	0	0	0
34	Dividends on Common Stock	(60,000)	(275,000)	(239,000)	(41,000)	(40,000)
35	Net Cash Flow from Financing Activities	32,486	(218,936)	(133,263)	43,835	(256,247)
36	Net Increase in Cash and Cash Equivalents	16,363	(2,070)	1,641	(480)	(6)
37	Cash and Cash Equivalents At Beginning of Year	5,481	7,552	5,911	6,392	6,398
38	Cash and Cash Equivalents at End of Year	21,845	5,481	7,552	5,911	6,392
	Data is sourced from the FERC Form 1/1-F, FERC Form 3/3 Energy Filings Quick Reference Guide	3-A or EIA 861 filings.				
	<u>9/2015 - 3/201</u>	18				
39	<b>Dividends (\$000)</b> \$655,000	60,000	275,000	239,000	41,000	40,000
40	Income (\$000) \$606,225	29,970	139,222	285,787	23,044	128,202
41	Ratio 108%	200%	198%	84%	178%	31%

Source: S&P Global Market Intelligence, downloaded June 15, 2018.

## Electric Utilities (Valuation Metrics)

		Price to Earnings (P/E) Ratio <sup>1</sup>																
Line	Company	Average	2017 <sup>2</sup>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	2012	<u>2011</u>	<u>2010</u>	2009	2008	2007	2006	2005	2004	2003	2002
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1	ALLETE	17.39	23.00	18.63	15.06	17.23	18.59	15.88	14.66	15.98	16.08	13.95	14.78	16.55	17.91	25.21	N/A	N/A
2	Alliant Energy	15.79	20.60	22.30	18.07	16.60	15.28	14.50	14.45	12.47	13.86	13.43	15.08	16.82	12.59	14.00	12.69	19.93
3	Ameren Corp.	15.45	20.60	18.29	17.55	16.71	16.52	13.35	11.93	9.66	9.26	14.21	17.45	19.39	16.72	16.28	13.51	15.78
4	American Electric Power	13.84	19.30	15.16	15.77	15.88	14.49	13.77	11.92	13.42	10.03	13.06	16.27	12.91	13.70	12.42	10.66	12.68
5	Avangrid, Inc.	29.58	27.30	20.49	40.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	17.97	23.40	18.80	17.60	17.28	14.64	19.30	14.08	12.74	11.42	14.97	30.88	15.39	19.45	24.43	13.84	19.27
7	Black Hills	17.67	19.50	22.29	16.14	19.03	18.24	17.13	31.13	18.10	9.93	N/A	15.02	15.77	17.27	17.13	15.95	12.52
8	CenterPoint Energy	14.61	17.90	21.91	18.10	16.96	18.75	14.85	14.58	13.78	11.81	11.27	15.00	10.27	19.06	17.84	6.05	5.59
9	CMS Energy Corp.	16.69	21.30	20.94	18.29	17.30	16.32	15.07	13.62	12.46	13.56	10.87	26.84	22.18	12.60	12.39	N/A	N/A
10	Consol. Edison	15.22	19.80	18.80	15.59	15.90	14.72	15.39	15.08	13.30	12.55	12.29	13.78	15.49	15.13	18.21	14.30	13.28
11	Dominion Resources	18.05	22.20	21.33	22.14	22.97	19.25	18.91	17.27	14.35	12.74	13.78	20.63	15.98	24.89	15.07	15.24	12.05
12	DTE Energy	15.31	18.60	18.97	18.11	14.91	17.92	14.89	13.51	12.27	10.41	14.81	18.27	17.43	13.80	16.04	13.69	11.28
13	Duke Energy	16.85	19.90	21.25	18.22	17.91	17.45	17.46	13.76	12.69	13.32	17.28	16.13	N/A	N/A	N/A	N/A	N/A
14	Edison Int'l	13.92	17.20	17.92	14.77	13.05	12.70	9.71	11.81	10.32	9.72	12.36	16.03	12.99	11.74	37.59	6.97	7.78
15	El Paso Electric	17.11	21.80	18.66	18.33	16.38	15.88	14.47	12.60	10.72	10.79	11.89	15.26	16.92	26.72	22.03	18.26	22.99
16	Entergy Corp.	13.45	15.00	10.92	12.53	12.89	13.21	11.22	9.06	11.57	11.98	16.56	19.30	14.28	16.28	15.09	13.77	11.53
17	Eversource Energy	17.57	19.50	18.69	18.11	17.92	16.94	19.86	15.35	13.42	11.96	13.66	18.75	27.07	19.76	20.77	13.35	16.07
18	Exelon Corp.	14.39	13.40	18.68	12.58	16.02	13.43	19.08	11.30	10.97	11.49	17.97	18.22	16.53	15.37	12.99	11.77	10.46
19	FirstEnergy Corp.	17.28	11.40	15.91	17.02	39.79	13.06	21.10	22.39	11.75	13.02	15.64	15.59	14.23	16.07	14.13	22.47	12.95
20	Fortis Inc.	19.21	16.80	21.60	18.00	24.29	19.97	20.12	18.79	18.22	16.36	17.48	21.14	17.68	N/A	N/A	N/A	N/A
21	Great Plains Energy	15.52	NMF	17.98	19.37	16.47	14.19	15.53	16.11	12.10	16.03	20.55	16.35	18.30	13.96	12.59	12.23	11.09
22	Hawaiian Elec.	17.99	20.70	13.56	20.40	15.88	16.21	15.81	17.09	18.59	19.79	23.16	21.57	20.33	18.27	19.18	13.76	13.47
23	IDACORP, Inc.	15.92	20.60	19.06	16.22	14.67	13.45	12.41	11.54	11.83	10.20	13.93	18.19	15.07	16.70	15.49	26.51	18.88
24	MGE Energy	17.78	22.90	24.90	20.28	17.19	17.01	17.23	15.82	14.98	15.14	14.22	15.01	15.88	22.40	17.98	17.55	15.96
25	NextEra Energy, Inc.	15.83	21.60	20.71	16.89	17.25	16.57	14.43	11.54	10.83	13.42	14.48	18.90	13.65	17.88	13.65	17.88	13.60
26	NorthWestern Corp	16.76	17.80	17.19	18.36	16.24	16.86	15.72	12.62	12.90	11.54	13.87	21.74	25.95	17.09	N/A	N/A	N/A
27	OGE Energy	14.89	18.30	17.68	17.69	18.27	17.69	15.16	14.37	13.31	10.83	12.41	13.75	13.68	14.95	14.13	11.84	14.12
28	Otter Tail Corp.	24.30	22.10	20.19	18.20	18.84	21.12	21.75	47.48	55.10	31.16	30.06	19.02	17.35	15.40	17.34	17.77	16.01
29	PG&E Corp.	16.79	18.30	21.13	26.40	15.00	23.67	20.70	15.46	15.80	13.01	12.08	16.85	14.84	15.37	13.81	9.50	N/A
30	Pinnacle West Capital	15.54	19.30	18.74	16.04	15.89	15.27	14.35	14.60	12.57	13.74	16.07	14.93	13.69	19.24	15.80	13.96	14.43
31	PNM Resources	17.80	20.40	19.83	16.85	18.68	16.13	14.97	14.53	14.05	18.09	N/A	35.65	15.57	17.38	15.02	14.73	15.08
32	Portland General	16.11	20.00	19.06	17.71	15.32	16.88	13.98	12.37	12.00	14.40	16.30	11.94	23.35	N/A	N/A	N/A	N/A
33	PPL Corp.	14.29	17.60	12.83	13.92	14.08	12.84	10.88	10.52	11.93	25.69	17.64	17.26	14.10	15.12	12.51	10.59	11.06
34	Public Serv. Enterprise	13.33	16.30	15.35	12.41	12.61	13.50	12.79	10.40	10.37	10.04	13.65	16.54	17.81	16.74	14.26	10.58	10.00
35	SCANA Corp.	13.96	14.50	16.80	14.67	13.68	14.43	14.80	13.67	12.93	11.63	12.67	14.96	15.42	14.44	13.57	13.05	12.17
36	Sempra Energy	14.64	24.30	24.37	19.73	21.87	19.68	14.89	11.77	12.60	10.09	11.80	14.01	11.50	11.79	8.65	8.96	8.19
37	Southern Co.	15.68	15.50	17.76	15.85	16.04	16.19	16.97	15.85	14.90	13.52	16.13	15.95	16.19	15.92	14.68	14.83	14.63
38	Vectren Corp.	17.05	23.50	19.18	17.92	19.98	20.66	15.02	15.83	15.10	12.89	16.79	15.33	18.92	15.11	17.57	14.80	14.16
39	WEC Energy Group	15.93	20.00	19.95	21.33	17.71	16.50	15.76	14.25	14.01	13.35	14.77	16.47	15.97	14.46	17.51	12.43	10.46
40	Westar Energy	15.58	23.40	21.59	18.45	15.36	14.04	13.43	14.78	12.96	14.95	16.96	14.10	12.18	14.79	17.44	10.78	14.02
41	Xcel Energy Inc.	16.76	20.20	18.48	16.54	15.44	15.04	14.82	14.24	14.13	12.66	13.69	16.65	14.80	15.36	13.65	11.62	40.80
42	Average	16.23	19.65	18.97	18.00	17.39	16.38	15.69	15.30	14.28	13.56	15.18	17.74	16.47	16.52	16.57	13.70	14.31
43	Median	15.57	19.95	18.80	17.71	16.54	16.27	15.04	14.31	12.91	12.82	14.21	16.41	15.88	15.92	15.29	13.60	13.47

Sources:

<sup>&</sup>lt;sup>1</sup> The Value Line Investment Survey Investment Analyzer Software, downloaded on June 21, 2017.

<sup>&</sup>lt;sup>2</sup> The Value Line Investment Survey, March 16, April 27, and May 18, 2018.

## Electric Utilities (Valuation Metrics)

		Market Price to Cash Flow (MP/CF) Ratio 1																
		16-Year	0/-															
Line	<u>Company</u>	Average (1)	2017 <sup>2/a</sup> (2)	<u>2016</u> (3)	<u>2015</u> (4)	<u>2014</u> (5)	<u>2013</u> (6)	<u>2012</u> (7)	<u>2011</u> (8)	<u>2010</u> (9)	<u>2009</u> (10)	<u>2008</u> (11)	<u>2007</u> (12)	<u>2006</u> (13)	<u>2005</u> (14)	<u>2004</u> (15)	<u>2003</u> (16)	<u>2002</u> (17)
1	ALLETE	9.35	10.83	8.26	7.49	8.80	9.15	8.18	7.91	8.04	8.51	9.29	10.30	11.06	11.54	11.46	N/A	N/A
2	Alliant Energy	7.33	10.35	10.67	8.86	8.40	7.52	7.50	7.21	6.59	6.23	7.49	7.92	8.00	5.09	5.52	4.76	5.20
3	Ameren Corp.	6.85	8.55	7.44	6.87	6.95	6.61	5.48	5.02	4.23	4.25	6.35	7.69	8.57	8.57	8.24	6.74	7.96
4	American Electric Power	6.14	8.80	7.57	7.09	7.00	6.57	5.93	5.46	5.54	4.71	5.71	6.84	5.54	6.07	5.50	4.69	5.19
5	Avangrid, Inc.	10.00	10.12	8.56	11.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	6.49	9.30	7.63	6.76	7.30	6.21	6.88	6.40	5.80	4.06	5.12	7.58	5.30	6.58	7.58	5.36	5.90
7	Black Hills	7.52	9.02	9.33	8.06	8.81	8.03	6.04	7.85	6.16	4.25	11.26	7.62	6.92	7.57	6.69	6.89	5.92
8	CenterPoint Energy	4.83	6.82	5.96	5.75	6.25	6.56	5.15	5.39	4.70	4.05	4.29	5.17	3.94	4.70	4.26	2.08	2.16
9	CMS Energy Corp.	5.44	8.69	8.50	7.53	7.13	6.68	6.03	5.41	4.48	3.64	3.45	5.57	4.40	4.04	3.20	2.88	NMF
10	Consol. Edison	8.16	9.62	9.39	7.96	7.89	7.77	8.31	8.15	7.39	6.72	6.89	8.31	8.65	8.59	9.31	7.90	7.64
11	Dominion Resources	9.31	11.32	11.59	11.84	12.27	10.88	9.92	9.45	8.12	6.98	8.27	8.65	7.81	10.09	7.68	7.51	6.53
12	DTE Energy	6.05	9.06	8.64	8.52	6.42	6.65	5.91	5.18	4.69	3.59	4.90	5.73	5.21	5.54	6.00	5.62	5.20
13	Duke Energy	7.59	8.39	8.57	7.95	8.12	8.11	9.53	6.56	6.01	5.96	7.13	7.16	N/A	N/A	N/A	N/A	N/A
14	Edison Int'l	5.25	6.62	6.77	5.92	5.68	5.46	4.59	4.22	4.11	3.95	5.63	7.01	5.87	5.61	6.84	2.82	2.96
15	El Paso Electric	5.72	8.58	7.46	6.47	6.33	6.19	5.78	5.16	4.31	3.98	4.95	6.44	6.25	6.67	4.65	3.90	4.39
16	Entergy Corp.	5.76	4.72	4.01	4.11	4.21	4.03	4.23	3.90	4.66	5.68	7.96	9.21	7.16	8.76	7.12	6.84	5.57
17	Eversource Energy	6.49	10.29	10.14	10.12	10.14	8.08	9.30	6.99	4.97	4.61	4.12	6.18	6.02	3.55	3.78	2.85	2.75
18	Exelon Corp.	6.21	4.54	4.80	4.70	5.09	4.61	5.54	5.86	5.10	5.98	9.65	9.89	8.62	7.97	6.29	5.71	4.97
19	FirstEnergy Corp.	6.20	4.82	5.12	5.38	7.43	6.15	7.42	7.33	4.49	4.91	7.58	7.89	7.53	6.04	5.15	6.90	5.10
20	Fortis Inc.	8.20	8.22	10.46	7.29	9.25	7.93	8.09	8.38	7.40	6.76	7.58	9.18	7.89	N/A	N/A	N/A	N/A
21	Great Plains Energy	6.89	14.62	8.63	6.66	6.45	5.73	6.09	5.74	4.49	5.06	7.71	7.13	7.68	6.70	6.52	5.92	5.14
22	Hawaiian Elec.	7.95	9.57	7.44	9.25	7.64	8.15	8.05	7.73	7.81	6.95	9.10	7.95	8.47	8.29	8.44	6.12	6.20
23	IDACORP, Inc.	7.91	11.83	10.95	9.37	8.59	7.78	7.05	6.64	6.52	5.31	7.10	8.23	7.73	7.55	7.15	7.27	7.53
24	MGE Energy	10.86	17.29	15.66	12.53	11.42	11.20	10.77	9.48	9.05	8.40	8.42	9.23	9.30	11.73	11.04	10.20	8.09
25	NextEra Energy, Inc.	7.32	11.42	9.23	7.93	7.98	7.60	7.58	5.98	5.33	6.09	7.34	9.02	6.51	6.71	6.71	5.97	5.77
26	NorthWestern Corp	7.54	8.89	8.65	8.99	9.01	7.61	6.85	5.89	5.79	5.05	5.57	8.45	9.39	7.31	8.13	N/A	N/A
27	OGE Energy	7.65	10.48	9.03	9.25	10.65	9.93	7.35	7.48	6.61	5.37	6.43	7.58	7.50	7.04	6.73	5.62	5.39
28	Otter Tail Corp.	9.12	11.41	9.38	9.04	9.45	9.58	8.43	9.04	8.07	8.01	11.65	9.53	8.66	8.18	9.01	8.13	8.33
29	PG&E Corp.	6.20	6.27	7.26	7.24	5.65	6.84	5.86	5.32	5.42	4.71	4.61	5.84	5.28	5.07	5.13	4.05	14.69
30	Pinnacle West Capital	5.98	8.60	7.89	6.91	7.03	6.85	6.34	5.80	5.65	3.84	4.19	4.76	4.48	7.48	5.88	4.80	5.21
31	PNM Resources	6.68	7.48	7.64	6.95	7.48	6.47	5.80	4.94	4.58	4.53	7.10	10.67	7.50	7.62	6.84	5.55	5.72
32	Portland General	5.62	7.51	7.12	6.73	5.49	6.06	5.08	4.86	4.13	4.63	4.81	5.34	5.74	N/A	N/A	N/A	N/A
33	PPL Corp.	7.45	9.63	8.37	8.73	7.32	6.59	5.87	5.98	7.46	8.82	9.17	8.90	7.58	7.57	6.49	5.41	5.30
34	Public Serv. Enterprise	7.33	8.96	8.56	6.66	6.48	6.40	6.40	6.03	6.04	6.20	8.46	9.83	8.41	8.59	7.17	6.79	6.24
35	SCANA Corp.	7.05	7.56	9.59	8.33	7.50	7.49	7.40	6.75	6.52	5.88	6.38	7.15	7.03	5.40	6.86	6.59	6.36
36	Sempra Energy	7.59	10.53	10.88	9.99	10.77	9.37	7.26	6.13	6.53	6.07	7.07	8.61	7.22	6.96	5.16	4.85	4.00
37	Southern Co.	8.20	7.55	8.83	8.23	8.42	8.30	8.75	8.22	7.79	7.08	8.18	8.62	8.47	8.41	8.28	8.28	7.83
38	Vectren Corp.	7.07	10.24	8.60	7.82	7.57	6.82	5.79	5.81	5.58	5.24	6.90	6.53	7.37	7.06	7.63	7.27	6.92
39	WEC Energy Group	8.25	11.09	10.95	12.90	10.27	9.58	9.24	8.43	8.15	6.87	7.57	7.84	7.27	6.40	6.27	4.91	4.27
40		6.91	10.87	10.86	9.05	7.93	7.23	6.71	6.67	5.51	5.32	7.09	6.88	5.81	7.00	6.54	4.24	2.94
41	Xcel Energy Inc.	6.37	8.43	8.10	7.62	7.31	7.00	6.85	6.47	6.28	5.43	5.71	6.51	5.54	5.62	5.31	4.27	5.46
42	Average	7.10	9.24	8.65	8.05	7.85	7.39	6.98	6.53	6.00	5.59	6.95	7.72	7.12	7.13	6.77	5.70	5.85
43	Median	6.97	9.02	8.57	7.93	7.54	7.12	6.85	6.27	5.80	5.35	7.09	7.76	7.37	7.04	6.71	5.62	5.52

Sources:

<sup>&</sup>lt;sup>1</sup> The Value Line Investment Survey Investment Analyzer Software, downloaded on June 21, 2017.

<sup>&</sup>lt;sup>2</sup> The Value Line Investment Survey, March 16, April 27, and May 18, 2018.

Note:

<sup>&</sup>lt;sup>a</sup> Based on the average of the high and low price for 2017 and the projected 2017 Cash Flow per share, published in The Value Line Investment Survey, March 16, April 27, and May 18, 2018.

## Electric Utilities (Valuation Metrics)

								Marke	t Price to E	Book Value	(MP/BV) R	atio <sup>1</sup>			
		13-Year													
Line	<u>Company</u>	<u>Average</u>	2017 2/b	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	ALLETE	1.58	1.76	1.53	1.37	1.42	1.51	1.34	1.35	1.28	1.15	1.55	1.89	2.09	2.22
2	Alliant Energy	1.62	2.27	2.17	1.86	1.86	1.70	1.57	1.46	1.31	1.04	1.33	1.67	1.52	1.33
3	Ameren Corp.	1.36	1.96	1.67	1.46	1.45	1.29	1.18	0.90	0.83	0.78	1.25	1.60	1.62	1.68
4	American Electric Power	1.50	1.88	1.81	1.55	1.54	1.40	1.31	1.23	1.23	1.08	1.48	1.85	1.56	1.57
5	Avangrid, Inc.	0.83	0.93	0.83	0.72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	1.27	1.72	1.57	1.36	1.33	1.25	1.21	1.19	1.07	0.94	1.11	1.29	1.30	1.13
7	Black Hills	1.47	2.02	1.94	1.59	1.79	1.62	1.21	1.14	1.07	0.83	1.22	1.57	1.47	1.63
8	CenterPoint Energy	2.41	2.53	2.73	2.43	2.27	2.30	1.99	1.87	1.96	1.77	2.49	3.13	2.75	3.06
9	CMS Energy Corp.	1.87	2.91	2.72	2.43	2.26	2.09	1.91	1.66	1.48	1.10	1.23	1.82	1.42	1.32
10	Consol, Edison	1.39	1.63	1.58	1.42	1.34	1.38	1.47	1.38	1.22	1.08	1.17	1.47	1.47	1.52
11	Dominion Resources	2.67	2.94	3.15	3.34	3.55	2.97	2.84	2.37	2.01	1.80	2.42	2.69	2.07	2.50
12	DTE Energy	1.41	2.94	1.82	1.65	1.62	1.51	1.35	1.20	1.16	0.89	1.10	1.35	1.29	1.39
	Duke Energy	1.17	1.41	1.35	1.29	1.02	1.19	1.12	1.11	1.00	0.89	1.06	1.15	N/A	N/A
14	Edison Int'l	1.17	2.04	1.92	1.76	1.20	1.19	1.12	1.11	1.00	1.04	1.56	2.05	1.80	1.93
15	El Paso Electric						1.49	1.53			0.98			1.71	
16	Entergy Corp.	1.53 1.72	1.88 1.78	1.68 1.67	1.48 1.40	1.52 1.33	1.49	1.59	1.64 1.35	1.17 1.62	1.66	1.33 2.44	1.69 2.65	1.71	1.76 2.01
17	Eversource Energy	1.39	1.72	1.64	1.53	1.47	1.38	1.28	1.50	1.31	1.12	1.31	1.60	1.22	1.05
18	Exelon Corp.	2.36	1.23	1.20	1.14	1.28	1.17	1.46	1.95	2.07	2.57	4.39	4.79	3.89	3.60
19	FirstEnergy Corp.	1.81	3.58	2.37	1.16	1.15	1.28	1.44	1.33	1.36	1.54	2.52	2.23	1.92	1.64
20	Fortis Inc.	1.49	1.41	1.26	1.33	1.35	1.45	1.59	1.59	1.56	1.33	1.48	1.63	1.96	N/A
21	Great Plains Energy	1.21	1.33	1.17	1.12	1.11	1.02	0.96	0.93	0.87	0.80	1.11	1.66	1.77	1.86
22	Hawaiian Elec.	1.61	1.83	1.63	1.71	1.49	1.54	1.62	1.54	1.44	1.16	1.61	1.57	2.01	1.78
23	IDACORP, Inc.	1.34	1.99	1.76	1.54	1.45	1.33	1.19	1.17	1.13	0.92	1.09	1.26	1.37	1.22
	MGE Energy	1.99	2.87	2.60	2.10	2.10	2.06	1.92	1.75	1.65	1.54	1.62	1.75	1.83	2.09
	NextEra Energy, Inc.	1.95	2.31	2.30	2.09	2.15	1.93	1.74	1.55	1.49	1.70	2.06	2.34	1.80	1.93
	NorthWestern Corp	1.44	1.65	1.68	1.60	1.54	1.56	1.42	1.35	1.22	1.07	1.15	1.48	1.65	1.42
	OGE Energy	1.84	1.82	1.73	1.79	2.22	2.24	1.94	1.90	1.70	1.37	1.52	1.98	1.91	1.80
	Otter Tail Corp.	1.72	2.40	1.90	1.78	1.90	1.96	1.58	1.35	1.19	1.18	1.71	1.93	1.76	1.74
29	PG&E Corp.	1.58	1.52	1.69	1.57	1.39	1.38	1.41	1.46	1.56	1.41	1.50	1.94	1.83	1.84
30	Pinnacle West Capital	1.35	1.88	1.72	1.52	1.44	1.47	1.39	1.25	1.14	0.95	1.00	1.26	1.26	1.25
31	PNM Resources	1.13	1.86	1.56	1.33	1.21	1.09	0.98	0.80	0.69	0.56	0.66	1.23	1.21	1.45
32	Portland General	1.26	1.71	1.56	1.42	1.37	1.28	1.14	1.09	0.94	0.92	1.05	1.32	1.36	N/A
33	PPL Corp.	2.16	2.28	2.46	2.24	1.64	1.55	1.58	1.47	1.61	2.10	3.19	3.05	2.43	2.50
34	Public Serv. Enterprise	1.92	1.73	1.67	1.58	1.57	1.44	1.46	1.59	1.67	1.78	2.58	2.99	2.46	2.45
35	SCANA Corp.	1.50	1.51	1.74	1.47	1.48	1.48	1.48	1.36	1.33	1.20	1.45	1.62	1.64	1.72
36	Sempra Energy	1.75	2.21	2.00	2.17	2.20	1.84	1.53	1.28	1.35	1.32	1.60	1.87	1.70	1.73
37	Southern Co.	2.06	2.09	2.01	1.99	2.02	2.04	2.15	1.99	1.83	1.73	2.12	2.24	2.23	2.35
38	Vectren Corp.	1.83	2.72	2.29	2.11	2.08	1.82	1.57	1.53	1.41	1.34	1.64	1.74	1.77	1.82
	WEC Energy Group	1.86	2.10	2.09	1.82	2.34	2.21	2.05	1.81	1.65	1.40	1.57	1.77	1.71	1.62
40	Westar Energy	1.37	1.94	1.95	1.49	1.44	1.33	1.26	1.20	1.10	0.93	1.10	1.36	1.30	1.41
41	Xcel Energy Inc.	1.51	2.04	1.88	1.66	1.55	1.50	1.51	1.41	1.32	1.19	1.30	1.53	1.40	1.38
42	Average	1.65	1.99	1.85	1.67	1.68	1.60	1.51	1.43	1.35	1.25	1.63	1.90	1.78	1.80
	Median	1.55	1.88	1.74	1.57	1.53	1.49	1.47	1.37	1.31	1.15	1.48	1.71	1.71	1.73
															0

Sources:

Notes:

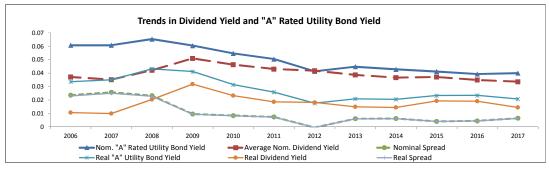
<sup>&</sup>lt;sup>1</sup> The Value Line Investment Survey Investment Analyzer Software, downloaded on June 21, 2017.

 $<sup>^{2}</sup>$  The Value Line Investment Survey, March 16, April 27, and May 18, 2018.

b Based on the average of the high and low price for 2017 and the projected 2017 Book Value per share, published in The Value Line Investment Survey, March 16, April 27, and May 18, 2018.

#### **Electric Utilities** (Valuation Metrics)

		Dividend Yield <sup>1</sup>												
		12-Year												
Line	Company	Average	2017 2/a	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	ALLETE	4.11%	3.00%	3.56%	3.97%	3.92%	3.89%	4.49%	4.58%	5.03%	5.79%	4.37%	3.60%	3.16%
2	Alliant Energy	3.86%	3.07%	3.21%	3.60%	3.53%	3.74%	4.07%	4.28%	4.61%	5.73%	4.10%	3.13%	3.32%
3	Ameren Corp.	4.76%	3.06%	3.50%	3.96%	4.02%	4.61%	4.97%	5.28%	5.76%	5.98%	6.21%	4.88%	4.93%
4	American Electric Power	4.20%	3.42%	3.54%	3.80%	3.83%	4.23%	4.58%	4.96%	4.90%	5.50%	4.20%	3.40%	4.06%
5	Avangrid, Inc.	4.03%	3.81%	4.26%	N/A									
6	Avista Corp.	3.83%	3.16%	3.39%	3.97%	3.99%	4.51%	4.55%	4.54%	4.76%	4.49%	3.39%	2.68%	2.52%
7	Black Hills	3.89%	2.81%	2.87%	3.55%	2.84%	3.19%	4.39%	4.64%	4.79%	6.17%	4.21%	3.40%	3.79%
8	CenterPoint Energy	4.62%	4.91%	4.70%	5.06%	3.94%	3.57%	4.04%	4.27%	5.29%	6.37%	4.98%	3.87%	4.39%
9	CMS Energy Corp.	3.35%	2.89%	2.99%	3.36%	3.59%	3.76%	4.16%	4.25%	3.98%	3.97%	2.69%	1.16%	N/A
10	Consol. Edison	4.58%	3.41%	3.62%	4.12%	4.38%	4.25%	4.07%	4.46%	5.16%	5.99%	5.67%	4.84%	5.04%
11	Dominion Resources	3.92%	3.89%	3.82%	3.66%	3.43%	3.78%	4.06%	4.13%	4.41%	5.20%	3.77%	3.32%	3.60%
12 13	DTE Energy Duke Energy	4.31% 4.81%	3.15% 4.16%	3.34% 4.26%	3.53% 4.34%	3.54% 4.26%	3.84% 4.45%	4.19% 4.68%	4.68% 5.21%	4.75% 5.71%	6.29% 6.25%	5.24% 5.16%	4.36% 4.44%	4.86% N/A
14	Edison Int'l	4.81% 2.97%	3.05%	2.81%	2.83%	2.62%	4.45% 2.85%	2.97%	3.37%	3.66%	3.95%	2.69%	2.21%	2.58%
15	El Paso Electric	2.77%	2.49%	2.75%	3.13%	2.97%	2.99%	2.97%	2.11%	N/A	N/A	N/A	N/A	N/A
16	Entergy Corp.	4.10%	4.44%	4.55%	4.59%	4.47%	5.07%	4.91%	4.85%	4.20%	3.97%	2.92%	2.39%	2.82%
17	Eversource Energy	3.35%	3.16%	3.22%	3.34%	3.40%	3.48%	3.52%	3.23%	3.64%	4.16%	3.25%	2.60%	3.27%
18	Exelon Corp.	3.95%	3.45%	3.75%	3.88%	3.69%	4.69%	5.73%	4.96%	4.95%	4.26%	2.78%	2.48%	2.83%
19	FirstEnergy Corp.	4.36%	4.56%	4.31%	4.23%	4.26%	4.26%	4.90%	5.23%	5.76%	5.09%	3.21%	3.12%	3.40%
20	Fortis Inc.	3.65%	3.70%	3.80%	3.76%	3.88%	3.84%	3.64%	3.58%	3.80%	4.21%	3.76%	3.01%	2.79%
21	Great Plains Energy	4.52%	3.58%	3.64%	3.76%	3.62%	3.84%	4.08%	4.15%	4.49%	5.03%	6.96%	5.49%	5.60%
22	Hawaiian Elec.	4.83%	3.52%	3.99%	4.05%	4.76%	4.72%	4.70%	5.04%	5.51%	6.89%	5.00%	5.18%	4.59%
23	IDACORP, Inc.	3.32%	2.52%	2.77%	3.06%	3.12%	3.21%	3.28%	3.10%	3.44%	4.46%	3.95%	3.55%	3.39%
24	MGE Energy	3.37%	1.95%	2.23%	2.78%	2.78%	2.91%	3.25%	3.63%	3.98%	4.36%	4.24%	4.14%	4.25%
25	NextEra Energy, Inc.	3.26%	2.84%	2.91%	3.01%	3.00%	3.30%	3.65%	3.96%	3.90%	3.55%	3.02%	2.65%	3.40%
26	NorthWestern Corp	4.16%	3.49%	3.43%	3.61%	3.30%	3.66%	4.17%	4.51%	4.93%	5.75%	5.38%	4.09%	3.65%
27	OGE Energy	3.59%	3.63%	3.87%	3.51%	2.63%	2.48%	2.94%	3.06%	3.68%	4.96%	4.52%	3.77%	3.99%
28	Otter Tail Corp.	4.36%	3.03%	3.87%	4.33%	4.14%	4.11%	5.21%	5.57%	5.68%	5.38%	3.63%	3.46%	3.92%
29	PG&E Corp.	3.73%	2.74%	3.22%	3.45%	3.96%	4.20%	4.25%	4.24%	4.08%	4.26%	4.01%	3.07%	3.22%
30	Pinnacle West Capital	4.71%	3.21%	3.46%	3.88%	4.09%	3.98%	5.32%	4.81%	5.43%	6.76%	6.17%	4.75%	4.67%
31	PNM Resources	3.36%	2.50%	2.69%	2.90%	2.79%	2.99%	2.96%	3.19%	4.09%	4.76%	4.85%	3.36%	3.21%
32 33	Portland General PPL Corp.	3.79% 4.29%	2.90% 4.46%	3.06% 4.25%	3.27% 4.55%	3.34% 4.45%	3.67% 4.81%	4.11% 5.07%	4.37% 5.10%	5.20% 5.12%	5.36% 4.51%	4.28% 3.10%	3.34% 2.69%	2.54% 3.41%
34	Public Serv. Enterprise	3.86%	3.62%	3.78%	3.81%	3.92%	4.35%	4.55%	4.24%	4.30%	4.30%	3.10%	2.73%	3.47%
35	SCANA Corp.	4.40%	4.41%	3.76%	3.90%	4.05%	4.35%	4.25%	4.24%	4.93%	5.67%	4.92%	4.29%	4.21%
36	Sempra Energy	2.92%	2.95%	2.92%	2.71%	2.61%	3.03%	3.71%	3.65%	3.08%	3.23%	2.62%	2.08%	2.47%
37	Southern Co.	4.68%	4.59%	4.42%	4.78%	4.69%	4.61%	4.29%	4.63%	5.13%	5.52%	4.58%	4.39%	4.52%
38	Vectren Corp.	4.38%	2.82%	3.31%	3.60%	3.62%	4.15%	4.82%	5.06%	5.53%	5.85%	4.79%	4.53%	4.52%
39	WEC Energy Group	3.04%	3.30%	3.35%	3.49%	3.40%	3.49%	3.24%	3.35%	2.97%	3.16%	2.41%	2.14%	2.18%
40	Westar Energy	4.37%	3.00%	2.90%	3.73%	3.88%	4.27%	4.57%	4.84%	5.32%	6.27%	5.22%	4.16%	4.28%
41	Xcel Energy Inc.	4.06%	3.12%	3.33%	3.69%	3.83%	3.86%	3.90%	4.20%	4.54%	5.14%	4.70%	4.05%	4.40%
42	Average	3.98%	3.36%	3.49%	3.71%	3.66%	3.87%	4.18%	4.30%	4.63%	5.09%	4.21%	3.51%	3.71%
43	Median	3.97%	3.16%	3.43%	3.71%	3.76%	3.85%	4.18%	4.42%	4.76%	5.14%	4.21%	3.40%	3.60%
44	Implied Inflation <sup>3</sup>	2.15%	1.89%	1.56%	1.75%	2.19%	2.35%	2.33%	2.40%	2.26%	1.85%	2.13%	2.49%	2.62%
45	Real Dividend Yield	1.79%	1.44%	1.90%	1.93%	1.44%	1.49%	1.81%	1.86%	2.32%	3.18%	2.04%	0.99%	1.06%
46	Nominal "A" Rated Utility	5.01%	4.00%	3.93%	4.12%	4.28%	4.48%	4.13%	5.04%	5.46%	6.04%	6.53%	6.07%	6.07%
	Bond Yield <sup>4</sup>													
47	Real "A" Utility Bond Yield	2.80%	2.07%	2.34%	2.33%	2.04%	2.08%	1.76%	2.58%	3.13%	4.11%	4.31%	3.49%	3.36%
48	Nominal Spread <sup>b</sup>	1.04%	0.64%	0.44%	0.40%	0.61%	0.61%	-0.05%	0.74%	0.84%	0.95%	2.32%	2.57%	2.36%
49	Real Spread <sup>c</sup>	1.01%	0.63%	0.44%	0.40%	0.60%	0.59%	-0.05%	0.72%	0.82%	0.93%	2.27%	2.50%	2.30%



- Sources:

  ¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 21, 2017.
- The Value Line Investment Survey, March 16, April 27, and May 18, 2018.

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

- St. Louis Federal Reserve: Economic Research, http://research.stlouisted.org.

  4 www.moodys.com, Bond Yields and Key Indicators, through December 27, 2017.

  Notes:

  Based on the average of the high and low price for 2017 and the projected 2017 Dividends Declared per share, published in the Value Line Investment Survey, March 16, April 27, and May 18, 2018.

  The spread being measured here is the nominal A-rated utility bond yield over the average nominal utility dividend yield; Line 46 Line 42).
- <sup>c</sup> The spread being measured here is the real A-rated utility bond yield over the average real utility dividend yield; (Line 47 Line 45).

#### **Electric Utilities** (Valuation Metrics)

		Dividend per Share <sup>1</sup>												
		12-Year												
Line	<u>Company</u>	<u>Average</u>	2017 <sup>2</sup>	2016	2015	2014	2013	2012	<u>2011</u>	2010	2009	2008	2007	2006
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	ALLETE	1.84	2.14	2.08	2.02	1.96	1.90	1.84	1.78	1.76	1.76	1.72	1.64	1.45
2	Alliant Energy	0.89	1.26	1.18	1.10	1.02	0.94	0.90	0.85	0.79	0.75	0.70	0.64	0.58
3	Ameren Corp.	1.85	1.78	1.72	1.66	1.61	1.60	1.60	1.56	1.54	1.54	2.54	2.54	2.54
4	American Electric Power	1.88	2.39	2.27	2.15	2.03	1.95	1.88	1.85	1.71	1.64	1.64	1.58	1.50
5	Avangrid, Inc.	1.73	1.73	1.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	1.04	1.43	1.37	1.32	1.27	1.22	1.16	1.10	1.00	0.81	0.69	0.60	0.57
7	Black Hills	1.51	1.81	1.68	1.62	1.56	1.52	1.48	1.46	1.44	1.42	1.40	1.37	1.32
8	CenterPoint Energy	0.86	1.35	1.03	0.99	0.95	0.83	0.81	0.79	0.78	0.76	0.73	0.68	0.60
9	CMS Energy Corp.	0.85	1.33	1.24	1.16	1.08	1.02	0.96	0.84	0.66	0.50	0.36	0.20	N/A
10	Consol. Edison	2.46	2.76	2.68	2.60	2.52	2.46	2.42	2.40	2.38	2.36	2.34	2.32	2.30
11	Dominion Resources	2.10	3.04	2.80	2.59	2.40	2.25	2.11	1.97	1.83	1.75	1.58	1.46	1.38
12	DTE Energy	2.49	3.36	3.06	2.84	2.69	2.59	2.42	2.32	2.18	2.12	2.12	2.12	2.08
13	Duke Energy	3.03	3.49	3.36	3.24	3.15	3.09	3.03	2.97	2.91	2.82	2.70	2.58	N/A
14	Edison Int'l	1.45	2.23	1.98	1.73	1.48	1.37	1.31	1.29	1.27	1.25	1.23	1.18	1.10
15	El Paso Electric	1.07	1.32	1.23	1.17	1.11	1.05	0.97	0.66	N/A	N/A	N/A	N/A	N/A
16	Entergy Corp.	3.13	3.50	3.42	3.34	3.32	3.32	3.32	3.32	3.24	3.00	3.00	2.58	2.16
17	Eversource Energy	1.26	1.90	1.78	1.67	1.57	1.47	1.32	1.10	1.03	0.95	0.83	0.78	0.73
18	Exelon Corp.	1.70	1.31	1.26	1.24	1.24	1.46	2.10	2.10	2.10	2.10	2.05	1.82	1.64
19	FirstEnergy Corp.	1.86	1.44	1.44	1.44	1.44	1.65	2.20	2.20	2.20	2.20	2.20	2.05	1.85
20	Fortis Inc.	1.18	1.65	1.55	1.43	1.30	1.25	1.21	1.17	1.12	1.04	1.00	0.82	0.67
21	Great Plains Energy	1.11	1.10	1.06	1.00	0.94	0.88	0.86	0.84	0.83	0.83	1.66	1.66	1.66
22	Hawaiian Elec.	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
23	IDACORP, Inc.	1.51	2.24	2.08	1.92	1.76	1.57	1.37	1.20	1.20	1.20	1.20	1.20	1.20
24	MGE Energy	1.05	1.26	1.21	1.16	1.11	1.07	1.04	1.01	0.99	0.97	0.96	0.94	0.93
25	NextEra Energy, Inc.	2.45	3.93	3.48	3.08	2.90	2.64	2.40	2.20	2.00	1.89	1.78	1.64	1.50
26	NorthWestern Corp	1.55	2.10	2.00	1.92	1.60	1.52	1.48	1.44	1.36	1.34	1.32	1.28	1.24
27	OGE Energy	0.86	1.27	1.16	1.05	0.95	0.85	0.80	0.76	0.73	0.71	0.70	0.68	0.67
28	Otter Tail Corp.	1.20	1.28	1.25	1.23	1.21	1.19	1.19	1.19	1.19	1.19	1.19	1.17	1.15
29	PG&E Corp.	1.70	1.55	1.93	1.82	1.82	1.82	1.82	1.82	1.82	1.68	1.56	1.44	1.32
30	Pinnacle West Capital	2.29	2.70	2.56	2.44	2.33	2.23	2.67	2.10	2.10	2.10	2.10	2.10	2.03
31	PNM Resources	0.71	0.99	0.88	0.80	0.76	0.68	0.58	0.50	0.50	0.50	0.61	0.91	0.86
32	Portland General	1.06	1.34	1.26	1.18	1.12	1.10	1.08	1.06	1.04	1.01	0.97	0.93	0.68
33	PPL Corp.	1.40	1.58	1.52	1.50	1.49	1.47	1.44	1.40	1.40	1.38	1.34	1.22	1.10
34	Public Serv. Enterprise	1.41	1.72	1.64	1.56	1.48	1.44	1.42	1.37	1.37	1.33	1.29	1.17	1.14
35	SCANA Corp.	2.00	2.45	2.30	2.18	2.10	2.03	1.98	1.94	1.90	1.88	1.84	1.76	1.68
36	Sempra Energy	2.13	3.29	3.02	2.80	2.64	2.52	2.40	1.92	1.56	1.56	1.37	1.24	1.20
37	Southern Co.	1.91	2.30	2.22	2.15	2.08	2.01	1.94	1.87	1.80	1.73	1.66	1.60	1.54
38	Vectren Corp.	1.42	1.71	1.62	1.54	1.46	1.43	1.41	1.39	1.37	1.35	1.31	1.27	1.23
39	WEC Energy Group	1.17	2.08	1.98	1.74	1.56	1.45	1.20	1.04	0.80	0.68	0.54	0.50	0.46
40	Westar Energy	1.30	1.60	1.52	1.44	1.40	1.36	1.32	1.28	1.24	1.20	1.16	1.08	0.98
41	Xcel Energy Inc.	1.10	1.44	1.36	1.28	1.20	1.11	1.07	1.03	1.00	0.97	0.94	0.91	0.88
42	Average	1.58	1.96	1.86	1.76	1.67	1.61	1.59	1.51	1.47	1.42	1.42	1.36	1.27

43 Industry CAGR

4.00%

Notes: CAGR = Compound Annual Growth Rate

# Electric Utilities (Valuation Metrics)

	_	Cash F	low / Capita	l Spending
				3 - 5 yr
Line	<u>Company</u>	<u>2017</u>	<u>2018</u>	<b>Projection</b>
		(1)	(2)	(3)
1	ALLETE	1.59x	1.03x	2.57x
2	Alliant Energy	0.66x	0.66x	0.94x
3	Ameren Corp.	0.76x	0.82x	1.03x
4	American Electric Power	0.67x	0.66x	0.76x
5	Avangrid, Inc.	0.73x	0.81x	1.04x
6	Avista Corp.	0.82x	0.87x	1.04x
7	Black Hills	1.11x	1.17x	1.26x
8	CenterPoint Energy	1.11x	1.23x	1.50x
9	CMS Energy Corp.	0.81x	0.85x	1.12x
10	Consol. Edison	0.71x	0.71x	0.87x
11	Dominion Resources	0.75x	0.96x	1.03x
12	DTE Energy	0.75x	0.87x	1.05x
13	Duke Energy	0.78x	0.71x	1.00x
14	Edison Int'l	0.84x	0.75x	0.84x
15	El Paso Electric	0.99x	1.15x	1.04x
16	Entergy Corp.	0.90x	0.85x	0.96x
17	Eversource Energy	0.68x	0.71x	1.43x
18	Exelon Corp.	0.93x	1.00x	1.12x
19	FirstEnergy Corp.	0.96x	1.08x	1.29x
20	Fortis Inc.	0.74x	0.86x	1.30x
21	Great Plains Energy	1.05x	1.40x	2.50x
22	Hawaiian Elec.	1.03x	0.92x	1.06x
23	IDACORP, Inc.	1.15x	1.18x	1.30x
24	MGE Energy	1.53x	1.54x	1.57x
25	NextEra Energy, Inc.	0.93x	0.97x	1.03x
26	NorthWestern Corp	1.12x	1.08x	1.22x
27	OGE Energy	0.69x	1.21x	2.43x
28	Otter Tail Corp.	0.03x 0.97x	0.84x	2.33x
29	PG&E Corp.	0.80x	0.82x	0.93x
30	Pinnacle West Capital	0.79x	0.02x 0.99x	1.23x
31	PNM Resources	0.79x 0.79x	1.10x	1.23x 1.29x
32	Portland General	0.79x 0.96x	1.10x 1.25x	2.38x
33				2.36x 1.20x
33 34	PPL Corp. Public Serv. Enterprise	0.73x 0.62x	0.79x 0.91x	1.20x 1.33x
35	•			
	SCANA Corp.	0.64x	1.23x	1.34x
36	Sempra Energy	0.80x	1.11x	1.33x
37	Southern Co.	0.72x	0.81x	1.00x
38	Vectren Corp.	0.84x	0.83x	0.86x
39	WEC Energy Group	0.80x	0.93x	1.17x
40	Westar Energy	0.87x	0.78x	0.78x
41	Xcel Energy Inc.	0.76x	0.69x	1.17x
40	A	0.00	0.05	4.00
42	Average	0.88x	0.95x	1.28x
43	Median	0.80x	0.91x	1.17x

Sources:

#### Notes:

Based on the projected Cash Flow per share and Capital Spending per share.

The Value Line Investment Survey Investment Analyzer Software, downloaded on November 7, 2017.

#### Authorized ROE for Electric Utilities from 2016 to 2018

<u>Line</u>	<u>Year</u> 2016	Company	<u>State</u> (1)	Rate Case Completion Date (2)	Authorized Return on Equity (3)
1	20.0	Florida Power & Light Company	FL	Nov 29 2016	10.55%
2		Duke Energy Progress, LLC	SC	Dec 7 2016	10.10%
3		Upper Peninsula Power Company	MI	Sep 8 2016	10.00%
4		Wisconsin Power and Light Company	WI	Nov 18 2016	
5		Liberty Utilities (CalPeco Electric) LLC	CA IN	Dec 1 2016	10.00% 9.98%
6 7		Northern Indiana Public Service Company Massachusetts Electric Company	MA	Jul 18 2016 Sep 30 2016	
8		Virginia Electric and Power Company	NC	Dec 22 2016	9.90%
9		Indianapolis Power & Light Company	IN	Mar 16 2016	9.85%
10		Kingsport Power Company	TN	Aug 9 2016	9.85%
11		Fitchburg Gas and Electric Light Company	MA	Apr 29 2016	9.80%
12		Madison Gas and Electric Company	WI	Nov 9 2016	9.80%
13		Entergy Arkansas, Inc.	AR	Feb 23 2016	9.75%
14 15		Baltimore Gas and Electric Company Atlantic City Electric Company	MD NJ	Jun 3 2016 Aug 24 2016	9.75% 9.75%
16		Atlantic City Electric Company Jersey Central Power & Light Company	NJ	Dec 12 2016	9.60%
17		Sierra Pacific Power Company	NV	Dec 22 2016	9.60%
18		Public Service Company of New Mexico	NM	Sep 28 2016	9.58%
19		Potomac Electric Power Company	MD	Nov 15 2016	9.55%
20		Avista Corporation	WA	Jan 6 2016	9.50%
21 22		UNS Electric, Inc.	AZ WA	Aug 18 2016	9.50% 9.50%
23		PacifiCorp Public Service Company of Oklahoma	OK	Sep 1 2016 Nov 10 2016	9.50%
24		Avista Corporation	ID	Dec 28 2016	9.50%
25		El Paso Electric Company	NM	Jun 8 2016	9.48%
26		Black Hills Colorado Electric Utility Company, LP	CO	Dec 19 2016	9.37%
27		United Illuminating Company	CT	Dec 14 2016	
28		New York State Electric & Gas Corporation	NY	Jun 15 2016	9.00%
29 30		Rochester Gas and Electric Corporation Emera Maine	NY ME	Jun 15 2016 Dec 19 2016	9.00%
31		Commonwealth Edison Company	IL	Dec 6 2016	
32		Ameren Illinois Company	ĪĹ	Dec 6 2016	8.64%
33		Utilities with an Approved ROE > 9.70%			15
34		Utilities with an Approved ROE ≤ 9.70%			17
35		ROE Range of Utilities with an Approved ROE ≤ 9	9.70%		8.64% - 9.60%
	0047				
36	2017	Alaska Electric Light and Power Company	AK	Nov 15 2017	11.95%
37		Southern California Edison Company	CA	Oct 26 2017	10.30%
38		Gulf Power Company	FL	Apr 4 2017	10.25%
39		Pacific Gas and Electric Company	CA	Oct 26 2017	10.25%
40		Tampa Electric Company	FL	Nov 6 2017	10.25%
41		San Diego Gas & Electric Co.	CA	Oct 26 2017	10.20%
42		DTE Electric Company	MI	Jan 31 2017	10.10%
43 44		Consumers Energy Company Arizona Public Service Company	MI AZ	Feb 28 2017 Aug 15 2017	10.10% 10.00%
45		NSTAR Electric Company	MA	Nov 30 2017	10.00%
46		Western Massachusetts Electric Company	MA	Nov 30 2017	10.00%
47		Oncor Electric Delivery Company LLC	TX	Sep 28 2017	9.80%
48		Northern States Power Company - WI	WI	Dec 7 2017	9.80%
49		Tucson Electric Power Company	AZ	Feb 24 2017	9.75%
50 51		Delmarva Power & Light Company Kentucky Utilities Company	DE KY	May 23 2017 Jun 22 2017	9.70% 9.70%
52		Louisville Gas and Electric Company	KY	Jun 22 2017	9.70%
53		MDU Resources Group, Inc.	ND	Jun 16 2017	9.65%
54		El Paso Electric Company	TX	Dec 14 2017	9.65%
55		Electric Transmission Texas, LLC	TX	Jan 12 2017	9.60%
56		Delmarva Power & Light Company	MD	Feb 15 2017	9.60%
57 58		Rockland Electric Company Atlantic City Electric Company	NJ NJ	Feb 22 2017 Sep 22 2017	9.60% 9.60%
59		Southwestern Electric Power Company	TX	Dec 14 2017	9.60%
60		Public Service Company of New Mexico	NM	Dec 20 2017	9.58%
61		Oklahoma Gas and Electric Company	OK	Mar 20 2017	9.50%
62		Unitil Energy Systems, Inc.	NH	Apr 20 2017	9.50%
63		Kansas City Power & Light Company	МО	May 3 2017	9.50%
64		Oklahoma Gas and Electric Company	AR	May 18 2017	9.50% 9.50%
65 66		Potomac Electric Power Company Potomac Electric Power Company	DC MD	Jul 24 2017 Oct 20 2017	9.50%
67		Puget Sound Energy, Inc.	WA	Dec 5 2017	9.50%
68		Portland General Electric Company	OR	Dec 18 2017	9.50%
69		Avista Corporation	ID	Dec 28 2017	9.50%
70		MDU Resources Group, Inc.	WY	Jan 18 2017	9.45%
71 72		Otter Tail Power Company	MN NH	Mar 2 2017 Apr 12 2017	9.41% 9.40%
72		Liberty Utilities (Granite State Electric) Corp. Nevada Power Company	NH NV	Apr 12 2017 Dec 29 2017	
74		Northern States Power Company - MN	MN	May 11 2017	
75		Green Mountain Power Corporation	VT	Dec 21 2017	
76		Consolidated Edison Company of New York, Inc.	NY	Jan 24 2017	
77		Commonwealth Edison Company	IL	Dec 6 2017	
78		Ameren Illinois Company	IL	Dec 6 2017	8.40%
79 80		Utilities with an Approved ROE > 9.70% Utilities with an Approved ROE ≤ 9.70%			14 29
81		ROE Range of Utilities with an Approved ROE ≤ 9	9.70%		8.40% - 9.70%
	2018				
82	2310	DTE Electric Company	MI	Apr 18 2018	10.00%
83		Consumers Energy Company	MI	Mar 29 2018	10.00%
84		Indiana Michigan Power Company	MI	Apr 12 2018	
85		Duke Energy Progress, LLC	NC	Feb 23 2018	9.90%
86 87		Duke Energy Kentucky, Inc. Kentucky Power Company	KY KY	Apr 13 2018 Jan 18 2018	
88		Interstate Power and Light Company	IA	Feb 2 2018	
89		Avista Corporation	WA	Apr 26 2018	
90		Public Service Company of Oklahoma	OK	Jan 31 2018	9.30%
91		Connecticut Light and Power Company	CT	Apr 18 2018	
92		ALLETE (Minnesota Power)	MN	Mar 12 2018	
93		Niagara Mohawk Power Corporation	NY	Mar 15 2018	9.00%
94		Utilities with an Approved ROE > 9.70%			5
95		Utilities with an Approved ROE ≤ 9.70%			7
96		ROE Range of Utilities with an Approved ROE ≤ 9	9.70%		9.00% - 9.70%

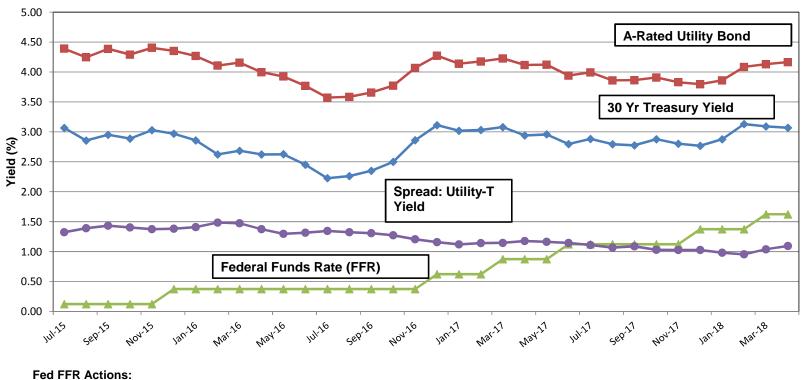
Source and Note: S&P Global Market Intelligence. 2018 data through May 2, 2018.

#### Authorized ROE for Vertically Integrated Electric Cases from 2016 to 2018

Line	<u>Year</u>	Company	<u>State</u> (1)	Rate Case <u>Completion Date</u> (2)	Authorized Return on Equity (3)
	2016				
1		Florida Power & Light Company	FL	Nov 29 2016	10.55%
2		Duke Energy Progress, LLC	SC	Dec 7 2016	10.10%
3		Upper Peninsula Power Company	MI	Sep 8 2016	10.00%
4		Wisconsin Power and Light Company	WI	Nov 18 2016	10.00%
5		Liberty Utilities (CalPeco Electric) LLC	CA	Dec 1 2016	10.00%
6		Northern Indiana Public Service Company	IN	Jul 18 2016	9.98%
7		Virginia Electric and Power Company	NC	Dec 22 2016	9.90%
8		Indianapolis Power & Light Company	IN	Mar 16 2016	9.85%
9		Kingsport Power Company	TN	Aug 9 2016	9.85%
10		Madison Gas and Electric Company	WI	Nov 9 2016	9.80%
11		Entergy Arkansas, Inc.	AR	Feb 23 2016	9.75%
12		Sierra Pacific Power Company	NV	Dec 22 2016	9.60%
13		Public Service Company of New Mexico	NM	Sep 28 2016	9.58%
14		Avista Corporation	WA	Jan 6 2016	9.50%
15		UNS Electric, Inc.	AZ	Aug 18 2016	9.50%
16		PacifiCorp	WA	Sep 1 2016	9.50%
17		Public Service Company of Oklahoma	OK	Nov 10 2016	9.50%
18		Avista Corporation	ID	Dec 28 2016	9.50%
19			NM		
		El Paso Electric Company		Jun 8 2016	9.48%
20		Black Hills Colorado Electric Utility Company, LP	CO	Dec 19 2016	9.37%
21		Utilities with an Approved ROE > 9.70%			11
22		Utilities with an Approved ROE ≤ 9.70%			9
23		ROE Range of Utilities with an Approved ROE ≤ 9	9.70%		9.37% - 9.60%
0.4	<u>2017</u>	Alaska Flantis Linkt and Daws Or one	A 1/	N 45 0047	44.050/
24		Alaska Electric Light and Power Company	AK	Nov 15 2017	11.95%
25		Southern California Edison Company	CA	Oct 26 2017	10.30%
26		Gulf Power Company	FL	Apr 4 2017	10.25%
27		Pacific Gas and Electric Company	CA	Oct 26 2017	10.25%
28		Tampa Electric Company	FL	Nov 6 2017	10.25%
29		San Diego Gas & Electric Co.	CA	Oct 26 2017	10.20%
30		DTE Electric Company	MI	Jan 31 2017	10.10%
31		Consumers Energy Company	MI	Feb 28 2017	10.10%
32		Arizona Public Service Company	ΑZ	Aug 15 2017	10.00%
33		Northern States Power Company - WI	WI	Dec 7 2017	9.80%
34		Tucson Electric Power Company	ΑZ	Feb 24 2017	9.75%
35		Kentucky Utilities Company	KY	Jun 22 2017	9.70%
36		Louisville Gas and Electric Company	KY	Jun 22 2017	9.70%
37		MDU Resources Group, Inc.	ND	Jun 16 2017	9.65%
38		El Paso Electric Company	TX	Dec 14 2017	9.65%
39		Southwestern Electric Power Company	TX	Dec 14 2017	9.60%
40		Public Service Company of New Mexico	NM	Dec 20 2017	9.58%
41		Oklahoma Gas and Electric Company	OK	Mar 20 2017	9.50%
42		Kansas City Power & Light Company	MO	May 3 2017	9.50%
43		Oklahoma Gas and Electric Company	AR	May 18 2017	9.50%
44		Puget Sound Energy, Inc.	WA	Dec 5 2017	9.50%
45		Portland General Electric Company	OR	Dec 18 2017	9.50%
46		Avista Corporation	ID	Dec 28 2017	9.50%
47		MDU Resources Group, Inc.	WY	Jan 18 2017	9.45%
48		Otter Tail Power Company	MN	Mar 2 2017	9.41%
49		Nevada Power Company	NV	Dec 29 2017	9.40%
50		Northern States Power Company - MN	MN	May 11 2017	9.20%
51		Green Mountain Power Corporation	VT	Dec 21 2017	9.10%
٠.					
52		Utilities with an Approved ROE > 9.70%			11
53		Utilities with an Approved ROE ≤ 9.70%			17
54		ROE Range of Utilities with an Approved ROE ≤ 9	9.70%		9.10% - 9.70%
	2018				
55		DTE Electric Company	MI	Apr 18 2018	10.00%
56		Consumers Energy Company	MI	Mar 29 2018	10.00%
57		Indiana Michigan Power Company	MI	Apr 12 2018	9.90%
58		Duke Energy Progress, LLC	NC	Feb 23 2018	9.90%
59		Duke Energy Kentucky, Inc.	KY	Apr 13 2018	9.73%
60		Kentucky Power Company	KY	Jan 18 2018	9.70%
61		Interstate Power and Light Company	IA	Feb 2 2018	9.60%
62		Avista Corporation	WA	Apr 26 2018	9.50%
63		Public Service Company of Oklahoma	OK	Jan 31 2018	9.30%
64		ALLETE (Minnesota Power)	MN	Mar 12 2018	9.25%
		,			
65 66		Utilities with an Approved ROE > 9.70%			5 5
66 67		Utilities with an Approved ROE ≤ 9.70% ROE Range of Utilities with an Approved ROE ≤ 9.70%	2 700/		9.25% - 9.70%
01		TOE Trainge of Outlines with all Approved ROE 23	5.10/0		J.25/0 - 3.10/0

Source and Note: S&P Global Market Intelligence. 2018 data through May 2, 2018.

### **Timeline of Federal Funds Rate Increases**



0.50 December 2015 0.25 December 2016 0.50 0.75 March 2017 1.00 0.75 June 2017 1.00 1.25 December 2017 1.25 1.50 March 2018 1.50 → 1.75

#### Sources:

Federal Reserve Bank of New York, https://apps.newyorkfed.org/markets/autorates/fed-funds-search-page Board of Governors of the Federal Reserve System, https://www.federalreserve.gov/datadownload/ Moody's Credit Trends, https://credittrends.moodys.com/

### **GMO**

# Weighted Average Cost of Long Term Debt Capital<sup>1</sup> June 30, 2018 (Projected)

		Initial	Date of	Date of	Price to		Issuance	Net Proceeds	Debt Capital	of Long-Term
Line	2	<u>Offering</u>	<u>Offering</u>	<u>Maturity</u>	<u>Public</u>	Coupon <sup>1,2</sup>	<b>Expense</b>	to Company	Outstanding	<b>Debt Capital</b>
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Pledged General Mortgage Bonds	<b>^</b>		0///000/					<b>^</b>	4000 -00
1	SJLP First Mortgage Bonds - 9.44%	\$3,375,000	2/1/1991	2/1/2021	\$3,375,000	9.44%	\$3,903	\$3,371,097	\$3,375,000	\$322,503
	Unsecured Notes									
2	Senior Notes Due 2021 - 8.27% Coupon	\$80,850,000	3/31/1999	11/15/2021	\$80,850,000	8.27%	\$97,798	\$80,752,202	\$80,850,000	\$6,784,093
3	Medium Term Notes Due 2023 - 7.33% Coupon	\$3,000,000		11/30/2023	\$3,000,000	7.33%	\$1,129	\$2,998,871	\$3,000,000	\$221,029
4	Medium Term Notes Due 2023 - 7.17% Coupon	\$7,000,000	12/6/1993	12/1/2023	\$7,000,000	7.17%	\$2,636	\$6,997,364	\$7,000,000	\$504,536
5	Senior Notes Series A Due 2025 - 3.49% Coupon	\$125,000,000	8/16/2013		\$125,000,000	3.49%	\$65,148	\$124,934,852	\$125,000,000	\$4,427,648
6	Senior Notes Series B Due 2033 - 4.06% Coupon	\$75,000,000	8/16/2013	8/15/2033	\$75,000,000	4.06%	\$23,346	\$74,976,654	\$75,000,000	\$3,068,346
7	Senior Notes Series C Due 2043 - 4.74% Coupon	\$150,000,000	5/23/2012	8/15/2043	\$150,000,000	4.74%	\$31,293	\$149,968,707	\$150,000,000	\$7,141,293
	Other Long-Term Debt									
8	Intercompany Debt - GPE Senior Notes due 2021	\$347,389,000	5/16/2011	6/1/2021	\$347,389,000	4.60%		\$347,389,000	\$347,389,000	\$15,979,894
9	Intercompany Debt - GPE Senior Notes due 2022	\$287,500,000	6/15/2012	6/15/2022	\$287,500,000	4.60%		\$287,500,000	\$287,500,000	\$13,225,000
10	Loss/(Gain) on Reacquired Debt									\$36,121
11	Total KCP&L Long-Term Debt Capital								\$1,079,114,000	\$51,710,463
12	GMO Weighted Avg. Cost of Long-Term Debt Capital								4.79%	

Sources:

**Annual Cost** 

Long-term

<sup>&</sup>lt;sup>1</sup>Schedule RBH-10, page 3.

<sup>&</sup>lt;sup>2</sup>MPG Direct Testimony.

### **Proxy Group**

		Credit	Ratings <sup>1</sup>	Common I	159.0% 59.0% 51.0% 49.8% 48.5% 35.5% 32.4% 43.8% 46.0% 48.8% 55.7% 56.3% 49.8% 58.3% 58.7% 51.1% 43.6% 49.9% 51.9% 44.1%	
<u>Line</u>	<u>Company</u>	S&P	Moody's	MI <sup>1</sup>	Value Line <sup>2</sup>	
		(1)	(2)	(3)	(4)	
1	ALLETE, Inc.	BBB+	А3	57.9%	59.0%	
2	Alliant Energy Corporation	A-	Baa1	42.9%	51.0%	
3	Ameren Corporation	BBB+	Baa1	45.6%	49.8%	
4	American Electric Power Company, Inc.	A-	Baa1	44.1%	48.5%	
5	Black Hills Corporation	BBB	Baa2	33.2%	35.5%	
6	CMS Energy Corporation	BBB+	Baa1	29.7%	32.4%	
7	DTE Energy Company	BBB+	Baa1	41.5%	43.8%	
8	Duke Energy Corporation	A-	Baa1	43.4%	46.0%	
9	El Paso Electric Company	BBB	Baa1	45.5%	48.8%	
10	Hawaiian Electric Industries, Inc.	BBB-	N/A	52.7%	55.7%	
11	IDACORP, Inc.	BBB	Baa1	56.3%	56.3%	
12	NorthWestern Corporation	BBB	Baa2	45.7%	49.8%	
13	OGE Energy Corp.	A-	A3	54.9%	58.3%	
14	Otter Tail Corporation	BBB	Baa2	53.6%	58.7%	
15	Pinnacle West Capital Corporation	A-	A3	49.6%	51.1%	
16	PNM Resources, Inc.	BBB+	Baa3	37.5%	43.6%	
17	Portland General Electric Company	BBB	A3	49.9%	49.9%	
18	WEC Energy Group, Inc.	A-	A3	46.1%	51.9%	
19	Xcel Energy Inc.	A-	A3	42.0%	44.1%	
20	Average	BBB+	Baa1	45.9%	49.2%	
21	Kansas City Power & Light	<b>A-</b> <sup>3</sup>	Baa1⁴		50.0% <sup>5</sup>	
22	KCP&L Greater Missouri Operations	<b>A-</b> <sup>3</sup>	Baa2 <sup>4</sup>		50.9% <sup>6</sup>	

<sup>&</sup>lt;sup>1</sup> S&P Global Market Intelligence, Downloaded on May 29, 2018.

<sup>&</sup>lt;sup>2</sup> The Value Line Investment Survey, March 16, April 27, and May 18, 2018.

<sup>&</sup>lt;sup>3</sup> S&P Global RatingsDirect Research Update, "Great Plains Energy Inc. And Utility Subsidiaries Upgraded To 'A-' Due To Imminent Merger; Outlook Stable," June 4, 2018.

<sup>&</sup>lt;sup>4</sup> Hevert direct at 13 each testimony.

<sup>&</sup>lt;sup>5</sup> KCPL Hevert direct at 2.

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

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

		Zac	cks	N	ЛІ	Reu	iters	Average of	
		Estimated	Number of	Estimated	Number of	Estimated	Number of	Growth	
Line	<u>Company</u>	Growth %1	<b>Estimates</b>	Growth %2	<b>Estimates</b>	Growth %3	<b>Estimates</b>	<u>Rates</u>	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1	ALLETE, Inc.	6.60%	N/A	6.60%	3	6.00%	1	6.40%	
2	Alliant Energy Corporation	5.60%	N/A	5.91%	3	5.85%	2	5.79%	
3	Ameren Corporation	6.50%	N/A	6.64%	3	6.30%	2	6.48%	
4	American Electric Power Company, Inc.	5.70%	N/A	5.54%	8	5.79%	2	5.68%	
5	Black Hills Corporation	4.40%	N/A	4.89%	2	3.86%	3	4.38%	
6	CMS Energy Corporation	6.40%	N/A	7.02%	6	7.05%	4	6.82%	
7	DTE Energy Company	6.00%	N/A	5.81%	7	5.59%	4	5.80%	
8	Duke Energy Corporation	3.90%	N/A	4.25%	6	4.22%	2	4.12%	
9	El Paso Electric Company	5.10%	N/A	5.10%	2	5.20%	1	5.13%	
10	Hawaiian Electric Industries, Inc.	7.10%	N/A	7.05%	2	9.10%	1	7.75%	
11	IDACORP, Inc.	3.90%	N/A	4.12%	2	3.10%	1	3.71%	
12	NorthWestern Corporation	2.40%	N/A	3.01%	2	3.16%	2	2.86%	
13	OGE Energy Corp.	6.00%	N/A	4.15%	2	4.30%	1	4.82%	
14	Otter Tail Corporation	N/A	N/A	7.75%	2	9.00%	1	8.38%	
15	Pinnacle West Capital Corporation	4.80%	N/A	4.54%	4	3.77%	2	4.37%	
16	PNM Resources, Inc.	5.10%	N/A	5.62%	6	4.30%	1	5.01%	
17	Portland General Electric Company	2.80%	N/A	3.02%	3	2.65%	2	2.82%	
18	WEC Energy Group, Inc.	4.10%	N/A	5.31%	2	4.43%	4	4.61%	
19	Xcel Energy Inc.	5.70%	N/A	5.70%	7	5.89%	4	5.76%	
20	Average	5.12%	N/A	5.37%	4	5.24%	2	5.30%	

Sources:

<sup>&</sup>lt;sup>1</sup> Zacks, http://www.zacks.com/, downloaded on May 25, 2018.

<sup>&</sup>lt;sup>2</sup> S&P Global Market Intelligence, https://platform.mi.spglobal.com, downloaded on May 25, 2018.

<sup>&</sup>lt;sup>3</sup> Reuters, http://www.reuters.com/, downloaded on May 25, 2018.

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

<u>Line</u>	<u>Company</u>	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 Growth DCF (5)
1	ALLETE, Inc.	\$72.87	6.40%	\$2.24	3.27%	9.67%
2	Alliant Energy Corporation	\$40.69	5.79%	\$1.34	3.48%	9.27%
3	Ameren Corporation	\$56.21	6.48%	\$1.83	3.47%	9.95%
4	American Electric Power Company, Inc.	\$67.47	5.68%	\$2.48	3.88%	9.56%
5	Black Hills Corporation	\$54.51	4.38%	\$1.90	3.64%	8.02%
6	CMS Energy Corporation	\$44.62	6.82%	\$1.43	3.42%	10.25%
7	DTE Energy Company	\$102.59	5.80%	\$3.53	3.64%	9.44%
8	Duke Energy Corporation	\$77.16	4.12%	\$3.56	4.80%	8.93%
9	El Paso Electric Company	\$51.32	5.13%	\$1.34	2.75%	7.88%
10	Hawaiian Electric Industries, Inc.	\$34.00	7.75%	\$1.24	3.93%	11.68%
11	IDACORP, Inc.	\$87.53	3.71%	\$2.36	2.80%	6.50%
12	NorthWestern Corporation	\$53.19	2.86%	\$2.20	4.25%	7.11%
13	OGE Energy Corp.	\$32.55	4.82%	\$1.33	4.28%	9.10%
14	Otter Tail Corporation	\$43.19	8.38%	\$1.34	3.36%	11.74%
15	Pinnacle West Capital Corporation	\$78.38	4.37%	\$2.78	3.70%	8.07%
16	PNM Resources, Inc.	\$37.82	5.01%	\$1.06	2.94%	7.95%
17	Portland General Electric Company	\$40.49	2.82%	\$1.36	3.45%	6.28%
18	WEC Energy Group, Inc.	\$61.95	4.61%	\$2.21	3.74%	8.35%
19	Xcel Energy Inc.	\$44.78	5.76%	\$1.52	3.59%	9.35%
20 21	Average Median	\$56.91	5.30%	\$1.95	3.60%	8.90% 9.10%

<sup>&</sup>lt;sup>1</sup> S&P Global Market Intelligence, Downloaded on May 29, 2018.

<sup>&</sup>lt;sup>2</sup> Schedule MPG-7.

 $<sup>^{\</sup>rm 3}$  The Value Line Investment Survey, March 16, April 27, and May 18, 2018.

### **Payout Ratios**

		Dividend	s Per Share	Earnings	Per Share	Payou	Payout Ratio	
Line	<u>Company</u>	2017	Projected	2017	Projected	2017	Projected	
		(1)	(2)	(3)	(4)	(5)	(6)	
1	ALLETE, Inc.	\$2.14	\$2.70	\$3.13	\$4.25	68.37%	63.53%	
2	Alliant Energy Corporation	\$1.26	\$1.66	\$1.99	\$2.60	63.32%	63.85%	
3	Ameren Corporation	\$1.78	\$2.25	\$2.77	\$3.75	64.26%	60.00%	
4	American Electric Power Company, Inc.	\$2.39	\$3.05	\$3.62	\$5.00	66.02%	61.00%	
5	Black Hills Corporation	\$1.81	\$2.45	\$3.38	\$4.00	53.55%	61.25%	
6	CMS Energy Corporation	\$1.33	\$1.85	\$2.17	\$3.00	61.29%	61.67%	
7	DTE Energy Company	\$3.36	\$4.55	\$5.73	\$7.50	58.64%	60.67%	
8	Duke Energy Corporation	\$3.49	\$4.40	\$4.22	\$5.50	82.70%	80.00%	
9	El Paso Electric Company	\$1.32	\$1.85	\$2.42	\$3.00	54.55%	61.67%	
10	Hawaiian Electric Industries, Inc.	\$1.24	\$1.40	\$1.64	\$2.25	75.61%	62.22%	
11	IDACORP, Inc.	\$2.24	\$3.05	\$4.21	\$4.75	53.21%	64.21%	
12	NorthWestern Corporation	\$2.10	\$2.60	\$3.34	\$4.00	62.87%	65.00%	
13	OGE Energy Corp.	\$1.27	\$1.85	\$1.92	\$2.50	66.15%	74.00%	
14	Otter Tail Corporation	\$1.28	\$1.55	\$1.86	\$2.50	68.82%	62.00%	
15	Pinnacle West Capital Corporation	\$2.70	\$3.50	\$4.43	\$5.50	60.95%	63.64%	
16	PNM Resources, Inc.	\$0.99	\$1.35	\$1.92	\$2.50	51.56%	54.00%	
17	Portland General Electric Company	\$1.34	\$1.80	\$2.29	\$2.75	58.52%	65.45%	
18	WEC Energy Group, Inc.	\$2.08	\$2.75	\$3.14	\$4.25	66.24%	64.71%	
19	Xcel Energy Inc.	\$1.44	\$1.90	\$2.30	\$3.00	62.61%	63.33%	
20	Average	\$1.87	\$2.45	\$2.97	\$3.82	63.12%	63.80%	

Source:

The Value Line Investment Survey, March 16, April 27, and May 18, 2018.

### **Sustainable Growth Rate**

						3 to 5 Year	Projections				:	Sustainable
		Dividends	Earnings	<b>Book Value</b>	<b>Book Value</b>		Adjustment	Adjusted	Payout	Retention	Internal	Growth
Line	<u>Company</u>	Per Share	Per Share	Per Share	Growth	ROE	<u>Factor</u>	ROE	Ratio	Rate	<b>Growth Rate</b>	Rate
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	ALLETE, Inc.	\$2.70	\$4.25	\$49.25	4.01%	8.63%	1.02	8.80%	63.53%	36.47%	3.21%	4.69%
2	Alliant Energy Corporation	\$1.66	\$2.60	\$22.85	4.79%	11.38%	1.02	11.64%	63.85%	36.15%	4.21%	4.60%
3	Ameren Corporation	\$2.25	\$3.75	\$37.25	4.70%	10.07%	1.02	10.30%	60.00%	40.00%	4.12%	4.66%
4	American Electric Power Company, Inc.	\$3.05	\$5.00	\$46.75	4.69%	10.70%	1.02	10.94%	61.00%	39.00%	4.27%	5.05%
5	Black Hills Corporation	\$2.45	\$4.00	\$41.25	5.26%	9.70%	1.03	9.95%	61.25%	38.75%	3.85%	5.36%
6	CMS Energy Corporation	\$1.85	\$3.00	\$22.25	7.13%	13.48%	1.03	13.95%	61.67%	38.33%	5.35%	6.92%
7	DTE Energy Company	\$4.55	\$7.50	\$68.50	5.25%	10.95%	1.03	11.23%	60.67%	39.33%	4.42%	5.99%
8	Duke Energy Corporation	\$4.40	\$5.50	\$66.00	2.05%	8.33%	1.01	8.42%	80.00%	20.00%	1.68%	2.05%
9	El Paso Electric Company	\$1.85	\$3.00	\$33.50	3.55%	8.96%	1.02	9.11%	61.67%	38.33%	3.49%	3.66%
10	Hawaiian Electric Industries, Inc.	\$1.40	\$2.25	\$23.75	4.26%	9.47%	1.02	9.67%	62.22%	37.78%	3.65%	4.24%
11	IDACORP, Inc.	\$3.05	\$4.75	\$53.25	3.59%	8.92%	1.02	9.08%	64.21%	35.79%	3.25%	3.25%
12	NorthWestern Corporation	\$2.60	\$4.00	\$42.75	3.25%	9.36%	1.02	9.51%	65.00%	35.00%	3.33%	3.63%
13	OGE Energy Corp.	\$1.85	\$2.50	\$22.50	3.14%	11.11%	1.02	11.28%	74.00%	26.00%	2.93%	2.93%
14	Otter Tail Corporation	\$1.55	\$2.50	\$24.45	6.77%	10.22%	1.03	10.56%	62.00%	38.00%	4.01%	7.13%
15	Pinnacle West Capital Corporation	\$3.50	\$5.50	\$54.00	3.81%	10.19%	1.02	10.38%	63.64%	36.36%	3.77%	3.94%
16	PNM Resources, Inc.	\$1.35	\$2.50	\$27.00	4.88%	9.26%	1.02	9.48%	54.00%	46.00%	4.36%	4.36%
17	Portland General Electric Company	\$1.80	\$2.75	\$31.50	3.05%	8.73%	1.02	8.86%	65.45%	34.55%	3.06%	3.16%
18	WEC Energy Group, Inc.	\$2.75	\$4.25	\$35.50	3.44%	11.97%	1.02	12.17%	64.71%	35.29%	4.30%	4.30%
19	Xcel Energy Inc.	\$1.90	\$3.00	\$28.00	4.42%	10.71%	1.02	10.95%	63.33%	36.67%	4.01%	4.58%
20	Average	\$2.45	\$3.82	\$38.44	4.32%	10.11%	1.02	10.33%	63.80%	36.20%	3.75%	4.45%

Sources and Notes:

Cols. (1), (2) and (3): The Value Line Investment Survey, March 16, April 27, and May 18, 2018.

Col. (4): [ Col. (3) / Page 2 Col. (2) ] ^ (1/number of years projected) - 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 Average	2017 Book Value	Market Common Shares e to Book Outstanding (in Millions) <sup>2</sup>						
Line	Company	Stock Price <sup>1</sup>	Per Share <sup>2</sup>	Ratio	2017	3-5 Years	Growth	S Factor <sup>3</sup>	V Factor⁴	<u>s * v</u>
	<del></del>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	ALLETE, Inc.	\$72.87	\$40.47	1.80	51.10	56.00	1.85%	3.33%	44.47%	1.48%
2	Alliant Energy Corporation	\$40.69	\$18.08	2.25	231.35	235.00	0.31%	0.71%	55.57%	0.39%
3	Ameren Corporation	\$56.21	\$29.61	1.90	242.63	250.00	0.60%	1.14%	47.32%	0.54%
4	American Electric Power Company, Inc.	\$67.47	\$37.17	1.82	492.01	516.00	0.96%	1.74%	44.91%	0.78%
5	Black Hills Corporation	\$54.51	\$31.92	1.71	53.54	59.50	2.13%	3.64%	41.44%	1.51%
6	CMS Energy Corporation	\$44.62	\$15.77	2.83	281.65	294.00	0.86%	2.44%	64.66%	1.58%
7	DTE Energy Company	\$102.59	\$53.03	1.93	179.39	195.00	1.68%	3.26%	48.31%	1.57%
8	Duke Energy Corporation	\$77.16	\$59.63	1.29	700.00	745.00	1.25%	1.62%	22.72%	0.37%
9	El Paso Electric Company	\$51.32	\$28.14	1.82	40.58	41.00	0.21%	0.38%	45.17%	0.17%
10	Hawaiian Electric Industries, Inc.	\$34.00	\$19.28	1.76	108.79	113.00	0.76%	1.34%	43.29%	0.58%
11	IDACORP, Inc.	\$87.53	\$44.65	1.96	50.42	50.40	- 0.01%	- 0.02%	48.99%	- 0.01%
12	NorthWestern Corporation	\$53.19	\$36.44	1.46	49.37	51.00	0.65%	0.95%	31.49%	0.30%
13	OGE Energy Corp.	\$32.55	\$19.28	1.69	199.70	199.70	0.00%	0.00%	40.77%	0.00%
14	Otter Tail Corporation	\$43.19	\$17.62	2.45	39.56	44.00	2.15%	5.27%	59.20%	3.12%
15	Pinnacle West Capital Corporation	\$78.38	\$44.80	1.75	111.75	113.00	0.22%	0.39%	42.84%	0.17%
16	PNM Resources, Inc.	\$37.82	\$21.28	1.78	79.65	79.65	0.00%	0.00%	43.73%	0.00%
17	Portland General Electric Company	\$40.49	\$27.11	1.49	89.11	90.00	0.20%	0.30%	33.05%	0.10%
18	WEC Energy Group, Inc.	\$61.95	\$29.98	2.07	315.57	315.60	0.00%	0.00%	51.60%	0.00%
19	Xcel Energy Inc.	\$44.78	\$22.56	1.99	507.76	522.50	0.57%	1.14%	49.63%	0.57%
20	Average	\$56.91	\$31.41	1.88	201.26	208.97	0.80%	1.54%	45.22%	0.73%

Sources and Notes:

<sup>&</sup>lt;sup>1</sup> S&P Global Market Intelligence, Downloaded on May 29, 2018.

<sup>&</sup>lt;sup>2</sup> The Value Line Investment Survey, March 16, April 27, and May 18, 2018.

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

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

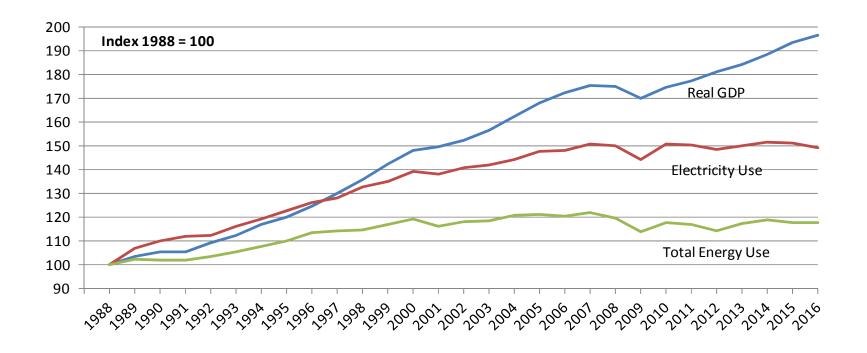
### **Constant Growth DCF Model** (Sustainable Growth Rate)

<u>Line</u>	<u>Company</u>	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 Growth DCF (5)
1	ALLETE, Inc.	\$72.87	4.69%	\$2.24	3.22%	7.91%
2	Alliant Energy Corporation	\$40.69	4.60%	\$1.34	3.44%	8.05%
3	Ameren Corporation	\$56.21	4.66%	\$1.83	3.41%	8.07%
4	American Electric Power Company, Inc.	\$67.47	5.05%	\$2.48	3.86%	8.91%
5	Black Hills Corporation	\$54.51	5.36%	\$1.90	3.67%	9.04%
6	CMS Energy Corporation	\$44.62	6.92%	\$1.43	3.43%	10.35%
7	DTE Energy Company	\$102.59	5.99%	\$3.53	3.65%	9.64%
8	Duke Energy Corporation	\$77.16	2.05%	\$3.56	4.71%	6.76%
9	El Paso Electric Company	\$51.32	3.66%	\$1.34	2.71%	6.37%
10	Hawaiian Electric Industries, Inc.	\$34.00	4.24%	\$1.24	3.80%	8.04%
11	IDACORP, Inc.	\$87.53	3.25%	\$2.36	2.78%	6.03%
12	NorthWestern Corporation	\$53.19	3.63%	\$2.20	4.29%	7.91%
13	OGE Energy Corp.	\$32.55	2.93%	\$1.33	4.21%	7.14%
14	Otter Tail Corporation	\$43.19	7.13%	\$1.34	3.32%	10.46%
15	Pinnacle West Capital Corporation	\$78.38	3.94%	\$2.78	3.69%	7.63%
16	PNM Resources, Inc.	\$37.82	4.36%	\$1.06	2.93%	7.29%
17	Portland General Electric Company	\$40.49	3.16%	\$1.36	3.46%	6.62%
18	WEC Energy Group, Inc.	\$61.95	4.30%	\$2.21	3.72%	8.02%
19	Xcel Energy Inc.	\$44.78	4.58%	\$1.52	3.55%	8.13%
20 21	Average Median	\$56.91	4.45%	\$1.95	3.57%	8.02% 8.02%

<sup>&</sup>lt;sup>1</sup> S&P Global Market Intelligence, Downloaded on May 29, 2018.

<sup>&</sup>lt;sup>2</sup> Schedule MPG-10, page 1. <sup>3</sup> *The Value Line Investment Survey*, March 16, April 27, and May 18, 2018.

## **Electricity Sales Are Linked to U.S. Economic Growth**



Note:

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

Sources:

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

#### Multi-Stage Growth DCF Model

		13-Week AVG	Annualized	First Stage	Second Stage Growth					Third Stage	Multi-Stage
Line	<u>Company</u>	Stock Price1	Dividend <sup>2</sup>	Growth <sup>3</sup>	Year 6	Year 7	Year 8	Year 9	Year 10	Growth⁴	Growth DCF
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	ALLETE, Inc.	\$72.87	\$2.24	6.40%	6.03%	5.67%	5.30%	4.93%	4.57%	4.20%	7.88%
2	Alliant Energy Corporation	\$40.69	\$1.34	5.79%	5.52%	5.26%	4.99%	4.73%	4.46%	4.20%	7.99%
3	Ameren Corporation	\$56.21	\$1.83	6.48%	6.10%	5.72%	5.34%	4.96%	4.58%	4.20%	8.12%
4	American Electric Power Company, Inc.	\$67.47	\$2.48	5.68%	5.43%	5.18%	4.94%	4.69%	4.45%	4.20%	8.40%
5	Black Hills Corporation	\$54.51	\$1.90	4.38%	4.35%	4.32%	4.29%	4.26%	4.23%	4.20%	7.87%
6	CMS Energy Corporation	\$44.62	\$1.43	6.82%	6.39%	5.95%	5.51%	5.07%	4.64%	4.20%	8.14%
7	DTE Energy Company	\$102.59	\$3.53	5.80%	5.53%	5.27%	5.00%	4.73%	4.47%	4.20%	8.17%
8	Duke Energy Corporation	\$77.16	\$3.56	4.12%	4.14%	4.15%	4.16%	4.17%	4.19%	4.20%	8.98%
9	El Paso Electric Company	\$51.32	\$1.34	5.13%	4.98%	4.82%	4.67%	4.51%	4.36%	4.20%	7.08%
10	Hawaiian Electric Industries, Inc.	\$34.00	\$1.24	7.75%	7.16%	6.57%	5.98%	5.38%	4.79%	4.20%	8.93%
11	IDACORP, Inc.	\$87.53	\$2.36	3.71%	3.79%	3.87%	3.95%	4.04%	4.12%	4.20%	6.90%
12	NorthWestern Corporation	\$53.19	\$2.20	2.86%	3.08%	3.30%	3.53%	3.75%	3.98%	4.20%	8.15%
13	OGE Energy Corp.	\$32.55	\$1.33	4.82%	4.71%	4.61%	4.51%	4.41%	4.30%	4.20%	8.62%
14	Otter Tail Corporation	\$43.19	\$1.34	8.38%	7.68%	6.98%	6.29%	5.59%	4.90%	4.20%	8.40%
15	Pinnacle West Capital Corporation	\$78.38	\$2.78	4.37%	4.34%	4.31%	4.29%	4.26%	4.23%	4.20%	7.93%
16	PNM Resources, Inc.	\$37.82	\$1.06	5.01%	4.87%	4.74%	4.60%	4.47%	4.33%	4.20%	7.27%
17	Portland General Electric Company	\$40.49	\$1.36	2.82%	3.05%	3.28%	3.51%	3.74%	3.97%	4.20%	7.39%
18	WEC Energy Group, Inc.	\$61.95	\$2.21	4.61%	4.54%	4.48%	4.41%	4.34%	4.27%	4.20%	8.02%
19	Xcel Energy Inc.	\$44.78	\$1.52	5.76%	5.50%	5.24%	4.98%	4.72%	4.46%	4.20%	8.10%
20 21	Average Median	\$56.91	\$1.95	5.30%	5.12%	4.93%	4.75%	4.57%	4.38%	4.20%	8.02% 8.10%

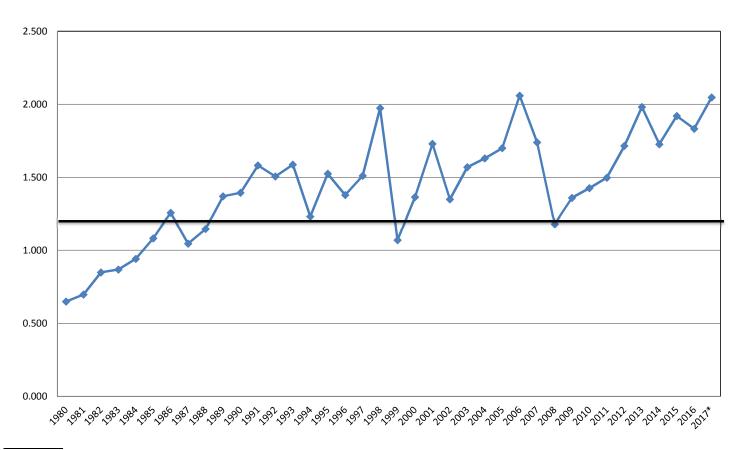
<sup>&</sup>lt;sup>1</sup> S&P Global Market Intelligence, Downloaded on May 29, 2018.

<sup>&</sup>lt;sup>2</sup> The Value Line Investment Survey, March 16, April 27, and May 18, 2018.

<sup>&</sup>lt;sup>3</sup> Schedule MPG-7.

<sup>&</sup>lt;sup>4</sup> Blue Chip Financial Forecasts, June 1, 2018 at 14.

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



#### Source:

1980 - 2000: Mergent Public Utility Manual.

2001 - 2015: AUS Utility Reports, multiple dates.

2016 - 2017: Value Line Investment Survey, multiple dates.

<sup>\*</sup> Value Line Investment Survey Reports, March 2, March 16, April 27, and May 18, 2018.

### **Equity Risk Premium - Treasury Bond**

		Authorized Electric	30 yr. Treasury	Indicated Risk	Rolling 5 - Year	Rolling 10 - Year
<u>Line</u>	<u>Year</u>	Returns <sup>1</sup> (1)	Bond Yield <sup>2</sup> (2)	Premium (3)	Average (4)	Average (5)
1	1986	13.93%	7.80%	6.13%		
2	1987	12.99%	8.58%	4.41%		
3	1988	12.79%	8.96%	3.83%		
4	1989	12.97%	8.45%	4.52%		
5	1990	12.70%	8.61%	4.09%	4.60%	
6	1991	12.55%	8.14%	4.41%	4.25%	
7	1992	12.09%	7.67%	4.42%	4.26%	
8	1993	11.41%	6.60%	4.81%	4.45%	
9	1994	11.34%	7.37%	3.97%	4.34%	
10	1995	11.55%	6.88%	4.67%	4.46%	4.53%
11	1996	11.39%	6.70%	4.69%	4.51%	4.38%
12	1997	11.40%	6.61%	4.79%	4.59%	4.42%
13	1998	11.66%	5.58%	6.08%	4.84%	4.65%
14	1999	10.77%	5.87%	4.90%	5.03%	4.68%
15	2000	11.43%	5.94%	5.49%	5.19%	4.82%
16	2001	11.09%	5.49%	5.60%	5.37%	4.94%
17	2002	11.16%	5.43%	5.73%	5.56%	5.07%
18	2003	10.97%	4.96%	6.01%	5.55%	5.19%
19	2004	10.75%	5.05%	5.70%	5.71%	5.37%
20	2005	10.54%	4.65%	5.89%	5.79%	5.49%
21	2006	10.34%	4.90%	5.44%	5.76%	5.56%
22	2007	10.31%	4.83%	5.48%	5.71%	5.63%
23	2008	10.37%	4.28%	6.09%	5.72%	5.63%
24	2009	10.52%	4.07%	6.45%	5.87%	5.79%
25	2010	10.29%	4.25%	6.04%	5.90%	5.84%
26	2011	10.19%	3.91%	6.28%	6.07%	5.91%
27	2012	10.01%	2.92%	7.09%	6.39%	6.05%
28	2013	9.81%	3.45%	6.36%	6.44%	6.08%
29	2014	9.75%	3.34%	6.41%	6.44%	6.15%
30	2015	9.60%	2.84%	6.76%	6.58%	6.24%
31	2016	9.60%	2.60%	7.00%	6.72%	6.40%
32	2017	9.68%	2.90%	6.79%	6.66%	6.53%
33	2018 <sup>3</sup>	9.59%	3.03%	6.56%	6.70%	6.57%
34	Average	11.08%	5.53%	5.54%	5.50%	5.50%
35	Minimum				4.25%	4.38%
36	Maximum				6.72%	6.57%

Sources:

<sup>&</sup>lt;sup>1</sup> Regulatory Research Associates, Inc., Regulatory Focus, Major Rate Case Decisions, Jan. 1997 pg. 5, and Jan. 2011 pg. 3. S&P Global Market Intelligence, RRA Regulatory Focus, Major Rate Case Decisions, January-March 2018, April 17, 2018, p. 8.

<sup>2006 - 2017</sup> Authorized Returns exclude limited issue rider cases.

<sup>&</sup>lt;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.

<sup>&</sup>lt;sup>3</sup> Data includes January - March, 2018.

### **Equity Risk Premium - Utility Bond**

		Authorized Electric	Average "A" Rated Utility	Indicated Risk	Rolling 5 - Year	Rolling 10 - Year
<u>Line</u>	<u>Year</u>	Returns <sup>1</sup> (1)	Bond Yield <sup>2</sup> (2)	Premium (3)	<u>Average</u> (4)	<u>Average</u> (5)
		( )	( )	(-)	( )	(-7
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%	3.82%
20	2005	10.54%	5.65%	4.89%	4.20%	3.94%
21	2006	10.34%	6.07%	4.27%	4.39%	4.00%
22	2007	10.31%	6.07%	4.24%	4.48%	4.04%
23	2008	10.37%	6.53%	3.84%	4.37%	3.97%
24	2009	10.52%	6.04%	4.48%	4.34%	4.10%
25	2010	10.29%	5.47%	4.82%	4.33%	4.26%
26	2011	10.19%	5.04%	5.15%	4.51%	4.45%
27	2012	10.01%	4.13%	5.88%	4.83%	4.66%
28	2013	9.81%	4.48%	5.33%	5.13%	4.75%
29	2014	9.75%	4.28%	5.47%	5.33%	4.84%
30	2015	9.60%	4.12%	5.48%	5.46%	4.90%
31	2016	9.60%	3.93%	5.67%	5.57%	5.04%
32	2017	9.68%	4.00%	5.68%	5.53%	5.18%
33	2018 <sup>3</sup>	9.59%	4.03%	5.56%	5.57%	5.35%
34	Average	11.08%	6.90%	4.18%	4.14%	4.10%
35	Minimum				2.88%	3.20%
36	Maximum				5.57%	5.35%

Sources:

<sup>&</sup>lt;sup>1</sup> Regulatory Research Associates, Inc., Regulatory Focus, Major Rate Case Decisions, Jan. 1997 pg. 5, and Jan. 2011 pg. 3. S&P Global Market Intelligence, RRA Regulatory Focus, Major Rate Case Decisions, January-March 2018, April 17, 2018, p. 8.

<sup>2006 - 2017</sup> Authorized Returns exclude limited issue rider cases.

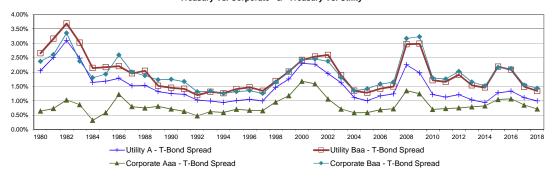
<sup>&</sup>lt;sup>2</sup> Mergent Public Utility Manual, Mergent Weekly News Reports, 2003. The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record. The utility yields from 2010-2017 were obtained from http://credittrends.moodys.com/.

<sup>&</sup>lt;sup>3</sup> Data includes January - March, 2018.

#### **Bond Yield Spreads**

				Publ	ic Utility Bond	I		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>	<u>A</u> <sup>2</sup>	Baa <sup>2</sup>	Spread	Spread	Aaa <sup>3</sup>	Baa <sup>3</sup>	Spread	Spread	Spread	Spread	
	<u> </u>	(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%	-0.30%	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	4.90%	6.07%	6.32%	1.17%	1.42%	5.59%	6.48%	0.69%	1.58%	-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%	0.73%	
31	2010	4.25%	5.47%	5.96%	1.22%	1.71%	4.95%	6.04%	0.70%	1.79%	-0.08%	0.52%	
32	2011	3.91%	5.04%	5.57%	1.13%	1.66%	4.64%	5.67%	0.73%	1.76%	-0.10%	0.40%	
33	2012	2.92%	4.13%	4.83%	1.21%	1.90%	3.67%	4.94%	0.75%	2.02%	-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	2013	3.34%	4.28%	4.80%	0.94%	1.46%	4.16%	4.86%	0.82%	1.52%	-0.06%	0.12%	
36	2014	2.84%	4.26%	5.03%	1.27%	2.19%	3.89%	5.00%	1.05%	2.16%	0.03%	0.12%	
37	2015	2.60%		5.03% 4.67%	1.27%							0.23%	
			3.93%			2.08%	3.66%	4.71%	1.07%	2.12%	-0.04%		
38	2017	2.90%	4.00%	4.38%	1.10%	1.48%	3.74%	4.44%	0.85%	1.55%	-0.06%	0.26%	
39	2018 4	3.03%	4.03%	4.37%	0.99%	1.34%	3.75%	4.47%	0.71%	1.44%	-0.09%	0.28%	
40	Average	6.53%	8.02%	8.46%	1.50%	1.93%	7.36%	8.45%	0.84%	1.92%	0.01%	0.66%	

Yield Spreads
Treasury Vs. Corporate & Treasury Vs. Utility



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

<sup>&</sup>lt;sup>2</sup> The utility yields for the period 1980-2000 were obtained from 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 for the period 2010-2017 were obtained from http://credittrends.moodys.com/.

<sup>&</sup>lt;sup>3</sup> The corporate yields for the period 1980-2009 were obtained from the St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org/. The corporate yields from 2010-2017 were obtained from http://credittrends.moodys.com/.

<sup>&</sup>lt;sup>4</sup> Data includes January - March, 2018.

## **Treasury and Utility Bond Yields**

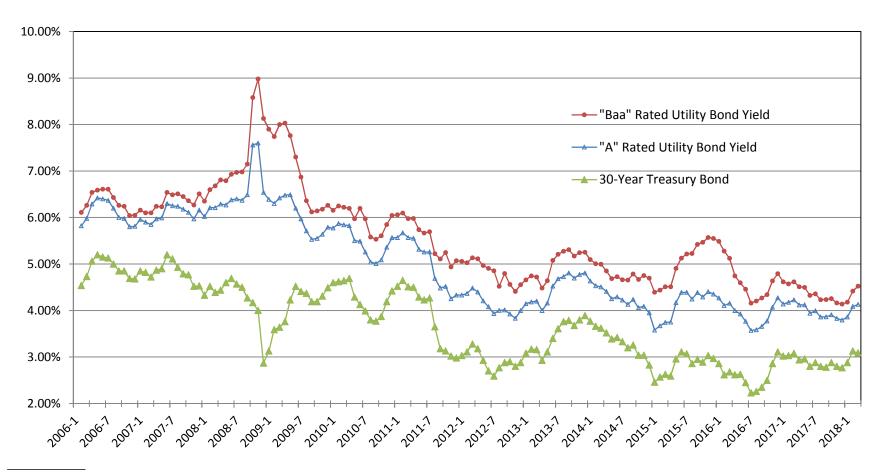
<u>Line</u>	<u>Date</u>	Treasury <u>Bond Yield<sup>1</sup></u> (1)	"A" Rated Utility <u>Bond Yield<sup>2</sup></u> (2)	"Baa" Rated Utility <u>Bond Yield<sup>2</sup></u> (3)
1	05/25/18	3.09%	4.24%	4.65%
2	05/18/18	3.20%	4.36%	4.78%
3	05/11/18	3.10%	4.26%	4.69%
4	05/04/18	3.12%	4.24%	4.69%
5	04/27/18	3.13%	4.22%	4.65%
6	04/20/18	3.14%	4.23%	4.64%
7	04/13/18	3.03%	4.13%	4.53%
8	04/06/18	3.01%	4.12%	4.53%
9	03/29/18	2.97%	4.07%	4.48%
10	03/23/18	3.06%	4.15%	4.57%
11	03/16/18	3.08%	4.12%	4.52%
12	03/09/18	3.16%	4.18%	4.55%
13	03/02/18	3.14%	4.12%	4.46%
14	Average	3.09%	4.19%	4.60%
15	Spread To Treasury		1.10%	1.51%

Sources:

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

<sup>&</sup>lt;sup>2</sup> http://credittrends.moodys.com/.

## **Trends in Bond Yields**



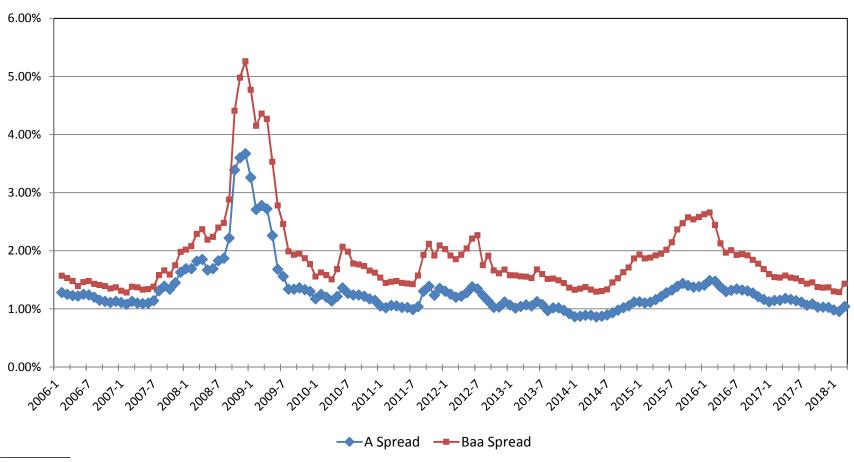
Sources:

Mergent Bond Record.

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

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

## <u>Yield Spread Between Utility Bonds and 30-Year Treasury Bonds</u>



Sources:

Mergent Bond Record.

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

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

## **Value Line Beta**

<u>Line</u>	<u>Company</u>	<u>Beta</u>
1	ALLETE, Inc.	0.75
2	Alliant Energy Corporation	0.70
3	Ameren Corporation	0.65
4	American Electric Power Company, Inc.	0.65
5	Black Hills Corporation	0.90
6	CMS Energy Corporation	0.65
7	DTE Energy Company	0.65
8	Duke Energy Corporation	0.60
9	El Paso Electric Company	0.75
10	Hawaiian Electric Industries, Inc.	0.65
11	IDACORP, Inc.	0.70
12	NorthWestern Corporation	0.65
13	OGE Energy Corp.	0.95
14	Otter Tail Corporation	0.85
15	Pinnacle West Capital Corporation	0.65
16	PNM Resources, Inc.	0.70
17	Portland General Electric Company	0.65
18	WEC Energy Group, Inc.	0.60
19	Xcel Energy Inc.	0.60
20	Average	0.70

Source:

The Value Line Investment Survey, March 16, April 27, and May 18, 2018.

### **CAPM Return**

<u>Line</u>	<u>Description</u>	High Market Risk <u>Premium</u> (1)	Low Market Risk <u>Premium</u> (2)
1	Risk-Free Rate <sup>1</sup>	3.80%	3.80%
2	Risk Premium <sup>2</sup>	7.70%	6.10%
3	Beta <sup>3</sup>	0.70	0.70
4	CAPM	9.19%	8.07%

<sup>&</sup>lt;sup>1</sup> Blue Chip Financial Forecasts, June 1, 2018, at 2.

<sup>&</sup>lt;sup>2</sup> Duff & Phelps, 2018 SBBI Yearbook at 6-17 and 6-18, and Duff & Phelps, 2018 Valuation Handbook at 3-33 and 3-45.

<sup>&</sup>lt;sup>3</sup> Schedule MPG-19.

#### **KCPL**

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

		Co	Retail est of Service	S&P Bench	mark (Medial \	/olatility) <sup>1/2</sup>	
Line	<u>Description</u>		Amount	Intermediate	Significant (2)	Aggressive	Reference
			(1)	(2)	(3)	(4)	(5)
1	Rate Base (MO Retail)	\$ 2	2,626,773,107				Schedule RAK-2 (KCPL-MO).
2	Weighted Common Return		4.65%				Page 3, Line 1, Col. 3.
3	Pre-Tax Rate of Return		8.77%				Page 3, Line 3, Col. 4.
4	Income to Common	\$	122,226,512				Line 1 x Line 2.
5	EBIT	\$	230,365,184				Line 1 x Line 3.
6	Depreciation & Amortization	\$	150,142,762				Schedule RAK-3 (KCPL-MO).
7	Imputed Amortization	\$	3,652,581				Page 2, Line 3, Col. 3.
8	Capitalized Interest	\$	(3,213,035)				Page 2, Line 7, Col. 3.
9	Deferred Income Taxes & ITC	\$	2,449,517				Schedule RAK-3 (KCPL-MO).
10	Funds from Operations (FFO)	\$	275,258,338				Sum of Line 4 and Lines 6 through 9.
11	Imputed Interest Expense	\$	4,880,923				Page 2, Line 6, Col. 3.
12	EBITDA	\$	389,041,450				Sum of Lines 5 through 7 and Line 10.
13	Total Adjusted Debt Ratio		51.2%				Page 4, Line 3, Col. 2.
14	Debt to EBITDA		3.5x	2.5x - 3.5x	3.5x - 4.5x	4.5x - 5.5x	(Line 1 x Line 12) / Line 11.
15	FFO to Total Debt		20%	23% - 35%	13% - 23%	9% - 13%	Line 9 / (Line 1 x Line 12).
16	Indicative Credit Rating			Α	A-	BBB	

#### Sources:

#### Note:

Based on the August 2017 S&P report, Kansas City Power & Light has an "Excellent" business risk profile and a "Significant" financial risk profile, and falls under the 'Medial Volatility' matrix.

S&P Business/Financial Risk Profile Matrix								
Business Risk	Financial Risk Profile							
	Intermediate	Significant	Aggressive					
Excellent	Α	A-	BBB					
Strong	A-	BBB	BB					
Satisfactory	BBB	BB+	BB-					

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

<sup>&</sup>lt;sup>2</sup> Standard & Poor's RatingsDirect: "Summary: Kansas City Power & Light Co.," August 17, 2017.

### **Income Statement Adjustments**

<u>Line</u>	<u>Description</u>	Total Company <u>Amount</u> (1)	MO Jur <u>Allocator<sup>1</sup></u> (2)	MO Jur Allocation (3)	Reference (4)
1	PPA Depreciation	\$1,800,000			S&P Capital IQ downloaded June 8, 2018.
2	OLA Depreciation	\$5,134,486			S&P Capital IQ downloaded June 8, 2018.
3	Imputed Amort	\$6,934,486	52.6727%	\$3,652,581	·
4	PPA Interest Expense	\$2,751,000.00			S&P Capital IQ downloaded June 8, 2018.
5	OLA Interest Expense	\$6,515,514.00			S&P Capital IQ downloaded June 8, 2018.
6	Imputed Interest	\$ 9,266,514	52.6727%	\$4,880,923	•
7	Capitalized Interest	\$ 6,100,000	52.6727%	\$3,213,035	S&P Capital IQ downloaded June 8, 2018.

Source:

<sup>&</sup>lt;sup>1</sup> Schedule RAK-6 (KCPL-MO).

### **KCPL**

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

<u>Line</u>	<u>Description</u>	Weight <sup>1</sup> (1)	<u>Cost</u> (2)	Weighted <u>Cost</u> (3)	Pre-Tax Weighted <u>Cost</u> (4)
1	Common Equity	50.0%	9.30%	4.65%	6.24%
2	Long-Term Debt	<u>50.0%</u>	5.06%	<u>2.53%</u>	<u>2.53%</u>
3	Total	100.0%		7.18%	8.77%
4	Tax Conversion Fac	tor <sup>2</sup>			1.3414

<sup>&</sup>lt;sup>1</sup> Schedule MPG-1, page 1.

<sup>&</sup>lt;sup>2</sup> Schedule RAK-1 (KCPL-MO).

## **KCPL**

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

Thousands of Dollars

<u>Line</u>	<u>Description</u>	Amount <sup>1</sup> (1)	Weight (2)
1	Long-Term Debt	\$ 2,549,380	48.7%
2	Off Balance Sheet Debt <sup>2</sup>	\$ 130,867	2.5%
3	Total Long-Term Debt	\$ 2,680,247	51.2%
4	Common Equity	\$ 2,552,787	<u>48.8%</u>
5	Total	\$ 5,233,034	100.0%

<sup>&</sup>lt;sup>1</sup>Schedule RBH-10, page 1.

<sup>&</sup>lt;sup>2</sup>S&P Capital IQ, accessed June 8, 2018.

#### **GMO**

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

		Co	Retail	S&P Bench	mark (Medial \	/olatility) <sup>1/2</sup>	
Line	<u>Description</u>		Amount	Intermediate	Significant	Aggressive	Reference
			(1)	(2)	(3)	(4)	(5)
1	Rate Base (MO Retail)	\$ 1	,907,881,169				Schedule RAK-2 GMO.
2	Weighted Common Return		4.73%				Page 2, Line 1, Col. 3.
3	Pre-Tax Rate of Return		8.70%				Page 2, Line 3, Col. 4.
4	Income to Common	\$	90,295,300				Line 1 x Line 2.
5	EBIT	\$	166,000,887				Line 1 x Line 3.
6	Depreciation & Amortization	\$	103,271,550				Schedule RAK-3 GMO.
7	Imputed Amortization	\$	-				N/A
8	Capitalized Interest	\$	(3,135,000)				\$209 MM notes Payable at 1.5%
9	Deferred Income Taxes & ITC	\$	1,184,313				Schedule RAK-3 GMO.
10	Funds from Operations (FFO)	\$	191,616,163				Sum of Line 4 and Lines 6 through 8.
11	Imputed Interest Expense	\$	-				N/A
12	EBITDA	\$	269,272,437				Sum of Lines 5 through 7 and Line 10.
13	Total Adjusted Debt Ratio		49.1%				Page 6, Line 2, Col. 1.
14	Debt to EBITDA		3.5x	2.5x - 3.5x	3.5x - 4.5x	4.5x - 5.5x	(Line 1 x Line 12) / Line 11.
15	FFO to Total Debt		20%	23% - 35%	13% - 23%	9% - 13%	Line 9 / (Line 1 x Line 12).

#### Sources:

16 Indicative Credit Rating

#### Note:

Based on the August 2017 S&P report, KCP&L GMO has a "Strong" business risk profile and a "Significant" financial risk profile, and falls under the 'Medial Volatility' matrix.

S&P Business/Financial Risk Profile Matrix								
Business Risk	Financial Risk Profile							
	Intermediate	Significant	Aggressive					
Excellent	Α	A-	BBB					
Strong	A-	BBB	BB					
Satisfactory	BBB	BB+	BB-					

BBB

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

<sup>&</sup>lt;sup>2</sup> Standard & Poor's RatingsDirect: "Summary: KCP&L Greater Missouri Operations Co.," August 21, 2017.

### **GMO**

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

<u>Line</u>	<u>Description</u>	Weight <sup>1</sup> (1)	<u>Cost</u> (2)	Weighted <u>Cost</u> (3)	Pre-Tax Weighted <u>Cost</u> (4)
1	Common Equity	50.9%	9.30%	4.73%	6.35%
2	Long-Term Debt	<u>49.1%</u>	4.79%	<u>2.35%</u>	<u>2.35%</u>
3	Total	100.0%		7.09%	8.70%
4	Tax Conversion Fac	tor <sup>2</sup>			1.3414

<sup>&</sup>lt;sup>1</sup> Schedule MPG-1, page 2.

<sup>&</sup>lt;sup>2</sup> Schedule RAK-1 GMO.

# S&P Adjusted Debt Ratio (Operating Subsidiaries of Value Line Electric and Gas Utilities)

9 Year Average - %

							% Distribution of 9 Year Average		
<u>Line</u>	Rating	<u>Count</u>	<u>Average</u>	<u>Median</u>	<u>High</u>	Low	<u>&lt; 50</u>	50 to 55	<u>&gt; 55</u>
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	AA-	1	45.2	45.2	45.2	45.2	100%	0%	0%
2	A+	1	55.2	55.2	55.2	55.2	0%	0%	100%
3	Α	12	50.3	51.5	56.0	43.1	42%	42%	17%
4	A-	49	51.8	53.3	63.1	35.1	35%	35%	31%
5	BBB+	24	53.1	52.9	60.3	43.3	8%	63%	29%
6	BBB	10	52.0	53.5	57.8	39.7	30%	30%	40%
7	BBB-	10	55.9	56.9	62.1	44.6	10%	30%	60%
8	BB+	0	-	-	-	-			

Annual Results - 2008FY through 2016FY - %

							% Distribution of Fiscal Year Results		
<u>Line</u>	Rating	Count	<u>Average</u>	<u>Median</u>	<u>High</u>	Low	< 50	50 to 55	<u>&gt; 55</u>
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
9	AA-	9	45.2	45.0	49.5	41.8	100%	0%	0%
10	A+	9	55.2	55.8	57.3	50.5	0%	33%	67%
11	Α	97	50.9	51.4	67.6	40.6	40%	44%	15%
12	A-	435	51.8	52.8	67.1	26.2	34%	34%	32%
13	BBB+	213	53.1	53.6	64.7	37.9	23%	44%	33%
14	BBB	88	52.0	53.5	59.8	36.8	30%	34%	36%
15	BBB-	81	55.8	56.1	70.7	33.3	15%	30%	56%
16	BB+	0	-	-	-	-			

Source:

S&P Capital IQ, downloaded November 30, 2017.