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Witness:

Type of Exhibit:

Sponsoring Party:

Case No.:

Date Testimony Prepared:

Revenue Requirement

Michael P. Gorman

Direct Testimony

Public Counsel

ER-2016-0156

July 15, 2016

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

In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service

Case No. ER-2016-0156

Direct Testimony and Schedules of

Michael P. Gorman

On behalf of

The Office of Public Counsel

**NON-PROPRIETARY VERSION** 

July 15, 2016



Project 10265

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

In the Matter of KCP Operations Compan Authority to Implem Increase for Electric	) ) ) )	Case No. ER-2016-0156		
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 Office of Public Counsel in this proceeding on its behalf.
- 2. Attached hereto and made a part hereof for all purposes are my direct testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2016-0156.
- 3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.

Michael P. Gorman

Subscribed and sworn to before me this 14th day of July, 2016.

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

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

In the Matter of KCP&L Greater Missouri **Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service** 

Case No. ER-2016-0156

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Michael P. Gorman **Table of Contents** 

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

In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service

Case No. ER-2016-0156

#### **Direct Testimony of Michael P. Gorman**

1		I. INTRODUCTION AND SUMMARY
2	Q	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
3	Α	Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,
4		Chesterfield, MO 63017.
5	Q	WHAT IS YOUR OCCUPATION?
6	Α	I am a consultant in the field of public utility regulation and a Managing Principal of
7		Brubaker & Associates, Inc., energy, economic and regulatory consultants.
8	Q	PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.
9	Α	This information is included in Appendix A to this testimony.
10	Q	ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?
11	Α	This testimony is presented on behalf of the Office of Public Counsel ("Public
12		Counsel").

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

Q

Α

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

I will also respond to GMO witness Mr. Robert Hevert's recommended return on equity range of 9.75% to 10.50% and GMO's requested return on equity of 9.90%.

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

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

I recommend the Missouri Public Service Commission (the "Commission") award a return on common equity of 9.25%, which is the midpoint of my recommended range of 8.90% to 9.60%. My recommended return on equity will fairly compensate GMO for its current market cost of common equity, and it will mitigate the claimed revenue deficiency in this proceeding by fairly balancing the interests of all stakeholders.

I also propose adjustments to the Company's proposed ratemaking capital structure. To the extent the Commission believes it is appropriate to use the Company's proposed actual ratemaking capital structure, I recommend the amount of common equity supporting the Company's goodwill asset be removed from the capital structure for rate-setting purposes. As outlined in my testimony below, goodwill is an asset that has no economic value and does not produce cash flows and therefore

cannot be supported by debt capital. Goodwill can only be supported by common equity investment. Goodwill represents transactions taken between investors for acquisition of GMO-related utility plant in the past. Hence, the equity supporting the goodwill asset does not reflect capital used by the utility to make investments in utility plant and equipment. Therefore, the common equity supporting the goodwill asset is not a cost of providing utility service. Rather, it reflects the costs incurred by existing shareholders for acquiring GMO from its previous owners.

I also comment on the reasonableness of the Commission imposing restrictions on a capital structure which will preserve GMO's financial integrity but minimize the cost to retail customers. From this standpoint, I recommend the Commission impose a capital structure limit. For example, a 50% common equity ratio of total investor capital may be an appropriate limit for rate-setting purposes based on current market and credit conditions. A capital structure with this equity component will support credit metrics that will help maintain GMO's current investment grade bond rating and support GMO's access to external capital needed to fund infrastructure improvements under reasonable terms and prices. A capital structure limited to a reasonable common equity ratio of total capital will accomplish these objectives at a much lower cost to retail customers than GMO's capital structure.

I also comment on how the Commission's decision to implement these capital structure restrictions will provide Company management clear pricing instructions to modify its actual capital structure cost to conform to the capital costs found reasonable by the Commission and included in its retail rates. By providing these clear price signals to Company management, they can adjust GMO's actual capital costs to conform to its Commission-approved cost of service and thus preserve its

1	ability to have a fair opportunity to earn the Commission-approved return on common
2	equity.

#### Q WHAT IS YOUR RECOMMENDED OVERALL RATE OF RETURN?

Α

A Based on my recommended return on equity of 9.25% and capital structure, and the Company's embedded cost of debt, I recommend an overall rate of return of 7.23% as developed on my Schedule MPG-1.

#### **II. RATE OF RETURN**

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

In this section of my testimony, I will explain the analysis I performed to determine the reasonable rate of return in this proceeding and present the results of my analysis. I begin my estimate of a fair return on equity by reviewing the authorized returns approved by the regulatory commissions in various jurisdictions, the market assessment of the regulated utility industry investment risk, credit standing, and stock price performance. I used this information to get a sense of the market's perception of the risk characteristics of regulated utility investments in general, which is then used to produce a refined estimate of the market's return requirement for assuming investment risk similar to GMO's utility operations.

As described below, I find the credit rating outlook of the industry to be strong, 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.

Based on this review of credit outlooks and stock price performance, I conclude that the market continues to embrace the regulated utility industry as a

1	safe-haven	investment	and	views	utility	equity	and	debt	investments	as	low-risk
2	securities.										

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

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## Q DO YOU AGREE WITH MR. HEVERT THAT CURRENT MARKET CONDITIONS

SHOULD BE REFLECTED IN GMO'S AUTHORIZED RETURN?

Yes, I do. By reviewing recent regulatory decisions and the current market environment, I conclude that my estimated return on equity range of 8.90% to 9.60% will fairly compensate GMO's investors and allow the utility to access capital without unnecessarily increasing the revenue requirements and placing a burden on ratepayers. Mr. Hevert's own testimony, with balanced adjustments and interpretation of his results, supports my return on equity of no higher than 9.6%. Further, the evidence in this case continues to support the reasonableness of the 9.5% and 9.3% return on equity authorized by the Missouri and Kansas Commissions for KCP&L in 2015, respectively.

# Q HOW DOES YOUR RECOMMENDED RETURN ON EQUITY RANGE COMPARE TO KCP&L'S RECENT AUTHORIZED RETURN ON EQUITY OF 9.5%?

On September 15, 2015, the Commission issued its final order in KCP&L's rate case

(Missouri Public Service Commission, Case No. ER-2014-0370) which included a

return on equity of 9.5%. In KCP&L's recent rate case in Kansas, it was awarded a

return on common equity of 9.3%.

<sup>&</sup>lt;sup>1</sup>State Corporation Commission of the State of Kansas Docket No. 15-KCPE-116-RTS, September 10, 2015.

	This return on equity falls above the midpoint toward the upper end of my
2	recommended return on equity range. This also clearly shows the Company's
3	requested return on equity of 9.90% is excessive.

IN HIS DIRECT TESTIMONY, GMO WITNESS MR. HEVERT OUTLINED INDUSTRY AUTHORIZED RETURNS ON EQUITY FOR VERTICALLY INTEGRATED ELECTRIC UTILITY COMPANIES. HE FINDS THAT HALF THE AUTHORIZED RETURNS ON EQUITY IN 2015 WERE 9.75% AND HALF OF THE EIGHT RETURNS ON EQUITY AUTHORIZED IN THE FOURTH QUARTER OF 2015 WERE 10% OR HIGHER.<sup>2</sup> PLEASE COMMENT.

As shown in Table 1 below, I outline the individual authorized returns on equity for vertically integrated electric utilities in 2015 and the first quarter of 2016. This data includes most of the data used by Mr. Hevert but also reflects additional data for the first quarter of 2016. Like Mr. Hevert, I excluded the Virginia decisions based on their rider return on equity obligations.

<sup>2</sup>Hevert Direct Testimony at 5.

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TABLE 1

2015 and 2016 Vertically Integrated Electric
Utility Rate Case Authorized Returns on Equity

<u>Line</u>	Company (1)	<u>State</u> (2)	Return on Equity (3)	<u>Date</u> (4)	S&P Credit <u>Rating</u> (5)
1	KCP&L	KS	9.30%	9/10/2015	BBB+
2	PacifiCorp	WY	9.50%	1/23/2015	Α
3	PacifiCorp	WA	9.50%	3/25/2015	Α
4	KCP&L	MO	9.50%	9/2/2015	BBB+
5	Avista Corp.	ID	9.50%	12/18/2015	BBB
6	PacifiCorp	WY	9.50%	12/30/2015	Α
7	Avista Corp.	WA	9.50%	1/6/2016	BBB
8	Union Electric Co.	MO	9.53%	4/29/2015	BBB+
9	Portland General Electric Co.	OR	9.60%	12/15/2015	BBB
10	Southwestern Pub. Svc. Co.	TX	9.70%	12/17/2015	A-
11	Northern States Power Co.	MN	9.72%	3/26/2015	A-
12	Appalachian Power Co.	WV	9.75%	5/26/2015	BBB
13	Entergy Arkansas, Inc.	AR	9.75%	2/23/2016	BBB
14	Pub. Svc. CoColorado	CO	9.83%	2/24/2015	A-
15	Indianapolis Power & Light Co.	IN	9.85%	3/16/2016	BBB-
16	Wisconsin Pub. Svc. Corp.	WI	10.00%	11/19/2015	A-
17	Northern States Power CoWI	WI	10.00%	12/3/2015	A-
18	Wisconsin Public Service Corporation	MI	10.20%	4/23/2015	A-
19	Consumers Energy Company	MI	10.30%	11/19/2015	BBB+
20	DTE Electric Company	MI	10.30%	12/11/2015	BBB+

Source: SNL Financial, June 15, 2016.

#### Notes:

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As shown in the table above, the industry authorized returns on equity have predominantly ranged between 9.3% and 9.75%. There were 20 total observations and 13 were below 9.75%, and 8 at or below 9.53%. The data illustrates that authorized returns on equity in Michigan and Wisconsin are well above industry

<sup>&</sup>lt;sup>1</sup>Rate Cases without return on equity authorization and Virginia limited issue cases for Riders are excluded.

<sup>&</sup>lt;sup>2</sup>Rate Cases decided by settlement have been eliminated.

average authorized returns on equity. The Michigan and Wisconsin rate decisions were the only return awards above 10% in 2015 and 2016.

Q

Other awards are also notable. Specifically, the return on equity for Indianapolis Power & Light Co. was for a utility with a minimum investment grade bond rating of BBB-, and whose parent company is actually a below investment grade entity (AES Corporation – BB from S&P and Ba3 from Moody's). Entergy Arkansas, Inc.'s return on equity corresponded with a new regulatory policy implementing formula rates. Excluding these notable decisions, along with the Wisconsin and Michigan decisions, an overwhelming majority of authorized returns on equity in 2015 and the first quarter of 2016 were approximately 9.5% plus or minus 20 basis points.

# SHOULD THE COMMISSION GIVE MUCH CONSIDERATION TO THE AUTHORIZED RETURNS ON EQUITY FOR THE WISCONSIN AND MICHIGAN UTILITIES?

No. In my experience, these jurisdictions often award utilities well above industry average authorized returns on equity. What is significant about this observation is, while these utilities get above industry average returns on equity, their bond ratings are generally consistent with industry average credit standings. As shown in the table above, Wisconsin Public Service and Northern States Power Co. both have A- bond ratings. In Michigan, Consumers Energy Company and DTE Electric Company have BBB+ bond ratings. These bond ratings are comparable to GMO's BBB+, which is the same bond rating from S&P for Ameren Missouri. While these utilities' investors are receiving the benefit of well-above industry average authorized returns on equity, these return on equity awards are not supporting stronger credit standing or reduced cost of debt for these utilities. Indeed, the authorized returns on equity in Wisconsin

1	and Michigan are simply inflating these utilities' cost of service and providing above
2	market returns to investors with no measurable benefit to their retail customers. As
3	shown on my Schedule MPG-2, Wisconsin and Michigan rates are amongst the
4	highest in the central United States region for integrated electric utilities.

# 5 Q HOW SHOULD THE COMMISSION INTERPRET THIS DATA ON AUTHORIZED 6 RETURNS ON EQUITY FOR ELECTRIC UTILITIES?

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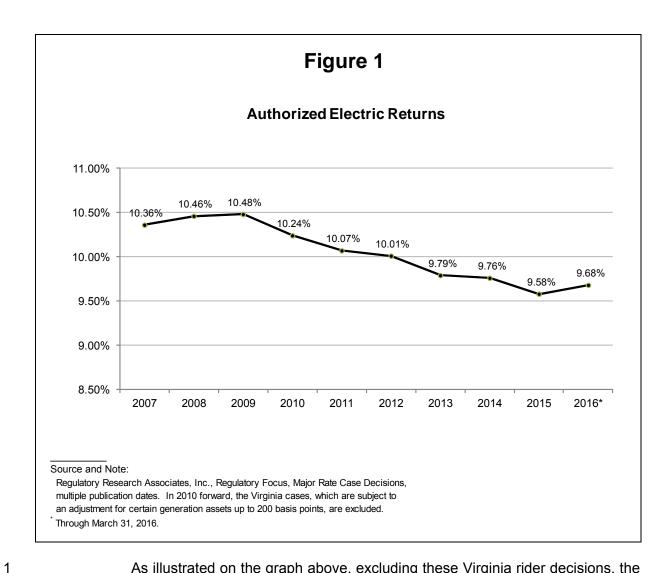
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Α

I recommend the Commission find that its past decisions have struck a better balance between investors and customers by mitigating the unnecessary increases in cost of service, while preserving the financial integrity of Missouri utilities and supporting their access to large amounts of capital under reasonable terms and conditions than the Company's proposal in this regulatory proceeding.

12 Q PLEASE DESCRIBE THE OBSERVABLE EVIDENCE ON TRENDS IN
13 AUTHORIZED RETURNS ON EQUITY FOR ELECTRIC UTILITIES, ELECTRIC
14 UTILITIES' CREDIT STANDING, AND ELECTRIC UTILITIES' ACCESS TO
15 CAPITAL TO FUND INFRASTRUCTURE INVESTMENT.

Authorized returns on equity for electric utilities have been steadily declining over the last 10 years as illustrated in the graph below. More recent authorized returns on equity for electric utilities have declined down to about the 9.6% to 9.7% area, which approaches the high-end of my recommended range in this proceeding.



As illustrated on the graph above, excluding these Virginia rider decisions, the authorized return on equity for electric utilities has steadily declined in 2015/2016 from preceding periods.

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While the declines in authorized returns on equity is public knowledge, and align with declining capital market costs, utilities are maintaining strong investment grade credit standing, and have been able to attract large amounts of capital at low costs to fund very large capital programs.

# 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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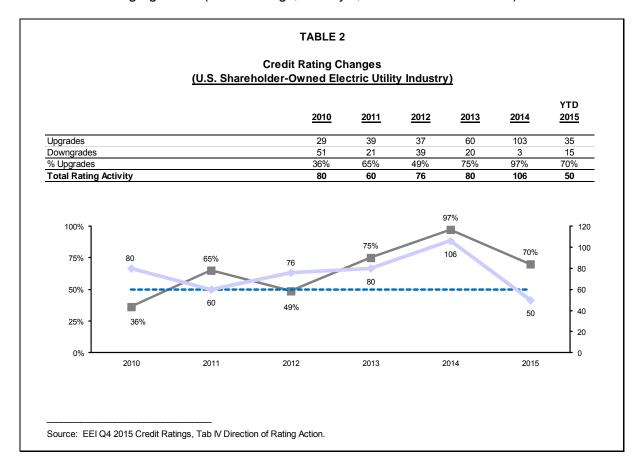
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As shown below in Table 2, over the period 2010-2015, the electric utility industry has experienced a significant number of upgrades in credit ratings by all of the major credit rating agencies (Fitch Ratings, Moody's, and Standard & Poor's).



As noted above in Table 2, the upgrades in utility credit ratings started outpacing downgrades in 2011, and more recently, the number of upgrades substantially exceeds the amount of downgrades. For example, in 2014, there were 103 upgrades and only three downgrades. In 2015, the number of upgrades were more than twice the number of downgrades (at 35 upgrades and 15 downgrades).

#### 1 Q HAVE CREDIT RATING AGENCIES COMMENTED ON DECLINING AUTHORIZED 2 **RETURNS ON EQUITY?** 3 Α Yes. Credit rating agencies recognize the declining trend in authorized returns and 4 the expectation that regulators will continue lowering the returns for U.S. utilities while 5 maintaining a stable credit profile. Specifically, Moody's states: 6 Lower Authorized Equity Returns Will Not Hurt Near-Term Credit 7 **Profiles** 8 The credit profiles of US regulated utilities will remain intact over the 9 next few years despite our expectation that regulators will continue to 10 trim the sector's profitability by lowering its authorized returns on equity (ROE).3 11 12 Further, in a recent report, S&P states: 13 Earned returns will remain in line with authorized 14 returns 15 Authorized returns on equity granted by U.S. utility regulators in rate cases this year have been steady at about 9.5%. Utilities 16 have been adept at earning at or very near those authorized 17 18 returns in today's economic and fiscal environment. A slowly 19 recovering economy, natural gas and electric prices coming 20 down and then stabilizing at fairly low levels, and the same 21 experience with interest rates have led to a perfect "non-storm" 22 for utility ratepayers and regulators, with utilities benefitting alongside those important constituencies. Utilities have largely 23 24 used this protracted period of favorable circumstances to 25 consolidate and institutionalize the regulatory practices that 26 support earnings and cash flow stability. We have observed and we project continued use of credit-supportive policies such 27 28 as short lags between rate filings and final decisions, up-to-

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date test years, flexible and dynamic tariff clauses for major

expense items, and alternative ratemaking approaches that

allow faster rate recognition for some new investments.4

<sup>4</sup> Standard & Poor's Ratings Services: "Corporate Industry Credit Research: Industry Top Trends 2016, Utilities," December 9, 2015, at 23, emphasis added.

<sup>&</sup>lt;sup>3</sup>*Moody's Investors Service*, "US Regulated Utilities: Lower Authorized Equity Returns Will Not Hurt Near-Term Credit Profiles," March 10, 2015.

### Q HAVE UTILITIES BEEN ABLE TO ACCESS EXTERNAL CAPITAL TO SUPPORT

#### **INFRASTRUCTURE CAPITAL PROGRAMS?**

Α

Yes. While cost of capital and authorized returns on equity were declining, the utility industry has been able to fund substantial increases in capital investments needed for infrastructure modernization and expansion. The Edison Electric Institute ("EEI") reported in a 2015 financial review of the electric industry financial performance that in 2011 electric "industry-wide capex has more than doubled since 2005."<sup>5</sup>

EEI also observed that, despite this nearly tripling of capital expenditures during the period 2005-2015, a majority of the funding for utilities' capital expenditures has been provided by internal funds. EEI reports approximately 25% of funding needed to meet these increasing capital expenditures has been derived from external sources and 75% of these capital expenditures have been funded by internal cash. Further, despite nearly tripling capital expenditures, the electric utility industry debt interest expense has declined by approximately 1.9% despite increases in the amount of outstanding debt.<sup>6</sup> This is clear proof that capital market costs have declined.

# Q IS THERE EVIDENCE OF ROBUST VALUATIONS OF ELECTRIC UTILITY SECURITIES?

Yes. These robust valuations are an indication that utilities can sell securities at high prices, which is a strong indication that they can access capital under reasonable terms and conditions, and at relatively low cost. As shown on my Schedule MPG-3, the historical valuation of the electric utilities included in Mr. Hevert's proxy group

<sup>&</sup>lt;sup>5</sup>Edison Electric Institute, 2015 Financial Review, Annual Report of the U.S. Investor-Owned Electric Utility Industry, page 17.

<sup>&</sup>lt;sup>6</sup>Id., pages 8 and 11.

1	based on a price-to-earnings ratio, price-to-cash flow ratio and market price-to-book
2	value ratio, indicates utility security valuations today are very strong and robust
3	relative to the last 10 to 15 years. These strong valuations of utility stocks indicate
4	that utilities have access to equity capital under reasonable terms and costs.

# 5 Q HOW SHOULD THE COMMISSION USE THIS MARKET INFORMATION IN 6 ASSESSING A FAIR RETURN FOR GMO?

Market evidence is quite clear that capital market costs are near historically low levels. Authorized returns on equity have fallen to the low to mid 9.0% area, and utilities continue to have access to large amounts of external capital to fund large capital programs, and utilities' investment grade credit standings are stable to improving. The Commission should carefully weigh all this important observable market evidence in assessing a fair return on equity for GMO.

#### II.B. Regulated Utility Industry Market Outlook

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- 14 Q PLEASE DESCRIBE THE CREDIT RATING OUTLOOK FOR REGULATED

  15 UTILITIES.
- 16 A Regulated utilities' credit ratings have improved over the last few years and the
  17 outlook has been labeled "Stable" by credit rating agencies. Credit analysts have
  18 also observed that utilities have strong access to capital at attractive pricing (i.e., low
  19 capital costs), which has supported very large capital programs.

Standard & Poor's ("S&P") recently published a report titled "Corporate Industry Credit Research: Industry Top Trends 2016, Utilities." In that report, S&P noted the following:

1 Ratings Outlook. Stable with a slight bias toward the negative. 2 Utilities in the U.S. continue to enjoy a confluence of financial, 3 economic, and regulatory environments that are tailor-made for 4 supporting credit quality. Low interest rates, modest economic growth, 5 and relatively stable commodity costs make for little pressure on rates and therefore on the sunny disposition of regulators. 6 7 • Credit Metrics. We see credit metrics remaining within historic 8 norms for the industry as a whole and do not project overall financial 9 performance that would affect the industry's creditworthiness. 10 • Industry Trends. Taking advantage of the favorable market 11 conditions, utilities have been maintaining aggressive capital spending 12 programs to bolster system safety and reliability, as well as 13 technological advances to make the systems "smarter." The elevated spending has not led to large rate increases, but if macro conditions 14 15 reverse and lead to rising costs that command higher rates, we would expect utilities to throttle back on spending to manage regulatory risk.<sup>7</sup> 16 17 Similarly, Fitch states: 18 Stable Financial Performance: The stable financial performance of 19 Utilities, Power & Gas (UPG) issuers continues to support a sound 20 credit profile for the sector, with 93% of the UPG portfolio carrying 21 investment-grade ratings as of June 30, 2015, including 65% in the 22 'BBB' rating category. Second-quarter 2015 LTM [Long-Term Maturity] 23 leverage metrics remained relatively unchanged year over year (YOY) 24 while interest coverage metrics modestly improved. Fitch Ratings 25 expects this trend to broadly sustain for the remainder of 2015, driven 26 by positive recurring factors. 27 Low Debt-Funded Costs: The sustained low interest rate environment has allowed UPG companies to refinance high-coupon 28 29 legacy debt with lower coupon new debt. Gross interest expense on an 30 absolute value represented approximately 4.6% of total adjusted debt 31 as of June 30, 2015, a decline of about 150 bps from the 6.1%

higher financing costs.

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<sup>7</sup>Standard & Poor's Ratings Services: "Corporate Industry Credit Research: Industry Top Trends 2016, Utilities," December 9, 2015, at 22, emphasis added.

recorded in the midst of the recession. Fitch believes a rise in interest

rates would largely be neutral to credit quality, as issuers have

generally built enough headroom in coverage metrics to withstand

1 2 3 4 5 6 7	ratio to be at the lower end of its five-year historical range of 2.0x–2.5x in the near term, reflecting a moderate decline in projected capex from the 2011–2014 highs. The capex depreciation ratio was relatively flat YOY at about 2.4x. Capex targets investments toward base infrastructure upgrades, utility-scale renewables and transmission investments.
8	* * *
9 10 11 12 13 14 15	Key credit metrics for IUCs [investor-owned utility companies] remained relatively stable YOY and continue to support the sound credit profiles and <u>Stable Outlooks</u> characteristic of the sector. EBITDAR [Earnings Before Interest, Taxes, Depreciation, Amortization and Rent] and FFO [Funds From Operations] coverage ratios were 5.6x and 5.9x, respectively, for the LTM ended second-quarter 2015, while adjusted debt/EDITDAR and FFO-adjusted leverage were 3.5x and 3.4x, respectively. <sup>8</sup>
17	Moody's recent comments on the U.S. Utility Sector state as follows:
18 19 20	Our outlook for the US regulated utilities industry <u>is stable</u> . This outlook reflects our expectations for fundamental business conditions in the industry over the next 12 to 18 months.
21 22 23 24 25	» The credit-supportive regulatory environment is the main reason for our stable outlook. We expect that the relationship between regulators and utilities in 2016 will remain credit-supportive, enabling utilities to recover costs in a timely manner and maintain stable cash flows.
26 27 28 29 30 31 32	» We estimate that the ratio of cash flow from operations (CFO) to debt will hold steady at about 21%, on average for the industry, over the next 12 to 18 months. The use of timely cost-recovery mechanisms and continued expense management will help utilities offset a lack of growth in electricity demand and lower allowed returns on equity, enabling financial metrics to remain stable. Tax benefits tied to the expected extension of bonus depreciation will also support CFO-to-debt ratios.
34	* * *
35 36 37	» Utilities are increasingly using holding company leverage to drive returns, a credit negative. Although not a driver of our outlook, utilities are using leverage at the holding company level to invest in

<sup>8</sup> Fitch Ratings: "U.S. Utilities, Power & Gas Data comparator," September 21, 2015, at 1 and 7, emphasis added.

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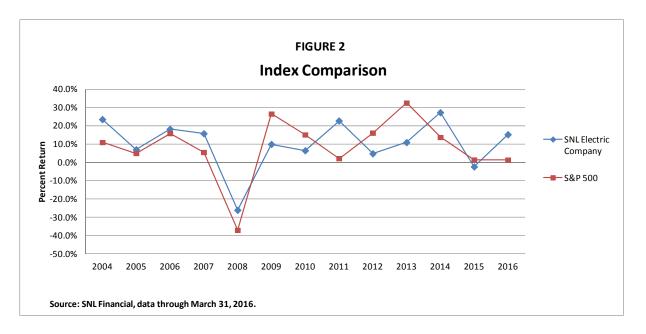
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# Q PLEASE DESCRIBE UTILITY STOCK PRICE PERFORMANCE OVER THE LAST SEVERAL YEARS.

As shown in the graph below, SNL Financial has recorded utility stock price performance compared to the market. The industry's stock performance data from 2004 through March 2016 shows that the SNL Electric Company Index has outperformed the market in downturns and trailed the market during recovery. This relatively stable price performance for utilities supports my conclusion that utility stock investments are regarded by market participants as a moderate- to low-risk investment.



<sup>&</sup>lt;sup>9</sup>*Moody's Investors Service*: "2016 Outlook – US Regulated Utilities: Credit-Supportive Regulatory Environment Drives Stable Outlook," November 6, 2015, at 1, emphasis added.

1	Q	HAVE ELECTRIC UTILITY INDUSTRY TRADE ORGANIZATIONS COMMENTED
2		ON ELECTRIC UTILITY STOCK PRICE PERFORMANCE?
3	Α	Yes. In its 4th Quarter 2015 Financial Update, The Edison Electric Institute ("EEI")
4		stated the following concerning the EEI Electric Utility Stock Index ("EEI Index"):
5 6 7 8 9 10 11 12 13 14 15 16 17 18		EEI Index returns during 2015 embodied the larger pattern seen in Table I since the 2008/2009 financial crisis, as industry business models have migrated to an increasingly regulated emphasis. The industry has generated consistent positive returns but has lagged the broader markets when markets post strong gains, which in turn have been sparked both by slow but steady U.S. economic growth and corporate profit gains and by the willingness of the Federal Reserve to bolster markets with historically unprecedented monetary support in the form of three rounds of quantitative easing and near-zero short-term interest rates. While the Fed did raise short-term rates in December 2015 for the first time since 2006 (from zero to a range of 0.25% to 0.50%), this hardly effects longer-term yields, which remain at historically low levels and are influenced more by the level of inflation and economic strength than by the Fed's short-term rate policy.
20		* * *
21		Regulated Fundamentals Remain Stable
22 23 24 25 26 27		The rate stability offered by state regulation and the ability to recover rising capital spending in rate base shield regulated utilities from the volatility in the competitive power arena and turn the growth of renewable generation (and the resulting need for new and upgraded transmission lines) into a rate base growth opportunity for many industry players.
28		* * *
29 30 31 32 33 34 35 36 37		In the shorter-term, analysts continue to see opportunity for 4-6% earnings growth for regulated utilities in general along with prospects for slightly rising dividends (with a dividend yield now at about 4% for the industry overall). That formula has served utility investors quite well in recent years, delivering long-term returns equivalent to those of the broad markets but with much lower volatility. Provided state regulation remains fair and constructive in an effort to address the interests of ratepayers and investors, it would appear that the industry can continue to deliver success for all stakeholders, even in an environment of flat demand and considerable technological change. <sup>10</sup>

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 $<sup>^{10}\</sup>textit{EEI}\ Q4\,2015\ \textit{Financial Update}:$  "Stock Performance" at 4 and 6, emphasis added.

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

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

A Credit rating agencies consider the regulated utility industry to be "Stable" and believe investors will continue to provide an abundance of low-cost capital to support utilities' large capital programs at attractive costs and terms. All of this reinforces my belief utility investments are generally regarded as safe-haven or low-risk investments and the market continues to embrace and demand low-risk investments such as utility securities. The ongoing demand for low-risk investments can reasonably be expected to continue to provide attractive low-cost capital for regulated utilities.

#### II.C. GMO Investment Risk

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

**OF GMO.** 

The market's assessment of GMO's investment risk is described by credit rating analysts' reports. GMO's current corporate bond ratings from S&P and Moody's are BBB+ and A3, respectively. GMO's outlook from both credit rating agencies is "Negative" due to its parent company Great Plains Energy ("GPE") announced its intent to acquire Westar Energy on May 16, 2016. Specifically, S&P states:

#### **Outlook: Negative**

Our outlook on GMO reflects that on parent Great Plains Energy Inc. (GPE). The negative outlook on GPE and its subsidiaries reflects the potential for lower ratings if GPE's financial risk profile, which will deteriorate due to the financing used in the Westar Energy Inc. acquisition, does not improve after the transaction closes such that funds from operations (FFO) to total debt is well over 13% after 2018.

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#### **Business Risk: Strong**

We base our assessment of GMO's business risk profile on the company's satisfactory competitive position, very low industry risk stemming from the regulated utility industry, and the very low country risk of the U.S., where the utility operates. GMO's competitive position reflects the company's fully regulated integrated electric utility operations and our expectation for continued solid operational performance and generally credit-supportive regulation. The utility serves roughly 300,000 customers in western Missouri and owns about 2,100 megawatts of generating capacity. The utility operates with generally supportive regulation, cash flow stability from its customer base, and no competition. GMO recently filed for a rate increase, requesting \$59 million to recover capital spending for infrastructure improvements.

#### Financial Risk: Significant

Based on our medial volatility financial ratio benchmarks, our assessment of GMO's financial risk profile is significant, reflecting our view of the vertically integrated utility model and the recurring cash flow from selling electricity. As a utility, capital spending is ongoing for maintenance purposes and for new projects. Recovery of these costs through rates has generally been supportive. The company will require steady cost recovery through the regulatory process to maintain cash flow measures, including FFO to debt greater than 17%.<sup>11</sup>

#### III. GMO'S PROPOSED CAPITAL STRUCTURE

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

A GMO's proposed capital structure is shown below in Table 3. This capital structure ending the pro forma period July 31, 2016 is sponsored by GMO witnesses Mr. Bryant and Mr. Hevert. Mr. Bryant proposes using GMO's actual capital structure instead of GPE's consolidated capital structure as used in GMO's last rate case

<sup>11</sup>Standard & Poor's RatingsDirect: "Summary: KCP&L Greater Missouri Operations Co.," June 17, 2016, at 3-4.

#### TABLE 3

## GMO's Proposed Capital Structure (July 31, 2016)

Description	Weight
Long-Term Debt	45.17%
Common Equity	54.83%
Total	100.00%

Source: Schedule RBH-10, Page 1 of 3.

#### 1 Q IS GMO'S PROPOSED CAPITAL STRUCTURE REASONABLE?

A No. Mr. Bryant's proposed capital structure contains an unreasonably high common equity ratio of total capital. A capital structure with too much common equity unjustifiably inflates the Company's cost of service, and retail rates. Therefore, I recommend a reasonable capital structure which contains a balanced amount of debt and equity be used to set rates.

#### 7 Q IF THE COMMISSION FINDS THE COMPANY'S ACTUAL CAPITAL STRUCTURE

TO NOT BE REASONABLE, IS IT APPROPRIATE FOR THE COMMISSION TO

#### ADJUST THE RATEMAKING CAPITAL STRUCTURE?

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Yes. GMO can adjust its actual capital structure to conform with what the Commission finds to be a reasonable capital structure for ratemaking purposes. This price-setting mechanism encourages GMO to make efficient least-cost management decisions in managing its overall cost of service. GMO can modify its actual capital

structure to conform with what the Commission finds to be reasonable when the rates are in effect.

A reasonable capital structure would contain no more common equity than necessary to support strong credit standing and maintain the utility's financial integrity, credit rating and, thus, access to capital. For the reasons outlined below, a capital structure for ratemaking purposes in line with 50% equity and 50% debt will likely achieve this objective. More specifically, however, I believe reasonable adjustments to GMO's actual capital structure support a ratemaking capital structure around 51.4% common equity. This will be the capital structure I recommend, however, the Commission should consider imposing more stringent requirements on GMO to do a better job of managing its overall cost of capital.

# Q WHY DO YOU BELIEVE GMO'S PROPOSED CAPITAL STRUCTURE CONTAINS TOO MUCH COMMON EQUITY?

- 14 A The Company's proposed capital structure has an excessive balance of common equity for the following reasons:
  - 1. Its capital structure has considerably more common equity than used in its last rate case. Increasing the common equity ratio will increase its cost of service and erode its competitive position. Maintaining a competitive position, with reasonable operational performance, is consistent with what S&P regarded as "generally credit-supportive regulation" GMO received in its last rate case. Because of this acknowledgement from S&P, there is clearly no need to increase GMO's equity component of total capital while maintaining its strong credit rating, and access to large amounts of capital.
  - 2. Increasing the common equity ratio is unnecessary in light of other utilities with similar bond ratings even when considering off-balance sheet debt obligations. This supports my belief that GMO's proposal to increase its common equity ratio is not necessary to maintain its credit rating and financial integrity but simply inflates its cost of service and erodes its competitive position.
  - 3. Adjusting GMO's capital structure to remove the common equity supporting a goodwill asset will produce a more balanced capital structure and reduce its equity ratio to be in line with what the Commission previously found to be

1	appropriate in GMO's last rate case. This was a capital structure S&P found to
2	support GMO's competitive position and support solid operational performance as
3	well as being generally regarded as "credit supportive regulation."

## 4 Q PLEASE DESCRIBE THE CAPITAL STRUCTURE APPROVED BY THE MISSOURI

- 5 PUBLIC SERVICE COMMISSION ("MPSC") IN GMO'S LAST RATE CASE.
- 6 A GMO's approved ratemaking capital structures in its last two rate cases are shown

below in Table 4.

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#### **Approved Capital Structure**

TABLE 4

<u>Description</u>	Case No. <u>ER-2012-0175</u>
Long-Term Debt	47.1%
Preferred Stock	0.6%
Common Equity	52.3%
Total	100.0%

Sources: MPSC Case No. ER-2012-0175, Report and Order, January 9, 2013 at 24.

In GMO's 2012 rate case, the Commission approved a capital structure including a common equity ratio of approximately 52.3%. (Bryant Direct at 4).

### 10 Q WAS THIS CAPITAL STRUCTURE BASED ON GMO'S STAND-ALONE

#### FINANCIAL STATEMENTS FROM THE LAST CASE?

A No. GMO witness Mr. Bryant stated that, after the 2008 acquisition of GMO from Aquila, GMO was not able to access financial markets and finance its stand-alone capital requirements. Mr. Bryant stated this was due to lack of audited historical

financial statements and credit history. He further states that, due to the Company's
diligent efforts to establish GMO's stand-alone financial history and improve its credit
profile since the acquisition, GMO now has stand-alone financial capability as of 2013
and was able to issue private placement debt. He says these efforts supported the
Company's ability to refinance some of the legacy issue debt of Aquila at attractive
rates, which supported the Company's efforts to reduce GMO's embedded cost of
debt

Mr. Bryant also advocated in support of the Company's use of GMO's standalone credit metrics in establishing its overall rate of return. He states using the Company's own capital structure rather than the capital structure of the parent company will be more in line with providing the utility an opportunity to earn the rate of return or earnings permitted by the regulatory commission in setting rates. (Bryant Direct at 4).

HAS THE COMPANY ASSERTED THAT GMO'S FINANCIAL STRENGTH HAS SUPPORTED ITS ACCESS TO CAPITAL SINCE IT WAS ACQUIRED BY GPE?

No. GMO witness Mr. Bryant states GMO was not able to access capital on a standalone basis immediately after the acquisition. He states most of the financing activity at GMO was conducted through the parent company GPE's financial position and credit standing. As such, all the refinancing of debt and access to capital at GMO has largely reflected the financial risk of GPE and not GMO on a stand-alone basis. 12

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<sup>&</sup>lt;sup>12</sup>Bryant Direct at 4.

1	Q	MR. BRYANT ALSO STATES IT WOULD BE APPROPRIATE TO SET GMO'S
2		RATE OF RETURN BASED ON ITS OWN CAPITAL STRUCTURE TO ENSURE
3		THE COMPANY HAS AN OPPORTUNITY TO EARN THE COMMISSION-
4		AUTHORIZED RETURN. <sup>13</sup> PLEASE RESPOND.

The Commission should set a ratemaking capital structure to provide clear signals to the Company on how to manage its cost of service in order to provide it with an opportunity to earn its authorized return on equity. To the extent GMO finances its capital structure with an excessively high balance of common equity, then management will have to respond by modifying its actual capital structure to bring it down to a mix of debt and equity that the Commission finds to be reasonable. Therefore, Mr. Bryant simply has it backwards. Company management needs to respond to the ratemaking signals provided by the Commission for managing its capital structure in order to provide the Company a reasonable opportunity to earn its authorized return on equity. It is not appropriate for the Company to make these decisions and preclude the Commission from making necessary ratemaking adjustments that ensure rates charged to retail customers are just and reasonable.

# CAN GMO ADJUST ITS CAPITAL STRUCTURE TO REFLECT WHAT THE COMMISSION FINDS TO BE A REASONABLE RATEMAKING CAPITAL STRUCTURE IN THIS PROCEEDING?

Yes. GMO can adjust its common equity balance of total capital by paying dividends to the Company to reduce common equity and issuing more debt to its affiliate companies or to the market to modify its actual capital structure to correspond to what the Commission finds to be a reasonable mix of debt and equity capital. As such,

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<sup>&</sup>lt;sup>13</sup>*Id*.

GMO management does have the ability to modify its actual capital structure to accommodate what the Commission finds to be a reasonable balanced capital structure for ratemaking purposes.

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I would note that this pricing signal is consistent with what would take place in a competitive marketplace. If GMO were taking market prices at market cost it would have to modify its actual cost of service in order to be reasonably profitable at current market prices. The market price sets the cost signal, not vice versa. This pricing discipline should not be foregone in a regulatory price-setting construct. GMO's capital structure is simply not reasonable and the Commission should implement a pricing signal that provides GMO's management an incentive to modify its actual capital structure and bring its weights down to a more reasonable mix of debt and equity.

# WHY WOULD A CAPITAL STRUCTURE TOO HEAVILY WEIGHTED WITH COMMON EQUITY UNNECESSARILY INCREASE GMO'S COST OF SERVICE IN THIS PROCEEDING?

A capital structure too heavily weighted with common equity unnecessarily increases GMO's claimed revenue deficiency because common equity is the most expensive form of capital and is subject to income tax expense. For example, if GMO's authorized return on equity is set at 9.0%, the revenue requirement cost to customers would be approximately 14.4%, or 9.0% adjusted by a tax revenue conversion factor of approximately 1.6x. In contrast, the cost of debt capital is not subject to an income tax expense. GMO's current marginal cost of debt is around 5.50%. Common equity is more than twice as expensive on a revenue requirement basis than debt capital.

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A reasonable mix of debt and equity, as already approved by the Commission in the prior rate cases, is necessary in order to balance GMO's financial risk, support an investment grade credit rating, and permit GMO access to capital under reasonable terms and prices. However, a capital structure too heavily weighted with common equity will unnecessarily increase its cost of capital and revenue requirement for ratepayers.

### IF THE COMMISSION RELIES ON GMO'S SPECIFIC CAPITAL STRUCTURE TO SET RATES, SHOULD IT MAKE ADJUSTMENTS TO REFLECT ITS COST OF CAPITAL FOR UTILITY OPERATIONS?

Yes. The Commission should set up clear directives to the Company in what capital structure would be reasonable for setting rates. This capital structure should contain a reasonable balance of debt and equity supporting the Company's investment grade bond rating and financial integrity but minimize cost to customers. The utility should not have free discretion in unjustifiably increasing its common equity ratio without clear proof to the Commission that its capital structure decisions result in clear benefits to retail customers.

Further, the Commission should ensure that only common equity being used to support investments in utility plant and equipment would be recognized in developing a utility's cost of capital in ratemaking procedures. It is the utility's cost of capital that should be included in rates and not capital that is supporting investments in assets that are not part of the utility's cost of utility service.

1	Q	DO YOU HAVE EVIDENCE THAT GMO HAS CAPITAL ASSOCIATED WITH
2		MAJOR INVESTMENTS IN ASSETS THAT ARE NOT RELATED TO UTILITY
3		RATE BASE INVESTMENTS?
4	Α	Yes. On its balance sheet, GMO has a goodwill asset of approximately \$169 million.
5		Goodwill is an accounting "paper" asset created due to a past acquisition. A goodwill
6		asset is not related to providing utility services. Rather, goodwill simply reflects an
7		accounting entry when GPE acquired other assets at prices above their fair market or
8		book value. Further, a goodwill asset can only be supported by equity capital
9		because it is an accounting asset that has no economic value. Specifically, a
10		goodwill asset does not produce cash flows and therefore cannot be supported by
11		debt service payments. Therefore, GPE's common equity supporting the goodwill
12		asset should be removed in establishing the capital structure supporting utility
13		operations.
14	Q	HOW WOULD GMO'S PROPOSED CAPITAL STRUCTURE BE IMPACTED IF THE
15		COMMON EQUITY SUPPORTING ITS GOODWILL ASSET IS REMOVED FROM
16		THE RATEMAKING CAPITAL STRUCTURE?
17	Α	Adjusting GMO's actual common equity balance to remove the common equity
18		supporting its goodwill asset would reduce GMO's common equity ratio from 54.83%

proposed down to 51.4% (See Schedule MPG-1, page 2).

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# WOULD A CAPITAL STRUCTURE WITH A LOWER AMOUNT OF COMMON EQUITY PRODUCE CREDIT METRICS THAT WOULD REASONABLY BE EXPECTED TO SUPPORT GMO'S INVESTMENT GRADE BOND RATING?

Yes. The adjusted debt ratio of companies followed by S&P for various bond ratings is shown below in Table 5. As shown in this table, the <u>adjusted</u> debt ratio for A- and BBB debt ratios are all aligned at approximately 50.6% to 53.4%, respectively. These ratios reflect off-balance sheet debt. As discussed later in this testimony, reflecting my goodwill adjustment to GMO's capital structure will produce an adjusted debt ratio for GMO less than 50%.<sup>14</sup> This adjusted debt ratio for GMO makes its adjusted debt ratio comparable to industry medians for A- and BBB rated utilities.

Т	ABLE 5
	ng Utility Subsidiaries try Medians)
S&P Rating	Adj. Debt Ratio
A-	50.6%
BBB	53.4%
GMO <sup>1</sup>	** **
	fidential response to e my adjustment.

This table shows that GMO's actual capital structure has much less debt, and more equity, than other electric utility companies with comparable bond ratings.

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<sup>&</sup>lt;sup>14</sup>See Table 11 to this testimony.

#### 1 Q WHAT IS YOUR PROPOSED CAPITAL STRUCTURE TO BE USED FOR

#### 2 RATEMAKING PURPOSES IN THIS CASE?

3 A My proposed capital structure is shown in Table 6 below.

TABLE 6	ô
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## Gorman's Proposed Capital Structure (July 31, 2016)

Description	Weight
Long-Term Debt	48.6%
Common Equity	51.4%
Total	100.0%

Source: Schedule MPG-1.

#### 4 Q WILL YOUR PROPOSED CAPITAL STRUCTURE ALLOW GMO TO MAINTAIN ITS

#### FINANCIAL INTEGRITY?

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6 A Yes. My capital structure contains less common equity and more long-term debt 7 capital than GMO's proposed capital structure. As discussed later in my testimony,

my proposed capital structure will support the Company's financial integrity for

regulated utility operations and its current investment grade bond rating as well as will

10 mitigate cost to customers.

#### III.A. Embedded Cost of Debt

#### 12 Q WHAT IS THE COMPANY'S EMBEDDED COST OF DEBT?

13 A Mr. Hevert is proposing an embedded cost of debt of 5.09% as developed on page 3

of his Schedule RBH-10. However, I would point out this embedded cost of debt

includes several legacy debt issuances ranging from 7.636% to 9.745%. Consider	ing
the current low capital costs, the inclusion of these debt instruments significant	ntly
increases the embedded cost of debt	

If GMO were issuing additional debt in order to bring its capital structure balances in line with a more reasonable debt/equity spread, issuing debt at current low capital market cost would reduce its embedded debt cost and mitigate its embedded debt cost. This action would again lower its cost of service because it would produce a lower cost capital structure but would also reduce GMO's embedded cost of debt. Hence, the Commission should carefully consider the benefits to retail customers without detriments to the Company of modifying its capital structure in an effort to reduce its overall cost of service.

#### IV. RETURN ON EQUITY

13 Q PLEASE DESCRIBE WHAT IS MEANT BY A "UTILITY'S COST OF COMMON

14 EQUITY."

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

- 18 Q PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED

  19 UTILITY'S COST OF COMMON EQUITY.
- 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: <u>Bluefield Water Works</u>

  <u>& Improvement Co. v. Pub. Serv. Comm'n of W. Va.</u>, 262 U.S. 679 (1923) and <u>Fed.</u>

  <u>Power Comm'n v. Hope Natural Gas Co.</u>, 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.

# 7 Q PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE GMO'S 8 COST OF COMMON EQUITY.

I have used several models based on financial theory to estimate 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 GMO.

#### IV.A. Risk Proxy Group

- 17 Q PLEASE DESCRIBE HOW YOU IDENTIFIED A PROXY UTILITY GROUP THAT
  18 COULD BE USED TO REASONABLY REFLECT THE INVESTMENT RISK OF
  19 GMO AND USED TO ESTIMATE ITS CURRENT MARKET COST OF EQUITY.
  - A I relied on the same proxy group developed by GMO witness Mr. Hevert with a few exceptions. I excluded Otter Tail because it did not have analysts' growth rates from Zacks, SNL Financial, or Reuters at the time I developed my studies. I eliminated Dominion Resources because, in February 2016, it confirmed its intent to purchase

1		Questar Corp. Finally, I excluded Westar Energy because it is in the process of being
2		acquired by GMO's parent company, GPE, as announced on May 31, 2016.
3	Q	WHY IS IT IMPORTANT TO LIMIT THE PROXY GROUP COMPANIES TO THOSE
4		THAT HAVE CONSENSUS ANALYSTS' GROWTH RATES PUBLISHED BY
5		ZACKS, SNL FINANCIAL OR REUTERS?
6	Α	Selecting companies that have consensus analysts' growth rate projections from at
7		least one of these three sources is an indication that market participants are following
8		the security and there is adequate liquidity and market demand for the security to
9		support the assumption that the market valuation of the security is based on
10		fundamental valuation principles. A stock that is thinly traded, or is not widely
11		followed by the market, may have an observable market price inconsistent with
12		fundamental valuation principles.
13	Q	WHY IS IT APPROPRIATE TO EXCLUDE COMPANIES WHICH ARE INVOLVED
14		IN MERGER AND ACQUISITION ("M&A") ACTIVITY FROM THE PROXY GROUP?
15	Α	M&A activity can distort the market factors used in DCF and risk premium studies.
16		M&A activity can have impacts on stock prices, growth outlooks, and relative volatility
17		in historical stock prices if the market was anticipating or expecting the M&A activity
18		prior to it actually being announced. This distortion in the market data thus impacts
19		the reliability of the DCF and risk premium estimates for a company involved in M&A.
20		Moreover, companies generally enter into M&A in order to produce greater
21		shareholder value by combining companies. The enhanced shareholder value
22		normally could not be realized had the two companies not combined.

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When companies announce an M&A, 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 value adds created by the M&A.

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 Therefore, an accurate DCF return estimate on or on a stand-alone basis. 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 involved in M&A activity from a proxy group used to estimate a fair return on equity for a utility.

#### PLEASE DESCRIBE WHY YOU BELIEVE YOUR PROXY **GROUP** IS REASONABLY COMPARABLE IN INVESTMENT RISK TO GMO.

The proxy group is shown in Schedule MPG-4. The proxy group has an average corporate credit rating from S&P of BBB+, which is identical to S&P's corporate credit rating for GMO. The proxy group has an average corporate credit rating from Moody's of Baa1, one notch higher than GMO's corporate credit rating from Moody's Based on this information, I believe my proxy group is reasonably of Baa2. comparable in investment risk to GMO.

The proxy group has an average common equity ratio of 46.9% (including short-term debt) from SNL Financial ("SNL") and 49.5% (excluding short-term debt) from The Value Line Investment Survey ("Value Line") in 2015.

My recommended 51.4% common equity ratio is higher than the proxy group common equity ratio, which means that my proxy group has lower financial risk and will produce a conservative return on equity for GMO. Based on these risk factors, I conclude the proxy group reasonably approximates the investment risk of GMO.

#### 5 IV.B. Discounted Cash Flow Model

- 6 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:

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

- 12  $P_0$  = Current stock price
- 13 D = Dividends in periods 1 ∞
- 14 K = Investor's required return
- This model can be rearranged in order to estimate the discount rate or investor-required return otherwise known as "K." If it is reasonable to assume that earnings and dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

$$K = D_1/P_0 + G$$
 (Equation 2)

- 20 K = Investor's required return
- $D_1$  = Dividend in first year
- P<sub>0</sub> = Current stock price
- 23 G = Expected constant dividend growth rate
- Equation 2 is referred to as the annual "constant growth" DCF model.

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

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

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

#### 5 **DCF MODEL?**

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A I relied on the average of the weekly high and low stock prices of the utilities in the proxy group over a 13-week period ending on June 10, 2016. An average stock price is less susceptible to market price variations than a price at a single point in time. Therefore, an average stock price is less susceptible to aberrant market price

movements, which may not reflect the stock's long-term value.

A 13-week average stock price reflects a period that is still short enough to contain data that reasonably reflects current market expectations but the period is 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.

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

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

<sup>&</sup>lt;sup>15</sup>The Value Line Investment Survey, April 29, May 20, and June 17, 2016.

### WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR CONSTANT

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**GROWTH DCF MODEL?** 

There are several methods that can be used to estimate the expected growth in dividends. However, 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.

As predictors of future returns, security 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 security analysts' earnings growth estimates as a proxy for investor consensus dividend growth rate expectations. I used the average of analysts' growth rate estimates from three sources: Zacks, SNL, and Reuters. All such projections were available on June 10, 2016, and all were reported online.

Each consensus growth rate projection is based on a survey of security analysts. There is no clear evidence whether a particular analyst is most influential on general market investors. Therefore, a single analyst's projection does not as reliably predict consensus investor outlooks as does 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

<sup>&</sup>lt;sup>16</sup>See, e.g., David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

1		simple average, or arithmetic mean, of analyst forecasts is a good proxy for marke
2		consensus expectations.
3	Q	WHAT ARE THE GROWTH RATES YOU USED IN YOUR CONSTANT GROWTH
4		DCF MODEL?
5	Α	The growth rates I used in my DCF analysis are shown in Schedule MPG-5. The
6		average growth rate for my proxy group is 5.38%.
7	Q	WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?
8	Α	As shown in Schedule MPG-6, the average and median constant growth DCF returns
9		for my proxy group for the 13-week analysis are 8.83% and 8.89%, respectively.
10	Q	DO YOU HAVE ANY COMMENTS ON THE RESULTS OF YOUR CONSTANT
11		GROWTH DCF ANALYSIS?
12	Α	Yes. The constant growth DCF analysis for my proxy group is based on a group
13		average long-term sustainable growth rate of 5.40%. The three- to five-year growth
14		rates are higher than my estimate of a maximum long-term sustainable growth rate of
15		4.35%, which I discuss later in this testimony. I believe the constant growth DCF
16		analysis produces a reasonable high-end return estimate.
17	Q	HOW DID YOU ESTIMATE A MAXIMUM LONG-TERM SUSTAINABLE GROWTH
18		RATE?
19	Α	A long-term sustainable growth rate for a utility stock cannot exceed the growth rate
20		of the economy in which it sells its goods and services. Hence, the long-term
21		maximum sustainable growth rate for a utility investment is best proxied by the

projected long-term Gross Domestic Product ("GDP"). *Blue Chip Financial Forecasts* projects that over the next 5 and 10 years, the U.S. nominal GDP will grow approximately 4.35%. These GDP growth projections reflect a real growth outlook of around 2.2% and an inflation outlook of around 2.1% going forward. As such, the average growth rate over the next 10 years is around 4.35%, 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. Hence, recognizing the long-term GDP growth rate as a maximum sustainable growth is logical, and is generally consistent with academic and economic practitioner accepted practices.

#### IV.C. Sustainable Growth DCF

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13 Q PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE LONG-TERM
14 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 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.

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

Michael P. Gorman Page 39

<sup>&</sup>lt;sup>17</sup>Blue Chip Financial Forecasts, June 1, 2016, at 14.

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-7. These dividend payout ratios and earnings retention ratios then can be used to develop a sustainable long-term earnings retention growth rate. A sustainable long-term earnings retention ratio will help gauge whether analysts' current three- to five-year growth rate projections can be sustained over an indefinite period of time.

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-8, the average sustainable growth rate for the proxy group using this internal growth rate model is 4.26%.

### 14 Q WHAT IS THE DCF ESTIMATE USING THESE SUSTAINABLE LONG-TERM 15 GROWTH RATES?

A DCF estimate based on these sustainable growth rates is developed in Schedule MPG-9. As shown there, a sustainable growth DCF analysis produces proxy group average and median DCF results for the 13-week period of 7.67% and 7.34%, respectively.

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

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

22 A Yes. My first constant growth DCF is based on consensus analysts' growth rate 23 projections so it is a reasonable reflection of rational investment expectations over the next three to five years. The limitation on this 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. Hence, I performed a multi-stage growth DCF analysis to reflect this outlook of changing growth expectations.

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

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

### WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR THE 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 increased utility investment or rate base. Such investment, in turn, is driven by service area economic growth and demand for utility service. In other words, utilities invest in plant to meet sales demand growth. Sales growth, in turn, is tied to economic growth in their service areas.

The U.S. Department of Energy, Energy Information Administration ("EIA") has observed utility sales growth tracks the U.S. GDP growth, albeit at a lower level, as shown in Schedule MPG-10. Utility sales growth has lagged behind GDP growth for more than a decade. As a result, nominal GDP growth is a very conservative

2		U.S. GDP nominal growth rate is a conservative proxy for the highest sustainable
3		long-term growth rate of a utility.
4	Q	IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER THE
5		LONG TERM, A COMPANY'S EARNINGS AND DIVIDENDS CANNOT GROW AT
6		A RATE GREATER THAN THE GROWTH OF THE U.S. GDP?
7	Α	Yes. This concept is supported in published analyst literature and academic work.
8		Specifically, in a textbook titled "Fundamentals of Financial Management," published
9		by Eugene Brigham and Joel F. Houston, the authors state as follows:
10 11 12 13 14 15		The constant growth model is most appropriate for mature companies with a stable history of growth and stable future expectations. Expected growth rates vary somewhat among companies, but dividends for mature firms are often expected to grow in the future at about the same rate as nominal gross domestic product (real GDP plus inflation). <sup>18</sup>
16		The use of the economic growth rate is also supported by investment
17		practitioners as outlined as follows:
18		Estimating Growth Rates
19 20 21 22 23 24		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.
25		* * *
26 27 28 29		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

proxy for utility sales growth, rate base growth, and earnings growth. Therefore, the

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18 "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.

1	component parts. Expected growth can be broken into two main parts:
2	expected inflation and expected real growth. By analyzing these
3	components separately, it is easier to see the factors that drive
4	growth. <sup>19</sup>

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

Yes. This is evident by a comparison of the compound annual growth of the U.S. GDP compared to the geometric growth of the U.S. stock market. Morningstar measures the historical geometric growth of the U.S. stock market over the period 1926-2015 to be approximately 5.8%. During this same time period, the U.S. nominal compound annual growth of the U.S. GDP was approximately 6.2%.<sup>20</sup>

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

# Q HOW DID YOU DETERMINE A SUSTAINABLE LONG-TERM GROWTH RATE THAT REFLECTS THE CURRENT CONSENSUS OUTLOOK OF THE MARKET?

I relied on the consensus analysts' projections of long-term GDP growth. *Blue Chip Economic Indicators* publishes consensus economists' GDP growth projections twice a year. These consensus analysts' GDP growth outlooks are the best available measure of the market's assessment of long-term GDP growth. These analyst projections reflect all current outlooks for GDP and are likely the most influential on

<sup>20</sup>Duff & Phelps 2016 Valuation Handbook inflation rate of 3.0% at 2-4, and U.S. Bureau of Economic Analysis, January 29, 2016.

<sup>&</sup>lt;sup>19</sup>Morningstar, Inc., Ibbotson SBBI 2013 Valuation Yearbook at 51 and 52.

investors'	expectations	of	future	growth	outlooks.	The	consensus	economists'
published	GDP growth ra	ate	outlook	is 4.35%	% over the r	next 10	years. <sup>21</sup>	

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Therefore, I propose to use the consensus economists' projected 5- and 10-year average GDP consensus growth rates of 4.35%, 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 2.2% and GDP inflation of 2.1%<sup>22</sup> over the 5-year and 10-year projection periods. These consensus GDP growth forecasts represent the most likely views of market participants because they are based on published consensus economist projections.

### 10 Q DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-TERM GDP 11 GROWTH?

12 A Yes, and these sources corroborate my consensus analysts' projections, as shown below in Table 7.

<sup>&</sup>lt;sup>21</sup>Blue Chip Financial Forecasts, June 1, 2016, at 14.

#### TABLE 7 **GDP Forecasts** Real Nominal **GDP** Source **GDP** Inflation Term EIA – Annual Earnings Outlook<sup>23</sup> 25 Yrs 2.4% 1.8% 4.2% Congressional Budget Office<sup>24</sup> 10 Yrs 2.0% 4.0% 2.0% Moody's Analytics<sup>25</sup> 30 Yrs 2.0% 2.0% 4.1% Social Security Administration<sup>26</sup> 4.5% 50 Yrs

35 Yrs

5-10 Yrs

The Economist Intelligence Unit<sup>27</sup>

Blue Chip Financial Forecasts

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The EIA in its *Annual Energy Outlook* projects real GDP out until 2040. In its 2015 Annual Report, the EIA projects real GDP through 2040 to be in the range of 1.8% to 2.9% with a midpoint or reference case of 2.4% and a long-term GDP price inflation projection of 1.8%. The EIA data supports a long-term nominal GDP growth outlook of 4.2%.<sup>23</sup>

2.0%

2.1%

1.9%

2.2%

3.9%

4.3%

Also, the Congressional Budget Office ("CBO") makes long-term economic projections. The CBO is projecting real GDP growth to be 2.0% during the next 10 years with a GDP price inflation outlook of 2.0%.<sup>24</sup> The CBO 10-year outlook for nominal GDP based on this projection is 4.0%.

Moody's Analytics also makes long-term economic projections. In its recent 30-year outlook to 2045, Moody's Analytics is projecting real GDP growth of 2.0%

A-38.

23 DOE/EIA Annual Energy Outlook 2015 With Projections to 2040, January 2016, at 4 and A-38.

24 CBO: The Budget and Economic Outlook: 2016 to 2026, January 2016, at 140.

with GDP inflation of 2.0%.<sup>25</sup> Based on these projections, Moody's is projecting nominal GDP growth of 4.1% over the next 30 years.

The Social Security Administration ("SSA") makes long-term economic projections out to 2090. The SSA's nominal GDP projection, under its intermediate cost scenario of 50 years, is 4.5%.<sup>26</sup> This projection is in line with the consensus economists.

The Economist Intelligence Unit, a division of *The Economist* and a third-party data provider to SNL Financial, makes a long-term economic projection out to 2050.<sup>27</sup> The Economist Intelligence Unit is projecting real GDP growth of 1.9% with an inflation rate of 2.0% out to 2050. The real GDP growth projection is in line with the consensus economists. The long-term nominal GDP projection based on these outlooks is approximately 3.9%.

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

# Q 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 analysts' growth rate projections discussed above in my constant growth DCF model. The first stage growth covers the first five years, consistent with the term

<sup>27</sup> SNL Financial, Economist Intelligence Unit, downloaded on January 13, 2016.

<sup>&</sup>lt;sup>25</sup>www.economy.com, Moody's Analytics Forecast, January 6, 2016.

<sup>&</sup>lt;sup>26</sup>www.ssa.gov, "2015 OASDI Trustees Report," Table VI.G4.

of the analyst 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 linear trend. For the third stage, or long-term sustainable growth stage, starting in year 11, I used a 4.35% long-term sustainable growth rate based on the consensus economists' long-term projected nominal GDP growth rate.

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

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A shown in Schedule MPG-11, the average and median DCF returns on equity for my proxy group using the 13-week average stock price are 8.00% and 8.01%, respectively.

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

A The results from my DCF analyses are summarized in Table 8 below:

TABLE 8 <u>Summary of DCF Results</u>		
Description	Proxy Average	Group <u>Median</u>
Constant Growth DCF Model (Analysts' Growth)	8.83%	8.89%
Constant Growth DCF Model (Sustainable Growth)	7.67%	7.34%
Multi-Stage Growth DCF Model	8.00%	<u>8.01%</u>
Average	8.17%	8.08%

I concluded my DCF studies support a return on equity of 8.9%, primarily based on my constant growth DCF result, which I find as a reasonable high-end DCF return estimate.

#### IV.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 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 estimated the difference between the required return on utility common equity investments and U.S. Treasury bonds. The difference between the required 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 over the period January 1986 through March 2016. The common equity required returns were based on regulatory commission-authorized returns for electric utility companies. Authorized returns are typically based on expert witnesses' estimates of the contemporary investor-required return.

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 January 1986 through March 2016 because public utility stocks consistently traded at a premium to book value during that period. This is illustrated in Schedule MPG-12, 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, regulatory authorized returns were sufficient to

support market prices that at least exceeded book value. This is an indication that regulatory 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-13, the average indicated equity risk premium over U.S. Treasury bond yields has been 5.46%. 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-13, the five-year rolling average risk premium over Treasury bonds ranged from 4.25% to 6.71%, while the 10-year rolling average risk premium ranged from 4.38% to 6.38%.

As shown on my Schedule MPG-14, the average indicated equity risk premium over contemporary Moody's utility bond yields was 4.08%. The five-year and 10-year rolling average risk premiums ranged from 2.88% to 5.53% and 3.20% to 5.01%, respectively.

DO YOU	BELIEVE	THAT THE T	IME	PERIOD USED TO	) DE	RIVE TH	ESE EQUITY
RISK P	REMIUM	ESTIMATES	IS	APPROPRIATE	то	FORM	ACCURATE
CONCLU	JSIONS AE	BOUT CONTE	МРО	RARY MARKET C	OND	ITIONS?	

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Yes. The time period I use in this risk premium study is a generally accepted period to develop a risk premium study using "expectational" data.

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 is an indication 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.

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

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-15, where I show the yield spread between utility bonds and Treasury bonds over the last 36 years. As shown in this schedule, the average utility bond yield spreads over Treasury bonds for "A" and "Baa" rated utility bonds for this historical period are 1.52% and 1.97%, respectively. The utility bond yield spreads over Treasury bonds for "A" and "Baa" rated utilities for 2016 were 1.46% and 2.58%, respectively. The current average "A" rated utility bond yield spread over Treasury bond yields is now lower than the 36-year average spread. The current "Baa" rated utility bond yield spread over Treasury bond yields is higher than the 36-year average spread.

A current 13-week average "A" rated utility bond yield of 3.96% when compared to the current Treasury bond yield of 2.60% as shown in Schedule MPG-16, page 1, implies a yield spread of around 136 basis points. This current utility bond yield spread is lower than the 36-year average spread for "A" rated utility bonds of 1.52%. The current spread for the "Baa" rated utility bond yield of 2.09% is higher than the 36-year average spread of 1.97%. However, when compared to the projected Treasury bond yield of 3.40%, the current "Baa" utility spread is around 1.29%, lower than the 36-year average of 1.97%.

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

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### HOW DO YOU DETERMINE WHERE A REASONABLE RISK PREMIUM IS IN THE CURRENT MARKET?

I observed the spread of Treasury securities relative to public utility bonds and corporate bonds in gauging whether or not the risk premium in current market prices is relatively stable relative to the past. What this observation of market evidence clearly provides is that the valuations in the current market place an above average risk premium on securities that have greater risk.

This market evidence is summarized below in Table 9, which shows the utility bond yield spreads over Treasury bond yields on average for the period 1980 through 2016 and the spreads for the first quarter of 2016. I also show the corporate bond yield spreads for Aaa corporates and Baa corporates.

TABLE 9							
Comparison of Yield Spreads Over Treasury Bonds							
	Util	ity	Corp	orate			
Description	A	<u>Baa</u>	<u> Aaa</u>	<u>Baa</u>			
Average Historical Spread	1.52%	1.97%	0.84%	1.95%			
Q1, 2016 Spread	1.46%	2.58%	1.21%	2.59%			
Source: Schedule MPG-15.							

The observable yield spreads shown in the table above illustrate securities of greater risk have above average risk premiums relative to the long-term historical

average risk premium. Specifically, A-rated utility bonds to Treasuries, a relatively low-risk investment, have a yield spread in 2016 that has been very comparable to that of its long-term historical yield spread. The Aaa corporate bond yield spread is actually below the yield spread over the last 36 years. This is an indication that low risk investments like Aaa corporate bond yield and A-rated utility bond yield have premium values relative to minimal risk Treasury securities.

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In contrast, the higher risk Baa utility and corporate bond yields currently have an above-average yield spread of approximately 60 basis points (2.58% vs. 1.97%). The higher risk Baa utility bond yields do not have the same premium valuations as their lower risk A-rated utility bond yields, and thus the yield spread for greater risk investments is wider than lower risk investments.

This illustrates securities with greater risk such as Baa yields versus A yields are commanding above average risk premium spreads in the current marketplace. Utility equity securities are greater risk than Baa utility bonds. Because greater risk securities appear to support an above-average risk premium relative to historical averages, this would support an above-average risk premium in measuring a fair return on equity for a utility stock or equity security.

### WHAT IS YOUR RECOMMENDED RETURN FOR GMO BASED ON YOUR RISK PREMIUM STUDY?

To be conservative, I am recommending more weight to the high-end risk premium estimates than the low-end. I state this because of the relatively low level of interest rates now but relative upward movements of utility yields more recently. Hence, I propose to provide 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%, 28 which is considerably higher than the 31-year average risk premium of 5.46% and reasonably reflective of the 3.4% projected Treasury bond yield. A Treasury bond risk premium of 6.1% and projected Treasury bond yield of 3.4% produce a risk premium estimate of 9.50%. Similarly, applying these weights to the utility risk premium indicates a risk premium of 4.9%.<sup>29</sup> This risk premium is above the 31-year historical average risk premium of 4.08%. This risk premium in connection with the current Baa observable utility bond yield of 4.69% produces an estimated return on equity of 9.60%.

Based on this methodology, my Treasury bond risk premium is 9.50% and my utility bond risk premium indicates a return of 9.60%. Hence, this methodology produces a return on equity in the range of 9.50% to 9.60% with a midpoint of 9.55%.

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

#### 13 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:

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

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

20  $R_f$  = Risk-free rate

21  $R_m$  = Expected return for the market portfolio 22

 $B_i$  = 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

<sup>&</sup>lt;sup>28</sup>(4.25% \* 25%) + (6.71% \* 75%) = 6.09%. <sup>29</sup>(2.88% \* 25%) + (5.53% \* 75%) = 4.87%.

diversified portfolio. When stocks are held in a diversified portfolio, firm-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.

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

Α

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

#### 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 3.40%.<sup>30</sup> The current 30-year Treasury bond yield is 2.60%, as shown in Schedule MPG-16. I used *Blue Chip Financial Forecasts*' projected 30-year Treasury bond yield of 3.40% for my CAPM analysis.

<sup>&</sup>lt;sup>30</sup>Blue Chip Financial Forecasts, June 1, 2016 at 2.

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

#### OF THE RISK-FREE RATE?

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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. A Treasury bond yield is not a risk-free rate. Risk premiums related to unanticipated inflation and interest rates are systematic of 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.

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

As shown in Schedule MPG-17, the proxy group average *Value Line* beta estimate is 0.75.

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

21 A I derived two market risk premium estimates: a forward-looking estimate and one 22 based on a long-term historical average.

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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' 2016 Valuation Handbook estimates the historical arithmetic average real market return over the period 1926 to 2015 as 8.7%. 31 A current consensus analysts' inflation projection, as measured by the Consumer Price Index, is 2.3%.32 Using these estimates, the expected market return is 11.20%.33 The market risk premium then is the difference between the 11.20% expected market return and my 3.40% risk-free rate estimate, or approximately 7.8%.

My historical estimate of the market risk premium was also calculated by using data provided by Duff & Phelps in its 2016 Valuation Handbook. Over the period 1926 through 2015, the Duff & Phelps study estimated that the arithmetic average of the achieved total return on the S&P 500 was 12.0%34 and the total return on long-term Treasury bonds was 6.00%. The indicated market risk premium is 6.0% (12.0% - 6.0% = 6.0%).

<sup>35</sup>Id.

<sup>&</sup>lt;sup>31</sup>Duff & Phelps, 2016 Valuation Handbook: Guide to Cost of Capital at 2-4. Calculated as [(1+0.12) / (1+0.03)] - 1.

32 Blue Chip Financial Forecasts, June 1, 2016 at 2.

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

#### THAT ESTIMATED BY DUFF & PHELPS?

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The Duff & Phelps analysis indicates a market risk premium falls somewhere in the range of 5.5% to 6.9%. My market risk premium falls in the range of 6.0% to 7.8%.

My average market risk premium of 6.9% is the same as 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 2015 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 dividend payments. The income return, in contrast, only reflects the income return 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>36</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.

<sup>&</sup>lt;sup>36</sup>*Id.* at 3-28.

<sup>37</sup>*Id.* at 3-30. <sup>38</sup>*Id.* at 3-31.

<sup>39</sup>Id. at 3-31.

Duff & Phelps' range is based on several methodologies. First, Duff & Phelps estimates a market risk premium of 6.9% based on the difference between the total market return on common stocks (S&P 500) less the income return on Treasury bond investments over the 1926-2015 period.

Second, Duff & Phelps updated the Ibbotson & Chen supply-side model which found that the 6.9% 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 25 years. Duff & Phelps believes this abnormal P/E expansion is not sustainable.<sup>37</sup> 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. Based on this alternative methodology, Duff & Phelps published a long-horizon supply-side market risk premium of 6.03%.<sup>38</sup>

Finally, Duff & Phelps develops its own recommended equity, or market, risk premium by employing an analysis that takes into consideration a wide range of 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 4.0%, Duff & Phelps concludes the current expected, or forward-looking, market risk premium is 5.5%, implying an expected return on the market of 9.5%.<sup>39</sup>

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

As shown in Schedule MPG-18, based on my low market risk premium of 6.0% and my high market risk premium of 7.8%, a risk-free rate of 3.40%, and a beta of 0.75, my CAPM analysis produces a return of 7.90% to 9.25%. Based on my assessment of risk premiums in the current market, as discussed above, I recommend giving 75% weight to my high-end CAPM return estimate and 25% weight to the low-end return estimate. This produces a recommended CAPM return estimate of approximately 8.91%.<sup>40</sup>

#### 9 IV.G. Return on Equity Summary

- 10 Q BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY
  11 ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO
  12 YOU RECOMMEND FOR GMO?
- 13 A Based on my analyses, I estimate GMO's current market cost of equity to be 9.3%.

TABLE 10						
Return on Common Equity Summary						
<u>Description</u>	<u>Results</u>					
DCF	8.90%					
Risk Premium	9.55%					
CAPM	8.90%					

My recommended return on common equity of 9.25% is at the approximate midpoint of my estimated range of 8.90% to 9.60%. As shown in Table 10 above, the

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Michael P. Gorman Page 61

 $<sup>^{40}(7.90\% * 25\%) + (9.25\% * 75\%) = 8.91\%.</sup>$ 

high-end of my estimated range is based on my risk premium studies.	The low-end is
based on my DCF studies and CAPM return.	

My return on equity estimates reflect observable market evidence, the impact on 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.

#### IV.H. Financial Integrity

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### 9 Q WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT AN 10 INVESTMENT GRADE BOND RATING FOR GMO?

11 A Yes. I have reached this conclusion by comparing the key credit rating financial 12 ratios for GMO at my proposed return on equity and the Company's actual test-year-13 end capital structure to S&P's benchmark financial ratios using S&P's new credit 14 metric ranges.

# 15 Q PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO CREDIT 16 METRIC METHODOLOGY.

A S&P publishes a matrix of financial ratios corresponding to its assessment of the business risk of utility companies and related bond ratings. On May 27, 2009, S&P expanded its matrix criteria by including additional business and financial risk categories.<sup>41</sup>

<sup>&</sup>lt;sup>41</sup>S&P updated its 2008 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics. *Standard & Poor's RatingsDirect*: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

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

Α

The financial risk profile categories are "Minimal," "Modest," "Intermediate," "Significant," "Aggressive," and "Highly Leveraged." Most of the utilities have a financial risk profile of "Aggressive." GMO has a "Strong" business risk profile and a "Significant" financial risk profile.

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

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

S&P publishes ranges for primary financial ratios that it uses as guidance in its credit review for utility companies. The two core financial ratio benchmarks it relies on in its credit rating process include: (1) Debt to Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA"); and (2) Funds From Operations ("FFO") to Total Debt.<sup>42</sup>

<sup>&</sup>lt;sup>42</sup> Standard & Poor's RatingsDirect. "Criteria: Corporate Methodology," November 19, 2013.

### 1 Q HOW DID YOU APPLY S&P'S FINANCIAL RATIOS TO TEST THE

REASONABLENESS OF YOUR RATE OF RETURN RECOMMENDATIONS?

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I calculated each of S&P's financial ratios based on GMO's cost of service for its retail jurisdictional operations. While S&P would normally look at total consolidated 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 GMO's retail regulated utility operations. Hence, I am attempting to determine whether my proposed rate of return will in turn support cash flow metrics, balance sheet strength, and earnings that will support an investment

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

grade bond rating and GMO's financial integrity.

12 A Yes, I did. The off-balance sheet debt related to purchased power agreements and operating leases was provided in a Highly Confidential data response to OPC 6009.

### 14 Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS AS IT 15 RELATES TO GMO.

The S&P financial metric calculations for GMO at a 9.25% return are developed on a Highly Confidential workpaper. Therefore, I am only providing the results of my calculation in Table 11 below. The credit metrics produced below, with this financial and business risk outlook by S&P, will be used to assess the strength of the credit metrics based on GMO's retail operations in Missouri.

### TABLE 11

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

<u>Line</u>	Description	Retail Cost of Service Amount (1)	S&P Bench Intermediate (2)	nmark (Medial \ Significant (3)	/olatility) <sup>1/2</sup> Aggressive (4)
1 2 3	Total Debt Ratio Debt to EBITDA FFO to Total Debt	49% 3.1x 24%	2.5x - 3.5x 23% - 35%	3.5x - 4.5x 13% - 23%	4.5x - 5.5x 9% - 13%

Sources:

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GMO's adjusted total debt ratio is approximately 49%. As shown on Table 11, this adjusted debt ratio is significantly lower than S&P's median debt ratio of approximately 54% for BBB-rated utilities and comparable to the S&P median debt ratio of approximately 52% for A-rated utilities. Hence, I concluded this capital structure reasonably supports GMO's current investment grade bond rating. This adjusted total debt ratio will support an investment grade bond rating.

Based on an equity return of 9.25%, GMO will be provided an opportunity to produce a debt to Earnings Before Interest, Taxes, Depreciation, and Amortization ("EBITDA") ratio of 3.1x. This is within S&P's "Intermediate" guideline range of 2.5x to 3.5x,<sup>43</sup> which reflects less risk and a stronger metric than needed to support GMO's financial risk ranking of "Significant." This ratio also supports an investment grade credit rating.

<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: "KCP&L Greater Missouri Operations Co.," April 28, 2015.

<sup>&</sup>lt;sup>3</sup>Calculated from data included in the Highly Confidential data response to OPC 6009.

<sup>&</sup>lt;sup>43</sup>Id.

1	GMO's retail operations FFO to total debt coverage at a 9.25% equity return is
2	24%, which is within S&P's "Intermediate" metric guideline range of 23% to 35%.
3	This FFO/total debt ratio will support an investment grade bond rating.

At my recommended return on equity of 9.25% and capital structure, and the Company's proposed embedded debt cost, GMO's financial credit metrics continue to be supportive of its investment grade utility bond rating.

#### V. RESPONSE TO GMO WITNESS MR. ROBERT B. HEVERT

#### V.A. Summary of Rebuttal

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#### Q WHAT RETURN ON COMMON EQUITY IS GMO PROPOSING FOR THIS

#### PROCEEDING?

The Company has requested a return on equity of 9.90% based on the recommended range of 9.75% to 10.50% sponsored by its witness, Mr. Robert Hevert.<sup>44</sup> Mr. Hevert concludes his recommended return on equity range is reasonable, if not conservative.<sup>45</sup> Mr. Hevert's recommended return is based on: (1) a constant growth DCF analysis, (2) a multi-stage DCF analysis, (3) CAPM studies, and (4) a Bond Yield Plus Risk Premium methodology.

#### 17 Q ARE MR. HEVERT'S RETURN ON EQUITY ESTIMATES REASONABLE?

A No. Mr. Hevert's estimated return on equity is overstated and should be rejected.

Mr. Hevert's analyses produce excessive results for various reasons, including the following: (1) his constant growth DCF results are based on excessive, unsustainable growth rates; (2) his multi-stage DCF is based on an unrealistic GDP growth estimate

<sup>45</sup>*Id* at 4

<sup>&</sup>lt;sup>44</sup>Hevert Direct Testimony at 3.

and unsustainable payout ratio assumptions; (3) his CAPM is based on inflated
market risk premiums; (4) his Bond Yield Plus Risk Premium is based on inflated
utility equity risk premiums; and (5) his risk premium studies are based on stale
Treasury yields.

#### 5 Q PLEASE SUMMARIZE MR. HEVERT'S RETURN ON EQUITY ESTIMATES.

Mr. Hevert's return on equity estimates are summarized in Table 12 below. In Column 2, I show the results with prudent and sound adjustments to his common equity return estimates. With such adjustments to his proxy groups' DCF, CAPM, and Risk Premium return estimates, Mr. Hevert's own studies show my recommended return on equity for GMO is reasonable.

TABLE 12									
Hevert's Return on Equity Estima	Hevert's Return on Equity Estimates								
Description	Mean <sup>1</sup>	Adjusted <sup>2</sup>							
	(1)	(2)							
Constant Growth DCF:									
30-Day Average	9.19%	9.19%							
90-Day Average	9.22%	9.22%							
180-Day Average	<u>9.29%</u>	<u>9.19%</u>							
Average Constant Growth DCF	9.23%	9.23%							
Multi-Stage Growth DCF:									
30-Day Average	9.72%	8.64%							
90-Day Average	9.76%	8.68%							
180-Day Average	<u>9.84%</u>	<u>8.76%</u>							
Average Multi-Stage Growth DCF	9.77%	8.69%							
DCF Range	9.2% to 9.8%	8.7% to 9.2%							
CAPM Results (Bloomberg Beta)									
Current 30-Yr Treasury (BL – 2.96% Rev. to 2.72%)	9.46%	7.47%							
Current 30-Yr Treasury (VL – 2.96% Rev. to 2.72%)	8.97%	7.47%							
Projected 30-Yr Treasury (BL – 3.45% Rev. to 3.08%)	9.95%	7.83%							
Near-Term Projected 30-Yr Treasury (VL – 3.45% Rev. to 3.08%)	9.46%	7.83%							
CAPM Results (Value Line Beta)									
Current 30-Yr Treasury (BL – 2.96% Rev. to 2.72%)	11.20%	8.74%							
Current 30-Yr Treasury (VL – 2.96% Rev. to 2.72%)	10.57%	8.74%							
Projected 30-Yr Treasury (BL – 3.45% Rev. to 3.08%)	11.69%	9.10%							
Near-Term Projected 30-Yr Treasury (VL – 3.45% Rev. to 3.08%)	11.07%	9.10%							
Risk Premium									
Current 30-Yr Treasury (2.96% Rev. to 2.72%)	10.04%	8.81%							
Near-Term Projected 30-Yr Treasury (3.45% Rev. to 3.08%)	10.10%	9.17%							
Long-Term Projected 30-Yr Treasury (4.65% Rev. to 3.4%)	10.47%	9.49%							
Range	9.75% to 10.50%	8.7% to 9.5%							
Recommended Return on Equity <sup>3</sup>	9.9%	9.3%							

Sources:

<sup>&</sup>lt;sup>1</sup>Hevert Direct Testimony at 22, 30, 37 and 40.
<sup>2</sup>Schedule MPG-19.
<sup>3</sup>Mr. Hevert recommends a return on equity in the range of 9.75% to 10.50%, however the Company has requested a return on equity of 9.9%.

#### V.B.1. Hevert Constant Growth DCF

2 Q F	PLEASE	DESCRIBE	WK.	HEVERTS	CONSTANT	GROWIH	DCF	KETUKN
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3 **ESTIMATES.** 

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- 4 A His constant growth DCF returns are developed in Schedule RBH-1. Mr. Hevert's
- 5 constant growth DCF models are based on consensus growth rates published by
- 6 Zacks and First Call and individual growth rate projections made by *Value Line*.
- 7 He relied on dividend yield calculations based on average stock prices over
- 8 three different periods: 30-day, 90-day, and 180-day all reflect one-half year
- 9 dividend growth adjustments.

#### 10 Q ARE THE DCF RESULTS PRODUCED BY MR. HEVERT REASONABLE?

- 11 A Mr. Hevert's constant growth DCF studies generally support a mean return on equity
- of approximately 9.20%, similar to my constant growth DCF study.
- 13 However, Mr. Hevert's DCF return estimates are overstated because they are
- based on an average growth rate of approximately 5.40% from all of his sources.
- This growth rate is a very optimistic future growth in comparison to long-term GDP
- 16 growth of 4.35% as I described above in regard to my own DCF studies. As such, his
- 17 constant growth DCF return estimates should be considered as a high-end estimate
- of the current market cost of equity.

#### V.B.2. Hevert Multi-Stage Growth DCF

#### 20 Q DID MR. HEVERT PERFORM A MULTI-STAGE GROWTH DCF ANALYSIS?

- 21 A Yes, he did. His multi-stage DCF model is developed on Schedule RBH-2 of his
- testimony. However, his multi-stage DCF analysis is flawed for at least two reasons.
- First, Mr. Hevert relied on a long-term growth rate of 5.35%. This is not a reasonable

estimate of long-term growth. Mr. Hevert's long-term growth rate is considerably higher than the market GDP growth outlooks as reflected in the consensus analysts' projections. Second, his assumption of an increasing dividend payout ratio in the second stage is unfounded, and simply inflated dividend payments.

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

Mr. Hevert relied on the long-term historical real GDP growth of 3.25%, as measured over the period 1929 through 2014. He then adjusted this to a nominal GDP growth by an inflation rate of 2.04%, which is the average of the 180-day average projected inflation measured as the difference, or the spread, between yields on long-term nominal Treasuries and long-term Treasury Inflation Protect Securities ("TIPS") of 1.87% and the CPI projection for 2022-2026 of 2.20% from *Blue Chip Financial Forecasts*. Using an inflation factor of 2.04% and an historical real GDP growth of 3.25%, Mr. Hevert produced a nominal GDP growth rate outlook of 5.35% (1.0325 x 1.0204 - 1).<sup>46</sup>

# 15 Q IS MR. HEVERT'S LONG-TERM GROWTH RATE ESTIMATE OF 5.35% 16 REASONABLE?

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

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<sup>&</sup>lt;sup>46</sup>Hevert Direct Testimony at 26-27.

## Q WHY DO MR. HEVERT'S GDP GROWTH PROJECTIONS NOT REASONABLY

**ALIGN WITH INDEPENDENT MARKET PARTICIPANTS?** 

Α

Mr. Hevert's growth rate of 5.35% is based on an historical real GDP growth rate of 3.25%. This real GDP growth rate is considerably higher than the real GDP growth provided by consensus analysts in projections of future real GDP growth.

In order to measure the current market cost of equity demanded by investors in today's marketplace, it is necessary to reasonably capture the outlooks by investors that have formed evaluations of observable stock prices used in the various time periods underlying Mr. Hevert's and my DCF studies. Mr. Hevert's long-term growth rate simply ignores current consensus analysts' outlooks for future growth, and therefore is not a reasonable estimate of what market participants have relied on in order to produce those market valuations, for example.

The consensus economists' projected GDP growth rate is much lower than the GDP growth rate used by Mr. Hevert in his DCF analysis. A comparison of Mr. Hevert's GDP growth rate and consensus economists' projected growth over the next 5 and 10 years is shown in Table 13 below. As shown in this table, Mr. Hevert's GDP rate of 5.35% reflects real GDP of 3.25% and an inflation adjusted GDP of 2.04%. However, consensus economists' projections of nominal GDP over the next 5 and 10 years are 4.35%.

As is clearly evident in Table 13, Mr. Hevert's historical GDP growth is much higher than, and not representative of, consensus market expected forward-looking GDP growth.

TABL						
GDP Projections						
Description	GDP <u>Inflation</u>	Real GDP	Nominal GDP			
	2.0%	3.3%	5.35%			

2.1%

2.1%

2.2%

2.2%

4.35%

4.35%

Source: Blue Chip Financial Forecasts, June 1, 2016 at 14.

Mr. Hevert

Consensus Economists (5-Year)

Consensus Economists (10-Year)

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Mr. Hevert's 5.35% nominal GDP growth rate is not reflective of consensus market expectations and should be rejected. Indeed, Mr. Hevert's 5.35% GDP growth rate outlook is inconsistent with the consensus of economists' independent projections of future long-term GDP growth and is also inconsistent with projections made by the U.S. EIA and CBO (as referenced in my testimony above where I describe the parameters used in my own multi-stage growth DCF analyses). Those agencies also project nominal GDP much more consistent with the consensus independent economists' projections shown in Table 13 above. For all these reasons, Mr. Hevert's GDP growth outlook is out of line and out of touch with the consensus market outlooks.

1	Q	PLEASE EXPLAIN HOW MR. HEVERT'S MULTI-STAGE GROWTH DCF MODEL
2		OVERSTATED DIVIDEND CASH FLOWS BECAUSE OF HIS LONG-TERM
3		DIVIDEND PAYOUT RATIO ASSUMPTION.
4	Α	Mr. Hevert modified analysts' three- to five-year dividend payout projections of
5		61.78% for his proxy group and assumed that eventually they would converge to the
6		historical industry average dividend payout ratio of 67.30%.47
7	Q	IS MR. HEVERT'S ASSUMPTION THAT THE PROXY GROUP'S PAYOUT RATIO
8		WILL INCREASE TOWARD THE INDUSTRY HISTORIC DIVIDEND PAYOUT
9		RATIO REASONABLE?
10	Α	No. There is simply no reason to expect the dividend payout ratio of the proxy group
11		will increase toward the utility industry historical average. The going-forward payout
12		ratio of the proxy group will be controlled by funding requirements and dividend
13		growth outlook for the future.
14		Utilities are reducing dividend payout ratios in order to increase retained
15		earnings as a means to increase internal cash flow. This increased internal cash flow
16		supports the utility's ability to fund larger capital expenditure programs with internal
17		funding. Since the capital expenditure program for the industry is expected to remain
18		large, there is no reasonable basis to assume that the industry payout ratio will
19		increase during transition period growth stage as assumed by Mr. Hevert.
20		Further, there should be a tie between the growth rate in the short-term stage
21		and the long-term stage. Changes in the payout ratio may explain these differences
22		in growth rates. However, Mr. Hevert's assumption for changes in the dividend
23		payout ratio is not tied to transitioning from a short-term growth stage to a long-term

<sup>&</sup>lt;sup>47</sup>Hevert Direct Testimony at 30.

1		growth stage. There is simply no basis for the assumption that the dividend payout
2		ratio will increase or change between growth stages of this model.
3		For all these reasons, his changing payout ratio assumptions seem to only
4		result in enhancing cash flows during the transition phase through the terminal phase
5		and artificially increasing his multi-stage growth DCF return estimate.
6	Q	HOW CAN MR. HEVERT'S MODEL BE CORRECTED TO ELIMINATE HIS
7		UNREASONABLE ASSUMPTIONS?
8	Α	Simply eliminating his assumption that the utility payout ratio will revert from the
9		analysts' three- to five-year growth rate projections to the higher long-term historical
10		growth rate will correct this problem.
11	Q	HOW WOULD MR. HEVERT'S MULTI-STAGE GROWTH DCF MODEL CHANGE IF
12		THE CORRECTIONS YOU DESCRIBED ABOVE ARE MADE TO HIS RETURN
13		ESTIMATE?
14	Α	As shown below in Table 14, revising the GDP growth rate to the consensus analysts'
15		projection and coordinating the payout ratio assumption with the long-term earnings
16		growth rate assumption reduces Mr. Hevert's multi-stage growth DCF return from
17		9.77% to 8.69% for his proxy group.

TABLE 14  Hevert Multi-Stage Growth DCF Analysis							
<u>Description</u>	<u>Mean<sup>1</sup></u> (1)	Adjusted <sup>2</sup> (2)					
30-Day Average 90-Day Average 180-Day Average Average	9.72% 9.76% <u>9.84%</u> 9.77%	8.64% 8.68% <u>8.76%</u> 8.69%					
Sources: <sup>1</sup> Hevert Direct Testimony at 30. <sup>2</sup> Schedule MPG-19.							

## 1 Q WHAT IS A REASONABLE DCF RETURN FOR GMO BASED ON MR. HEVERT'S

- 2 CONSTANT GROWTH DCF ESTIMATES AND YOUR SOUND ADJUSTMENTS TO
- 3 HIS MULTI-STAGE DCF RESULTS?
- 4 A Giving equal weight to Mr. Hevert's mean constant growth DCF estimates and my
- 5 revision of his multi-stage DCF estimates, the return on equity falls in the range of
- 6 8.7% to 9.2%.

#### 7 V.C. Mr. Hevert's CAPM

- 8 Q PLEASE DESCRIBE THE ISSUES YOU TAKE WITH MR. HEVERT'S CAPM
- 9 **ANALYSES**.
- 10 A My major concern with Mr. Hevert's CAPM analysis is his inflated market risk
- premium estimates. I also take issue with Mr. Hevert's stale risk-free rates based on
- 12 Blue Chip Financial Forecasts as of January 1, 2016.

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

A Mr. Hevert developed two market risk premium estimates. They are DCF-derived market risk premiums of 10.68% (Bloomberg) and 9.87% (*Value Line*), which are based on market DCF returns of 13.63% and 12.82%, respectively, less the current 30-year Treasury bond yields of 2.96%.<sup>48</sup>

### Q WHAT ISSUES DO YOU HAVE WITH MR. HEVERT'S DCF-DERIVED MARKET

#### **RISK PREMIUM ESTIMATES?**

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Mr. Hevert's DCF-derived market risk premiums are based on market returns of approximately 13.63% and 12.82%, which consist of growth rate components of approximately 11.24% and 10.58% and a market weighted expected dividend yield of approximately 2.39% and 2.24%, respectively.<sup>49</sup> As discussed above, the DCF model requires a long-term sustainable growth rate. Mr. Hevert's sustainable market growth rates of approximately 11.24% and 10.58% are far too high to be a rational outlook for sustainable long-term market growth. These growth rates are more than two times the growth rate of the U.S. GDP long-term growth outlook of 4.4%.

As a result of this unreasonable long-term market growth rate estimate, Mr. Hevert's market DCF returns are inflated and not reliable. Consequently, Mr. Hevert's 10.68% (Bloomberg) and 9.87% (*Value Line*) market risk premiums should be given minimal weight in estimating the Company's required cost of common equity.

<sup>49</sup>Schedule RBH-3. (13.63% = 11.24% + 2.39% and 12.82% = 10.58% + 7.24%)

<sup>&</sup>lt;sup>48</sup>Hevert Direct Testimony at 33 and Schedule RBH-3.

### 1 Q DO HISTORICAL ACTUAL RETURNS ON THE MARKET SUPPORT

#### MR. HEVERT'S PROJECTED MARKET RETURNS?

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

#### 7 Q PLEASE EXPLAIN.

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Duff & Phelps estimates the actual capital appreciation for the S&P 500 over the period 1926 through 2014 to have been 5.8% to 7.7%.<sup>50</sup> This compares to Mr. Hevert's projected growth of the market of 11.24% to 10.58%.

Further, historically the geometric growth of the market of 5.8%<sup>51</sup> has reflected geometric growth of GDP over this same time period of approximately 6.2%.<sup>52</sup>

This review of historical data establishes two facts very clearly. First, historical, actual achieved growth has been substantially less than projected by Mr. Hevert. Second, historical growth on the market has tracked historical growth of the U.S. GDP. Projected growth of the U.S. GDP now is closer to the 4% to 5% area. All of this information strongly supports the conclusion Mr. Hevert's projected growth on the market of 11.24% to 10.58% is substantially overstated. While I do not endorse the use of an historical growth rate to draw assessments of the market's forward-looking growth rate outlooks, this data can be used to show how the market return estimates produced by Mr. Hevert are unreasonable and inflated.

<sup>&</sup>lt;sup>50</sup>Duff & Phelps, 2016 Valuation Handbook: Guide to Cost of Capital at 2-4.

<sup>&</sup>lt;sup>51</sup>Real historical growth 3.25% (Hevert Direct Testimony at 35) and historical inflation of 2.9% (Duff & Phelps, *2016 Valuation Handbook: Guide to Cost of Capital* at 2-4).

<sup>&</sup>lt;sup>52</sup>Hevert Direct Testimony at 26, and note 47. Real GDP of 3.25% and historical inflation of 2.9%.

#### 1 Q WHAT ISSUES DO YOU HAVE WITH MR. HEVERT'S RISK-FREE RATES?

2 Α Mr. Hevert's risk-free rates are based on Blue Chip current (2.96%) and projected 3 (3.45%) 30-year Treasury yields, which are 5 months old. Based on the most recent 4 Blue Chip publication the current and near-term projected 30-year Treasury yields are 2.72% and 3.08%, respectively.<sup>53</sup> 5

#### CAN MR. HEVERT'S CAPM ANALYSIS BE REVISED TO REFLECT A MORE 6 Q 7 REASONABLE MARKET RISK PREMIUM AND RECENT RISK-FREE RATES?

8 Yes. Using the updated risk-free rates of 2.72% and 3.08%, the average published Α Bloomberg and *Value Line* beta estimates of 0.609 and 0.772,<sup>54</sup> respectively; and my 9 10 calculated high-end market risk premium of 7.8%, Mr. Hevert's CAPM would be no 11 higher than 9.1%.

#### V.D. Bond Yield Plus Risk Premium

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#### PLEASE DESCRIBE MR. HEVERT'S BOND YIELD PLUS RISK PREMIUM 13 Q 14 STUDIES.

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

<sup>54</sup>Schedule RBH-5.

<sup>&</sup>lt;sup>53</sup>Blue Chip Financial Forecasts, June 1, 2016 at 4.

Mr. Hevert supports his risk premium findings by placing primary reliance on his Primary BYP risk premium. He concludes his risk premium methodology supports a return on equity in the range of 10.04% to 10.47%. I will comment on both Mr. Hevert's BYP risk premium studies and his conclusion on what these methodologies support as a fair return on equity on GMO.

#### V.D.1. Primary BYP Risk Premium

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#### 7 Q PLEASE DESCRIBE MR. HEVERT'S PRIMARY BYP RISK PREMIUM.

As shown on Schedule RBH-6, Mr. Hevert constructs a risk premium return on equity estimate based on the premise that equity risk premiums are inversely related to interest rates. He estimates an average electric risk premium of 4.50% over the period January 1980 through January 6, 2016. Then he applies a regression formula to the current, near-term, and long-term projected 30-year Treasury bond yields of 2.96%, 3.45%, and 4.65% to produce electric risk premiums of 7.08%, 6.65%, and 5.82%, respectively. Thus, he calculates return on equity estimates of 10.04%, 10.10%, and 10.47%, respectively.

#### 16 Q IS MR. HEVERT'S PRIMARY BYP RISK PREMIUM METHODOLOGY

#### **REASONABLE?**

No. Mr. Hevert's contention that there is a simplistic inverse relationship between equity risk premiums and interest rates is not supported by academic research. While academic studies have shown that, in the past, there has been an inverse relationship among these variables, researchers have found that the relationship

changes over time and is influenced by changes in perception of the risk of bond investments relative to equity investments, and not simply changes to interest rates.<sup>55</sup>

In the 1980s, equity risk premiums were inversely related to interest rates but that was likely attributable to the interest rate volatility that existed at that time. As such, when interest rates were more volatile, the relative perception of bond investment risk increased relative to the investment risk of equities. This changing investment risk perception caused changes in equity risk premiums.

In today's marketplace, interest rate volatility is not as extreme as it was during the 1980s.<sup>56</sup> Nevertheless, changes in the perceived risk of bond investments relative to equity investments still drive changes in equity premiums and cannot be measured simply by observing nominal interest rates. Changes in nominal interest rates are heavily influenced by changes to inflation outlooks, which also change equity return expectations. As such, the relevant factor needed to explain changes in equity risk premiums is the relative changes to the risk of equity versus debt securities investments, and not simply changes in interest rates.

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

<sup>&</sup>lt;sup>55</sup>"The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts," Robert S. Harris and Felicia C. Marston, *Journal of Applied Finance*, Volume 11, No. 1, 2001 and "The Risk Premium Approach to Measuring a Utility's Cost of Equity," Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *Financial Management*, Spring 1985.

<sup>&</sup>lt;sup>56</sup>"The Risk Premium Approach to Measuring a Utility's Cost of Equity," Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *Financial Management*, Spring 1985, at 44.

#### 1 Q DO YOU HAVE ANY OTHER ISSUES WITH MR. HEVERT'S BYP

#### **METHODOLOGY?**

Α

Yes. As discussed above, his current near-term and long-term Treasury yields are stale and need updating. Further, Mr. Hevert's long-term projected Treasury bond yield of 4.65% is simply too high and is unreasonable. Mr. Hevert's projected 4.65% yield is approximately 193 basis points higher than the current Treasury bond yield of 2.72% and approximately 125 basis points higher than the projected Treasury yield of 3.4%<sup>57</sup> that will cover the rate effective period as projected by the consensus economists. Mr. Hevert's long-term projected Treasury yield of 4.65% is well beyond the rate effective period, and as such, is not a reasonable interest rate to use in a risk premium study. For these reasons, Mr. Hevert's BYP risk premium analysis should be disregarded or revised as described below.

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

Yes. Disregarding Mr. Hevert's simplistic and inaccurate notion of a continuing inverse relationship between interest rates and the risk premium will produce more realistic results. Adding my weighted average equity risk premium over Treasury bonds of 6.09% to his updated current (2.72%), near-term (3.08%) and long-term (3.4%) projected Treasury yields will produce a return on equity estimate no higher than 9.5% for GMO.

Michael P. Gorman Page 81

<sup>&</sup>lt;sup>57</sup>Blue Chip Financial Forecasts, June 1, 2016 at 4.

#### V.D.2. Alternative BYP Risk Premium

#### 2 Q PLEASE DESCRIBE MR. HEVERT'S ALTERNATIVE BYP RISK PREMIUM

#### **ANALYSIS?**

Α

Α

Mr. Hevert developed an Alternative BYP risk premium analysis to test how market conditions affect the relationship between interest rates and equity risk premiums. Specifically, he developed a regression analysis in which the equity risk premium was the dependent variable and the Treasury bond yields, the spreads between Moody's A-rated yields and treasury yields, and a market volatility index as measured by the CBOE Volatility Index ("VIX") were the independent variables. Based on this analysis, he concluded these additional variables (the credit spreads and the VIX) did not add statistical significance to the explanatory power of his Primary BYP risk premium study rates.<sup>58</sup>

His Alternative BYP risk premium supported a return on equity in the range of 9.89% to 10.01%.

#### Q WHAT ISSUES DO YOU HAVE WITH MR. HEVERT'S ALTERNATIVE BYP RISK

#### PREMIUM METHODOLOGY?

Mr. Hevert's Alternative BYP risk premium was a substantial improvement to his simplistic Primary BYP risk premium. As noted above, the Primary BYP risk premium assumes current risk premiums in the market can be measured by simply changes in interest rates. This simplistic relationship simply is not supported in academic literature nor a reasonable outlook for changes in invested capital. As illustrated above, inflation outlooks can impact both equity returns and bond yields in a similar manner. Hence, declines in inflation outlooks can impact the equity return in bond

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<sup>&</sup>lt;sup>58</sup>Hevert Direct Testimony at 41.

interest rates without impacting the equity risk premium. Mr. Hevert's Primary BYP risk premium simply ignores this indisputable relationship.

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Mr. Hevert applies his regression analysis to risk premiums based on individual rate case decisions with contemporary Treasury yields, A-rated utility bond and Treasury yield spreads, and the VIX market volatility index. He adjusted for rate case lag based on when the case was filed and when the case was decided. His analysis had 614 individual observations since December 1992. By including all of these individual observations with his speculative lag adjustment, his analysis produced a result with limited explanatory power (measured through the Adjusted R-Squared measure) and a higher standard error.

#### PLEASE COMMENT ON THE ALTERNATIVE BYP RISK PREMIUM STUDY.

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

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

1	Q	HOW WOULD MR. HEVERT'S ALTERNATIVE BYP RISK PREMIUM STUDY BE
2		IMPACTED IF YOU REMOVE MR. HEVERT'S LAG ADJUSTMENT AND EXCLUDE
3		THE VIX INDEX IN THE REGRESSION ANALYSIS?
4	Α	I reproduced two versions of a multi-factor regression analysis. In my first analysis, I
5		regressed risk premium (dependent) to (1) 30-year Treasury yield; and (2) yield
6		spreads (A-rated utility to Treasury bond). This regression study produced stronger
7		regression metrics than Mr. Hevert's risk premium study – an adjusted R-squared of
8		84.5% and a standard error of approximately 0.0036, compared to Mr. Hevert's
9		adjusted R-squared and standard error of 68.4% and 0.0054, respectively.
10		When applying the current 13-week average 30-Year Treasury yield of 2.60%,
11		the current A utility/Treasury bond spread is 1.36%. This data produces a risk
12		premium of 7.18% and a cost of equity of 9.78% (7.18% plus 2.60%).
13		In my second analysis, I again regressed risk premium against two variables:
14		(1) Treasury bond yields; and (2) yield spread (Baa utility to Treasury). This analysis
15		produced very similar results to my first study regression adjusted R-squared of
16		83.2% and standard error of 0.0038.
17		Applying the current 13-week average 30-Year Treasury yield of 2.60% and a
18		Baa utility bond/Treasury yield spread of 2.09%, produces an estimated risk premium
19		of 7.17% and a cost of equity of 9.77%.
20		This revised Alternative BYP risk premium study supports a return on equity

for GMO no higher than 9.80%, as shown on Schedule MPG-20.

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1	Q	WOULD IT BE APPROPRIATE TO USE PROJECTED TREASURY BOND YIELDS
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#### 2 IN THIS REGRESSION STUDY TO MEASURE EQUITY RISK PREMIUMS?

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

#### 9 V.E. Additional Risks

- 10 Q DID MR. HEVERT CONSIDER ADDITIONAL BUSINESS RISKS TO JUSTIFY A
- 11 RETURN ON EQUITY ABOVE THE MIDPOINT OF HIS RANGE?
- Mr. Hevert believes GMO's regulatory environment, the environmental regulations associated with its generation portfolio, and its substantial capital expenditure plan relative to the proxy group conservatively support a return on equity within Mr. Hevert's range. I disagree. Setting the return on equity within Mr. Hevert's range will place an unreasonable burden on the ratepayers and should be rejected. As discussed below, GMO's relative risk is comparable to the risk of the utility companies included in the proxy group.
- 19 Q WHY DO YOU BELIEVE THAT GMO FACES RISKS THAT ARE COMPARABLE
- 20 TO THE RISKS FACED BY MR. HEVERT'S AND YOUR PROXY GROUP
- 21 **COMPANIES?**
- As shown on my Schedule MPG-4, the average S&P credit rating for my proxy group
- of "BBB+" is the same as GMO's credit rating. The relative risks discussed on pages

42-52 of Mr. Hevert's testimony are already incorporated in the credit ratings of the proxy group companies. S&P and other credit rating agencies go through great detail in assessing a utility's business risk and financial risk in order to evaluate their assessment of its total investment risk. Therefore, this total risk investment assessment of GMO, in comparison to a proxy group, is fully absorbed into the market's perception of GMO's risk and the proxy group fully captures the investment risk of GMO.

## Q HOW DOES S&P ASSIGN CORPORATE CREDIT RATINGS FOR REGULATED

#### UTILITIES?

Α

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

To determine the assessment for a corporate issuer's business risk profile, the criteria combine our assessments of industry risk, country risk, and competitive position. Cash flow/leverage analysis determines a company's financial risk profile assessment. The analysis then combines the corporate issuer's business risk profile assessment and its financial risk profile assessment to determine its anchor. In general, the analysis weighs the business risk profile more heavily for investment-grade anchors, while the financial risk profile carries more weight for speculative-grade anchors.<sup>59</sup>

<sup>59</sup>Standard & Poor's RatingsDirect: "Criteria/Corporates/General: Corporate Methodology," November 19, 2013.

•	_	
2		CONDITIONS IN SUPPORT OF HIS RECOMMENDED RETURN ON EQUITY?
3	Α	Yes. Mr. Hevert suggests a few factors that gauge investor sentiment, including the
4		relationship between the Federal Reserve's balance sheet and market volatility,
5		measured by the CBOE Volatility Index, known as the VIX.60 He concludes these
6		metrics indicate that current levels of instability and risk aversion are at historically
7		low levels and that the Constant Growth DCF results are at odds with market

DID MR HEVERT ALSO OFFER AN ASSESSMENT OF CURRENT MARKET

# DO YOU BELIEVE THAT MR. HEVERT'S USE OF THESE MARKET SENTIMENTS SUPPORTS HIS FINDINGS THAT GMO'S MARKET COST OF EQUITY IS CURRENTLY IN THE RANGE OF 9.75% TO 10.50%?

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

#### Q WHAT IS THE MARKET SENTIMENT FOR UTILITY INVESTMENTS?

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

For example, this is illustrated by my Schedule MPG-15, under column 11 showing the spread between "A" rated utility bond yields and "Aaa" rated corporate

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<sup>&</sup>lt;sup>60</sup>Hevert Direct Testimony at 52-56.

bond yields. Currently, the spread is approximately 0.25%. This is a relatively low spread over the 36-year time horizon. Indeed, current spreads of utility versus high-grade corporate bond yields are at the lowest level they have been in most periods over the last 36 years. This is also reflective of the spreads between "Baa" utility bond yields relative to "Baa" corporate bond yields. Currently, utility bonds are trading at a premium to corporate bonds. This has been largely the case during the significant market turbulence that has occurred over the last five to eight years. However, over longer periods of time, utility bond yields on average trade at parity to a premium to corporate "Baa" rated bond yields. The current strong utility bond valuation is an indication of the market's sentiment that utility bonds have lower risk than general corporate bonds and are generally regarded as a safe haven by the investment industry.

Further, other measures of utility stock valuations also support a robust market for utility stocks. As shown on my Schedule MPG-3, utility valuation measures – *e.g.*, price-to-earnings ratio and market price to cash flow ratio – show stock valuation measures for the proxy groups are robust. For example, for the proxy group, the current price-to-earnings ratio is comparable to and the cash flow ratio is stronger than the 14-year average valuation metrics.

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

#### Q DO YOU HAVE ANY COMMENTS CONCERNING MR. HEVERT'S CONTENTION

#### THAT INTEREST RATES ARE GOING TO INCREASE?

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Α

Yes. Mr. Hevert develops his risk premium studies mainly relying on near-term and long-term projected interest rates, which he believes are expected to increase (Hevert Direct Testimony at 56-57). Mr. Hevert's proposal to rely mainly on forecasted Treasury bond yields is unreasonable because he is not considering the highly likely outcome that current observable interest rates will prevail during the period rates determined in this proceeding will be in effect. This is important because, while current observable interest rates are actual market data that provides a measure of the current cost of capital, the accuracy of forecasted interest rates is problematic at best.

# WHY DO YOU BELIEVE THAT THE ACCURACY OF FORECASTED INTEREST RATES IS HIGHLY PROBLEMATIC?

Over the last several years, observable current interest rates have been a more accurate predictor of future interest rates than economists' consensus projections. Schedule MPG-21 illustrates this point. On this exhibit, under Columns 1 and 2, I show the actual market yield at the time a projection is made for Treasury bond yields two years in the future. In Column 1, I show the actual Treasury yield. In Column 2, I show the projected yield two years out.

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

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

# DO YOU HAVE ANY FURTHER COMMENTS IN REGARD TO MR. HEVERT'S INTEREST RATE PROJECTIONS?

Yes. First, it is simply not known how much, if any, long-term interest rates will increase from current levels or whether they have already fully accounted for the termination of the Federal Reserve's Quantitative Easing program and the increase in the Federal Funds rate. Nevertheless, I do agree this Federal Reserve program introduced risk or uncertainty in long-term interest rate markets. Because of this uncertainty, caution should be taken in estimating GMO's current return on common equity in this case. However, as noted in the EEI quote above, the increase in short-term interest rates had no impact on longer-term yields that "remain at historically low levels and are influenced more by the level of inflation and economic strength than by the Fed's short-term rate policy. 61"

Second, I would note GMO is largely shielded from significant changes in capital market costs. To the extent interest rates ultimately increase above current levels, which may have an impact on required returns on common equity, at that point

<sup>&</sup>lt;sup>61</sup> EEI Q4 2015 Financial Update: "Stock Performance" at 6.

- 1 in time, GMO, like all other utilities, can file to change rates to restate its authorized
- 2 rate of return at the prevailing market levels.
- 3 Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
- 4 A Yes.

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

PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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Q

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 Bachelors of Science Degree in Electrical Engineering from
11		Southern Illinois University, and in 1986, I received a Masters 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	TIONS TO WH	ICH YOU	BELONG.		
3	Α	I earned th	ne 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	s which covere	ed the su	ubject areas of financ	cial accounting, econo	mics,
6		fixed incom	e 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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# **Rate of Return** (July 31, 2016)

<u>Line</u>	<u>Description</u>	Amount (1)	Weight (2)	<u>Cost</u> (3)	Weighted <u>Cost</u> (4)
1	Long-Term Debt	\$ 1,081,364	48.60%	5.09%	2.47%
2	Common Equity*	\$ 1,143,587	<u>51.40%</u>	9.25%	4.75%
3	Total	\$ 2,224,951	100.00%		7.23%

Source:

Schedule RBH-10.

<sup>\*</sup> Goodwill adjusted.

<sup>\*</sup> MPSC Docket No. ER2015-0175, Report and Order, January 9, 2013 at 26 and Great Plains Energy, December 2015 Investor Presentation at 18, provided as Attachment B to Mr. Hevert's direct testimony.

# **Rate of Return** (July 31, 2016)

<u>Line</u>	<u>Description</u>	Amount (1)	Weight (2)	Goodwill** (3)	Adjusted <u>Amount</u> (4)
1	Long-Term Debt	\$ 1,081,364	45.17%		\$ 1,081,364
2	Common Equity*	\$ 1,312,557	<u>54.83%</u>	\$ 168,970	\$1,143,587
3	Total	\$ 2,393,921	100.00%		\$ 2,224,951

Source:

Schedule RBH-10.

<sup>\*</sup> MPSC Docket No. ER2015-0175, Report and Order, January 9, 2013 at 26 and Great Plains Energy, December 2015 Investor Presentation at 18, provided as Attachment B to Mr. Hevert's direct testimony.

<sup>\*\*</sup> FERC Form 1, December 31, 2015 at 233.

# Ranking of Industrial Electric Rates for KCP&L Greater Missouri Operations and State Averages of Investor Owned Utilities 50 MW Demand and 90% Load Factor

<u>Rank</u>	State or Utility	2015 ¢/kWh
1 2 3 4 5 6 7 8 9	Wisconsin Michigan Minnesota North Dakota Indiana Kansas KCP&L Greater Missouri Operations South Dakota Missouri Iowa	7.28 6.92 6.73 6.59 6.54 6.54 6.47 6.28 5.87 4.80
<u>Rank</u>	State or Utility	2014 <u>¢/kWh</u>
1 2 3 4 5 6 7 8 9	Wisconsin Michigan Minnesota Indiana North Dakota Kansas KCP&L Greater Missouri Operations South Dakota Missouri Iowa	7.11 6.99 6.78 6.54 6.47 6.35 6.30 5.89 5.65 4.61
<u>Rank</u>	State or Utility	2013 <u>¢/kWh</u>
1 2 3 4 5 6 7 8 9	Michigan Wisconsin Kansas Minnesota Indiana North Dakota KCP&L Greater Missouri Operations South Dakota Missouri Iowa	7.15 7.03 6.86 6.48 6.18 6.02 <b>6.01</b> 5.70 5.33 4.64

# Ranking of Industrial Electric Rates for KCP&L Greater Missouri Operations and State Averages of Investor Owned Utilities 50 MW Demand and 90% Load Factor

<u>Rank</u>	State or Utility	2012 <u>¢/kWh</u>
1 2 3 4 5 6 7 8 9	Michigan Wisconsin Minnesota North Dakota KCP&L Greater Missouri Operations Indiana Kansas South Dakota Missouri Iowa	7.20 7.00 6.27 6.22 <b>6.03</b> 5.80 5.69 5.37 5.06 4.08
<u>Rank</u>	State or Utility	2011 <u>¢/kWh</u>
1 2 3 4 5 6 7 8 9	Wisconsin Michigan Minnesota Indiana North Dakota Kansas KCP&L Greater Missouri Operations South Dakota Missouri Iowa	6.85 6.82 6.33 6.04 5.90 5.41 <b>5.34</b> 5.16 4.91 4.55
<u>Rank</u>	State or Utility	2010 <u>¢/kWh</u>
1 2 3 4 5 6 7 8 9	KCP&L Greater Missouri Operations Michigan Wisconsin Minnesota Indiana North Dakota South Dakota Kansas Missouri Iowa	6.53 6.30 6.29 6.13 5.58 5.51 5.17 5.06 4.55 3.67

# Ranking of Industrial Electric Rates for KCP&L Greater Missouri Operations and State Averages of Investor Owned Utilities 50 MW Demand and 90% Load Factor

<u>Rank</u>	State or Utility	2009 <u>¢/kWh</u>
1	Michigan	6.47
2	Wisconsin	6.22
3	Minnesota	5.74
4	Indiana	5.64
5	<b>KCP&amp;L Greater Missouri Operations</b>	5.57
6	North Dakota	5.52
7	South Dakota	4.90
8	lowa	4.50
9	Kansas	4.43
10	Missouri	4.08

#### Source:

This report was prepared by Brubaker & Associates, Inc. using Edison Electric Institute Typical Bills and Average Rates Reports.

#### **Valuation Metrics**

		Price to Earnings (P/E) Ratio <sup>1</sup>															
		15-Year															
Line	Company	Average	2016 <sup>2</sup>	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002
	<u> </u>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1	ALLETE	16.97	18.70	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	15.37	20.80	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.	15.21	19.80	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	13.65	17.80	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	Avista Corp.	17.72	20.50	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
6	Black Hills	16.46	23.50	16.14	19.03	18.24	17.13	31.13	18.10	9.93	0.00	15.02	15.77	17.27	17.13	15.95	12.52
7	CenterPoint Energy	14.21	19.30	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
8	CMS Energy Corp.	16.37	21.30	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
9	Consol. Edison	14.95	19.20	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
10	Dominion Resources	17.69	20.10	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
11	DTE Energy	15.12	19.50	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
12	Duke Energy	13.52	18.00	18.22	17.91	17.45	17.46	13.76	12.69	13.32	17.28	16.13	0.00	0.00	N/A	N/A	N/A
13	Edison Int'l	13.68	17.70	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
14	El Paso Electric	17.13	23.70	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
15	Empire District Electric	18.19	24.10	18.71	16.21	15.00	15.76	15.76	16.75	14.34	17.26	21.70	15.92	24.50	24.81	15.83	16.18
16	Entergy Corp.	13.64	15.40	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	17.50	19.50	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.	14.36	17.20	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.	17.48	13.00	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	Great Plains Energy	15.52	18.00	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
21	Hawaiian Elec.	18.36	21.90	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
22	IDACORP, Inc.	15.59	18.80	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
23	ITC Holdings	18.68	23.90	22.84	23.75	20.38	20.71	21.44	19.95	17.06	23.21	27.59	32.94	26.37	0.00	0.00	0.00
24	MGE Energy	17.38	24.10	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.	15.39	19.80	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	17.01	21.20	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	14.67	17.80	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.	24.42	19.70	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.	15.57	21.10	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	0.00
30	Pinnacle West Capital	15.28	18.60	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	15.35	20.40	0.00	18.68	16.13	14.97	14.53	14.05	18.09	0.00	35.65	15.57	17.38	15.02	14.73	15.08
32	Portland General	14.38	18.30	17.71	15.32	16.88	13.98	12.37	12.00	14.40	16.30	11.94	23.35	0.00	N/A	N/A	N/A
33	PPL Corp.	14.30	16.40	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	13.17	15.90	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.	14.00	17.90	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	13.73	20.40	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.	15.70	17.90	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 39	TECO Energy	16.86	24.10	21.37 17.92	18.81	18.88 20.66	15.49	14.43	14.58	12.63	21.22 16.79	13.35 15.33	13.79	17.09	19.30 17.57	NMF	10.97
	Vectren Corp.	16.70	20.40		19.98		15.02	15.83	15.10	12.89			18.92	15.11		14.80	14.16
40	Westar Energy	15.16	23.20	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	WEC Energy Group	15.73	21.00	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
42	Xcel Energy Inc.	16.55	18.80	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
43	Average	15.89	19.73	17.27	17.38	16.42	15.70	15.36	14.39	13.57	14.78	17.88	16.37	16.17	16.42	13.38	13.50
44	Median	15.35	19.60	17.82	16.54	16.27	15.11	14.40	12.95	12.82	14.21	16.41	15.82	15.99	15.49	13.60	13.28

Sources

<sup>&</sup>lt;sup>1</sup> The Value Line Investment Survey Investment Analyzer Software, downloaded on June 28, 2016.

<sup>&</sup>lt;sup>2</sup> The Value Line Investment Survey, April 29, May 20, and June 17, 2016.

#### **Valuation Metrics**

		Market Price to Cash Flow (MP/CF) Ratio <sup>1</sup>															
		15-Year															
<u>Line</u>	Company	<u>Average</u>	2016 2/a	2015	2014	2013	2012	<u>2011</u>	2010	2009	2008	2007	2006	2005	2004	2003	2002
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
45	ALLETE	9.21	7.96	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
46	Alliant Energy	7.04	9.34	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
47	Ameren Corp.	6.71	7.12	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
48	American Electric Power	5.97	7.65	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
49	Avista Corp.	6.32	7.97	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
50	Black Hills	7.32	7.72	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
51	CenterPoint Energy	4.66	5.50	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
52	CMS Energy Corp.	5.18	8.05	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
53	Consol. Edison	8.04	9.14	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
54	Dominion Resources	9.14	11.08	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
55	DTE Energy	5.84	8.40	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
56	Duke Energy	7.42	7.70	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
57	Edison Int'l	5.13	6.27	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
58	El Paso Electric	5.51	7.22	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
59	Empire District Electric	7.69	8.35	7.27	7.29	7.07	6.97	6.43	6.88	6.23	6.94	8.78	8.17	9.20	9.60	8.22	7.93
60	Entergy Corp.	5.86	4.42	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
61	Eversource Energy	6.28	10.80	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
62	Exelon Corp.	6.28	4.29	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
63	FirstEnergy Corp.	6.27	4.69	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
64	Great Plains Energy	6.24	6.58	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
65	Hawaiian Elec.	7.95	9.03	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
66	IDACORP, Inc.	7.60	10.22	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
67	ITC Holdings	10.91	13.92	14.06	15.25	13.43	13.23	13.65	12.36	10.17	12.37	14.08	17.53	13.67	0.00	0.00	0.00
68	MGE Energy	10.34	14.25	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
69	NextEra Energy, Inc.	7.00	8.46	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
70	NorthWestern Corp	7.48	9.18	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
71	OGE Energy	7.41	8.19	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
72	Otter Tail Corp.	8.90	8.38	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
73	PG&E Corp.	6.13	6.19	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
74	Pinnacle West Capital	5.78	7.40	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
75	PNM Resources	6.93	8.22	10.95	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
76	Portland General	5.39	6.48	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
77	PPL Corp.	7.36	9.22	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
78	Public Serv. Enterprise	7.12	7.10	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
79	SCANA Corp.	7.03	9.76	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
80	Sempra Energy	7.30	9.50	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
81	Southern Co.	8.26	9.06	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
82	TECO Energy	7.11	10.25	8.76	7.56	7.16	6.55	6.62	6.37	5.38	8.12	6.75	6.42	7.21	6.41	6.39	6.68
83	Vectren Corp.	6.83	8.14	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
84	Westar Energy	6.62	10.45	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
85	WEC Energy Group	8.02	10.43	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
86	Xcel Energy Inc.	6.20	7.64	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
00	Acer Ellergy Ille.	0.20	7.04	1.02	7.31	7.00	0.00	0.47	0.20	J.43	5.71	0.51	0.04	5.02	0.01	4.21	5.40
87	Average	7.03	8.37	8.23	7.97	7.51	7.09	6.66	6.15	5.68	7.10	7.84	7.36	7.34	6.66	5.64	5.77
88	Median	6.84	8.21	7.95	7.53	7.11	6.85	6.42	5.91	5.37	7.09	7.76	7.37	7.14	6.70	5.66	5.57

Sources

Note

<sup>&</sup>lt;sup>1</sup> The Value Line Investment Survey Investment Analyzer Software, downloaded on June 28, 2016.

<sup>&</sup>lt;sup>2</sup> The Value Line Investment Survey, April 29, May 20, and June 17, 2016.

<sup>&</sup>lt;sup>a</sup> Based on the average of the high and low price for 2016 and the projected 2016 cash flow per share, published in The Value Line Investment Survey, April 29, May 20, and June 17, 2016.

#### **Valuation Metrics**

		Market Price to Book Value (MP/BV) Ratio 1												
		12-Year						a		· raido (iiii	, <b>2</b> , , , , , , , , , , , , , , , , , , ,			
Line	Company	Average	2016 2/a	2015	2014	2013	2012	<u>2011</u>	2010	2009	2008	2007	2006	2005
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
89	ALLETE	1.55	1.41	1.37	1.42	1.51	1.34	1.35	1.28	1.15	1.55	1.89	2.09	2.22
90	Alliant Energy	1.55	1.91	1.86	1.86	1.70	1.57	1.46	1.31	1.04	1.33	1.67	1.52	1.33
91	Ameren Corp.	1.30	1.57	1.46	1.45	1.29	1.18	0.90	0.83	0.78	1.25	1.60	1.62	1.68
92	American Electric Power	1.45	1.64	1.55	1.54	1.40	1.31	1.23	1.23	1.08	1.48	1.85	1.56	1.57
93	Avista Corp.	1.22	1.49	1.36	1.33	1.25	1.21	1.19	1.07	0.94	1.11	1.29	1.30	1.13
94	Black Hills	1.41	1.73	1.59	1.79	1.62	1.21	1.14	1.07	0.83	1.22	1.57	1.47	1.63
95	CenterPoint Energy	2.37	2.41	2.43	2.27	2.30	1.99	1.87	1.96	1.77	2.49	3.13	2.75	3.06
96	CMS Energy Corp.	1.77	2.59	2.43	2.26	2.09	1.91	1.66	1.48	1.10	1.23	1.82	1.42	1.32
97	Consol. Edison	1.37	1.51	1.42	1.34	1.38	1.47	1.38	1.22	1.08	1.17	1.47	1.47	1.52
98	Dominion Resources	2.62	2.94	3.34	3.55	2.97	2.84	2.37	2.01	1.80	2.42	2.69	2.07	2.50
99	DTE Energy	1.35	1.68	1.65	1.62	1.51	1.35	1.20	1.16	0.89	1.10	1.35	1.29	1.39
100	Duke Energy	1.04	1.28	1.29	1.28	1.19	1.12	1.11	1.00	0.91	1.06	1.15	0.00	N/A
101	Edison Int'l	1.58	1.78	1.76	1.68	1.57	1.53	1.24	1.07	1.04	1.56	2.05	1.80	1.93
102	El Paso Electric	1.50	1.62	1.48	1.52	1.49	1.59	1.64	1.17	0.98	1.33	1.69	1.71	1.76
103	Empire District Electric	1.34	1.62	1.32	1.39	1.27	1.23	1.25	1.24	1.07	1.30	1.47	1.45	1.49
104	Entergy Corp.	1.69	1.36	1.40	1.33	1.21	1.31	1.35	1.62	1.66	2.44	2.65	1.89	2.01
105	Eversource Energy	1.37	1.61	1.53	1.47	1.38	1.28	1.50	1.31	1.12	1.31	1.60	1.22	1.05
106	Exelon Corp.	2.45	1.08	1.14	1.28	1.17	1.46	1.95	2.07	2.57	4.39	4.79	3.89	3.60
107	FirstEnergy Corp.	1.56	1.10	1.16	1.15	1.28	1.44	1.33	1.36	1.54	2.52	2.23	1.92	1.64
108	Great Plains Energy	1.20	1.21	1.12	1.11	1.02	0.96	0.93	0.87	0.80	1.11	1.66	1.77	1.86
109	Hawaiian Elec.	1.59	1.65	1.71	1.49	1.54	1.62	1.54	1.44	1.16	1.61	1.57	2.01	1.78
110	IDACORP, Inc.	1.28	1.64	1.54	1.45	1.33	1.19	1.17	1.13	0.92	1.09	1.26	1.37	1.22
111	ITC Holdings	2.95	3.34	3.18	3.40	2.93	2.75	2.89	2.57	2.18	2.72	3.53	2.42	3.52
12	MGE Energy	1.89	2.32	2.10	2.10	2.06	1.92	1.75	1.65	1.54	1.62	1.75	1.83	2.09
13	NextEra Energy, Inc.	1.91	2.15	2.09	2.15	1.93	1.74	1.55	1.49	1.70	2.06	2.34	1.80	1.93
14	NorthWestern Corp	1.43	1.68	1.60	1.54	1.56	1.42	1.35	1.22	1.07	1.15	1.48	1.65	1.42
115	OGE Energy	1.83	1.59	1.79	2.22	2.24	1.94	1.90	1.70	1.37	1.52	1.98	1.91	1.80
16	Otter Tail Corp.	1.64	1.67	1.78	1.90	1.96	1.58	1.35	1.19	1.18	1.71	1.93	1.76	1.74
117	PG&E Corp.	1.57	1.55	1.57	1.39	1.38	1.41	1.46	1.56	1.41	1.50	1.94	1.83	1.84
118	Pinnacle West Capital	1.29	1.62	1.52	1.44	1.47	1.39	1.25	1.14	0.95	1.00	1.26	1.26	1.25
119	PNM Resources	1.05	1.39	1.33	1.21	1.09	0.98	0.80	0.69	0.56	0.66	1.23	1.21	1.45
120	Portland General	1.11	1.44	1.42	1.37	1.28	1.14	1.09	0.94	0.92	1.05	1.32	1.36	0.00
121	PPL Corp.	2.13	2.28	2.24	1.64	1.55	1.58	1.47	1.61	2.10	3.19	3.05	2.43	2.50
122	Public Serv. Enterprise	1.93	1.57	1.58	1.57	1.44	1.46	1.59	1.67	1.78	2.58	2.99	2.46	2.45
123	SCANA Corp.	1.49	1.65	1.47	1.48	1.48	1.48	1.36	1.33	1.20	1.45	1.62	1.64	1.72
124	Sempra Energy	1.71	1.96	2.17	2.20	1.84	1.53	1.28	1.35	1.32	1.60	1.87	1.70	1.73
125	Southern Co.	2.06	2.06	1.99	2.02	2.04	2.15	1.99	1.83	1.73	2.12	2.24	2.23	2.35
126	TECO Energy	1.81	2.46	2.02	1.63	1.62	1.67	1.75	1.63	1.30	1.73	1.77	1.96	2.23
127	Vectren Corp.	1.74	2.04	2.11	2.08	1.82	1.57	1.53	1.41	1.34	1.64	1.74	1.77	1.82
128	Westar Energy	1.31	1.82	1.49	1.44	1.33	1.26	1.20	1.10	0.93	1.10	1.36	1.30	1.41
129	WEC Energy Group	1.83	1.98	1.82	2.34	2.21	2.05	1.81	1.65	1.40	1.57	1.77	1.71	1.62
130	Xcel Energy Inc.	1.46	1.78	1.66	1.55	1.50	1.51	1.41	1.32	1.19	1.30	1.53	1.40	1.38
131	Average	1.64	1.79	1.73	1.72	1.62	1.54	1.47	1.38	1.27	1.65	1.93	1.74	1.80
132	Median	1.52	1.65	1.59	1.54	1.50	1.47	1.37	1.31	1.15	1.49	1.74	1.71	1.73

Sources

Note

<sup>&</sup>lt;sup>1</sup> The Value Line Investment Survey Investment Analyzer Software, downloaded on June 28, 2016.

<sup>&</sup>lt;sup>2</sup> The Value Line Investment Survey, April 29, May 20, and June 17, 2016.

<sup>&</sup>lt;sup>a</sup> Based on the average of the high and low price for 2016 and the projected 2016 cash flow per share, published in The Value Line Investment Survey, April 29, May 20, and June 17, 2016.

#### **Proxy Group**

		Credit I	Ratings <sup>1</sup>	<b>Common Equity Ratios</b>			
<u>Line</u>	Company	S&P	Moody's	SNL <sup>1</sup>	Value Line <sup>2</sup>		
	, <del></del>	(1)	(2)	(3)	(4)		
1	ALLETE, Inc.	BBB+	А3	53.3%	53.7%		
2	Alliant Energy Corporation	A-	A3	46.5%	51.4%		
3	Ameren Corporation	BBB+	Baa1	47.4%	49.7%		
4	American Electric Power Company, Inc.	BBB	Baa1	46.3%	50.2%		
5	Avista Corporation	BBB	Baa1	46.9%	50.0%		
6	CMS Energy Corporation	BBB+	Baa2	29.3%	31.4%		
7	DTE Energy Company	BBB+	A3	47.3%	49.8%		
8	IDACORP, Inc.	BBB	Baa1	54.0%	54.4%		
9	NorthWestern Corporation	BBB	A3	44.0%	46.9%		
10	OGE Energy Corp.	A-	A3	54.8%	55.7%		
11	Pinnacle West Capital Corporation	A-	A3	53.7%	57.0%		
12	PNM Resources, Inc.	BBB+	Baa3	40.6%	45.6%		
13	Portland General Electric Company	BBB	A3	50.7%	52.2%		
14	SCANA Corporation	BBB+	Baa3	45.5%	48.1%		
15	Xcel Energy Inc.	A-	A3	43.3%	45.9%		
16	Average	BBB+	Baa1	46.9%	49.5%		
17	KCP&L Greater Missouri Operations	BBB+1	Baa2 <sup>1</sup>		51.4% <sup>3</sup>		

#### Sources:

<sup>&</sup>lt;sup>1</sup> SNL Financial, Downloaded on June 10, 2016.

<sup>&</sup>lt;sup>2</sup> The Value Line Investment Survey, April 29, May 20, and June 17, 2016.

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

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

		Za	cks	18	NL	Reu	iters	Average of
		Estimated	Number of	Estimated	Number of	Estimated	Number of	Growth
<u>Line</u>	<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.	4.50%	N/A	4.50%	2	3.00%	1	4.00%
2	Alliant Energy Corporation	6.10%	N/A	7.20%	2	6.60%	2	6.63%
3	Ameren Corporation	6.10%	N/A	7.00%	2	5.20%	1	6.10%
4	American Electric Power Company, Inc.	4.90%	N/A	3.50%	4	4.10%	3	4.17%
5	Avista Corporation	5.00%	N/A	5.00%	1	NA	NA	5.00%
6	CMS Energy Corporation	6.40%	N/A	6.30%	2	7.24%	3	6.65%
7	DTE Energy Company	5.80%	N/A	5.20%	4	5.35%	4	5.45%
8	IDACORP, Inc.	4.00%	N/A	N/A	N/A	NA	NA	4.00%
9	NorthWestern Corporation	5.00%	N/A	5.00%	3	5.00%	2	5.00%
10	OGE Energy Corp.	5.20%	N/A	5.30%	2	4.30%	2	4.93%
11	Pinnacle West Capital Corporation	4.00%	N/A	4.20%	3	3.73%	3	3.98%
12	PNM Resources, Inc.	7.60%	N/A	7.00%	2	8.76%	2	7.79%
13	Portland General Electric Company	6.40%	N/A	6.20%	4	6.57%	4	6.39%
14	SCANA Corporation	5.30%	N/A	5.60%	2	5.40%	2	5.43%
15	Xcel Energy Inc.	5.30%	N/A	5.00%	4	5.27%	3	5.19%
16	Average	5.44%	N/A	5.50%	3	5.42%	2	5.38%

Sources:

<sup>&</sup>lt;sup>1</sup> Zacks Elite, http://www.zackselite.com/, downloaded on June 10, 2016.

<sup>&</sup>lt;sup>2</sup> SNL Interactive, http://www.snl.com/, downloaded on June 10, 2016.

<sup>&</sup>lt;sup>3</sup> Reuters, http://www.reuters.com/, downloaded on June 10, 2016.

# 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.	\$56.58	4.00%	\$2.08	3.82%	7.82%
2	Alliant Energy Corporation	\$36.46	6.63%	\$1.18	3.45%	10.08%
3	Ameren Corporation	\$48.54	6.10%	\$1.70	3.72%	9.82%
4	American Electric Power Company, Inc.	\$64.91	4.17%	\$2.24	3.59%	7.76%
5	Avista Corporation	\$40.35	5.00%	\$1.37	3.57%	8.57%
6	CMS Energy Corporation	\$41.45	6.65%	\$1.24	3.19%	9.84%
7	DTE Energy Company	\$89.58	5.45%	\$2.92	3.44%	8.89%
8	IDACORP, Inc.	\$73.17	4.00%	\$2.04	2.90%	6.90%
9	NorthWestern Corporation	\$59.04	5.00%	\$2.00	3.56%	8.56%
10	OGE Energy Corp.	\$29.21	4.93%	\$1.10	3.95%	8.89%
11	Pinnacle West Capital Corporation	\$73.43	3.98%	\$2.50	3.54%	7.52%
12	PNM Resources, Inc.	\$32.76	7.79%	\$0.88	2.90%	10.68%
13	Portland General Electric Company	\$40.02	6.39%	\$1.20	3.19%	9.58%
14	SCANA Corporation	\$69.15	5.43%	\$2.30	3.51%	8.94%
15	Xcel Energy Inc.	\$40.92	5.19%	\$1.36	3.50%	8.69%
16	Average	\$53.04	5.38%	\$1.74	3.45%	8.83%
17	Median					8.89%

Sources:

<sup>&</sup>lt;sup>1</sup> SNL Financial, Downloaded on June 13, 2016.

<sup>&</sup>lt;sup>2</sup> Schedule MPG-5.

<sup>&</sup>lt;sup>3</sup> The Value Line Investment Survey, April 29, May 20, and June 17, 2016.

## **Payout Ratios**

		Dividend	s Per Share	Earnings	Per Share	Payout Ratio	
<u>Line</u>	<u>Company</u>	2015	Projected	<u>2015</u>	Projected	<u>2015</u>	Projected
		(1)	(2)	(3)	(4)	(5)	(6)
		•		•			
1	ALLETE, Inc.	\$2.02	\$2.40	\$3.38	\$3.75	59.76%	64.00%
2	Alliant Energy Corporation	\$1.10	\$1.50	\$1.69	\$2.45	65.09%	61.22%
3	Ameren Corporation	\$1.66	\$2.05	\$2.38	\$3.25	69.75%	63.08%
4	American Electric Power Company, Inc.	\$2.15	\$2.75	\$3.59	\$4.25	59.89%	64.71%
5	Avista Corporation	\$1.32	\$1.60	\$1.89	\$2.50	69.84%	64.00%
6	CMS Energy Corporation	\$1.16	\$1.60	\$1.89	\$2.50	61.38%	64.00%
7	DTE Energy Company	\$2.84	\$3.70	\$4.45	\$6.00	63.82%	61.67%
8	IDACORP, Inc.	\$1.92	\$2.70	\$3.87	\$4.50	49.61%	60.00%
9	NorthWestern Corporation	\$1.92	\$2.32	\$2.90	\$4.00	66.21%	58.00%
10	OGE Energy Corp.	\$1.05	\$1.65	\$1.69	\$2.25	62.13%	73.33%
11	Pinnacle West Capital Corporation	\$2.44	\$3.10	\$3.92	\$4.75	62.24%	65.26%
12	PNM Resources, Inc.	\$0.80	\$1.30	\$1.64	\$2.35	48.78%	55.32%
13	Portland General Electric Company	\$1.18	\$1.60	\$2.04	\$2.75	57.84%	58.18%
14	SCANA Corporation	\$2.18	\$2.60	\$3.81	\$4.75	57.22%	54.74%
15	Xcel Energy Inc.	\$1.28	\$1.70	\$2.10	\$2.75	60.95%	61.82%
16	Average	\$1.67	\$2.17	\$2.75	\$3.52	60.97%	61.96%

Source:

The Value Line Investment Survey, April 29, May 20, and June 17, 2016.

#### **Sustainable Growth Rate**

		3 to 5 Year Projections Susta							Sustainable			
		Dividends	Earnings	Book Value	<b>Book Value</b>		Adjustment	Adjusted	Payout	Retention	Internal	Growth
Line	<u>Company</u>	Per Share	Per Share	Per Share	<u>Growth</u>	ROE	<u>Factor</u>	ROE	Ratio	Rate	<b>Growth Rate</b>	<u>Rate</u>
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	ALLETE, Inc.	\$2.40	\$3.75	\$43.75	3.37%	8.57%	1.02	8.71%	64.00%	36.00%	3.14%	3.45%
2	Alliant Energy Corporation	\$1.50	\$2.45	\$20.00	4.04%	12.25%	1.02	12.49%	61.22%	38.78%	4.84%	5.17%
3	Ameren Corporation	\$2.05	\$3.25	\$33.75	3.35%	9.63%	1.02	9.79%	63.08%	36.92%	3.61%	3.61%
4	American Electric Power Company, Inc.	\$2.75	\$4.25	\$44.00	3.84%	9.66%	1.02	9.84%	64.71%	35.29%	3.47%	3.76%
5	Avista Corporation	\$1.60	\$2.50	\$28.50	3.05%	8.77%	1.01	8.90%	64.00%	36.00%	3.21%	3.95%
6	CMS Energy Corporation	\$1.60	\$2.50	\$19.25	6.26%	12.99%	1.03	13.38%	64.00%	36.00%	4.82%	6.29%
7	DTE Energy Company	\$3.70	\$6.00	\$60.75	4.44%	9.88%	1.02	10.09%	61.67%	38.33%	3.87%	4.38%
8	IDACORP, Inc.	\$2.70	\$4.50	\$49.75	4.01%	9.05%	1.02	9.22%	60.00%	40.00%	3.69%	3.77%
9	NorthWestern Corporation	\$2.32	\$4.00	\$39.50	3.52%	10.13%	1.02	10.30%	58.00%	42.00%	4.33%	4.75%
10	OGE Energy Corp.	\$1.65	\$2.25	\$19.75	3.46%	11.39%	1.02	11.59%	73.33%	26.67%	3.09%	3.22%
11	Pinnacle West Capital Corporation	\$3.10	\$4.75	\$48.75	3.37%	9.74%	1.02	9.91%	65.26%	34.74%	3.44%	3.79%
12	PNM Resources, Inc.	\$1.30	\$2.35	\$25.50	4.20%	9.22%	1.02	9.41%	55.32%	44.68%	4.20%	4.25%
13	Portland General Electric Company	\$1.60	\$2.75	\$31.00	4.04%	8.87%	1.02	9.05%	58.18%	41.82%	3.78%	3.78%
14	SCANA Corporation	\$2.60	\$4.75	\$47.50	4.51%	10.00%	1.02	10.22%	54.74%	45.26%	4.63%	5.42%
15	Xcel Energy Inc.	\$1.70	\$2.75	\$25.50	4.07%	10.78%	1.02	11.00%	61.82%	38.18%	4.20%	4.22%
16	Average	\$2.17	\$3.52	\$35.82	3.97%	10.06%	1.02	10.26%	61.96%	38.04%	3.89%	4.26%

Sources and Notes:

Cols. (1), (2) and (3): The Value Line Investment Survey, April 29, May 20, and June 17, 2016.

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

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

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

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

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

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

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

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

### **Sustainable Growth Rate**

<u>Line</u>	<u>Company</u>	13-Week Average <u>Stock Price<sup>1</sup></u> (1)	2015 Book Value Per Share <sup>2</sup> (2)	Market to Book <u>Ratio</u> (3)		n Shares g (in Millions) <sup>2</sup> 3-5 Years (5)	Growth (6)	S Factor <sup>3</sup> (7)	<u>V Factor<sup>4</sup></u> (8)	<u>S * V</u> (9)
1	ALLETE, Inc.	\$56.58	\$37.07	1.53	49.10	50.60	0.60%	0.92%	34.49%	0.32%
2	Alliant Energy Corporation	\$36.46	\$16.41	2.22	226.92	230.00	0.27%	0.60%	54.99%	0.33%
3	Ameren Corporation	\$48.54	\$28.63	1.70	242.63	242.63	0.00%	0.00%	41.02%	0.00%
4	American Electric Power Company, Inc.	\$64.91	\$36.44	1.78	491.05	500.00	0.36%	0.64%	43.86%	0.28%
5	Avista Corporation	\$40.35	\$24.53	1.64	62.31	66.00	1.16%	1.90%	39.20%	0.75%
6	CMS Energy Corporation	\$41.45	\$14.21	2.92	277.16	288.00	0.77%	2.25%	65.72%	1.48%
7	DTE Energy Company	\$89.58	\$48.88	1.83	179.47	185.00	0.61%	1.12%	45.43%	0.51%
8	IDACORP, Inc.	\$73.17	\$40.88	1.79	50.34	50.60	0.10%	0.18%	44.13%	0.08%
9	NorthWestern Corporation	\$59.04	\$33.22	1.78	48.17	49.50	0.55%	0.97%	43.73%	0.42%
10	OGE Energy Corp.	\$29.21	\$16.66	1.75	199.70	201.50	0.18%	0.31%	42.96%	0.14%
11	Pinnacle West Capital Corporation	\$73.43	\$41.30	1.78	110.98	113.50	0.45%	0.80%	43.76%	0.35%
12	PNM Resources, Inc.	\$32.76	\$20.76	1.58	79.65	80.00	0.09%	0.14%	36.63%	0.05%
13	Portland General Electric Company	\$40.02	\$25.43	1.57	89.79	89.80	0.00%	0.00%	36.45%	0.00%
14	SCANA Corporation	\$69.15	\$38.09	1.82	142.90	150.00	0.97%	1.77%	44.92%	0.79%
15	Xcel Energy Inc.	\$40.92	\$20.89	1.96	507.54	508.00	0.02%	0.04%	48.95%	0.02%
16	Average	\$53.04	\$29.56	1.84	183.85	187.01	0.41%	0.78%	44.42%	0.37%

Sources and Notes:

<sup>&</sup>lt;sup>1</sup> SNL Financial, Downloaded on June 13, 2016.

<sup>&</sup>lt;sup>2</sup> The Value Line Investment Survey, April 29, May 20, and June 17, 2016.

<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.	\$56.58	3.45%	\$2.08	3.80%	7.26%
2	Alliant Energy Corporation	\$36.46	5.17%	\$1.18	3.40%	8.58%
3	Ameren Corporation	\$48.54	3.61%	\$1.70	3.63%	7.24%
4	American Electric Power Company, Inc.	\$64.91	3.76%	\$2.24	3.58%	7.34%
5	Avista Corporation	\$40.35	3.95%	\$1.37	3.53%	7.48%
6	CMS Energy Corporation	\$41.45	6.29%	\$1.24	3.18%	9.47%
7	DTE Energy Company	\$89.58	4.38%	\$2.92	3.40%	7.78%
8	IDACORP, Inc.	\$73.17	3.77%	\$2.04	2.89%	6.66%
9	NorthWestern Corporation	\$59.04	4.75%	\$2.00	3.55%	8.30%
10	OGE Energy Corp.	\$29.21	3.22%	\$1.10	3.89%	7.11%
11	Pinnacle West Capital Corporation	\$73.43	3.79%	\$2.50	3.53%	7.32%
12	PNM Resources, Inc.	\$32.76	4.25%	\$0.88	2.80%	7.05%
13	Portland General Electric Company	\$40.02	3.78%	\$1.20	3.11%	6.90%
14	SCANA Corporation	\$69.15	5.42%	\$2.30	3.51%	8.93%
15	Xcel Energy Inc.	\$40.92	4.22%	\$1.36	3.46%	7.68%
16 17	Average Median	\$53.04	4.26%	\$1.74	3.42%	7.67% 7.34%

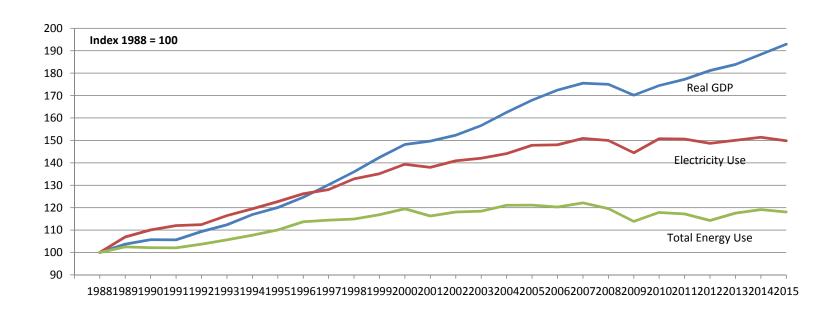
Sources:

<sup>&</sup>lt;sup>1</sup> SNL Financial, Downloaded on June 13, 2016.

<sup>&</sup>lt;sup>2</sup> Schedule MPG-8, page 1.

<sup>&</sup>lt;sup>3</sup> The Value Line Investment Survey, April 29, May 20, and June 17, 2016.

# 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	Company	Stock Price1	Dividend <sup>2</sup>	Growth <sup>3</sup>	Year 6	Year 7	Year 8	Year 9	<u>Year 10</u>	Growth <sup>4</sup>	Growth DCF
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	ALLETE, Inc.	\$56.58	\$2.08	4.00%	4.06%	4.12%	4.18%	4.23%	4.29%	4.35%	8.10%
2	Alliant Energy Corporation	\$36.46	\$1.18	6.63%	6.25%	5.87%	5.49%	5.11%	4.73%	4.35%	8.25%
3	Ameren Corporation	\$48.54	\$1.70	6.10%	5.81%	5.52%	5.23%	4.93%	4.64%	4.35%	8.43%
4	American Electric Power Company, Inc.	\$64.91	\$2.24	4.17%	4.20%	4.23%	4.26%	4.29%	4.32%	4.35%	7.90%
5	Avista Corporation	\$40.35	\$1.37	5.00%	4.89%	4.78%	4.68%	4.57%	4.46%	4.35%	8.04%
6	CMS Energy Corporation	\$41.45	\$1.24	6.65%	6.26%	5.88%	5.50%	5.12%	4.73%	4.35%	7.96%
7	DTE Energy Company	\$89.58	\$2.92	5.45%	5.27%	5.08%	4.90%	4.72%	4.53%	4.35%	8.00%
8	IDACORP, Inc.	\$73.17	\$2.04	4.00%	4.06%	4.12%	4.18%	4.23%	4.29%	4.35%	7.18%
9	NorthWestern Corporation	\$59.04	\$2.00	5.00%	4.89%	4.78%	4.68%	4.57%	4.46%	4.35%	8.03%
10	OGE Energy Corp.	\$29.21	\$1.10	4.93%	4.84%	4.74%	4.64%	4.54%	4.45%	4.35%	8.43%
11	Pinnacle West Capital Corporation	\$73.43	\$2.50	3.98%	4.04%	4.10%	4.16%	4.23%	4.29%	4.35%	7.81%
12	PNM Resources, Inc.	\$32.76	\$0.88	7.79%	7.21%	6.64%	6.07%	5.50%	4.92%	4.35%	7.84%
13	Portland General Electric Company	\$40.02	\$1.20	6.39%	6.05%	5.71%	5.37%	5.03%	4.69%	4.35%	7.91%
14	SCANA Corporation	\$69.15	\$2.30	5.43%	5.25%	5.07%	4.89%	4.71%	4.53%	4.35%	8.07%
15	Xcel Energy Inc.	\$40.92	\$1.36	5.19%	5.05%	4.91%	4.77%	4.63%	4.49%	4.35%	8.01%
16	Average	\$53.04	\$1.74	5.38%	5.21%	5.04%	4.87%	4.69%	4.52%	4.35%	8.00%
17	Median										8.01%

Sources

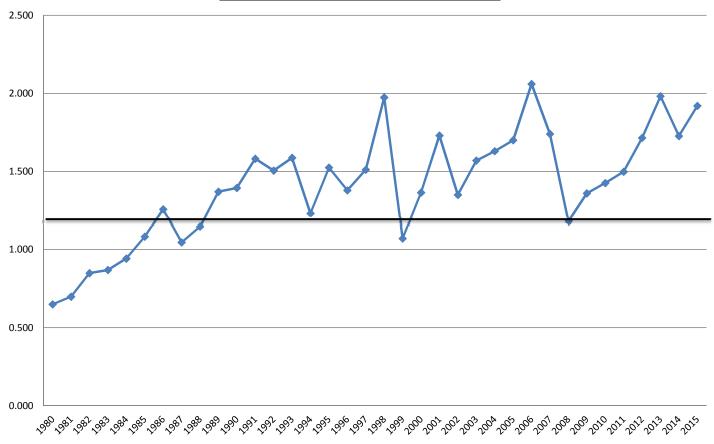
<sup>&</sup>lt;sup>1</sup> SNL Financial, Downloaded on June 13, 2016.

<sup>&</sup>lt;sup>2</sup> The Value Line Investment Survey, April 29, May 20, and June 17, 2016.

<sup>&</sup>lt;sup>3</sup> Schedule MPG-5.

<sup>&</sup>lt;sup>4</sup> Blue Chip Financial Forecasts, June 1, 2016 at 14.

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



Source:

1980 - 2000: Mergent Public Utility Manual.

2001 - 2015: AUS Utility Reports, various dates.

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

<u>Line</u>	<u>Year</u>	Authorized Electric <u>Returns<sup>1</sup></u> (1)	30 yr. Treasury <u>Bond Yield<sup>2</sup></u> (2)	Indicated Risk <u>Premium</u> (3)	Rolling 5 - Year <u>Average</u> (4)	Rolling 10 - Year <u>Average</u> (5)
1	1986	13.93%	7.80%	6.13%		
2	1987	12.99%	8.58%	4.41%		
3	1988	12.79%	8.96%	3.83%		
4	1989	12.97%	8.45%	4.52%		
5	1990	12.70%	8.61%	4.09%	4.60%	
6	1991	12.55%	8.14%	4.41%	4.25%	
7	1992	12.09%	7.67%	4.42%	4.26%	
8	1993	11.41%	6.60%	4.81%	4.45%	
9	1994	11.34%	7.37%	3.97%	4.34%	
10	1995	11.55%	6.88%	4.67%	4.46%	4.53%
11	1996	11.39%	6.70%	4.69%	4.51%	4.38%
12	1997	11.40%	6.61%	4.79%	4.59%	4.42%
13	1998	11.66%	5.58%	6.08%	4.84%	4.65%
14	1999	10.77%	5.87%	4.90%	5.03%	4.68%
15	2000	11.43%	5.94%	5.49%	5.19%	4.82%
16	2001	11.09%	5.49%	5.60%	5.37%	4.94%
17	2002	11.16%	5.43%	5.73%	5.56%	5.07%
18	2003	10.97%	4.96%	6.01%	5.55%	5.19%
19	2004	10.75%	5.05%	5.70%	5.71%	5.37%
20	2005	10.54%	4.65%	5.89%	5.79%	5.49%
21	2006	10.36%	4.99%	5.37%	5.74%	5.56%
22	2007	10.36%	4.83%	5.53%	5.70%	5.63%
23	2008	10.46%	4.28%	6.18%	5.73%	5.64%
24	2009	10.48%	4.07%	6.41%	5.88%	5.79%
25	2010	10.24%	4.25%	5.99%	5.89%	5.84%
26	2011	10.07%	3.91%	6.16%	6.05%	5.90%
27	2012	10.01%	2.92%	7.09%	6.37%	6.03%
28	2013	9.79%	3.45%	6.34%	6.40%	6.07%
29	2014	9.76%	3.34%	6.42%	6.40%	6.14%
30	2015	9.58%	2.84%	6.74%	6.55%	6.22%
31	2016 <sup>3</sup>	9.68%	2.72%	6.96%	6.71%	6.38%
32	Average	11.17%	5.71%	5.46%	5.40%	5.40%
33	Minimum				4.25%	4.38%
34	Maximum				6.71%	6.38%

Sources:

<sup>&</sup>lt;sup>1</sup> Regulatory Research Associates, Inc., Regulatory Focus, Major Rate Case Decisions, multiple publication dates. In 2010 forward, the Virginia cases, which are subject to an adjustment for certain generation assets up to 200 basis points, are excluded.

<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> The data includes the period Jan - Mar 2016.

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

(1) (2) (3) (4)  1 1986 13.93% 9.58% 4.35% 2 1987 12.99% 10.10% 2.89%	(5)
2 1007 12 000/ 10 100/ 2 000/	
3 1988 12.79% 10.49% 2.30%	
4 1989 12.97% 9.77% 3.20%	
5 1990 12.70% 9.86% 2.84% 3.12%	
6 1991 12.55% 9.36% 3.19% 2.88%	
7 1992 12.09% 8.69% 3.40% 2.99%	
8 1993 11.41% 7.59% 3.82% 3.29%	
9 1994 11.34% 8.31% 3.03% 3.26%	
10 1995 11.55% 7.89% 3.66% 3.42%	3.27%
11 1996 11.39% 7.75% 3.64% 3.51%	3.20%
12 1997 11.40% 7.60% 3.80% 3.59%	3.29%
13 1998 11.66% 7.04% 4.62% 3.75%	3.52%
14    1999    10.77%    7.62%    3.15%    3.77%	3.52%
15 2000 11.43% 8.24% 3.19% 3.68%	3.55%
16 2001 11.09% 7.76% 3.33% 3.62%	3.56%
17 2002 11.16% 7.37% 3.79% 3.61%	3.60%
18 2003 10.97% 6.58% 4.39% 3.57%	3.66%
19 2004 10.75% 6.16% 4.59% 3.86%	3.81%
20 2005 10.54% 5.65% 4.89% 4.20%	3.94%
21 2006 10.36% 6.07% 4.29% 4.39%	4.00%
22 2007 10.36% 6.07% 4.29% 4.49%	4.05%
23 2008 10.46% 6.53% 3.93% 4.40%	3.98%
24 2009 10.48% 6.04% 4.44% 4.37%	4.11%
25 2010 10.24% 5.46% 4.78% 4.35%	4.27%
26 2011 10.07% 5.04% 5.03% 4.49%	4.44%
27 2012 10.01% 4.13% 5.88% 4.81%	4.65%
28 2013 9.79% 4.48% 5.31% 5.09%	4.74%
29 2014 9.76% 4.28% 5.48% 5.30%	4.83%
30 2015 9.58% 4.12% 5.46% 5.43%	4.89%
31 2016 <sup>3</sup> 9.68% 4.18% 5.50% 5.53%	5.01%
32 Average 11.17% 7.09% 4.08% 4.03%	4.00%
33 Minimum 2.88%	3.20%
34 <b>Maximum</b> 5.53%	5.01%

Sources:

<sup>&</sup>lt;sup>1</sup> Regulatory Research Associates, Inc., Regulatory Focus, Major Rate Case Decisions, multiple publication dates. In 2010 forward, the Virginia cases, which are subject to an adjustment for certain generation assets up to 200 basis points, are excluded.

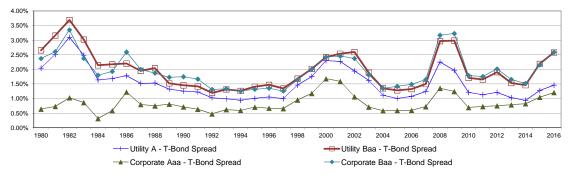
<sup>&</sup>lt;sup>2</sup> Mergent Public Utility Manual, Mergent Weekly News Reports, 2003. The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record. The utility yields from 2010-2015 were obtained from http://credittrends.moodys.com/.

<sup>&</sup>lt;sup>3</sup> The data includes the period Jan - Mar 2016.

#### **Bond Yield Spreads**

				Publ	ic Utility Bond	<u> </u>		Co	orporate Bond		Utility to	Corporate
		T-Bond			A-T-Bond	Baa-T-Bond			Aaa-T-Bond	Baa-T-Bond	Baa	A-Aaa
Line	<u>Year</u>	Yield <sup>1</sup>	<u>A<sup>2</sup></u>	Baa <sup>2</sup>	Spread	Spread	Aaa <sup>1</sup>	Baa <sup>1</sup>	Spread	Spread	Spread	Spread
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	1980	11.30%	13.34%	13.95%	2.04%	2.65%	11.94%	13.67%	0.64%	2.37%	0.28%	1.40%
2	1981	13.44%	15.95%	16.60%	2.51%	3.16%	14.17%	16.04%	0.73%	2.60%	0.56%	1.78%
3	1982	12.76%	15.86%	16.45%	3.10%	3.69%	13.79%	16.11%	1.03%	3.35%	0.34%	2.07%
4	1983	11.18%	13.66%	14.20%	2.48%	3.02%	12.04%	13.55%	0.86%	2.38%	0.65%	1.62%
5	1984	12.39%	14.03%	14.53%	1.64%	2.14%	12.71%	14.19%	0.32%	1.80%	0.34%	1.32%
6	1985	10.79%	12.47%	12.96%	1.68%	2.17%	11.37%	12.72%	0.58%	1.93%	0.24%	1.10%
7	1986	7.80%	9.58%	10.00%	1.78%	2.20%	9.02%	10.39%	1.22%	2.59%	-0.39%	0.56%
8	1987	8.58%	10.10%	10.53%	1.52%	1.95%	9.38%	10.58%	0.80%	2.00%	-0.05%	0.72%
9	1988	8.96%	10.49%	11.00%	1.53%	2.04%	9.71%	10.83%	0.75%	1.87%	0.17%	0.78%
10	1989	8.45%	9.77%	9.97%	1.32%	1.52%	9.26%	10.18%	0.81%	1.73%	-0.21%	0.51%
11	1990	8.61%	9.86%	10.06%	1.25%	1.45%	9.32%	10.36%	0.71%	1.75%	-0.29%	0.54%
12	1991	8.14%	9.36%	9.55%	1.22%	1.41%	8.77%	9.80%	0.63%	1.67%	-0.25%	0.59%
13	1992	7.67%	8.69%	8.86%	1.02%	1.19%	8.14%	8.98%	0.47%	1.31%	-0.12%	0.55%
14	1993	6.60%	7.59%	7.91%	0.99%	1.31%	7.22%	7.93%	0.62%	1.33%	-0.02%	0.37%
15	1994	7.37%	8.31%	8.63%	0.94%	1.26%	7.96%	8.62%	0.59%	1.25%	0.01%	0.35%
16	1995	6.88%	7.89%	8.29%	1.01%	1.41%	7.59%	8.20%	0.71%	1.32%	0.09%	0.30%
17	1996	6.70%	7.75%	8.17%	1.05%	1.47%	7.37%	8.05%	0.67%	1.35%	0.12%	0.38%
18	1997	6.61%	7.60%	7.95%	0.99%	1.34%	7.26%	7.86%	0.66%	1.26%	0.09%	0.34%
19	1998	5.58%	7.04%	7.26%	1.46%	1.68%	6.53%	7.22%	0.95%	1.64%	0.04%	0.51%
20	1999	5.87%	7.62%	7.88%	1.75%	2.01%	7.04%	7.87%	1.18%	2.01%	0.01%	0.58%
21	2000	5.94%	8.24%	8.36%	2.30%	2.42%	7.62%	8.36%	1.68%	2.42%	-0.01%	0.62%
22	2001	5.49%	7.76%	8.03%	2.27%	2.54%	7.08%	7.95%	1.59%	2.45%	0.08%	0.68%
23	2002	5.43%	7.37%	8.02%	1.94%	2.59%	6.49%	7.80%	1.06%	2.37%	0.22%	0.88%
24	2003	4.96%	6.58%	6.84%	1.62%	1.89%	5.67%	6.77%	0.71%	1.81%	0.08%	0.91%
25	2004	5.05%	6.16%	6.40%	1.11%	1.35%	5.63%	6.39%	0.58%	1.35%	0.00%	0.53%
26	2005	4.65%	5.65%	5.93%	1.00%	1.28%	5.24%	6.06%	0.59%	1.42%	-0.14%	0.41%
27	2006	4.99%	6.07%	6.32%	1.08%	1.32%	5.59%	6.48%	0.60%	1.49%	-0.16%	0.48%
28	2007	4.83%	6.07%	6.33%	1.24%	1.50%	5.56%	6.48%	0.72%	1.65%	-0.15%	0.52%
29	2008	4.28%	6.53%	7.25%	2.25%	2.97%	5.63%	7.45%	1.35%	3.17%	-0.20%	0.90%
30	2009	4.07%	6.04%	7.06%	1.97%	2.99%	5.31%	7.30%	1.24%	3.23%	-0.24%	0.72%
31	2010	4.25%	5.46%	5.96%	1.21%	1.71%	4.94%	6.04%	0.69%	1.79%	-0.08%	0.52%
32	2011	3.91%	5.04%	5.56%	1.13%	1.65%	4.64%	5.66%	0.73%	1.75%	-0.10%	0.40%
33	2012	2.92%	4.13%	4.83%	1.21%	1.91%	3.67%	4.94%	0.75%	2.01%	-0.11%	0.46%
34	2013	3.45%	4.48%	4.98%	1.03%	1.53%	4.24%	5.10%	0.79%	1.65%	-0.12%	0.24%
35	2014	3.34%	4.28%	4.80%	0.94%	1.46%	4.16%	4.85%	0.82%	1.51%	-0.06%	0.11%
36	2015	2.84%	4.12%	5.03%	1.27%	2.19%	3.89%	5.00%	1.05%	2.16%	0.03%	0.23%
37	2016 <sup>3</sup>	2.72%	4.12%	5.30%	1.46%	2.58%	3.93%	5.31%	1.21%	2.59%	-0.01%	0.25%
38	Average	6.72%	8.25%	8.70%	1.52%	1.97%	7.56%	8.68%	0.84%	1.95%	0.02%	0.68%

# Yield Spreads Treasury Vs. Corporate & Treasury Vs. Utility



Sources:

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

<sup>3.</sup> Louis Tedar Reserve. Economic Research, http://research.studisted.org/.
2 Mergent Public Utility Manual, Mergent Weekly News Reports, 2003. The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record. The utility yields from 2010-2015 were obtained from http://credittrends.moodys.com/.
3 The data includes the period Jan - Mar 2016.

## **Treasury and Utility Bond Yields**

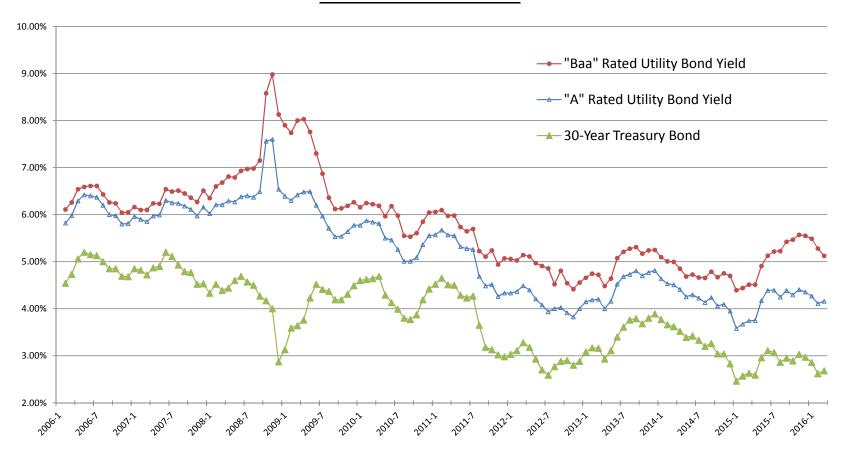
<u>Line</u>	<u>Date</u>	Treasury  Bond Yield <sup>1</sup> (1)	"A" Rated Utility <u>Bond Yield<sup>2</sup></u> (2)	"Baa" Rated Utility <u>Bond Yield<sup>2</sup></u> (3)
1	06/10/16	2.44%	3.75%	4.44%
2	06/03/16	2.52%	3.82%	4.51%
3	05/27/16	2.65%	3.94%	4.63%
4	05/19/16	2.64%	3.92%	4.60%
5	05/13/16	2.55%	3.85%	4.51%
6	05/06/16	2.62%	3.93%	4.58%
7	04/29/16	2.66%	3.99%	4.66%
8	04/22/16	2.70%	4.05%	4.74%
9	04/15/16	2.56%	3.94%	4.70%
10	04/08/16	2.55%	3.96%	4.74%
11	04/01/16	2.62%	4.04%	4.87%
12	03/24/16	2.67%	4.11%	4.98%
13	03/18/16	2.68%	4.15%	5.05%
14	Average	2.60%	3.96%	4.69%
15	Spread To Treasury		1.36%	2.09%

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**



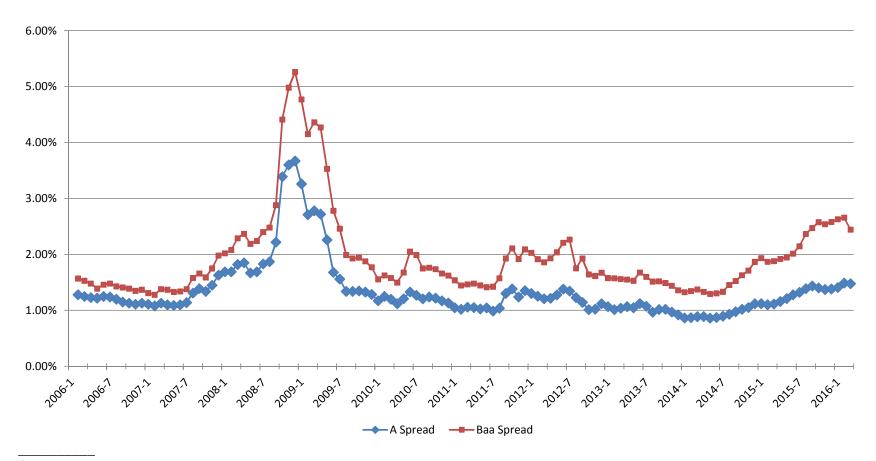
Sources:

Mergent Bond Record.

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

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

## Yield Spread Between Utility Bonds and 30-Year Treasury Bonds



Sources:

Mergent Bond Record.

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

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

## **Value Line Beta**

<u>Line</u>	<u>Company</u>	<u>Beta</u>
1	ALLETE, Inc.	0.75
2	Alliant Energy Corporation	0.75
3	Ameren Corporation	0.75
4	American Electric Power Company, Inc.	0.70
5	Avista Corporation	0.75
6	CMS Energy Corporation	0.70
7	DTE Energy Company	0.70
8	IDACORP, Inc.	0.80
9	NorthWestern Corporation	0.70
10	OGE Energy Corp.	0.95
11	Pinnacle West Capital Corporation	0.75
12	PNM Resources, Inc.	0.80
13	Portland General Electric Company	0.80
14	SCANA Corporation	0.70
15	Xcel Energy Inc.	0.65
16	Average	0.75

Source:

The Value Line Investment Survey, April 29, May 20, and June 17, 2016.

## **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>	3.40%	3.40%
2	Risk Premium <sup>2</sup>	7.80%	6.00%
3	Beta <sup>3</sup>	0.75	0.75
4	CAPM	9.25%	7.90%

#### Sources:

Blue Chip Financial Forecasts; June 1, 2016, at 2.
 Duff & Phelps, 2016 Valuation Handbook Guide to Cost of Capital at 2-4, 3-31, and 3-40.

<sup>&</sup>lt;sup>3</sup> Schedule MPG-17.

#### Revised Hevert Multi-Stage Growth Discounted Cash Flow Model 30 Day Average Stock Price Average EPS Growth Rate Estimate in First Stage

	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]				
		Stock	EPS	S Growth R			T	Р	ayout Rat	io	Iterative	Solution	Terminal	Terminal				
		ъ.	Zacks	First Call	Value Line		Long-Term	0040	0040	0005	ъ ,	IDD	P/E Ratio	PEG Ratio				
	Company	Price				Average	Growth	2016	2019	2025	Proof	IRR						
1	ALLETE, Inc.	\$50.12	5.00%	5.00%	6.50%	5.50%	4.35%	66.00%	59.00%	66.00%	(\$0.00)	8.98%	14.88	3.42				
2	Alliant Energy Corporation	\$61.59	5.40%	5.55%	6.00%	5.65%	4.35%	61.00%	63.00%	61.00%	\$0.00	8.66%	14.75	3.39 3.32				
3	American Floatric Power Company Inc.	\$43.18	6.30%	6.00%	7.00% 5.00%	6.43% 4.71%	4.35%	62.00%	56.00%	62.00%	\$0.00	8.82%	14.46	3.53				
4 5	American Electric Power Company, Inc. Avista Corporation	\$57.34 \$34.97	4.70% 5.00%	4.43% 5.00%	5.00%	5.00%	4.35% 4.35%	64.00% 69.00%	65.00% 65.00%	64.00% 69.00%	(\$0.00)	8.70% 8.63%	15.35 16.83	3.53 3.87				
5 6	CMS Energy Corporation	\$34.97 \$35.77	6.10%	5.00% 6.72%	5.50%	6.11%	4.35% 4.35%	60.00%	62.00%	60.00%	(\$0.00)	8.12%	16.60	3.82				
7	Dominion Resources, Inc.	\$67.46	6.10%	5.49%	8.00%	6.53%	4.35%	74.00%	72.00%	74.00%	\$0.00	8.77%	17.46	3.62 4.01				
8	DTE Energy Company	\$79.78	5.60%	5.49%	5.00%	5.24%			60.00%	61.00%	\$0.00	9.06%	13.52	3.11				
9	IDACORP, Inc.	\$67.89	4.00%	4.00%	1.00%	3.00%	4.35% 4.35%	61.00% 53.00%	58.00%	53.00%	\$0.00	9.06% 7.45%	17.84	4.10				
10	NorthWestern Corporation	\$54.03	5.00%	6.81%	6.50%	6.10%	4.35%	61.00%	59.00%	61.00%	(\$0.00) \$0.00	8.67%	14.72	3.38				
11	OGE Energy Corp.	\$25.52	5.70%	2.17%	3.00%	3.62%	4.35%	63.00%	72.00%	63.00%		9.78%	12.11	2.78				
12	Otter Tail Corporation	\$26.51	5.70% NA	6.00%	9.00%	7.50%	4.35%	71.00%	59.00%	71.00%	(\$0.00) \$0.00	10.06%	12.11	2.78				
13	Pinnacle West Capital Corporation	\$63.57	4.80%	4.95%	4.00%	4.58%	4.35%	64.00%	64.00%	64.00%		8.50%	16.07	3.70				
14	PNM Resources. Inc.	\$29.89	7.70%	9.30%	9.00%	4.56% 8.67%	4.35%	51.00%	55.00%	51.00%	(\$0.00) (\$0.00)	8.22%	13.75	3.16				
15	Portland General Electric Company	\$36.42	4.40%	9.30% 4.14%	6.00%	4.85%	4.35%	52.00%	53.00%	52.00%	(\$0.00)	8.01%	14.82	3.41				
16	SCANA Corporation	\$60.15	4.40%	4.14%	4.50%	4.48%	4.35%	56.00%	55.00%	56.00%	(\$0.00)	8.38%	14.52	3.34				
17	Westar Energy, Inc.	\$41.90	3.60%	3.50%	6.00%	4.46%	4.35%	61.00%	55.00%	61.00%		8.17%	16.65	3.83				
18	Xcel Energy Inc.	\$35.81	5.00%	4.68%	4.50%	4.73%	4.35%	63.00%	65.00%	63.00%	\$0.00 \$0.00	8.53%	15.73	3.61				
19	Acer Energy Inc.	φυυ.σι	3.00 /6	4.00 /0	4.30 /6	5.39%	4.33 /0	03.00 /6	03.00 /6	03.00 /6	Mean		15.73	3.01				
20						J.JJ /0					Max		13.17					
20											Min							
	Projected Annual										141111	7.4070						
	Earnings per Share	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
	Zarrinigo por Griaro	[]	[.0]	[.0]	[]	[.0]	[.0]	[=0]	[1	[]	[=0]	[]	[=0]	[=0]	[1	[=0]	[=0]	[00]
	Company	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
21	ALLETE, Inc.	\$2.90	\$3.06	\$3.23	\$3.41	\$3.59	\$3.79	\$4.00	\$4.21	\$4.43	\$4.64	\$4.86	\$5.09	\$5.31	\$5.54	\$5.78	\$6.03	\$6.29
22	Alliant Energy Corporation	\$3.48	\$3.68	\$3.88	\$4.10	\$4.34	\$4.58	\$4.84	\$5.10	\$5.37	\$5.64	\$5.91	\$6.18	\$6.45	\$6.73	\$7.02	\$7.32	\$7.64
23	Ameren Corporation	\$2.40	\$2.55	\$2.72	\$2.89	\$3.08	\$3.28	\$3.49	\$3.70	\$3.91	\$4.12	\$4.33	\$4.54	\$4.73	\$4.94	\$5.15	\$5.38	\$5.61
24	American Electric Power Company, Inc.	\$3.34	\$3.50	\$3.66	\$3.83	\$4.02	\$4.20	\$4.40	\$4.61	\$4.82	\$5.04	\$5.26	\$5.49	\$5.73	\$5.98	\$6.24	\$6.51	\$6.80
25	Avista Corporation	\$1.84	\$1.93	\$2.03	\$2.13	\$2.24	\$2.35	\$2.47	\$2.59	\$2.71	\$2.84	\$2.97	\$3.10	\$3.23	\$3.37	\$3.52	\$3.67	\$3.83
26	CMS Energy Corporation	\$1.74	\$1.85	\$1.96	\$2.08	\$2.21	\$2.34	\$2.48	\$2.63	\$2.77	\$2.92	\$3.06	\$3.20	\$3.34	\$3.49	\$3.64	\$3.80	\$3.96
27	Dominion Resources, Inc.	\$3.05	\$3.25	\$3.46	\$3.69	\$3.93	\$4.18	\$4.46	\$4.73	\$5.01	\$5.28	\$5.55	\$5.81	\$6.06	\$6.33	\$6.60	\$6.89	\$7.19
28	DTE Energy Company	\$5.10	\$5.37	\$5.65	\$5.94	\$6.26	\$6.58	\$6.93	\$7.28	\$7.64	\$8.01	\$8.38	\$8.76	\$9.14	\$9.54	\$9.95	\$10.38	\$10.83
29	IDACORP, Inc.	\$3.85	\$3.97	\$4.08	\$4.21	\$4.33	\$4.46	\$4.60	\$4.75	\$4.91	\$5.09	\$5.29	\$5.51	\$5.75	\$6.00	\$6.26	\$6.53	\$6.81
30	NorthWestern Corporation	\$2.99	\$3.17	\$3.37	\$3.57	\$3.79	\$4.02	\$4.27	\$4.51	\$4.76	\$5.01	\$5.26	\$5.50	\$5.74	\$5.99	\$6.25	\$6.53	\$6.81
31	OGE Energy Corp.	\$1.98	\$2.05	\$2.13	\$2.20	\$2.28	\$2.37	\$2.45	\$2.54	\$2.64	\$2.75	\$2.86	\$2.98	\$3.11	\$3.25	\$3.39	\$3.53	\$3.69
32	Otter Tail Corporation	\$1.55	\$1.67	\$1.79	\$1.93	\$2.07	\$2.23	\$2.39	\$2.56	\$2.72	\$2.89	\$3.04	\$3.19	\$3.33	\$3.47	\$3.62	\$3.78	\$3.95
33	Pinnacle West Capital Corporation	\$3.58	\$3.74	\$3.92	\$4.10	\$4.28	\$4.48	\$4.68	\$4.90	\$5.12	\$5.35	\$5.58	\$5.83	\$6.08	\$6.35	\$6.62	\$6.91	\$7.21
34	PNM Resources, Inc.	\$1.45	\$1.58	\$1.71	\$1.86	\$2.02	\$2.20	\$2.39	\$2.58	\$2.76	\$2.94	\$3.11	\$3.27	\$3.41	\$3.56	\$3.72	\$3.88	\$4.05
35	Portland General Electric Company	\$2.18	\$2.29	\$2.40	\$2.51	\$2.63	\$2.76	\$2.90	\$3.03	\$3.18	\$3.32	\$3.47	\$3.63	\$3.78	\$3.95	\$4.12	\$4.30	\$4.49
36	SCANA Corporation	\$3.79	\$3.96	\$4.14	\$4.32	\$4.52	\$4.72	\$4.93	\$5.15	\$5.38	\$5.62	\$5.86	\$6.12	\$6.39	\$6.66	\$6.95	\$7.26	\$7.57
37	Westar Energy, Inc.	\$2.35	\$2.45	\$2.56	\$2.67	\$2.79	\$2.91	\$3.04	\$3.17	\$3.31	\$3.45	\$3.60	\$3.76	\$3.92	\$4.09	\$4.27	\$4.46	\$4.65
	Xcel Energy Inc.	\$2.03	\$2.13	\$2.23	\$2.33	\$2.44	\$2.56	\$2.68	\$2.80	\$2.93	\$3.07	\$3.20	\$3.34	\$3.49	\$3.64	\$3.80	\$3.96	\$4.14
	=-																	

#### Revised Hevert Multi-Stage Growth Discounted Cash Flow Model 30 Day Average Stock Price Average EPS Growth Rate Estimate in First Stage

	Projected Annual																
	Dividend Payout Ratio	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	
																	<del>-</del>
	Company	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	_
39	ALLETE, Inc.	66.00%	63.67%	61.33%	59.00%	60.00%	61.00%	62.00%	63.00%	64.00%	65.00%	66.00%	66.00%	66.00%	66.00%	66.00%	
40	Alliant Energy Corporation	61.00%	61.67%	62.33%	63.00%	62.71%	62.43%	62.14%	61.86%	61.57%	61.29%	61.00%	61.00%	61.00%	61.00%	61.00%	
41	Ameren Corporation	62.00%	60.00%	58.00%	56.00%	56.86%	57.71%	58.57%	59.43%	60.29%	61.14%	62.00%	62.00%	62.00%	62.00%	62.00%	
42	American Electric Power Company, Inc.	64.00%	64.33%	64.67%	65.00%	64.86%	64.71%	64.57%	64.43%	64.29%	64.14%	64.00%	64.00%	64.00%	64.00%	64.00%	
43	Avista Corporation	69.00%	67.67%	66.33%	65.00%	65.57%	66.14%	66.71%	67.29%	67.86%	68.43%	69.00%	69.00%	69.00%	69.00%	69.00%	
44	CMS Energy Corporation	60.00%	60.67%	61.33%	62.00%	61.71%	61.43%	61.14%	60.86%	60.57%	60.29%	60.00%	60.00%	60.00%	60.00%	60.00%	
45	Dominion Resources, Inc.	74.00%	73.33%	72.67%	72.00%	72.29%	72.57%	72.86%	73.14%	73.43%	73.71%	74.00%	74.00%	74.00%	74.00%	74.00%	
46	DTE Energy Company	61.00%	60.67%	60.33%	60.00%	60.14%	60.29%	60.43%	60.57%	60.71%	60.86%	61.00%	61.00%	61.00%	61.00%	61.00%	
47	IDACORP, Inc.	53.00%	54.67%	56.33%	58.00%	57.29%	56.57%	55.86%	55.14%	54.43%	53.71%	53.00%	53.00%	53.00%	53.00%	53.00%	
48	NorthWestern Corporation	61.00%	60.33%	59.67%	59.00%	59.29%	59.57%	59.86%	60.14%	60.43%	60.71%	61.00%	61.00%	61.00%	61.00%	61.00%	
49	OGE Energy Corp.	63.00%	66.00%	69.00%	72.00%	70.71%	69.43%	68.14%	66.86%	65.57%	64.29%	63.00%	63.00%	63.00%	63.00%	63.00%	
50	Otter Tail Corporation	71.00%	67.00%	63.00%	59.00%	60.71%	62.43%	64.14%	65.86%	67.57%	69.29%	71.00%	71.00%	71.00%	71.00%	71.00%	
51	Pinnacle West Capital Corporation	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	
52	PNM Resources, Inc.	51.00%	52.33%	53.67%	55.00%	54.43%	53.86%	53.29%	52.71%	52.14%	51.57%	51.00%	51.00%	51.00%	51.00%	51.00%	
53	Portland General Electric Company	52.00%	52.33%	52.67%	53.00%	52.86%	52.71%	52.57%	52.43%	52.29%	52.14%	52.00%	52.00%	52.00%	52.00%	52.00%	
54	SCANA Corporation	56.00%	55.67%	55.33%	55.00%	55.14%	55.29%	55.43%	55.57%	55.71%	55.86%	56.00%	56.00%	56.00%	56.00%	56.00%	
55	Westar Energy, Inc.	61.00%	59.00%	57.00%	55.00%	55.86%	56.71%	57.57%	58.43%	59.29%	60.14%	61.00%	61.00%	61.00%	61.00%	61.00%	
56	Xcel Energy Inc.	63.00%	63.67%	64.33%	65.00%	64.71%	64.43%	64.14%	63.86%	63.57%	63.29%	63.00%	63.00%	63.00%	63.00%	63.00%	
00	Acci Lineigy inci	00.0070	00.01 70	0 110070	00.0070	0 111 170	0 11 10 70	0 111 170	00.0070	00.01 70	00.2070	00.0070	00.0070	00.0070	00.0070	00.0070	-
	Projected Annual																
	Projected Annual Cash Flows	[46]	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]
	,	[46]	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	
	,	[46] 2016	[47] 2017	[48] 2018	[49] 2019	[50] 2020	[51] 2021	[52] 2022	[53] 2023		[55] 2025	[56] 2026		[58] 2028	[59] 2029	[60] 2030	[61] Terminal Value
57	Cash Flows									[54] 2024 \$3.11			[57] 2027 \$3.65				Terminal
	Cash Flows  Company  ALLETE, Inc.	2016 \$2.13	2017 \$2.17	2018 \$2.20	2019 \$2.24	2020 \$2.40	2021 \$2.57	2022 \$2.74	2023 \$2.93	2024 \$3.11	2025 \$3.31	2026 \$3.50	2027 \$3.65	2028 \$3.81	2029 \$3.98	2030 \$4.15	Terminal Value \$93.61
57 58 59	Cash Flows  Company  ALLETE, Inc.  Alliant Energy Corporation	2016 \$2.13 \$2.37	2017 \$2.17 \$2.53	2018 \$2.20 \$2.70	2019 \$2.24 \$2.89	2020 \$2.40 \$3.04	2021 \$2.57 \$3.19	2022 \$2.74 \$3.34	2023 \$2.93 \$3.49	2024 \$3.11 \$3.64	2025 \$3.31 \$3.79	2026 \$3.50 \$3.93	2027 \$3.65 \$4.10	2028 \$3.81 \$4.28	2029 \$3.98 \$4.47	2030 \$4.15 \$4.66	Terminal Value
58 59	Cash Flows  Company  ALLETE, Inc.  Alliant Energy Corporation  Ameren Corporation	2016 \$2.13 \$2.37 \$1.69	2017 \$2.17 \$2.53 \$1.74	2018 \$2.20 \$2.70 \$1.79	2019 \$2.24 \$2.89 \$1.84	2020 \$2.40 \$3.04 \$1.98	2021 \$2.57 \$3.19 \$2.14	2022 \$2.74 \$3.34 \$2.29	2023 \$2.93 \$3.49 \$2.45	2024 \$3.11 \$3.64 \$2.61	2025 \$3.31 \$3.79 \$2.77	2026 \$3.50 \$3.93 \$2.93	2027 \$3.65 \$4.10 \$3.06	2028 \$3.81 \$4.28 \$3.20	2029 \$3.98 \$4.47 \$3.33	2030 \$4.15 \$4.66 \$3.48	Terminal Value \$93.61 \$112.73 \$81.16
58 59 60	Company ALLETE, Inc. Alliant Energy Corporation American Electric Power Company, Inc.	2016 \$2.13 \$2.37 \$1.69 \$2.34	2017 \$2.17 \$2.53 \$1.74 \$2.47	2018 \$2.20 \$2.70 \$1.79 \$2.60	2019 \$2.24 \$2.89 \$1.84 \$2.73	2020 \$2.40 \$3.04 \$1.98 \$2.86	2021 \$2.57 \$3.19 \$2.14 \$2.98	2022 \$2.74 \$3.34 \$2.29 \$3.11	2023 \$2.93 \$3.49 \$2.45 \$3.25	2024 \$3.11 \$3.64 \$2.61 \$3.38	2025 \$3.31 \$3.79 \$2.77 \$3.52	2026 \$3.50 \$3.93 \$2.93 \$3.67	2027 \$3.65 \$4.10 \$3.06 \$3.83	2028 \$3.81 \$4.28 \$3.20 \$4.00	2029 \$3.98 \$4.47 \$3.33 \$4.17	2030 \$4.15 \$4.66 \$3.48 \$4.35	Terminal Value \$93.61 \$112.73 \$81.16 \$104.35
58 59 60 61	Cash Flows  Company  ALLETE, Inc.  Alliant Energy Corporation  American Electric Power Company, Inc.  Avista Corporation	2016 \$2.13 \$2.37 \$1.69 \$2.34 \$1.40	2017 \$2.17 \$2.53 \$1.74 \$2.47 \$1.44	2018 \$2.20 \$2.70 \$1.79 \$2.60 \$1.48	2019 \$2.24 \$2.89 \$1.84 \$2.73 \$1.53	2020 \$2.40 \$3.04 \$1.98 \$2.86 \$1.62	2021 \$2.57 \$3.19 \$2.14 \$2.98 \$1.71	2022 \$2.74 \$3.34 \$2.29 \$3.11 \$1.81	2023 \$2.93 \$3.49 \$2.45 \$3.25 \$1.91	2024 \$3.11 \$3.64 \$2.61 \$3.38 \$2.01	2025 \$3.31 \$3.79 \$2.77 \$3.52 \$2.12	2026 \$3.50 \$3.93 \$2.93 \$3.67 \$2.23	2027 \$3.65 \$4.10 \$3.06 \$3.83 \$2.33	2028 \$3.81 \$4.28 \$3.20 \$4.00 \$2.43	2029 \$3.98 \$4.47 \$3.33 \$4.17 \$2.54	2030 \$4.15 \$4.66 \$3.48 \$4.35 \$2.65	Terminal Value \$93.61 \$112.73 \$81.16 \$104.35 \$64.54
58 59 60 61 62	Cash Flows  Company  ALLETE, Inc.  Alliant Energy Corporation  American Electric Power Company, Inc.  Avista Corporation  CMS Energy Corporation	2016 \$2.13 \$2.37 \$1.69 \$2.34 \$1.40 \$1.18	2017 \$2.17 \$2.53 \$1.74 \$2.47 \$1.44 \$1.26	2018 \$2.20 \$2.70 \$1.79 \$2.60 \$1.48 \$1.35	2019 \$2.24 \$2.89 \$1.84 \$2.73 \$1.53 \$1.45	2020 \$2.40 \$3.04 \$1.98 \$2.86 \$1.62 \$1.53	2021 \$2.57 \$3.19 \$2.14 \$2.98 \$1.71 \$1.61	2022 \$2.74 \$3.34 \$2.29 \$3.11 \$1.81 \$1.70	2023 \$2.93 \$3.49 \$2.45 \$3.25 \$1.91 \$1.78	2024 \$3.11 \$3.64 \$2.61 \$3.38 \$2.01 \$1.85	2025 \$3.31 \$3.79 \$2.77 \$3.52 \$2.12 \$1.93	2026 \$3.50 \$3.93 \$2.93 \$3.67 \$2.23 \$2.01	2027 \$3.65 \$4.10 \$3.06 \$3.83 \$2.33 \$2.09	2028 \$3.81 \$4.28 \$3.20 \$4.00 \$2.43 \$2.18	2029 \$3.98 \$4.47 \$3.33 \$4.17 \$2.54 \$2.28	2030 \$4.15 \$4.66 \$3.48 \$4.35 \$2.65 \$2.38	Terminal Value \$93.61 \$112.73 \$81.16 \$104.35 \$64.54 \$65.79
58 59 60 61 62 63	Cash Flows  Company  ALLETE, Inc. Alliant Energy Corporation American Electric Power Company, Inc. Avista Corporation CMS Energy Corporation Dominion Resources, Inc.	2016 \$2.13 \$2.37 \$1.69 \$2.34 \$1.40 \$1.18 \$2.56	2017 \$2.17 \$2.53 \$1.74 \$2.47 \$1.44 \$1.26 \$2.70	2018 \$2.20 \$2.70 \$1.79 \$2.60 \$1.48 \$1.35 \$2.85	2019 \$2.24 \$2.89 \$1.84 \$2.73 \$1.53 \$1.45 \$3.01	2020 \$2.40 \$3.04 \$1.98 \$2.86 \$1.62 \$1.53 \$3.22	2021 \$2.57 \$3.19 \$2.14 \$2.98 \$1.71 \$1.61 \$3.43	2022 \$2.74 \$3.34 \$2.29 \$3.11 \$1.81 \$1.70 \$3.65	2023 \$2.93 \$3.49 \$2.45 \$3.25 \$1.91 \$1.78 \$3.86	2024 \$3.11 \$3.64 \$2.61 \$3.38 \$2.01 \$1.85 \$4.07	2025 \$3.31 \$3.79 \$2.77 \$3.52 \$2.12 \$1.93 \$4.28	2026 \$3.50 \$3.93 \$2.93 \$3.67 \$2.23 \$2.01 \$4.49	2027 \$3.65 \$4.10 \$3.06 \$3.83 \$2.33 \$2.09 \$4.68	2028 \$3.81 \$4.28 \$3.20 \$4.00 \$2.43 \$2.18 \$4.88	2029 \$3.98 \$4.47 \$3.33 \$4.17 \$2.54 \$2.28 \$5.10	2030 \$4.15 \$4.66 \$3.48 \$4.35 \$2.65 \$2.38 \$5.32	Terminal Value \$93.61 \$112.73 \$81.16 \$104.35 \$64.54 \$65.79 \$125.53
58 59 60 61 62 63 64	Cash Flows  Company ALLETE, Inc. Alliant Energy Corporation American Electric Power Company, Inc. Avista Corporation CMS Energy Corporation Dominion Resources, Inc. DTE Energy Company	2016 \$2.13 \$2.37 \$1.69 \$2.34 \$1.40 \$1.18 \$2.56 \$3.45	2017 \$2.17 \$2.53 \$1.74 \$2.47 \$1.44 \$1.26 \$2.70 \$3.61	2018 \$2.20 \$2.70 \$1.79 \$2.60 \$1.48 \$1.35 \$2.85 \$3.77	2019 \$2.24 \$2.89 \$1.84 \$2.73 \$1.53 \$1.45 \$3.01 \$3.95	2020 \$2.40 \$3.04 \$1.98 \$2.86 \$1.62 \$1.53 \$3.22 \$4.17	2021 \$2.57 \$3.19 \$2.14 \$2.98 \$1.71 \$1.61 \$3.43 \$4.39	2022 \$2.74 \$3.34 \$2.29 \$3.11 \$1.81 \$1.70 \$3.65 \$4.62	2023 \$2.93 \$3.49 \$2.45 \$3.25 \$1.91 \$1.78 \$3.86 \$4.85	2024 \$3.11 \$3.64 \$2.61 \$3.38 \$2.01 \$1.85 \$4.07 \$5.09	2025 \$3.31 \$3.79 \$2.77 \$3.52 \$2.12 \$1.93 \$4.28 \$5.33	2026 \$3.50 \$3.93 \$2.93 \$3.67 \$2.23 \$2.01 \$4.49 \$5.57	2027 \$3.65 \$4.10 \$3.06 \$3.83 \$2.33 \$2.09 \$4.68 \$5.82	2028 \$3.81 \$4.28 \$3.20 \$4.00 \$2.43 \$2.18 \$4.88 \$6.07	2029 \$3.98 \$4.47 \$3.33 \$4.17 \$2.54 \$2.28 \$5.10 \$6.33	2030 \$4.15 \$4.66 \$3.48 \$4.35 \$2.65 \$2.38 \$5.32 \$6.61	Terminal Value \$93.61 \$112.73 \$81.16 \$104.35 \$64.54 \$65.79 \$125.53 \$146.50
58 59 60 61 62 63 64 65	Cash Flows  Company  ALLETE, Inc. Alliant Energy Corporation American Electric Power Company, Inc. Avista Corporation CMS Energy Corporation Dominion Resources, Inc. DTE Energy Company IDACORP, Inc.	2016 \$2.13 \$2.37 \$1.69 \$2.34 \$1.40 \$1.18 \$2.56 \$3.45 \$2.16	2017 \$2.17 \$2.53 \$1.74 \$2.47 \$1.44 \$1.26 \$2.70 \$3.61 \$2.30	2018 \$2.20 \$2.70 \$1.79 \$2.60 \$1.48 \$1.35 \$2.85 \$3.77 \$2.44	2019 \$2.24 \$2.89 \$1.84 \$2.73 \$1.53 \$1.45 \$3.01 \$3.95 \$2.59	2020 \$2.40 \$3.04 \$1.98 \$2.86 \$1.62 \$1.53 \$3.22 \$4.17 \$2.63	2021 \$2.57 \$3.19 \$2.14 \$2.98 \$1.71 \$1.61 \$3.43 \$4.39 \$2.68	2022 \$2.74 \$3.34 \$2.29 \$3.11 \$1.81 \$1.70 \$3.65 \$4.62 \$2.74	2023 \$2.93 \$3.49 \$2.45 \$3.25 \$1.91 \$1.78 \$3.86 \$4.85 \$2.81	2024 \$3.11 \$3.64 \$2.61 \$3.38 \$2.01 \$1.85 \$4.07 \$5.09 \$2.88	2025 \$3.31 \$3.79 \$2.77 \$3.52 \$2.12 \$1.93 \$4.28 \$5.33 \$2.96	2026 \$3.50 \$3.93 \$2.93 \$3.67 \$2.23 \$2.01 \$4.49 \$5.57 \$3.05	2027 \$3.65 \$4.10 \$3.06 \$3.83 \$2.33 \$2.09 \$4.68 \$5.82 \$3.18	2028 \$3.81 \$4.28 \$3.20 \$4.00 \$2.43 \$2.18 \$4.88 \$6.07 \$3.32	2029 \$3.98 \$4.47 \$3.33 \$4.17 \$2.54 \$2.28 \$5.10 \$6.33 \$3.46	2030 \$4.15 \$4.66 \$3.48 \$4.35 \$2.65 \$2.38 \$5.32 \$6.61 \$3.61	Terminal Value \$93.61 \$112.73 \$81.16 \$104.35 \$64.54 \$65.79 \$125.53 \$146.50 \$121.53
58 59 60 61 62 63 64 65 66	Cash Flows  Company  ALLETE, Inc. Alliant Energy Corporation Ameren Corporation American Electric Power Company, Inc. Avista Corporation CMS Energy Corporation Dominion Resources, Inc. DTE Energy Company IDACORP, Inc. NorthWestern Corporation	2016 \$2.13 \$2.37 \$1.69 \$2.34 \$1.40 \$1.18 \$2.56 \$3.45 \$2.16 \$2.05	2017 \$2.17 \$2.53 \$1.74 \$2.47 \$1.44 \$1.26 \$2.70 \$3.61 \$2.30 \$2.15	2018 \$2.20 \$2.70 \$1.79 \$2.60 \$1.48 \$1.35 \$2.85 \$3.77 \$2.44 \$2.26	2019 \$2.24 \$2.89 \$1.84 \$2.73 \$1.53 \$1.45 \$3.01 \$3.95 \$2.59 \$2.37	2020 \$2.40 \$3.04 \$1.98 \$2.86 \$1.62 \$1.53 \$3.22 \$4.17 \$2.63 \$2.53	2021 \$2.57 \$3.19 \$2.14 \$2.98 \$1.71 \$1.61 \$3.43 \$4.39 \$2.68 \$2.69	2022 \$2.74 \$3.34 \$2.29 \$3.11 \$1.81 \$1.70 \$3.65 \$4.62 \$2.74 \$2.85	2023 \$2.93 \$3.49 \$2.45 \$3.25 \$1.91 \$1.78 \$3.86 \$4.85 \$2.81 \$3.01	2024 \$3.11 \$3.64 \$2.61 \$3.38 \$2.01 \$1.85 \$4.07 \$5.09 \$2.88 \$3.18	2025 \$3.31 \$3.79 \$2.77 \$3.52 \$2.12 \$1.93 \$4.28 \$5.33 \$2.96 \$3.34	2026 \$3.50 \$3.93 \$2.93 \$3.67 \$2.23 \$2.01 \$4.49 \$5.57 \$3.05 \$3.50	2027 \$3.65 \$4.10 \$3.06 \$3.83 \$2.33 \$2.09 \$4.68 \$5.82 \$3.18 \$3.66	2028 \$3.81 \$4.28 \$3.20 \$4.00 \$2.43 \$2.18 \$4.88 \$6.07 \$3.32 \$3.81	2029 \$3.98 \$4.47 \$3.33 \$4.17 \$2.54 \$2.28 \$5.10 \$6.33 \$3.46 \$3.98	2030 \$4.15 \$4.66 \$3.48 \$4.35 \$2.65 \$2.38 \$5.32 \$6.61 \$3.61 \$4.15	Terminal Value \$93.61 \$112.73 \$81.16 \$104.35 \$64.54 \$65.79 \$125.53 \$146.50 \$121.53 \$100.26
58 59 60 61 62 63 64 65 66	Cash Flows  Company  ALLETE, Inc.  Alliant Energy Corporation  American Electric Power Company, Inc.  Avista Corporation  CMS Energy Corporation  Dominion Resources, Inc.  DTE Energy Company  IDACORP, Inc.  NorthWestern Corporation  OGE Energy Corp.	2016 \$2.13 \$2.37 \$1.69 \$2.34 \$1.40 \$1.18 \$2.56 \$3.45 \$2.16 \$2.05 \$1.34	2017 \$2.17 \$2.53 \$1.74 \$2.47 \$1.44 \$1.26 \$2.70 \$3.61 \$2.30 \$2.15 \$1.45	2018 \$2.20 \$2.70 \$1.79 \$2.60 \$1.48 \$1.35 \$2.85 \$3.77 \$2.44 \$2.26 \$1.58	2019 \$2.24 \$2.89 \$1.84 \$2.73 \$1.53 \$1.45 \$3.01 \$3.95 \$2.59 \$2.37 \$1.70	2020 \$2.40 \$3.04 \$1.98 \$2.86 \$1.62 \$1.53 \$3.22 \$4.17 \$2.63 \$2.53 \$1.73	2021 \$2.57 \$3.19 \$2.14 \$2.98 \$1.71 \$1.61 \$3.43 \$4.39 \$2.68 \$2.69 \$1.77	2022 \$2.74 \$3.34 \$2.29 \$3.11 \$1.80 \$3.65 \$4.62 \$2.74 \$2.85 \$1.80	2023 \$2.93 \$3.49 \$2.45 \$3.25 \$1.91 \$1.78 \$3.86 \$4.85 \$2.81 \$3.01 \$1.84	2024 \$3.11 \$3.64 \$2.61 \$3.38 \$2.01 \$1.85 \$4.07 \$5.09 \$2.88 \$3.18 \$1.88	2025 \$3.31 \$3.79 \$2.77 \$3.52 \$2.12 \$1.93 \$4.28 \$5.33 \$2.96 \$3.34 \$1.92	2026 \$3.50 \$3.93 \$2.93 \$3.67 \$2.23 \$2.01 \$4.49 \$5.57 \$3.05 \$3.50 \$1.96	2027 \$3.65 \$4.10 \$3.06 \$3.83 \$2.33 \$2.09 \$4.68 \$5.82 \$3.18 \$3.66 \$2.04	2028 \$3.81 \$4.28 \$3.20 \$4.00 \$2.43 \$2.18 \$4.88 \$6.07 \$3.32 \$3.81 \$2.13	2029 \$3.98 \$4.47 \$3.33 \$4.17 \$2.54 \$2.28 \$5.10 \$6.33 \$3.46 \$3.98 \$2.23	2030 \$4.15 \$4.66 \$3.48 \$4.35 \$2.65 \$2.38 \$5.32 \$6.61 \$3.61 \$4.15 \$2.32	Terminal Value \$93.61 \$112.73 \$81.16 \$104.35 \$64.54 \$65.79 \$125.53 \$146.50 \$121.53 \$100.26 \$44.65
58 59 60 61 62 63 64 65 66 67 68	Cash Flows  Company  ALLETE, Inc. Alliant Energy Corporation American Electric Power Company, Inc. Avista Corporation CMS Energy Corporation Dominion Resources, Inc. DTE Energy Company IDACORP, Inc. NorthWestern Corporation OGE Energy Corp. Otter Tail Corporation	2016 \$2.13 \$2.37 \$1.69 \$2.34 \$1.40 \$1.18 \$2.56 \$3.45 \$2.16 \$2.05 \$1.34 \$1.27	2017 \$2.17 \$2.53 \$1.74 \$2.47 \$1.44 \$1.26 \$2.70 \$3.61 \$2.30 \$2.15 \$1.45 \$1.29	2018 \$2.20 \$2.70 \$1.79 \$2.60 \$1.48 \$1.35 \$2.85 \$3.77 \$2.44 \$2.26 \$1.58 \$1.30	2019 \$2.24 \$2.89 \$1.84 \$2.73 \$1.53 \$1.45 \$3.01 \$3.95 \$2.59 \$2.37 \$1.70 \$1.31	2020 \$2.40 \$3.04 \$1.98 \$2.86 \$1.62 \$1.53 \$3.32 \$4.17 \$2.63 \$2.53 \$1.73 \$1.45	2021 \$2.57 \$3.19 \$2.14 \$2.98 \$1.71 \$1.61 \$3.43 \$4.39 \$2.68 \$2.69 \$1.77 \$1.60	2022 \$2.74 \$3.34 \$2.29 \$3.11 \$1.81 \$1.70 \$3.65 \$4.62 \$2.74 \$2.85 \$1.80 \$1.75	2023 \$2.93 \$3.49 \$2.45 \$3.25 \$1.91 \$1.78 \$3.86 \$4.85 \$2.81 \$3.01 \$1.84 \$1.90	2024 \$3.11 \$3.64 \$2.61 \$3.38 \$2.01 \$1.85 \$4.07 \$5.09 \$2.88 \$3.18 \$1.88 \$2.06	2025 \$3.31 \$3.79 \$2.77 \$3.52 \$2.12 \$1.93 \$4.28 \$5.33 \$4.28 \$5.33 \$4.29 \$1.92 \$2.21	2026 \$3.50 \$3.93 \$2.93 \$3.67 \$2.23 \$2.01 \$4.49 \$5.57 \$3.05 \$3.50 \$1.96 \$2.36	2027 \$3.65 \$4.10 \$3.06 \$3.83 \$2.33 \$2.09 \$4.68 \$5.82 \$3.18 \$3.66 \$2.04 \$2.47	2028 \$3.81 \$4.28 \$3.20 \$4.00 \$2.43 \$2.18 \$4.88 \$6.07 \$3.32 \$3.81 \$2.13 \$2.57	2029 \$3.98 \$4.47 \$3.33 \$4.17 \$2.54 \$5.10 \$6.33 \$3.46 \$3.98 \$2.23 \$2.69	2030 \$4.15 \$4.66 \$3.48 \$4.35 \$2.65 \$2.38 \$5.32 \$6.61 \$3.61 \$4.15 \$2.32 \$2.80	Terminal Value \$93.61 \$112.73 \$81.16 \$104.35 \$64.54 \$65.79 \$125.53 \$146.50 \$121.53 \$100.26 \$44.65 \$51.20
58 59 60 61 62 63 64 65 66 67 68 69	Cash Flows  Company  ALLETE, Inc. Alliant Energy Corporation American Electric Power Company, Inc. Avista Corporation CMS Energy Corporation Dominion Resources, Inc. DTE Energy Company IDACORP, Inc. NorthWestern Corporation OGE Energy Corp. Otter Tail Corporation Pinnacle West Capital Corporation	2016 \$2.13 \$2.37 \$1.69 \$2.34 \$1.40 \$1.18 \$2.56 \$3.45 \$2.16 \$2.05 \$1.34 \$1.27 \$2.51	2017 \$2.17 \$2.53 \$1.74 \$2.47 \$1.44 \$1.26 \$2.70 \$3.61 \$2.30 \$2.15 \$1.45 \$1.29 \$2.62	2018 \$2.20 \$2.70 \$1.79 \$2.60 \$1.48 \$1.35 \$2.85 \$3.77 \$2.44 \$2.26 \$1.58 \$1.30 \$2.74	2019 \$2.24 \$2.89 \$1.84 \$2.73 \$1.53 \$1.45 \$3.01 \$3.95 \$2.59 \$2.37 \$1.70 \$1.31 \$2.87	2020 \$2.40 \$3.04 \$1.98 \$2.86 \$1.62 \$1.53 \$3.22 \$4.17 \$2.63 \$1.73 \$1.45 \$3.00	2021 \$2.57 \$3.19 \$2.14 \$2.98 \$1.71 \$1.61 \$3.43 \$4.39 \$2.68 \$1.77 \$1.60 \$3.13	2022 \$2.74 \$3.34 \$2.29 \$3.11 \$1.81 \$1.70 \$3.65 \$4.62 \$2.74 \$2.85 \$1.80 \$1.75 \$3.28	2023 \$2.93 \$3.49 \$2.45 \$3.25 \$1.91 \$1.78 \$3.86 \$4.85 \$2.81 \$3.01 \$1.84 \$1.90 \$3.42	2024 \$3.11 \$3.64 \$2.61 \$3.38 \$2.01 \$1.85 \$4.07 \$5.09 \$2.88 \$3.18 \$1.88 \$2.06 \$3.57	2025 \$3.31 \$3.79 \$2.77 \$3.52 \$2.12 \$1.93 \$4.28 \$5.33 \$2.96 \$3.34 \$1.92 \$2.21 \$3.73	2026 \$3.50 \$3.93 \$2.93 \$3.67 \$2.23 \$2.01 \$4.49 \$5.57 \$3.05 \$3.50 \$1.96 \$2.36 \$3.89	2027 \$3.65 \$4.10 \$3.06 \$3.83 \$2.33 \$2.09 \$4.68 \$5.82 \$3.18 \$3.66 \$2.04 \$2.47 \$4.06	2028 \$3.81 \$4.28 \$3.20 \$4.00 \$2.43 \$2.18 \$4.88 \$6.07 \$3.32 \$3.81 \$2.13 \$2.57 \$4.24	2029 \$3.98 \$4.47 \$3.33 \$4.17 \$2.54 \$2.28 \$5.10 \$6.33 \$3.46 \$3.98 \$2.23 \$2.69 \$4.42	2030 \$4.15 \$4.66 \$3.48 \$4.35 \$2.65 \$2.38 \$5.32 \$6.61 \$3.61 \$4.15 \$2.32 \$2.80 \$4.62	Terminal Value \$93.61 \$112.73 \$81.16 \$104.35 \$64.54 \$65.79 \$125.53 \$146.50 \$121.53 \$100.26 \$44.65 \$51.20 \$115.91
58 59 60 61 62 63 64 65 66 67 68 69 70	Cash Flows  Company  ALLETE, Inc. Alliant Energy Corporation American Electric Power Company, Inc. Avista Corporation CMS Energy Corporation Dominion Resources, Inc. DTE Energy Company IDACORP, Inc. NorthWestern Corporation OGE Energy Corp. Otter Tail Corporation Pinnacle West Capital Corporation PNM Resources, Inc.	2016 \$2.13 \$2.37 \$1.69 \$2.34 \$1.40 \$1.18 \$2.56 \$3.45 \$2.16 \$2.05 \$1.34 \$1.27 \$2.51 \$0.87	2017 \$2.17 \$2.53 \$1.74 \$2.47 \$1.44 \$1.26 \$2.70 \$3.61 \$2.30 \$2.15 \$1.45 \$1.29 \$2.62 \$0.97	2018 \$2.20 \$2.70 \$1.79 \$2.60 \$1.48 \$1.35 \$2.85 \$3.77 \$2.44 \$2.26 \$1.58 \$1.30 \$2.74 \$1.09	2019 \$2.24 \$2.89 \$1.84 \$2.73 \$1.53 \$1.45 \$3.01 \$3.95 \$2.59 \$2.37 \$1.70 \$1.31 \$2.87 \$1.21	2020 \$2.40 \$3.04 \$1.98 \$2.86 \$1.62 \$1.53 \$3.22 \$4.17 \$2.63 \$2.53 \$1.73 \$1.45 \$3.00 \$1.30	2021 \$2.57 \$3.19 \$2.14 \$2.98 \$1.71 \$1.61 \$3.43 \$4.39 \$2.68 \$2.68 \$1.77 \$1.60 \$3.13 \$1.39	2022 \$2.74 \$3.34 \$2.29 \$3.11 \$1.81 \$1.70 \$3.65 \$4.62 \$2.74 \$2.85 \$1.80 \$1.75 \$3.28 \$1.47	2023 \$2.93 \$3.49 \$2.45 \$3.25 \$1.91 \$1.78 \$3.86 \$4.85 \$2.81 \$3.01 \$1.84 \$1.90 \$3.42 \$1.55	2024 \$3.11 \$3.64 \$2.61 \$3.38 \$2.01 \$1.85 \$4.07 \$5.09 \$2.88 \$3.18 \$1.88 \$2.06 \$3.57 \$1.62	2025 \$3.31 \$3.79 \$2.77 \$3.52 \$1.93 \$4.28 \$5.33 \$2.96 \$3.34 \$1.92 \$2.21 \$3.73 \$1.69	2026 \$3.50 \$3.93 \$2.93 \$3.67 \$2.23 \$2.01 \$4.49 \$5.57 \$3.05 \$3.50 \$1.76 \$2.36 \$3.89 \$1.74	2027 \$3.65 \$4.10 \$3.06 \$3.83 \$2.33 \$2.09 \$4.68 \$5.82 \$3.18 \$3.66 \$2.04 \$2.47 \$4.06 \$1.82	2028 \$3.81 \$4.28 \$3.20 \$4.00 \$2.43 \$2.18 \$4.88 \$6.07 \$3.32 \$3.81 \$2.13 \$2.57 \$4.24 \$1.90	2029 \$3.98 \$4.47 \$3.33 \$4.17 \$2.54 \$2.28 \$5.10 \$6.33 \$3.46 \$3.98 \$2.23 \$2.69 \$4.42 \$1.98	2030 \$4.15 \$4.66 \$3.48 \$4.35 \$2.65 \$2.38 \$5.32 \$6.61 \$3.61 \$4.15 \$2.32 \$2.80 \$4.62 \$2.06	Terminal Value \$93.61 \$112.73 \$81.16 \$104.35 \$64.54 \$65.79 \$125.53 \$146.50 \$121.53 \$100.26 \$44.65 \$51.20 \$115.91 \$55.66
58 59 60 61 62 63 64 65 66 67 68 69 70 71	Cash Flows  Company  ALLETE, Inc. Alliant Energy Corporation American Electric Power Company, Inc. Avista Corporation CMS Energy Corporation Dominion Resources, Inc. DTE Energy Company IDACORP, Inc. NorthWestern Corporation OGE Energy Corp. Otter Tail Corporation Pinnacle West Capital Corporation PNM Resources, Inc. Portland General Electric Company	2016 \$2.13 \$2.37 \$1.69 \$2.34 \$1.40 \$1.18 \$2.56 \$3.45 \$2.16 \$2.05 \$1.34 \$1.27 \$2.51 \$0.87 \$1.25	2017 \$2.17 \$2.53 \$1.74 \$2.47 \$1.44 \$1.26 \$2.70 \$3.61 \$2.30 \$2.15 \$1.45 \$1.29 \$2.62 \$2.62 \$2.62 \$1.31	2018 \$2.20 \$2.70 \$1.79 \$2.60 \$1.48 \$1.35 \$2.85 \$3.77 \$2.44 \$2.26 \$1.58 \$1.30 \$2.74 \$1.09 \$1.39	2019 \$2.24 \$2.89 \$1.84 \$2.73 \$1.53 \$1.45 \$3.01 \$3.95 \$2.59 \$2.37 \$1.70 \$1.31 \$2.87 \$1.21 \$1.46	2020 \$2.40 \$3.04 \$1.98 \$2.86 \$1.62 \$1.53 \$3.22 \$4.17 \$2.63 \$2.53 \$1.73 \$1.45 \$3.00 \$1.30 \$1.53	2021 \$2.57 \$3.19 \$2.14 \$2.98 \$1.71 \$1.61 \$3.43 \$4.39 \$2.68 \$2.69 \$1.77 \$1.60 \$3.13 \$1.39 \$1.60	2022 \$2.74 \$3.34 \$2.29 \$3.11 \$1.81 \$1.70 \$3.65 \$4.62 \$2.74 \$2.85 \$1.85 \$1.75 \$3.28 \$1.47 \$1.67	2023 \$2.93 \$3.49 \$2.45 \$3.25 \$1.91 \$1.78 \$3.86 \$4.85 \$2.81 \$3.01 \$1.80 \$3.42 \$1.55 \$1.74	2024 \$3.11 \$3.64 \$2.61 \$3.38 \$2.01 \$1.85 \$4.07 \$5.09 \$2.88 \$3.18 \$1.88 \$2.06 \$3.57 \$1.62 \$1.82	2025 \$3.31 \$3.79 \$2.77 \$3.52 \$2.12 \$1.93 \$4.28 \$5.33 \$2.96 \$3.34 \$1.92 \$2.21 \$3.73 \$1.69 \$1.89	2026 \$3.50 \$3.93 \$2.93 \$3.67 \$2.23 \$2.01 \$4.49 \$5.57 \$3.05 \$3.50 \$2.36 \$2.36 \$2.36 \$3.89 \$1.74 \$1.97	2027 \$3.65 \$4.10 \$3.06 \$3.83 \$2.33 \$2.09 \$4.68 \$5.82 \$3.18 \$3.66 \$2.04 \$2.47 \$4.06 \$1.82 \$2.05	2028 \$3.81 \$4.28 \$3.20 \$4.00 \$2.43 \$2.18 \$4.88 \$6.07 \$3.32 \$3.81 \$2.13 \$2.57 \$4.24 \$1.90 \$2.14	2029 \$3.98 \$4.47 \$3.33 \$4.17 \$2.54 \$2.28 \$5.10 \$6.33 \$3.46 \$3.98 \$2.23 \$2.69 \$4.42 \$1.98 \$2.24	2030 \$4.15 \$4.66 \$3.48 \$4.35 \$2.65 \$2.38 \$5.32 \$6.61 \$3.61 \$4.15 \$2.32 \$2.80 \$4.62 \$2.06 \$2.33	Terminal Value \$93.61 \$112.73 \$81.16 \$104.35 \$64.54 \$65.79 \$125.53 \$146.50 \$121.53 \$100.26 \$44.65 \$51.20 \$115.91 \$55.66 \$66.49
58 59 60 61 62 63 64 65 66 67 68 69 70 71	Cash Flows  Company  ALLETE, Inc. Alliant Energy Corporation Ameren Corporation American Electric Power Company, Inc. Avista Corporation CMS Energy Corporation Dominion Resources, Inc. DTE Energy Company IDACORP, Inc. NorthWestern Corporation OGE Energy Corp. Otter Tail Corporation PINM Resources, Inc. Portland General Electric Company SCANA Corporation	2016 \$2.13 \$2.37 \$1.69 \$2.34 \$1.40 \$1.18 \$2.56 \$3.45 \$2.16 \$2.05 \$1.34 \$1.27 \$2.51 \$0.87 \$1.25 \$2.32	2017 \$2.17 \$2.53 \$1.74 \$2.47 \$1.44 \$1.26 \$2.70 \$3.61 \$2.30 \$2.15 \$1.45 \$1.29 \$2.62 \$2.62 \$1.31 \$2.41	2018 \$2.20 \$2.70 \$1.79 \$2.60 \$1.48 \$1.35 \$2.85 \$3.77 \$2.44 \$2.26 \$1.58 \$1.30 \$2.74 \$1.09 \$1.39 \$2.50	2019 \$2.24 \$2.89 \$1.84 \$2.73 \$1.53 \$1.45 \$3.01 \$3.95 \$2.59 \$2.37 \$1.70 \$1.31 \$2.87 \$1.21 \$1.46 \$2.60	2020 \$2.40 \$3.04 \$1.98 \$2.86 \$1.62 \$1.53 \$3.22 \$4.17 \$2.63 \$2.53 \$1.73 \$1.45 \$3.00 \$1.30 \$1.53 \$2.72	2021 \$2.57 \$3.19 \$2.14 \$2.98 \$1.71 \$1.61 \$3.43 \$4.39 \$2.68 \$2.69 \$1.77 \$1.60 \$3.13 \$1.39 \$1.60 \$2.85	2022 \$2.74 \$3.34 \$2.29 \$3.11 \$1.81 \$1.70 \$3.65 \$4.62 \$2.74 \$2.85 \$1.85 \$1.75 \$3.28 \$1.47 \$1.67 \$2.98	2023 \$2.93 \$3.49 \$2.45 \$3.25 \$1.91 \$1.78 \$3.86 \$4.85 \$2.81 \$3.01 \$1.89 \$3.42 \$1.55 \$1.74 \$3.12	2024 \$3.11 \$3.64 \$2.61 \$3.38 \$2.01 \$1.85 \$4.07 \$5.09 \$2.88 \$3.18 \$1.88 \$2.06 \$3.57 \$1.62 \$1.82 \$3.27	2025 \$3.31 \$3.79 \$2.77 \$3.52 \$2.12 \$1.93 \$4.28 \$5.33 \$2.96 \$3.34 \$1.92 \$2.21 \$3.73 \$1.69 \$1.89 \$3.42	2026 \$3.50 \$3.93 \$2.93 \$3.67 \$2.23 \$2.01 \$4.49 \$5.57 \$3.05 \$3.50 \$1.96 \$2.36 \$3.89 \$1.74 \$1.97 \$3.58	2027 \$3.65 \$4.10 \$3.06 \$3.83 \$2.33 \$2.09 \$4.68 \$5.82 \$3.18 \$3.66 \$2.04 \$2.47 \$4.06 \$1.82 \$2.05 \$3.73	2028 \$3.81 \$4.28 \$3.20 \$4.00 \$2.43 \$2.18 \$4.88 \$6.07 \$3.32 \$3.81 \$2.13 \$2.57 \$4.24 \$1.90 \$2.14 \$3.89	2029 \$3.98 \$4.47 \$3.33 \$4.17 \$2.54 \$5.10 \$6.33 \$3.46 \$3.98 \$2.23 \$2.69 \$4.42 \$1.98 \$2.24 \$4.06	2030 \$4.15 \$4.66 \$3.48 \$4.35 \$2.65 \$2.38 \$5.32 \$6.61 \$3.61 \$4.15 \$2.32 \$2.80 \$4.62 \$2.06 \$2.33 \$4.24	Terminal Value \$93.61 \$112.73 \$81.16 \$104.35 \$64.54 \$65.79 \$125.53 \$146.50 \$121.53 \$100.26 \$44.65 \$51.20 \$115.91 \$55.66 \$66.49 \$109.92
58 59 60 61 62 63 64 65 66 67 68 69 70 71	Cash Flows  Company  ALLETE, Inc. Alliant Energy Corporation American Electric Power Company, Inc. Avista Corporation CMS Energy Corporation Dominion Resources, Inc. DTE Energy Company IDACORP, Inc. NorthWestern Corporation OGE Energy Corp. Otter Tail Corporation Pinnacle West Capital Corporation PNM Resources, Inc. Portland General Electric Company	2016 \$2.13 \$2.37 \$1.69 \$2.34 \$1.40 \$1.18 \$2.56 \$3.45 \$2.16 \$2.05 \$1.34 \$1.27 \$2.51 \$0.87 \$1.25	2017 \$2.17 \$2.53 \$1.74 \$2.47 \$1.44 \$1.26 \$2.70 \$3.61 \$2.30 \$2.15 \$1.45 \$1.29 \$2.62 \$2.62 \$2.62 \$1.31	2018 \$2.20 \$2.70 \$1.79 \$2.60 \$1.48 \$1.35 \$2.85 \$3.77 \$2.44 \$2.26 \$1.58 \$1.30 \$2.74 \$1.09 \$1.39	2019 \$2.24 \$2.89 \$1.84 \$2.73 \$1.53 \$1.45 \$3.01 \$3.95 \$2.59 \$2.37 \$1.70 \$1.31 \$2.87 \$1.21 \$1.46	2020 \$2.40 \$3.04 \$1.98 \$2.86 \$1.62 \$1.53 \$3.22 \$4.17 \$2.63 \$2.53 \$1.73 \$1.45 \$3.00 \$1.30 \$1.53	2021 \$2.57 \$3.19 \$2.14 \$2.98 \$1.71 \$1.61 \$3.43 \$4.39 \$2.68 \$2.69 \$1.77 \$1.60 \$3.13 \$1.39 \$1.60	2022 \$2.74 \$3.34 \$2.29 \$3.11 \$1.81 \$1.70 \$3.65 \$4.62 \$2.74 \$2.85 \$1.85 \$1.75 \$3.28 \$1.47 \$1.67	2023 \$2.93 \$3.49 \$2.45 \$3.25 \$1.91 \$1.78 \$3.86 \$4.85 \$2.81 \$3.01 \$1.80 \$3.42 \$1.55 \$1.74	2024 \$3.11 \$3.64 \$2.61 \$3.38 \$2.01 \$1.85 \$4.07 \$5.09 \$2.88 \$3.18 \$1.88 \$2.06 \$3.57 \$1.62 \$1.82	2025 \$3.31 \$3.79 \$2.77 \$3.52 \$2.12 \$1.93 \$4.28 \$5.33 \$2.96 \$3.34 \$1.92 \$2.21 \$3.73 \$1.69 \$1.89	2026 \$3.50 \$3.93 \$2.93 \$3.67 \$2.23 \$2.01 \$4.49 \$5.57 \$3.05 \$3.50 \$2.36 \$2.36 \$2.36 \$3.89 \$1.74 \$1.97	2027 \$3.65 \$4.10 \$3.06 \$3.83 \$2.33 \$2.09 \$4.68 \$5.82 \$3.18 \$3.66 \$2.04 \$2.47 \$4.06 \$1.82 \$2.05	2028 \$3.81 \$4.28 \$3.20 \$4.00 \$2.43 \$2.18 \$4.88 \$6.07 \$3.32 \$3.81 \$2.13 \$2.57 \$4.24 \$1.90 \$2.14	2029 \$3.98 \$4.47 \$3.33 \$4.17 \$2.54 \$2.28 \$5.10 \$6.33 \$3.46 \$3.98 \$2.23 \$2.69 \$4.42 \$1.98 \$2.24	2030 \$4.15 \$4.66 \$3.48 \$4.35 \$2.65 \$2.38 \$5.32 \$6.61 \$3.61 \$4.15 \$2.32 \$2.80 \$4.62 \$2.06 \$2.33	Terminal Value \$93.61 \$112.73 \$81.16 \$104.35 \$64.54 \$65.79 \$125.53 \$146.50 \$121.53 \$100.26 \$44.65 \$51.20 \$115.91 \$55.66 \$66.49

#### Revised Hevert Multi-Stage Growth Discounted Cash Flow Model 30 Day Average Stock Price Average EPS Growth Rate Estimate in First Stage

Projected Annual Data

	i Tojectea / tilitaai Data																	
	Investor Cash Flows	[62]	[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]
		Initial																
	Company	Outflow	1/15/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
75	ALLETE, Inc.	(\$50.12)	\$0.00	\$2.05	\$2.19	\$2.20	\$2.24	\$2.40	\$2.57	\$2.74	\$2.93	\$3.11	\$3.31	\$3.50	\$3.65	\$3.81	\$3.98	\$97.77
76	Alliant Energy Corporation	(\$61.59)	\$0.00	\$2.28	\$2.44	\$2.70	\$2.89	\$3.04	\$3.19	\$3.34	\$3.49	\$3.64	\$3.79	\$3.93	\$4.10	\$4.28	\$4.47	\$117.39
77	Ameren Corporation	(\$43.18)	\$0.00	\$1.62	\$1.74	\$1.79	\$1.84	\$1.98	\$2.14	\$2.29	\$2.45	\$2.61	\$2.77	\$2.93	\$3.06	\$3.20	\$3.33	\$84.64
78	American Electric Power Company, Inc.	(\$57.34)	\$0.00	\$2.25	\$2.40	\$2.60	\$2.73	\$2.86	\$2.98	\$3.11	\$3.25	\$3.38	\$3.52	\$3.67	\$3.83	\$4.00	\$4.17	\$108.70
79	Avista Corporation	(\$34.97)	\$0.00	\$1.35	\$1.43	\$1.48	\$1.53	\$1.62	\$1.71	\$1.81	\$1.91	\$2.01	\$2.12	\$2.23	\$2.33	\$2.43	\$2.54	\$67.18
80	CMS Energy Corporation	(\$35.77)	\$0.00	\$1.13	\$1.21	\$1.35	\$1.45	\$1.53	\$1.61	\$1.70	\$1.78	\$1.85	\$1.93	\$2.01	\$2.09	\$2.18	\$2.28	\$68.17
81	Dominion Resources, Inc.	(\$67.46)	\$0.00	\$2.46	\$2.65	\$2.85	\$3.01	\$3.22	\$3.43	\$3.65	\$3.86	\$4.07	\$4.28	\$4.49	\$4.68	\$4.88	\$5.10	\$130.85
82	DTE Energy Company	(\$79.78)	\$0.00	\$3.31	\$3.54	\$3.77	\$3.95	\$4.17	\$4.39	\$4.62	\$4.85	\$5.09	\$5.33	\$5.57	\$5.82	\$6.07	\$6.33	\$153.10
83	IDACORP, Inc.	(\$67.89)	\$0.00	\$2.08	\$2.20	\$2.44	\$2.59	\$2.63	\$2.68	\$2.74	\$2.81	\$2.88	\$2.96	\$3.05	\$3.18	\$3.32	\$3.46	\$125.14
84	NorthWestern Corporation	(\$54.03)	\$0.00	\$1.97	\$2.12	\$2.26	\$2.37	\$2.53	\$2.69	\$2.85	\$3.01	\$3.18	\$3.34	\$3.50	\$3.66	\$3.81	\$3.98	\$104.41
85	OGE Energy Corp.	(\$25.52)	\$0.00	\$1.29	\$1.36	\$1.58	\$1.70	\$1.73	\$1.77	\$1.80	\$1.84	\$1.88	\$1.92	\$1.96	\$2.04	\$2.13	\$2.23	\$46.97
86	Otter Tail Corporation	(\$26.51)	\$0.00	\$1.22	\$1.32	\$1.30	\$1.31	\$1.45	\$1.60	\$1.75	\$1.90	\$2.06	\$2.21	\$2.36	\$2.47	\$2.57	\$2.69	\$54.00
87	Pinnacle West Capital Corporation	(\$63.57)	\$0.00	\$2.41	\$2.56	\$2.74	\$2.87	\$3.00	\$3.13	\$3.28	\$3.42	\$3.57	\$3.73	\$3.89	\$4.06	\$4.24	\$4.42	\$120.53
88	PNM Resources, Inc.	(\$29.89)	\$0.00	\$0.84	\$0.91	\$1.09	\$1.21	\$1.30	\$1.39	\$1.47	\$1.55	\$1.62	\$1.69	\$1.74	\$1.82	\$1.90	\$1.98	\$57.73
89	Portland General Electric Company	(\$36.42)	\$0.00	\$1.20	\$1.28	\$1.39	\$1.46	\$1.53	\$1.60	\$1.67	\$1.74	\$1.82	\$1.89	\$1.97	\$2.05	\$2.14	\$2.24	\$68.83
90	SCANA Corporation	(\$60.15)	\$0.00	\$2.23	\$2.37	\$2.50	\$2.60	\$2.72	\$2.85	\$2.98	\$3.12	\$3.27	\$3.42	\$3.58	\$3.73	\$3.89	\$4.06	\$114.16
91	Westar Energy, Inc.	(\$41.90)	\$0.00	\$1.50	\$1.60	\$1.59	\$1.60	\$1.70	\$1.80	\$1.90	\$2.02	\$2.14	\$2.26	\$2.39	\$2.50	\$2.61	\$2.72	\$80.26
92	Xcel Energy Inc.	(\$35.81)	\$0.00	\$1.35	\$1.44	\$1.57	\$1.66	\$1.73	\$1.81	\$1.88	\$1.96	\$2.04	\$2.12	\$2.20	\$2.29	\$2.39	\$2.50	\$67.66

#### Revised Hevert Multi-Stage Growth Discounted Cash Flow Model 90 Day Average Stock Price Average EPS Growth Rate Estimate in First Stage

	Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]				
		Stock	EPS	Growth F		nates	Long-Term	Р	ayout Ra	tio	Iterative	Solution						
			<b>-</b> .	First	Value								P/E	PEG				
:	Company	Price	Zacks	Call	Line	Average	Growth	2016	2019	2025	Proof	IRR	Ratio	Ratio				
	ALLETE, Inc.	\$50.31	5.00%	5.00%	6.50%	5.50%	4.35%		59.00%		(\$0.00)	8.96%	14.94	3.43				
	Alliant Energy Corporation	\$59.72	5.40%	5.55%	6.00%	5.65%	4.35%		63.00%		\$0.00	8.80%	14.30	3.29				
3	•	\$42.83	6.30%	6.00%	7.00%	6.43%	4.35%	62.00%		62.00%	\$0.00	8.86%	14.35	3.30				
	American Electric Power Company, Inc.	\$56.58	4.70%	4.43%	5.00%	4.71%	4.35%		65.00%		(\$0.00)	8.76%	15.14	3.48				
	Avista Corporation	\$33.87	5.00%	5.00%	5.00%	5.00%	4.35%	69.00%		69.00%	(\$0.00)	8.77%	16.30	3.75				
	CMS Energy Corporation	\$35.33	6.10%	6.72%	5.50%	6.11%	4.35%		62.00%		\$0.00	8.17%	16.39	3.77				
7	Dominion Resources, Inc.	\$69.01	6.10%	5.49%	8.00%	6.53%	4.35%		72.00%		\$0.00	8.67%	17.86	4.11				
	DTE Energy Company	\$80.17	5.60%	5.12%	5.00%	5.24%	4.35%		60.00%		\$0.00	9.03%	13.59	3.12				
	IDACORP, Inc.	\$66.25	4.00%	4.00%	1.00%	3.00%	4.35%		58.00%		(\$0.00)	7.53%	17.39	4.00				
	NorthWestern Corporation	\$53.77	5.00%	6.81%	6.50%	6.10%	4.35%		59.00%		\$0.00	8.69%	14.65	3.37				
	OGE Energy Corp.	\$26.72	5.70%	2.17%	3.00%	3.62%	4.35%		72.00%		(\$0.00)	9.52%	12.70	2.92				
	Otter Tail Corporation	\$26.61	NA	6.00%	9.00%	7.50%	4.35%		59.00%		\$0.00	10.04%	13.02	2.99				
	Pinnacle West Capital Corporation	\$63.35	4.80%	4.95%	4.00%	4.58%	4.35%		64.00%		(\$0.00)	8.52%	16.02	3.68				
	PNM Resources, Inc.	\$28.43	7.70%	9.30%	9.00%	8.67%	4.35%	51.00%	55.00%	51.00%	(\$0.00)	8.42%	13.08	3.01				
	Portland General Electric Company	\$36.56	4.40%	4.14%	6.00%	4.85%	4.35%	52.00%	53.00%		(\$0.00)	8.00%	14.88	3.42				
16	SCANA Corporation	\$57.82	4.50%	4.45%	4.50%	4.48%	4.35%	56.00%	55.00%	56.00%	(\$0.00)	8.54%	13.95	3.21				
17	Westar Energy, Inc.	\$40.32	3.60%	3.50%	6.00%	4.37%	4.35%	61.00%	55.00%	61.00%	\$0.00	8.32%	16.02	3.68				
18	Xcel Energy Inc.	\$35.44	5.00%	4.68%	4.50%	4.73%	4.35%	63.00%	65.00%	63.00%	\$0.00	8.57%	15.56	3.58				
19											Mean	8.68%						
20												10.04%						
21											Min	7.53%						
	Projected Annual																	
	Earnings per Share	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
	Company	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	ALLETE, Inc.	\$2.90	\$3.06	\$3.23	\$3.41	\$3.59	\$3.79	\$4.00	\$4.21	\$4.43	\$4.64	\$4.86	\$5.09	\$5.31	\$5.54	\$5.78	\$6.03	\$6.29
	Alliant Energy Corporation	\$3.48	\$3.68	\$3.88	\$4.10	\$4.34	\$4.58	\$4.84	\$5.10	\$5.37	\$5.64	\$5.91	\$6.18	\$6.45	\$6.73	\$7.02	\$7.32	\$7.64
	Ameren Corporation	\$2.40	\$2.55	\$2.72	\$2.89	\$3.08	\$3.28	\$3.49	\$3.70	\$3.91	\$4.12	\$4.33	\$4.54	\$4.73	\$4.94	\$5.15	\$5.38	\$5.61
	American Electric Power Company, Inc.	\$3.34	\$3.50	\$3.66	\$3.83	\$4.02	\$4.20	\$4.40	\$4.61	\$4.82	\$5.04	\$5.26	\$5.49	\$5.73	\$5.98	\$6.24	\$6.51	\$6.80
	Avista Corporation	\$1.84	\$1.93	\$2.03	\$2.13	\$2.24	\$2.35	\$2.47	\$2.59	\$2.71	\$2.84	\$2.97	\$3.10	\$3.23	\$3.37	\$3.52	\$3.67	\$3.83
	CMS Energy Corporation	\$1.74	\$1.85	\$1.96	\$2.08	\$2.21	\$2.34	\$2.48	\$2.63	\$2.77	\$2.92	\$3.06	\$3.20	\$3.34	\$3.49	\$3.64	\$3.80	\$3.96
	Dominion Resources, Inc.	\$3.05	\$3.25	\$3.46	\$3.69	\$3.93	\$4.18	\$4.46	\$4.73	\$5.01	\$5.28	\$5.55	\$5.81	\$6.06	\$6.33	\$6.60	\$6.89	\$7.19
	DTE Energy Company	\$5.10	\$5.37	\$5.65	\$5.94	\$6.26	\$6.58	\$6.93	\$7.28	\$7.64	\$8.01	\$8.38	\$8.76	\$9.14	\$9.54	\$9.95	\$10.38	\$10.83
	IDACORP, Inc.	\$3.85	\$3.97	\$4.08	\$4.21	\$4.33	\$4.46	\$4.60	\$4.75	\$4.91	\$5.09	\$5.29	\$5.51	\$5.75	\$6.00	\$6.26	\$6.53	\$6.81
	NorthWestern Corporation	\$2.99	\$3.17	\$3.37	\$3.57	\$3.79	\$4.02	\$4.27	\$4.51	\$4.76	\$5.01	\$5.26	\$5.50	\$5.74	\$5.99	\$6.25	\$6.53	\$6.81
	OGE Energy Corp.	\$1.98	\$2.05	\$2.13	\$2.20	\$2.28	\$2.37	\$2.45	\$2.54	\$2.64	\$2.75	\$2.86	\$2.98	\$3.11	\$3.25	\$3.39	\$3.53	\$3.69
	Otter Tail Corporation	\$1.55	\$1.67	\$1.79	\$1.93	\$2.07	\$2.23	\$2.39	\$2.56	\$2.72	\$2.89	\$3.04	\$3.19	\$3.33	\$3.47	\$3.62	\$3.78	\$3.95
	Pinnacle West Capital Corporation	\$3.58	\$3.74	\$3.92	\$4.10	\$4.28	\$4.48	\$4.68	\$4.90	\$5.12	\$5.35	\$5.58	\$5.83	\$6.08	\$6.35	\$6.62	\$6.91	\$7.21
	PNM Resources, Inc.	\$1.45	\$1.58	\$1.71	\$1.86	\$2.02	\$2.20	\$2.39	\$2.58	\$2.76	\$2.94	\$3.11	\$3.27	\$3.41	\$3.56	\$3.72	\$3.88	\$4.05
	Portland General Electric Company	\$2.18	\$2.29	\$2.40	\$2.51	\$2.63	\$2.76	\$2.90	\$3.03	\$3.18	\$3.32	\$3.47	\$3.63	\$3.78	\$3.95	\$4.12	\$4.30	\$4.49
37	SCANA Corporation	\$3.79	\$3.96	\$4.14	\$4.32	\$4.52	\$4.72	\$4.93	\$5.15	\$5.38	\$5.62	\$5.86	\$6.12	\$6.39	\$6.66	\$6.95	\$7.26	\$7.57
38	Westar Energy, Inc.	\$2.35	\$2.45	\$2.56	\$2.67	\$2.79	\$2.91	\$3.04	\$3.17	\$3.31	\$3.45	\$3.60	\$3.76	\$3.92	\$4.09	\$4.27	\$4.46	\$4.65
39	Xcel Energy Inc.	\$2.03	\$2.13	\$2.23	\$2.33	\$2.44	\$2.56	\$2.68	\$2.80	\$2.93	\$3.07	\$3.20	\$3.34	\$3.49	\$3.64	\$3.80	\$3.96	\$4.14

#### Revised Hevert Multi-Stage Growth Discounted Cash Flow Model 90 Day Average Stock Price Average EPS Growth Rate Estimate in First Stage

Projected Annual																
Dividend Payout Ratio	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	
Company	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
40 ALLETE, Inc.	66.00%	63.67%	61.33%	59.00%	60.00%	61.00%	62.00%	63.00%	64.00%	65.00%	66.00%	66.00%	66.00%	66.00%	66.00%	_
41 Alliant Energy Corporation	61.00%	61.67%	62.33%	63.00%	62.71%	62.43%	62.14%	61.86%	61.57%	61.29%	61.00%	61.00%	61.00%	61.00%	61.00%	
42 Ameren Corporation	62.00%	60.00%	58.00%	56.00%	56.86%	57.71%	58.57%	59.43%	60.29%	61.14%	62.00%	62.00%	62.00%	62.00%	62.00%	
43 American Electric Power Company, Inc.	64.00%	64.33%	64.67%	65.00%	64.86%	64.71%	64.57%	64.43%	64.29%	64.14%	64.00%	64.00%	64.00%	64.00%	64.00%	
44 Avista Corporation	69.00%	67.67%	66.33%	65.00%	65.57%	66.14%	66.71%	67.29%	67.86%	68.43%	69.00%	69.00%	69.00%	69.00%	69.00%	
45 CMS Energy Corporation	60.00%	60.67%	61.33%	62.00%	61.71%	61.43%	61.14%	60.86%	60.57%	60.29%	60.00%	60.00%	60.00%	60.00%	60.00%	
46 Dominion Resources, Inc.	74.00%	73.33%	72.67%	72.00%	72.29%	72.57%	72.86%	73.14%	73.43%	73.71%	74.00%	74.00%	74.00%	74.00%	74.00%	
47 DTE Energy Company	61.00%	60.67%	60.33%	60.00%	60.14%	60.29%	60.43%	60.57%	60.71%	60.86%	61.00%	61.00%	61.00%	61.00%	61.00%	
48 IDACORP, Inc.	53.00%	54.67%	56.33%	58.00%	57.29%	56.57%	55.86%	55.14%	54.43%	53.71%	53.00%	53.00%	53.00%	53.00%	53.00%	
49 NorthWestern Corporation	61.00%	60.33%	59.67%	59.00%	59.29%	59.57%	59.86%	60.14%	60.43%	60.71%	61.00%	61.00%	61.00%	61.00%	61.00%	
50 OGE Energy Corp.	63.00%	66.00%	69.00%	72.00%	70.71%	69.43%	68.14%	66.86%	65.57%	64.29%	63.00%	63.00%	63.00%	63.00%	63.00%	
51 Otter Tail Corporation	71.00%	67.00%	63.00%	59.00%	60.71%	62.43%	64.14%	65.86%	67.57%	69.29%	71.00%	71.00%	71.00%	71.00%	71.00%	
52 Pinnacle West Capital Corporation	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	
53 PNM Resources, Inc.	51.00%	52.33%	53.67%	55.00%	54.43%	53.86%	53.29%	52.71%	52.14%	51.57%	51.00%	51.00%	51.00%	51.00%	51.00%	
54 Portland General Electric Company	52.00%	52.33%	52.67%	53.00%	52.86%	52.71%	52.57%	52.43%	52.29%	52.14%	52.00%	52.00%	52.00%	52.00%	52.00%	
55 SCANA Corporation	56.00%	55.67%	55.33%	55.00%	55.14%	55.29%	55.43%	55.57%	55.71%	55.86%	56.00%	56.00%	56.00%	56.00%	56.00%	
56 Westar Energy, Inc.	61.00%	59.00%	57.00%	55.00%	55.86%	56.71%	57.57%	58.43%	59.29%	60.14%	61.00%	61.00%	61.00%	61.00%	61.00%	
57 Xcel Energy Inc.	63.00%	63.67%	64.33%	65.00%	64.71%	64.43%	64.14%	63.86%	63.57%	63.29%	63.00%	63.00%	63.00%	63.00%	63.00%	
Projected Annual Cash Flows	[46]	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	
																Te
Company	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
58 ALLETE, Inc.	\$2.13	\$2.17	\$2.20	\$2.24	\$2.40	\$2.57	\$2.74	\$2.93	\$3.11	\$3.31	\$3.50	\$3.65	\$3.81	\$3.98	\$4.15	
59 Alliant Energy Corporation	\$2.37	\$2.53	\$2.70	\$2.89	\$3.04	\$3.19	\$3.34	\$3.49	\$3.64	\$3.79	\$3.93	\$4.10	\$4.28	\$4.47	\$4.66	\$
60 Ameren Corporation	\$1.69	\$1.74	\$1.79	\$1.84	\$1.98	\$2.14	\$2.29	\$2.45	\$2.61	\$2.77	\$2.93	\$3.06	\$3.20	\$3.33	\$3.48	
61 American Electric Power Company, Inc.		\$2.47	\$2.60	\$2.73	\$2.86	\$2.98	\$3.11	\$3.25	\$3.38	\$3.52	\$3.67	\$3.83	\$4.00	\$4.17	\$4.35	\$
62 Avista Corporation	\$1.40	\$1.44	\$1.48	\$1.53	\$1.62	\$1.71	\$1.81	\$1.91	\$2.01	\$2.12	\$2.23	\$2.33	\$2.43	\$2.54	\$2.65	
63 CMS Energy Corporation	\$1.18	\$1.26	\$1.35	\$1.45	\$1.53	\$1.61	\$1.70	\$1.78	\$1.85	\$1.93	\$2.01	\$2.09	\$2.18	\$2.28	\$2.38	
64 Dominion Resources, Inc.	\$2.56	\$2.70	\$2.85	\$3.01	\$3.22	\$3.43	\$3.65	\$3.86	\$4.07	\$4.28	\$4.49	\$4.68	\$4.88	\$5.10	\$5.32	\$
65 DTE Energy Company	\$3.45	\$3.61	\$3.77	\$3.95	\$4.17	\$4.39	\$4.62	\$4.85	\$5.09	\$5.33	\$5.57	\$5.82	\$6.07	\$6.33	\$6.61	\$
66 IDACORP, Inc.	\$2.16	\$2.30	\$2.44	\$2.59	\$2.63	\$2.68	\$2.74	\$2.81	\$2.88	\$2.96	\$3.05	\$3.18	\$3.32	\$3.46	\$3.61	\$
7 NorthWestern Corporation	\$2.05	\$2.15	\$2.26	\$2.37	\$2.53	\$2.69	\$2.85	\$3.01	\$3.18	\$3.34	\$3.50	\$3.66	\$3.81	\$3.98	\$4.15	
68 OGE Energy Corp.	\$1.34	\$1.45	\$1.58	\$1.70	\$1.73	\$1.77	\$1.80	\$1.84	\$1.88	\$1.92	\$1.96	\$2.04	\$2.13	\$2.23	\$2.32	
69 Otter Tail Corporation	\$1.27	\$1.29	\$1.30	\$1.31	\$1.45	\$1.60	\$1.75	\$1.90	\$2.06	\$2.21	\$2.36	\$2.47	\$2.57	\$2.69	\$2.80	
70 Pinnacle West Capital Corporation	\$2.51	\$2.62	\$2.74	\$2.87	\$3.00	\$3.13	\$3.28	\$3.42	\$3.57	\$3.73	\$3.89	\$4.06	\$4.24	\$4.42	\$4.62	\$
71 PNM Resources, Inc.	\$0.87	\$0.97	\$1.09	\$1.21	\$1.30	\$1.39	\$1.47	\$1.55	\$1.62	\$1.69	\$1.74	\$1.82	\$1.90	\$1.98	\$2.06	
72 Portland General Electric Company	\$1.25	\$1.31	\$1.39	\$1.46	\$1.53	\$1.60	\$1.67	\$1.74	\$1.82	\$1.89	\$1.97	\$2.05	\$2.14	\$2.24	\$2.33	
73 SCANA Corporation	\$2.32	\$2.41	\$2.50	\$2.60	\$2.72	\$2.85	\$2.98	\$3.12	\$3.27	\$3.42	\$3.58	\$3.73	\$3.89	\$4.06	\$4.24	\$
74 Westar Energy, Inc.	\$1.56	\$1.58	\$1.59	\$1.60	\$1.70	\$1.80	\$1.90	\$2.02	\$2.14	\$2.26	\$2.39	\$2.50	\$2.61	\$2.72	\$2.84	:
75 Xcel Energy Inc.	\$1.40	\$1.48	\$1.57	\$1.66	\$1.73	\$1.81	\$1.88	\$1.96	\$2.04	\$2.12	\$2.20	\$2.29	\$2.39	\$2.50	\$2.61	9

#### Revised Hevert Multi-Stage Growth Discounted Cash Flow Model 90 Day Average Stock Price Average EPS Growth Rate Estimate in First Stage

#### Projected Annual Data

	i Tojected Affiliaal Data																	
	Investor Cash Flows	[62]	[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]
		Initial																
	Company	Outflow	1/15/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
76	6 ALLETE, Inc.	(\$50.31)	\$0.00	\$2.05	\$2.19	\$2.20	\$2.24	\$2.40	\$2.57	\$2.74	\$2.93	\$3.11	\$3.31	\$3.50	\$3.65	\$3.81	\$3.98	\$98.12
7	7 Alliant Energy Corporation	(\$59.72)	\$0.00	\$2.28	\$2.44	\$2.70	\$2.89	\$3.04	\$3.19	\$3.34	\$3.49	\$3.64	\$3.79	\$3.93	\$4.10	\$4.28	\$4.47	\$113.93
78	3 Ameren Corporation	(\$42.83)	\$0.00	\$1.62	\$1.74	\$1.79	\$1.84	\$1.98	\$2.14	\$2.29	\$2.45	\$2.61	\$2.77	\$2.93	\$3.06	\$3.20	\$3.33	\$84.00
79	American Electric Power Company, Inc.	(\$56.58)	\$0.00	\$2.25	\$2.40	\$2.60	\$2.73	\$2.86	\$2.98	\$3.11	\$3.25	\$3.38	\$3.52	\$3.67	\$3.83	\$4.00	\$4.17	\$107.29
80	O Avista Corporation	(\$33.87)	\$0.00	\$1.35	\$1.43	\$1.48	\$1.53	\$1.62	\$1.71	\$1.81	\$1.91	\$2.01	\$2.12	\$2.23	\$2.33	\$2.43	\$2.54	\$65.15
8	1 CMS Energy Corporation	(\$35.33)	\$0.00	\$1.13	\$1.21	\$1.35	\$1.45	\$1.53	\$1.61	\$1.70	\$1.78	\$1.85	\$1.93	\$2.01	\$2.09	\$2.18	\$2.28	\$67.35
82	2 Dominion Resources, Inc.	(\$69.01)	\$0.00	\$2.46	\$2.65	\$2.85	\$3.01	\$3.22	\$3.43	\$3.65	\$3.86	\$4.07	\$4.28	\$4.49	\$4.68	\$4.88	\$5.10	\$133.72
83	3 DTE Energy Company	(\$80.17)	\$0.00	\$3.31	\$3.54	\$3.77	\$3.95	\$4.17	\$4.39	\$4.62	\$4.85	\$5.09	\$5.33	\$5.57	\$5.82	\$6.07	\$6.33	\$153.82
84	4 IDACORP, Inc.	(\$66.25)	\$0.00	\$2.08	\$2.20	\$2.44	\$2.59	\$2.63	\$2.68	\$2.74	\$2.81	\$2.88	\$2.96	\$3.05	\$3.18	\$3.32	\$3.46	\$122.10
8	NorthWestern Corporation	(\$53.77)	\$0.00	\$1.97	\$2.12	\$2.26	\$2.37	\$2.53	\$2.69	\$2.85	\$3.01	\$3.18	\$3.34	\$3.50	\$3.66	\$3.81	\$3.98	\$103.94
86	6 OGE Energy Corp.	(\$26.72)	\$0.00	\$1.29	\$1.36	\$1.58	\$1.70	\$1.73	\$1.77	\$1.80	\$1.84	\$1.88	\$1.92	\$1.96	\$2.04	\$2.13	\$2.23	\$49.17
8	7 Otter Tail Corporation	(\$26.61)	\$0.00	\$1.22	\$1.32	\$1.30	\$1.31	\$1.45	\$1.60	\$1.75	\$1.90	\$2.06	\$2.21	\$2.36	\$2.47	\$2.57	\$2.69	\$54.20
88	Pinnacle West Capital Corporation	(\$63.35)	\$0.00	\$2.41	\$2.56	\$2.74	\$2.87	\$3.00	\$3.13	\$3.28	\$3.42	\$3.57	\$3.73	\$3.89	\$4.06	\$4.24	\$4.42	\$120.12
89	9 PNM Resources, Inc.	(\$28.43)	\$0.00	\$0.84	\$0.91	\$1.09	\$1.21	\$1.30	\$1.39	\$1.47	\$1.55	\$1.62	\$1.69	\$1.74	\$1.82	\$1.90	\$1.98	\$55.02
90	Portland General Electric Company	(\$36.56)	\$0.00	\$1.20	\$1.28	\$1.39	\$1.46	\$1.53	\$1.60	\$1.67	\$1.74	\$1.82	\$1.89	\$1.97	\$2.05	\$2.14	\$2.24	\$69.08
9	1 SCANA Corporation	(\$57.82)	\$0.00	\$2.23	\$2.37	\$2.50	\$2.60	\$2.72	\$2.85	\$2.98	\$3.12	\$3.27	\$3.42	\$3.58	\$3.73	\$3.89	\$4.06	\$109.85
92	2 Westar Energy, Inc.	(\$40.32)	\$0.00	\$1.50	\$1.60	\$1.59	\$1.60	\$1.70	\$1.80	\$1.90	\$2.02	\$2.14	\$2.26	\$2.39	\$2.50	\$2.61	\$2.72	\$77.34
93	3 Xcel Energy Inc.	(\$35.44)	\$0.00	\$1.35	\$1.44	\$1.57	\$1.66	\$1.73	\$1.81	\$1.88	\$1.96	\$2.04	\$2.12	\$2.20	\$2.29	\$2.39	\$2.50	\$66.99

#### Revised Hevert Multi-Stage Growth Discounted Cash Flow Model 180 Day Average Stock Price Average EPS Growth Rate Estimate in First Stage

Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]				
	Stock	EPS	Growth R	ate Estim	nates	Long-Term	P	ayout Rat	io	Iterative	Solution	Terminal	Terminal				
				Value		_		-				P/E	PEG				
Company	Price	Zacks	First Call	Line	Average	Growth	2016	2019	2025	Proof	IRR	Ratio	Ratio				
1 ALLETE, Inc.	\$49.47	5.00%	5.00%	6.50%	5.50%	4.35%	66.00%	59.00%	66.00%	(\$0.00)	9.04%	14.69	3.38				
2 Alliant Energy Corporation	\$59.67	5.40%	5.55%	6.00%	5.65%	4.35%	61.00%	63.00%	61.00%	\$0.00	8.81%	14.29	3.28				
3 Ameren Corporation	\$41.34	6.30%	6.00%	7.00%	6.43%	4.35%	62.00%	56.00%	62.00%	\$0.00	9.02%	13.85	3.18				
4 American Electric Power Company, Inc.	\$55.91	4.70%	4.43%	5.00%	4.71%	4.35%	64.00%	65.00%	64.00%	(\$0.00)	8.81%	14.96	3.44				
5 Avista Corporation	\$32.85	5.00%	5.00%	5.00%	5.00%	4.35%	69.00%	65.00%	69.00%	(\$0.00)	8.90%	15.81	3.63				
6 CMS Energy Corporation	\$34.36	6.10%	6.72%	5.50%	6.11%	4.35%	60.00%	62.00%	60.00%	\$0.00	8.28%	15.94	3.66				
7 Dominion Resources, Inc.	\$69.57	6.10%	5.49%	8.00%	6.53%	4.35%	74.00%	72.00%	74.00%	\$0.00	8.64%	18.01	4.14				
8 DTE Energy Company	\$79.11	5.60%	5.12%	5.00%	5.24%	4.35%	61.00%	60.00%	61.00%	\$0.00	9.10%	13.41	3.08				
9 IDACORP, Inc.	\$62.69	4.00%	4.00%	1.00%	3.00%	4.35%	53.00%	58.00%	53.00%	(\$0.00)	7.72%	16.43	3.78				
10 NorthWestern Corporation	\$52.75	5.00%	6.81%	6.50%	6.10%	4.35%	61.00%	59.00%	61.00%	\$0.00	8.78%	14.38	3.30				
11 OGE Energy Corp.	\$28.22	5.70%	2.17%	3.00%	3.62%	4.35%	63.00%	72.00%	63.00%	(\$0.00)	9.24%	13.45	3.09				
12 Otter Tail Corporation	\$26.76	NA	6.00%	9.00%	7.50%	4.35%	71.00%	59.00%	71.00%	\$0.00	10.01%	13.09	3.01				
13 Pinnacle West Capital Corporation	\$61.66	4.80%	4.95%	4.00%	4.58%	4.35%	64.00%	64.00%	64.00%	(\$0.00)	8.64%	15.58	3.58				
14 PNM Resources, Inc.	\$27.23	7.70%	9.30%	9.00%	8.67%	4.35%	51.00%	55.00%	51.00%	(\$0.00)	8.60%	12.53	2.88				
15 Portland General Electric Company	\$35.66	4.40%	4.14%	6.00%	4.85%	4.35%	52.00%	53.00%	52.00%	(\$0.00)	8.09%	14.51	3.33				
16 SCANA Corporation	\$55.39	4.50%	4.45%	4.50%	4.48%	4.35%	56.00%	55.00%	56.00%	(\$0.00)	8.73%	13.35	3.07				
17 Westar Energy, Inc.	\$38.32	3.60%	3.50%	6.00%	4.37%	4.35%	61.00%	55.00%	61.00%	\$0.00	8.53%	15.22	3.50				
18 Xcel Energy Inc.	\$34.55	5.00%	4.68%	4.50%	4.73%	4.35%	63.00%	65.00%	63.00%	(\$0.00)	8.69%	15.16	3.49				
19										Mean	8.76%						
20										Max	10.01%						
21										Min	7.72%						
Projected Annual																	
Earnings per Share	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]
•																	
Company	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
22 ALLETE, Inc.	\$2.90	\$3.06	\$3.23	\$3.41	\$3.59	\$3.79	\$4.00	\$4.21	\$4.43	\$4.64	\$4.86	\$5.09	\$5.31	\$5.54	\$5.78	\$6.03	\$6.29
23 Alliant Energy Corporation	\$3.48	\$3.68	\$3.88	\$4.10	\$4.34	\$4.58	\$4.84	\$5.10	\$5.37	\$5.64	\$5.91	\$6.18	\$6.45	\$6.73	\$7.02	\$7.32	\$7.64
24 Ameren Corporation	\$2.40	\$2.55	\$2.72	\$2.89	\$3.08	\$3.28	\$3.49	\$3.70	\$3.91	\$4.12	\$4.33	\$4.54	\$4.73	\$4.94	\$5.15	\$5.38	\$5.61
25 American Electric Power Company, Inc.	\$3.34	\$3.50	\$3.66	\$3.83	\$4.02	\$4.20	\$4.40	\$4.61	\$4.82	\$5.04	\$5.26	\$5.49	\$5.73	\$5.98	\$6.24	\$6.51	\$6.80
26 Avista Corporation	\$1.84	\$1.93	\$2.03	\$2.13	\$2.24	\$2.35	\$2.47	\$2.59	\$2.71	\$2.84	\$2.97	\$3.10	\$3.23	\$3.37	\$3.52	\$3.67	\$3.83
27 CMS Energy Corporation	\$1.74	\$1.85	\$1.96	\$2.08	\$2.21	\$2.34	\$2.48	\$2.63	\$2.77	\$2.92	\$3.06	\$3.20	\$3.34	\$3.49	\$3.64	\$3.80	\$3.96
28 Dominion Resources, Inc.	\$3.05	\$3.25	\$3.46	\$3.69	\$3.93	\$4.18	\$4.46	\$4.73	\$5.01	\$5.28	\$5.55	\$5.81	\$6.06	\$6.33	\$6.60	\$6.89	\$7.19
29 DTE Energy Company	\$5.10	\$5.37	\$5.65	\$5.94	\$6.26	\$6.58	\$6.93	\$7.28	\$7.64	\$8.01	\$8.38	\$8.76	\$9.14	\$9.54	\$9.95	\$10.38	\$10.83
30 IDACORP, Inc.	\$3.85	\$3.97	\$4.08	\$4.21	\$4.33	\$4.46	\$4.60	\$4.75	\$4.91	\$5.09	\$5.29	\$5.51	\$5.75	\$6.00	\$6.26	\$6.53	\$6.81
31 NorthWestern Corporation	\$2.99	\$3.17	\$3.37	\$3.57	\$3.79	\$4.02	\$4.27	\$4.51	\$4.76	\$5.01	\$5.26	\$5.50	\$5.74	\$5.99	\$6.25	\$6.53	\$6.81
32 OGE Energy Corp.	\$1.98	\$2.05	\$2.13	\$2.20	\$2.28	\$2.37	\$2.45	\$2.54	\$2.64	\$2.75	\$2.86	\$2.98	\$3.11	\$3.25	\$3.39	\$3.53	\$3.69
33 Otter Tail Corporation	\$1.55	\$1.67	\$1.79	\$1.93	\$2.07	\$2.23	\$2.39	\$2.56	\$2.72	\$2.89	\$3.04	\$3.19	\$3.33	\$3.47	\$3.62	\$3.78	\$3.95
34 Pinnacle West Capital Corporation	\$3.58	\$3.74	\$3.92	\$4.10	\$4.28	\$4.48	\$4.68	\$4.90	\$5.12	\$5.35	\$5.58	\$5.83	\$6.08	\$6.35	\$6.62	\$6.91	\$7.21
35 PNM Resources, Inc.	\$1.45	\$1.58	\$1.71	\$1.86	\$2.02	\$2.20	\$2.39	\$2.58	\$2.76	\$2.94	\$3.11	\$3.27	\$3.41	\$3.56	\$3.72	\$3.88	\$4.05
36 Portland General Electric Company	\$2.18	\$2.29	\$2.40	\$2.51	\$2.63	\$2.76	\$2.90	\$3.03	\$3.18	\$3.32	\$3.47	\$3.63	\$3.78	\$3.95	\$4.12	\$4.30	\$4.49
37 SCANA Corporation	\$3.79	\$3.96	\$4.14	\$4.32	\$4.52	\$4.72	\$4.93	\$5.15	\$5.38	\$5.62	\$5.86	\$6.12	\$6.39	\$6.66	\$6.95	\$7.26	\$7.57
38 Westar Energy, Inc.	\$2.35	\$2.45	\$2.56	\$2.67	\$2.79	\$2.91	\$3.04	\$3.17	\$3.31	\$3.45	\$3.60	\$3.76	\$3.92	\$4.09	\$4.27	\$4.46	\$4.65
39 Xcel Energy Inc.	\$2.03	\$2.13	\$2.23	\$2.33	\$2.44	\$2.56	\$2.68	\$2.80	\$2.93	\$3.07	\$3.20	\$3.34	\$3.49	\$3.64	\$3.80	\$3.96	\$4.14

#### Revised Hevert Multi-Stage Growth Discounted Cash Flow Model 180 Day Average Stock Price Average EPS Growth Rate Estimate in First Stage

Projected Annual																
Dividend Payout Ratio	[31]	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	
•																_
Company	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
40 ALLETE, Inc.	66.00%	63.67%	61.33%	59.00%	60.00%	61.00%	62.00%	63.00%	64.00%	65.00%	66.00%	66.00%	66.00%	66.00%	66.00%	
41 Alliant Energy Corporation	61.00%	61.67%	62.33%	63.00%	62.71%	62.43%	62.14%	61.86%	61.57%	61.29%	61.00%	61.00%	61.00%	61.00%	61.00%	
42 Ameren Corporation	62.00%	60.00%	58.00%	56.00%	56.86%	57.71%	58.57%	59.43%	60.29%	61.14%	62.00%	62.00%	62.00%	62.00%	62.00%	
43 American Electric Power Company, Inc.	64.00%	64.33%	64.67%	65.00%	64.86%	64.71%	64.57%	64.43%	64.29%	64.14%	64.00%	64.00%	64.00%	64.00%	64.00%	
44 Avista Corporation	69.00%	67.67%	66.33%	65.00%	65.57%	66.14%	66.71%	67.29%	67.86%	68.43%	69.00%	69.00%	69.00%	69.00%	69.00%	
45 CMS Energy Corporation	60.00%	60.67%	61.33%	62.00%	61.71%	61.43%	61.14%	60.86%	60.57%	60.29%	60.00%	60.00%	60.00%	60.00%	60.00%	
16 Dominion Resources, Inc.	74.00%	73.33%	72.67%	72.00%	72.29%	72.57%	72.86%	73.14%	73.43%	73.71%	74.00%	74.00%	74.00%	74.00%	74.00%	
17 DTE Energy Company	61.00%	60.67%	60.33%	60.00%	60.14%	60.29%	60.43%	60.57%	60.71%	60.86%	61.00%	61.00%	61.00%	61.00%	61.00%	
18 IDACORP, Inc.	53.00%	54.67%	56.33%	58.00%	57.29%	56.57%		55.14%				53.00%	53.00%	53.00%	53.00%	
19 NorthWestern Corporation	61.00%	60.33%	59.67%	59.00%	59.29%	59.57%		60.14%				61.00%	61.00%	61.00%	61.00%	
50 OGE Energy Corp.	63.00%	66.00%	69.00%	72.00%	70.71%	69.43%	68.14%	66.86%	65.57%	64.29%	63.00%	63.00%	63.00%	63.00%	63.00%	
51 Otter Tail Corporation	71.00%	67.00%		59.00%	60.71%	62.43%		65.86%				71.00%	71.00%	71.00%	71.00%	
52 Pinnacle West Capital Corporation	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	64.00%	
53 PNM Resources, Inc.	51.00%	52.33%		55.00%	54.43%	53.86%		52.71%				51.00%	51.00%	51.00%	51.00%	
54 Portland General Electric Company	52.00%	52.33%		53.00%	52.86%	52.71%		52.43%				52.00%	52.00%	52.00%	52.00%	
55 SCANA Corporation	56.00%	55.67%		55.00%	55.14%	55.29%		55.57%				56.00%	56.00%	56.00%	56.00%	
56 Westar Energy, Inc.	61.00%	59.00%		55.00%	55.86%	56.71%		58.43%				61.00%	61.00%	61.00%	61.00%	
57 Xcel Energy Inc.	63.00%	63.67%		65.00%	64.71%	64.43%		63.86%				63.00%	63.00%	63.00%	63.00%	
Projected Annual Cash Flows	[46]	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	
_																Τe
Company	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
8 ALLETE, Inc.	\$2.13	\$2.17	\$2.20	\$2.24	\$2.40	\$2.57	\$2.74	\$2.93	\$3.11	\$3.31	\$3.50	\$3.65	\$3.81	\$3.98	\$4.15	
59 Alliant Energy Corporation	\$2.37	\$2.53	\$2.70	\$2.89	\$3.04	\$3.19	\$3.34	\$3.49	\$3.64	\$3.79	\$3.93	\$4.10	\$4.28	\$4.47	\$4.66	
60 Ameren Corporation	\$1.69	\$1.74	\$1.79	\$1.84	\$1.98	\$2.14	\$2.29	\$2.45	\$2.61	\$2.77	\$2.93	\$3.06	\$3.20	\$3.33	\$3.48	
61 American Electric Power Company, Inc.		\$2.47	\$2.60	\$2.73	\$2.86	\$2.98	\$3.11	\$3.25	\$3.38	\$3.52	\$3.67	\$3.83	\$4.00	\$4.17	\$4.35	
62 Avista Corporation	\$1.40	\$1.44	\$1.48	\$1.53	\$1.62	\$1.71	\$1.81	\$1.91	\$2.01	\$2.12	\$2.23	\$2.33	\$2.43	\$2.54	\$2.65	
63 CMS Energy Corporation	\$1.18	\$1.26	\$1.35	\$1.45	\$1.53	\$1.61	\$1.70	\$1.78	\$1.85	\$1.93	\$2.01	\$2.09	\$2.18	\$2.28	\$2.38	
64 Dominion Resources, Inc.	\$2.56	\$2.70	\$2.85	\$3.01	\$3.22	\$3.43	\$3.65	\$3.86	\$4.07	\$4.28	\$4.49	\$4.68	\$4.88	\$5.10	\$5.32	
65 DTE Energy Company	\$3.45	\$3.61	\$3.77	\$3.95	\$4.17	\$4.39	\$4.62	\$4.85	\$5.09	\$5.33	\$5.57	\$5.82	\$6.07	\$6.33	\$6.61	
66 IDACORP, Inc.	\$2.16	\$2.30	\$2.44	\$2.59	\$2.63	\$2.68	\$2.74	\$2.81	\$2.88	\$2.96	\$3.05	\$3.18	\$3.32	\$3.46	\$3.61	
NorthWestern Corporation	\$2.05	\$2.15	\$2.26	\$2.37	\$2.53	\$2.69	\$2.85	\$3.01	\$3.18	\$3.34	\$3.50	\$3.66	\$3.81	\$3.98	\$4.15	
68 OGE Energy Corp.	\$1.34	\$1.45	\$1.58	\$1.70	\$1.73	\$1.77	\$1.80	\$1.84	\$1.88	\$1.92	\$1.96	\$2.04	\$2.13	\$2.23	\$2.32	
69 Otter Tail Corporation	\$1.27	\$1.29	\$1.30	\$1.31	\$1.45	\$1.60	\$1.75	\$1.90	\$2.06	\$2.21	\$2.36	\$2.47	\$2.57	\$2.69	\$2.80	
70 Pinnacle West Capital Corporation	\$2.51	\$2.62	\$2.74	\$2.87	\$3.00	\$3.13	\$3.28	\$3.42	\$3.57	\$3.73	\$3.89	\$4.06	\$4.24	\$4.42	\$4.62	
71 PNM Resources, Inc.	\$0.87	\$0.97	\$1.09	\$1.21	\$1.30	\$1.39	\$1.47	\$1.55	\$1.62	\$1.69	\$1.74	\$1.82	\$1.90	\$1.98	\$2.06	
72 Portland General Electric Company	\$1.25	\$1.31	\$1.39	\$1.46	\$1.53	\$1.60	\$1.67	\$1.74	\$1.82	\$1.89	\$1.97	\$2.05	\$2.14	\$2.24	\$2.33	
73 SCANA Corporation	\$2.32	\$2.41	\$2.50	\$2.60	\$2.72	\$2.85	\$2.98	\$3.12	\$3.27	\$3.42	\$3.58	\$3.73	\$3.89	\$4.06	\$4.24	
74 Westar Energy, Inc.	\$1.56	\$1.58	\$1.59	\$1.60	\$1.70	\$1.80	\$1.90	\$2.02	\$2.14	\$2.26	\$2.39	\$2.50	\$2.61	\$2.72	\$2.84	
75 Xcel Energy Inc.	\$1.40	\$1.48	\$1.57	\$1.66	\$1.73	\$1.81	\$1.88	\$1.96	\$2.04	\$2.12	\$2.20	\$2.29	\$2.39	\$2.50	\$2.61	

#### Revised Hevert Multi-Stage Growth Discounted Cash Flow Model 180 Day Average Stock Price Average EPS Growth Rate Estimate in First Stage

#### Projected Annual Data

Frojecieu Arinuai Dala																	
Investor Cash Flows	[62]	[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]
	Initial																
Company	Outflow	1/15/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
76 ALLETE, Inc.	(\$49.47)	\$0.00	\$2.05	\$2.19	\$2.20	\$2.24	\$2.40	\$2.57	\$2.74	\$2.93	\$3.11	\$3.31	\$3.50	\$3.65	\$3.81	\$3.98	\$96.56
77 Alliant Energy Corporation	(\$59.67)	\$0.00	\$2.28	\$2.44	\$2.70	\$2.89	\$3.04	\$3.19	\$3.34	\$3.49	\$3.64	\$3.79	\$3.93	\$4.10	\$4.28	\$4.47	\$113.84
78 Ameren Corporation	(\$41.34)	\$0.00	\$1.62	\$1.74	\$1.79	\$1.84	\$1.98	\$2.14	\$2.29	\$2.45	\$2.61	\$2.77	\$2.93	\$3.06	\$3.20	\$3.33	\$81.21
79 American Electric Power Company, Inc.	(\$55.91)	\$0.00	\$2.25	\$2.40	\$2.60	\$2.73	\$2.86	\$2.98	\$3.11	\$3.25	\$3.38	\$3.52	\$3.67	\$3.83	\$4.00	\$4.17	\$106.05
80 Avista Corporation	(\$32.85)	\$0.00	\$1.35	\$1.43	\$1.48	\$1.53	\$1.62	\$1.71	\$1.81	\$1.91	\$2.01	\$2.12	\$2.23	\$2.33	\$2.43	\$2.54	\$63.26
81 CMS Energy Corporation	(\$34.36)	\$0.00	\$1.13	\$1.21	\$1.35	\$1.45	\$1.53	\$1.61	\$1.70	\$1.78	\$1.85	\$1.93	\$2.01	\$2.09	\$2.18	\$2.28	\$65.56
82 Dominion Resources, Inc.	(\$69.57)	\$0.00	\$2.46	\$2.65	\$2.85	\$3.01	\$3.22	\$3.43	\$3.65	\$3.86	\$4.07	\$4.28	\$4.49	\$4.68	\$4.88	\$5.10	\$134.77
83 DTE Energy Company	(\$79.11)	\$0.00	\$3.31	\$3.54	\$3.77	\$3.95	\$4.17	\$4.39	\$4.62	\$4.85	\$5.09	\$5.33	\$5.57	\$5.82	\$6.07	\$6.33	\$151.86
84 IDACORP, Inc.	(\$62.69)	\$0.00	\$2.08	\$2.20	\$2.44	\$2.59	\$2.63	\$2.68	\$2.74	\$2.81	\$2.88	\$2.96	\$3.05	\$3.18	\$3.32	\$3.46	\$115.53
85 NorthWestern Corporation	(\$52.75)	\$0.00	\$1.97	\$2.12	\$2.26	\$2.37	\$2.53	\$2.69	\$2.85	\$3.01	\$3.18	\$3.34	\$3.50	\$3.66	\$3.81	\$3.98	\$102.04
86 OGE Energy Corp.	(\$28.22)	\$0.00	\$1.29	\$1.36	\$1.58	\$1.70	\$1.73	\$1.77	\$1.80	\$1.84	\$1.88	\$1.92	\$1.96	\$2.04	\$2.13	\$2.23	\$51.93
87 Otter Tail Corporation	(\$26.76)	\$0.00	\$1.22	\$1.32	\$1.30	\$1.31	\$1.45	\$1.60	\$1.75	\$1.90	\$2.06	\$2.21	\$2.36	\$2.47	\$2.57	\$2.69	\$54.47
88 Pinnacle West Capital Corporation	(\$61.66)	\$0.00	\$2.41	\$2.56	\$2.74	\$2.87	\$3.00	\$3.13	\$3.28	\$3.42	\$3.57	\$3.73	\$3.89	\$4.06	\$4.24	\$4.42	\$116.99
89 PNM Resources, Inc.	(\$27.23)	\$0.00	\$0.84	\$0.91	\$1.09	\$1.21	\$1.30	\$1.39	\$1.47	\$1.55	\$1.62	\$1.69	\$1.74	\$1.82	\$1.90	\$1.98	\$52.79
90 Portland General Electric Company	(\$35.66)	\$0.00	\$1.20	\$1.28	\$1.39	\$1.46	\$1.53	\$1.60	\$1.67	\$1.74	\$1.82	\$1.89	\$1.97	\$2.05	\$2.14	\$2.24	\$67.41
91 SCANA Corporation	(\$55.39)	\$0.00	\$2.23	\$2.37	\$2.50	\$2.60	\$2.72	\$2.85	\$2.98	\$3.12	\$3.27	\$3.42	\$3.58	\$3.73	\$3.89	\$4.06	\$105.34
92 Westar Energy, Inc.	(\$38.32)	\$0.00	\$1.50	\$1.60	\$1.59	\$1.60	\$1.70	\$1.80	\$1.90	\$2.02	\$2.14	\$2.26	\$2.39	\$2.50	\$2.61	\$2.72	\$73.62
93 Xcel Energy Inc.	(\$34.55)	\$0.00	\$1.35	\$1.44	\$1.57	\$1.66	\$1.73	\$1.81	\$1.88	\$1.96	\$2.04	\$2.12	\$2.20	\$2.29	\$2.39	\$2.50	\$65.33

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

### SUMMARY OUTPUT

Regression Sta	atistics
Multiple R	0.9246
R Square	0.8548
Adjusted R Square	0.8445
Standard Error	0.0036
Observations	31

#### ANOVA

	df	SS	MS	F	Significance F
Regression	2	0.0022	0.0011	82.4448	1.84455E-12
Residual	28	0.0004	1.30772E-05		
Total	30	0.0025			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-0.0210	0.0060	-3.4976	0.0016	-0.0333	-0.0087
LN of 30-Yr Treasury	-0.0237	0.0019	-12.5282	5.35652E-13	-0.0276	-0.0198
A-Rated Spread	0.4640	0.1592	2.9157	0.0069	0.1380	0.7900

-2.10%
8.64% =(-0.0237*LN(2.60%))
0.63% = (0.4640*1.36%)
7.18%
2.60%
9.78%

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

#### **SUMMARY OUTPUT**

Regression Statistics				
Multiple R	0.9185			
R Square	0.8436			
Adjusted R Square	0.8324			
Standard Error	0.0038			
Observations	31			

#### ANOVA

	df	SS	MS	F	Significance F
Regression	2	0.0021	0.0011	75.5198	5.2351E-12
Residual	28	0.0004	1.41E-05		
Total	30	0.0025			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-0.0160	0.0058	-2.7545	0.0102	-0.0279	-0.0041
LN of 30-Yr Treasury	-0.0221	0.0021	-10.7119	2.06E-11	-0.0263	-0.0179
Baa-Rated Spread	0.3358	0.1385	2.4249	0.0220	0.0521	0.6195

Intercept	-1.60%
LN of 30-Yr Treasury	8.06% =(-0.0221*LN(2.60%))
Baa-Rated Spread	0.70% = (0.3358*2.09%)
Risk Premium	7.17%
T CONTROLLING	7.17 70
Current 30-Yr Treasury	2.60%

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

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

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