Exhibit No.: 23
Issue: Cost of Capital
Witness: Robert B. Hevert
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: KCP&L Greater Missouri Operations
Case No.: ER-2016-0156
Date Testimony Prepared: August 15, 2016



**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO.: ER-2016-0156**

# REBUTTAL TESTIMONY

# OF

# ROBERT B. HEVERT

# ON BEHALF OF

# KCP&L GREATER MISSOURI OPERATIONS COMPANY

**Kansas City, Missouri**
**August 2016**

## TABLE OF CONTENTS

**REBUTTAL TESTIMONY**

**OF**

**ROBERT B. HEVERT**

**Case No. ER-2016-0156**

## I. INTRODUCTION AND OVERVIEW

**Q: Please state your name and business address.**

A: My name is Robert B. Hevert. I am a Partner with ScottMadden, Inc. ("ScottMadden"), and my business address is 1900 West Park Drive, Suite 250, Westborough, MA 01581.

**Q: Are you the same Robert B. Hevert who pre-filed Direct Testimony in this matter?**

A: Yes, I am. Effective June 1, 2016 Sussex became part of ScottMadden, and I assumed my current position as Partner.

**Q: What is the purpose of your Rebuttal Testimony?**

A: On behalf of KCP&L Greater Missouri Operations Company ("GMO" or the "Company"), my Rebuttal Testimony responds to the Revenue Requirement Cost of Service Report (the "Staff Report") submitted in this proceeding by the Missouri Public Service Commission Utility Services Division ("Staff") as it relates to the recommended Return on Equity ("ROE") for the Company. Mr. David Murray presents Staff's ROE recommendation. I also respond to the direct testimony of Mr. Michael P. Gorman on behalf of the Office of Public Counsel ("OPC"), as his direct testimony relates to the Company's ROE. My analyses and conclusions are supported by the data presented in Schedules RBH-13 through RBH-25, which have been prepared by me or under my direction.

**Q: Please provide a summary overview of the recommendations contained in your Rebuttal Testimony.**

A: In my Direct Testimony I recommended an ROE within a range of 9.75 percent to 10.50 percent. As my Direct Testimony discussed, my ROE recommendation and the analytical results on which it is based consider a variety of factors, including certain risks faced by GMO such as the regulatory environment in which the Company operates, the Company's generation portfolio, and the Company's capital expenditure plans.

Because the application of financial models and the interpretation of their results are often sources of disagreement among analysts in regulatory proceedings, I believe it is important to review and consider a variety of data points; doing so enables us to put in context both quantitative analyses and the associated recommendations. As such, I have updated many of the analyses contained in my Direct Testimony, and I have provided several new analyses in response to issues raised by Mr. Murray and Mr. Gorman ("the Opposing ROE Witnesses"). As discussed throughout the balance of my Rebuttal Testimony, those analyses continue to support my ROE range and recommendation.

In addition, the Company's revised capital structure consisting of 51.42 percent common equity and 48.58 percent long-term debt is consistent with industry practice, reasonable relative to its peers, and supports GMO's financial integrity.[1]

**Q: Please summarize the updated analyses contained in your Rebuttal Testimony.**

A: I have updated the Constant Growth DCF, CAPM, and Bond Yield Risk Premium analyses based on data through June 30, 2016 and applied those analyses to my updated

---

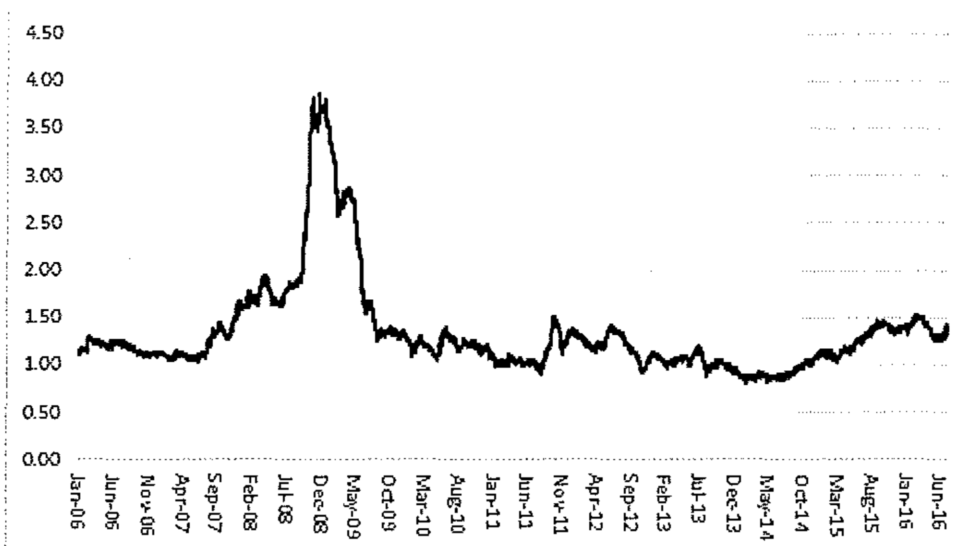
[1] Direct Testimony of Robert B. Hevert at 61 and Schedule RBH-12.

proxy group, comprised of the proxy group contained in my Direct Testimony excluding Dominion Resources Inc. and Westar Energy Inc.

**Q: Have you considered the utility sector's recent equity market performance relative to the debt market?**

A: Yes, I have. Because credit spreads, which represent the difference between the yields on debt and Treasury yields, can be directly observed, we can review the change in spreads over time, and relative to other market sectors. Although credit spreads are not a full measure of equity risk, they reasonably can be seen to reflect, to some extent, investors' assessment of risk at a given point in time. As Chart 1 below indicates, current credit spreads (for A-rated utilities) are near their highest level since the financial crisis during 2008 and 2009.

**Chart 1: A-Rated Utility Credit Spreads**[2]




Even considering the 2008 – 2009 market dislocation, the current utility credit spread (on a spot basis) is in the top 78th percentile of spreads since January 2006; the

[2] Source: Bloomberg Professional

thirty-day average is in the top 66th percentile. Looking to the period subsequent to the financial crisis, the 30-day average credit spread is in the top 80th percentile. Taken from that perspective, it is apparent that investors currently see the utility sector as relatively risky, and require higher returns as compensation for that risk.

As to the relationship between the level of Treasury yields and credit spreads, the level of explanatory value is essentially zero; Treasury yields explain virtually none of the change in credit spreads.[3] Equity market volatility (as measured by the VIX), on the other hand, explains 69.00 percent of the change in credit spreads.[4] That is, investors are concerned with market uncertainty, and require higher returns as uncertainty increases.

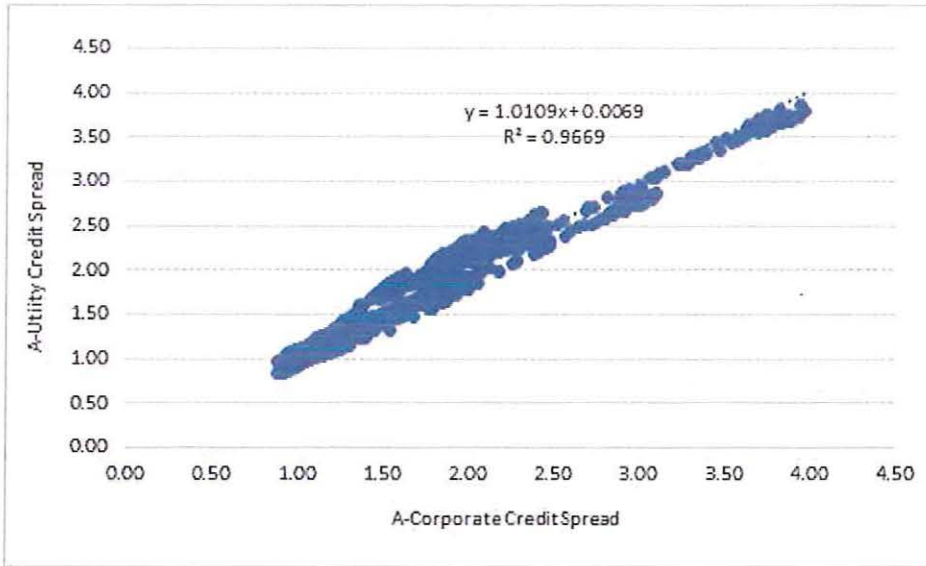
**Q: Have you also reviewed the relationship between credit spreads for A-rated utility debt relative to A-rated corporate debt?**

A: Yes, I have. Given the historical volatility in the spread between corporate and utility A-rated debt, there is no reason to conclude that utility yields are different than those of their corporate counterparts. That conclusion is consistent with the finding that over time, there has been a nearly one-to-one relationship between credit spreads on A-rated corporate and utility bonds. In fact, a regression analysis in which corporate credit spreads are the explanatory variable and utility credit spreads are the dependent variable shows that slope is approximately 1.00 and highly significant (see Chart 2, below). Because the intercept term is statistically insignificant, we can conclude that there has been no material difference between the two, and there certainly is no meaningful difference in the current market.

---

3 Source: Bloomberg Professional.
4 Source: Bloomberg Professional.

**Chart 2: Corporate and Utility Credit Spreads (A-Rated)[5]**




**Q: What do you conclude from those analyses?**

A: First, it is clear that A-rated utility credit spreads are at historically elevated levels, and that they are strongly related to equity market volatility. Second, the utility credit spreads are not measurably different than their corporate counterparts. Those two observations suggest that investors see utility risk as stable, if not somewhat high relative to recent levels. Because those measures suggest increased risk, it is reasonable to conclude that recently high utility stock valuations are related to a "reach for yield", as opposed to a reduction in perceived equity risk.

**Q: Have there been other recent periods when utility valuation levels were high relative to both their long-term average and the market?**

A: Yes. In early 2015, the utility sector (as measured by the S&P Electric Utility Index) traded at a Price/Earnings ("P/E") ratio of approximately 18.00. During the same period,

[5] Source: Bloomberg Professional. Please note that for a univariate regression, the correlation coefficient equals the square root of the R-square. In this case, the square root of 0.9669 is approximately 0.98 (98.00 percent).

the overall market (as measured by the S&P 500) traded at a P/E of approximately 18.00. Those levels were quite similar to the current market. In late January 2015, the utility sector began to lose value, and by June 2015 it had lost approximately 15.50 percent of its value. The point simply is that as investors see an increasing likelihood of higher interest rates, they will move out of sectors that provided relatively high current yields. As they do, valuations and P/E ratios fall. As discussed elsewhere in my Rebuttal Testimony, that degree of instability in P/E ratios are incompatible with the assumptions underlying the Constant Growth DCF model, rendering estimates from that model highly questionable.

**Q: Have you also considered the effect of the United Kingdom's decision to exit the European Union (sometimes referred to as the "Brexit") on Treasury yields?**

A: Yes, I have. What is clear is that in the one week following the Brexit vote (that is, from June 23 to June 30) Treasury yields fell by nearly 30 basis points. As Treasury yields fell, utility valuations increased, as investors sought the relatively high dividend yields offered by the sector. Subsequent to June 30, the market appeared to have become more comfortable with the implications of the Brexit vote, interest rates began to increase, utility valuations fell, and the overall market increased to record levels.[6] The volatility observed during that two-week period demonstrates the importance of understanding the factors underlying market conditions, and how those factors and conditions comport, or not, with the methods used to estimate the Cost of Equity.

**Q: What conclusions do you draw from those analyses?**

A: In my view, we cannot conclude that the recent levels of utility valuations are due to a fundamental change in the risk perceptions of utility investors. Based on those observations, I disagree that the Company's Cost of Equity is 9.25 percent, or below, as the Opposing Witnesses propose.

**Q: Please provide an overview of your response to the ROE recommendations made by the Opposing Witnesses.**

A: As the Commission has pointed out, because no one financial model is any more "correct" than any other in all circumstances, it is important to consider the results of a variety of methods.[7] I agree with the Commission's finding that at times certain model results simply do not make sense. In keeping with that approach, my Rebuttal Testimony considers a variety of analytical methods, and reflects both Company-specific and general market factors.

The Commission also has found that because ratemaking is an inexact science, and given that there is no statutorily prescribed method to estimate the Cost of Equity, different approaches may be used in different cases.[8] I agree with the Commission on that point, as well. Although doing so requires the use of financial models, determining the Cost of Equity does not always lend itself to a strictly mathematical solution. Rather, it requires the application of reasoned judgment in vetting the models and assumptions used by various analysts, and in assessing the reasonableness of their recommendations. That judgment may well lead to the conclusion that the emphasis applied to a particular method in a prior proceeding is not appropriate in the current instance.

In this proceeding the Opposing Witnesses have given considerable weight to the Discounted Cash Flow ("DCF") method, even though their models produce ROE

---

[6] Source: Bloomberg Professional

[7] In re Union Elec. Co., No. ER-2011-0028, Report and Order (Mo. P.S.C., July 13, 2011) at 67.

[8] In re Kansas City Power & Light Co., No. ER-2010-0355, Report and Order (Mo. P.S.C., Apr. 12, 2011) at 124.

estimates that are 100 basis points, and more, below the returns authorized by state commissions across the country for other electric utilities. Staff, for example, argues that the Cost of Equity has fallen in large part because its back-tested DCF results have declined since late-2014 to early-2015. As I discuss in my response to Mr. Murray, it is difficult to come to that conclusion when the model used to measure that change appears to be at odds with market conditions. In addition, Mr. Gorman gives considerable weight to his Constant Growth DCF model, even though the highest of his DCF estimates is below the lowest ROE ever authorized for a vertically integrated electric utility.

Given their common dependence on a method that produces disproportionately low estimates, it is not surprising that the Opposing Witnesses' ROE recommendations are clustered in a narrow range. Nor is it surprising that their recommendations fall far below the range of returns authorized in other jurisdictions. Like this Commission, other regulatory authorities have been reluctant to give undue weight to models and methods that produce unreasonably low results. As discussed in my response to Mr. Gorman, ROE recommendations of 9.25 percent, and lower, are below even those authorized for utilities that do not have the operating, environmental, and financial risks associated with owning electric generating assets. In fact, they are below the returns authorized in regulatory environments considered less constructive than Missouri.[9] Consequently, there is no reason to conclude that because the Opposing Witnesses make similar recommendations, their methods are sound or their assumptions are reasonable.

---

9 I note that Missouri is currently ranked "Average/2" by Regulatory Research Associates. However, citing concerns regarding the potential failure of the legislature or the Commission to take action to address regulatory lag concerns, "a reduction in the ranking may be justified." *See* Regulatory Research Associates, assessment of the Missouri Public Service Commission, updated July 19, 2016.

Taken as a group, the Opposing Witnesses' ROE recommendations are far below any objective measure of the Company's Cost of Equity. For the reasons discussed throughout the balance of my Rebuttal Testimony, their recommendations cannot be supported by the reasonable application of financial models, nor can they be justified by current or expected market conditions. Rather, the Opposing Witnesses' ROE recommendations are outliers that would only serve to increase the Company's regulatory and financial risk, diminish its ability to compete for capital, and have the counter-productive effect of increasing GMO's overall cost of capital, ultimately to the detriment of its customers.

**Q: Please summarize your response to the Opposing Witnesses.**

A: My responses to Staff Witness Murray and OPC Witness Gorman are summarized below:

- *Application of Discounted Cash Flow methods.* As a general matter, DCF based methods define the Cost of Equity as the discount rate that sets the current market price of a stock equal to the present value of the cash flows expected from owning that stock. In calculating expected cash flows, the Opposing Witnesses rely on growth rates that are inappropriately low, or that are constrained by what they may consider to be "sustainable" levels of perpetual growth. Regardless of how they develop their models, DCF estimates of 8.90 percent (Mr. Gorman's DCF result), or below, fail to meet the *Hope* and *Bluefield* "end result" standard, and should be given no weight in determining the Company's ROE.
- *Application of Risk Premium Models.* Risk Premium methods are based on the financial principle that equity investors assume greater risk than do debt investors and, therefore, require higher returns. The measure of that incremental return is

the "Equity Risk Premium," or the difference between the required return on debt and the required Return on Equity. It is important to recognize that the Equity Risk Premium is not constant over time. Rather, as interest rates fall, the Equity Risk Premium increases, even when we consider additional measures of market risk. By not properly reflecting that well-documented relationship, certain of the Opposing Witnesses have under-estimated GMO's Cost of Equity.

- *Application of the Capital Asset Pricing Model ("CAPM").* The CAPM, which also is a risk premium-based method, assumes that investors must be compensated for the time value of money, and for taking on additional risk. The time value of money is measured by long-term Treasury yields; compensation for additional risk is measured by the stock's Beta coefficient and the expected Market Risk Premium ("MRP"). The Market Risk Premium, which weighs heavily in CAPM estimates, reflects the additional return that investors expect to receive by investing in the market as a whole over the return they would receive by investing only in long-term Treasury bonds. The Opposing Witnesses have developed MRP estimates based on historical market returns and interest rates, and have assumed relationships between those two variables that do not reasonably reflect current or expected market conditions. As a result, their ROE estimates are unreasonably low.
- *Assessment of the Company's relative risk.* Determination of required ROE is a risk-comparable exercise. The Opposing Witnesses do not fully consider the range of business risks and other factors when determining where GMO's required ROE falls within the range of analytical results.

On balance, and after considering the issues summarized above, I have maintained the recommendations contained in my Direct Testimony.

## II. RESPONSE TO STAFF WITNESS MURRAY

**Q: Please briefly summarize Staff's ROE recommendation.**

A: Staff, through its witness Mr. Murray, recommends an ROE within the range of 8.65 percent to 9.35 percent, with a midpoint of 9.00 percent. Rather than relying on his analysis of the Company's current Cost of Equity, Mr. Murray's recommendation is based on his opinion that the Cost of Equity has fallen by at least 50 basis points since the Commission "authorized ROEs in 2015 for Missouri's major electric utilities."[10] That is, Mr. Murray's recommendation is not based on the facts that he believes demonstrate that utility equity investors require returns as low as 5.61 percent to 8.61 percent. Rather, it is based on his assessment of the change in the Cost of Equity since the Commission's recent decisions.

To estimate that change, Mr. Murray compares Staff's Multi-Stage DCF results from other utilities' electric rate cases in 2014 (after excluding three companies that are currently parties to a merger or acquisition) to his updated results for the same companies.[11] Mr. Murray then concludes that the Cost of Equity has fallen by 15 to 85 basis points.[12] Based on his various calculations, Mr. Murray concludes that the Cost of Equity has fallen by at least 50 basis points since 2014.[13] Rather than rely on his current results, Mr. Murray chooses a range of 8.65 to 9.35 percent, with a recommendation of 9.00 percent (Staff Report at 49).

---

[10] Staff Revenue Requirement Cost of Service Report at 15.
[11] *Ibid.* at 43.
[12] *Ibid.* at 49.

**Q: Please describe Mr. Murray's ROE analyses.**

A: Mr. Murray estimates the Company's Cost of Equity using the Multi-Stage DCF model, which he tests for reasonableness by reference to his CAPM, and "rule of thumb" risk premium results.[14] Mr. Murray's DCF and CAPM analyses were applied to a "broad" proxy group of thirteen companies, a "pure-play" proxy group of eight companies, and a "refined" proxy group of nine companies.[15] As to the DCF method, Mr. Murray states that he relied on his Multi-Stage DCF results (6.89 to 8.06 percent) because he considers his Constant Growth DCF results (6.35 to 8.35 percent) to be less reliable on account of the "non-sustainable" nature of certain growth rate projections.[16] Mr. Murray's CAPM results range from 5.61 to 6.85 percent,[17] and his "rule of thumb" approach suggests an ROE of 6.90 to 8.61 percent.[18] Mr. Murray also reviews recently authorized electric utility ROEs (which are significantly above the highest of his ROE estimates), although he does not reconcile his analyses or recommendation with that data, other than to say that it is "common practice for commissions to allow returns on equity that are higher than the cost of equity for utilities."[19]

Mr. Murray considers a variety of growth rates for his Constant Growth DCF analyses, including historical and projected Earnings per Share ("EPS"), Dividends per Share ("DPS"), and Book Value per Share ("BVPS").[20] Mr. Murray also observes that the average analyst projected EPS growth rate is 5.00 to 6.00 percent for his refined

---

13 *Ibid.* at 49.
14 *Ibid.* at 43-46.
15 *Ibid.* at 29-32.
16 *Ibid.* at 34.
17 *Ibid.* at 45.
18 *Ibid.* at 46.
19 *Ibid.* at 14-15.
20 *Ibid.* at 33.

proxy group but considers neither to be "sustainable."[21] To that point, Mr. Murray asserts that historical growth rates indicate the constant growth rate for the electric utility industry should not be much more than 3.00 percent, and notes that electric utility earnings growth rates were less than half of achieved Gross Domestic Product ("GDP") growth over Staff's study period (1968 through 1999).[22] On that basis, Mr. Murray assumes that a reasonable range of growth rates is from 3.00 to 4.00 percent.[23]

Lastly, Mr. Murray tests the reasonableness of his DCF results by reference to his CAPM results, which range from 5.61 to 6.85 percent,[24] and to Staff's "rule of thumb" which adds 300 to 400 basis points to the yield on A-rated and Baa-rated public utility debt. As noted above, the "rule of thumb" produces ROE estimates that range from 6.90 to 8.61 percent.[25]

**Q: Are Mr. Murray's analytical results and recommendation reasonable?**

A: No, they are not. ROE estimates as low as 5.61 percent have no practical meaning, and highlight the inherent risk of not questioning the applicability of models and assumptions in the current market environment. For example, Mr. Murray reviewed recently authorized returns for vertically integrated utilities, which averaged 9.75 percent through December 31, 2015.[26] Nearly all of Mr. Murray's ROE estimates fall well below that benchmark: all 26 of his CAPM estimates, and all 65 of his Multi-Stage DCF results fall more than 100 basis points below 9.75 percent.[27] In fact, all of Mr. Murray's ROE

---

21 *Ibid.* at 33.
22 *Ibid.* at 35 and Schedule 13-1 through 13-3.
23 *Ibid.* at 36.
24 *Ibid.* at 45, and Schedule 15.
25 *Ibid.* at 46.
26 *Ibid.* at 47.
27 *See* Appendix 2 to Staff Revenue Requirement Cost of Service Report, Schedules 12 and 15.

estimates fall below any return authorized for a vertically integrated electric utility since, at least, 1980.

**Q: What are the specific areas in which you disagree with Mr. Murray's analyses and recommendations?**

A: There are several areas in which I disagree with Mr. Murray, including:

1. Mr. Murray's conclusion that GMO's Cost of Equity has declined by 50 basis points since the recent Missouri rate cases;
2. The composition of Mr. Murray's proxy groups;
3. The range of growth rates Mr. Murray relies on for his Constant Growth DCF analyses;
4. The application and structure of Mr. Murray's Multi-Stage DCF model;
5. Mr. Murray's application of the CAPM and the relevance of those results in estimating the Cost of Equity;
6. Mr. Murray's "rule of thumb" analysis; and
7. Mr. Murray's failure to consider the effect of his recommendation on GMO's financial integrity and ability to attract capital.

I discuss each of those issues in turn, below.

*A. Staff's Assessment of the Relative Change in the Cost of Equity*

**Q: Please briefly summarize the analyses Mr. Murray relied on to determine the "relative change" in the Company's Cost of Equity.[28]**

A: Mr. Murray updated Staff's Multi-Stage DCF analyses from 2014 Missouri electric rate cases to "gain specific insight" as to the direction and magnitude of the change in the Cost of Equity.[29] Based on those calculations, Mr. Murray concludes that the Cost of Equity has declined by approximately 50 basis points since that time.[30] Mr. Murray suggests that the change based on those backdated results indicate that the Cost of Equity has declined 15 to 85 basis points.[31]

**Q: Do you have any concerns with Mr. Murray's analysis and conclusion?**

A: Yes, I do. Although Mr. Murray produces various analyses, his recommendation is far removed from their actual results. Recognizing that the Commission would be skeptical of analytical results and ROE recommendations as low as 5.61 percent, Mr. Murray instead focuses on the "relative change" in Staff's DCF estimates. As discussed below, those analyses are highly flawed and cannot be relied upon in either an absolute or a relative sense.

Those flaws aside, a similar "then and now" comparison using the Bond Yield Plus Risk Premium model presented in Schedule RBH-18 indicates that the Cost of Equity has remained essentially unchanged, with results of 10.03 percent for the current

---

28 Staff Revenue Requirement Cost of Service Report at 42-43. I note that GMO's current ROE was authorized in January 2013.

29 *Ibid.* at 29.

30 *Ibid.* at 49.

31 *Ibid.*

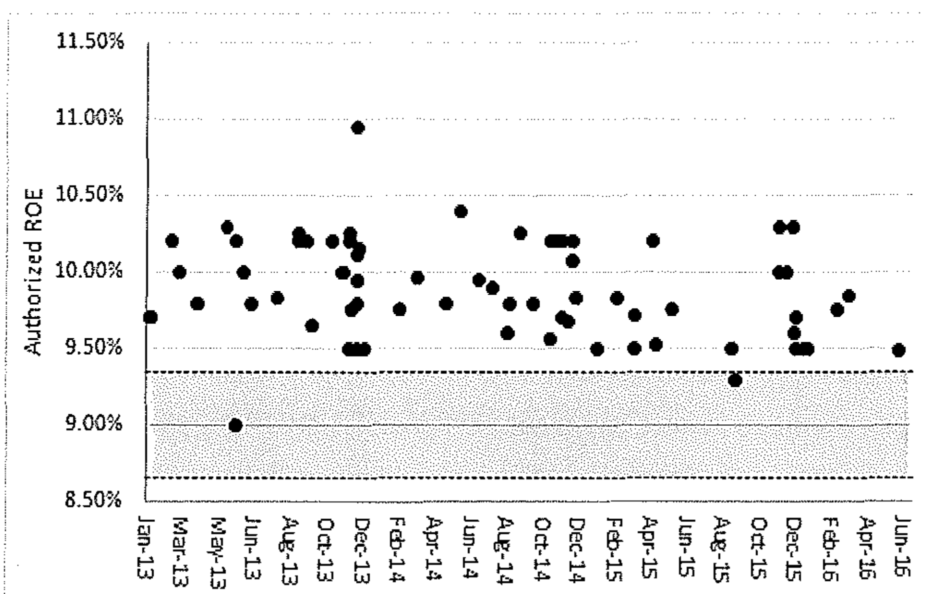
period, late 2014, and early 2015.[32] In summary, whereas Mr. Murray's DCF calculations suggest large decreases in the Cost of Equity, other measures such as Risk Premium-based methods and authorized returns, demonstrate that the Cost of Equity has been stable since 2014.

**Q: Has there been a downward trend in authorized ROEs since the Commission's order in the Company's last rate case?**

A: No. As discussed more fully in my response to Mr. Gorman, and as shown in Chart 3 (below), since January 2013 there has been no discernible downward trend in the level of authorized ROEs for vertically integrated electric utilities (the shaded area and solid line represent Staff's ROE range of 8.65 percent to 9.35 percent).

**Chart 3: Authorized ROEs for Vertically Integrated Electric Utilities**

**(January 1, 2013 – June 30, 2016)**[33]




[32] Estimates derived by applying the Bond Yield Plus Risk Premium model presented in Schedule RBH-18 and using the three-month average 30-year Treasury yields in 2014Q4, 2015Q1, and 2016Q2 (2.97 percent, 2.55 percent, and 2.57 percent, respectively).

If anything, GMO's currently authorized 9.70 percent ROE is at the low end of authorized returns for integrated electric utilities. Regardless of Mr. Murray's conclusions regarding the direction of his Multi-Stage DCF model results, the *Hope* and *Bluefield* standards, as Mr. Murray notes, require a return that is comparable to returns earned by companies with similar risks. Taken from that perspective alone, Mr. Murray's recommendation to lower the Company's authorized ROE is unreasonable.

**Q: Are there reasons to question whether Staff's Multi-Stage DCF model currently produces results that are a reliable indicator of investors' required return on equity?**

A: Yes, there are. Although it recently has declined, when Mr. Murray performed his calculations the utility sector P/E ratio was well above its historical average, both on an absolute basis and relative to the broader market. As a consequence, his DCF-based results are lower than they otherwise would be. There are several metrics indicating that the industry's recently elevated valuation levels may not be sustainable. Value Line, for example, expects a decline in P/E ratios for all thirteen companies in Mr. Murray's broad proxy group (*see* Schedule RBH-19).

***B. Proxy Group Composition***

**Q: Please summarize the differences between your proxy group and the one developed by Mr. Murray.**

A: Although there is some consistency in processes used to select our proxy companies and in the composition of our respective proxy groups, there are certain differences between the two (*see* Table 1, below).

---

[33] Source: Regulatory Research Associates. Shaded area represents Staff's recommended range.

**Table 1: Proxy Group Composition**

| Company | Ticker | Hevert Original Proxy Group | Hevert updated Proxy Group | Staff Broad Proxy Group [9] | Staff Pure-Play Proxy Group | Staff 2014 Refined Proxy Group |
|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | √ | √ | [3] | [3] | [3], [8] |
| Alliant Energy Corp. | LNT | √ | √ | √ | √ | √ |
| Ameren Corp. | AEE | √ | √ | √ | √ | √ |
| American Electric Power Co., Inc. | AEP | √ | √ | √ | [7] | √ |
| Black Hills Corporation | BKH | [1] | [1] | √ | [6] | [8] |
| Avista Corporation | AVA | √ | √ | [4] | [4] | [4], [8] |
| CMS Energy Corporation | CMS | √ | √ | √ | √ | √ |
| Dominion Resources, Inc. | D | √ | [1] | [3] | [3] | [3], [8] |
| DTE Energy Corporation | DTE | √ | √ | √ | [7] | √ |
| Entergy Corporation | ETR | [1], [2] | [1], [2] | √ | [7] | [8] |
| IDACORP, Inc. | IDA | √ | √ | [4] | [4] | [4], [8] |
| NorthWestern Corporation | NWE | √ | √ | √ | √ | [8] |
| OGE Energy Corp. | OGE | √ | √ | √ | [6] | [8] |
| Otter Tail Corp. | OTTR | √ | √ | [5] | [5] | [5], [8] |
| Pinnacle West Capital Corp. | PNW | √ | √ | √ | √ | √ |
| PNM Resources, Inc. | PNM | √ | √ | √ | √ | √ |
| Portland General Electric Co. | POR | √ | √ | √ | √ | √ |
| SCANA Corporation | SCG | √ | √ | [3] | [3] | [3], [8] |
| Westar Energy, Inc. | WR | √ | [1] | [1] | [1] | [1] |
| Xcel Energy Inc. | XEL | √ | √ | √ | √ | √ |

√ Included in proxy group

[1] Removed because company is party to a merger or other significant transaction

[2] Less than two analysts providing positive long-term growth estimates

[3] Not reported as an electric utility by Edison Electric Institute

[4] Mr. Murray reports less than two analysts providing long-term growth estimates within 90 days of analysis date

[5] Mr. Murray reports less than 80.00% of income from regulated utility operations

[6] Mr. Murray reports a risk profile inconsistent with a pure-play regulated utility

[7] Mr. Murray reports exposure to non-regulated operations

[8] Not present in the 2014 Staff Refined Proxy Group in Case No. ER-2014-0370

[9] See Appendix 2 to Staff Revenue Requirement Cost of Service Report, Schedule 9

While Mr. Murray included Black Hills Corporation and Entergy Corporation in his broad proxy group, I continue to exclude both of these companies from my analyses.

Black Hills acquired SourceGas Holdings LLC on February 12, 2016,[34] and Entergy Corporation acquired Union power station on March 3, 2016.[35] Further, Entergy Corporation's consensus growth rate estimates from Zacks and Yahoo! First Call are negative, which violates the basic assumption of the Constant Growth DCF model that dividends will grow in perpetuity.

**Q: Please explain why you have excluded Dominion Resources, Inc. and Westar Energy Inc. from your updated analyses.**

A: Dominion Resources, Inc. and Westar Energy Inc. announced significant transactions subsequent to the subsequent to the period used in the various analyses included in my Direct Testimony: Dominion announced it is acquiring Questar Corporation on February 1, 2016;[36] and Great Plains Energy, Inc. announced it is acquiring Westar Energy Inc. on March 3, 2016.[37] Of the remaining companies that comprise my proxy group and Mr. Murray's broad proxy group, we agree.

### *C. Application of the Constant Growth DCF Model*

**Q: Please summarize your concern with the growth rates used in Staff's DCF analysis.**

A: Whereas my DCF analysis relies on analysts' consensus earnings growth projections, Mr. Murray's analysis reflects projected growth in DPS, BVPS, and EPS. Mr. Murray also reviews historical growth rates, although he considers them to be "quite volatile."[38] Mr. Murray observes that the consensus EPS growth estimates (provided by SNL Financial) average 5.21 percent for his broad proxy group, 5.96 percent for his pure-play proxy

---

[34] Black Hills Corporation, SEC Form 8-K, July 12, 2015.
[35] Entergy Corporation, SEC Form 8-K, March 3, 2016.
[36] Dominion Resources, Inc., SEC Form 8-K, January 31, 2016.
[37] Great Plains Energy, Inc., SEC Form 8-K, May 31, 2016.
[38] Staff Revenue Requirement Cost of Service Report, at 33.

group, and 5.76 percent for his refined proxy group,[39] and argues that they are not reliable relative to Staff's "high-end" estimate of long-term GDP growth (approximately 4.30 percent).[40]

**Q: Before discussing Mr. Murray's particular analysis, what is the relevance of expected growth rates in the DCF model?**

A: As discussed in my Direct Testimony at pages 16-17, the Constant Growth DCF model assumes that the current price of a share of stock represents the present value of the expected cash flows associated with owning that stock. The expected cash flows include the dividends received during the period in which the stock is held, and the price at which the stock eventually is sold. The Cost of Equity simply is the discount rate that sets the current price equal to the present value of the expected cash flows.

Because both dividends and stock prices are determined by earnings, analysts' consensus growth rates are the proper measure of growth for the Constant Growth DCF model. As discussed in more detail below, there is long-standing academic support for the use of earnings growth projections because they have a statistically meaningful relationship to utility stock prices. In summary, growth rates are important inputs to DCF analyses, and analysts' earnings growth rate projections are the appropriate measure of expected growth. Other measures, such as those proposed by Mr. Murray, often have the effect of unreasonably reducing ROE estimates.

---

39 *Ibid.*

40 *Ibid.* at 33-34.

**Q: Why does Mr. Murray reject the use of analysts' forecasts of EPS growth in his Constant Growth DCF model?**

A: Mr. Murray asserts that because they are higher than his 4.30 percent high-end GDP growth estimate, analysts' growth rate projections are "unreasonable."[41] In particular, Mr. Murray observes that companies in the S&P 500 recently have retained approximately 65.00 to 70.00 percent of their earnings, while electric utilities recently have retained less than half of that proportion.[42] Mr. Murray further argues that observed historical electric utility growth rates suggest the industry could "barely" support a growth rate more than 3.00 percent.[43] Mr. Murray states that for those reasons, Staff relied on a growth rate range of 3.00 to 4.00 percent in its Constant Growth DCF analysis, rather than the 5.21 percent average analyst EPS projection for his broad proxy group, 5.96 for his pure-play proxy group, or 5.76 percent for his refined proxy group.[44]

**Q: Has the Commission rejected Staff's use of unreasonably low growth rates in prior proceedings?**

A: Yes. In a prior proceeding (Case No. ER-2012-0174), Staff's Constant Growth DCF results were based on growth rates in the range of 5.00 to 5.50 percent.[45] In its Report and Order, the Commission rejected Staff's ROE recommendation on the basis it was unreasonably low and would "unlawfully handicap" GMO as the Company competes for capital.[46] In this proceeding, Mr. Murray's Constant Growth DCF analysis assumes a growth rate range *100 to 250 basis points lower* than those used in that proceeding (*i.e.*,

---

41 Staff Revenue Requirement Cost of Service Report, at 33.
42 *Ibid.*
43 *Ibid.* at 34.
44 *Ibid.*at 33.
45 Staff Revenue Requirement Cost of Service Report at 41, No. ER-2012-0174.
46 In re Kansas City Power & Light Co., No. ER-2012-0174, Report and Order (Jan. 9, 2013) at 23.

3.00 to 4.00 percent versus the 5.00 to 5.50 percent growth rates used in the prior proceeding). Mr. Murray clearly recognizes that the growth rate is a critical assumption in the DCF method, and that lower growth rates produce lower ROE estimates. If an ROE of 8.00 to 9.00 percent would "unlawfully handicap" the Company's ability to compete for capital when authorized returns were approximately 10.00 percent, an ROE that is at least 100 basis points lower would certainly handicap GMO's competitive position, especially since authorized returns have remained largely stable since 2013.

**Q: Do you agree with Mr. Murray's assessment of alternative growth rates for his Constant Growth DCF model?**

A: No, I do not. As to dividend and book value growth, it is important to realize that earnings growth enables both.[47] Corporate decisions to manage the dividend payout ratio for the purpose of minimizing future dividend reductions or to signal future earnings prospects can influence dividend growth rates in near-term periods in a manner that is disproportionate to earnings growth. Similarly, book value can increase over time only through the addition of retained earnings or with the issuance of new equity, both of which are determined by earnings.

Mr. Murray's reference to dividend and book value growth rates also is misplaced because the only scenario in which dividend growth rates and book value growth rates are relevant is when the fundamental assumptions underlying the Constant Growth DCF model precisely hold. Given that investors tend to value common equity on the basis of P/E ratios, the required ROE is a function of expected growth in earnings, not dividends or book value.

---

[47] Direct Testimony of Robert B. Hevert at 21.

**Q: Is the use of analysts' earnings growth projections in the DCF model supported by financial literature?**

A: Yes, it is. The relationship between various growth rates and stock valuation metrics has been the subject of much academic research.[48] As noted over 40 years ago by Charles Phillips in The Economics of Regulation:

> For many years, it was thought that investors bought utility stocks largely on the basis of dividends. More recently, however, studies indicate that the market is valuing utility stocks with reference to total per share earnings, so that the earnings-price ratio has assumed increased emphasis in rate cases.[49]

Subsequent academic research has clearly and consistently indicated that measures of earnings and cash flow are strongly related to returns, and that analysts' forecasts of growth are superior to other measures of growth in predicting stock prices.[50] For example, Vander Weide and Carleton state that, "[our] results ... are consistent with the hypothesis that investors use analysts' forecasts, rather than historically oriented growth calculations, in making stock buy-and-sell decisions."[51] Other research specifically notes the importance of analysts' growth estimates in determining the Cost of Equity, and in the valuation of equity securities. Dr. Robert Harris noted that "a growing body of knowledge shows that analysts' earnings forecast are indeed reflected in stock prices."[52] Citing Cragg and Malkiel, Dr. Harris notes that those authors "found that the evaluations

---

[48] *See,* Harris, Robert, Using Analysts' Growth Forecasts to Estimate Shareholder Required Rate of Return, Financial Management (Spring 1986).

[49] Charles F. Phillips, Jr., The Economics of Regulation, at 285 (Rev. ed. 1969).

[50] *See, e.g.*, Christofi, Christofi, Lori and Moliver, Evaluating Common Stocks Using Value Line's Projected Cash Flows and Implied Growth Rate, Journal of Investing (Spring 1999); Harris and Marston, Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts, Financial Management, 21 (Summer 1992); and Vander Weide and Carleton, Investor Growth Expectations: Analysts vs. History, The Journal of Portfolio Management (Spring 1988).

[51] Vander Weide and Carleton, Investor Growth Expectations: Analysts vs. History, The Journal of Portfolio Management (Spring 1988).

[52] Robert S. Harris, Using Analysts' Growth Forecasts to Estimate Shareholder Required Rate of Return, Financial Management (Spring 1986).

of companies that analysts make are the sorts of ones on which market valuation is based."[53] Similarly, Brigham, Shome, and Vinson noted that "evidence in the current literature indicates that (i) analysts' forecasts are superior to forecasts based solely on time series data; and (ii) investors do rely on analysts' forecasts."[54]

In addition to the studies presented above, there have been other peer reviewed, published articles that specifically support the use of analysts' earnings growth projections in the DCF model.[55]

**Q: Please comment on Mr. Murray's use of historical data in evaluating the reasonableness of analysts' projected EPS growth rates.**

A: Mr. Murray's analysis is based on data relating to central region electric utilities for the period 1968 through 1999.[56] He does not use information after 1999 because of concerns regarding the quality of the data resulting from the consolidation of the electric utility industry, utility diversification, and the potential effects of the Enron bankruptcy and deregulation on investors' growth expectations.[57] Mr. Murray notes that he did not apply rigid selection criteria to assemble his study group, stating that, "Staff did eliminate companies that generally did not have at least 70% of revenues from electric utility operations in the late 1990s."[58] Staff also eliminated companies that appeared to be affected by restructuring of electric utility markets, and companies that were affected by

---

53 Robert S. Harris, Using Analysts' Growth Forecasts to Estimate Shareholder Required Rate of Return, Financial Management (Spring 1986).

54 Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, The Risk Premium Approach to Measuring a Utility's Cost of Equity, Financial Management (Spring 1985).

55 *See*, for example, Robert S. Harris, *Using Analysts' Growth Forecasts to Estimate Shareholder Required Rates of Return*, Financial Management, 1986; Robert S. Harris, Felicia C. Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts*, Financial Management, Summer 1992, at 63; and Advanced Research Center, *Investor Growth Expectations*, Summer, 2004.

56 Staff Revenue Requirement Cost of Service Report at 37.

57 *Ibid.*

58 *Ibid.*

major mergers, acquisitions or restructurings.[59] That selection process produced a ten-company study group.[60]

Using that group, Mr. Murray calculates rolling average ten-year growth rates over the study period of 3.62 percent (EPS), 3.99 percent (DPS), and 3.18 percent (BVPS), respectively, with an overall average of 3.59 percent.[61] Mr. Murray suggests that those growth rates were realized over a much more robust economic environment than the U.S. is expected to achieve in the foreseeable future.[62]

Conducting a similar set of analyses of electric utilities in Missouri for the period 1968 through 1999, Mr. Murray estimates average rolling ten-year growth rates of 3.00 percent (EPS), 3.59 percent (DPS), and 2.57 percent (BVPS) with an overall average of 3.05 percent.[63] Extending the analysis through 2015 for the Missouri electric utilities, he estimates average ten-year growth rates of 1.30 percent (EPS), 1.50 percent (DPS), and 2.30 percent (BVPS), with an overall average of 1.70 percent.[64] On balance, Mr. Murray reasons that his analysis supports a long-term growth rate in the 2.00 to 3.00 percent range, that investors would expect a capital appreciation rate of 1.65 percent, and that it is "quite logical and rational in the current low-yield environment" that electric utility investors expect a return of approximately 5.00 percent.[65]

**Q: Do you agree with Mr. Murray's conclusion?**

A: No, I do not. Aside from his broad assertion that the 32 year period from 1968 through 1999 somehow is representative of investors' current expectations, Mr. Murray provided

59 *Ibid.*
60 *Ibid.* at Schedule 13-1.
61 *Ibid.* at 37 and Schedule 13-4.
62 *Ibid.* at 37-38.
63 *Ibid.* at 38.
64 *Ibid.*

no basis for the use of that particular data set. In essence his position assumes that historical data ending in 1999 for a ten-company group that has little in common with his current proxy group somehow is relevant to GMO's Cost of Equity. Given the acknowledged importance of risk-comparable proxy groups, it is unclear why Mr. Murray would believe that to be the case.

His assumption is particularly inappropriate given that the Commission rejected the same analysis presented in a prior proceeding. There, the Commission found that Staff's arguments did not "persuade the Commission that data from a remote period starting 44 years ago is more reliable for determining the current ROE than more recent data."[66] Nonetheless, Staff has again presented analyses based on data and methods that the Commission already rejected.

### *D. Application of the Multi-Stage DCF Model*

**Q: Please describe Mr. Murray's Multi-Stage DCF model.**

A: Similar to my Multi-Stage model, Mr. Murray's analysis includes three stages, the first two of which include five-year horizons, while the third assumes cash flows in perpetuity. In the first stage, he relies on analysts' growth projections. The second stage assumes a linear transition from analysts' growth projections to the 3.00 to 4.00 percent range that Mr. Murray has concluded is more "normal/sustainable."[67] Since his final stage assumes his long-term growth rate will remain constant in perpetuity, it essentially is equivalent to the "Gordon Growth" form of the Constant Growth DCF model. The

---

65 *Ibid.* at 39-40.

66 In re Kansas City Power & Light Co., No. ER-2012-0174, Report and Order at 22 (Jan. 9, 2013).

67 Staff Revenue Requirement Cost of Service Report. at 36. As discussed in my Direct Testimony at pages 24, my Multi-Stage model assumes varying payout ratios over time, whereas Mr. Murray's model implicitly assumes a constant payout ratio.

"Gordon Growth" model represents the "terminal value," or the expected price at which the stock may be sold at the end of the forecast horizon.

Based on a long-term growth rate of 3.00 to 4.00 percent, Staff's Multi-Stage DCF analysis produces ROE estimates between 6.89 and 7.69 percent for his broad proxy group, 6.95 and 7.74 percent for his pure-play proxy group, and 6.91 to 7.70 percent for his refined proxy group.[68] As noted earlier, Mr. Murray acknowledges that "even customer ROR witnesses" have used estimated nominal GDP growth as the terminal growth rate in the Multi-Stage DCF model.[69] Mr. Murray therefore applies a long-term growth rate of 4.40 percent, which produces a Multi-Stage DCF result of 8.01 percent for the broad proxy group, 8.06 for the pure-play proxy group, and 8.02 percent for his refined proxy group.[70]

**Q: How did Staff develop its terminal growth estimate?**

A: Mr. Murray reviews a number of real GDP growth estimates reported by the U.S. Energy Information Administration's ("EIA") 2016 Annual Energy Outlook, the Congressional Budget Office ("CBO"), the Federal Reserve, and Blue Chip Economic Forecasts covering various forecast periods that end between ten and 25 years in the future.[71] Based on a review of those sources, Mr. Murray develops a long-term nominal GDP growth estimate of 4.40 percent.[72]

---

68 Staff Revenue Requirement Cost of Service Report, Schedule 12-1 to 12-3.
69 *Ibid.* at 41.
70 *Ibid.* at Schedule 12-4.
71 *Ibid.* at 41.
72 *Ibid.*

**Q: Do you agree with Staff's estimate of long-term GDP growth?**

A: No, I do not. A principal difference between Staff's estimate of long-term GDP growth and mine is the timing and horizon of our estimates. It is important to keep in mind that the terminal growth rate is intended to reflect expected growth in perpetuity. As Mr. Murray notes, that the "perpetual growth rate is intended to measure the long-run trend growth rate supported by the long-term fundamentals of the U.S.'s mature economy."[73] In that important respect, the term of even the longest GDP forecast considered by Mr. Murray does not reflect the expected, perpetual nature of the terminal growth assumed in the DCF model.

In addition, Mr. Murray's 4.40 percent terminal growth rate conflicts with market measures cited elsewhere in Staff's Report. For example, Mr. Murray does not consider the use of long-term historical data for the purpose of developing his terminal growth rate, yet he relies on long-term historical data for the purposes of his CAPM analyses. According to Morningstar (which provides the data Duff & Phelps relies on to estimate the historical Market Risk Premia on which Mr. Murray relies), the arithmetic average historical capital appreciation rate is 7.70 percent, which is substantially higher than Mr. Murray's estimate of long-term GDP growth.[74] In addition to being inconsistent with his other analyses, Mr. Murray's unreasonably low growth rate has the obvious effect of producing unreasonably low DCF estimates.

---

[73] *Ibid.*

[74] Morningstar, Morningstar SBBI Presentation Morningstar Stocks, Bonds, Bills, and Inflation 1926-2015, at 6.

**Q: Have you assessed the reasonableness of Mr. Murray's terminal growth estimate?**

A: Yes, I have. As Mr. Murray notes, "[c]ost of equity estimates using multi-stage DCF methodologies are **extremely sensitive** to the assumed perpetual growth rate."[75] That sensitivity is due to the fact that the long-term growth rate used in the DCF model extends indefinitely into the future.[76] Because they are perpetual, terminal growth rates that substantially deviate from the long-term historical average should be viewed with considerable caution. That is the case with Mr. Murray's estimates. As a point of reference, the long-term compound average GDP growth rate has been approximately 6.20 percent, or 180 basis points above Mr. Murray's high-end estimate.[77]

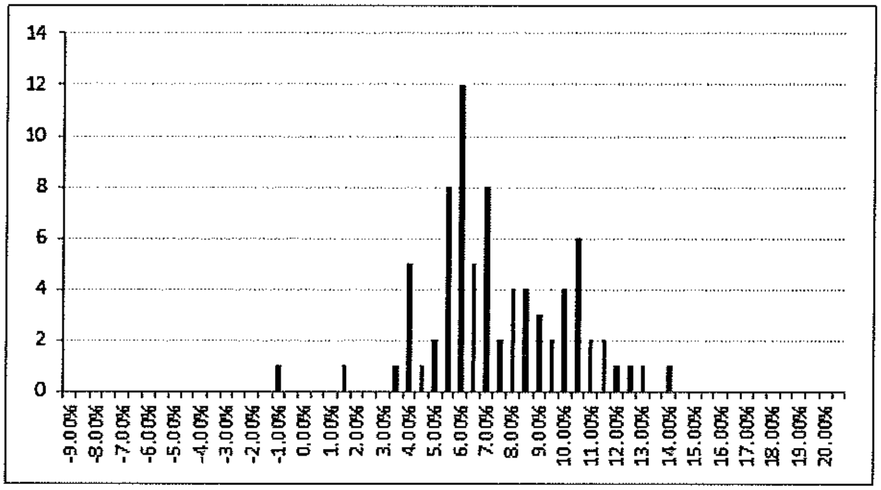
Because Mr. Murray considered ten-year average historical growth rates in his review of EPS, DPS and BVPS growth, I calculated the average ten-year annual growth rates from 1929 to 2015, an 85-year period. I then arranged that data in histograms to provide a perspective of how frequently various levels of growth have occurred. As Chart 4 demonstrates, average annual growth as low as 4.40 percent has been observed very infrequently. In fact, average annual growth *exceeded* 4.40 percent in 68 of 77 ten-year periods.

[75] Staff Revenue Requirement Cost of Service Report at 36 (original emphasis).

[76] *See* Direct Testimony of Robert B. Hevert at 19-20.

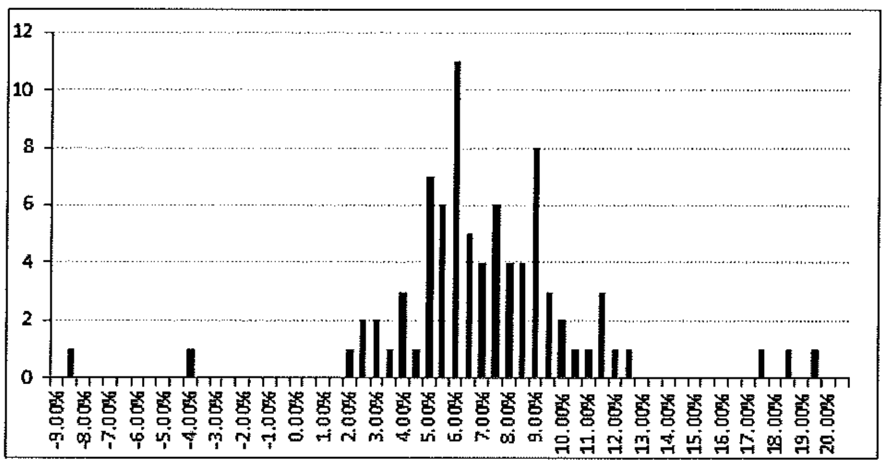
[77] Source: Bureau of Economic Analysis.

**Chart 4: Average Annual GDP Growth Measured over Ten-Year Periods**[78]




I also calculated average GDP growth over five year periods. In that case, average annual GDP growth rate was greater than 4.40 percent in 70 of 82 periods (*see* Chart 5).

**Chart 5: Average Annual GDP Growth Measured over Five-Year Periods**[79]




**Q: Are there other benchmarks that help put Staff's growth rate in context?**

A: Yes, there are. Mr. Murray's long-term growth projections also can be assessed in the context of authorized ROEs. The average authorized ROE over the past twelve months

---

[78] Bureau of Economic Analysis.
[79] *Ibid.*

(*i.e.*, ending June 30, 2016) for vertically integrated electric utilities was 9.75 percent.[80] In the context of the Constant Growth DCF model, that return includes income from dividends (*i.e.*, the dividend yield) and expected growth (*i.e.*, capital appreciation). Assuming Mr. Murray's proxy group average projected dividend yield of 3.42 percent as the average industry dividend yield, the average reported authorized ROE of 9.75 percent provided in Schedule RBH-20 implies an expected long-term growth rate of 6.33 percent.[81] That estimate is consistent with, although somewhat higher than, the long-term growth estimate of 5.32 percent used in my updated Multi-Stage DCF analyses.

**Q: Is there another approach to calculating the long-term growth rate that produces more reasonable results?**

A: Yes, there is. As noted in my Direct Testimony, it is possible to use observable market data regarding nominal and inflation-protected Treasury yields (referred to as "Treasury Inflation Protected Securities" or "TIPS") to calculate the market's forward view of inflation (that is, inflation expected over the long term beginning ten years from now).[82] In particular, the difference between nominal Treasury yields and TIPS yields is commonly considered to be a measure of expected inflation. That measure of expected inflation can then be combined with average historical real GDP growth. According to data provided by the Bureau of Economic Analysis, over the period 1929 to 2015 the average annual real GDP growth rate was 3.24 percent. Combining real GDP growth with an expected inflation rate of 2.02 percent produces an expected long-term growth rate of 5.32 percent, which still is 101 basis points below the long-term average.

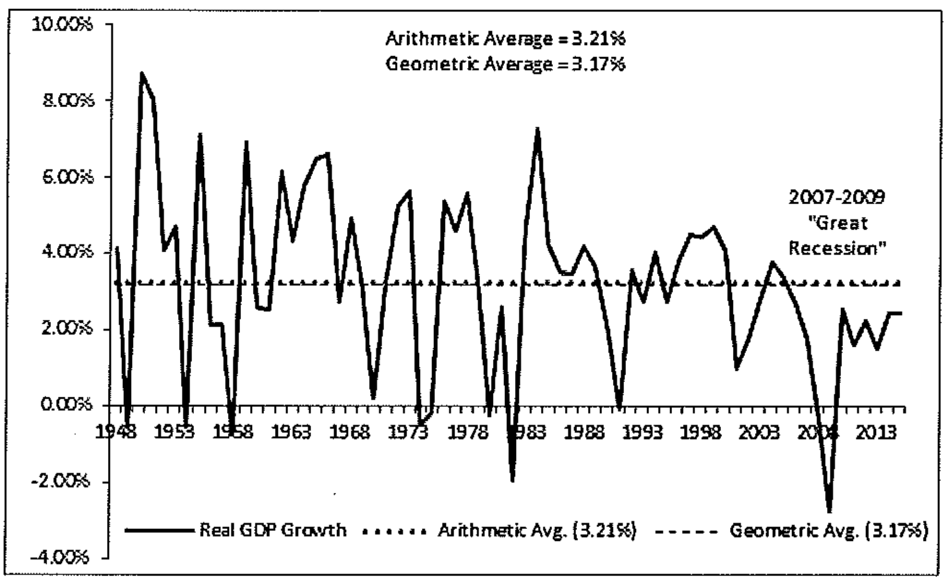
---

80 Source: Regulatory Research Associates. *See* Schedule RBH-20.
81 9.75 percent – 3.42 percent = 6.33 percent.
82 *See* Direct Testimony of Robert B. Hevert at 24.

**Q: Is it reasonable to assume that future real GDP growth will reflect its long-term historical average?**

A: Yes, it is. As shown in Chart 6 (below), but for the recent "great recession" and the continued slow economic recovery, real GDP growth since the post-World War II era has been cyclical, but maintained a relatively steady mean reversion level close to the long-term historical average of 3.21 percent. Over this more recent period, annual real GDP growth rates have been above the long-term 3.17 percent geometric average slightly more than half of the time (36 of 68 years).

**Chart 6: Real GDP Growth Mean Reversion (1948 to 2015)[83]**




**Q: Is the assumption that long-term growth will reflect average historical growth consistent with industry practice?**

A: Yes, it is. For example, Morningstar notes: "Growth in real GDP (with only a few exceptions) has been reasonably stable over time; therefore, its historical performance is

[83] Source: Bureau of Economic Analysis.

a good estimate of expected long-term (future) performance."[84] Similarly, a brief survey of finance texts demonstrates that the use of long-term GDP growth is a reasonable estimate for the terminal period. For example, Dr. Roger Morin notes that "[i]t is useful to remember that eventually all company growth rates, especially utility services growth rates, converge to a level consistent with the growth rate of the aggregate economy."[85] Similarly, Morningstar states that "...historically, the growth in corporate earnings has been in line with the growth of overall economic productivity."[86] Ibbotson and Chen state: "For the whole period [1926-2000], GDP per capita slightly outgrew earnings and dividends, but all four factors grew at approximately the same rate."[87] Consequently, I disagree with Mr. Murray's estimate of the long-term GDP growth rate.

**Q: Have you examined the relationship between EPS growth and GDP growth?**

A: Yes, I compared the EPS growth for the S&P 500 Index to nominal GDP growth for the period 1968 through 2015. As shown on Schedule RBH-21, the compound annual growth rate in EPS was 5.93 percent, while the compound annual growth rate in nominal GDP was 6.47 percent. Those growth rates are reasonably consistent with the long-term capital appreciation rate as reported by Morningstar for large-cap companies of 7.70 percent (arithmetic average) and 5.80 percent (geometric average),[88] and with the 6.17 percent nominal GDP growth rate for the period from 1929-2015.[89]

---

84 *See* Morningstar, Inc., Ibbotson Stocks, Bonds, Bills and Inflation 2013 Valuation Yearbook, at 52.

85 Roger A. Morin, New Regulatory Finance, at 308 (2006).

86 Morningstar, Inc., Ibbotson Stocks, Bonds, Bills and Inflation 2012 Inflation Valuation Yearbook, at 64.

87 Roger G. Ibbotson and Peng Chen, *Long-Run Stock Returns: Participating in the Real Economy*, Financial Analysts Journal at 93 (Jan.-Feb. 2003).

88 Morningstar, Morningstar SBBI Presentation Morningstar Stocks, Bonds, Bills, and Inflation 1926-2015, at 6.

89 Source: Bureau of Economic Analysis, National Economic Accounts (Jun. 28, 2016).

**Q: Do you agree with Mr. Murray's assertion that because utilities pay a substantial portion of their earnings as dividends, they will likely grow at a slower rate than the overall economy?[90]**

A: No, I do not. Two articles in Financial Analysts Journal addressed the theory that high dividend payouts (*i.e.*, low retention ratios) are associated with low future earnings growth.[91] Both articles cite a 2003 study by Arnott and Asness, which found that over the course of 130 years, future earnings growth was associated with high, rather than low, payout ratios.[92] Consequently, published research indicates that there is not necessarily a relationship between earnings retention and subsequent growth.

Rather than test his theory, Mr. Murray simply assumed that utility payout ratios support his rather low growth rate assumptions. However, I analyzed the relationship between payout ratios and future growth for utility companies, and found that there is no statistically meaningful relationship between the two. Simply put, Mr. Murray's assumption is not supported by meaningful empirical evidence.

**Q: Do you agree with Mr. Murray's assumption that lower growth in electricity demand will limit electric utility growth?[93]**

A: No, I do not. Mr. Murray has assumed that there is a direct relationship between electricity sales volumes on the one hand, and utility revenue, capital expenditures, and earnings on the other. As a practical matter, however, many variables enter into that

---

90 Staff Revenue Requirement Cost of Service Report at 33.

91 *See* Ping Zhou, William Ruland, *Dividend Payout and Future Earnings Growth*, Financial Analysts Journal, Vol. 62, No. 3 (2006). *See* also Owain ap Gwilym, James Seaton, Karina Suddason, Stephen Thomas, *International Evidence on the Payout Ratio, Earnings, Dividends and Returns*, Financial Analysts Journal, Vol. 62, No. 1 (2006).

92 *See* Robert Arnott, Clifford Asness, *Surprise: Higher Dividends = Higher Earnings Growth*, Financial Analysts Journal, Vol. 59, No. 1 (2003).

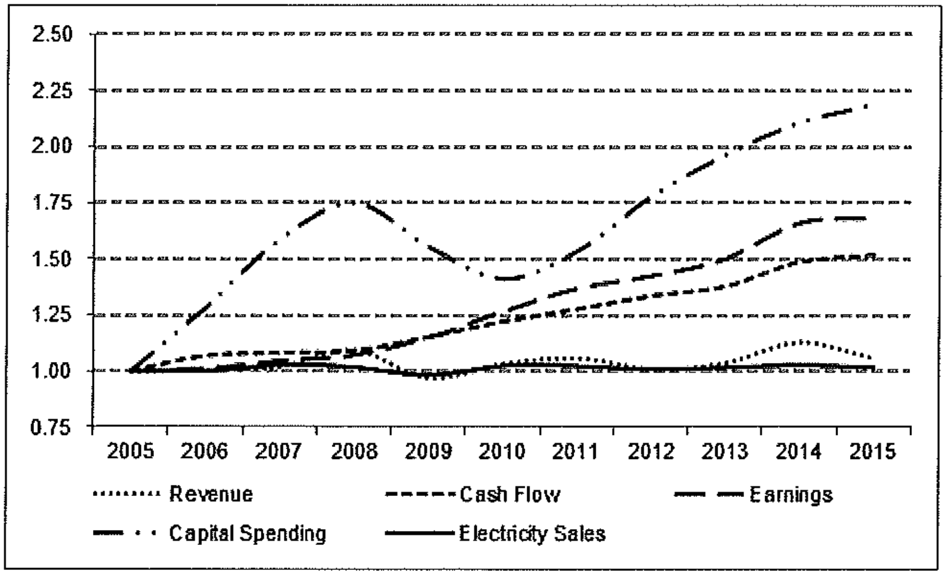
93 Staff Revenue Requirement Cost of Service Report at 40.

relationship. Rate design, for example, will affect the relationship between sales volumes and revenues. The relationship between revenue and earnings likewise depends on operating margins, which in turn, are influenced by a variety of operating factors, such as productivity improvements. Moreover, additional rate base investment may be driven by the need to meet future infrastructure requirements including, for example, compliance with environmental regulations, integration of renewables, increased use of energy efficiency, application of smart grid technologies, and system hardening.[94] The modern economy depends on a reliable electric infrastructure today as much as ever, and it is reasonable for investors to expect growth from ongoing investments in the modernization of the electric infrastructure.

Based on available data from the EIA and Value Line, it is clear that from 2005 through 2015 the Proxy Group's average growth in revenues, earnings, cash flow and capital expenditures far exceeded the growth in electricity sales volume (*see* Chart 7, below).

[94] *See* Capital Expenditure Update: Capital Spending at All-Time High in 2014, Regulatory Research Associates at 1 (Nov. 10, 2014).

**Chart 7: Percent Annual Growth in Electricity End Use Sales Volume, Revenue, Earnings, Cash Flow and Capital Spending 2005 – 2015**[95]




**Q: What are the implications of Mr. Murray's assumption that a 1.65 percent capital appreciation rate is about what investors would expect for utilities?**[96]

A: As Mr. Murray notes, his assumed 1.65 percent long-term growth rate suggests a required Return on Equity of about 5.00 percent. Even assuming the slightly higher terminal growth rate of 2.20 percent (that is, one-half of 4.40 percent) produces an average ROE estimate of 6.27 percent.[97] Although this is within 27 basis points of the range that Mr. Murray believes is "highly probable,"[98] 6.27 percent is 273 basis points below his actual recommendation, and 343 basis points below the Company's currently authorized return.

95 Sources: Value Line and EIA.
96 Staff Revenue Requirement Cost of Service Report at 39-40.
97 *See* Schedule RBH-22.
98 Staff Revenue Requirement Cost of Service Report at 45.

**Q: At page 42 of the Staff Report, Mr. Murray assumes a long-term inflation rate also of 2.00 percent. Do you agree that it is reasonable to assume that utilities will not grow more than the rate of inflation over the long-run?**

A: No, I do not. Mr. Murray's statement implies that investors do not expect *any* real growth from electric utility companies over the long-term. Under that assumption, utility stocks would provide a dividend yield and a measure of protection against inflation, but no more than that. At the same time, investors would remain exposed to the risk of capital losses associated with equity ownership. Since other investments, such as Treasury Inflation Protected Securities ("TIPS") provide inflation protection and carry a minimal risk of capital loss (if held to maturity), Mr. Murray's position assumes that investors would require only the difference in yields as compensation for the additional risk of capital loss. That is a wholly unreasonable and unsupported assumption.

If Mr. Murray is correct that expected long-term growth is no greater than the projected inflation rate, electric utilities would not be able to offer investors any prospects for inflation-adjusted capital appreciation or dividend growth. Under that scenario, the industry would not be able to attract equity capital at reasonable terms, and would not be able to generate the cash flow needed to maintain appropriate credit metrics or liquidity. Utilities then would fund increasing amounts of capital investments with long-term debt. That scenario, of course, would create a downward spiral in which leverage increases, creditworthiness decreases, and access to both debt and equity becomes increasingly constrained. In the long-term, then, utilities would not be able to fund the investments needed to provide safe and reliable service in an efficient and cost-effective manner.

*E. Capital Asset Pricing Model*

**Q: Please briefly describe Mr. Murray's CAPM analyses.**

A: His CAPM analyses assume a risk-free rate of 2.57 percent, an average calculated five-year Beta coefficient of 0.71 for the broad proxy group, 0.70 for the pure-play proxy group, and 0.69 for the refined proxy group, and historical Market Risk Premium ("MRP") estimates of 6.00 percent (using the long-term arithmetic mean) and 4.40 percent (using the long-term geometric mean).[99] Based on those inputs, Mr. Murray's CAPM calculations produce Cost of Equity estimates of 5.61 to 6.75 percent.[100]

**Q: Do you agree with Mr. Murray's CAPM analysis?**

A: No, I do not. The principal difference in our approaches is that Mr. Murray performs an historical, or *ex-post* analysis, while I perform a forward-looking, or *ex-ante* analysis. Because the purpose of this proceeding is to establish the Cost of Equity for GMO on a forward-looking basis, it is important to develop a CAPM analysis that reflects investor expectations and to reject Staff's exclusive use of historical MRP estimates.

**Q: Before turning to the MRP, do you agree with Mr. Murray's use of the average 30-year Treasury yield as the risk-free rate?**

A: Although I agree with Mr. Murray that it is appropriate to use the current average 30-year Treasury yield, I relied on both the current 30-day average 30-year Treasury yield and the (near-term) projected 30-year Treasury yield as reported in the *Blue Chip Financial Forecast*.

---

99 *Ibid.* at 45.

100 *Ibid.*

**Q: How did Mr. Murray calculate his MRP estimates?**

A: Mr. Murray cites Duff & Phelps' 2016 Valuation Handbook, and states he calculated his MRP estimates by taking the difference between the long-term average earned return on stocks and bonds from 1926 – 2015.[101] Duff & Phelps, however, reports arithmetic and geometric historical Market Risk Premium estimates of 6.90 percent and 4.76 percent, respectively.[102] It is not clear why Mr. Murray's estimates (6.00 percent arithmetic mean and 4.40 percent geometric mean) are so much lower than Duff & Phelps' reported values.

**Q: Is it appropriate to rely exclusively on historical data in estimating the MRP, as Mr. Murray has done?**

A: No, it is not. The Market Risk Premium represents the additional return required by equity investors to assume the risks of owning the "market portfolio" of equity relative to long-term Treasury securities. As with other elements of Cost of Equity analyses, the MRP is meant to be a forward-looking parameter. Simply relying on the historical MRP may produce results that are inconsistent with investor sentiment and current conditions in capital markets. For example, Morningstar observes:

> It is important to note that the expected equity risk premium, as it is used in discount rates and cost of capital analysis, is a forward-looking concept. That is, the equity risk premium that is used in the discount rate should be reflective of what investors think the risk premium will be going forward.[103]

The historical MRP, on the other hand, may not necessarily reflect investors' expectations or, for that matter, the relationship between market risk and returns. The relevant analytical issue in applying the CAPM is to ensure that all three components of

---

101 Staff Revenue Requirement Cost of Service Report at 45.

the model (*i.e.*, the risk-free rate, Beta, and the MRP) are consistent with market conditions and investor expectations. Therefore, the *ex-ante* CAPM analyses are the more appropriate method to estimate the Company's Cost of Equity.

**Q: What is the difference between the geometric and the arithmetic mean risk premium?**

A: The arithmetic mean is the simple average of single period rates of return, while the geometric mean is the compound rate that equates a beginning value to its ending value. The important distinction between the two methods is that the arithmetic mean assumes that each periodic return is an independent observation and, therefore, incorporates uncertainty into the calculation of the long-term average. The geometric mean, by contrast, is a backward-looking calculation that essentially equates a beginning value to an ending value over a specific period of time. Geometric averages, therefore, provide a standardized basis of review of historical performance across investments or investment managers; they do not, however, reflect forward-looking uncertainty.

Since there is no uncertainty regarding past returns, the use of geometric averages is appropriate when comparing investment performance on a retrospective basis. On a prospective basis, however, uncertainty exists and should be taken into consideration when developing return expectations and requirements. That is why investors and researchers commonly use the arithmetic mean when estimating the risk premium over historical periods for the purpose of estimating equity cost rates.

Lastly, investment risk, or volatility, is typically measured on the basis of the standard deviation. The standard deviation, in turn, is a function of the arithmetic, as

---

102 Duff & Phelps, 2016 Valuation Handbook at 3-31.

opposed to the geometric mean. In that regard, the Beta coefficients applied in CAPM analyses are derived from the standard deviation of returns.[104] In any case, Morningstar notes that:

> The arithmetic average equity risk premium can be demonstrated to be the most appropriate when discounting future cash flows. For use as the expected equity risk premium in either the CAPM or the building block approach, the arithmetic mean or the simple difference of the arithmetic means of the stock market returns and the riskless rates is the relevant number.[105]

Similarly, an article reviewing literature on the topic noted the following rationale for using the arithmetic mean:

> Note that the arithmetic mean, not the geometric mean is the relevant value for this purpose. The quantity desired is the rate of return that investors expect over the next year for the random annual rate of return on the market. The arithmetic mean, or simple average, is the unbiased measure of the expected value of repeated observations of a random variable, not the geometric mean. ... [The] geometric mean underestimates the expected annual rate of return.[106]

Q: **Putting aside the issue of whether it is more appropriate to use the geometric or arithmetic mean, do you have any concerns with the way in which Mr. Murray calculated his assumed Market Risk Premium?**

A: Yes, I do. Mr. Murray's estimates are derived using the historical difference in the total returns on stocks and bonds. According to Morningstar, however, the historical MRP is appropriately calculated by subtracting the *income only* portion of the government bond return from the total return on large company stocks:

> Another point to keep in mind when calculating the equity risk premium is that the income return on the appropriate-horizon Treasury security, rather

---

103 Morningstar, Inc., Ibbotson Stocks, Bonds, Bills and Inflation 2013 Valuation Yearbook at 53.

104 *See* Direct Testimony of Robert B. Hevert, at 32.

105 Morningstar, Inc., Ibbotson Stocks, Bonds, Bills, and Inflation 2013 Valuation Yearbook at 56.

106 Ian Cooper, *Arithmetic versus geometric mean estimators: Setting discount rates for capital budgeting,* European Financial Management 2.2 at 158 (1996).

> than the total return, is used in the calculation. The total return is comprised of three return components: the income return, the capital appreciation return, and the reinvestment return...The income return is thus used in the estimation of the equity risk premium because it represents the truly riskless portion of the return.[107]

By subtracting the total return on government bonds from the total return on stocks, Mr. Murray has understated the historical MRP by approximately 90 basis points (using the arithmetic mean).[108] Based on Mr. Murray's average Beta coefficient of 0.71 (broader proxy group), the effect on his mean CAPM estimate would be approximately 64 basis points. Even that correction, however, produces results that are far too low to be reasonable estimates of the Company's Cost of Equity.

**Q: What are your conclusions regarding Mr. Murray's CAPM analysis?**

A: As a practical matter, estimates as low as 5.61 percent have little, if any, practical meaning for the purpose of determining the Company's ROE. Mr. Murray's view that his 5.61 percent to 6.85 percent CAPM results have any analytical meaning, even if only for the purpose of rationalizing his DCF model estimates, is misplaced on its face. Equally important, Mr. Murray's position demonstrates the difficulty in applying financial models without giving due consideration to the reasonableness of the inputs, assumptions, and results.

### *F. "Rule of Thumb" Calculation*

**Q: Please briefly summarize Mr. Murray's "rule of thumb" calculation.**

A: Mr. Murray's calculation adds a premium of 3.00 percent to 4.00 percent to the corporate bond yield, as measured by the average interest rate on the Moody's A and Baa-rated

107 Morningstar, Ibbotson Stocks, Bonds, Bills, and Inflation 2013 Valuation Yearbook, at 55.

108 Duff & Phelps, 2016 Valuation Handbook at 3-25, 3-31.

bond. Based on that approach, Mr. Murray presents an ROE range of 6.90 to 8.61 percent.[109] Mr. Murray reasons that the Cost of Equity for utilities is toward the lower end of that range, since investors view utility stocks as similar to utility bonds.[110]

**Q: Are Mr. Murray's conclusions valid?**

A: No, his "rule of thumb" approach ignores the Commission's finding that the Equity Risk Premium is inversely related to interest rates. That relationship, which was demonstrated with respect to long-term Treasury yields in my Direct Testimony,[111] and is consistent with published research,[112] also applies to utility bond yields. As Chart 8 (below), demonstrates (*see also* Schedule RBH-23), there is a significant, negative relationship between the Moody's Baa Utility Bond Index yield and the equity risk premium (defined by reference to authorized ROEs).

---

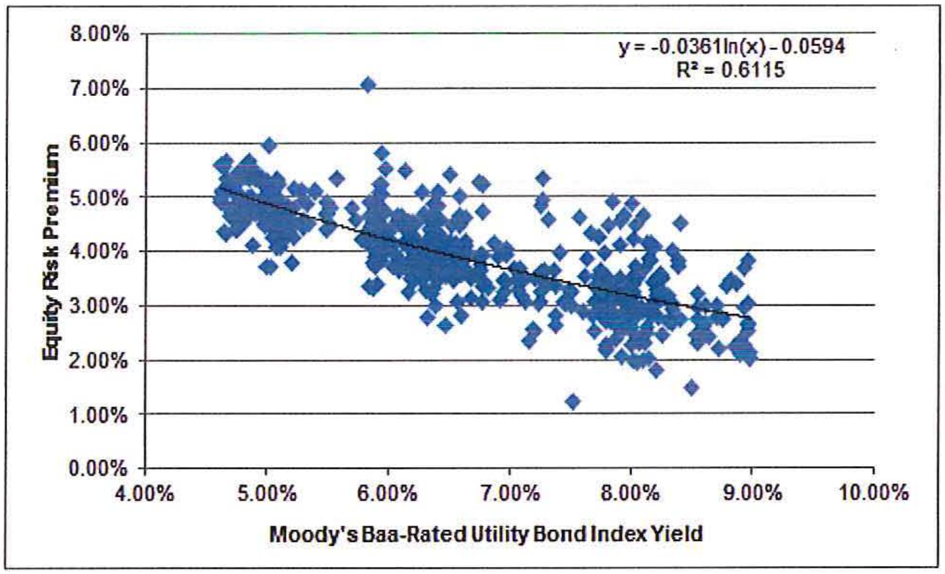
109 Staff Revenue Requirement Cost of Service Report at 46.

110 *Ibid.*

111 *See* Direct Testimony of Robert B. Hevert at 39.

112 Robert S. Harris and Felicia C. Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts*, Financial Management at 63-70 (Summer 1992); Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *The Risk Premium Approach to Measuring a Utility's Cost of Equity*, Financial Management at 33-45 (Spring 1985); and Farris M. Maddox, Donna T. Pippert, and Rodney N. Sullivan, *An Empirical Study of Ex Ante Risk Premiums for the Electric Utility Industry*, Financial Management at 89-95 (Autumn 1995).

**Chart 8: Equity Risk Premium vs. Moody's Baa Yield**




Applying the 4.61 percent Baa yield noted on page 46 of the Staff Report to the regression equation provided in Chart 8 produces a Risk Premium estimate of approximately 5.17 percent, and an ROE of 9.78 percent, well above Mr. Murray's "rule of thumb" estimate.[113]

*G. Financial Integrity and ROE Determinations*

**Q: Did Mr. Murray quantify the potential effect of his ROE recommendation on GMO's financial integrity?**

A: No, he did not.

**Q: Have you considered how Mr. Murray's ROE recommendation, if adopted, would affect the Company's financial profile?**

A: Yes, I have. There is little question that the financial community puts considerable weight on regulatory issues. For example, Moody's considers the regulatory structure to

[113] In my response to Mr. Gorman, I provide more detail regarding the strongly supported inverse relationship between the equity risk premium and interest rates.

be so important that 50.00 percent of the factors that weigh in its ratings determination are related to the nature of regulation.[114] Among the factors considered by Moody's in assessing the regulatory framework are the predictability and consistency of regulatory actions:

> As the revenues set by the regulator are a primary component of a utility's cash flow, the utility's ability to obtain predictable and supportive treatment within its regulatory framework is one of the most significant factors in assessing a utility's credit quality. The regulatory framework generally provides more certainty around a utility's cash flow and typically allows the company to operate with significantly less cushion in its cash flow metrics than comparably rated companies in other industrial sectors.
>
> ***
>
> In situations where the regulatory framework is less supportive, or is more contentious, a utility's credit quality can deteriorate rapidly.[115]

Mr. Murray recommends an ROE that falls well below the prevailing level of authorized returns for natural gas utilities (9.56 percent), and electric distribution utilities (9.26 percent), as well as vertically integrated electric utilities (9.73 percent).[116] If the Commission were to adopt his recommendation, it would represent a substantial departure from industry practice, and inject a considerable degree of uncertainty regarding the Company's cash flows, and the regulatory environment in which it operates. In light of the rating agencies' focus on "supportive" and "constructive" regulatory frameworks, it is my view that Mr. Murray's unreasonably low recommendation would put immediate and substantial downward pressure on important credit metrics. Such pressure would diminish the Company's ability to attract capital at reasonable terms, which, as noted above, is a fundamental measure of financial integrity.

---

114 Moody's Investors Service, *Rating Methodology; Regulated Gas and Electric Utilities* at 6 (Dec. 23, 2013).

115 Moody's Investors Service, *Regulatory Frameworks – Ratings and Credit Quality for Investor-Owned Utilities* at 2 (June 18, 2010).

**Q: Do you agree with Mr. Murray that Staff's 9.00 percent ROE recommendation is higher than GMO's actual Cost of Equity, and that it is common practice for utility commissions to set the authorized ROE above the actual Cost of Equity?[117]**

A: No, I do not. Mr. Murray acknowledges that the Commission has relied on returns in other jurisdictions as a benchmark to assess the reasonableness of allowed ROEs for GMO. He argues, however, that those returns are higher than the actual Cost of Equity.[118] Mr. Murray's position, however, fails to recognize that regulatory commissions in other jurisdictions consider the same *Hope* and *Bluefield* standards that he cites,[119] and that they base their decisions on the same type of market-based analyses that have been presented by the ROE witnesses in this proceeding. The *Hope* and *Bluefield* standards require the authorized ROE to be comparable to the returns available from companies with similar business and financial risks. To that point, the Commission has determined that authorized ROEs in other jurisdictions are a relevant benchmark in developing a zone of reasonableness against which it may test the authorized ROE.[120]

## III. RESPONSE TO OPC WITNESS GORMAN

**Q: Please briefly summarize Mr. Gorman's recommendation regarding the Company's Cost of Equity.**

A: Mr. Gorman recommends an ROE of 9.25 percent, within a recommended range of 8.90 to 9.60 percent.[121] Mr. Gorman establishes his recommended ROE by reference to: (1)

---

116 Source: Regulatory Research Associates. For the twelve months ended June 30, 2016, excluding limited-issue riders.

117 *See* Staff Revenue Requirement Cost of Service Report at 48-49.

118 *Ibid.*

119 *Ibid.* at 14.

120 *See* for example Report and Order, Case No. ER-2011-0028 at 67.

121 *See* Direct Testimony of Michael P. Gorman, at 2.

his constant growth DCF model using both consensus analyst growth rates and a sustainable growth rate (with median and average results ranging from 7.34 percent to 8.89 percent);[122] (2) his Multi-Stage DCF method (with mean and median results of 8.00 percent and 8.01 percent, respectively);[123] (3) his Risk Premium estimates (ranging 9.50 percent to 9.60 percent, with a point estimate of 9.55 percent);[124] and (4) his Capital Asset Pricing Model analyses (ranging from 7.90 percent to 9.25 percent).[125] In particular, Mr. Gorman's 9.25 percent recommendation represents the approximate midpoint of his range of results, set by reference to the low-results from the DCF and CAPM (8.90 percent) on the low-end and the Risk Premium (9.60 percent) analyses on the high-end.[126]

**Q: What are the principal analytical areas in which you disagree with Mr. Gorman?**

A: The principal analytical areas in which I disagree with Mr. Gorman include:

1. Proxy group composition;
2. The application of the Constant Growth DCF model, and interpretation of its results;
3. The Market Risk Premium component of his CAPM analysis, in particular the expected market return from which the MRP is calculated;
4. The assumptions and methods underlying Mr. Gorman's Risk Premium analyses; and
5. Mr. Gorman's assessment of the Company's relative risk.

---

122 *Ibid.* at 48.
123 *Ibid.*
124 *Ibid.* at 55.
125 *Ibid,* at 61.
126 *Ibid.* at 61-62.

### *A. Proxy Group Composition*

**Q: Do you agree with Mr. Gorman's exclusion of Dominion Resources, Great Plains Energy, Westar Energy, and Otter Tail Corporation from the proxy group?[127]**

A: I agree with the exclusion of Dominion Resources, Inc. and Westar Energy Inc.; I also have excluded those companies due to their recent merger and acquisition activity. However, I continue to include Otter Tail Corporation ("OTTR") in my analyses. Mr. Gorman excluded OTTR from his proxy group because analyst earnings growth rates estimates were not available from any of the data sources he relies on (Zacks, SNL Financial and Reuters). Because two of the data sources I rely on for earnings growth estimates (Yahoo and Value Line) report earnings growth rates for OTTR, I continue to include the company in my proxy group.

### *B. Constant Growth DCF Model*

**Q: As a preliminary matter, does Mr. Gorman give his Constant Growth DCF results any weight in arriving at his 9.25 percent ROE recommendation?**

A: Yes, as noted earlier, Mr. Gorman's 9.25 percent recommendation represents the midpoint of his 8.90 percent to 9.60 percent recommended range. The bottom end of that range (8.90 percent) is based on Mr. Gorman's Constant Growth DCF median result of 8.89 percent,[128] and the upper bound (9.60 percent) represents the point estimate of his Risk Premium results.[129]

To arrive at his median DCF estimate, Mr. Gorman discards his Multi-Stage DCF results (8.01 percent), and his Constant Growth DCF model results based on the

---

[127] *Ibid.* at 25.

[128] *Ibid.* at 48, Table 8. The low-end is also support by Mr. Gorman's CAPM results.

"sustainable growth" method (7.34 percent) in favor of his Constant Growth DCF results based on analysts' growth rate projections (8.89 percent).[130] Because Mr. Gorman states that his recommendation is "primarily based" on his Constant Growth DCF results, and not his Multi-Stage or sustainable growth DCF methods, I will not comment on his application of those approaches in my Rebuttal Testimony.

**Q: Do you have any concerns with the Constant Growth DCF model in general, and the weight that Mr. Gorman applies to those results in particular?**

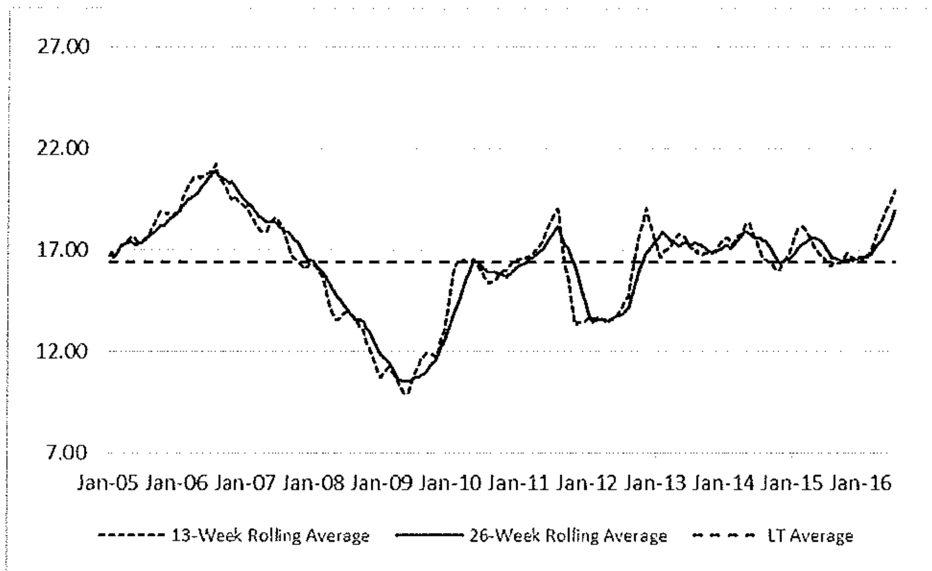
A: Yes, I do. The Constant Growth DCF model is based on several underlying assumptions that combine to establish an inverse relationship between expected growth and the dividend yield. That is, as expected growth increases, the price would increase and the dividend yield would decrease. Conversely, as expected growth decreases, the price would decrease and the dividend yield would increase. Mr. Gorman's Constant Growth DCF analysis, however, assumes P/E ratios that are high by historical standards, (*see* Chart 9, below), but growth rates that are relatively low.

---

[129] *Ibid.* at 61.

[130] *Ibid.* at 48.

**Chart 9: Proxy Group Rolling Average P/E Ratio**[131]




**Q: Are the growth rates assumed in Mr. Gorman's analysis consistent with historically high valuation levels?**

A: No, they are not. Mr. Gorman's analysis assumes an average growth rate of 5.38 percent (*see* Schedule MPG-5) which, he notes, is well below the long-term compound average growth rate for the economy as a whole (6.20 percent), and the long-term rate of stock market capital appreciation (on geometric average basis, 5.80 percent).[132] As discussed earlier, the Constant Growth DCF model assumes that low growth rates would be associated with low prices (and high dividend yields), yet the proxy group average P/E ratio is well above its long-term average. In the context of the Constant Growth DCF model, the two are not compatible.

Mr. Gorman acknowledges that unsustainable expansions in P/E ratios create analytical concerns that should be addressed in determining the Cost of Equity. At page 60 of his direct testimony, Mr. Gorman discusses the Market Risk Premium component

[131] Sources: SNL Financial. Proxy Group P/E ratio calculated as an index.

of his Capital Asset Pricing Model, and explains that Ibbotson & Chen found an "abnormal expansion" of P/E ratios relative to earnings and dividend growth. That is, Ibbotson & Chen found that because higher P/E ratios during the 1980 to 2001 period were not explained by higher growth in earnings or dividends, their analyses required adjustment.[133] Duff & Phelps, the source referenced by Mr. Gorman, calculates an adjustment using three-year average P/E ratios, rather than relying on the current year, because "the three-year average allows the adjustment to smooth out the volatility of extraordinary events and allows earnings to better reflect a normalized trend."[134] As did Ibbotson, Duff & Phelps recognized that abnormally high P/E ratios will produce questionable analytical results, and the long-term trend is important.

The same conditions hold here. The utility sector has undergone an "abnormal expansion" in P/E ratios; there is no dispute on that point. Whereas Duff & Phelps recognized and adjusted its analyses to reflect the abnormal expansion in P/E ratios, Mr. Gorman's DCF analyses, and his interpretation of their results, do not.

Lastly, if Mr. Gorman's position is that the current P/E ratio will sustain itself over the long-run, I have addressed that concern by calculating the terminal value portion of the Multi-Stage DCF model by reference to current P/E ratios.[135]

**Q: Please summarize your concerns with Mr. Gorman's use of a sustainable long-term growth in his DCF analysis.**

A: Although we agree that it is appropriate to rely on analyst earnings growth estimates in applying the Constant Growth DCF model, Mr. Gorman asserts that those estimates

132 Direct Testimony of Michael P. Gorman at 44.

133 *See* Direct Testimony of Michael P. Gorman at 60; Morningstar Inc., Ibbotson SBBI 2014 Classic Yearbook at 156 - 157.

134 Duff & Phelps, 2016 Valuation Handbook: Guide to Cost of Capital, at 3-30.

should be limited to what he considers to be a reasonable estimate of long-term "sustainable" growth. In that regard, because they are higher than the five- and ten-year nominal GDP growth estimates from Blue Chip *Financial Forecasts*, Mr. Gorman concludes that the mean analyst consensus earnings growth estimates in my Constant Growth DCF analysis produce elevated estimates of the Cost of Equity.[136]

As noted in my response to Mr. Murray, prior academic research indicates that investors rely on analysts' earnings growth projections. Although Mr. Gorman may be of the view that analyst growth rates are not sustainable, the relevant issue is whether investors rely on those projections in making their investment decisions. That is, what matters is that analysts' projections reflect widely held expectations influencing investors at the time they make their pricing decisions, *i.e.,* the market prices investors are willing to pay. I am not aware of empirical evidence supporting the position that investors would disregard analysts' estimates of growth in Earnings Per Share for the companies in our respective proxy groups, nor has Mr. Gorman provided any such evidence. Rather, the academic research discussed above supports the use of analysts' earnings growth projections. I therefore disagree with Mr. Gorman's conclusion that *his* view of sustainable growth, rather than analysts' projections, is the more relevant measure of investor expectations.

135 *See* Schedule RBH-14.

136 *See* Direct Testimony of Michael P. Gorman at 37-39.

*C. Application of Capital Asset Pricing Model*

**Q: Please briefly summarize Mr. Gorman's CAPM analysis and results.**

A: Mr. Gorman's two CAPM estimates (9.25 and 7.90 percent) are based on two measures of principally historical Market Risk Premium estimates: (1) Blue Chip's projected 30-year Treasury yield of 3.40 percent as the risk-free rate;[137] and (2) an average Beta coefficient of 0.75, as reported by Value Line.[138] Based on his assessment of risk premiums in the current market, Mr. Gorman relies on the high-end 9.25 percent CAPM when estimating GMO's Cost of Equity.[139] Mr. Gorman's analyses assume Market Risk Premium estimates of 7.80 percent (based on the long-term historical arithmetic average real market return from 1926 through 2015 as reported by Duff & Phelps, adjusted for current inflation forecasts), and 6.00 percent (based on the historical difference between the average return on the S&P 500 and the average total return on long-term government bonds).[140] Combining those Market Risk Premium estimates with his projected long-term risk-free rate, Mr. Gorman develops expected market returns in the range of 9.40 to 11.20 percent.[141]

**Q: Turning first to the expected total market return, do you agree with Mr. Gorman's 9.40 and 11.20 percent estimates?**

A: No, I do not. As a practical matter, Mr. Gorman's 9.40 percent estimate, which is more than 250 basis points below the long-term average market return, falls in the bottom 10th

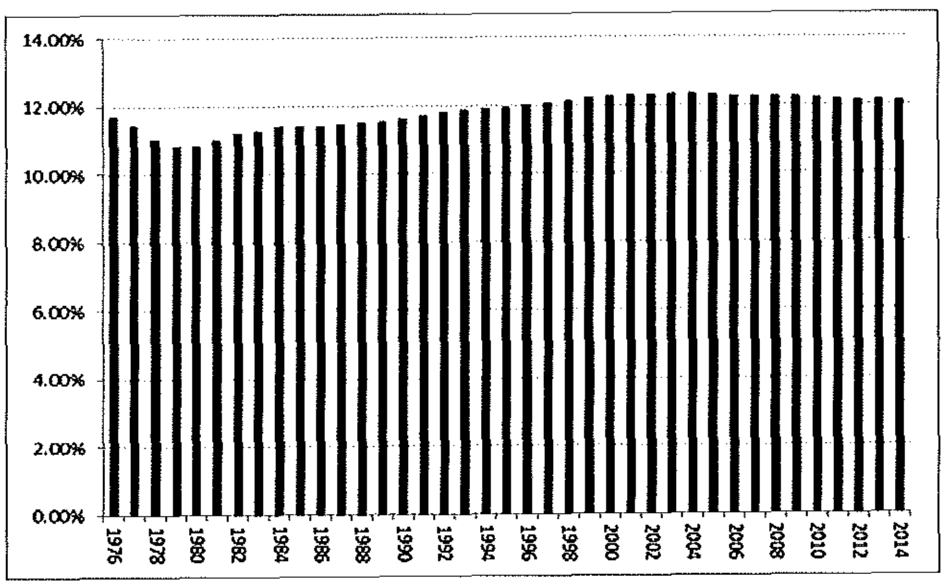
---

137 *Ibid.* at 61 and Schedule MPG-18.
138 *Ibid.* at 61 and Schedule MPG-18.
139 *Ibid.* at 61.
140 *Ibid.* at 59 and Schedule MPG-18.
141 Mr. Gorman's low Market Risk Premium of 6.00 percent plus his projected risk-free rate of 3.40 percent equals an estimated market return of 9.40 percent. *See* Direct Testimony of Michael P. Gorman, 51, 58; Schedule MPG-18.

percentile of the 90 annual returns reported by Morningstar.[142] His 11.20 percent estimate, which I believe is more reasonable, still falls in the bottom 24th percentile.

A helpful perspective on the historical market return is the rolling 50-year average annual market return. As Mr. Gorman points out, from 1926 through 2015 the arithmetic average market return was 12.00 percent.[143] Over the 50 years ended 2015, the average return was 12.10 percent, only ten basis points removed from the longer-term average that Mr. Gorman reports. Over time, the fifty-year average return has been quite consistent, in the range of approximately 12.00 percent (*see* Chart 10, below).

**Chart 10: 50-Year Rolling Average Market Return (1976 – 2015)[144]**




Taken from that perspective, Mr. Gorman's 9.40 percent expected market return is well below the long-term market experience, and, therefore, is not reasonable.

142 On a rolling average basis.
143 Direct Testimony of Michael P. Gorman, at 58.
144 Source: Morningstar, Inc., 2016 SBBI Appendix A Tables.

### *D. Application of the Risk Premium Model*

**Q: Please briefly describe Mr. Gorman's Risk Premium analyses.**

A: Mr. Gorman defines the "Risk Premium" as the difference between average annual authorized equity returns for electric utilities, and a measure of long-term interest rates each year from 1986 through March 2016.[145] Mr. Gorman's first approach calculates the annual risk premium by reference to the 30-year Treasury yield, and his second approach considers the average A-rated utility bond yield.[146] In each case, Mr. Gorman establishes his risk premium estimate by reference to five-year and ten-year rolling averages. The lower and upper bounds of Mr. Gorman's Risk Premium range are defined by the lowest and highest rolling average, respectively, regardless of the year in which those observations occurred.[147]

Regarding the period over which he gathers and analyzes his data, Mr. Gorman suggests that his 31-year horizon is a "generally accepted period to develop a risk premium study using 'expectational' data."[148] On page 51 of his direct testimony Mr. Gorman further states that "it is reasonable to assume that averages of annual achieved returns over long time periods will generally converge on the investors' expected returns," and concludes that his "risk premium study is based on expectational data, not actual investment returns, and, thus, need not encompass a very long historical time period."[149] Based on those assumptions, Mr. Gorman calculates a range of risk premium estimates of 4.25 percent to 6.71 percent using his Treasury bond analysis, and 2.88 percent to 5.53 percent using his A-rated utility bond analysis. Combined with a 3.40

---

145 Direct Testimony of Michael P. Gorman, at 49-50.
146 *See* Direct Testimony of Michael P. Gorman, 51, Schedule MPG-13 and MPG-14.
147 Direct Testimony of Michael P. Gorman at 41-42; Schedule MPG-13 and MPG-14.
148 *Ibid.* at 51.

percent projected Treasury yield and a 4.69 percent Baa-rated utility bond yield estimate, Mr. Gorman's Risk Premium analysis produces results ranging from 7.57 percent to 10.22 percent.[150] To calculate his Risk Premium-based ROE estimate, Mr. Gorman gives 75.00 percent weight to the high end of his risk premium estimates, and 25.00 percent to the low end, producing a range of 9.50 percent to 9.60 percent with a midpoint of 9.55 percent.[151]

**Q: Do you have any general observations regarding Mr. Gorman's Risk Premium estimates and how they weigh in his overall ROE recommendation?**

A: Yes, I do. In assessing his DCF analyses, Mr. Gorman decided to rely on his highest result and essentially discarded five of his six results, which ranged from 7.34 to 8.83 percent.[152] In his Risk Premium analysis, however, Mr. Gorman retained risk premiums that produced ROE estimates that were more than 100 basis points *below* the DCF estimates that he chose not to rely on. Despite their low levels, Mr. Gorman gave those risk premium estimates (producing ROE results of 7.57 and 7.65 percent) weights of 25.00 percent in aggregate. Mr. Gorman offers no explanation as to why he would exclude DCF results of 8.83 percent and lower, yet include Risk Premium results of 7.57 percent and 7.65 percent.[153]

**Q: What are your specific concerns with Mr. Gorman's Risk Premium analysis?**

A: I have three concerns with his analysis: (1) Mr. Gorman's method understates the required risk premium in the current market because it ignores an important relationship

---

149 *Ibid.* at 52.

150 4.69% + 2.88% = 7.57%; 4.69% + 5.53% = 10.22%; 3.40% + 4.25% = 7.65%; 3.40% + 6.71% = 10.11%.

151 *Ibid.* at 54-55.

152 *Ibid.* at 48.

153 *Ibid.* at 55 (2.88% + 4.69% = 7.57% and 4.25% + 3.40% = 7.65%).

confirmed by his own data, *i.e.,* that the risk premium is inversely related to the level of interest rates (whether measured by Treasury or utility bond yields); (2) the low end of Mr. Gorman's Risk Premium results is far lower than any ROE authorized since at least 1986 and as such, has no relevance in estimating the Company's Cost of Equity; and (3) Mr. Gorman suggests that a Market/Book of 1.00 is a relevant benchmark for assessing authorized ROEs.[154]

**Q: Turning first to the issue of Market/Book ratios, as discussed on page 49 of his direct testimony, do you agree with Mr. Gorman that M/B ratios should be used to assess the reasonableness of ROE recommendations?**

A: Although Mr. Gorman frames his discussions in the context of authorized returns that "were sufficient to support market prices that at least exceeded book value,"[155] he does not suggest whether the Market/Book ratio should exceed some level, or even explain the extent of the relationship between authorized returns and Market/Book ratios. As discussed below, I do not believe that M/B ratios should serve as a measure of the sufficiency of authorized returns.

The M/B ratio equals the market value (or stock price) per share, divided by the total common equity (or the book equity) per share. Book value per share is an accounting construct, which reflects historical costs. In contrast, market value per share (*i.e.,* the stock price) is forward-looking, and a function of many variables, including (but not limited to) expected earnings and cash flow growth, expected payout ratios, measures of "earnings quality," the regulatory climate, the equity ratio, expected capital

---

154 *Ibid.* at 49.

155 *Ibid.* at 49-50.

expenditures, and the earned return on common equity. In addition, several academic articles that address the various factors that affect the M/B ratio for utilities.[156]

The notion that book values should be set at a value approaching unity by regulatory commissions has been refuted for many years. As noted by Stewart Myers in 1972: "In short, a straightforward application of the cost of capital to a book value rate base does not automatically imply that market and book values will be equal. This is an obvious but important point. If straightforward approaches did imply equality of market and book values, then there would be no need to estimate the cost of capital. It would suffice to lower (raise) allowed earnings whenever markets were above (below) book."[157]

In addition, as Dr. Roger Morin states, it is rarely the case in cost of service-based regulation that M/B ratios equal 1.00:

> The third and perhaps most important reason for caution and skepticism is that application of the DCF model produces estimates of common equity cost that are consistent with investors' expected return only when stock price and book value are reasonably similar, that is, when the M/B is close to unity. As shown below, application of the standard DCF model to utility stocks *understates* the investor's expected return when the market-to-book (M/B) ratio of a given stock exceeds unity. This was particularly relevant in the capital market environment of the 1990s and 2000s whose utility stocks are trading at M/B ratios well above unity and have been for nearly two decades. The converse is also true, that is, the DCF model overstates the investor's return when the stock's M/B ratio is less than unity. The reason for the distortion is that the DCF market return is applied to a book value rate base by the regulator, that is, a utility's earnings are limited to earnings on a book value rate base. [158]

As such, I do not agree that authorized returns should be viewed in the context of Market/Book ratios.

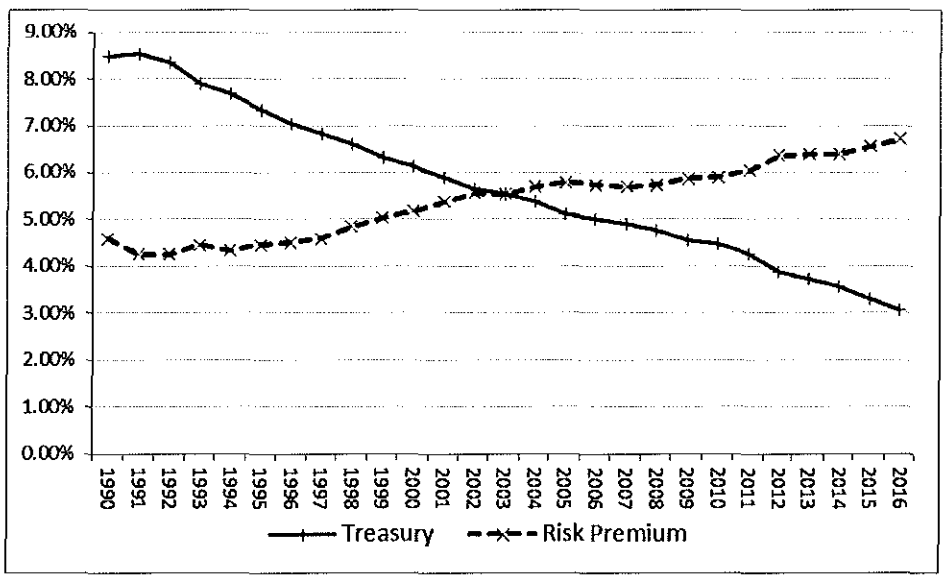
---

*See*, for example, Roger A. Morin, New Regulatory Finance, Public Utility Reports, Inc., 2006, at 366.
*See*, Roger A. Morin, New Regulatory Finance, Public Utility Reports, Inc., 2006, at 366, citing Stewart C. Myers, *The Application of Finance Theory to Public Utility Rate Cases*, The Bell Journal of Economics and Management Science, Vol. 3, No. 1 (Spring 1972), at 76.

**Q: What did your analysis of Mr. Gorman's Risk Premium analyses indicate?**

A: My analyses demonstrate that he failed to consider the inverse relationship between interest rates and the Equity Risk Premium, which artificially depresses his Risk Premium ROE recommendation. Considering first the Treasury yield-based analysis, I plotted the yields and Risk Premia over the 1986 to 2016 period included in Mr. Gorman's analysis. That graph, which is presented in Chart 11 (below), clearly indicates the inverse relationship between interest rates and the Equity Risk Premium.

**Chart 11: Mr. Gorman's Treasury Yield-Based Risk Premium Data**[159]




There are several other points made clear in Chart 11. First, the low end of Mr. Gorman's Risk Premium range, 4.25 percent, was observed in the five-year period ending 1991. There is little question that Risk Premium estimates associated with economic environments 25 years ago have little to do with current market conditions. A very visible measure of such differences is the fact that before 2002, Treasury yields exceeded the Risk Premium (on a five-year average basis). Since then, as Chart 11 (*see also*

---

158 Roger A. Morin, New Regulatory Finance, Public Utilities Reports, Inc., 2006, at 434. [emphasis added]

Schedule RBH-24) demonstrates, the opposite has been true – the Risk Premium has consistently exceeded Treasury yields. By that measure alone, it is clear that the low end of Mr. Gorman's range has little, if any, relevance to the current market environment.

The high end of Mr. Gorman's range, 6.71 percent, occurred more recently (for the five year period ending March 2016). In fact, Schedule MPG-13 indicates that his Equity Risk Premium averaged approximately 6.85 percent over the more recent period from 2015 through March 2016.[160] Adding that 6.85 percent Equity Risk Premium to Mr. Gorman's projected Treasury yield of 3.40 percent produces an ROE estimate of 10.25 percent.

**Q: Has the Risk Premium increased as Treasury yields have decreased?**

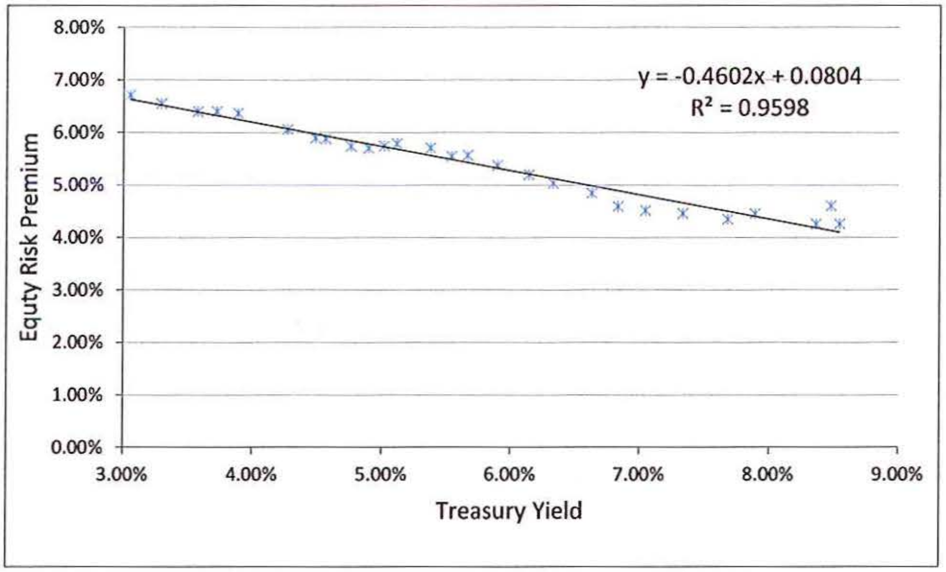
A: Yes. The relationship between the five-year average Equity Risk Premium and Treasury yields is very clear. A simple linear regression demonstrates that the two are highly related, with a Coefficient of Determination (R-Square) of approximately 96.00 percent. That is, Mr. Gorman's data demonstrate that changes in Treasury yields account for 96.00 percent of the change in the Equity Risk Premium (*see* Chart 12, below).[161]

159 Source: Direct Testimony of Michael P. Gorman, Schedule MPG-13; based on five-year rolling average.

160 Based on Indicated Risk Premium.

161 Those findings are supported in academic studies. For example, Dr. Roger Morin notes that: "... [p]ublished studies by Brigham, Shome, and Vinson (1985), Harris (1986), Harris and Marston (1992, 1993), Carleton, Chambers, and Lakonishok (1983), Morin (2005), and McShane (2005), and others demonstrate that, beginning in 1980, risk premiums varied inversely with the level of interest rates - rising when rates fell and declining when interest rates rose." Roger A: Morin, New Regulatory Finance, Public Utilities Reports, Inc. 2006, at 128 [clarification added]

**Chart 12: Treasury Yield vs. Equity Risk Premium (Five-Year Rolling Average)**[162]




Turning back to Mr. Gorman's data, a simple linear regression analysis using annual (rather than the rolling average data) demonstrates that for every 100 basis point decrease in Treasury yields, the Equity Risk Premium increases by approximately 44 basis points (*see* Schedule RBH-24).[163] Similarly, the Equity Risk Premium increases approximately 45 basis points for every 100 basis point decrease in utility bond yields. Those results are consistent with those reported by Maddox, Pippert, and Sullivan, who determined that the Risk Premium would increase by 37 basis points for every 100 basis point change in the 30-year Treasury yield.[164]

I also have found that accounting for additional factors by incorporating the credit spread (taken from Mr. Gorman's schedules) does not change the sign, statistical significance, or the magnitude of the slope coefficient.[165] In short, including Mr.

---

162 *See* Schedule RBH-24. Source: Schedule MPG-13.

163 Serial correlation is not present or is inconclusive.

164 *See* Farris M. Maddox, Donna T. Pippert, and Rodney N. Sullivan, *An Empirical Study of Ex Ante Risk Premiums for the Electric Utility Industry*, Financial Management, Vol. 24, No. 3, Autumn 1995, at 93.

165 *See* Schedule RBH-25.

Gorman's credit spreads does not change the finding that interest rates and the Equity Risk Premium are inversely related.

**Q: What are your conclusions regarding Mr. Gorman's Risk Premium analysis?**

A: Mr. Gorman's inclusion of rolling average estimates in his Risk Premium analysis does not negate the unreasonableness of his reliance on outdated and unrepresentative data. The market data upon which Mr. Gorman relies are so disconnected in time and substance from the current environment that there is no reasonable basis for his conclusion that 9.60 percent represents a proper Risk Premium-based estimate of the Company's Cost of Equity. Consequently, it is appropriate to apply methods that have been accepted in published literature, and which reflect the finding that interest rates and the Equity Risk Premium move in opposite directions. Taking this finding into account leads to more reasonable ROE estimates that are consistent with authorized returns available to other vertically integrated electric utilities.[166]

### *E. Risk Factors*

**Q: Please briefly summarize Mr. Gorman's assessment of the Company's overall business risk.**

A: Mr. Gorman summarizes certain rating agency reports and concludes that utilities in general are seen as a low-risk sector, which has provided utilities "strong access to capital."[167] Adopting an ROE as low as Mr. Gorman's recommendation (which is 63 basis points below the average authorized for vertically integrated electric utilities since 2013), however, would have the opposite effect of increasing the Company's regulatory

---

[166] *See,* for example, Schedule RBH-18, which contains a range of results from 10.03 percent to 10.39 percent.
[167] Direct Testimony of Michael P. Gorman, at 14.

risk and its cost of capital. As discussed earlier, since 2013 there was only one authorized return for a vertically integrated electric utility as low as Mr. Gorman's 9.25 percent recommendation (*see* Chart 3 above).

**Q: Do the Company's current credit ratings distinguish it from other utilities?**

A: No, they do not. As S&P notes, the vast majority of utility ratings fall within the BBB to A- range.[168] The Company's current credit rating of BBB+ falls within that range. If Mr. Gorman's point is that utilities in general are viewed as less risky than the overall market, I agree. In fact, the Beta coefficients included in my CAPM analysis are less than 1.00, indicating less systematic risk than the overall market. That does not mean, however, that the return required for equity investments in vertically integrated electric utilities such as GMO should be lower than the returns authorized for other vertically-integrated electric utilities around the country, as Mr. Gorman's 9.25 percent ROE recommendation suggests.

### *F. Financial Integrity*

**Q: Please briefly summarize Mr. Gorman's assessment of his recommendation as it affects measures of the Company's financial integrity.**

A: Mr. Gorman evaluates the reasonableness of his ROE recommendation by calculating the *pro forma* effect that his recommended ROE would have on two of the Company's key financial ratios with the goal of assessing whether those ratios would still fall within S&P's guideline ranges sufficient for an investment grade rating.[169] In that regard, Mr. Gorman develops the following *pro forma* ratios: (1) Debt to EBITDA; and (2) Funds

---

[168] Standard & Poor's RatingsDirect, *Industry Report Card: The Outlook For U.S. Regulated Utilities Remains Stable On Increasing Capital Spending And Robust Financial Performance*, December 16, 2014, at 6.

From Operations ("FFO") to Total Debt. An important point is that Mr. Gorman's analysis assumes that the Company actually will earn the entirety of its authorized ROE on a going-forward basis.

Mr. Gorman develops the *pro forma* financial ratios noted above based on the Company's retail cost of service, and his recommended ROE of 9.25 percent and equity ratio of 51.40 percent. Mr. Gorman notes that his *pro forma* financial analysis suggests that his recommended ROE of 9.25 percent would be sufficient to maintain "an investment grade bond rating."[170]

**Q: Do you agree with Mr. Gorman's analysis and conclusion?**

A: No, I do not. First, simply maintaining an "investment grade" rating is an inappropriate standard. According to Standard & Poor's, only 6 of 221 utilities have had below investment grade ratings.[171] GMO must compete for capital within the utility sector in the first instance, and with companies beyond utilities, overall. If Mr. Gorman is of the view that simply maintaining an investment grade rating is sufficient for that purpose, I disagree. In my practical experience raising capital for a regulated utility, I can say firsthand that the competition for capital can be acute. Based on that practical experience, I also can say that Mr. Gorman's "investment grade" standard would frustrate the ability of GMO, or any other regulated utility, to raise capital under a variety of market conditions, and at reasonable costs and terms.

That fundamental concern aside, I believe relying on Mr. Gorman's *pro forma* results to assess the credit supportiveness of any specific ROE or equity ratio is

---

169 *See* Direct Testimony of Michael P. Gorman, at 64-65.

170 *Ibid.* at 65.

171 *See* Standard & Poor's RatingsDirect, *The Outlook for U.S. Regulated Utilities Remains Stable on Increasing Capital Spending and Robust Financial Performance*, December 16, 2014, at 7-20.

misplaced. In particular, I examined the robustness of using his *pro forma* credit metrics as a threshold benchmark by recreating the results in Mr. Gorman's Table 11 (using the data and assumptions provided in Mr. Gorman's highly confidential workpaper). As shown in in Table 2 below, Mr. Gorman's *pro forma* analysis suggest an ROE as low as 3.25 percent would be sufficient to achieve Debt to EBITDA and FFO to Total Debt ratios in the Company's current "Significant" risk range. Clearly, however, a return of 3.25 percent, which is significantly below GMO's cost of long-term debt, is an unrealistic estimate of the Company's Cost of Equity.

**Table 2: Mr. Gorman's Financial Integrity Test Using Alternate Assumptions[172]**

| | Debt / EBITDA | FFO/ DEBT | |
|---|---|---|---|
| S&P Benchmark Ranges | | | |
| "Intermediate" | 2.5x-3.5x | 23%-35% | |
| "Significant" | 3.5x-4.5x | 13%-23% | |
| | | | |
| SCENARIO | Debt / EBITDA | FFO/ DEBT | Implied Risk Rating |
| Gorman as Filed (9.25 ROE and 51.40% Equity Ratio) | 3.05 | 23.62% | Intermediate |
| Using GMO requested 9.90% ROE and 51.42% Equity Ratio | 2.98 | 24.31% | Intermediate |
| Using 5.00% ROE/51.40% Equity | 3.93 | 19.13% | Significant |
| Using 3.25% ROE/51.40% Equity | 4.46 | 17.28% | Significant |
| | | | |
| Company current Financial Risk rating = "Significant" | | | |

Mr. Gorman concludes that his 9.25 percent recommendation produces *pro forma* ratios within S&P's "Intermediate" guideline and therefore reflects less risk and a

[172] Analysis based on Mr. Gorman's Highly Confidential workpaper (HC WP 1.1).

stronger metric than needed to support GMO's current "Significant" ranking.[173] Again, Mr. Gorman's conclusions are questionable given that his analysis suggests an ROE of 3.25 percent would produce coverage ratios that support the Company's current "Significant" range. I do not believe there is any question that 3.25 percent is an unrealistic estimate of the Company's Cost of even if it produces pro forma credit metrics in the "Significant" range. As shown in Table 2 (above), the Company's requested 9.90 percent ROE and 51.42 percent equity ratio also produces coverage ratios that fall within the "Intermediate" range.

In my view, the observation that that Mr. Gorman's 9.25 percent ROE produces *pro forma* ratios that fall within the "Intermediate" range does not lead to the conclusion that his recommendation would support the Company's financial integrity. As noted earlier, there are factors well beyond *pro forma* coverage ratios that weigh in rating determinations.

Mr. Gorman's analysis also assumes that the Company actually will be able to earn its authorized return, and that its Funds From Operations will not be diluted by regulatory lag, additional capital spending, or any of the other factors that may dilute earnings and cash flow.

Lastly, as Mr. Gorman recognizes, credit rating agencies consider a number of factors beyond coverage ratios. As noted in my response to Mr. Murray, 50.00 percent of Moody's ratings factors relate to the regulatory environment. Mr. Gorman's ROE recommendation, which is far below the national average return for vertically integrated electric utilities, would introduce an element of regulatory risk that could put pressure on GMO's credit profile, potentially increasing its cost of capital. Because Mr. Gorman's

---

173 Direct Testimony of Michael P. Gorman, at 65.

analysis appears to be overly simplified, relying on its results may well lead to incorrect conclusions.

## IV. CONCLUSIONS AND RECOMMENDATION

**Q: What is your conclusion regarding the Company's Cost of Equity?**

A: Based on the analyses discussed throughout my Rebuttal Testimony, I conclude that the reasonable range of ROE estimates is from 9.75 percent to 10.50 percent for the Company's Cost of Equity. The results of the updated DCF, CAPM, and Bond Yield Plus Risk Premium analyses, along with my analyses of capital market data, and authorized returns in other regulatory jurisdictions support the reasonableness of my range of ROE estimates and my recommendation.

**Q: Does this conclude your Rebuttal Testimony?**

A: Yes, it does.

**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 |

**AFFIDAVIT OF ROBERT B. HEVERT**

**COMMONWEALTH OF MASSACHUSETTS** )
) ss
**COUNTY OF WORCESTER** )

Robert B. Hevert, being first duly sworn on his oath, states:

1. My name is Robert B. Hevert and my business address is ScottMadden, Inc., 1900 West Park Drive, Suite 250, Westborough, MA 01581. I have been retained to serve as an expert witness to provide testimony on behalf of KCP&L Greater Missouri Operations Company.

2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of KCP&L Greater Missouri Operations Company consisting of sixty-seven (67) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

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

Robert B. Hevert

Subscribed and sworn before me this 9th day of August, 2016.

Notary Public

My commission expires: March 11, 2022

KIMBERLY H. DAO
MY COMM. EXPIRES MARCH 11, 2022
NOTARY PUBLIC COMMONWEALTH OF MASSACHUSETTS

Constant Growth Discounted Cash Flow Model
30 Day Average Stock Price

| | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | Annualized Dividend | Average Stock Price | Dividend Yield | Expected Dividend Yield | Zacks Earnings Growth | First Call Earnings Growth | Value Line Earnings Growth | Average Earnings Growth | Low ROE | Mean ROE | High ROE |
| ALLETE, Inc. | ALE | $2.08 | $59.67 | 3.49% | 3.57% | 5.50% | 5.00% | 4.00% | 4.83% | 7.56% | 8.40% | 9.08% |
| Alliant Energy Corporation | LNT | $1.18 | $38.20 | 3.08% | 3.17% | 6.10% | 6.60% | 6.00% | 6.23% | 9.17% | 9.40% | 9.78% |
| Ameren Corporation | AEE | $1.70 | $50.12 | 3.39% | 3.49% | 6.10% | 5.20% | 6.00% | 5.77% | 8.68% | 9.26% | 9.60% |
| American Electric Power Company, Inc. | AEP | $2.24 | $66.05 | 3.39% | 3.47% | 4.90% | 4.10% | 4.00% | 4.33% | 7.46% | 7.80% | 8.37% |
| Avista Corporation | AVA | $1.37 | $41.65 | 3.29% | 3.37% | 5.00% | 5.00% | 5.00% | 5.00% | 8.37% | 8.37% | 8.37% |
| CMS Energy Corporation | CMS | $1.24 | $42.95 | 2.89% | 2.98% | 6.40% | 7.24% | 6.00% | 6.55% | 8.97% | 9.53% | 10.23% |
| DTE Energy Company | DTE | $3.08 | $92.91 | 3.32% | 3.40% | 5.80% | 5.35% | 5.00% | 5.38% | 8.40% | 8.79% | 9.21% |
| IDACORP, Inc. | IDA | $2.04 | $74.50 | 2.74% | 2.79% | 4.00% | 4.00% | 3.00% | 3.67% | 5.78% | 6.46% | 6.79% |
| NorthWestern Corporation | NWE | $2.00 | $59.68 | 3.35% | 3.44% | 5.00% | 5.00% | 6.50% | 5.50% | 8.43% | 8.94% | 9.96% |
| OGE Energy Corp. | OGE | $1.10 | $30.95 | 3.55% | 3.63% | 5.20% | 4.30% | 3.00% | 4.17% | 6.61% | 7.80% | 8.85% |
| Otter Tail Corporation | OTTR | $1.25 | $30.96 | 4.04% | 4.16% | NA | 6.00% | 6.00% | 6.00% | 10.16% | 10.16% | 10.16% |
| Pinnacle West Capital Corporation | PNW | $2.50 | $75.82 | 3.30% | 3.36% | 4.00% | 3.73% | 4.00% | 3.91% | 7.09% | 7.27% | 7.36% |
| PNM Resources, Inc. | PNM | $0.88 | $33.49 | 2.63% | 2.74% | 7.60% | 8.76% | 9.00% | 8.45% | 10.33% | 11.19% | 11.75% |
| Portland General Electric Company | POR | $1.28 | $41.86 | 3.06% | 3.15% | 6.40% | 6.57% | 5.50% | 6.16% | 8.64% | 9.31% | 9.73% |
| SCANA Corporation | SCG | $2.30 | $71.01 | 3.24% | 3.32% | 5.30% | 5.40% | 4.50% | 5.07% | 7.81% | 8.39% | 8.73% |
| Xcel Energy Inc. | XEL | $1.36 | $42.20 | 3.22% | 3.31% | 5.30% | 5.27% | 5.50% | 5.36% | 8.58% | 8.67% | 8.81% |
| PROXY GROUP MEAN | | | | 3.25% | 3.33% | 5.51% | 5.47% | 5.19% | 5.40% | 8.25% | 8.73% | 9.17% |
| PROXY GROUP MEDIAN | | | | 3.29% | 3.37% | 5.30% | 5.24% | 5.25% | 5.37% | 8.42% | 8.73% | 9.15% |

Notes:
[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 30-trading day average as of June 30, 2016
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0.5 x [8])
[5] Source: Zacks
[6] Source: Yahoo! Finance
[7] Source: Value Line
[8] Equals Average([5], [6], [7])
[9] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7])) + Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Constant Growth Discounted Cash Flow Model
90 Day Average Stock Price

| Company | Ticker | [1] Annualized Dividend | [2] Average Stock Price | [3] Dividend Yield | [4] Expected Dividend Yield | [5] Zacks Earnings Growth | [6] First Call Earnings Growth | [7] Value Line Earnings Growth | [8] Average Earnings Growth | [9] Low ROE | [10] Mean ROE | [11] High ROE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | $2.08 | $57.08 | 3.64% | 3.73% | 5.50% | 5.00% | 4.00% | 4.83% | 7.72% | 8.57% | 9.24% |
| Alliant Energy Corporation | LNT | $1.18 | $36.64 | 3.21% | 3.31% | 6.10% | 6.60% | 6.00% | 6.23% | 9.30% | 9.54% | 9.91% |
| Ameren Corporation | AEE | $1.70 | $48.90 | 3.48% | 3.58% | 6.10% | 5.20% | 6.00% | 5.77% | 8.77% | 9.34% | 9.68% |
| American Electric Power Company, Inc. | AEP | $2.24 | $65.03 | 3.44% | 3.52% | 4.90% | 4.10% | 4.00% | 4.33% | 7.51% | 7.85% | 8.43% |
| Avista Corporation | AVA | $1.37 | $40.48 | 3.38% | 3.47% | 5.00% | 5.00% | 5.00% | 5.00% | 8.47% | 8.47% | 8.47% |
| CMS Energy Corporation | CMS | $1.24 | $41.70 | 2.97% | 3.07% | 6.40% | 7.24% | 6.00% | 6.55% | 9.06% | 9.62% | 10.32% |
| DTE Energy Company | DTE | $3.08 | $89.93 | 3.42% | 3.52% | 5.80% | 5.35% | 5.00% | 5.38% | 8.51% | 8.90% | 9.32% |
| IDACORP, Inc. | IDA | $2.04 | $73.58 | 2.77% | 2.82% | 4.00% | 4.00% | 3.00% | 3.67% | 5.81% | 6.49% | 6.83% |
| NorthWestern Corporation | NWE | $2.00 | $59.59 | 3.36% | 3.45% | 5.00% | 5.00% | 6.50% | 5.50% | 8.44% | 8.95% | 9.97% |
| OGE Energy Corp. | OGE | $1.10 | $29.13 | 3.78% | 3.86% | 5.20% | 4.30% | 3.00% | 4.17% | 6.83% | 8.02% | 9.07% |
| Otter Tail Corporation | OTTR | $1.25 | $29.44 | 4.25% | 4.37% | NA | 6.00% | 6.00% | 6.00% | 10.37% | 10.37% | 10.37% |
| Pinnacle West Capital Corporation | PNW | $2.50 | $73.65 | 3.39% | 3.46% | 4.00% | 3.73% | 4.00% | 3.91% | 7.19% | 7.37% | 7.46% |
| PNM Resources, Inc. | PNM | $0.88 | $32.94 | 2.67% | 2.78% | 7.60% | 8.76% | 9.00% | 8.45% | 10.37% | 11.24% | 11.79% |
| Portland General Electric Company | POR | $1.28 | $40.24 | 3.18% | 3.28% | 6.40% | 6.57% | 5.50% | 6.16% | 8.77% | 9.44% | 9.86% |
| SCANA Corporation | SCG | $2.30 | $69.22 | 3.32% | 3.41% | 5.30% | 5.40% | 4.50% | 5.07% | 7.90% | 8.47% | 8.81% |
| Xcel Energy Inc. | XEL | $1.36 | $41.15 | 3.31% | 3.39% | 5.30% | 5.27% | 5.50% | 5.36% | 8.66% | 8.75% | 8.90% |
| PROXY GROUP MEAN | | | | 3.35% | 3.44% | 5.51% | 5.47% | 5.19% | 5.40% | 8.36% | 8.84% | 9.28% |
| PROXY GROUP MEDIAN | | | | 3.37% | 3.45% | 5.30% | 5.24% | 5.25% | 5.37% | 8.49% | 8.83% | 9.28% |

Notes:
[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 90-trading day average as of June 30, 2016
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0.5 x [8])
[5] Source: Zacks
[6] Source: Yahoo! Finance
[7] Source: Value Line
[8] Equals Average([5], [6], [7])
[9] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7])) + Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Constant Growth Discounted Cash Flow Model
180 Day Average Stock Price

| Company | Ticker | [1] Annualized Dividend | [2] Average Stock Price | [3] Dividend Yield | [4] Expected Dividend Yield | [5] Zacks Earnings Growth | [6] First Call Earnings Growth | [7] Value Line Earnings Growth | [8] Average Earnings Growth | [9] Low ROE | [10] Mean ROE | [11] High ROE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | $2.08 | $54.07 | 3.85% | 3.94% | 5.50% | 5.00% | 4.00% | 4.83% | 7.92% | 8.77% | 9.45% |
| Alliant Energy Corporation | LNT | $1.18 | $33.83 | 3.47% | 3.58% | 6.10% | 6.60% | 6.00% | 6.23% | 9.58% | 9.81% | 10.19% |
| Ameren Corporation | AEE | $1.70 | $46.40 | 3.66% | 3.77% | 6.10% | 5.20% | 6.00% | 5.77% | 8.96% | 9.54% | 9.88% |
| American Electric Power Company, Inc. | AEP | $2.24 | $61.54 | 3.64% | 3.72% | 4.90% | 4.10% | 4.00% | 4.33% | 7.71% | 8.05% | 8.63% |
| Avista Corporation | AVA | $1.37 | $37.83 | 3.62% | 3.71% | 5.00% | 5.00% | 5.00% | 5.00% | 8.71% | 8.71% | 8.71% |
| CMS Energy Corporation | CMS | $1.24 | $39.10 | 3.17% | 3.27% | 6.40% | 7.24% | 6.00% | 6.55% | 9.27% | 9.82% | 10.53% |
| DTE Energy Company | DTE | $3.08 | $85.80 | 3.59% | 3.69% | 5.80% | 5.35% | 5.00% | 5.38% | 8.68% | 9.07% | 9.49% |
| IDACORP, Inc. | IDA | $2.04 | $70.82 | 2.88% | 2.93% | 4.00% | 4.00% | 3.00% | 3.67% | 5.92% | 6.60% | 6.94% |
| NorthWestern Corporation | NWE | $2.00 | $57.21 | 3.50% | 3.59% | 5.00% | 5.00% | 6.50% | 5.50% | 8.58% | 9.09% | 10.11% |
| OGE Energy Corp. | OGE | $1.10 | $27.72 | 3.97% | 4.05% | 5.20% | 4.30% | 3.00% | 4.17% | 7.03% | 8.22% | 9.27% |
| Otter Tail Corporation | OTTR | $1.25 | $28.18 | 4.44% | 4.57% | NA | 6.00% | 6.00% | 6.00% | 10.57% | 10.57% | 10.57% |
| Pinnacle West Capital Corporation | PNW | $2.50 | $69.12 | 3.62% | 3.69% | 4.00% | 3.73% | 4.00% | 3.91% | 7.41% | 7.60% | 7.69% |
| PNM Resources, Inc. | PNM | $0.88 | $31.32 | 2.81% | 2.93% | 7.60% | 8.76% | 9.00% | 8.45% | 10.52% | 11.38% | 11.94% |
| Portland General Electric Company | POR | $1.28 | $38.74 | 3.30% | 3.41% | 6.40% | 6.57% | 5.50% | 6.16% | 8.90% | 9.56% | 9.98% |
| SCANA Corporation | SCG | $2.30 | $64.86 | 3.55% | 3.64% | 5.30% | 5.40% | 4.50% | 5.07% | 8.13% | 8.70% | 9.04% |
| Xcel Energy Inc. | XEL | $1.36 | $38.85 | 3.50% | 3.59% | 5.30% | 5.27% | 5.50% | 5.36% | 8.86% | 8.95% | 9.10% |
| PROXY GROUP MEAN | | | | 3.54% | 3.63% | 5.51% | 5.47% | 5.19% | 5.40% | 8.55% | 9.03% | 9.47% |
| PROXY GROUP MEDIAN | | | | 3.57% | 3.66% | 5.30% | 5.24% | 5.25% | 5.37% | 8.70% | 9.01% | 9.47% |

Notes:
[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 180-trading day average as of June 30, 2016
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0.5 x [8])
[5] Source: Zacks
[6] Source: Yahoo! Finance
[7] Source: Value Line
[8] Equals Average([5], [6], [7])
[9] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7])) + Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7])) + Maximum([5], [6], [7])

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 Growth Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| Company | Ticker | Price | Zacks | First Call | Value Line | Average | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc. | ALE | $59.67 | 5.50% | 5.00% | 4.00% | 4.83% | 5.32% | 66.00% | 63.00% | 66.68% | ($0.00) | 9.51% | 16.83 | 3.16 |
| Alliant Energy Corporation | LNT | $38.20 | 6.10% | 6.60% | 6.00% | 6.23% | 5.32% | 64.00% | 61.00% | 66.68% | ($0.00) | 8.87% | 19.84 | 3.73 |
| Ameren Corporation | AEE | $50.12 | 6.10% | 5.20% | 6.00% | 5.77% | 5.32% | 68.00% | 64.00% | 66.68% | ($0.00) | 9.06% | 18.87 | 3.54 |
| American Electric Power Company, Inc. | AEP | $66.05 | 4.90% | 4.10% | 4.00% | 4.33% | 5.32% | 64.00% | 67.00% | 66.68% | ($0.00) | 9.23% | 18.04 | 3.39 |
| Avista Corporation | AVA | $41.65 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.68% | ($0.00) | 8.70% | 20.85 | 3.92 |
| CMS Energy Corporation | CMS | $42.95 | 6.40% | 7.24% | 6.00% | 6.55% | 5.32% | 63.00% | 62.00% | 66.68% | ($0.00) | 8.93% | 19.51 | 3.67 |
| DTE Energy Company | DTE | $92.91 | 5.60% | 5.35% | 5.00% | 5.35% | 5.32% | 63.00% | 61.00% | 66.68% | ($0.00) | 8.96% | 19.39 | 3.64 |
| IDACORP, Inc. | IDA | $74.50 | 4.00% | 4.00% | 3.00% | 3.67% | 5.32% | 53.00% | 60.00% | 66.68% | ($0.00) | 8.80% | 20.26 | 3.81 |
| NorthWestern Corporation | NWE | $59.68 | 5.00% | 5.00% | 6.50% | 5.50% | 5.32% | 65.00% | 59.00% | 66.68% | ($0.00) | 9.03% | 19.00 | 3.57 |
| OGE Energy Corp. | OGE | $30.95 | 5.20% | 4.30% | 3.00% | 4.17% | 5.32% | 67.00% | 70.00% | 66.68% | ($0.00) | 9.24% | 17.98 | 3.38 |
| Otter Tail Corporation | OTTR | $30.96 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 80.00% | 63.00% | 66.68% | ($0.00) | 9.39% | 17.32 | 3.26 |
| Pinnacle West Capital Corporation | PNW | $75.82 | 4.00% | 3.73% | 4.00% | 3.91% | 5.32% | 64.00% | 65.00% | 66.68% | ($0.00) | 8.91% | 19.63 | 3.69 |
| PNM Resources, Inc. | PNM | $33.49 | 7.60% | 8.76% | 9.00% | 8.45% | 5.32% | 51.00% | 55.00% | 66.68% | ($0.00) | 9.75% | 15.69 | 2.99 |
| Portland General Electric Company | POR | $41.66 | 6.40% | 6.57% | 5.50% | 6.16% | 5.32% | 56.00% | 56.00% | 66.68% | ($0.00) | 9.15% | 18.40 | 3.46 |
| SCANA Corporation | SCG | $71.01 | 5.30% | 5.40% | 4.50% | 5.07% | 5.32% | 59.00% | 60.00% | 66.68% | ($0.00) | 9.29% | 17.75 | 3.33 |
| Xcel Energy Inc. | XEL | $42.20 | 5.30% | 5.27% | 5.50% | 5.36% | 5.32% | 62.00% | 63.00% | 66.68% | ($0.00) | 9.11% | 18.62 | 3.50 |
| | | | | | | | | | | | MEAN | 9.12% | | |
| | | | | | | | | | | | MAX | 9.75% | | |
| | | | | | | | | | | | MIN | 8.70% | | |

| Projected Annual Earnings per Share | | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] | [22] | [23] | [24] | [25] | [26] | [27] | [28] | [29] | [30] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | $3.38 | $3.54 | $3.71 | $3.89 | $4.08 | $4.28 | $4.49 | $4.71 | $4.95 | $5.21 | $5.48 | $5.77 | $6.08 | $6.41 | $6.75 | $7.11 | $7.48 |
| Alliant Energy Corporation | LNT | $1.69 | $1.80 | $1.91 | $2.03 | $2.15 | $2.29 | $2.43 | $2.57 | $2.72 | $2.87 | $3.03 | $3.19 | $3.36 | $3.54 | $3.73 | $3.92 | $4.13 |
| Ameren Corporation | AEE | $2.38 | $2.52 | $2.66 | $2.82 | $2.98 | $3.15 | $3.33 | $3.52 | $3.71 | $3.91 | $4.13 | $4.35 | $4.58 | $4.82 | $5.08 | $5.35 | $5.63 |
| American Electric Power Company, Inc. | AEP | $3.59 | $3.75 | $3.91 | $4.08 | $4.25 | $4.44 | $4.64 | $4.85 | $5.09 | $5.34 | $5.62 | $5.92 | $6.23 | $6.56 | $6.91 | $7.28 | $7.67 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.01 | $2.15 | $2.29 | $2.44 | $2.60 | $2.76 | $2.93 | $3.10 | $3.28 | $3.46 | $3.65 | $3.84 | $4.04 | $4.26 | $4.49 | $4.73 |
| DTE Energy Company | DTE | $4.45 | $4.69 | $4.94 | $5.21 | $5.49 | $5.78 | $6.09 | $6.42 | $6.77 | $7.13 | $7.51 | $7.91 | $8.33 | $8.77 | $9.24 | $9.73 | $10.25 |
| IDACORP, Inc. | IDA | $3.87 | $4.01 | $4.16 | $4.31 | $4.47 | $4.63 | $4.82 | $5.02 | $5.24 | $5.50 | $5.77 | $6.08 | $6.40 | $6.74 | $7.10 | $7.48 | $7.88 |
| NorthWestern Corporation | NWE | $2.90 | $3.06 | $3.23 | $3.41 | $3.59 | $3.79 | $4.00 | $4.22 | $4.44 | $4.68 | $4.93 | $5.20 | $5.47 | $5.76 | $6.07 | $6.39 | $6.73 |
| OGE Energy Corp. | OGE | $1.69 | $1.76 | $1.83 | $1.91 | $1.99 | $2.07 | $2.16 | $2.26 | $2.37 | $2.49 | $2.61 | $2.75 | $2.90 | $3.05 | $3.22 | $3.39 | $3.57 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.85 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.07 | $4.23 | $4.40 | $4.57 | $4.75 | $4.95 | $5.16 | $5.40 | $5.66 | $5.95 | $6.27 | $6.60 | $6.95 | $7.32 | $7.71 | $8.12 |
| PNM Resources, Inc. | PNM | $1.64 | $1.78 | $1.93 | $2.09 | $2.27 | $2.46 | $2.66 | $2.85 | $3.05 | $3.24 | $3.43 | $3.62 | $3.81 | $4.01 | $4.22 | $4.45 | $4.69 |
| Portland General Electric Company | POR | $2.04 | $2.17 | $2.30 | $2.44 | $2.59 | $2.75 | $2.92 | $3.09 | $3.26 | $3.45 | $3.64 | $3.83 | $4.03 | $4.25 | $4.47 | $4.71 | $4.96 |
| SCANA Corporation | SCG | $3.81 | $4.00 | $4.21 | $4.42 | $4.64 | $4.88 | $5.13 | $5.39 | $5.67 | $5.97 | $6.28 | $6.62 | $6.97 | $7.34 | $7.73 | $8.14 | $8.58 |
| Xcel Energy Inc. | XEL | $2.10 | $2.21 | $2.33 | $2.46 | $2.59 | $2.73 | $2.87 | $3.03 | $3.19 | $3.36 | $3.54 | $3.72 | $3.92 | $4.13 | $4.35 | $4.58 | $4.83 |

| Projected Annual Dividend Payout Ratio | | | [31] | [32] | [33] | [34] | [35] | [36] | [37] | [38] | [39] | [40] | [41] | [42] | [43] | [44] | [45] | [46] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| Alliant Energy Corporation | LNT | | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| Ameren Corporation | AEE | | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.48% | 64.96% | 65.44% | 65.92% | 66.40% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| American Electric Power Company, Inc. | AEP | | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.96% | 66.96% | 66.94% | 66.92% | 66.90% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| Avista Corporation | AVA | | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| CMS Energy Corporation | CMS | | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| DTE Energy Company | DTE | | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| IDACORP, Inc. | IDA | | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| NorthWestern Corporation | NWE | | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| OGE Energy Corp. | OGE | | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.46% | 68.96% | 68.44% | 67.92% | 67.40% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| Otter Tail Corporation | OTTR | | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| Pinnacle West Capital Corporation | PNW | | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| PNM Resources, Inc. | PNM | | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| Portland General Electric Company | POR | | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| SCANA Corporation | SCG | | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |
| Xcel Energy Inc. | XEL | | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% | 66.68% |

| Projected Annual Cash Flows | | | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | Terminal Value |
| ALLETE, Inc. | ALE | | $2.34 | $2.42 | $2.51 | $2.60 | $2.70 | $2.86 | $3.03 | $3.22 | $3.42 | $3.63 | $3.86 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $125.92 |
| Alliant Energy Corporation | LNT | | $1.15 | $1.21 | $1.27 | $1.33 | $1.39 | $1.50 | $1.62 | $1.74 | $1.86 | $2.00 | $2.13 | $2.25 | $2.37 | $2.49 | $2.62 | $2.76 | $82.00 |
| Ameren Corporation | AEE | | $1.71 | $1.78 | $1.86 | $1.94 | $2.02 | $2.15 | $2.28 | $2.43 | $2.58 | $2.74 | $2.91 | $3.06 | $3.22 | $3.40 | $3.58 | $3.77 | $106.24 |
| American Electric Power Company, Inc. | AEP | | $2.40 | $2.53 | $2.67 | $2.82 | $2.97 | $3.11 | $3.25 | $3.41 | $3.58 | $3.76 | $3.96 | $4.17 | $4.39 | $4.62 | $4.87 | $5.13 | $138.31 |
| Avista Corporation | AVA | | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $88.30 |
| CMS Energy Corporation | CMS | | $1.27 | $1.35 | $1.43 | $1.52 | $1.61 | $1.73 | $1.86 | $2.00 | $2.14 | $2.29 | $2.44 | $2.57 | $2.71 | $2.85 | $3.00 | $3.16 | $92.20 |
| DTE Energy Company | DTE | | $2.95 | $3.09 | $3.23 | $3.38 | $3.53 | $3.78 | $4.04 | $4.33 | $4.63 | $4.95 | $5.29 | $5.57 | $5.87 | $6.18 | $6.51 | $6.85 | $198.64 |
| IDACORP, Inc. | IDA | | $2.13 | $2.28 | $2.44 | $2.60 | $2.78 | $2.94 | $3.13 | $3.33 | $3.55 | $3.79 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $5.27 | $159.67 |
| NorthWestern Corporation | NWE | | $1.99 | $2.05 | $2.11 | $2.17 | $2.24 | $2.41 | $2.60 | $2.80 | $3.01 | $3.23 | $3.47 | $3.66 | $3.85 | $4.06 | $4.28 | $4.50 | $127.93 |
| OGE Energy Corp. | OGE | | $1.18 | $1.24 | $1.31 | $1.38 | $1.45 | $1.50 | $1.56 | $1.62 | $1.69 | $1.76 | $1.84 | $1.94 | $2.04 | $2.15 | $2.27 | $2.39 | $64.15 |
| Otter Tail Corporation | OTTR | | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $65.02 |
| Pinnacle West Capital Corporation | PNW | | $2.61 | $2.72 | $2.84 | $2.96 | $3.09 | $3.23 | $3.39 | $3.56 | $3.75 | $3.96 | $4.19 | $4.41 | $4.65 | $4.90 | $5.16 | $5.43 | $159.45 |
| PNM Resources, Inc. | PNM | | $0.91 | $1.00 | $1.11 | $1.23 | $1.35 | $1.51 | $1.68 | $1.86 | $2.04 | $2.23 | $2.42 | $2.55 | $2.68 | $2.83 | $2.98 | $3.13 | $74.46 |
| Portland General Electric Company | POR | | $1.21 | $1.29 | $1.37 | $1.45 | $1.54 | $1.69 | $1.84 | $2.01 | $2.18 | $2.37 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $91.28 |
| SCANA Corporation | SCG | | $2.36 | $2.49 | $2.63 | $2.77 | $2.93 | $3.14 | $3.36 | $3.60 | $3.85 | $4.13 | $4.43 | $4.66 | $4.91 | $5.17 | $5.45 | $5.74 | $152.23 |
| Xcel Energy Inc. | XEL | | $1.37 | $1.45 | $1.53 | $1.62 | $1.72 | $1.83 | $1.95 | $2.07 | $2.20 | $2.34 | $2.49 | $2.62 | $2.76 | $2.91 | $3.06 | $3.23 | $89.86 |

| Projected Annual Data Investor Cash Flows | | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] | [81] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | Initial Outflow | 6/30/16 | 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 | 6/30/31 |
| ALLETE, Inc. | ALE | ($59.67) | $0.00 | $1.18 | $2.40 | $2.60 | $2.70 | $2.86 | $3.03 | $3.22 | $3.42 | $3.63 | $3.86 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $130.93 |
| Alliant Energy Corporation | LNT | ($38.20) | $0.00 | $0.58 | $1.18 | $1.33 | $1.39 | $1.50 | $1.62 | $1.74 | $1.86 | $2.00 | $2.13 | $2.25 | $2.37 | $2.49 | $2.62 | $2.76 | $84.76 |
| Ameren Corporation | AEE | ($50.12) | $0.00 | $0.86 | $1.76 | $1.94 | $2.02 | $2.15 | $2.28 | $2.43 | $2.58 | $2.74 | $2.91 | $3.06 | $3.22 | $3.40 | $3.58 | $3.77 | $110.01 |
| American Electric Power Company, Inc. | AEP | ($66.05) | $0.00 | $1.21 | $2.45 | $2.82 | $2.97 | $3.11 | $3.25 | $3.41 | $3.58 | $3.76 | $3.96 | $4.17 | $4.39 | $4.62 | $4.87 | $5.13 | $143.44 |
| Avista Corporation | AVA | ($41.65) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $91.13 |
| CMS Energy Corporation | CMS | ($42.95) | $0.00 | $0.64 | $1.31 | $1.52 | $1.61 | $1.73 | $1.86 | $2.00 | $2.14 | $2.29 | $2.44 | $2.57 | $2.71 | $2.85 | $3.00 | $3.16 | $95.36 |
| DTE Energy Company | DTE | ($92.91) | $0.00 | $1.49 | $3.03 | $3.38 | $3.53 | $3.78 | $4.04 | $4.33 | $4.63 | $4.95 | $5.29 | $5.57 | $5.87 | $6.18 | $6.51 | $6.85 | $205.49 |
| IDACORP, Inc. | IDA | ($74.50) | $0.00 | $1.07 | $2.17 | $2.60 | $2.78 | $2.94 | $3.13 | $3.33 | $3.55 | $3.79 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $5.27 | $164.94 |
| NorthWestern Corporation | NWE | ($59.68) | $0.00 | $1.00 | $2.04 | $2.17 | $2.24 | $2.41 | $2.60 | $2.80 | $3.01 | $3.23 | $3.47 | $3.66 | $3.85 | $4.06 | $4.28 | $4.50 | $132.44 |
| OGE Energy Corp. | OGE | ($30.95) | $0.00 | $0.59 | $1.20 | $1.38 | $1.45 | $1.50 | $1.56 | $1.62 | $1.69 | $1.76 | $1.84 | $1.94 | $2.04 | $2.15 | $2.27 | $2.39 | $66.54 |
| Otter Tail Corporation | OTTR | ($30.96) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $67.53 |
| Pinnacle West Capital Corporation | PNW | ($75.82) | $0.00 | $1.31 | $2.66 | $2.96 | $3.09 | $3.23 | $3.39 | $3.56 | $3.75 | $3.96 | $4.19 | $4.41 | $4.65 | $4.90 | $5.16 | $5.43 | $164.88 |
| PNM Resources, Inc. | PNM | ($33.49) | $0.00 | $0.46 | $0.95 | $1.23 | $1.35 | $1.51 | $1.68 | $1.86 | $2.04 | $2.23 | $2.42 | $2.55 | $2.68 | $2.83 | $2.98 | $3.13 | $77.60 |
| Portland General Electric Company | POR | ($41.66) | $0.00 | $0.61 | $1.25 | $1.45 | $1.54 | $1.69 | $1.84 | $2.01 | $2.18 | $2.37 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $94.60 |
| SCANA Corporation | SCG | ($71.01) | $0.00 | $1.19 | $2.42 | $2.77 | $2.93 | $3.14 | $3.36 | $3.60 | $3.85 | $4.13 | $4.43 | $4.66 | $4.91 | $5.17 | $5.45 | $5.74 | $157.97 |
| Xcel Energy Inc. | XEL | ($42.20) | $0.00 | $0.69 | $1.41 | $1.62 | $1.72 | $1.83 | $1.95 | $2.07 | $2.20 | $2.34 | $2.49 | $2.62 | $2.76 | $2.91 | $3.06 | $3.23 | $93.08 |

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 Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| Company | Ticker | Price | Zacks | First Call | Value Line | Average | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc. | ALE | $57.08 | 5.50% | 5.00% | 4.00% | 4.83% | 5.32% | 66.00% | 63.00% | 66.88% | ($0.00) | 9.70% | 16.08 | 3.02 |
| Alliant Energy Corporation | LNT | $36.64 | 6.10% | 6.60% | 6.00% | 6.23% | 5.32% | 64.00% | 61.00% | 66.88% | ($0.00) | 9.03% | 19.01 | 3.57 |
| Ameren Corporation | AEE | $48.90 | 6.10% | 5.20% | 6.00% | 5.77% | 5.32% | 68.00% | 64.00% | 66.88% | ($0.00) | 9.15% | 18.39 | 3.46 |
| American Electric Power Company, Inc. | AEP | $65.03 | 4.90% | 4.10% | 4.00% | 4.33% | 5.32% | 64.00% | 67.00% | 66.88% | ($0.00) | 9.29% | 17.75 | 3.34 |
| Avista Corporation | AVA | $40.48 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.88% | ($0.00) | 8.60% | 20.25 | 3.80 |
| CMS Energy Corporation | CMS | $41.70 | 6.40% | 7.24% | 6.00% | 6.55% | 5.32% | 63.00% | 62.00% | 66.88% | ($0.00) | 9.04% | 18.94 | 3.56 |
| DTE Energy Company | DTE | $89.93 | 5.60% | 5.35% | 5.00% | 5.38% | 5.32% | 63.00% | 61.00% | 66.88% | ($0.00) | 9.05% | 18.75 | 3.52 |
| IDACORP, Inc. | IDA | $73.58 | 4.00% | 4.00% | 3.00% | 3.67% | 5.32% | 53.00% | 60.00% | 66.88% | ($0.00) | 8.84% | 20.01 | 3.76 |
| NorthWestern Corporation | NWE | $59.59 | 5.00% | 5.00% | 6.50% | 5.50% | 5.32% | 65.00% | 59.00% | 66.88% | ($0.00) | 9.04% | 18.97 | 3.56 |
| OGE Energy Corp. | OGE | $29.13 | 5.20% | 4.30% | 3.00% | 4.17% | 5.32% | 67.00% | 70.00% | 66.88% | ($0.00) | 9.49% | 16.88 | 3.17 |
| Otter Tail Corporation | OTTR | $29.44 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 80.00% | 63.00% | 66.88% | ($0.00) | 9.61% | 16.45 | 3.09 |
| Pinnacle West Capital Corporation | PNW | $73.65 | 4.00% | 3.73% | 4.00% | 3.91% | 5.32% | 64.00% | 65.00% | 66.88% | ($0.00) | 9.02% | 19.05 | 3.58 |
| PNM Resources, Inc. | PNM | $32.94 | 7.60% | 8.76% | 9.00% | 8.45% | 5.32% | 51.00% | 55.00% | 66.88% | ($0.00) | 9.83% | 15.64 | 2.94 |
| Portland General Electric Company | POR | $40.24 | 6.40% | 6.57% | 5.50% | 6.16% | 5.32% | 56.00% | 56.00% | 66.88% | ($0.00) | 9.31% | 17.68 | 3.32 |
| SCANA Corporation | SCG | $69.22 | 5.30% | 5.40% | 4.50% | 5.07% | 5.32% | 59.00% | 60.00% | 66.88% | ($0.00) | 9.40% | 17.29 | 3.25 |
| Xcel Energy Inc. | XEL | $41.15 | 5.30% | 5.27% | 5.50% | 5.36% | 5.32% | 62.00% | 63.00% | 66.88% | ($0.00) | 9.20% | 18.15 | 3.41 |
| | | | | | | | | | | | MEAN | 9.24% | | |
| | | | | | | | | | | | MAX | 9.83% | | |
| | | | | | | | | | | | MIN | 8.60% | | |

Projected Annual
Earnings per Share

| Company | Ticker | [14] 2015 | [15] 2016 | [16] 2017 | [17] 2018 | [18] 2019 | [19] 2020 | [20] 2021 | [21] 2022 | [22] 2023 | [23] 2024 | [24] 2025 | [25] 2026 | [26] 2027 | [27] 2028 | [28] 2029 | [29] 2030 | [30] 2031 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | $3.38 | $3.54 | $3.71 | $3.89 | $4.08 | $4.28 | $4.49 | $4.71 | $4.95 | $5.21 | $5.48 | $5.77 | $6.08 | $6.41 | $6.75 | $7.11 | $7.48 |
| Alliant Energy Corporation | LNT | $1.69 | $1.80 | $1.91 | $2.03 | $2.15 | $2.29 | $2.43 | $2.57 | $2.72 | $2.87 | $3.03 | $3.19 | $3.36 | $3.54 | $3.73 | $3.92 | $4.13 |
| Ameren Corporation | AEE | $2.38 | $2.52 | $2.66 | $2.82 | $2.98 | $3.15 | $3.33 | $3.52 | $3.71 | $3.91 | $4.13 | $4.35 | $4.58 | $4.82 | $5.08 | $5.35 | $5.63 |
| American Electric Power Company, Inc. | AEP | $3.59 | $3.75 | $3.91 | $4.08 | $4.25 | $4.44 | $4.64 | $4.85 | $5.09 | $5.34 | $5.62 | $5.92 | $6.23 | $6.56 | $6.91 | $7.28 | $7.67 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.01 | $2.15 | $2.29 | $2.44 | $2.60 | $2.76 | $2.93 | $3.10 | $3.28 | $3.46 | $3.65 | $3.84 | $4.04 | $4.26 | $4.49 | $4.73 |
| DTE Energy Company | DTE | $4.45 | $4.69 | $4.94 | $5.21 | $5.49 | $5.78 | $6.09 | $6.42 | $6.77 | $7.13 | $7.51 | $7.91 | $8.33 | $8.77 | $9.24 | $9.73 | $10.25 |
| IDACORP, Inc. | IDA | $3.87 | $4.01 | $4.16 | $4.31 | $4.47 | $4.63 | $4.82 | $5.02 | $5.24 | $5.50 | $5.77 | $6.08 | $6.40 | $6.74 | $7.10 | $7.48 | $7.88 |
| NorthWestern Corporation | NWE | $2.90 | $3.06 | $3.23 | $3.41 | $3.59 | $3.79 | $4.00 | $4.22 | $4.44 | $4.68 | $4.93 | $5.20 | $5.47 | $5.76 | $6.07 | $6.39 | $6.73 |
| OGE Energy Corp. | OGE | $1.69 | $1.76 | $1.83 | $1.91 | $1.99 | $2.07 | $2.16 | $2.26 | $2.37 | $2.49 | $2.61 | $2.75 | $2.90 | $3.05 | $3.22 | $3.39 | $3.57 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.07 | $4.23 | $4.40 | $4.57 | $4.75 | $4.95 | $5.16 | $5.40 | $5.66 | $5.95 | $6.27 | $6.60 | $6.95 | $7.32 | $7.71 | $8.12 |
| PNM Resources, Inc. | PNM | $1.64 | $1.78 | $1.93 | $2.09 | $2.27 | $2.46 | $2.66 | $2.85 | $3.05 | $3.24 | $3.43 | $3.62 | $3.81 | $4.01 | $4.22 | $4.45 | $4.69 |
| Portland General Electric Company | POR | $2.04 | $2.17 | $2.30 | $2.44 | $2.59 | $2.75 | $2.92 | $3.09 | $3.26 | $3.45 | $3.64 | $3.83 | $4.03 | $4.25 | $4.47 | $4.71 | $4.96 |
| SCANA Corporation | SCG | $3.81 | $4.00 | $4.21 | $4.42 | $4.64 | $4.88 | $5.13 | $5.39 | $5.67 | $5.97 | $6.28 | $6.62 | $6.97 | $7.34 | $7.73 | $8.14 | $8.58 |
| Xcel Energy Inc. | XEL | $2.10 | $2.21 | $2.33 | $2.46 | $2.59 | $2.73 | $2.87 | $3.03 | $3.19 | $3.36 | $3.54 | $3.72 | $3.92 | $4.13 | $4.35 | $4.58 | $4.83 |

Projected Annual
Dividend Payout Ratio

| Company | Ticker | | [31] 2016 | [32] 2017 | [33] 2018 | [34] 2019 | [35] 2020 | [36] 2021 | [37] 2022 | [38] 2023 | [39] 2024 | [40] 2025 | [41] 2026 | [42] 2027 | [43] 2028 | [44] 2029 | [45] 2030 | [46] 2031 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Alliant Energy Corporation | LNT | | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Ameren Corporation | AEE | | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.48% | 64.96% | 65.44% | 65.92% | 66.40% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| American Electric Power Company, Inc. | AEP | | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.98% | 66.96% | 66.94% | 66.92% | 66.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Avista Corporation | AVA | | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| CMS Energy Corporation | CMS | | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| DTE Energy Company | DTE | | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| IDACORP, Inc. | IDA | | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| NorthWestern Corporation | NWE | | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| OGE Energy Corp. | OGE | | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.48% | 68.96% | 68.44% | 67.92% | 67.40% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Otter Tail Corporation | OTTR | | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Pinnacle West Capital Corporation | PNW | | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| PNM Resources, Inc. | PNM | | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Portland General Electric Company | POR | | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| SCANA Corporation | SCG | | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Xcel Energy Inc. | XEL | | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |

Projected Annual
Cash Flows

| Company | Ticker | | [47] 2016 | [48] 2017 | [49] 2018 | [50] 2019 | [51] 2020 | [52] 2021 | [53] 2022 | [54] 2023 | [55] 2024 | [56] 2025 | [57] 2026 | [58] 2027 | [59] 2028 | [60] 2029 | [61] 2030 | [62] 2031 | [63] Terminal Value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | | $2.34 | $2.42 | $2.51 | $2.60 | $2.70 | $2.86 | $3.03 | $3.22 | $3.42 | $3.63 | $3.86 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $120.32 |
| Alliant Energy Corporation | LNT | | $1.15 | $1.21 | $1.27 | $1.33 | $1.39 | $1.50 | $1.62 | $1.74 | $1.86 | $2.00 | $2.13 | $2.25 | $2.37 | $2.49 | $2.62 | $2.76 | $78.59 |
| Ameren Corporation | AEE | | $1.71 | $1.78 | $1.86 | $1.94 | $2.02 | $2.15 | $2.28 | $2.43 | $2.58 | $2.74 | $2.91 | $3.06 | $3.22 | $3.40 | $3.58 | $3.77 | $103.59 |
| American Electric Power Company, Inc. | AEP | | $2.40 | $2.53 | $2.67 | $2.82 | $2.97 | $3.11 | $3.25 | $3.41 | $3.58 | $3.76 | $3.96 | $4.17 | $4.39 | $4.62 | $4.87 | $5.13 | $136.12 |
| Avista Corporation | AVA | | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $85.75 |
| CMS Energy Corporation | CMS | | $1.27 | $1.35 | $1.43 | $1.52 | $1.61 | $1.73 | $1.86 | $2.00 | $2.14 | $2.29 | $2.44 | $2.57 | $2.71 | $2.85 | $3.00 | $3.16 | $89.48 |
| DTE Energy Company | DTE | | $2.95 | $3.09 | $3.23 | $3.38 | $3.53 | $3.78 | $4.04 | $4.33 | $4.63 | $4.95 | $5.29 | $5.57 | $5.87 | $6.18 | $6.51 | $6.85 | $192.17 |
| IDACORP, Inc. | IDA | | $2.13 | $2.28 | $2.44 | $2.60 | $2.78 | $2.94 | $3.13 | $3.33 | $3.55 | $3.79 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $5.27 | $157.69 |
| NorthWestern Corporation | NWE | | $1.99 | $2.05 | $2.11 | $2.17 | $2.24 | $2.41 | $2.60 | $2.80 | $3.01 | $3.23 | $3.47 | $3.66 | $3.85 | $4.06 | $4.28 | $4.50 | $127.73 |
| OGE Energy Corp. | OGE | | $1.18 | $1.24 | $1.31 | $1.38 | $1.45 | $1.50 | $1.56 | $1.62 | $1.69 | $1.76 | $1.84 | $1.94 | $2.04 | $2.15 | $2.27 | $2.39 | $60.22 |
| Otter Tail Corporation | OTTR | | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $61.72 |
| Pinnacle West Capital Corporation | PNW | | $2.61 | $2.72 | $2.84 | $2.96 | $3.09 | $3.23 | $3.39 | $3.56 | $3.75 | $3.96 | $4.19 | $4.41 | $4.65 | $4.90 | $5.16 | $5.43 | $154.76 |
| PNM Resources, Inc. | PNM | | $0.91 | $1.00 | $1.11 | $1.23 | $1.35 | $1.51 | $1.68 | $1.86 | $2.04 | $2.23 | $2.42 | $2.55 | $2.68 | $2.83 | $2.98 | $3.13 | $73.27 |
| Portland General Electric Company | POR | | $1.21 | $1.29 | $1.37 | $1.45 | $1.54 | $1.69 | $1.84 | $2.01 | $2.18 | $2.37 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $87.75 |
| SCANA Corporation | SCG | | $2.36 | $2.49 | $2.63 | $2.77 | $2.93 | $3.14 | $3.36 | $3.60 | $3.85 | $4.13 | $4.43 | $4.66 | $4.91 | $5.17 | $5.45 | $5.74 | $148.34 |
| Xcel Energy Inc. | XEL | | $1.37 | $1.45 | $1.53 | $1.62 | $1.72 | $1.83 | $1.95 | $2.07 | $2.20 | $2.34 | $2.49 | $2.62 | $2.76 | $2.91 | $3.06 | $3.23 | $87.58 |

Projected Annual Data
Investor Cash Flows

| Company | Ticker | [64] Initial Outflow | [65] 6/30/16 | [66] 12/31/16 | [67] 6/30/17 | [68] 6/30/18 | [69] 6/30/19 | [70] 6/30/20 | [71] 6/30/21 | [72] 6/30/22 | [73] 6/30/23 | [74] 6/30/24 | [75] 6/30/25 | [76] 6/30/26 | [77] 6/30/27 | [78] 6/30/28 | [79] 6/30/29 | [80] 6/30/30 | [81] 6/30/31 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | ($57.08) | $0.00 | $1.18 | $2.40 | $2.60 | $2.70 | $2.86 | $3.03 | $3.22 | $3.42 | $3.63 | $3.86 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $125.33 |
| Alliant Energy Corporation | LNT | ($36.64) | $0.00 | $0.58 | $1.18 | $1.33 | $1.39 | $1.50 | $1.62 | $1.74 | $1.86 | $2.00 | $2.13 | $2.25 | $2.37 | $2.49 | $2.62 | $2.76 | $81.36 |
| Ameren Corporation | AEE | ($48.90) | $0.00 | $0.86 | $1.76 | $1.94 | $2.02 | $2.15 | $2.28 | $2.43 | $2.58 | $2.74 | $2.91 | $3.06 | $3.22 | $3.40 | $3.58 | $3.77 | $107.35 |
| American Electric Power Company, Inc. | AEP | ($65.03) | $0.00 | $1.21 | $2.45 | $2.82 | $2.97 | $3.11 | $3.25 | $3.41 | $3.58 | $3.76 | $3.96 | $4.17 | $4.39 | $4.62 | $4.87 | $5.13 | $141.25 |
| Avista Corporation | AVA | ($40.48) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $88.58 |
| CMS Energy Corporation | CMS | ($41.70) | $0.00 | $0.64 | $1.31 | $1.52 | $1.61 | $1.73 | $1.86 | $2.00 | $2.14 | $2.29 | $2.44 | $2.57 | $2.71 | $2.85 | $3.00 | $3.16 | $92.64 |
| DTE Energy Company | DTE | ($89.93) | $0.00 | $1.49 | $3.03 | $3.38 | $3.53 | $3.78 | $4.04 | $4.33 | $4.63 | $4.95 | $5.29 | $5.57 | $5.87 | $6.18 | $6.51 | $6.85 | $199.02 |
| IDACORP, Inc. | IDA | ($73.58) | $0.00 | $1.07 | $2.17 | $2.60 | $2.78 | $2.94 | $3.13 | $3.33 | $3.55 | $3.79 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $5.27 | $162.96 |
| NorthWestern Corporation | NWE | ($59.59) | $0.00 | $1.00 | $2.04 | $2.17 | $2.24 | $2.41 | $2.60 | $2.80 | $3.01 | $3.23 | $3.47 | $3.66 | $3.85 | $4.06 | $4.28 | $4.50 | $132.23 |
| OGE Energy Corp. | OGE | ($29.13) | $0.00 | $0.59 | $1.20 | $1.38 | $1.45 | $1.50 | $1.56 | $1.62 | $1.69 | $1.76 | $1.84 | $1.94 | $2.04 | $2.15 | $2.27 | $2.39 | $62.60 |
| Otter Tail Corporation | OTTR | ($29.44) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $64.23 |
| Pinnacle West Capital Corporation | PNW | ($73.65) | $0.00 | $1.31 | $2.66 | $2.96 | $3.09 | $3.23 | $3.39 | $3.56 | $3.75 | $3.96 | $4.19 | $4.41 | $4.65 | $4.90 | $5.16 | $5.43 | $160.19 |
| PNM Resources, Inc. | PNM | ($32.94) | $0.00 | $0.46 | $0.95 | $1.23 | $1.35 | $1.51 | $1.68 | $1.86 | $2.04 | $2.23 | $2.42 | $2.55 | $2.68 | $2.83 | $2.98 | $3.13 | $76.40 |
| Portland General Electric Company | POR | ($40.24) | $0.00 | $0.61 | $1.25 | $1.45 | $1.54 | $1.69 | $1.84 | $2.01 | $2.18 | $2.37 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $91.07 |
| SCANA Corporation | SCG | ($69.22) | $0.00 | $1.19 | $2.42 | $2.77 | $2.93 | $3.14 | $3.36 | $3.60 | $3.85 | $4.13 | $4.43 | $4.66 | $4.91 | $5.17 | $5.45 | $5.74 | $154.07 |
| Xcel Energy Inc. | XEL | ($41.15) | $0.00 | $0.69 | $1.41 | $1.62 | $1.72 | $1.83 | $1.95 | $2.07 | $2.20 | $2.34 | $2.49 | $2.62 | $2.76 | $2.91 | $3.06 | $3.23 | $90.81 |

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 Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| Company | Ticker | Price | Zacks | First Call | Value Line | Average | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc. | ALE | $54.07 | 5.50% | 5.00% | 4.00% | 4.83% | 5.32% | 66.00% | 63.00% | 66.85% | ($0.00) | 9.95% | 15.21 | 2.86 |
| Alliant Energy Corporation | LNT | $33.83 | 6.10% | 6.60% | 6.00% | 6.23% | 5.32% | 64.00% | 61.00% | 66.85% | ($0.00) | 9.34% | 17.54 | 3.30 |
| Ameren Corporation | AEE | $46.40 | 6.10% | 5.20% | 6.00% | 5.77% | 5.32% | 68.00% | 64.00% | 66.85% | ($0.00) | 9.36% | 17.43 | 3.28 |
| American Electric Power Company, Inc | AEP | $61.54 | 4.90% | 4.10% | 4.00% | 4.33% | 5.32% | 64.00% | 67.00% | 66.63% | ($0.00) | 9.52% | 16.76 | 3.15 |
| Avista Corporation | AVA | $37.83 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.85% | ($0.00) | 9.05% | 18.89 | 3.55 |
| CMS Energy Corporation | CMS | $39.10 | 6.40% | 7.24% | 6.00% | 6.55% | 5.32% | 63.00% | 62.00% | 66.85% | ($0.00) | 9.29% | 17.74 | 3.33 |
| DTE Energy Company | DTE | $55.60 | 5.60% | 5.35% | 5.00% | 5.38% | 5.32% | 63.00% | 61.00% | 66.85% | ($0.00) | 9.26% | 17.88 | 3.36 |
| IDACORP, Inc. | IDA | $70.82 | 4.00% | 4.00% | 3.00% | 3.67% | 5.32% | 53.00% | 60.00% | 66.85% | ($0.00) | 8.96% | 19.25 | 3.62 |
| NorthWestern Corporation | NWE | $57.21 | 5.00% | 5.00% | 6.50% | 5.50% | 5.32% | 65.00% | 59.00% | 66.85% | ($0.00) | 9.19% | 18.20 | 3.42 |
| OGE Energy Corp. | OGE | $27.72 | 5.20% | 4.30% | 3.00% | 4.17% | 5.32% | 67.00% | 70.00% | 66.86% | ($0.00) | 9.72% | 16.03 | 3.01 |
| Otter Tail Corporation | OTTR | $28.18 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 60.00% | 63.00% | 66.85% | ($0.00) | 9.80% | 15.72 | 2.95 |
| Pinnacle West Capital Corporation | PNW | $59.12 | 4.00% | 3.73% | 4.00% | 3.91% | 5.32% | 64.00% | 65.00% | 66.85% | ($0.00) | 9.27% | 17.84 | 3.35 |
| PNM Resources, Inc. | PNM | $31.32 | 7.60% | 8.76% | 9.00% | 8.45% | 5.32% | 51.00% | 55.00% | 66.85% | ($0.00) | 10.05% | 14.88 | 2.80 |
| Portland General Electric Company | POR | $38.74 | 6.40% | 6.57% | 5.50% | 6.16% | 5.32% | 56.00% | 56.00% | 66.68% | ($0.00) | 9.46% | 17.03 | 3.20 |
| SCANA Corporation | SCG | $64.66 | 5.30% | 5.40% | 4.50% | 5.07% | 5.32% | 59.00% | 60.00% | 66.66% | ($0.00) | 9.67% | 16.19 | 3.04 |
| Xcel Energy Inc. | XEL | $38.85 | 5.30% | 5.27% | 5.50% | 5.36% | 5.32% | 62.00% | 63.00% | 66.86% | ($0.00) | 9.44% | 17.12 | 3.22 |
| | | | | | | | | | | | MEAN | 9.46% | | |
| | | | | | | | | | | | MAX | 10.05% | | |
| | | | | | | | | | | | MIN | 8.96% | | |

| Projected Annual Earnings per Share | | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] | [22] | [23] | [24] | [25] | [26] | [27] | [28] | [29] | [30] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc | ALE | $3.38 | $3.54 | $3.71 | $3.89 | $4.08 | $4.28 | $4.49 | $4.71 | $4.95 | $5.21 | $5.48 | $5.77 | $6.08 | $6.41 | $6.75 | $7.11 | $7.48 |
| Alliant Energy Corporation | LNT | $1.69 | $1.80 | $1.91 | $2.03 | $2.15 | $2.29 | $2.43 | $2.57 | $2.72 | $2.87 | $3.03 | $3.19 | $3.36 | $3.54 | $3.73 | $3.92 | $4.13 |
| Ameren Corporation | AEE | $2.38 | $2.52 | $2.66 | $2.82 | $2.98 | $3.15 | $3.33 | $3.52 | $3.71 | $3.91 | $4.13 | $4.35 | $4.58 | $4.82 | $5.08 | $5.35 | $5.63 |
| American Electric Power Company, Inc | AEP | $3.59 | $3.75 | $3.91 | $4.08 | $4.25 | $4.44 | $4.64 | $4.85 | $5.09 | $5.34 | $5.62 | $5.92 | $6.23 | $6.56 | $6.91 | $7.28 | $7.67 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.01 | $2.15 | $2.29 | $2.44 | $2.60 | $2.76 | $2.93 | $3.10 | $3.28 | $3.46 | $3.65 | $3.84 | $4.04 | $4.26 | $4.49 | $4.73 |
| DTE Energy Company | DTE | $4.45 | $4.69 | $4.94 | $5.21 | $5.49 | $5.78 | $6.09 | $6.42 | $6.77 | $7.13 | $7.51 | $7.91 | $8.33 | $8.77 | $9.24 | $9.73 | $10.25 |
| IDACORP, Inc | IDA | $3.87 | $4.01 | $4.16 | $4.31 | $4.47 | $4.63 | $4.82 | $5.02 | $5.24 | $5.50 | $5.77 | $6.08 | $6.40 | $6.74 | $7.10 | $7.48 | $7.88 |
| NorthWestern Corporation | NWE | $2.90 | $3.06 | $3.23 | $3.41 | $3.59 | $3.79 | $4.00 | $4.22 | $4.44 | $4.68 | $4.93 | $5.20 | $5.47 | $5.76 | $6.07 | $6.39 | $6.73 |
| OGE Energy Corp. | OGE | $1.69 | $1.76 | $1.83 | $1.91 | $1.99 | $2.07 | $2.16 | $2.26 | $2.37 | $2.49 | $2.61 | $2.75 | $2.90 | $3.05 | $3.22 | $3.39 | $3.57 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.07 | $4.23 | $4.40 | $4.57 | $4.75 | $4.95 | $5.16 | $5.40 | $5.66 | $5.95 | $6.27 | $6.60 | $6.95 | $7.32 | $7.71 | $8.12 |
| PNM Resources, Inc | PNM | $1.64 | $1.78 | $1.93 | $2.09 | $2.27 | $2.46 | $2.66 | $2.85 | $3.05 | $3.24 | $3.43 | $3.62 | $3.81 | $4.01 | $4.22 | $4.45 | $4.69 |
| Portland General Electric Company | POR | $2.04 | $2.17 | $2.30 | $2.44 | $2.59 | $2.75 | $2.92 | $3.09 | $3.26 | $3.45 | $3.64 | $3.83 | $4.03 | $4.25 | $4.47 | $4.71 | $4.96 |
| SCANA Corporation | SCG | $3.81 | $4.00 | $4.21 | $4.42 | $4.64 | $4.88 | $5.13 | $5.39 | $5.67 | $5.97 | $6.28 | $6.62 | $6.97 | $7.34 | $7.73 | $8.14 | $8.58 |
| Xcel Energy Inc | XEL | $2.10 | $2.21 | $2.33 | $2.46 | $2.59 | $2.73 | $2.87 | $3.03 | $3.19 | $3.36 | $3.54 | $3.72 | $3.92 | $4.13 | $4.35 | $4.58 | $4.83 |

| Projected Annual Dividend Payout Ratio | | | [31] | [32] | [33] | [34] | [35] | [36] | [37] | [38] | [39] | [40] | [41] | [42] | [43] | [44] | [45] | [46] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.63% | 66.88% | 66.88% |
| Alliant Energy Corporation | LNT | | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.96% | 62.96% | 63.94% | 64.92% | 65.90% | 66.88% | 66.88% | 66.88% | 66.85% | 66.88% | 66.88% |
| Ameren Corporation | AEE | | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.48% | 64.96% | 65.44% | 65.92% | 66.40% | 66.88% | 66.83% | 66.88% | 66.85% | 66.88% | 66.88% |
| American Electric Power Company, Inc | AEP | | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.98% | 66.96% | 66.94% | 66.92% | 66.90% | 66.85% | 66.85% | 66.88% | 66.85% | 66.85% | 66.85% |
| Avista Corporation | AVA | | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.85% | 66.85% | 66.86% | 66.66% | 66.85% | 66.65% |
| CMS Energy Corporation | CMS | | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.86% | 66.85% | 66.88% | 66.85% | 66.85% | 66.88% |
| DTE Energy Company | DTE | | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.86% | 66.85% | 66.88% | 66.88% | 66.85% | 66.88% |
| IDACORP, Inc | IDA | | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.88% | 66.68% | 66.85% | 66.88% | 66.88% | 66.88% |
| NorthWestern Corporation | NWE | | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.88% | 66.88% | 66.88% | 66.88% | 66.85% | 66.66% |
| OGE Energy Corp | OGE | | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.48% | 68.96% | 68.44% | 67.92% | 67.40% | 66.88% | 66.88% | 66.65% | 66.86% | 66.85% | 66.66% |
| Otter Tail Corporation | OTTR | | 60.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.86% | 66.88% | 66.85% | 66.65% | 66.66% | 66.85% |
| Pinnacle West Capital Corporation | PNW | | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.86% | 66.88% | 66.88% | 66.85% | 66.85% | 66.68% |
| PNM Resources, Inc. | PNM | | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.86% | 66.86% | 66.85% | 66.85% | 66.65% | 66.65% |
| Portland General Electric Company | POR | | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.66% | 66.88% | 66.88% | 66.88% | 66.88% | 66.66% |
| SCANA Corporation | SCG | | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.85% | 66.85% | 66.86% | 66.88% | 66.88% | 66.88% |
| Xcel Energy Inc | XEL | | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.65% | 68.88% | 66.68% | 66.88% | 66.88% |

| Projected Annual Cash Flows | | | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | Terminal Value |
| ALLETE, Inc | ALE | | $2.34 | $2.42 | $2.51 | $2.60 | $2.70 | $2.86 | $3.03 | $3.22 | $3.42 | $3.63 | $3.86 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $113.80 |
| Alliant Energy Corporation | LNT | | $1.15 | $1.21 | $1.27 | $1.33 | $1.39 | $1.50 | $1.62 | $1.74 | $1.86 | $2.00 | $2.13 | $2.25 | $2.37 | $2.49 | $2.62 | $2.76 | $72.50 |
| Ameren Corporation | AEE | | $1.71 | $1.78 | $1.86 | $1.94 | $2.02 | $2.15 | $2.28 | $2.43 | $2.58 | $2.74 | $2.91 | $3.06 | $3.22 | $3.40 | $3.58 | $3.77 | $98.17 |
| American Electric Power Company, Inc | AEP | | $2.40 | $2.53 | $2.67 | $2.82 | $2.97 | $3.11 | $3.25 | $3.41 | $3.58 | $3.76 | $3.96 | $4.17 | $4.39 | $4.62 | $4.87 | $5.13 | $128.55 |
| Avista Corporation | AVA | | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $80.01 |
| CMS Energy Corporation | CMS | | $1.27 | $1.35 | $1.43 | $1.52 | $1.61 | $1.73 | $1.86 | $2.00 | $2.14 | $2.29 | $2.44 | $2.57 | $2.71 | $2.85 | $3.00 | $3.16 | $83.85 |
| DTE Energy Company | DTE | | $2.95 | $3.09 | $3.23 | $3.38 | $3.53 | $3.78 | $4.04 | $4.33 | $4.63 | $4.95 | $5.29 | $5.57 | $5.87 | $6.18 | $6.51 | $6.85 | $183.20 |
| IDACORP, Inc. | IDA | | $2.13 | $2.28 | $2.44 | $2.60 | $2.78 | $2.94 | $3.13 | $3.33 | $3.55 | $3.79 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $5.27 | $151.68 |
| NorthWestern Corporation | NWE | | $1.99 | $2.05 | $2.11 | $2.17 | $2.24 | $2.41 | $2.60 | $2.80 | $3.01 | $3.23 | $3.47 | $3.66 | $3.85 | $4.06 | $4.28 | $4.50 | $122.57 |
| OGE Energy Corp. | OGE | | $1.18 | $1.24 | $1.31 | $1.38 | $1.45 | $1.50 | $1.56 | $1.62 | $1.69 | $1.76 | $1.84 | $1.94 | $2.04 | $2.15 | $2.27 | $2.39 | $57.18 |
| Otter Tail Corporation | OTTR | | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $58.99 |
| Pinnacle West Capital Corporation | PNW | | $2.61 | $2.72 | $2.84 | $2.96 | $3.09 | $3.23 | $3.39 | $3.56 | $3.75 | $3.95 | $4.19 | $4.41 | $4.65 | $4.90 | $5.16 | $5.43 | $144.92 |
| PNM Resources, Inc. | PNM | | $0.91 | $1.00 | $1.11 | $1.23 | $1.35 | $1.51 | $1.68 | $1.86 | $2.04 | $2.23 | $2.42 | $2.55 | $2.68 | $2.83 | $2.98 | $3.13 | $69.74 |
| Portland General Electric Company | POR | | $1.21 | $1.29 | $1.37 | $1.45 | $1.54 | $1.69 | $1.84 | $2.01 | $2.18 | $2.37 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $84.48 |
| SCANA Corporation | SCG | | $2.36 | $2.49 | $2.63 | $2.77 | $2.93 | $3.14 | $3.36 | $3.60 | $3.85 | $4.13 | $4.43 | $4.66 | $4.91 | $5.17 | $5.45 | $5.74 | $138.87 |
| Xcel Energy Inc | XEL | | $1.37 | $1.45 | $1.53 | $1.62 | $1.72 | $1.83 | $1.95 | $2.07 | $2.20 | $2.34 | $2.49 | $2.62 | $2.76 | $2.91 | $3.06 | $3.23 | $82.60 |

| Projected Annual Data Investor Cash Flows | | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] | [81] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | Initial Outflow | 6/30/16 | 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 | 6/30/31 |
| ALLETE, Inc. | ALE | ($54.07) | $0.00 | $1.18 | $2.40 | $2.60 | $2.70 | $2.86 | $3.03 | $3.22 | $3.42 | $3.63 | $3.86 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $118.81 |
| Alliant Energy Corporation | LNT | ($33.83) | $0.00 | $0.58 | $1.18 | $1.33 | $1.39 | $1.50 | $1.62 | $1.74 | $1.86 | $2.00 | $2.13 | $2.25 | $2.37 | $2.49 | $2.62 | $2.76 | $75.27 |
| Ameren Corporation | AEE | ($46.40) | $0.00 | $0.86 | $1.76 | $1.94 | $2.02 | $2.15 | $2.28 | $2.43 | $2.58 | $2.74 | $2.91 | $3.06 | $3.22 | $3.40 | $3.58 | $3.77 | $101.93 |
| American Electric Power Company, Inc. | AEP | ($61.54) | $0.00 | $1.21 | $2.45 | $2.82 | $2.97 | $3.11 | $3.25 | $3.41 | $3.58 | $3.76 | $3.96 | $4.17 | $4.39 | $4.62 | $4.87 | $5.13 | $133.68 |
| Avista Corporation | AVA | ($37.83) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $82.84 |
| CMS Energy Corporation | CMS | ($39.10) | $0.00 | $0.64 | $1.31 | $1.52 | $1.61 | $1.73 | $1.86 | $2.00 | $2.14 | $2.29 | $2.44 | $2.57 | $2.71 | $2.85 | $3.00 | $3.16 | $87.01 |
| DTE Energy Company | DTE | ($55.60) | $0.00 | $1.49 | $3.03 | $3.38 | $3.53 | $3.78 | $4.04 | $4.33 | $4.63 | $4.95 | $5.29 | $5.57 | $5.87 | $6.18 | $6.51 | $6.85 | $190.06 |
| IDACORP, Inc. | IDA | ($70.82) | $0.00 | $1.07 | $2.17 | $2.60 | $2.78 | $2.94 | $3.13 | $3.33 | $3.55 | $3.79 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $5.27 | $156.95 |
| NorthWestern Corporation | NWE | ($57.21) | $0.00 | $1.00 | $2.04 | $2.17 | $2.24 | $2.41 | $2.60 | $2.80 | $3.01 | $3.23 | $3.47 | $3.66 | $3.85 | $4.06 | $4.28 | $4.50 | $127.07 |
| OGE Energy Corp. | OGE | ($27.72) | $0.00 | $0.59 | $1.20 | $1.38 | $1.45 | $1.50 | $1.56 | $1.62 | $1.69 | $1.76 | $1.84 | $1.94 | $2.04 | $2.15 | $2.27 | $2.39 | $59.56 |
| Otter Tail Corporation | OTTR | ($28.18) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $61.50 |
| Pinnacle West Capital Corporation | PNW | ($59.12) | $0.00 | $1.31 | $2.66 | $2.96 | $3.09 | $3.23 | $3.39 | $3.56 | $3.75 | $3.96 | $4.19 | $4.41 | $4.65 | $4.90 | $5.16 | $5.43 | $150.35 |
| PNM Resources, Inc. | PNM | ($31.32) | $0.00 | $0.46 | $0.95 | $1.23 | $1.35 | $1.51 | $1.68 | $1.86 | $2.04 | $2.23 | $2.42 | $2.55 | $2.68 | $2.83 | $2.98 | $3.13 | $72.88 |
| Portland General Electric Company | POR | ($38.74) | $0.00 | $0.61 | $1.25 | $1.45 | $1.54 | $1.69 | $1.84 | $2.01 | $2.18 | $2.37 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $87.60 |
| SCANA Corporation | SCG | ($64.66) | $0.00 | $1.19 | $2.42 | $2.77 | $2.93 | $3.14 | $3.36 | $3.60 | $3.85 | $4.13 | $4.43 | $4.66 | $4.91 | $5.17 | $5.45 | $5.74 | $144.61 |
| Xcel Energy Inc | XEL | ($38.85) | $0.00 | $0.69 | $1.41 | $1.62 | $1.72 | $1.83 | $1.95 | $2.07 | $2.20 | $2.34 | $2.49 | $2.62 | $2.76 | $2.91 | $3.06 | $3.23 | $85.83 |

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

| Inputs | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Stock | EPS Growth Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| Company | Ticker | Price | Zacks | First Call | Value Line | Low Growth | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc | ALE | $59.67 | 5.50% | 5.00% | 4.00% | 4.00% | 5.32% | 66.00% | 63.00% | 66.66% | ($0.00) | 9.26% | 17.80 | 3.34 |
| Alliant Energy Corporation | LNT | $38.20 | 6.10% | 6.60% | 6.00% | 6.00% | 5.32% | 64.00% | 61.00% | 66.66% | ($0.00) | 8.82% | 20.15 | 3.79 |
| Ameren Corporation | AEE | $50.12 | 6.10% | 5.20% | 6.00% | 5.20% | 5.32% | 68.00% | 64.00% | 66.66% | ($0.00) | 8.92% | 19.60 | 3.68 |
| American Electric Power Company, Inc | AEP | $66.05 | 4.90% | 4.10% | 4.00% | 4.00% | 5.32% | 64.00% | 67.00% | 66.66% | ($0.00) | 9.14% | 18.45 | 3.47 |
| Avista Corporation | AVA | $41.65 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.66% | ($0.00) | 8.70% | 20.85 | 3.92 |
| CMS Energy Corporation | CMS | $42.95 | 6.40% | 7.24% | 6.00% | 6.00% | 5.32% | 63.00% | 62.00% | 66.66% | ($0.00) | 8.80% | 20.23 | 3.80 |
| DTE Energy Company | DTE | $92.91 | 5.60% | 5.35% | 5.00% | 5.00% | 5.32% | 63.00% | 61.00% | 66.66% | ($0.00) | 8.86% | 19.69 | 3.74 |
| IDACORP, Inc. | IDA | $74.50 | 4.00% | 4.00% | 3.00% | 3.00% | 5.32% | 53.00% | 60.00% | 66.66% | ($0.00) | 8.64% | 21.21 | 3.99 |
| NorthWestern Corporation | NWE | $59.68 | 5.00% | 5.00% | 6.50% | 5.00% | 5.32% | 65.00% | 59.00% | 66.66% | ($0.00) | 8.91% | 19.65 | 3.69 |
| OGE Energy Corp. | OGE | $30.95 | 5.20% | 4.30% | 3.00% | 3.00% | 5.32% | 67.00% | 70.00% | 66.66% | ($0.00) | 8.94% | 19.49 | 3.66 |
| Otter Tail Corporation | OTTR | $30.96 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 60.00% | 63.00% | 66.66% | ($0.00) | 9.39% | 17.32 | 3.26 |
| Pinnacle West Capital Corporation | PNW | $75.82 | 4.00% | 3.73% | 4.00% | 3.73% | 5.32% | 64.00% | 65.00% | 66.66% | ($0.00) | 8.87% | 19.87 | 3.73 |
| PNM Resources, Inc. | PNM | $33.49 | 7.60% | 8.76% | 9.00% | 7.60% | 5.32% | 51.00% | 55.00% | 66.66% | ($0.00) | 9.52% | 16.78 | 3.15 |
| Portland General Electric Company | POR | $41.66 | 6.40% | 6.57% | 5.50% | 5.50% | 5.32% | 56.00% | 56.00% | 66.66% | ($0.00) | 8.99% | 19.21 | 3.61 |
| SCANA Corporation | SCG | $71.01 | 5.30% | 5.40% | 4.50% | 4.50% | 5.32% | 59.00% | 60.00% | 66.66% | ($0.00) | 9.14% | 18.43 | 3.46 |
| Xcel Energy Inc. | XEL | $42.20 | 5.30% | 5.27% | 5.50% | 5.27% | 5.32% | 62.00% | 63.00% | 66.66% | ($0.00) | 9.06% | 18.73 | 3.52 |
| | | | | | | | | | | | MEAN | 9.00% | | |
| | | | | | | | | | | | MAX | 9.52% | | |
| | | | | | | | | | | | MIN | 8.64% | | |

| Projected Annual Earnings per Share | | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] | [22] | [23] | [24] | [25] | [26] | [27] | [28] | [29] | [30] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | $3.38 | $3.52 | $3.66 | $3.80 | $3.95 | $4.11 | $4.29 | $4.48 | $4.68 | $4.91 | $5.16 | $5.44 | $5.73 | $6.03 | $6.35 | $6.69 | $7.05 |
| Alliant Energy Corporation | LNT | $1.69 | $1.79 | $1.90 | $2.01 | $2.13 | $2.26 | $2.39 | $2.53 | $2.68 | $2.82 | $2.98 | $3.14 | $3.30 | $3.48 | $3.66 | $3.86 | $4.07 |
| Ameren Corporation | AEE | $2.38 | $2.50 | $2.63 | $2.77 | $2.92 | $3.07 | $3.23 | $3.40 | $3.57 | $3.76 | $3.96 | $4.17 | $4.40 | $4.63 | $4.88 | $5.14 | $5.41 |
| American Electric Power Company, Inc | AEP | $3.59 | $3.73 | $3.88 | $4.04 | $4.20 | $4.37 | $4.55 | $4.75 | $4.98 | $5.22 | $5.49 | $5.78 | $6.08 | $6.41 | $6.75 | $7.11 | $7.49 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.00 | $2.12 | $2.25 | $2.39 | $2.53 | $2.68 | $2.83 | $2.99 | $3.16 | $3.33 | $3.51 | $3.69 | $3.89 | $4.10 | $4.32 | $4.55 |
| DTE Energy Company | DTE | $4.45 | $4.67 | $4.91 | $5.15 | $5.41 | $5.68 | $5.97 | $6.27 | $6.59 | $6.94 | $7.30 | $7.69 | $8.10 | $8.53 | $8.99 | $9.47 | $9.97 |
| IDACORP, Inc | IDA | $3.87 | $3.99 | $4.11 | $4.23 | $4.36 | $4.49 | $4.64 | $4.81 | $5.01 | $5.24 | $5.50 | $5.79 | $6.10 | $6.43 | $6.77 | $7.13 | $7.51 |
| NorthWestern Corporation | NWE | $2.90 | $3.05 | $3.20 | $3.36 | $3.52 | $3.70 | $3.89 | $4.09 | $4.30 | $4.52 | $4.76 | $5.01 | $5.28 | $5.56 | $5.86 | $6.17 | $6.50 |
| OGE Energy Corp | OGE | $1.69 | $1.74 | $1.79 | $1.85 | $1.90 | $1.96 | $2.03 | $2.10 | $2.19 | $2.29 | $2.40 | $2.53 | $2.66 | $2.81 | $2.96 | $3.11 | $3.28 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.07 | $4.22 | $4.38 | $4.54 | $4.71 | $4.90 | $5.10 | $5.34 | $5.59 | $5.87 | $6.19 | $6.52 | $6.86 | $7.23 | $7.61 | $8.02 |
| PNM Resources, Inc. | PNM | $1.64 | $1.76 | $1.90 | $2.04 | $2.20 | $2.37 | $2.54 | $2.71 | $2.88 | $3.06 | $3.23 | $3.41 | $3.59 | $3.78 | $3.98 | $4.19 | $4.42 |
| Portland General Electric Company | POR | $2.04 | $2.15 | $2.27 | $2.40 | $2.53 | $2.67 | $2.81 | $2.97 | $3.13 | $3.29 | $3.47 | $3.65 | $3.85 | $4.05 | $4.27 | $4.50 | $4.74 |
| SCANA Corporation | SCG | $3.81 | $3.98 | $4.16 | $4.35 | $4.54 | $4.75 | $4.97 | $5.21 | $5.46 | $5.74 | $6.03 | $6.36 | $6.69 | $7.05 | $7.42 | $7.82 | $8.24 |
| Xcel Energy Inc | XEL | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.71 | $2.86 | $3.01 | $3.17 | $3.34 | $3.51 | $3.70 | $3.90 | $4.11 | $4.32 | $4.55 | $4.80 |

| Projected Annual Dividend Payout Ratio | | | [31] | [32] | [33] | [34] | [35] | [36] | [37] | [38] | [39] | [40] | [41] | [42] | [43] | [44] | [45] | [46] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Alliant Energy Corporation | LNT | | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.93% | 62.86% | 63.94% | 64.92% | 65.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Ameren Corporation | AEE | | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.46% | 64.96% | 65.44% | 65.92% | 66.40% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| American Electric Power Company, Inc | AEP | | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.95% | 66.95% | 66.94% | 66.92% | 66.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Avista Corporation | AVA | | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| CMS Energy Corporation | CMS | | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| DTE Energy Company | DTE | | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.95% | 62.96% | 63.94% | 64.92% | 65.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| IDACORP, Inc. | IDA | | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| NorthWestern Corporation | NWE | | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| OGE Energy Corp. | OGE | | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.46% | 68.96% | 68.44% | 67.92% | 67.40% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Otter Tail Corporation | OTTR | | 60.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Pinnacle West Capital Corporation | PNW | | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| PNM Resources, Inc. | PNM | | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Portland General Electric Company | POR | | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| SCANA Corporation | SCG | | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Xcel Energy Inc. | XEL | | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.69% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |

| Projected Annual Cash Flows | | | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | Terminal Value |
| ALLETE, Inc. | ALE | | $2.32 | $2.39 | $2.45 | $2.52 | $2.59 | $2.73 | $2.88 | $3.04 | $3.22 | $3.42 | $3.64 | $3.83 | $4.04 | $4.25 | $4.48 | $4.71 | $125.46 |
| Alliant Energy Corporation | LNT | | $1.15 | $1.20 | $1.26 | $1.32 | $1.38 | $1.48 | $1.59 | $1.71 | $1.83 | $1.96 | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.72 | $81.92 |
| Ameren Corporation | AEE | | $1.70 | $1.76 | $1.83 | $1.89 | $1.96 | $2.08 | $2.21 | $2.34 | $2.48 | $2.63 | $2.79 | $2.94 | $3.10 | $3.26 | $3.43 | $3.62 | $106.00 |
| American Electric Power Company, Inc | AEP | | $2.39 | $2.51 | $2.65 | $2.78 | $2.93 | $3.05 | $3.18 | $3.33 | $3.49 | $3.67 | $3.86 | $4.07 | $4.29 | $4.51 | $4.75 | $5.01 | $138.14 |
| Avista Corporation | AVA | | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $88.30 |
| CMS Energy Corporation | CMS | | $1.26 | $1.33 | $1.41 | $1.49 | $1.57 | $1.68 | $1.80 | $1.93 | $2.06 | $2.20 | $2.35 | $2.47 | $2.60 | $2.74 | $2.89 | $3.04 | $91.99 |
| DTE Energy Company | DTE | | $2.94 | $3.07 | $3.19 | $3.33 | $3.46 | $3.70 | $3.95 | $4.22 | $4.50 | $4.81 | $5.15 | $5.42 | $5.71 | $6.01 | $6.33 | $6.67 | $198.32 |
| IDACORP, Inc | IDA | | $2.11 | $2.25 | $2.39 | $2.54 | $2.69 | $2.84 | $3.00 | $3.18 | $3.39 | $3.62 | $3.87 | $4.08 | $4.30 | $4.53 | $4.77 | $5.02 | $159.25 |
| NorthWestern Corporation | NWE | | $1.98 | $2.03 | $2.08 | $2.13 | $2.18 | $2.35 | $2.52 | $2.71 | $2.91 | $3.12 | $3.35 | $3.53 | $3.72 | $3.92 | $4.13 | $4.35 | $127.65 |
| OGE Energy Corp. | OGE | | $1.17 | $1.21 | $1.26 | $1.32 | $1.37 | $1.41 | $1.45 | $1.50 | $1.55 | $1.62 | $1.69 | $1.78 | $1.88 | $1.98 | $2.08 | $2.19 | $63.91 |
| Otter Tail Corporation | OTTR | | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $65.02 |
| Pinnacle West Capital Corporation | PNW | | $2.60 | $2.71 | $2.82 | $2.94 | $3.06 | $3.20 | $3.35 | $3.52 | $3.70 | $3.91 | $4.14 | $4.36 | $4.59 | $4.83 | $5.09 | $5.36 | $159.34 |
| PNM Resources, Inc. | PNM | | $0.90 | $0.99 | $1.09 | $1.19 | $1.30 | $1.45 | $1.60 | $1.76 | $1.93 | $2.10 | $2.28 | $2.40 | $2.53 | $2.66 | $2.80 | $2.95 | $74.08 |
| Portland General Electric Company | POR | | $1.21 | $1.27 | $1.34 | $1.42 | $1.49 | $1.63 | $1.77 | $1.92 | $2.08 | $2.26 | $2.44 | $2.57 | $2.71 | $2.86 | $3.01 | $3.17 | $90.98 |
| SCANA Corporation | SCG | | $2.35 | $2.47 | $2.59 | $2.71 | $2.85 | $3.04 | $3.24 | $3.46 | $3.71 | $3.97 | $4.25 | $4.48 | $4.71 | $4.97 | $5.23 | $5.51 | $151.84 |
| Xcel Energy Inc | XEL | | $1.37 | $1.45 | $1.53 | $1.62 | $1.71 | $1.82 | $1.93 | $2.06 | $2.19 | $2.33 | $2.48 | $2.61 | $2.75 | $2.89 | $3.05 | $3.21 | $89.82 |

| Projected Annual Data Investor Cash Flows | | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] | [81] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | Initial Outflow | 6/30/16 | 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 | 6/30/31 |
| ALLETE, Inc | ALE | ($59.67) | $0.00 | $1.17 | $2.37 | $2.52 | $2.59 | $2.73 | $2.88 | $3.04 | $3.22 | $3.42 | $3.64 | $3.83 | $4.04 | $4.25 | $4.48 | $4.71 | $130.17 |
| Alliant Energy Corporation | LNT | ($38.20) | $0.00 | $0.58 | $1.18 | $1.32 | $1.38 | $1.48 | $1.59 | $1.71 | $1.83 | $1.96 | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.72 | $84.63 |
| Ameren Corporation | AEE | ($50.12) | $0.00 | $0.86 | $1.75 | $1.89 | $1.96 | $2.08 | $2.21 | $2.34 | $2.48 | $2.63 | $2.79 | $2.94 | $3.10 | $3.26 | $3.43 | $3.62 | $109.62 |
| American Electric Power Company, Inc | AEP | ($66.05) | $0.00 | $1.20 | $2.44 | $2.78 | $2.93 | $3.05 | $3.18 | $3.33 | $3.49 | $3.67 | $3.86 | $4.07 | $4.29 | $4.51 | $4.75 | $5.01 | $143.14 |
| Avista Corporation | AVA | ($41.65) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $91.13 |
| CMS Energy Corporation | CMS | ($42.95) | $0.00 | $0.64 | $1.30 | $1.49 | $1.57 | $1.68 | $1.80 | $1.93 | $2.06 | $2.20 | $2.35 | $2.47 | $2.60 | $2.74 | $2.89 | $3.04 | $95.03 |
| DTE Energy Company | DTE | ($92.91) | $0.00 | $1.48 | $3.02 | $3.33 | $3.46 | $3.70 | $3.95 | $4.22 | $4.50 | $4.81 | $5.15 | $5.42 | $5.71 | $6.01 | $6.33 | $6.67 | $204.99 |
| IDACORP, Inc | IDA | ($74.50) | $0.00 | $1.06 | $2.14 | $2.54 | $2.69 | $2.84 | $3.00 | $3.18 | $3.39 | $3.62 | $3.87 | $4.08 | $4.30 | $4.53 | $4.77 | $5.02 | $164.27 |
| NorthWestern Corporation | NWE | ($59.68) | $0.00 | $1.00 | $2.03 | $2.13 | $2.18 | $2.35 | $2.52 | $2.71 | $2.91 | $3.12 | $3.35 | $3.53 | $3.72 | $3.92 | $4.13 | $4.35 | $132.00 |
| OGE Energy Corp. | OGE | ($30.95) | $0.00 | $0.59 | $1.18 | $1.32 | $1.37 | $1.41 | $1.45 | $1.50 | $1.55 | $1.62 | $1.69 | $1.78 | $1.88 | $1.98 | $2.08 | $2.19 | $66.10 |
| Otter Tail Corporation | OTTR | ($30.96) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $67.53 |
| Pinnacle West Capital Corporation | PNW | ($75.82) | $0.00 | $1.31 | $2.65 | $2.94 | $3.06 | $3.20 | $3.35 | $3.52 | $3.70 | $3.91 | $4.14 | $4.36 | $4.59 | $4.83 | $5.09 | $5.36 | $164.71 |
| PNM Resources, Inc. | PNM | ($33.49) | $0.00 | $0.45 | $0.93 | $1.19 | $1.30 | $1.45 | $1.60 | $1.76 | $1.93 | $2.10 | $2.28 | $2.40 | $2.53 | $2.66 | $2.80 | $2.95 | $77.03 |
| Portland General Electric Company | POR | ($41.66) | $0.00 | $0.61 | $1.24 | $1.42 | $1.49 | $1.63 | $1.77 | $1.92 | $2.08 | $2.26 | $2.44 | $2.57 | $2.71 | $2.86 | $3.01 | $3.17 | $94.15 |
| SCANA Corporation | SCG | ($71.01) | $0.00 | $1.18 | $2.40 | $2.71 | $2.65 | $3.04 | $3.24 | $3.46 | $3.71 | $3.97 | $4.25 | $4.48 | $4.71 | $4.97 | $5.23 | $5.51 | $157.34 |
| Xcel Energy Inc | XEL | ($42.20) | $0.00 | $0.69 | $1.41 | $1.62 | $1.71 | $1.82 | $1.93 | $2.06 | $2.19 | $2.33 | $2.48 | $2.61 | $2.75 | $2.89 | $3.05 | $3.21 | $93.03 |

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

| Inputs | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Stock | EPS Growth Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| | | | | | Value | Low | | | | | | | | |
| Company | Ticker | Price | Zacks | First Call | Line | Growth | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc | ALE | $57.08 | 5.50% | 5.00% | 4.00% | 4.00% | 5.32% | 66.00% | 63.00% | 66.88% | ($0.00) | 9.46% | 17.00 | 3.19 |
| Alliant Energy Corporation | LNT | $36.64 | 6.10% | 6.60% | 6.00% | 6.00% | 5.32% | 64.00% | 61.00% | 66.88% | ($0.00) | 8.97% | 19.31 | 3.63 |
| Ameren Corporation | AEE | $48.90 | 6.10% | 5.20% | 6.00% | 5.20% | 5.32% | 68.00% | 64.00% | 66.88% | ($0.00) | 9.01% | 19.11 | 3.59 |
| American Electric Power Company, Inc. | AEP | $65.03 | 4.90% | 4.10% | 4.00% | 4.00% | 5.32% | 64.00% | 67.00% | 66.88% | ($0.00) | 9.20% | 18.16 | 3.41 |
| Avista Corporation | AVA | $40.48 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.88% | ($0.00) | 8.60% | 20.25 | 3.80 |
| CMS Energy Corporation | CMS | $41.70 | 6.40% | 7.24% | 6.00% | 6.00% | 5.32% | 63.00% | 62.00% | 66.88% | ($0.00) | 8.91% | 19.63 | 3.69 |
| DTE Energy Company | DTE | $89.93 | 5.60% | 5.35% | 5.00% | 5.00% | 5.32% | 63.00% | 61.00% | 66.88% | ($0.00) | 8.93% | 19.24 | 3.62 |
| IDACORP, Inc. | IDA | $73.58 | 4.00% | 4.00% | 3.00% | 3.00% | 5.32% | 53.00% | 60.00% | 66.88% | ($0.00) | 8.69% | 20.95 | 3.94 |
| NorthWestern Corporation | NWE | $59.59 | 5.00% | 5.00% | 8.50% | 5.00% | 5.32% | 65.00% | 59.00% | 66.88% | ($0.00) | 8.91% | 19.61 | 3.69 |
| OGE Energy Corp. | OGE | $29.13 | 5.20% | 4.30% | 3.00% | 3.00% | 5.32% | 67.00% | 70.00% | 66.88% | ($0.00) | 9.17% | 18.29 | 3.44 |
| Otter Tail Corporation | OTTR | $29.44 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 80.00% | 63.00% | 66.88% | ($0.00) | 9.61% | 16.45 | 3.09 |
| Pinnacle West Capital Corporation | PNW | $73.65 | 4.00% | 3.73% | 4.00% | 3.73% | 5.32% | 64.00% | 65.00% | 66.88% | ($0.00) | 8.87% | 19.29 | 3.62 |
| PNM Resources, Inc | PNM | $32.94 | 7.60% | 8.76% | 9.00% | 7.60% | 5.32% | 51.00% | 55.00% | 66.88% | ($0.00) | 9.59% | 16.51 | 3.10 |
| Portland General Electric Company | POR | $40.24 | 6.40% | 6.57% | 5.50% | 6.50% | 5.32% | 56.00% | 56.00% | 66.88% | ($0.00) | 9.14% | 18.47 | 3.47 |
| SCANA Corporation | SCG | $69.22 | 5.30% | 5.40% | 4.50% | 4.50% | 5.32% | 59.00% | 60.00% | 66.88% | ($0.00) | 9.24% | 17.96 | 3.37 |
| Xcel Energy Inc. | XEL | $41.15 | 5.30% | 5.27% | 5.50% | 5.27% | 5.32% | 62.00% | 63.00% | 66.88% | ($0.00) | 9.18% | 18.25 | 3.43 |
| | | | | | | | | | | | MEAN | 9.12% | | |
| | | | | | | | | | | | MAX | 9.61% | | |
| | | | | | | | | | | | MIN | 8.69% | | |

Projected Annual Earnings per Share

| Company | Ticker | [14] 2015 | [15] 2016 | [16] 2017 | [17] 2018 | [18] 2019 | [19] 2020 | [20] 2021 | [21] 2022 | [22] 2023 | [23] 2024 | [24] 2025 | [25] 2026 | [26] 2027 | [27] 2028 | [28] 2029 | [29] 2030 | [30] 2031 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | $3.38 | $3.52 | $3.66 | $3.80 | $3.95 | $4.11 | $4.29 | $4.48 | $4.68 | $4.91 | $5.16 | $5.44 | $5.73 | $6.03 | $6.35 | $6.69 | $7.05 |
| Alliant Energy Corporation | LNT | $1.69 | $1.79 | $1.90 | $2.01 | $2.13 | $2.26 | $2.39 | $2.53 | $2.68 | $2.82 | $2.98 | $3.14 | $3.30 | $3.48 | $3.66 | $3.86 | $4.07 |
| Ameren Corporation | AEE | $2.38 | $2.50 | $2.63 | $2.77 | $2.92 | $3.07 | $3.23 | $3.40 | $3.57 | $3.76 | $3.96 | $4.17 | $4.40 | $4.63 | $4.88 | $5.14 | $5.41 |
| American Electric Power Company, Inc. | AEP | $3.59 | $3.73 | $3.88 | $4.04 | $4.20 | $4.37 | $4.55 | $4.75 | $4.98 | $5.22 | $5.49 | $5.78 | $6.08 | $6.41 | $6.75 | $7.11 | $7.49 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.00 | $2.12 | $2.25 | $2.39 | $2.53 | $2.68 | $2.83 | $2.99 | $3.16 | $3.33 | $3.51 | $3.69 | $3.89 | $4.10 | $4.32 | $4.55 |
| DTE Energy Company | DTE | $4.45 | $4.67 | $4.91 | $5.15 | $5.41 | $5.68 | $5.97 | $6.27 | $6.59 | $6.94 | $7.30 | $7.69 | $8.10 | $8.53 | $8.99 | $9.47 | $9.97 |
| IDACORP, Inc. | IDA | $3.87 | $3.99 | $4.11 | $4.23 | $4.36 | $4.49 | $4.64 | $4.81 | $5.01 | $5.24 | $5.50 | $5.79 | $6.10 | $6.43 | $6.77 | $7.13 | $7.51 |
| NorthWestern Corporation | NWE | $2.90 | $3.05 | $3.20 | $3.36 | $3.52 | $3.70 | $3.89 | $4.09 | $4.30 | $4.52 | $4.76 | $5.01 | $5.28 | $5.56 | $5.86 | $6.17 | $6.50 |
| OGE Energy Corp. | OGE | $1.69 | $1.74 | $1.79 | $1.85 | $1.90 | $1.96 | $2.03 | $2.10 | $2.19 | $2.29 | $2.40 | $2.53 | $2.66 | $2.81 | $2.96 | $3.11 | $3.28 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.07 | $4.22 | $4.38 | $4.54 | $4.71 | $4.90 | $5.10 | $5.34 | $5.59 | $5.87 | $6.19 | $6.52 | $6.86 | $7.23 | $7.61 | $8.02 |
| PNM Resources, Inc. | PNM | $1.64 | $1.76 | $1.90 | $2.04 | $2.20 | $2.37 | $2.54 | $2.71 | $2.88 | $3.06 | $3.23 | $3.41 | $3.59 | $3.78 | $3.98 | $4.19 | $4.42 |
| Portland General Electric Company | POR | $2.04 | $2.15 | $2.27 | $2.40 | $2.53 | $2.67 | $2.81 | $2.97 | $3.13 | $3.29 | $3.47 | $3.65 | $3.85 | $4.05 | $4.27 | $4.50 | $4.74 |
| SCANA Corporation | SCG | $3.81 | $3.98 | $4.16 | $4.35 | $4.54 | $4.75 | $4.97 | $5.21 | $5.46 | $5.74 | $6.03 | $6.36 | $6.69 | $7.05 | $7.42 | $7.82 | $8.24 |
| Xcel Energy Inc. | XEL | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.71 | $2.86 | $3.01 | $3.17 | $3.34 | $3.51 | $3.70 | $3.90 | $4.11 | $4.32 | $4.55 | $4.80 |

Projected Annual Dividend Payout Ratio

| Company | Ticker | | [31] 2016 | [32] 2017 | [33] 2018 | [34] 2019 | [35] 2020 | [36] 2021 | [37] 2022 | [38] 2023 | [39] 2024 | [40] 2025 | [41] 2026 | [42] 2027 | [43] 2028 | [44] 2029 | [45] 2030 | [46] 2031 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Alliant Energy Corporation | LNT | | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.98% | 62.95% | 63.93% | 64.92% | 65.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Ameren Corporation | AEE | | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.48% | 64.96% | 65.44% | 65.92% | 66.40% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| American Electric Power Company, Inc. | AEP | | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.98% | 66.96% | 66.94% | 66.92% | 66.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Avista Corporation | AVA | | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| CMS Energy Corporation | CMS | | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| DTE Energy Company | DTE | | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| IDACORP, Inc. | IDA | | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| NorthWestern Corporation | NWE | | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| OGE Energy Corp. | OGE | | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.48% | 68.96% | 68.44% | 67.92% | 67.40% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Otter Tail Corporation | OTTR | | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Pinnacle West Capital Corporation | PNW | | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| PNM Resources, Inc. | PNM | | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Portland General Electric Company | POR | | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| SCANA Corporation | SCG | | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Xcel Energy Inc. | XEL | | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |

Projected Annual Cash Flows

| Company | Ticker | | [47] 2016 | [48] 2017 | [49] 2018 | [50] 2019 | [51] 2020 | [52] 2021 | [53] 2022 | [54] 2023 | [55] 2024 | [56] 2025 | [57] 2026 | [58] 2027 | [59] 2028 | [60] 2029 | [61] 2030 | [62] 2031 | [63] Terminal Value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | | $2.32 | $2.39 | $2.45 | $2.52 | $2.59 | $2.73 | $2.88 | $3.04 | $3.22 | $3.42 | $3.64 | $3.83 | $4.04 | $4.25 | $4.48 | $4.71 | $119.66 |
| Alliant Energy Corporation | LNT | | $1.15 | $1.20 | $1.26 | $1.32 | $1.38 | $1.48 | $1.59 | $1.71 | $1.83 | $1.96 | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.72 | $78.51 |
| Ameren Corporation | AEE | | $1.70 | $1.76 | $1.83 | $1.89 | $1.96 | $2.08 | $2.21 | $2.34 | $2.48 | $2.63 | $2.79 | $2.94 | $3.10 | $3.26 | $3.43 | $3.62 | $103.35 |
| American Electric Power Company, Inc. | AEP | | $2.39 | $2.51 | $2.65 | $2.78 | $2.93 | $3.05 | $3.18 | $3.33 | $3.49 | $3.67 | $3.86 | $4.07 | $4.29 | $4.51 | $4.75 | $5.01 | $135.94 |
| Avista Corporation | AVA | | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $85.75 |
| CMS Energy Corporation | CMS | | $1.26 | $1.33 | $1.41 | $1.49 | $1.57 | $1.68 | $1.80 | $1.93 | $2.06 | $2.20 | $2.35 | $2.47 | $2.60 | $2.74 | $2.89 | $3.04 | $89.27 |
| DTE Energy Company | DTE | | $2.94 | $3.07 | $3.19 | $3.33 | $3.46 | $3.70 | $3.95 | $4.22 | $4.50 | $4.81 | $5.15 | $5.42 | $5.71 | $6.01 | $6.33 | $6.67 | $191.85 |
| IDACORP, Inc. | IDA | | $2.11 | $2.25 | $2.39 | $2.54 | $2.69 | $2.84 | $3.00 | $3.18 | $3.39 | $3.62 | $3.87 | $4.08 | $4.30 | $4.53 | $4.77 | $5.02 | $157.26 |
| NorthWestern Corporation | NWE | | $1.98 | $2.03 | $2.08 | $2.13 | $2.18 | $2.35 | $2.52 | $2.71 | $2.91 | $3.12 | $3.35 | $3.53 | $3.72 | $3.92 | $4.13 | $4.35 | $127.44 |
| OGE Energy Corp. | OGE | | $1.17 | $1.21 | $1.26 | $1.32 | $1.37 | $1.41 | $1.45 | $1.50 | $1.55 | $1.62 | $1.69 | $1.78 | $1.88 | $1.98 | $2.08 | $2.19 | $59.97 |
| Otter Tail Corporation | OTTR | | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $61.72 |
| Pinnacle West Capital Corporation | PNW | | $2.60 | $2.71 | $2.82 | $2.94 | $3.06 | $3.20 | $3.35 | $3.52 | $3.70 | $3.91 | $4.14 | $4.36 | $4.59 | $4.83 | $5.09 | $5.36 | $154.65 |
| PNM Resources, Inc. | PNM | | $0.90 | $0.99 | $1.08 | $1.19 | $1.30 | $1.45 | $1.60 | $1.76 | $1.93 | $2.10 | $2.28 | $2.40 | $2.53 | $2.66 | $2.80 | $2.95 | $72.88 |
| Portland General Electric Company | POR | | $1.21 | $1.27 | $1.34 | $1.42 | $1.49 | $1.63 | $1.77 | $1.92 | $2.08 | $2.26 | $2.44 | $2.57 | $2.71 | $2.86 | $3.01 | $3.17 | $87.46 |
| SCANA Corporation | SCG | | $2.35 | $2.47 | $2.59 | $2.71 | $2.85 | $3.04 | $3.24 | $3.46 | $3.71 | $3.97 | $4.25 | $4.48 | $4.71 | $4.97 | $5.23 | $5.51 | $147.94 |
| Xcel Energy Inc. | XEL | | $1.37 | $1.45 | $1.53 | $1.62 | $1.71 | $1.82 | $1.93 | $2.06 | $2.19 | $2.33 | $2.48 | $2.61 | $2.75 | $2.89 | $3.05 | $3.21 | $87.55 |

Projected Annual Data Investor Cash Flows

| Company | Ticker | [64] Initial Outflow | [65] 6/30/16 | [66] 12/31/16 | [67] 6/30/17 | [68] 6/30/18 | [69] 6/30/19 | [70] 6/30/20 | [71] 6/30/21 | [72] 6/30/22 | [73] 6/30/23 | [74] 6/30/24 | [75] 6/30/25 | [76] 6/30/26 | [77] 6/30/27 | [78] 6/30/28 | [79] 6/30/29 | [80] 6/30/30 | [81] 6/30/31 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | ($57.08) | $0.00 | $1.17 | $2.37 | $2.52 | $2.59 | $2.73 | $2.88 | $3.04 | $3.22 | $3.42 | $3.64 | $3.83 | $4.04 | $4.25 | $4.48 | $4.71 | $124.58 |
| Alliant Energy Corporation | LNT | ($36.64) | $0.00 | $0.58 | $1.18 | $1.32 | $1.38 | $1.48 | $1.59 | $1.71 | $1.83 | $1.96 | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.72 | $81.23 |
| Ameren Corporation | AEE | ($48.90) | $0.00 | $0.86 | $1.75 | $1.89 | $1.96 | $2.08 | $2.21 | $2.34 | $2.48 | $2.63 | $2.79 | $2.94 | $3.10 | $3.26 | $3.43 | $3.62 | $106.96 |
| American Electric Power Company, Inc. | AEP | ($65.03) | $0.00 | $1.20 | $2.44 | $2.78 | $2.93 | $3.05 | $3.18 | $3.33 | $3.49 | $3.67 | $3.86 | $4.07 | $4.29 | $4.51 | $4.75 | $5.01 | $140.95 |
| Avista Corporation | AVA | ($40.48) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $88.58 |
| CMS Energy Corporation | CMS | ($41.70) | $0.00 | $0.64 | $1.30 | $1.49 | $1.57 | $1.68 | $1.80 | $1.93 | $2.06 | $2.20 | $2.35 | $2.47 | $2.60 | $2.74 | $2.89 | $3.04 | $92.31 |
| DTE Energy Company | DTE | ($89.93) | $0.00 | $1.48 | $3.02 | $3.33 | $3.46 | $3.70 | $3.95 | $4.22 | $4.50 | $4.81 | $5.15 | $5.42 | $5.71 | $6.01 | $6.33 | $6.67 | $198.52 |
| IDACORP, Inc. | IDA | ($73.58) | $0.00 | $1.06 | $2.14 | $2.54 | $2.69 | $2.84 | $3.00 | $3.18 | $3.39 | $3.62 | $3.87 | $4.08 | $4.30 | $4.53 | $4.77 | $5.02 | $162.29 |
| NorthWestern Corporation | NWE | ($59.59) | $0.00 | $1.00 | $2.03 | $2.13 | $2.18 | $2.35 | $2.52 | $2.71 | $2.91 | $3.12 | $3.35 | $3.53 | $3.72 | $3.92 | $4.13 | $4.35 | $131.79 |
| OGE Energy Corp. | OGE | ($29.13) | $0.00 | $0.59 | $1.18 | $1.32 | $1.37 | $1.41 | $1.45 | $1.50 | $1.55 | $1.62 | $1.69 | $1.78 | $1.88 | $1.98 | $2.08 | $2.19 | $62.16 |
| Otter Tail Corporation | OTTR | ($29.44) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $64.23 |
| Pinnacle West Capital Corporation | PNW | ($73.65) | $0.00 | $1.31 | $2.65 | $2.94 | $3.06 | $3.20 | $3.35 | $3.52 | $3.70 | $3.91 | $4.14 | $4.36 | $4.59 | $4.83 | $5.09 | $5.36 | $160.01 |
| PNM Resources, Inc. | PNM | ($32.94) | $0.00 | $0.45 | $0.93 | $1.19 | $1.30 | $1.45 | $1.60 | $1.76 | $1.93 | $2.10 | $2.28 | $2.40 | $2.53 | $2.66 | $2.80 | $2.95 | $75.84 |
| Portland General Electric Company | POR | ($40.24) | $0.00 | $0.61 | $1.24 | $1.42 | $1.49 | $1.63 | $1.77 | $1.92 | $2.08 | $2.26 | $2.44 | $2.57 | $2.71 | $2.86 | $3.01 | $3.17 | $90.63 |
| SCANA Corporation | SCG | ($69.22) | $0.00 | $1.18 | $2.40 | $2.71 | $2.85 | $3.04 | $3.24 | $3.46 | $3.71 | $3.97 | $4.25 | $4.48 | $4.71 | $4.97 | $5.23 | $5.51 | $153.45 |
| Xcel Energy Inc. | XEL | ($41.15) | $0.00 | $0.69 | $1.41 | $1.62 | $1.71 | $1.82 | $1.93 | $2.06 | $2.19 | $2.33 | $2.48 | $2.61 | $2.75 | $2.89 | $3.05 | $3.21 | $90.76 |

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

| Inputs | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Stock | EPS Growth Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| | | | | | Value | Low | | | | | | | | |
| Company | Ticker | Price | Zacks | First Call | Line | Growth | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc | ALE | $54.07 | 5.50% | 5.00% | 4.00% | 4.00% | 5.32% | 66.00% | 63.00% | 66.88% | ($0.00) | 9.70% | 16.08 | 3.02 |
| Alliant Energy Corporation | LNT | $33.83 | 6.10% | 6.60% | 6.00% | 6.00% | 5.32% | 64.00% | 61.00% | 66.88% | ($0.00) | 9.26% | 17.81 | 3.35 |
| Ameren Corporation | AEE | $46.40 | 6.10% | 5.20% | 6.00% | 5.20% | 5.32% | 68.00% | 64.00% | 66.88% | ($0.00) | 9.21% | 18.10 | 3.40 |
| American Electric Power Company, Inc | AEP | $61.54 | 4.90% | 4.10% | 4.00% | 4.00% | 5.32% | 64.00% | 67.00% | 66.88% | ($0.00) | 9.43% | 17.15 | 3.22 |
| Avista Corporation | AVA | $37.83 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.88% | ($0.00) | 9.05% | 18.69 | 3.65 |
| CMS Energy Corporation | CMS | $39.10 | 6.40% | 7.24% | 6.00% | 6.00% | 5.32% | 63.00% | 62.00% | 66.88% | ($0.00) | 9.15% | 18.40 | 3.46 |
| DTE Energy Company | DTE | $85.80 | 5.60% | 5.35% | 5.00% | 5.00% | 5.32% | 63.00% | 61.00% | 66.88% | ($0.00) | 9.16% | 18.34 | 3.45 |
| IDACORP, Inc | IDA | $70.82 | 4.00% | 4.00% | 3.00% | 3.00% | 5.32% | 53.00% | 60.00% | 66.88% | ($0.00) | 8.82% | 20.15 | 3.79 |
| NorthWestern Corporation | NWE | $57.21 | 5.00% | 5.00% | 6.50% | 5.00% | 5.32% | 65.00% | 59.00% | 66.88% | ($0.00) | 9.07% | 18.82 | 3.54 |
| OGE Energy Corp. | OGE | $27.72 | 5.20% | 4.30% | 3.00% | 3.00% | 5.32% | 67.00% | 70.00% | 66.88% | ($0.00) | 9.38% | 17.36 | 3.26 |
| Otter Tail Corporation | OTTR | $28.18 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 80.00% | 63.00% | 66.88% | ($0.00) | 9.60% | 15.72 | 2.95 |
| Pinnacle West Capital Corporation | PNW | $69.12 | 4.00% | 3.73% | 4.00% | 3.73% | 5.32% | 64.00% | 65.00% | 66.88% | ($0.00) | 9.22% | 18.06 | 3.39 |
| PNM Resources, Inc | PNM | $31.32 | 7.60% | 8.76% | 9.00% | 7.60% | 5.32% | 51.00% | 55.00% | 66.88% | ($0.00) | 9.81% | 15.71 | 2.95 |
| Portland General Electric Company | POR | $38.74 | 6.40% | 6.57% | 5.50% | 5.50% | 5.32% | 56.00% | 56.00% | 66.88% | ($0.00) | 9.29% | 17.77 | 3.34 |
| SCANA Corporation | SCG | $64.66 | 5.30% | 5.40% | 4.50% | 4.50% | 5.32% | 59.00% | 60.00% | 66.88% | ($0.00) | 9.51% | 16.81 | 3.16 |
| Xcel Energy Inc | XEL | $38.85 | 5.30% | 5.27% | 5.50% | 5.27% | 5.32% | 62.00% | 63.00% | 66.88% | ($0.00) | 9.41% | 17.21 | 3.23 |
| | | | | | | | | | | | MEAN | 9.33% | | |
| | | | | | | | | | | | MAX | 9.81% | | |
| | | | | | | | | | | | MIN | 8.82% | | |

| Projected Annual Earnings per Share | | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] | [22] | [23] | [24] | [25] | [26] | [27] | [28] | [29] | [30] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | $3.38 | $3.52 | $3.66 | $3.80 | $3.95 | $4.11 | $4.29 | $4.48 | $4.68 | $4.91 | $5.16 | $5.44 | $5.73 | $6.03 | $6.35 | $6.69 | $7.05 |
| Alliant Energy Corporation | LNT | $1.69 | $1.79 | $1.90 | $2.01 | $2.13 | $2.26 | $2.39 | $2.53 | $2.68 | $2.82 | $2.98 | $3.14 | $3.30 | $3.48 | $3.66 | $3.86 | $4.07 |
| Ameren Corporation | AEE | $2.38 | $2.50 | $2.63 | $2.77 | $2.92 | $3.07 | $3.23 | $3.40 | $3.57 | $3.76 | $3.96 | $4.17 | $4.40 | $4.63 | $4.88 | $5.14 | $5.41 |
| American Electric Power Company, Inc | AEP | $3.59 | $3.73 | $3.88 | $4.04 | $4.20 | $4.37 | $4.55 | $4.75 | $4.98 | $5.22 | $5.49 | $5.78 | $6.08 | $6.41 | $6.75 | $7.11 | $7.49 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.00 | $2.12 | $2.25 | $2.39 | $2.53 | $2.68 | $2.83 | $2.99 | $3.16 | $3.33 | $3.51 | $3.69 | $3.89 | $4.10 | $4.32 | $4.55 |
| DTE Energy Company | DTE | $4.45 | $4.67 | $4.91 | $5.15 | $5.41 | $5.68 | $5.97 | $6.27 | $6.59 | $6.94 | $7.30 | $7.69 | $8.10 | $8.53 | $8.99 | $9.47 | $9.97 |
| IDACORP, Inc | IDA | $3.87 | $3.99 | $4.11 | $4.23 | $4.36 | $4.49 | $4.64 | $4.81 | $5.01 | $5.24 | $5.50 | $5.79 | $6.10 | $6.43 | $6.77 | $7.13 | $7.51 |
| NorthWestern Corporation | NWE | $2.90 | $3.05 | $3.20 | $3.36 | $3.52 | $3.70 | $3.89 | $4.09 | $4.30 | $4.52 | $4.76 | $5.01 | $5.28 | $5.56 | $5.86 | $6.17 | $6.50 |
| OGE Energy Corp. | OGE | $1.69 | $1.74 | $1.79 | $1.85 | $1.90 | $1.96 | $2.03 | $2.10 | $2.19 | $2.29 | $2.40 | $2.53 | $2.66 | $2.81 | $2.96 | $3.11 | $3.28 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.07 | $4.22 | $4.38 | $4.54 | $4.71 | $4.90 | $5.10 | $5.34 | $5.59 | $5.87 | $6.19 | $6.52 | $6.86 | $7.23 | $7.61 | $8.02 |
| PNM Resources, Inc | PNM | $1.64 | $1.76 | $1.90 | $2.04 | $2.20 | $2.37 | $2.54 | $2.71 | $2.88 | $3.06 | $3.23 | $3.41 | $3.59 | $3.78 | $3.98 | $4.19 | $4.42 |
| Portland General Electric Company | POR | $2.04 | $2.15 | $2.27 | $2.40 | $2.53 | $2.67 | $2.81 | $2.97 | $3.13 | $3.29 | $3.47 | $3.65 | $3.85 | $4.05 | $4.27 | $4.50 | $4.74 |
| SCANA Corporation | SCG | $3.81 | $3.98 | $4.16 | $4.35 | $4.54 | $4.75 | $4.97 | $5.21 | $5.46 | $5.74 | $6.03 | $6.36 | $6.69 | $7.05 | $7.42 | $7.82 | $8.24 |
| Xcel Energy Inc | XEL | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.71 | $2.86 | $3.01 | $3.17 | $3.34 | $3.51 | $3.70 | $3.90 | $4.11 | $4.32 | $4.55 | $4.80 |

| Projected Annual Dividend Payout Ratio | | | [31] | [32] | [33] | [34] | [35] | [36] | [37] | [38] | [39] | [40] | [41] | [42] | [43] | [44] | [45] | [46] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Alliant Energy Corporation | LNT | | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.93% | 62.96% | 63.94% | 64.92% | 65.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Ameren Corporation | AEE | | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.48% | 64.96% | 65.44% | 65.92% | 66.40% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| American Electric Power Company, Inc | AEP | | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.98% | 66.96% | 66.94% | 66.92% | 66.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Avista Corporation | AVA | | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| CMS Energy Corporation | CMS | | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| DTE Energy Company | DTE | | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| IDACORP, Inc | IDA | | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| NorthWestern Corporation | NWE | | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| OGE Energy Corp. | OGE | | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.48% | 68.96% | 68.44% | 67.92% | 67.40% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Otter Tail Corporation | OTTR | | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Pinnacle West Capital Corporation | PNW | | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| PNM Resources, Inc. | PNM | | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Portland General Electric Company | POR | | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| SCANA Corporation | SCG | | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Xcel Energy Inc | XEL | | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |

| Projected Annual Cash Flows | | | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | Terminal |
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | Value |
| ALLETE, Inc. | ALE | | $2.32 | $2.39 | $2.45 | $2.52 | $2.59 | $2.73 | $2.88 | $3.04 | $3.22 | $3.42 | $3.64 | $3.83 | $4.04 | $4.25 | $4.48 | $4.71 | $113.34 |
| Alliant Energy Corporation | LNT | | $1.15 | $1.20 | $1.26 | $1.32 | $1.38 | $1.48 | $1.59 | $1.71 | $1.83 | $1.96 | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.72 | $72.42 |
| Ameren Corporation | AEE | | $1.70 | $1.76 | $1.83 | $1.89 | $1.96 | $2.08 | $2.21 | $2.34 | $2.48 | $2.63 | $2.79 | $2.94 | $3.10 | $3.26 | $3.43 | $3.62 | $97.93 |
| American Electric Power Company, Inc | AEP | | $2.39 | $2.51 | $2.65 | $2.78 | $2.93 | $3.05 | $3.18 | $3.33 | $3.49 | $3.67 | $3.86 | $4.07 | $4.29 | $4.51 | $4.75 | $5.01 | $128.37 |
| Avista Corporation | AVA | | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $80.01 |
| CMS Energy Corporation | CMS | | $1.26 | $1.33 | $1.41 | $1.49 | $1.57 | $1.68 | $1.80 | $1.93 | $2.06 | $2.20 | $2.35 | $2.47 | $2.60 | $2.74 | $2.89 | $3.04 | $83.65 |
| DTE Energy Company | DTE | | $2.94 | $3.07 | $3.19 | $3.33 | $3.46 | $3.70 | $3.95 | $4.22 | $4.50 | $4.81 | $5.15 | $5.42 | $5.71 | $6.01 | $6.33 | $6.67 | $182.89 |
| IDACORP, Inc | IDA | | $2.11 | $2.25 | $2.39 | $2.54 | $2.69 | $2.84 | $3.00 | $3.18 | $3.39 | $3.62 | $3.87 | $4.08 | $4.30 | $4.53 | $4.77 | $5.02 | $151.26 |
| NorthWestern Corporation | NWE | | $1.98 | $2.03 | $2.08 | $2.13 | $2.18 | $2.35 | $2.52 | $2.71 | $2.91 | $3.12 | $3.35 | $3.53 | $3.72 | $3.92 | $4.13 | $4.35 | $122.29 |
| OGE Energy Corp. | OGE | | $1.17 | $1.21 | $1.26 | $1.32 | $1.37 | $1.41 | $1.45 | $1.50 | $1.55 | $1.62 | $1.69 | $1.78 | $1.88 | $1.98 | $2.08 | $2.19 | $56.93 |
| Otter Tail Corporation | OTTR | | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $58.99 |
| Pinnacle West Capital Corporation | PNW | | $2.60 | $2.71 | $2.82 | $2.94 | $3.06 | $3.20 | $3.35 | $3.52 | $3.70 | $3.91 | $4.14 | $4.36 | $4.59 | $4.83 | $5.09 | $5.36 | $144.82 |
| PNM Resources, Inc. | PNM | | $0.90 | $0.99 | $1.08 | $1.19 | $1.30 | $1.45 | $1.60 | $1.76 | $1.93 | $2.10 | $2.28 | $2.40 | $2.53 | $2.66 | $2.80 | $2.95 | $69.36 |
| Portland General Electric Company | POR | | $1.21 | $1.27 | $1.34 | $1.42 | $1.49 | $1.63 | $1.77 | $1.92 | $2.08 | $2.26 | $2.44 | $2.57 | $2.71 | $2.86 | $3.01 | $3.17 | $84.19 |
| SCANA Corporation | SCG | | $2.35 | $2.47 | $2.59 | $2.71 | $2.85 | $3.04 | $3.24 | $3.46 | $3.71 | $3.97 | $4.25 | $4.48 | $4.71 | $4.97 | $5.23 | $5.51 | $138.47 |
| Xcel Energy Inc | XEL | | $1.37 | $1.45 | $1.53 | $1.62 | $1.71 | $1.82 | $1.93 | $2.06 | $2.19 | $2.33 | $2.48 | $2.61 | $2.75 | $2.89 | $3.05 | $3.21 | $82.57 |

| Projected Annual Data Investor Cash Flows | | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] | [81] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Initial | | | | | | | | | | | | | | | | | |
| Company | Ticker | Outflow | 6/30/16 | 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 | 6/30/31 |
| ALLETE, Inc. | ALE | ($54.07) | $0.00 | $1.17 | $2.37 | $2.52 | $2.59 | $2.73 | $2.88 | $3.04 | $3.22 | $3.42 | $3.64 | $3.83 | $4.04 | $4.25 | $4.48 | $4.71 | $118.05 |
| Alliant Energy Corporation | LNT | ($33.83) | $0.00 | $0.58 | $1.18 | $1.32 | $1.38 | $1.48 | $1.59 | $1.71 | $1.83 | $1.96 | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.72 | $75.14 |
| Ameren Corporation | AEE | ($46.40) | $0.00 | $0.66 | $1.75 | $1.89 | $1.96 | $2.08 | $2.21 | $2.34 | $2.48 | $2.63 | $2.79 | $2.94 | $3.10 | $3.26 | $3.43 | $3.62 | $101.55 |
| American Electric Power Company, Inc. | AEP | ($61.54) | $0.00 | $1.20 | $2.44 | $2.78 | $2.93 | $3.05 | $3.18 | $3.33 | $3.49 | $3.67 | $3.86 | $4.07 | $4.29 | $4.51 | $4.75 | $5.01 | $133.38 |
| Avista Corporation | AVA | ($37.83) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $82.84 |
| CMS Energy Corporation | CMS | ($39.10) | $0.00 | $0.64 | $1.30 | $1.49 | $1.57 | $1.68 | $1.80 | $1.93 | $2.06 | $2.20 | $2.35 | $2.47 | $2.60 | $2.74 | $2.89 | $3.04 | $86.69 |
| DTE Energy Company | DTE | ($85.80) | $0.00 | $1.48 | $3.02 | $3.33 | $3.46 | $3.70 | $3.95 | $4.22 | $4.60 | $4.81 | $5.15 | $5.42 | $5.71 | $6.01 | $6.33 | $6.67 | $189.55 |
| IDACORP, Inc | IDA | ($70.82) | $0.00 | $1.06 | $2.14 | $2.54 | $2.69 | $2.84 | $3.00 | $3.18 | $3.39 | $3.62 | $3.87 | $4.08 | $4.30 | $4.53 | $4.77 | $5.02 | $156.28 |
| NorthWestern Corporation | NWE | ($57.21) | $0.00 | $1.00 | $2.03 | $2.13 | $2.18 | $2.35 | $2.52 | $2.71 | $2.91 | $3.12 | $3.35 | $3.53 | $3.72 | $3.92 | $4.13 | $4.35 | $126.63 |
| OGE Energy Corp. | OGE | ($27.72) | $0.00 | $0.59 | $1.18 | $1.32 | $1.37 | $1.41 | $1.45 | $1.50 | $1.55 | $1.62 | $1.69 | $1.78 | $1.88 | $1.98 | $2.08 | $2.19 | $59.12 |
| Otter Tail Corporation | OTTR | ($28.18) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $61.50 |
| Pinnacle West Capital Corporation | PNW | ($69.12) | $0.00 | $1.31 | $2.65 | $2.94 | $3.06 | $3.20 | $3.35 | $3.52 | $3.70 | $3.91 | $4.14 | $4.36 | $4.59 | $4.83 | $5.09 | $5.36 | $150.18 |
| PNM Resources, Inc | PNM | ($31.32) | $0.00 | $0.45 | $0.93 | $1.19 | $1.30 | $1.45 | $1.60 | $1.76 | $1.93 | $2.10 | $2.28 | $2.40 | $2.53 | $2.66 | $2.80 | $2.95 | $72.32 |
| Portland General Electric Company | POR | ($38.74) | $0.00 | $0.61 | $1.24 | $1.42 | $1.49 | $1.63 | $1.77 | $1.92 | $2.08 | $2.26 | $2.44 | $2.57 | $2.71 | $2.86 | $3.01 | $3.17 | $87.35 |
| SCANA Corporation | SCG | ($64.66) | $0.00 | $1.18 | $2.40 | $2.71 | $2.85 | $3.04 | $3.24 | $3.46 | $3.71 | $3.97 | $4.25 | $4.48 | $4.71 | $4.97 | $5.23 | $5.51 | $143.98 |
| Xcel Energy Inc | XEL | ($38.85) | $0.00 | $0.69 | $1.41 | $1.62 | $1.71 | $1.82 | $1.93 | $2.06 | $2.19 | $2.33 | $2.48 | $2.61 | $2.75 | $2.89 | $3.05 | $3.21 | $85.78 |

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

| Inputs | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Stock | EPS Growth Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| | | | | | Value | High | | | | | | | | |
| Company | Ticker | Price | Zacks | First Call | Line | Growth | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc. | ALE | $59.67 | 5.50% | 5.00% | 4.00% | 5.50% | 5.32% | 66.00% | 63.00% | 66.85% | ($0.00) | 9.70% | 16.10 | 3.02 |
| Alliant Energy Corporation | LNT | $38.20 | 6.10% | 6.60% | 6.00% | 6.60% | 5.32% | 64.00% | 61.00% | 66.85% | ($0.00) | 8.96% | 19.36 | 3.64 |
| Ameren Corporation | AEE | $50.12 | 6.10% | 5.20% | 6.00% | 6.10% | 5.32% | 68.00% | 64.00% | 66.85% | ($0.00) | 9.14% | 18.45 | 3.47 |
| American Electric Power Company, Inc. | AEP | $56.05 | 4.90% | 4.10% | 4.00% | 4.90% | 5.32% | 64.00% | 67.00% | 66.85% | ($0.00) | 9.35% | 17.36 | 3.26 |
| Avista Corporation | AVA | $41.65 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.85% | ($0.00) | 8.70% | 20.65 | 3.92 |
| CMS Energy Corporation | CMS | $42.95 | 6.40% | 7.24% | 6.00% | 7.24% | 5.32% | 63.00% | 62.00% | 66.85% | ($0.00) | 9.10% | 18.64 | 3.50 |
| DTE Energy Company | DTE | $92.91 | 5.60% | 5.35% | 5.00% | 5.60% | 5.32% | 63.00% | 61.00% | 66.85% | ($0.00) | 9.06% | 18.65 | 3.54 |
| IDACORP, Inc. | IDA | $74.50 | 4.00% | 4.00% | 3.00% | 4.00% | 5.32% | 53.00% | 60.00% | 66.85% | ($0.00) | 8.65% | 19.81 | 3.72 |
| NorthWestern Corporation | NWE | $59.68 | 5.00% | 5.00% | 6.50% | 6.50% | 5.32% | 65.00% | 59.00% | 66.85% | ($0.00) | 9.26% | 17.78 | 3.34 |
| OGE Energy Corp. | OGE | $30.95 | 5.20% | 4.30% | 3.00% | 5.20% | 5.32% | 67.00% | 70.00% | 66.85% | ($0.00) | 9.52% | 16.77 | 3.15 |
| Otter Tail Corporation | OTTR | $30.96 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 80.00% | 63.00% | 66.85% | ($0.00) | 9.39% | 17.32 | 3.26 |
| Pinnacle West Capital Corporation | PNW | $75.62 | 4.00% | 3.73% | 4.00% | 4.00% | 5.32% | 64.00% | 65.00% | 66.85% | ($0.00) | 8.93% | 19.51 | 3.67 |
| PNM Resources, Inc. | PNM | $33.49 | 7.60% | 8.76% | 9.00% | 9.00% | 5.32% | 51.00% | 55.00% | 66.85% | ($0.00) | 9.91% | 15.35 | 2.68 |
| Portland General Electric Company | POR | $41.86 | 6.40% | 6.57% | 5.50% | 6.57% | 5.32% | 56.00% | 56.00% | 66.85% | ($0.00) | 9.26% | 17.90 | 3.36 |
| SCANA Corporation | SCG | $71.01 | 5.30% | 5.40% | 4.50% | 5.40% | 5.32% | 59.00% | 60.00% | 66.85% | ($0.00) | 9.35% | 17.36 | 3.26 |
| Xcel Energy Inc. | XEL | $42.20 | 5.30% | 5.27% | 5.50% | 5.50% | 5.32% | 62.00% | 63.00% | 66.85% | ($0.00) | 9.14% | 18.44 | 3.46 |
| | | | | | | | | | | | MEAN | 9.23% | | |
| | | | | | | | | | | | MAX | 9.91% | | |
| | | | | | | | | | | | MIN | 8.70% | | |

Projected Annual Earnings per Share

| Company | Ticker | [14] 2015 | [15] 2016 | [16] 2017 | [17] 2018 | [18] 2019 | [19] 2020 | [20] 2021 | [21] 2022 | [22] 2023 | [23] 2024 | [24] 2025 | [25] 2026 | [26] 2027 | [27] 2028 | [28] 2029 | [29] 2030 | [30] 2031 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | $3.38 | $3.57 | $3.76 | $3.97 | $4.19 | $4.42 | $4.66 | $4.91 | $5.18 | $5.46 | $5.75 | $6.06 | $6.38 | $6.72 | $7.07 | $7.45 | $7.85 |
| Alliant Energy Corporation | LNT | $1.69 | $1.80 | $1.92 | $2.05 | $2.18 | $2.33 | $2.47 | $2.63 | $2.78 | $2.94 | $3.11 | $3.27 | $3.45 | $3.63 | $3.82 | $4.03 | $4.24 |
| Ameren Corporation | AEE | $2.38 | $2.53 | $2.68 | $2.84 | $3.02 | $3.20 | $3.39 | $3.59 | $3.79 | $4.01 | $4.22 | $4.45 | $4.69 | $4.94 | $5.20 | $5.47 | $5.77 |
| American Electric Power Company, Inc. | AEP | $3.59 | $3.77 | $3.95 | $4.14 | $4.35 | $4.56 | $4.79 | $5.03 | $5.29 | $5.56 | $5.85 | $6.16 | $6.49 | $6.84 | $7.20 | $7.58 | $7.99 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.03 | $2.17 | $2.33 | $2.50 | $2.68 | $2.87 | $3.06 | $3.25 | $3.44 | $3.64 | $3.83 | $4.03 | $4.25 | $4.47 | $4.71 | $4.96 |
| DTE Energy Company | DTE | $4.45 | $4.71 | $4.98 | $5.27 | $5.58 | $5.90 | $6.24 | $6.59 | $6.95 | $7.34 | $7.73 | $8.14 | $8.58 | $9.03 | $9.51 | $10.02 | $10.55 |
| IDACORP, Inc. | IDA | $3.87 | $4.02 | $4.19 | $4.35 | $4.53 | $4.71 | $4.91 | $5.13 | $5.36 | $5.63 | $5.91 | $6.23 | $6.56 | $6.91 | $7.28 | $7.66 | $8.07 |
| NorthWestern Corporation | NWE | $2.90 | $3.09 | $3.29 | $3.50 | $3.73 | $3.97 | $4.22 | $4.48 | $4.75 | $5.02 | $5.29 | $5.58 | $5.87 | $6.19 | $6.52 | $6.86 | $7.23 |
| OGE Energy Corp. | OGE | $1.69 | $1.78 | $1.87 | $1.97 | $2.07 | $2.18 | $2.29 | $2.41 | $2.54 | $2.67 | $2.81 | $2.96 | $3.12 | $3.29 | $3.46 | $3.65 | $3.84 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.08 | $4.24 | $4.41 | $4.59 | $4.77 | $4.97 | $5.19 | $5.43 | $5.70 | $5.99 | $6.31 | $6.64 | $7.00 | $7.37 | $7.76 | $8.18 |
| PNM Resources, Inc. | PNM | $1.64 | $1.79 | $1.95 | $2.12 | $2.31 | $2.52 | $2.73 | $2.95 | $3.16 | $3.37 | $3.57 | $3.76 | $3.95 | $4.17 | $4.39 | $4.62 | $4.87 |
| Portland General Electric Company | POR | $2.04 | $2.17 | $2.32 | $2.47 | $2.63 | $2.80 | $2.98 | $3.17 | $3.35 | $3.55 | $3.74 | $3.94 | $4.15 | $4.37 | $4.61 | $4.85 | $5.11 |
| SCANA Corporation | SCG | $3.81 | $4.02 | $4.23 | $4.46 | $4.70 | $4.96 | $5.22 | $5.50 | $5.80 | $6.11 | $6.43 | $6.78 | $7.14 | $7.52 | $7.92 | $8.34 | $8.78 |
| Xcel Energy Inc. | XEL | $2.10 | $2.22 | $2.34 | $2.47 | $2.60 | $2.74 | $2.89 | $3.05 | $3.22 | $3.39 | $3.57 | $3.76 | $3.96 | $4.17 | $4.40 | $4.63 | $4.88 |

Projected Annual Dividend Payout Ratio

| Company | Ticker | [31] 2016 | [32] 2017 | [33] 2018 | [34] 2019 | [35] 2020 | [36] 2021 | [37] 2022 | [38] 2023 | [39] 2024 | [40] 2025 | [41] 2026 | [42] 2027 | [43] 2028 | [44] 2029 | [45] 2030 | [46] 2031 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Alliant Energy Corporation | LNT | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.95% | 62.96% | 63.94% | 64.92% | 65.90% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Ameren Corporation | AEE | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.48% | 64.96% | 65.44% | 65.92% | 66.40% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| American Electric Power Company, Inc. | AEP | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.98% | 66.96% | 66.94% | 66.92% | 66.90% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Avista Corporation | AVA | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| CMS Energy Corporation | CMS | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| DTE Energy Company | DTE | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| IDACORP, Inc. | IDA | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| NorthWestern Corporation | NWE | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| OGE Energy Corp. | OGE | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.48% | 68.96% | 68.44% | 67.92% | 67.40% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Otter Tail Corporation | OTTR | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Pinnacle West Capital Corporation | PNW | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| PNM Resources, Inc. | PNM | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Portland General Electric Company | POR | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| SCANA Corporation | SCG | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Xcel Energy Inc. | XEL | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |

Projected Annual Cash Flows

| Company | Ticker | [47] 2016 | [48] 2017 | [49] 2018 | [50] 2019 | [51] 2020 | [52] 2021 | [53] 2022 | [54] 2023 | [55] 2024 | [56] 2025 | [57] 2026 | [58] 2027 | [59] 2028 | [60] 2029 | [61] 2030 | [62] 2031 | [63] Terminal Value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | $2.35 | $2.45 | $2.56 | $2.67 | $2.78 | $2.97 | $3.16 | $3.36 | $3.58 | $3.81 | $4.05 | $4.27 | $4.49 | $4.73 | $4.98 | $5.25 | $126.32 |
| Alliant Energy Corporation | LNT | $1.15 | $1.21 | $1.28 | $1.35 | $1.42 | $1.53 | $1.65 | $1.78 | $1.91 | $2.05 | $2.19 | $2.31 | $2.43 | $2.56 | $2.69 | $2.84 | $82.12 |
| Ameren Corporation | AEE | $1.72 | $1.80 | $1.88 | $1.96 | $2.05 | $2.19 | $2.33 | $2.48 | $2.64 | $2.80 | $2.98 | $3.13 | $3.30 | $3.48 | $3.66 | $3.86 | $106.39 |
| American Electric Power Company, Inc. | AEP | $2.41 | $2.56 | $2.71 | $2.88 | $3.06 | $3.21 | $3.37 | $3.54 | $3.72 | $3.91 | $4.12 | $4.34 | $4.57 | $4.81 | $5.07 | $5.34 | $138.62 |
| Avista Corporation | AVA | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $88.30 |
| CMS Energy Corporation | CMS | $1.28 | $1.36 | $1.46 | $1.56 | $1.66 | $1.80 | $1.94 | $2.09 | $2.25 | $2.40 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $92.48 |
| DTE Energy Company | DTE | $2.97 | $3.11 | $3.27 | $3.43 | $3.60 | $3.87 | $4.15 | $4.45 | $4.76 | $5.10 | $5.45 | $5.74 | $6.04 | $6.36 | $6.70 | $7.06 | $199.00 |
| IDACORP, Inc. | IDA | $2.13 | $2.29 | $2.46 | $2.64 | $2.83 | $3.00 | $3.19 | $3.40 | $3.63 | $3.89 | $4.16 | $4.39 | $4.62 | $4.87 | $5.13 | $5.40 | $159.89 |
| NorthWestern Corporation | NWE | $2.01 | $2.09 | $2.17 | $2.26 | $2.34 | $2.55 | $2.76 | $2.99 | $3.22 | $3.47 | $3.73 | $3.93 | $4.14 | $4.36 | $4.59 | $4.83 | $128.54 |
| OGE Energy Corp. | OGE | $1.19 | $1.27 | $1.35 | $1.43 | $1.52 | $1.59 | $1.66 | $1.74 | $1.81 | $1.90 | $1.98 | $2.09 | $2.20 | $2.32 | $2.44 | $2.57 | $64.40 |
| Otter Tail Corporation | OTTR | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $65.02 |
| Pinnacle West Capital Corporation | PNW | $2.61 | $2.72 | $2.84 | $2.97 | $3.10 | $3.25 | $3.41 | $3.58 | $3.78 | $3.99 | $4.22 | $4.44 | $4.68 | $4.93 | $5.19 | $5.47 | $159.50 |
| PNM Resources, Inc. | PNM | $0.91 | $1.01 | $1.13 | $1.25 | $1.39 | $1.56 | $1.74 | $1.92 | $2.12 | $2.31 | $2.51 | $2.65 | $2.79 | $2.93 | $3.09 | $3.25 | $74.72 |
| Portland General Electric Company | POR | $1.22 | $1.30 | $1.38 | $1.47 | $1.57 | $1.72 | $1.89 | $2.06 | $2.24 | $2.44 | $2.64 | $2.78 | $2.92 | $3.08 | $3.24 | $3.42 | $91.48 |
| SCANA Corporation | SCG | $2.37 | $2.51 | $2.65 | $2.81 | $2.97 | $3.19 | $3.43 | $3.68 | $3.95 | $4.23 | $4.53 | $4.77 | $5.03 | $5.30 | $5.58 | $5.87 | $152.48 |
| Xcel Energy Inc. | XEL | $1.37 | $1.46 | $1.54 | $1.63 | $1.73 | $1.84 | $1.96 | $2.09 | $2.22 | $2.37 | $2.52 | $2.65 | $2.79 | $2.94 | $3.10 | $3.26 | $69.91 |

Projected Annual Data Investor Cash Flows

| Company | Ticker | [64] Initial Outflow | [65] 6/30/16 | [66] 12/31/16 | [67] 6/30/17 | [68] 6/30/18 | [69] 6/30/19 | [70] 6/30/20 | [71] 6/30/21 | [72] 6/30/22 | [73] 6/30/23 | [74] 6/30/24 | [75] 6/30/25 | [76] 6/30/26 | [77] 6/30/27 | [78] 6/30/28 | [79] 6/30/29 | [80] 6/30/30 | [81] 6/30/31 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | ($59.67) | $0.00 | $1.19 | $2.42 | $2.67 | $2.78 | $2.97 | $3.16 | $3.36 | $3.58 | $3.81 | $4.05 | $4.27 | $4.49 | $4.73 | $4.98 | $5.25 | $131.57 |
| Alliant Energy Corporation | LNT | ($38.20) | $0.00 | $0.58 | $1.19 | $1.35 | $1.42 | $1.53 | $1.65 | $1.78 | $1.91 | $2.05 | $2.19 | $2.31 | $2.43 | $2.56 | $2.69 | $2.84 | $84.96 |
| Ameren Corporation | AEE | ($50.12) | $0.00 | $0.87 | $1.77 | $1.96 | $2.05 | $2.19 | $2.33 | $2.48 | $2.64 | $2.80 | $2.98 | $3.13 | $3.30 | $3.48 | $3.66 | $3.86 | $110.24 |
| American Electric Power Company, Inc. | AEP | ($56.05) | $0.00 | $1.21 | $2.47 | $2.68 | $3.06 | $3.21 | $3.37 | $3.54 | $3.72 | $3.91 | $4.12 | $4.34 | $4.57 | $4.81 | $5.07 | $5.34 | $143.96 |
| Avista Corporation | AVA | ($41.65) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $91.13 |
| CMS Energy Corporation | CMS | ($42.95) | $0.00 | $0.64 | $1.32 | $1.56 | $1.66 | $1.80 | $1.94 | $2.09 | $2.25 | $2.40 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $95.80 |
| DTE Energy Company | DTE | ($92.91) | $0.00 | $1.50 | $3.05 | $3.43 | $3.60 | $3.87 | $4.15 | $4.45 | $4.76 | $5.10 | $5.45 | $5.74 | $6.04 | $6.36 | $6.70 | $7.06 | $206.05 |
| IDACORP, Inc. | IDA | ($74.50) | $0.00 | $1.08 | $2.18 | $2.64 | $2.83 | $3.00 | $3.19 | $3.40 | $3.63 | $3.89 | $4.16 | $4.39 | $4.62 | $4.87 | $5.13 | $5.40 | $165.29 |
| NorthWestern Corporation | NWE | ($59.68) | $0.00 | $1.01 | $2.07 | $2.26 | $2.34 | $2.55 | $2.76 | $2.99 | $3.22 | $3.47 | $3.73 | $3.93 | $4.14 | $4.36 | $4.59 | $4.83 | $133.37 |
| OGE Energy Corp. | OGE | ($30.95) | $0.00 | $0.60 | $1.22 | $1.43 | $1.52 | $1.59 | $1.66 | $1.74 | $1.81 | $1.90 | $1.98 | $2.09 | $2.20 | $2.32 | $2.44 | $2.57 | $66.97 |
| Otter Tail Corporation | OTTR | ($30.96) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $67.53 |
| Pinnacle West Capital Corporation | PNW | ($75.62) | $0.00 | $1.32 | $2.66 | $2.97 | $3.10 | $3.25 | $3.41 | $3.58 | $3.78 | $3.99 | $4.22 | $4.44 | $4.68 | $4.93 | $5.19 | $5.47 | $164.97 |
| PNM Resources, Inc. | PNM | ($33.49) | $0.00 | $0.46 | $0.95 | $1.25 | $1.39 | $1.56 | $1.74 | $1.92 | $2.12 | $2.31 | $2.51 | $2.65 | $2.79 | $2.93 | $3.09 | $3.25 | $77.98 |
| Portland General Electric Company | POR | ($41.86) | $0.00 | $0.61 | $1.26 | $1.47 | $1.57 | $1.72 | $1.89 | $2.06 | $2.24 | $2.44 | $2.64 | $2.78 | $2.92 | $3.08 | $3.24 | $3.42 | $94.89 |
| SCANA Corporation | SCG | ($71.01) | $0.00 | $1.19 | $2.43 | $2.81 | $2.97 | $3.19 | $3.43 | $3.68 | $3.95 | $4.23 | $4.53 | $4.77 | $5.03 | $5.30 | $5.58 | $5.87 | $158.35 |
| Xcel Energy Inc. | XEL | ($42.20) | $0.00 | $0.69 | $1.41 | $1.63 | $1.73 | $1.84 | $1.96 | $2.09 | $2.22 | $2.37 | $2.52 | $2.65 | $2.79 | $2.94 | $3.10 | $3.26 | $93.17 |

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

| Inputs | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Stock | EPS Growth Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| | | | | | Value | High | | | | | | | | |
| Company | Ticker | Price | Zacks | First Call | Line | Growth | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc. | ALE | $57.08 | 5.50% | 5.00% | 4.00% | 5.50% | 5.32% | 66.00% | 63.00% | 66.88% | ($0.00) | 9.90% | 15.38 | 2.89 |
| Alliant Energy Corporation | LNT | $36.64 | 6.10% | 6.60% | 6.00% | 6.60% | 5.32% | 64.00% | 61.00% | 66.88% | ($0.00) | 9.12% | 18.56 | 3.49 |
| Ameren Corporation | AEE | $48.90 | 6.10% | 5.20% | 6.00% | 6.10% | 5.32% | 68.00% | 64.00% | 66.88% | ($0.00) | 9.24% | 17.99 | 3.38 |
| American Electric Power Company, Inc. | AEP | $65.03 | 4.90% | 4.10% | 4.00% | 4.90% | 5.32% | 64.00% | 67.00% | 66.88% | ($0.00) | 9.45% | 17.08 | 3.21 |
| Avista Corporation | AVA | $40.48 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.88% | ($0.00) | 8.80% | 20.25 | 3.80 |
| CMS Energy Corporation | CMS | $41.70 | 6.40% | 7.24% | 6.00% | 7.24% | 5.32% | 63.00% | 62.00% | 66.88% | ($0.00) | 9.22% | 18.09 | 3.40 |
| DTE Energy Company | DTE | $89.93 | 5.80% | 5.35% | 5.00% | 5.80% | 5.32% | 63.00% | 61.00% | 66.88% | ($0.00) | 9.16% | 18.24 | 3.43 |
| IDACORP, Inc. | IDA | $73.58 | 4.00% | 4.00% | 3.00% | 4.00% | 5.32% | 53.00% | 60.00% | 66.88% | ($0.00) | 8.92% | 19.57 | 3.68 |
| NorthWestern Corporation | NWE | $59.59 | 5.00% | 5.00% | 6.50% | 6.50% | 5.32% | 65.00% | 59.00% | 66.88% | ($0.00) | 9.29% | 17.76 | 3.34 |
| OGE Energy Corp. | OGE | $29.13 | 5.20% | 4.30% | 3.00% | 5.20% | 5.32% | 67.00% | 70.00% | 66.88% | ($0.00) | 9.80% | 15.74 | 2.96 |
| Otter Tail Corporation | OTTR | $29.44 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 80.00% | 63.00% | 66.88% | ($0.00) | 9.61% | 16.45 | 3.09 |
| Pinnacle West Capital Corporation | PNW | $73.65 | 4.00% | 3.73% | 4.00% | 4.00% | 5.32% | 64.00% | 65.00% | 66.88% | ($0.00) | 9.04% | 18.94 | 3.56 |
| PNM Resources, Inc. | PNM | $32.94 | 7.60% | 8.76% | 9.00% | 9.00% | 5.32% | 51.00% | 55.00% | 66.88% | ($0.00) | 9.95% | 15.11 | 2.84 |
| Portland General Electric Company | POR | $40.24 | 6.40% | 6.57% | 5.50% | 6.57% | 5.32% | 56.00% | 56.00% | 66.88% | ($0.00) | 9.41% | 17.21 | 3.23 |
| SCANA Corporation | SCG | $69.22 | 5.30% | 5.40% | 4.50% | 5.40% | 5.32% | 59.00% | 60.00% | 66.88% | ($0.00) | 9.49% | 16.92 | 3.18 |
| Xcel Energy Inc. | XEL | $41.15 | 5.30% | 5.27% | 5.50% | 5.50% | 5.32% | 62.00% | 63.00% | 66.88% | ($0.00) | 9.24% | 17.97 | 3.38 |
| | | | | | | | | | | | MEAN | 9.36% | | |
| | | | | | | | | | | | MAX | 9.95% | | |
| | | | | | | | | | | | MIN | 8.80% | | |

Projected Annual Earnings per Share

| Company | Ticker | [14] 2015 | [15] 2016 | [16] 2017 | [17] 2018 | [18] 2019 | [19] 2020 | [20] 2021 | [21] 2022 | [22] 2023 | [23] 2024 | [24] 2025 | [25] 2026 | [26] 2027 | [27] 2028 | [28] 2029 | [29] 2030 | [30] 2031 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | $3.38 | $3.57 | $3.76 | $3.97 | $4.19 | $4.42 | $4.66 | $4.91 | $5.18 | $5.46 | $5.75 | $6.06 | $6.38 | $6.72 | $7.07 | $7.45 | $7.85 |
| Alliant Energy Corporation | LNT | $1.69 | $1.80 | $1.92 | $2.05 | $2.18 | $2.33 | $2.47 | $2.63 | $2.78 | $2.94 | $3.11 | $3.27 | $3.45 | $3.63 | $3.82 | $4.03 | $4.24 |
| Ameren Corporation | AEE | $2.38 | $2.53 | $2.68 | $2.84 | $3.02 | $3.20 | $3.39 | $3.59 | $3.79 | $4.01 | $4.22 | $4.45 | $4.69 | $4.94 | $5.20 | $5.47 | $5.77 |
| American Electric Power Company, Inc. | AEP | $3.59 | $3.77 | $3.95 | $4.14 | $4.35 | $4.56 | $4.79 | $5.03 | $5.29 | $5.56 | $5.85 | $6.16 | $6.49 | $6.84 | $7.20 | $7.58 | $7.99 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.03 | $2.17 | $2.33 | $2.50 | $2.68 | $2.87 | $3.06 | $3.25 | $3.44 | $3.64 | $3.83 | $4.03 | $4.25 | $4.47 | $4.71 | $4.96 |
| DTE Energy Company | DTE | $4.45 | $4.71 | $4.98 | $5.27 | $5.58 | $5.90 | $6.24 | $6.59 | $6.95 | $7.34 | $7.73 | $8.14 | $8.58 | $9.03 | $9.51 | $10.02 | $10.55 |
| IDACORP, Inc. | IDA | $3.87 | $4.02 | $4.19 | $4.35 | $4.53 | $4.71 | $4.91 | $5.13 | $5.36 | $5.63 | $5.91 | $6.23 | $6.56 | $6.91 | $7.28 | $7.66 | $8.07 |
| NorthWestern Corporation | NWE | $2.90 | $3.09 | $3.29 | $3.50 | $3.73 | $3.97 | $4.22 | $4.48 | $4.75 | $5.02 | $5.29 | $5.58 | $5.87 | $6.19 | $6.52 | $6.86 | $7.23 |
| OGE Energy Corp. | OGE | $1.69 | $1.78 | $1.87 | $1.97 | $2.07 | $2.18 | $2.29 | $2.41 | $2.54 | $2.67 | $2.81 | $2.96 | $3.12 | $3.29 | $3.46 | $3.65 | $3.84 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.08 | $4.24 | $4.41 | $4.59 | $4.77 | $4.97 | $5.19 | $5.43 | $5.70 | $5.99 | $6.31 | $6.64 | $7.00 | $7.37 | $7.76 | $8.18 |
| PNM Resources, Inc. | PNM | $1.64 | $1.79 | $1.95 | $2.12 | $2.31 | $2.52 | $2.73 | $2.95 | $3.16 | $3.37 | $3.57 | $3.76 | $3.95 | $4.17 | $4.39 | $4.62 | $4.87 |
| Portland General Electric Company | POR | $2.04 | $2.17 | $2.32 | $2.47 | $2.63 | $2.80 | $2.98 | $3.17 | $3.35 | $3.55 | $3.74 | $3.94 | $4.15 | $4.37 | $4.61 | $4.85 | $5.11 |
| SCANA Corporation | SCG | $3.81 | $4.02 | $4.23 | $4.46 | $4.70 | $4.96 | $5.22 | $5.50 | $5.80 | $6.11 | $6.43 | $6.78 | $7.14 | $7.52 | $7.92 | $8.34 | $8.78 |
| Xcel Energy Inc. | XEL | $2.10 | $2.22 | $2.34 | $2.47 | $2.60 | $2.74 | $2.89 | $3.05 | $3.22 | $3.39 | $3.57 | $3.76 | $3.96 | $4.17 | $4.40 | $4.63 | $4.88 |

Projected Annual Dividend Payout Ratio

| Company | Ticker | | [31] 2016 | [32] 2017 | [33] 2018 | [34] 2019 | [35] 2020 | [36] 2021 | [37] 2022 | [38] 2023 | [39] 2024 | [40] 2025 | [41] 2026 | [42] 2027 | [43] 2028 | [44] 2029 | [45] 2030 | [46] 2031 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Alliant Energy Corporation | LNT | | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Ameren Corporation | AEE | | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.48% | 64.96% | 65.44% | 65.92% | 66.40% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| American Electric Power Company, Inc. | AEP | | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.98% | 66.96% | 66.94% | 66.92% | 66.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Avista Corporation | AVA | | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| CMS Energy Corporation | CMS | | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| DTE Energy Company | DTE | | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| IDACORP, Inc. | IDA | | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| NorthWestern Corporation | NWE | | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| OGE Energy Corp. | OGE | | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.48% | 68.96% | 68.44% | 67.92% | 67.40% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Otter Tail Corporation | OTTR | | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Pinnacle West Capital Corporation | PNW | | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| PNM Resources, Inc. | PNM | | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Portland General Electric Company | POR | | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| SCANA Corporation | SCG | | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Xcel Energy Inc. | XEL | | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |

Projected Annual Cash Flows

| Company | Ticker | | [47] 2016 | [48] 2017 | [49] 2018 | [50] 2019 | [51] 2020 | [52] 2021 | [53] 2022 | [54] 2023 | [55] 2024 | [56] 2025 | [57] 2026 | [58] 2027 | [59] 2028 | [60] 2029 | [61] 2030 | [62] 2031 | [63] Terminal Value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | | $2.35 | $2.45 | $2.56 | $2.67 | $2.78 | $2.97 | $3.16 | $3.36 | $3.58 | $3.81 | $4.05 | $4.27 | $4.49 | $4.73 | $4.98 | $5.25 | $120.72 |
| Alliant Energy Corporation | LNT | | $1.15 | $1.21 | $1.28 | $1.35 | $1.42 | $1.53 | $1.65 | $1.78 | $1.91 | $2.05 | $2.19 | $2.31 | $2.43 | $2.56 | $2.69 | $2.84 | $78.72 |
| Ameren Corporation | AEE | | $1.72 | $1.80 | $1.88 | $1.96 | $2.05 | $2.19 | $2.33 | $2.48 | $2.64 | $2.80 | $2.98 | $3.13 | $3.30 | $3.48 | $3.66 | $3.86 | $103.73 |
| American Electric Power Company, Inc. | AEP | | $2.41 | $2.56 | $2.71 | $2.88 | $3.06 | $3.21 | $3.37 | $3.54 | $3.72 | $3.91 | $4.12 | $4.34 | $4.57 | $4.81 | $5.07 | $5.34 | $136.43 |
| Avista Corporation | AVA | | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $85.75 |
| CMS Energy Corporation | CMS | | $1.28 | $1.36 | $1.46 | $1.56 | $1.66 | $1.80 | $1.94 | $2.09 | $2.25 | $2.40 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $89.76 |
| DTE Energy Company | DTE | | $2.97 | $3.11 | $3.27 | $3.43 | $3.60 | $3.87 | $4.15 | $4.45 | $4.76 | $5.10 | $5.45 | $5.74 | $6.04 | $6.36 | $6.70 | $7.06 | $192.52 |
| IDACORP, Inc. | IDA | | $2.13 | $2.29 | $2.46 | $2.64 | $2.83 | $3.00 | $3.19 | $3.40 | $3.63 | $3.69 | $4.16 | $4.39 | $4.62 | $4.87 | $5.13 | $5.40 | $157.91 |
| NorthWestern Corporation | NWE | | $2.01 | $2.09 | $2.17 | $2.26 | $2.34 | $2.55 | $2.76 | $2.99 | $3.22 | $3.47 | $3.73 | $3.93 | $4.14 | $4.36 | $4.59 | $4.83 | $128.33 |
| OGE Energy Corp. | OGE | | $1.19 | $1.27 | $1.35 | $1.43 | $1.52 | $1.59 | $1.66 | $1.74 | $1.81 | $1.90 | $1.98 | $2.09 | $2.20 | $2.32 | $2.44 | $2.57 | $60.47 |
| Otter Tail Corporation | OTTR | | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $61.72 |
| Pinnacle West Capital Corporation | PNW | | $2.61 | $2.72 | $2.84 | $2.97 | $3.10 | $3.25 | $3.41 | $3.58 | $3.78 | $3.99 | $4.22 | $4.44 | $4.68 | $4.93 | $5.19 | $5.47 | $154.81 |
| PNM Resources, Inc. | PNM | | $0.91 | $1.01 | $1.13 | $1.25 | $1.39 | $1.56 | $1.74 | $1.92 | $2.12 | $2.31 | $2.51 | $2.65 | $2.79 | $2.93 | $3.09 | $3.25 | $73.52 |
| Portland General Electric Company | POR | | $1.22 | $1.30 | $1.38 | $1.47 | $1.57 | $1.72 | $1.89 | $2.06 | $2.24 | $2.44 | $2.64 | $2.78 | $2.92 | $3.08 | $3.24 | $3.42 | $87.95 |
| SCANA Corporation | SCG | | $2.37 | $2.51 | $2.65 | $2.81 | $2.97 | $3.19 | $3.43 | $3.68 | $3.95 | $4.23 | $4.53 | $4.77 | $5.03 | $5.30 | $5.58 | $5.87 | $148.58 |
| Xcel Energy Inc. | XEL | | $1.37 | $1.46 | $1.54 | $1.63 | $1.73 | $1.84 | $1.96 | $2.09 | $2.22 | $2.37 | $2.52 | $2.65 | $2.79 | $2.94 | $3.10 | $3.26 | $87.64 |

Projected Annual Data Investor Cash Flows

| Company | Ticker | [64] Initial Outflow | [65] 6/30/16 | [66] 12/31/16 | [67] 6/30/17 | [68] 6/30/18 | [69] 6/30/19 | [70] 6/30/20 | [71] 6/30/21 | [72] 6/30/22 | [73] 6/30/23 | [74] 6/30/24 | [75] 6/30/25 | [76] 6/30/26 | [77] 6/30/27 | [78] 6/30/28 | [79] 6/30/29 | [80] 6/30/30 | [81] 6/30/31 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | ($57.08) | $0.00 | $1.19 | $2.42 | $2.67 | $2.78 | $2.97 | $3.16 | $3.36 | $3.58 | $3.81 | $4.05 | $4.27 | $4.49 | $4.73 | $4.98 | $5.25 | $125.97 |
| Alliant Energy Corporation | LNT | ($36.64) | $0.00 | $0.58 | $1.19 | $1.35 | $1.42 | $1.53 | $1.65 | $1.78 | $1.91 | $2.05 | $2.19 | $2.31 | $2.43 | $2.56 | $2.69 | $2.84 | $81.56 |
| Ameren Corporation | AEE | ($48.90) | $0.00 | $0.87 | $1.77 | $1.96 | $2.05 | $2.19 | $2.33 | $2.48 | $2.64 | $2.80 | $2.98 | $3.13 | $3.30 | $3.48 | $3.66 | $3.86 | $107.59 |
| American Electric Power Company, Inc. | AEP | ($65.03) | $0.00 | $1.21 | $2.47 | $2.68 | $3.06 | $3.21 | $3.37 | $3.54 | $3.72 | $3.91 | $4.12 | $4.34 | $4.57 | $4.81 | $5.07 | $5.34 | $141.77 |
| Avista Corporation | AVA | ($40.48) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $88.58 |
| CMS Energy Corporation | CMS | ($41.70) | $0.00 | $0.64 | $1.32 | $1.56 | $1.66 | $1.80 | $1.94 | $2.09 | $2.25 | $2.40 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $93.08 |
| DTE Energy Company | DTE | ($89.93) | $0.00 | $1.50 | $3.05 | $3.43 | $3.60 | $3.87 | $4.15 | $4.45 | $4.76 | $5.10 | $5.45 | $5.74 | $6.04 | $6.36 | $6.70 | $7.06 | $199.58 |
| IDACORP, Inc. | IDA | ($73.58) | $0.00 | $1.08 | $2.18 | $2.64 | $2.83 | $3.00 | $3.19 | $3.40 | $3.63 | $3.69 | $4.16 | $4.39 | $4.62 | $4.87 | $5.13 | $5.40 | $163.30 |
| NorthWestern Corporation | NWE | ($59.59) | $0.00 | $1.01 | $2.07 | $2.26 | $2.34 | $2.55 | $2.76 | $2.99 | $3.22 | $3.47 | $3.73 | $3.93 | $4.14 | $4.36 | $4.59 | $4.83 | $133.16 |
| OGE Energy Corp. | OGE | ($29.13) | $0.00 | $0.60 | $1.22 | $1.43 | $1.52 | $1.59 | $1.66 | $1.74 | $1.81 | $1.90 | $1.98 | $2.09 | $2.20 | $2.32 | $2.44 | $2.57 | $63.04 |
| Otter Tail Corporation | OTTR | ($29.44) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $64.23 |
| Pinnacle West Capital Corporation | PNW | ($73.65) | $0.00 | $1.32 | $2.66 | $2.97 | $3.10 | $3.25 | $3.41 | $3.58 | $3.78 | $3.99 | $4.22 | $4.44 | $4.68 | $4.93 | $5.19 | $5.47 | $160.28 |
| PNM Resources, Inc. | PNM | ($32.94) | $0.00 | $0.46 | $0.95 | $1.25 | $1.39 | $1.56 | $1.74 | $1.92 | $2.12 | $2.31 | $2.51 | $2.65 | $2.79 | $2.93 | $3.09 | $3.25 | $76.78 |
| Portland General Electric Company | POR | ($40.24) | $0.00 | $0.61 | $1.26 | $1.47 | $1.57 | $1.72 | $1.89 | $2.06 | $2.24 | $2.44 | $2.64 | $2.78 | $2.92 | $3.08 | $3.24 | $3.42 | $91.37 |
| SCANA Corporation | SCG | ($69.22) | $0.00 | $1.19 | $2.43 | $2.81 | $2.97 | $3.19 | $3.43 | $3.68 | $3.95 | $4.23 | $4.53 | $4.77 | $5.03 | $5.30 | $5.58 | $5.87 | $154.46 |
| Xcel Energy Inc. | XEL | ($41.15) | $0.00 | $0.69 | $1.41 | $1.63 | $1.73 | $1.84 | $1.96 | $2.09 | $2.22 | $2.37 | $2.52 | $2.65 | $2.79 | $2.94 | $3.10 | $3.26 | $90.90 |

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

Inputs

| | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Stock | EPS Growth Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| Company | Ticker | Price | Zacks | First Call | Value Line | High Growth | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc. | ALE | $54.07 | 5.50% | 5.00% | 4.00% | 5.50% | 5.32% | 66.00% | 63.00% | 66.85% | $0.00 | 10.16% | 14.55 | 2.73 |
| Alliant Energy Corporation | LNT | $33.83 | 6.10% | 6.60% | 6.00% | 6.60% | 5.32% | 64.00% | 61.00% | 66.85% | ($0.00) | 9.44% | 17.12 | 3.22 |
| Ameren Corporation | AEE | $46.40 | 6.10% | 5.20% | 6.00% | 6.10% | 5.32% | 68.00% | 64.00% | 66.85% | ($0.00) | 9.45% | 17.05 | 3.20 |
| American Electric Power Company, Inc | AEP | $61.54 | 4.90% | 4.10% | 4.00% | 4.90% | 5.32% | 64.00% | 67.00% | 66.85% | ($0.00) | 9.69% | 16.14 | 3.03 |
| Avista Corporation | AVA | $37.63 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.85% | ($0.00) | 9.05% | 18.89 | 3.55 |
| CMS Energy Corporation | CMS | $39.10 | 6.40% | 7.24% | 6.00% | 7.24% | 5.32% | 63.00% | 62.00% | 66.85% | ($0.00) | 9.46% | 16.96 | 3.19 |
| DTE Energy Company | DTE | $85.60 | 5.60% | 5.35% | 5.00% | 5.60% | 5.32% | 63.00% | 61.00% | 66.85% | ($0.00) | 9.37% | 17.39 | 3.27 |
| IDACORP, Inc. | IDA | $70.82 | 4.00% | 4.00% | 3.00% | 4.00% | 5.32% | 53.00% | 60.00% | 66.85% | ($0.00) | 9.06% | 18.82 | 3.54 |
| NorthWestern Corporation | NWE | $57.21 | 5.00% | 5.00% | 6.50% | 6.50% | 5.32% | 65.00% | 59.00% | 66.85% | ($0.00) | 9.46% | 17.04 | 3.20 |
| OGE Energy Corp. | OGE | $27.72 | 5.20% | 4.30% | 3.00% | 5.20% | 5.32% | 67.00% | 70.00% | 66.85% | ($0.00) | 10.03% | 14.95 | 2.81 |
| Otter Tail Corporation | OTTR | $28.18 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 80.00% | 63.00% | 66.85% | ($0.00) | 9.60% | 15.72 | 2.95 |
| Pinnacle West Capital Corporation | PNW | $69.12 | 4.00% | 3.73% | 4.00% | 4.00% | 5.32% | 64.00% | 65.00% | 66.85% | ($0.00) | 9.29% | 17.73 | 3.33 |
| PNM Resources, Inc | PNM | $31.32 | 7.60% | 8.76% | 9.00% | 9.00% | 5.32% | 51.00% | 55.00% | 66.85% | $0.00 | 10.22% | 14.38 | 2.70 |
| Portland General Electric Company | POR | $38.74 | 6.40% | 6.57% | 5.50% | 6.57% | 5.32% | 56.00% | 56.00% | 66.85% | ($0.00) | 9.57% | 16.57 | 3.11 |
| SCANA Corporation | SCG | $64.66 | 5.30% | 5.40% | 4.50% | 5.40% | 5.32% | 59.00% | 60.00% | 66.85% | ($0.00) | 9.77% | 15.84 | 2.98 |
| Xcel Energy Inc. | XEL | $38.65 | 5.30% | 5.27% | 5.50% | 5.50% | 5.32% | 62.00% | 63.00% | 66.85% | ($0.00) | 9.48% | 16.95 | 3.19 |
| | | | | | | | | | | | MEAN | 9.56% | | |
| | | | | | | | | | | | MAX | 10.22% | | |
| | | | | | | | | | | | MIN | 9.05% | | |

Projected Annual
Earnings per Share

| | | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] | [22] | [23] | [24] | [25] | [26] | [27] | [28] | [29] | [30] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc | ALE | $3.38 | $3.57 | $3.76 | $3.97 | $4.19 | $4.42 | $4.66 | $4.91 | $5.18 | $5.46 | $5.75 | $6.06 | $6.38 | $6.72 | $7.07 | $7.45 | $7.85 |
| Alliant Energy Corporation | LNT | $1.69 | $1.80 | $1.92 | $2.05 | $2.18 | $2.33 | $2.47 | $2.63 | $2.78 | $2.94 | $3.11 | $3.27 | $3.45 | $3.63 | $3.82 | $4.03 | $4.24 |
| Ameren Corporation | AEE | $2.38 | $2.53 | $2.68 | $2.84 | $3.02 | $3.20 | $3.39 | $3.59 | $3.79 | $4.01 | $4.22 | $4.45 | $4.69 | $4.94 | $5.20 | $5.47 | $5.77 |
| American Electric Power Company, Inc. | AEP | $3.59 | $3.77 | $3.95 | $4.14 | $4.35 | $4.56 | $4.79 | $5.03 | $5.29 | $5.56 | $5.85 | $6.16 | $6.49 | $6.84 | $7.20 | $7.58 | $7.99 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.03 | $2.17 | $2.33 | $2.50 | $2.68 | $2.87 | $3.06 | $3.25 | $3.44 | $3.64 | $3.83 | $4.03 | $4.25 | $4.47 | $4.71 | $4.96 |
| DTE Energy Company | DTE | $4.45 | $4.71 | $4.98 | $5.27 | $5.58 | $5.90 | $6.24 | $6.59 | $6.95 | $7.34 | $7.73 | $8.14 | $8.58 | $9.03 | $9.51 | $10.02 | $10.55 |
| IDACORP, Inc | IDA | $3.87 | $4.02 | $4.19 | $4.35 | $4.53 | $4.71 | $4.91 | $5.13 | $5.36 | $5.63 | $5.91 | $6.23 | $6.56 | $6.91 | $7.28 | $7.66 | $8.07 |
| NorthWestern Corporation | NWE | $2.90 | $3.09 | $3.29 | $3.50 | $3.73 | $3.97 | $4.22 | $4.48 | $4.75 | $5.02 | $5.29 | $5.58 | $5.87 | $6.19 | $6.52 | $6.86 | $7.23 |
| OGE Energy Corp. | OGE | $1.69 | $1.78 | $1.87 | $1.97 | $2.07 | $2.18 | $2.29 | $2.41 | $2.54 | $2.67 | $2.81 | $2.96 | $3.12 | $3.29 | $3.46 | $3.65 | $3.84 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.08 | $4.24 | $4.41 | $4.59 | $4.77 | $4.97 | $5.19 | $5.43 | $5.70 | $5.99 | $6.31 | $6.64 | $7.00 | $7.37 | $7.76 | $8.18 |
| PNM Resources, Inc. | PNM | $1.64 | $1.79 | $1.95 | $2.12 | $2.31 | $2.52 | $2.73 | $2.95 | $3.16 | $3.37 | $3.57 | $3.76 | $3.95 | $4.17 | $4.39 | $4.62 | $4.87 |
| Portland General Electric Company | POR | $2.04 | $2.17 | $2.32 | $2.47 | $2.63 | $2.80 | $2.98 | $3.17 | $3.35 | $3.55 | $3.74 | $3.94 | $4.15 | $4.37 | $4.61 | $4.85 | $5.11 |
| SCANA Corporation | SCG | $3.81 | $4.02 | $4.23 | $4.46 | $4.70 | $4.96 | $5.22 | $5.50 | $5.80 | $6.11 | $6.43 | $6.78 | $7.14 | $7.52 | $7.92 | $8.34 | $8.78 |
| Xcel Energy Inc | XEL | $2.10 | $2.22 | $2.34 | $2.47 | $2.60 | $2.74 | $2.89 | $3.05 | $3.22 | $3.39 | $3.57 | $3.76 | $3.96 | $4.17 | $4.40 | $4.63 | $4.88 |

Projected Annual
Dividend Payout Ratio

| | | | [31] | [32] | [33] | [34] | [35] | [36] | [37] | [38] | [39] | [40] | [41] | [42] | [43] | [44] | [45] | [46] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Alliant Energy Corporation | LNT | | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.95% | 62.96% | 63.94% | 64.92% | 65.90% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Ameren Corporation | AEE | | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.48% | 64.96% | 65.44% | 65.92% | 66.40% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| American Electric Power Company, Inc. | AEP | | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.98% | 66.96% | 66.94% | 66.92% | 66.90% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Avista Corporation | AVA | | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| CMS Energy Corporation | CMS | | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| DTE Energy Company | DTE | | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| IDACORP, Inc. | IDA | | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| NorthWestern Corporation | NWE | | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| OGE Energy Corp | OGE | | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.48% | 68.96% | 68.44% | 67.92% | 67.40% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Otter Tail Corporation | OTTR | | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Pinnacle West Capital Corporation | PNW | | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| PNM Resources, Inc. | PNM | | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Portland General Electric Company | POR | | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| SCANA Corporation | SCG | | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Xcel Energy Inc. | XEL | | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |

Projected Annual
Cash Flows

| | | | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | Terminal Value |
| ALLETE, Inc. | ALE | | $2.35 | $2.45 | $2.56 | $2.67 | $2.78 | $2.97 | $3.16 | $3.36 | $3.58 | $3.81 | $4.05 | $4.27 | $4.49 | $4.73 | $4.98 | $5.25 | $114.20 |
| Alliant Energy Corporation | LNT | | $1.15 | $1.21 | $1.28 | $1.35 | $1.42 | $1.53 | $1.65 | $1.78 | $1.91 | $2.05 | $2.19 | $2.31 | $2.43 | $2.56 | $2.69 | $2.84 | $72.63 |
| Ameren Corporation | AEE | | $1.72 | $1.80 | $1.88 | $1.96 | $2.05 | $2.19 | $2.33 | $2.48 | $2.64 | $2.80 | $2.98 | $3.13 | $3.30 | $3.48 | $3.66 | $3.86 | $98.31 |
| American Electric Power Company, Inc. | AEP | | $2.41 | $2.56 | $2.71 | $2.88 | $3.06 | $3.21 | $3.37 | $3.54 | $3.72 | $3.91 | $4.12 | $4.34 | $4.57 | $4.81 | $5.07 | $5.34 | $128.86 |
| Avista Corporation | AVA | | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $80.01 |
| CMS Energy Corporation | CMS | | $1.28 | $1.36 | $1.46 | $1.56 | $1.66 | $1.80 | $1.94 | $2.09 | $2.25 | $2.40 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $84.13 |
| DTE Energy Company | DTE | | $2.97 | $3.11 | $3.27 | $3.43 | $3.60 | $3.87 | $4.15 | $4.45 | $4.76 | $5.10 | $5.45 | $5.74 | $6.04 | $6.36 | $6.70 | $7.06 | $183.56 |
| IDACORP, Inc | IDA | | $2.13 | $2.29 | $2.46 | $2.64 | $2.83 | $3.00 | $3.19 | $3.40 | $3.63 | $3.89 | $4.16 | $4.39 | $4.62 | $4.87 | $5.13 | $5.40 | $151.91 |
| NorthWestern Corporation | NWE | | $2.01 | $2.09 | $2.17 | $2.26 | $2.34 | $2.55 | $2.76 | $2.99 | $3.22 | $3.47 | $3.73 | $3.93 | $4.14 | $4.36 | $4.59 | $4.83 | $123.17 |
| OGE Energy Corp. | OGE | | $1.19 | $1.27 | $1.35 | $1.43 | $1.52 | $1.59 | $1.66 | $1.74 | $1.81 | $1.90 | $1.98 | $2.09 | $2.20 | $2.32 | $2.44 | $2.57 | $57.42 |
| Otter Tail Corporation | OTTR | | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $58.99 |
| Pinnacle West Capital Corporation | PNW | | $2.61 | $2.72 | $2.84 | $2.97 | $3.10 | $3.25 | $3.41 | $3.58 | $3.78 | $3.99 | $4.22 | $4.44 | $4.68 | $4.93 | $5.19 | $5.47 | $144.97 |
| PNM Resources, Inc. | PNM | | $0.91 | $1.01 | $1.13 | $1.25 | $1.39 | $1.56 | $1.74 | $1.92 | $2.12 | $2.31 | $2.51 | $2.65 | $2.79 | $2.93 | $3.09 | $3.25 | $70.00 |
| Portland General Electric Company | POR | | $1.22 | $1.30 | $1.38 | $1.47 | $1.57 | $1.72 | $1.89 | $2.06 | $2.24 | $2.44 | $2.64 | $2.78 | $2.92 | $3.08 | $3.24 | $3.42 | $84.68 |
| SCANA Corporation | SCG | | $2.37 | $2.51 | $2.65 | $2.81 | $2.97 | $3.19 | $3.43 | $3.68 | $3.95 | $4.23 | $4.53 | $4.77 | $5.03 | $5.30 | $5.58 | $5.87 | $139.12 |
| Xcel Energy Inc. | XEL | | $1.37 | $1.46 | $1.54 | $1.63 | $1.73 | $1.84 | $1.96 | $2.09 | $2.22 | $2.37 | $2.52 | $2.65 | $2.79 | $2.94 | $3.10 | $3.26 | $82.66 |

Projected Annual Data
Investor Cash Flows

| | | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] | [81] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | Initial Outflow | 6/30/16 | 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 | 6/30/31 |
| ALLETE, Inc. | ALE | ($54.07) | $0.00 | $1.19 | $2.42 | $2.67 | $2.78 | $2.97 | $3.16 | $3.36 | $3.58 | $3.81 | $4.05 | $4.27 | $4.49 | $4.73 | $4.98 | $5.25 | $119.44 |
| Alliant Energy Corporation | LNT | ($33.83) | $0.00 | $0.58 | $1.19 | $1.35 | $1.42 | $1.53 | $1.65 | $1.78 | $1.91 | $2.05 | $2.19 | $2.31 | $2.43 | $2.56 | $2.69 | $2.84 | $75.47 |
| Ameren Corporation | AEE | ($46.40) | $0.00 | $0.87 | $1.77 | $1.96 | $2.05 | $2.19 | $2.33 | $2.48 | $2.64 | $2.80 | $2.98 | $3.13 | $3.30 | $3.48 | $3.66 | $3.86 | $102.17 |
| American Electric Power Company, Inc | AEP | ($61.54) | $0.00 | $1.21 | $2.47 | $2.68 | $3.06 | $3.21 | $3.37 | $3.54 | $3.72 | $3.91 | $4.12 | $4.34 | $4.57 | $4.81 | $5.07 | $5.34 | $134.20 |
| Avista Corporation | AVA | ($37.63) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $82.84 |
| CMS Energy Corporation | CMS | ($39.10) | $0.00 | $0.64 | $1.32 | $1.56 | $1.66 | $1.80 | $1.94 | $2.09 | $2.25 | $2.40 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $87.45 |
| DTE Energy Company | DTE | ($85.60) | $0.00 | $1.50 | $3.05 | $3.43 | $3.60 | $3.87 | $4.15 | $4.45 | $4.76 | $5.10 | $5.45 | $5.74 | $6.04 | $6.36 | $6.70 | $7.06 | $190.62 |
| IDACORP, Inc. | IDA | ($70.82) | $0.00 | $1.08 | $2.18 | $2.64 | $2.83 | $3.00 | $3.19 | $3.40 | $3.63 | $3.89 | $4.16 | $4.39 | $4.62 | $4.87 | $5.13 | $5.40 | $157.30 |
| NorthWestern Corporation | NWE | ($57.21) | $0.00 | $1.01 | $2.07 | $2.26 | $2.34 | $2.55 | $2.76 | $2.99 | $3.22 | $3.47 | $3.73 | $3.93 | $4.14 | $4.36 | $4.59 | $4.83 | $128.00 |
| OGE Energy Corp. | OGE | ($27.72) | $0.00 | $0.60 | $1.22 | $1.43 | $1.52 | $1.59 | $1.66 | $1.74 | $1.81 | $1.90 | $1.98 | $2.09 | $2.20 | $2.32 | $2.44 | $2.57 | $59.99 |
| Otter Tail Corporation | OTTR | ($28.18) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $61.50 |
| Pinnacle West Capital Corporation | PNW | ($69.12) | $0.00 | $1.32 | $2.66 | $2.97 | $3.10 | $3.25 | $3.41 | $3.58 | $3.78 | $3.99 | $4.22 | $4.44 | $4.68 | $4.93 | $5.19 | $5.47 | $150.44 |
| PNM Resources, Inc. | PNM | ($31.32) | $0.00 | $0.46 | $0.95 | $1.25 | $1.39 | $1.56 | $1.74 | $1.92 | $2.12 | $2.31 | $2.51 | $2.65 | $2.79 | $2.93 | $3.09 | $3.25 | $73.26 |
| Portland General Electric Company | POR | ($38.74) | $0.00 | $0.61 | $1.26 | $1.47 | $1.57 | $1.72 | $1.89 | $2.06 | $2.24 | $2.44 | $2.64 | $2.78 | $2.92 | $3.08 | $3.24 | $3.42 | $88.09 |
| SCANA Corporation | SCG | ($64.66) | $0.00 | $1.19 | $2.43 | $2.81 | $2.97 | $3.19 | $3.43 | $3.68 | $3.95 | $4.23 | $4.53 | $4.77 | $5.03 | $5.30 | $5.58 | $5.87 | $144.99 |
| Xcel Energy Inc. | XEL | ($38.65) | $0.00 | $0.69 | $1.41 | $1.63 | $1.73 | $1.84 | $1.96 | $2.09 | $2.22 | $2.37 | $2.52 | $2.65 | $2.79 | $2.94 | $3.10 | $3.26 | $85.92 |

Multi-Stage Growth Discounted Cash Flow Model with Terminal P/E
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 Growth Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| | | | | | Value | | | | | | | | | |
| Company | Ticker | Price | Zacks | First Call | Line | Average | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc | ALE | $59.67 | 5.50% | 5.00% | 4.00% | 4.83% | 5.32% | 66.00% | 63.00% | 66.86% | ($0.00) | 10.53% | 20.39 | 3.83 |
| Alliant Energy Corporation | LNT | $38.20 | 6.10% | 6.60% | 6.00% | 6.23% | 5.32% | 64.00% | 61.00% | 66.85% | $0.00 | 9.02% | 20.39 | 3.83 |
| Ameren Corporation | AEE | $50.12 | 6.10% | 5.20% | 6.00% | 5.77% | 5.32% | 68.00% | 64.00% | 66.85% | $0.00 | 9.48% | 20.39 | 3.83 |
| American Electric Power Company, Inc. | AEP | $66.05 | 4.90% | 4.10% | 4.00% | 4.33% | 5.32% | 64.00% | 67.00% | 66.85% | $0.00 | 9.89% | 20.39 | 3.83 |
| Avista Corporation | AVA | $41.65 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.85% | $0.00 | 8.56% | 20.39 | 3.83 |
| CMS Energy Corporation | CMS | $42.95 | 6.40% | 7.24% | 6.00% | 6.55% | 5.32% | 63.00% | 62.00% | 66.85% | $0.00 | 9.17% | 20.39 | 3.83 |
| DTE Energy Company | DTE | $92.91 | 5.60% | 5.35% | 5.00% | 5.36% | 5.32% | 63.00% | 61.00% | 66.85% | $0.00 | 9.23% | 20.39 | 3.83 |
| IDACORP, Inc | IDA | $74.50 | 4.00% | 4.00% | 3.00% | 3.67% | 5.32% | 53.00% | 60.00% | 66.65% | $0.00 | 8.83% | 20.39 | 3.83 |
| NorthWestern Corporation | NWE | $59.68 | 5.00% | 5.00% | 6.50% | 5.50% | 5.32% | 65.00% | 59.00% | 66.85% | $0.00 | 9.41% | 20.39 | 3.83 |
| OGE Energy Corp. | OGE | $30.95 | 5.20% | 4.30% | 3.00% | 4.17% | 5.32% | 67.00% | 70.00% | 66.66% | ($0.00) | 9.91% | 20.39 | 3.83 |
| Otter Tail Corporation | OTTR | $30.96 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 80.00% | 63.00% | 66.65% | ($0.00) | 10.26% | 20.39 | 3.83 |
| Pinnacle West Capital Corporation | PNW | $75.82 | 4.00% | 3.73% | 4.00% | 3.91% | 5.32% | 64.00% | 65.00% | 66.85% | $0.00 | 9.12% | 20.39 | 3.83 |
| PNM Resources, Inc | PNM | $33.49 | 7.60% | 8.76% | 9.00% | 8.45% | 5.32% | 51.00% | 55.00% | 66.65% | ($0.00) | 11.09% | 20.39 | 3.83 |
| Portland General Electric Company | POR | $41.66 | 6.40% | 6.57% | 5.50% | 6.16% | 5.32% | 56.00% | 56.00% | 66.85% | $0.00 | 9.71% | 20.39 | 3.83 |
| SCANA Corporation | SCG | $71.01 | 5.30% | 5.40% | 4.50% | 5.07% | 5.32% | 59.00% | 60.00% | 66.88% | $0.00 | 10.04% | 20.39 | 3.83 |
| Xcel Energy Inc | XEL | $42.20 | 5.30% | 5.27% | 5.50% | 5.36% | 5.32% | 62.00% | 63.00% | 66.85% | $0.00 | 9.60% | 20.39 | 3.83 |
| | | | | | | | | | | | MEAN | 9.62% | | |
| | | | | | | | | | | | MAX | 11.09% | | |
| | | | | | | | | | | | MIN | 8.56% | | |

| Projected Annual Earnings per Share | | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] | [22] | [23] | [24] | [25] | [26] | [27] | [28] | [29] | [30] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | $3.38 | $3.54 | $3.71 | $3.89 | $4.08 | $4.28 | $4.49 | $4.71 | $4.95 | $5.21 | $5.48 | $5.77 | $6.08 | $6.41 | $6.75 | $7.11 | $7.48 |
| Alliant Energy Corporation | LNT | $1.69 | $1.80 | $1.91 | $2.03 | $2.15 | $2.29 | $2.43 | $2.57 | $2.72 | $2.87 | $3.03 | $3.19 | $3.36 | $3.54 | $3.73 | $3.92 | $4.13 |
| Ameren Corporation | AEE | $2.38 | $2.52 | $2.66 | $2.82 | $2.98 | $3.15 | $3.33 | $3.52 | $3.71 | $3.91 | $4.13 | $4.35 | $4.58 | $4.82 | $5.08 | $5.35 | $5.63 |
| American Electric Power Company, Inc. | AEP | $3.59 | $3.75 | $3.91 | $4.08 | $4.25 | $4.44 | $4.64 | $4.65 | $5.09 | $5.34 | $5.62 | $5.92 | $6.23 | $6.56 | $6.91 | $7.28 | $7.67 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.01 | $2.15 | $2.29 | $2.44 | $2.60 | $2.76 | $2.93 | $3.10 | $3.28 | $3.46 | $3.65 | $3.84 | $4.04 | $4.26 | $4.49 | $4.73 |
| DTE Energy Company | DTE | $4.45 | $4.69 | $4.94 | $5.21 | $5.49 | $5.78 | $6.09 | $6.42 | $6.77 | $7.13 | $7.51 | $7.91 | $8.33 | $8.77 | $9.24 | $9.73 | $10.25 |
| IDACORP, Inc | IDA | $3.87 | $4.01 | $4.16 | $4.31 | $4.47 | $4.63 | $4.82 | $5.02 | $5.24 | $5.50 | $5.77 | $6.08 | $6.40 | $6.74 | $7.10 | $7.48 | $7.88 |
| NorthWestern Corporation | NWE | $2.90 | $3.06 | $3.23 | $3.41 | $3.59 | $3.79 | $4.00 | $4.22 | $4.44 | $4.68 | $4.93 | $5.20 | $5.47 | $5.76 | $6.07 | $6.39 | $6.73 |
| OGE Energy Corp. | OGE | $1.69 | $1.76 | $1.83 | $1.91 | $1.99 | $2.07 | $2.16 | $2.26 | $2.37 | $2.49 | $2.61 | $2.75 | $2.90 | $3.05 | $3.22 | $3.39 | $3.57 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.07 | $4.23 | $4.40 | $4.57 | $4.75 | $4.95 | $5.16 | $5.40 | $5.66 | $5.95 | $6.27 | $6.60 | $6.95 | $7.32 | $7.71 | $8.12 |
| PNM Resources, Inc. | PNM | $1.64 | $1.78 | $1.93 | $2.09 | $2.27 | $2.46 | $2.66 | $2.85 | $3.05 | $3.24 | $3.43 | $3.62 | $3.81 | $4.01 | $4.22 | $4.45 | $4.69 |
| Portland General Electric Company | POR | $2.04 | $2.17 | $2.30 | $2.44 | $2.59 | $2.75 | $2.92 | $3.09 | $3.26 | $3.45 | $3.64 | $3.83 | $4.03 | $4.25 | $4.47 | $4.71 | $4.96 |
| SCANA Corporation | SCG | $3.81 | $4.00 | $4.21 | $4.42 | $4.64 | $4.88 | $5.13 | $5.39 | $5.67 | $5.97 | $6.28 | $6.62 | $6.97 | $7.34 | $7.73 | $8.14 | $8.58 |
| Xcel Energy Inc | XEL | $2.10 | $2.21 | $2.33 | $2.46 | $2.59 | $2.73 | $2.87 | $3.03 | $3.19 | $3.36 | $3.54 | $3.72 | $3.92 | $4.13 | $4.35 | $4.58 | $4.83 |

| Projected Annual Dividend Payout Ratio | | [31] | [32] | [33] | [34] | [35] | [36] | [37] | [38] | [39] | [40] | [41] | [42] | [43] | [44] | [45] | [46] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.86% | 66.66% | 66.65% | 66.66% | 66.85% | 66.85% |
| Alliant Energy Corporation | LNT | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.96% | 62.96% | 63.94% | 64.92% | 65.90% | 66.85% | 65.65% | 66.88% | 66.66% | 66.85% | 66.85% |
| Ameren Corporation | AEE | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.48% | 64.96% | 65.44% | 65.92% | 66.40% | 66.88% | 66.66% | 66.86% | 66.66% | 66.85% | 66.66% |
| American Electric Power Company, Inc. | AEP | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.98% | 66.96% | 66.94% | 66.92% | 66.90% | 66.88% | 66.66% | 66.86% | 66.65% | 66.88% | 66.66% |
| Avista Corporation | AVA | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.86% | 66.65% | 66.65% | 66.65% | 66.85% | 66.66% |
| CMS Energy Corporation | CMS | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.66% | 66.88% | 66.86% | 66.66% | 66.65% | 66.66% |
| DTE Energy Company | DTE | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.86% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| IDACORP, Inc. | IDA | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.85% | 66.65% | 66.85% | 66.68% | 66.86% | 66.85% |
| NorthWestern Corporation | NWE | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.86% | 66.66% | 66.65% | 66.88% | 66.88% | 66.85% |
| OGE Energy Corp. | OGE | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.48% | 68.96% | 68.44% | 67.92% | 67.40% | 66.66% | 66.85% | 66.85% | 66.68% | 66.85% | 66.85% |
| Otter Tail Corporation | OTTR | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.66% | 66.85% | 66.66% | 66.68% | 66.85% |
| Pinnacle West Capital Corporation | PNW | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.88% | 66.66% | 66.65% | 66.66% | 66.88% | 66.88% |
| PNM Resources, Inc | PNM | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.85% | 66.85% | 66.65% | 66.66% | 66.65% | 66.65% |
| Portland General Electric Company | POR | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.88% | 66.88% | 66.86% | 66.66% | 66.86% | 66.63% |
| SCANA Corporation | SCG | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.88% | 66.86% | 66.85% | 66.66% | 66.86% | 66.86% |
| Xcel Energy Inc. | XEL | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.86% | 66.68% | 66.66% | 66.85% | 66.88% | 66.86% |

| Projected Annual Cash Flows | | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | Terminal Value |
| ALLETE, Inc. | ALE | $2.34 | $2.42 | $2.51 | $2.60 | $2.70 | $2.86 | $3.03 | $3.22 | $3.42 | $3.63 | $3.86 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $152.56 |
| Alliant Energy Corporation | LNT | $1.15 | $1.21 | $1.27 | $1.33 | $1.39 | $1.50 | $1.62 | $1.74 | $1.86 | $2.00 | $2.13 | $2.25 | $2.37 | $2.49 | $2.62 | $2.76 | $84.26 |
| Ameren Corporation | AEE | $1.71 | $1.78 | $1.86 | $1.94 | $2.02 | $2.15 | $2.28 | $2.43 | $2.58 | $2.74 | $2.91 | $3.06 | $3.22 | $3.40 | $3.58 | $3.77 | $114.81 |
| American Electric Power Company, Inc. | AEP | $2.40 | $2.53 | $2.67 | $2.82 | $2.97 | $3.11 | $3.25 | $3.41 | $3.58 | $3.76 | $3.96 | $4.17 | $4.39 | $4.62 | $4.87 | $5.13 | $156.34 |
| Avista Corporation | AVA | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $86.33 |
| CMS Energy Corporation | CMS | $1.27 | $1.35 | $1.43 | $1.52 | $1.61 | $1.73 | $1.86 | $2.00 | $2.14 | $2.29 | $2.44 | $2.57 | $2.71 | $2.85 | $3.00 | $3.16 | $96.34 |
| DTE Energy Company | DTE | $2.95 | $3.09 | $3.23 | $3.38 | $3.53 | $3.78 | $4.04 | $4.33 | $4.63 | $4.95 | $5.29 | $5.57 | $5.87 | $6.18 | $6.51 | $6.85 | $208.69 |
| IDACORP, Inc. | IDA | $2.13 | $2.28 | $2.44 | $2.60 | $2.78 | $2.94 | $3.13 | $3.33 | $3.55 | $3.79 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $5.27 | $160.63 |
| NorthWestern Corporation | NWE | $1.99 | $2.05 | $2.11 | $2.17 | $2.24 | $2.41 | $2.60 | $2.80 | $3.01 | $3.23 | $3.47 | $3.66 | $3.85 | $4.06 | $4.28 | $4.50 | $137.27 |
| OGE Energy Corp. | OGE | $1.18 | $1.24 | $1.31 | $1.38 | $1.45 | $1.50 | $1.56 | $1.62 | $1.69 | $1.76 | $1.84 | $1.94 | $2.04 | $2.15 | $2.27 | $2.39 | $72.72 |
| Otter Tail Corporation | OTTR | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $76.51 |
| Pinnacle West Capital Corporation | PNW | $2.61 | $2.72 | $2.84 | $2.96 | $3.09 | $3.23 | $3.39 | $3.56 | $3.75 | $3.96 | $4.19 | $4.41 | $4.65 | $4.90 | $5.16 | $5.43 | $165.59 |
| PNM Resources, Inc. | PNM | $0.91 | $1.00 | $1.11 | $1.23 | $1.35 | $1.51 | $1.68 | $1.86 | $2.04 | $2.23 | $2.42 | $2.55 | $2.68 | $2.83 | $2.98 | $3.13 | $95.52 |
| Portland General Electric Company | POR | $1.21 | $1.29 | $1.37 | $1.45 | $1.54 | $1.69 | $1.84 | $2.01 | $2.18 | $2.37 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $101.16 |
| SCANA Corporation | SCG | $2.36 | $2.49 | $2.63 | $2.77 | $2.93 | $3.14 | $3.36 | $3.60 | $3.85 | $4.13 | $4.43 | $4.66 | $4.91 | $5.17 | $5.45 | $5.74 | $174.66 |
| Xcel Energy Inc. | XEL | $1.37 | $1.45 | $1.53 | $1.62 | $1.72 | $1.83 | $1.95 | $2.07 | $2.20 | $2.34 | $2.49 | $2.62 | $2.76 | $2.91 | $3.06 | $3.23 | $98.39 |

| Projected Annual Data Investor Cash Flows | | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] | [81] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Initial | | | | | | | | | | | | | | | | | |
| Company | Ticker | Outflow | 6/30/16 | 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 | 6/30/31 |
| ALLETE, Inc. | ALE | ($59.67) | $0.00 | $1.18 | $2.40 | $2.60 | $2.70 | $2.86 | $3.03 | $3.22 | $3.42 | $3.63 | $3.86 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $157.56 |
| Alliant Energy Corporation | LNT | ($38.20) | $0.00 | $0.58 | $1.18 | $1.33 | $1.39 | $1.50 | $1.62 | $1.74 | $1.86 | $2.00 | $2.13 | $2.25 | $2.37 | $2.49 | $2.62 | $2.76 | $87.03 |
| Ameren Corporation | AEE | ($50.12) | $0.00 | $0.86 | $1.76 | $1.94 | $2.02 | $2.15 | $2.28 | $2.43 | $2.58 | $2.74 | $2.91 | $3.06 | $3.22 | $3.40 | $3.58 | $3.77 | $118.57 |
| American Electric Power Company, Inc. | AEP | ($66.05) | $0.00 | $1.21 | $2.45 | $2.82 | $2.97 | $3.11 | $3.25 | $3.41 | $3.58 | $3.76 | $3.96 | $4.17 | $4.39 | $4.62 | $4.87 | $5.13 | $161.46 |
| Avista Corporation | AVA | ($41.65) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $89.16 |
| CMS Energy Corporation | CMS | ($42.95) | $0.00 | $0.64 | $1.31 | $1.52 | $1.61 | $1.73 | $1.86 | $2.00 | $2.14 | $2.29 | $2.44 | $2.57 | $2.71 | $2.85 | $3.00 | $3.16 | $99.50 |
| DTE Energy Company | DTE | ($92.91) | $0.00 | $1.49 | $3.03 | $3.38 | $3.53 | $3.78 | $4.04 | $4.33 | $4.63 | $4.95 | $5.29 | $5.57 | $5.87 | $6.18 | $6.51 | $6.85 | $215.74 |
| IDACORP, Inc. | IDA | ($74.50) | $0.00 | $1.07 | $2.17 | $2.60 | $2.78 | $2.94 | $3.13 | $3.33 | $3.55 | $3.79 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $5.27 | $165.90 |
| NorthWestern Corporation | NWE | ($59.68) | $0.00 | $1.00 | $2.04 | $2.17 | $2.24 | $2.41 | $2.60 | $2.80 | $3.01 | $3.23 | $3.47 | $3.66 | $3.85 | $4.06 | $4.28 | $4.50 | $141.77 |
| OGE Energy Corp. | OGE | ($30.95) | $0.00 | $0.59 | $1.20 | $1.38 | $1.45 | $1.50 | $1.56 | $1.62 | $1.69 | $1.76 | $1.84 | $1.94 | $2.04 | $2.15 | $2.27 | $2.39 | $75.10 |
| Otter Tail Corporation | OTTR | ($30.96) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $79.02 |
| Pinnacle West Capital Corporation | PNW | ($75.82) | $0.00 | $1.31 | $2.66 | $2.96 | $3.09 | $3.23 | $3.39 | $3.56 | $3.75 | $3.96 | $4.19 | $4.41 | $4.65 | $4.90 | $5.16 | $5.43 | $171.02 |
| PNM Resources, Inc. | PNM | ($33.49) | $0.00 | $0.46 | $0.95 | $1.23 | $1.35 | $1.51 | $1.68 | $1.86 | $2.04 | $2.23 | $2.42 | $2.55 | $2.68 | $2.83 | $2.98 | $3.13 | $98.66 |
| Portland General Electric Company | POR | ($41.66) | $0.00 | $0.61 | $1.25 | $1.45 | $1.54 | $1.69 | $1.84 | $2.01 | $2.18 | $2.37 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $104.48 |
| SCANA Corporation | SCG | ($71.01) | $0.00 | $1.19 | $2.42 | $2.77 | $2.93 | $3.14 | $3.36 | $3.60 | $3.85 | $4.13 | $4.43 | $4.66 | $4.91 | $5.17 | $5.45 | $5.74 | $180.59 |
| Xcel Energy Inc. | XEL | ($42.20) | $0.00 | $0.69 | $1.41 | $1.62 | $1.72 | $1.83 | $1.95 | $2.07 | $2.20 | $2.34 | $2.49 | $2.62 | $2.76 | $2.91 | $3.06 | $3.23 | $101.62 |

Multi-Stage Growth Discounted Cash Flow Model with Terminal P/E
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 Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| | | | | | Value | | | | | | | | | |
| Company | Ticker | Price | Zacks | First Call | Line | Average | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc. | ALE | $57.08 | 5.50% | 5.00% | 4.00% | 4.83% | 5.32% | 66.00% | 63.00% | 66.66% | ($0.00) | 10.96% | 20.39 | 3.83 |
| Alliant Energy Corporation | LNT | $36.64 | 6.10% | 6.60% | 6.00% | 6.23% | 5.32% | 64.00% | 61.00% | 66.66% | $0.00 | 9.41% | 20.39 | 3.83 |
| Ameren Corporation | AEE | $48.90 | 6.10% | 5.20% | 6.00% | 5.77% | 5.32% | 68.00% | 64.00% | 66.66% | $0.00 | 9.71% | 20.39 | 3.83 |
| American Electric Power Company, Inc. | AEP | $65.03 | 4.90% | 4.10% | 4.00% | 4.33% | 5.32% | 64.00% | 67.00% | 66.66% | $0.00 | 10.03% | 20.39 | 3.83 |
| Avista Corporation | AVA | $40.48 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.66% | $0.00 | 8.84% | 20.39 | 3.83 |
| CMS Energy Corporation | CMS | $41.70 | 6.40% | 7.24% | 6.00% | 6.55% | 5.32% | 63.00% | 62.00% | 66.66% | $0.00 | 9.44% | 20.39 | 3.83 |
| DTE Energy Company | DTE | $69.93 | 5.60% | 5.35% | 5.00% | 5.38% | 5.32% | 63.00% | 61.00% | 66.66% | $0.00 | 9.53% | 20.39 | 3.83 |
| IDACORP, Inc. | IDA | $73.58 | 4.00% | 4.00% | 3.00% | 3.67% | 5.32% | 53.00% | 60.00% | 66.66% | $0.00 | 8.94% | 20.39 | 3.83 |
| NorthWestern Corporation | NWE | $59.59 | 5.00% | 5.00% | 6.50% | 5.50% | 5.32% | 65.00% | 59.00% | 66.66% | $0.00 | 9.43% | 20.39 | 3.83 |
| OGE Energy Corp. | OGE | $29.13 | 5.20% | 4.30% | 3.00% | 4.17% | 5.32% | 67.00% | 70.00% | 66.66% | ($0.00) | 10.50% | 20.39 | 3.83 |
| Otter Tail Corporation | OTTR | $29.44 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 80.00% | 63.00% | 66.66% | ($0.00) | 10.75% | 20.39 | 3.83 |
| Pinnacle West Capital Corporation | PNW | $73.65 | 4.00% | 3.73% | 4.00% | 3.91% | 5.32% | 64.00% | 65.00% | 66.66% | $0.00 | 9.39% | 20.39 | 3.83 |
| PNM Resources, Inc. | PNM | $32.94 | 7.60% | 8.76% | 9.00% | 8.45% | 5.32% | 51.00% | 55.00% | 66.66% | ($0.00) | 11.24% | 20.39 | 3.83 |
| Portland General Electric Company | POR | $40.24 | 6.40% | 6.57% | 5.50% | 6.16% | 5.32% | 56.00% | 56.00% | 66.66% | ($0.00) | 10.06% | 20.39 | 3.83 |
| SCANA Corporation | SCG | $69.22 | 5.30% | 5.40% | 4.50% | 5.07% | 5.32% | 59.00% | 60.00% | 66.66% | $0.00 | 10.26% | 20.39 | 3.83 |
| Xcel Energy Inc. | XEL | $41.15 | 5.30% | 5.27% | 5.50% | 5.36% | 5.32% | 62.00% | 63.00% | 66.66% | ($0.00) | 9.63% | 20.39 | 3.83 |
| | | | | | | | | | | | MEAN | 9.90% | | |
| | | | | | | | | | | | MAX | 11.24% | | |
| | | | | | | | | | | | MIN | 8.84% | | |

| Projected Annual Earnings per Share | | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] | [22] | [23] | [24] | [25] | [26] | [27] | [28] | [29] | [30] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | $3.38 | $3.54 | $3.71 | $3.89 | $4.08 | $4.28 | $4.49 | $4.71 | $4.95 | $5.21 | $5.48 | $5.77 | $6.08 | $6.41 | $6.75 | $7.11 | $7.48 |
| Alliant Energy Corporation | LNT | $1.69 | $1.80 | $1.91 | $2.03 | $2.15 | $2.29 | $2.43 | $2.57 | $2.72 | $2.87 | $3.03 | $3.19 | $3.36 | $3.54 | $3.73 | $3.92 | $4.13 |
| Ameren Corporation | AEE | $2.38 | $2.52 | $2.66 | $2.82 | $2.98 | $3.15 | $3.33 | $3.52 | $3.71 | $3.91 | $4.13 | $4.35 | $4.58 | $4.82 | $5.08 | $5.35 | $5.63 |
| American Electric Power Company, Inc. | AEP | $3.59 | $3.75 | $3.91 | $4.08 | $4.25 | $4.44 | $4.64 | $4.85 | $5.09 | $5.34 | $5.62 | $5.92 | $6.23 | $6.56 | $6.91 | $7.28 | $7.67 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.01 | $2.15 | $2.29 | $2.44 | $2.60 | $2.76 | $2.93 | $3.10 | $3.28 | $3.46 | $3.65 | $3.84 | $4.04 | $4.26 | $4.49 | $4.73 |
| DTE Energy Company | DTE | $4.45 | $4.69 | $4.94 | $5.21 | $5.49 | $5.78 | $6.09 | $6.42 | $6.77 | $7.13 | $7.51 | $7.91 | $8.33 | $8.77 | $9.24 | $9.73 | $10.25 |
| IDACORP, Inc. | IDA | $3.87 | $4.01 | $4.16 | $4.31 | $4.47 | $4.63 | $4.82 | $5.02 | $5.24 | $5.50 | $5.77 | $6.08 | $6.40 | $6.74 | $7.10 | $7.48 | $7.88 |
| NorthWestern Corporation | NWE | $2.90 | $3.06 | $3.23 | $3.41 | $3.59 | $3.79 | $4.00 | $4.22 | $4.44 | $4.68 | $4.93 | $5.20 | $5.47 | $5.76 | $6.07 | $6.39 | $6.73 |
| OGE Energy Corp. | OGE | $1.69 | $1.76 | $1.83 | $1.91 | $1.99 | $2.07 | $2.16 | $2.26 | $2.37 | $2.49 | $2.61 | $2.75 | $2.90 | $3.05 | $3.22 | $3.39 | $3.57 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.07 | $4.23 | $4.40 | $4.57 | $4.75 | $4.95 | $5.16 | $5.40 | $5.66 | $5.95 | $6.27 | $6.60 | $6.95 | $7.32 | $7.71 | $8.12 |
| PNM Resources, Inc. | PNM | $1.64 | $1.78 | $1.93 | $2.09 | $2.27 | $2.46 | $2.66 | $2.85 | $3.05 | $3.24 | $3.43 | $3.62 | $3.81 | $4.01 | $4.22 | $4.45 | $4.69 |
| Portland General Electric Company | POR | $2.04 | $2.17 | $2.30 | $2.44 | $2.59 | $2.75 | $2.92 | $3.09 | $3.26 | $3.45 | $3.64 | $3.83 | $4.03 | $4.25 | $4.47 | $4.71 | $4.96 |
| SCANA Corporation | SCG | $3.81 | $4.00 | $4.21 | $4.42 | $4.64 | $4.88 | $5.13 | $5.39 | $5.67 | $5.97 | $6.28 | $6.62 | $6.97 | $7.34 | $7.73 | $8.14 | $8.58 |
| Xcel Energy Inc. | XEL | $2.10 | $2.21 | $2.33 | $2.46 | $2.59 | $2.73 | $2.87 | $3.03 | $3.19 | $3.36 | $3.54 | $3.72 | $3.92 | $4.13 | $4.35 | $4.58 | $4.83 |

| Projected Annual Dividend Payout Ratio | | [31] | [32] | [33] | [34] | [35] | [36] | [37] | [38] | [39] | [40] | [41] | [42] | [43] | [44] | [45] | [46] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Alliant Energy Corporation | LNT | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.96% | 62.95% | 63.94% | 64.92% | 65.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Ameren Corporation | AEE | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.48% | 64.96% | 65.44% | 65.92% | 66.40% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| American Electric Power Company, Inc. | AEP | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.98% | 66.96% | 66.94% | 66.92% | 66.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Avista Corporation | AVA | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| CMS Energy Corporation | CMS | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| DTE Energy Company | DTE | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| IDACORP, Inc. | IDA | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| NorthWestern Corporation | NWE | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| OGE Energy Corp. | OGE | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.48% | 68.96% | 68.44% | 67.92% | 67.40% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Otter Tail Corporation | OTTR | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Pinnacle West Capital Corporation | PNW | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| PNM Resources, Inc. | PNM | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Portland General Electric Company | POR | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| SCANA Corporation | SCG | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Xcel Energy Inc. | XEL | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |

| Projected Annual Cash Flows | | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | Terminal Value |
| ALLETE, Inc. | ALE | $2.34 | $2.42 | $2.51 | $2.60 | $2.70 | $2.86 | $3.03 | $3.22 | $3.42 | $3.63 | $3.86 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $152.56 |
| Alliant Energy Corporation | LNT | $1.15 | $1.21 | $1.27 | $1.33 | $1.39 | $1.50 | $1.62 | $1.74 | $1.86 | $2.00 | $2.13 | $2.25 | $2.37 | $2.49 | $2.62 | $2.76 | $84.26 |
| Ameren Corporation | AEE | $1.71 | $1.78 | $1.86 | $1.94 | $2.02 | $2.15 | $2.28 | $2.43 | $2.58 | $2.74 | $2.91 | $3.06 | $3.22 | $3.40 | $3.58 | $3.77 | $114.81 |
| American Electric Power Company, Inc. | AEP | $2.40 | $2.53 | $2.67 | $2.82 | $2.97 | $3.11 | $3.25 | $3.41 | $3.58 | $3.76 | $3.96 | $4.17 | $4.39 | $4.62 | $4.87 | $5.13 | $156.34 |
| Avista Corporation | AVA | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $86.33 |
| CMS Energy Corporation | CMS | $1.27 | $1.35 | $1.43 | $1.52 | $1.61 | $1.73 | $1.86 | $2.00 | $2.14 | $2.29 | $2.44 | $2.57 | $2.71 | $2.85 | $3.00 | $3.16 | $96.34 |
| DTE Energy Company | DTE | $2.95 | $3.09 | $3.23 | $3.38 | $3.53 | $3.78 | $4.04 | $4.33 | $4.63 | $4.95 | $5.29 | $5.57 | $5.87 | $6.18 | $6.51 | $6.85 | $208.69 |
| IDACORP, Inc. | IDA | $2.13 | $2.28 | $2.44 | $2.60 | $2.78 | $2.94 | $3.13 | $3.33 | $3.55 | $3.79 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $5.27 | $160.63 |
| NorthWestern Corporation | NWE | $1.99 | $2.05 | $2.11 | $2.17 | $2.24 | $2.41 | $2.60 | $2.80 | $3.01 | $3.23 | $3.47 | $3.66 | $3.85 | $4.06 | $4.28 | $4.50 | $137.27 |
| OGE Energy Corp. | OGE | $1.18 | $1.24 | $1.31 | $1.38 | $1.45 | $1.50 | $1.56 | $1.62 | $1.69 | $1.76 | $1.84 | $1.94 | $2.04 | $2.15 | $2.27 | $2.39 | $72.72 |
| Otter Tail Corporation | OTTR | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $76.51 |
| Pinnacle West Capital Corporation | PNW | $2.61 | $2.72 | $2.84 | $2.96 | $3.09 | $3.23 | $3.39 | $3.56 | $3.75 | $3.96 | $4.19 | $4.41 | $4.65 | $4.90 | $5.16 | $5.43 | $165.59 |
| PNM Resources, Inc. | PNM | $0.91 | $1.00 | $1.11 | $1.23 | $1.35 | $1.51 | $1.68 | $1.86 | $2.04 | $2.23 | $2.42 | $2.55 | $2.68 | $2.83 | $2.98 | $3.13 | $95.52 |
| Portland General Electric Company | POR | $1.21 | $1.29 | $1.37 | $1.45 | $1.54 | $1.69 | $1.84 | $2.01 | $2.18 | $2.37 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $101.16 |
| SCANA Corporation | SCG | $2.36 | $2.49 | $2.63 | $2.77 | $2.93 | $3.14 | $3.36 | $3.60 | $3.85 | $4.13 | $4.43 | $4.66 | $4.91 | $5.17 | $5.45 | $5.74 | $174.85 |
| Xcel Energy Inc. | XEL | $1.37 | $1.45 | $1.53 | $1.62 | $1.72 | $1.83 | $1.95 | $2.07 | $2.20 | $2.34 | $2.49 | $2.62 | $2.76 | $2.91 | $3.06 | $3.23 | $98.39 |

| Projected Annual Data Investor Cash Flows | | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] | [81] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | Initial Outflow | 6/30/16 | 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 | 6/30/31 |
| ALLETE, Inc. | ALE | ($57.08) | $0.00 | $1.18 | $2.40 | $2.60 | $2.70 | $2.86 | $3.03 | $3.22 | $3.42 | $3.63 | $3.86 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $157.56 |
| Alliant Energy Corporation | LNT | ($36.64) | $0.00 | $0.58 | $1.18 | $1.33 | $1.39 | $1.50 | $1.62 | $1.74 | $1.86 | $2.00 | $2.13 | $2.25 | $2.37 | $2.49 | $2.62 | $2.76 | $87.03 |
| Ameren Corporation | AEE | ($48.90) | $0.00 | $0.86 | $1.76 | $1.94 | $2.02 | $2.15 | $2.28 | $2.43 | $2.58 | $2.74 | $2.91 | $3.06 | $3.22 | $3.40 | $3.58 | $3.77 | $118.57 |
| American Electric Power Company, Inc. | AEP | ($65.03) | $0.00 | $1.21 | $2.45 | $2.82 | $2.97 | $3.11 | $3.25 | $3.41 | $3.58 | $3.76 | $3.96 | $4.17 | $4.39 | $4.62 | $4.87 | $5.13 | $161.46 |
| Avista Corporation | AVA | ($40.48) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $89.16 |
| CMS Energy Corporation | CMS | ($41.70) | $0.00 | $0.64 | $1.31 | $1.52 | $1.61 | $1.73 | $1.86 | $2.00 | $2.14 | $2.29 | $2.44 | $2.57 | $2.71 | $2.85 | $3.00 | $3.16 | $99.50 |
| DTE Energy Company | DTE | ($69.93) | $0.00 | $1.49 | $3.03 | $3.38 | $3.53 | $3.78 | $4.04 | $4.33 | $4.63 | $4.95 | $5.29 | $5.57 | $5.87 | $6.18 | $6.51 | $6.85 | $215.74 |
| IDACORP, Inc. | IDA | ($73.58) | $0.00 | $1.07 | $2.17 | $2.60 | $2.78 | $2.94 | $3.13 | $3.33 | $3.55 | $3.79 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $5.27 | $165.90 |
| NorthWestern Corporation | NWE | ($59.59) | $0.00 | $1.00 | $2.04 | $2.17 | $2.24 | $2.41 | $2.60 | $2.80 | $3.01 | $3.23 | $3.47 | $3.66 | $3.85 | $4.06 | $4.28 | $4.50 | $141.77 |
| OGE Energy Corp. | OGE | ($29.13) | $0.00 | $0.59 | $1.20 | $1.38 | $1.45 | $1.50 | $1.56 | $1.62 | $1.69 | $1.76 | $1.84 | $1.94 | $2.04 | $2.15 | $2.27 | $2.39 | $75.10 |
| Otter Tail Corporation | OTTR | ($29.44) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $79.02 |
| Pinnacle West Capital Corporation | PNW | ($73.65) | $0.00 | $1.31 | $2.66 | $2.96 | $3.09 | $3.23 | $3.39 | $3.56 | $3.75 | $3.96 | $4.19 | $4.41 | $4.65 | $4.90 | $5.16 | $5.43 | $171.02 |
| PNM Resources, Inc. | PNM | ($32.94) | $0.00 | $0.46 | $0.95 | $1.23 | $1.35 | $1.51 | $1.68 | $1.86 | $2.04 | $2.23 | $2.42 | $2.55 | $2.68 | $2.83 | $2.98 | $3.13 | $98.66 |
| Portland General Electric Company | POR | ($40.24) | $0.00 | $0.61 | $1.25 | $1.45 | $1.54 | $1.69 | $1.84 | $2.01 | $2.18 | $2.37 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $104.48 |
| SCANA Corporation | SCG | ($69.22) | $0.00 | $1.19 | $2.42 | $2.77 | $2.93 | $3.14 | $3.36 | $3.60 | $3.85 | $4.13 | $4.43 | $4.66 | $4.91 | $5.17 | $5.45 | $5.74 | $180.59 |
| Xcel Energy Inc. | XEL | ($41.15) | $0.00 | $0.69 | $1.41 | $1.62 | $1.72 | $1.83 | $1.95 | $2.07 | $2.20 | $2.34 | $2.49 | $2.62 | $2.76 | $2.91 | $3.06 | $3.23 | $101.62 |

Multi-Stage Growth Discounted Cash Flow Model with Terminal P/E
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 Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| | | | | | Value | | | | | | | | | |
| Company | Ticker | Price | Zacks | First Call | Line | Average | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc | ALE | $54.07 | 5.50% | 5.00% | 4.00% | 4.83% | 5.32% | 66.00% | 63.00% | 66.66% | ($0.00) | 11.49% | 20.39 | 3.83 |
| Alliant Energy Corporation | LNT | $33.83 | 6.10% | 6.60% | 6.00% | 6.23% | 5.32% | 64.00% | 61.00% | 66.66% | ($0.00) | 10.15% | 20.39 | 3.83 |
| Ameren Corporation | AEE | $46.40 | 6.10% | 5.20% | 6.00% | 5.77% | 5.32% | 68.00% | 64.00% | 66.66% | ($0.00) | 10.20% | 20.39 | 3.83 |
| American Electric Power Company, Inc | AEP | $61.54 | 4.90% | 4.10% | 4.00% | 4.33% | 5.32% | 64.00% | 67.00% | 66.66% | ($0.00) | 10.56% | 20.39 | 3.83 |
| Avista Corporation | AVA | $37.83 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.66% | $0.00 | 9.46% | 20.39 | 3.83 |
| CMS Energy Corporation | CMS | $39.10 | 6.40% | 7.24% | 6.00% | 6.55% | 5.32% | 63.00% | 62.00% | 66.66% | ($0.00) | 10.04% | 20.39 | 3.83 |
| DTE Energy Company | DTE | $85.60 | 5.60% | 5.35% | 5.00% | 5.38% | 5.32% | 63.00% | 61.00% | 66.66% | $0.00 | 9.97% | 20.39 | 3.83 |
| IDACORP, Inc. | IDA | $70.82 | 4.00% | 4.00% | 3.00% | 3.67% | 5.32% | 53.00% | 60.00% | 66.66% | $0.00 | 9.29% | 20.39 | 3.83 |
| NorthWestern Corporation | NWE | $57.21 | 5.00% | 5.00% | 6.50% | 5.50% | 5.32% | 65.00% | 59.00% | 66.66% | $0.00 | 9.81% | 20.39 | 3.83 |
| OGE Energy Corp. | OGE | $27.72 | 5.20% | 4.30% | 3.00% | 4.17% | 5.32% | 67.00% | 70.00% | 66.66% | ($0.00) | 10.95% | 20.39 | 3.83 |
| Otter Tail Corporation | OTTR | $28.18 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 60.00% | 63.00% | 66.66% | ($0.00) | 11.16% | 20.39 | 3.83 |
| Pinnacle West Capital Corporation | PNW | $69.12 | 4.00% | 3.73% | 4.00% | 3.91% | 5.32% | 64.00% | 65.00% | 66.66% | $0.00 | 9.99% | 20.39 | 3.83 |
| PNM Resources, Inc. | PNM | $31.32 | 7.60% | 8.76% | 9.00% | 8.45% | 5.32% | 51.00% | 55.00% | 66.66% | ($0.00) | 11.72% | 20.39 | 3.83 |
| Portland General Electric Company | POR | $38.74 | 6.40% | 6.57% | 5.50% | 6.16% | 5.32% | 56.00% | 56.00% | 66.66% | ($0.00) | 10.43% | 20.39 | 3.83 |
| SCANA Corporation | SCG | $64.66 | 5.30% | 5.40% | 4.50% | 5.07% | 5.32% | 59.00% | 60.00% | 66.66% | ($0.00) | 10.90% | 20.39 | 3.83 |
| Xcel Energy Inc. | XEL | $38.65 | 5.30% | 5.27% | 5.50% | 5.36% | 5.32% | 62.00% | 63.00% | 66.66% | ($0.00) | 10.37% | 20.39 | 3.83 |
| | | | | | | | | | | | MEAN | 10.41% | | |
| | | | | | | | | | | | MAX | 11.72% | | |
| | | | | | | | | | | | MIN | 9.29% | | |

| Projected Annual Earnings per Share | | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] | [22] | [23] | [24] | [25] | [26] | [27] | [28] | [29] | [30] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc | ALE | $3.38 | $3.54 | $3.71 | $3.89 | $4.08 | $4.28 | $4.49 | $4.71 | $4.95 | $5.21 | $5.48 | $5.77 | $6.08 | $6.41 | $6.76 | $7.11 | $7.48 |
| Alliant Energy Corporation | LNT | $1.69 | $1.80 | $1.91 | $2.03 | $2.15 | $2.29 | $2.43 | $2.57 | $2.72 | $2.87 | $3.03 | $3.19 | $3.36 | $3.54 | $3.73 | $3.92 | $4.13 |
| Ameren Corporation | AEE | $2.38 | $2.52 | $2.66 | $2.82 | $2.98 | $3.15 | $3.33 | $3.52 | $3.71 | $3.91 | $4.13 | $4.35 | $4.58 | $4.82 | $5.08 | $5.35 | $5.63 |
| American Electric Power Company, Inc | AEP | $3.59 | $3.75 | $3.91 | $4.08 | $4.25 | $4.44 | $4.64 | $4.85 | $5.09 | $5.34 | $5.62 | $5.92 | $6.23 | $6.56 | $6.91 | $7.28 | $7.67 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.01 | $2.15 | $2.29 | $2.44 | $2.60 | $2.76 | $2.93 | $3.10 | $3.28 | $3.46 | $3.65 | $3.84 | $4.04 | $4.26 | $4.49 | $4.73 |
| DTE Energy Company | DTE | $4.45 | $4.69 | $4.94 | $5.21 | $5.49 | $5.78 | $6.09 | $6.42 | $6.77 | $7.13 | $7.51 | $7.91 | $8.33 | $8.77 | $9.24 | $9.73 | $10.25 |
| IDACORP, Inc | IDA | $3.87 | $4.01 | $4.16 | $4.31 | $4.47 | $4.63 | $4.82 | $5.02 | $5.24 | $5.50 | $5.77 | $6.08 | $6.40 | $6.74 | $7.10 | $7.48 | $7.88 |
| NorthWestern Corporation | NWE | $2.90 | $3.06 | $3.23 | $3.41 | $3.59 | $3.79 | $4.00 | $4.22 | $4.44 | $4.68 | $4.93 | $5.20 | $5.47 | $5.76 | $6.07 | $6.39 | $6.73 |
| OGE Energy Corp. | OGE | $1.69 | $1.76 | $1.83 | $1.91 | $1.99 | $2.07 | $2.16 | $2.26 | $2.37 | $2.49 | $2.61 | $2.75 | $2.90 | $3.05 | $3.22 | $3.39 | $3.57 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.07 | $4.23 | $4.40 | $4.57 | $4.75 | $4.95 | $5.16 | $5.40 | $5.66 | $5.95 | $6.27 | $6.60 | $6.95 | $7.32 | $7.71 | $8.12 |
| PNM Resources, Inc. | PNM | $1.64 | $1.78 | $1.93 | $2.09 | $2.27 | $2.46 | $2.66 | $2.85 | $3.05 | $3.24 | $3.43 | $3.62 | $3.81 | $4.01 | $4.22 | $4.45 | $4.69 |
| Portland General Electric Company | POR | $2.04 | $2.17 | $2.30 | $2.44 | $2.59 | $2.75 | $2.92 | $3.09 | $3.26 | $3.45 | $3.64 | $3.83 | $4.03 | $4.25 | $4.47 | $4.71 | $4.96 |
| SCANA Corporation | SCG | $3.81 | $4.00 | $4.21 | $4.42 | $4.64 | $4.88 | $5.13 | $5.39 | $5.67 | $5.97 | $6.28 | $6.62 | $6.97 | $7.34 | $7.73 | $8.14 | $8.58 |
| Xcel Energy Inc. | XEL | $2.10 | $2.21 | $2.33 | $2.46 | $2.59 | $2.73 | $2.87 | $3.03 | $3.19 | $3.36 | $3.54 | $3.72 | $3.92 | $4.13 | $4.35 | $4.58 | $4.83 |

| Projected Annual Dividend Payout Ratio | | | [31] | [32] | [33] | [34] | [35] | [36] | [37] | [38] | [39] | [40] | [41] | [42] | [43] | [44] | [45] | [46] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Alliant Energy Corporation | LNT | | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.93% | 62.96% | 63.94% | 64.92% | 65.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Ameren Corporation | AEE | | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.46% | 64.96% | 65.44% | 65.92% | 66.40% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| American Electric Power Company, Inc. | AEP | | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.93% | 66.96% | 66.94% | 66.92% | 66.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Avista Corporation | AVA | | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| CMS Energy Corporation | CMS | | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| DTE Energy Company | DTE | | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.93% | 62.96% | 63.94% | 64.92% | 65.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| IDACORP, Inc | IDA | | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| NorthWestern Corporation | NWE | | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| OGE Energy Corp. | OGE | | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.46% | 68.96% | 68.44% | 67.92% | 67.40% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Otter Tail Corporation | OTTR | | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Pinnacle West Capital Corporation | PNW | | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| PNM Resources, Inc. | PNM | | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.93% | 58.96% | 60.94% | 62.92% | 64.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Portland General Electric Company | POR | | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| SCANA Corporation | SCG | | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Xcel Energy Inc. | XEL | | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |

| Projected Annual Cash Flows | | | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | Terminal |
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | Value |
| ALLETE, Inc. | ALE | | $2.34 | $2.42 | $2.51 | $2.60 | $2.70 | $2.86 | $3.03 | $3.22 | $3.42 | $3.63 | $3.86 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $152.56 |
| Alliant Energy Corporation | LNT | | $1.15 | $1.21 | $1.27 | $1.33 | $1.39 | $1.50 | $1.62 | $1.74 | $1.86 | $2.00 | $2.13 | $2.25 | $2.37 | $2.49 | $2.62 | $2.76 | $84.26 |
| Ameren Corporation | AEE | | $1.71 | $1.78 | $1.86 | $1.94 | $2.02 | $2.15 | $2.28 | $2.43 | $2.58 | $2.74 | $2.91 | $3.06 | $3.22 | $3.40 | $3.58 | $3.77 | $114.81 |
| American Electric Power Company, Inc. | AEP | | $2.40 | $2.53 | $2.67 | $2.82 | $2.97 | $3.11 | $3.25 | $3.41 | $3.58 | $3.76 | $3.96 | $4.17 | $4.39 | $4.62 | $4.87 | $5.13 | $156.34 |
| Avista Corporation | AVA | | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $86.33 |
| CMS Energy Corporation | CMS | | $1.27 | $1.35 | $1.43 | $1.52 | $1.61 | $1.73 | $1.86 | $2.00 | $2.14 | $2.29 | $2.44 | $2.57 | $2.71 | $2.85 | $3.00 | $3.16 | $96.34 |
| DTE Energy Company | DTE | | $2.95 | $3.09 | $3.23 | $3.38 | $3.53 | $3.78 | $4.04 | $4.33 | $4.63 | $4.95 | $5.29 | $5.57 | $5.87 | $6.18 | $6.51 | $6.85 | $208.89 |
| IDACORP, Inc. | IDA | | $2.13 | $2.28 | $2.44 | $2.60 | $2.78 | $2.94 | $3.13 | $3.33 | $3.55 | $3.79 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $5.27 | $160.63 |
| NorthWestern Corporation | NWE | | $1.99 | $2.05 | $2.11 | $2.17 | $2.24 | $2.41 | $2.60 | $2.80 | $3.01 | $3.23 | $3.47 | $3.66 | $3.85 | $4.06 | $4.28 | $4.50 | $137.27 |
| OGE Energy Corp. | OGE | | $1.18 | $1.24 | $1.31 | $1.38 | $1.45 | $1.50 | $1.56 | $1.62 | $1.69 | $1.76 | $1.84 | $1.94 | $2.04 | $2.15 | $2.27 | $2.39 | $72.72 |
| Otter Tail Corporation | OTTR | | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $76.51 |
| Pinnacle West Capital Corporation | PNW | | $2.61 | $2.72 | $2.84 | $2.96 | $3.09 | $3.23 | $3.39 | $3.56 | $3.75 | $3.96 | $4.19 | $4.41 | $4.65 | $4.90 | $5.16 | $5.43 | $165.59 |
| PNM Resources, Inc. | PNM | | $0.91 | $1.00 | $1.11 | $1.23 | $1.35 | $1.51 | $1.68 | $1.86 | $2.04 | $2.23 | $2.42 | $2.55 | $2.68 | $2.83 | $2.98 | $3.13 | $95.52 |
| Portland General Electric Company | POR | | $1.21 | $1.29 | $1.37 | $1.45 | $1.54 | $1.69 | $1.84 | $2.01 | $2.18 | $2.37 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $101.16 |
| SCANA Corporation | SCG | | $2.36 | $2.49 | $2.63 | $2.77 | $2.93 | $3.14 | $3.36 | $3.60 | $3.85 | $4.13 | $4.43 | $4.66 | $4.91 | $5.17 | $5.45 | $5.74 | $174.65 |
| Xcel Energy Inc. | XEL | | $1.37 | $1.45 | $1.53 | $1.62 | $1.72 | $1.83 | $1.95 | $2.07 | $2.20 | $2.34 | $2.49 | $2.62 | $2.76 | $2.91 | $3.06 | $3.23 | $98.39 |

| Projected Annual Data Investor Cash Flows | | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] | [81] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Initial | | | | | | | | | | | | | | | | | |
| Company | Ticker | Outflow | 6/30/16 | 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 | 6/30/31 |
| ALLETE, Inc. | ALE | ($54.07) | $0.00 | $1.18 | $2.40 | $2.60 | $2.70 | $2.86 | $3.03 | $3.22 | $3.42 | $3.63 | $3.86 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $157.56 |
| Alliant Energy Corporation | LNT | ($33.83) | $0.00 | $0.58 | $1.18 | $1.33 | $1.39 | $1.50 | $1.62 | $1.74 | $1.86 | $2.00 | $2.13 | $2.25 | $2.37 | $2.49 | $2.62 | $2.76 | $87.03 |
| Ameren Corporation | AEE | ($46.40) | $0.00 | $0.86 | $1.76 | $1.94 | $2.02 | $2.15 | $2.28 | $2.43 | $2.58 | $2.74 | $2.91 | $3.06 | $3.22 | $3.40 | $3.58 | $3.77 | $118.57 |
| American Electric Power Company, Inc. | AEP | ($61.54) | $0.00 | $1.21 | $2.45 | $2.82 | $2.97 | $3.11 | $3.25 | $3.41 | $3.58 | $3.76 | $3.96 | $4.17 | $4.39 | $4.62 | $4.87 | $5.13 | $161.46 |
| Avista Corporation | AVA | ($37.83) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $89.16 |
| CMS Energy Corporation | CMS | ($39.10) | $0.00 | $0.64 | $1.31 | $1.52 | $1.61 | $1.73 | $1.86 | $2.00 | $2.14 | $2.29 | $2.44 | $2.57 | $2.71 | $2.85 | $3.00 | $3.16 | $99.50 |
| DTE Energy Company | DTE | ($85.60) | $0.00 | $1.49 | $3.03 | $3.38 | $3.53 | $3.78 | $4.04 | $4.33 | $4.63 | $4.95 | $5.29 | $5.57 | $5.87 | $6.18 | $6.51 | $6.85 | $215.74 |
| IDACORP, Inc | IDA | ($70.82) | $0.00 | $1.07 | $2.17 | $2.60 | $2.78 | $2.94 | $3.13 | $3.33 | $3.55 | $3.79 | $4.07 | $4.28 | $4.51 | $4.75 | $5.00 | $5.27 | $165.90 |
| NorthWestern Corporation | NWE | ($57.21) | $0.00 | $1.00 | $2.04 | $2.17 | $2.24 | $2.41 | $2.60 | $2.80 | $3.01 | $3.23 | $3.47 | $3.66 | $3.85 | $4.06 | $4.28 | $4.50 | $141.77 |
| OGE Energy Corp. | OGE | ($27.72) | $0.00 | $0.59 | $1.20 | $1.38 | $1.45 | $1.50 | $1.56 | $1.62 | $1.69 | $1.76 | $1.84 | $1.94 | $2.04 | $2.15 | $2.27 | $2.39 | $75.10 |
| Otter Tail Corporation | OTTR | ($28.18) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $79.02 |
| Pinnacle West Capital Corporation | PNW | ($69.12) | $0.00 | $1.31 | $2.66 | $2.96 | $3.09 | $3.23 | $3.39 | $3.56 | $3.75 | $3.96 | $4.19 | $4.41 | $4.65 | $4.90 | $5.16 | $5.43 | $171.02 |
| PNM Resources, Inc. | PNM | ($31.32) | $0.00 | $0.46 | $0.95 | $1.23 | $1.35 | $1.51 | $1.68 | $1.86 | $2.04 | $2.23 | $2.42 | $2.55 | $2.68 | $2.83 | $2.98 | $3.13 | $98.66 |
| Portland General Electric Company | POR | ($38.74) | $0.00 | $0.61 | $1.25 | $1.45 | $1.54 | $1.69 | $1.84 | $2.01 | $2.18 | $2.37 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $104.48 |
| SCANA Corporation | SCG | ($54.66) | $0.00 | $1.19 | $2.42 | $2.77 | $2.93 | $3.14 | $3.36 | $3.60 | $3.85 | $4.13 | $4.43 | $4.66 | $4.91 | $5.17 | $5.45 | $5.74 | $160.59 |
| Xcel Energy Inc | XEL | ($38.65) | $0.00 | $0.69 | $1.41 | $1.62 | $1.72 | $1.83 | $1.95 | $2.07 | $2.20 | $2.34 | $2.49 | $2.62 | $2.76 | $2.91 | $3.06 | $3.23 | $101.62 |

Multi-Stage Growth Discounted Cash Flow Model with Terminal P/E
30 Day Average Stock Price
Low EPS Growth Rate Estimate in First Stage

| Inputs | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Stock | EPS Growth Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| | | | | | Value | Low | | | | | | | | |
| Company | Ticker | Price | Zacks | First Call | Line | Growth | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc. | ALE | $59.67 | 5.50% | 5.00% | 4.00% | 4.00% | 5.32% | 66.00% | 63.00% | 66.65% | $0.00 | 10.01% | 20.39 | 3.83 |
| Alliant Energy Corporation | LNT | $38.20 | 6.10% | 6.60% | 6.00% | 6.00% | 5.32% | 64.00% | 61.00% | 66.65% | $0.00 | 8.88% | 20.39 | 3.83 |
| Ameren Corporation | AEE | $50.12 | 6.10% | 5.20% | 6.00% | 5.20% | 5.32% | 68.00% | 64.00% | 66.65% | $0.00 | 9.13% | 20.39 | 3.83 |
| American Electric Power Company, Inc. | AEP | $66.05 | 4.90% | 4.10% | 4.00% | 4.00% | 5.32% | 64.00% | 67.00% | 66.65% | $0.00 | 9.66% | 20.39 | 3.83 |
| Avista Corporation | AVA | $41.65 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.65% | $0.00 | 8.55% | 20.39 | 3.83 |
| CMS Energy Corporation | CMS | $42.95 | 6.40% | 7.24% | 6.00% | 6.00% | 5.32% | 63.00% | 62.00% | 66.65% | $0.00 | 8.85% | 20.39 | 3.83 |
| DTE Energy Company | DTE | $92.91 | 5.60% | 5.35% | 5.00% | 5.00% | 5.32% | 63.00% | 61.00% | 66.65% | $0.00 | 9.00% | 20.39 | 3.83 |
| IDACORP, Inc | IDA | $74.50 | 4.00% | 4.00% | 3.00% | 3.00% | 5.32% | 53.00% | 60.00% | 66.66% | $0.00 | 8.42% | 20.39 | 3.83 |
| NorthWestern Corporation | NWE | $59.68 | 5.00% | 5.00% | 6.50% | 5.00% | 5.32% | 65.00% | 59.00% | 66.65% | $0.00 | 9.11% | 20.39 | 3.83 |
| OGE Energy Corp. | OGE | $30.95 | 5.20% | 4.30% | 3.00% | 3.00% | 5.32% | 67.00% | 70.00% | 66.68% | ($0.00) | 9.16% | 20.39 | 3.83 |
| Otter Tail Corporation | OTTR | $30.96 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 60.00% | 63.00% | 66.65% | ($0.00) | 10.26% | 20.39 | 3.83 |
| Pinnacle West Capital Corporation | PNW | $75.82 | 4.00% | 3.73% | 4.00% | 3.73% | 5.32% | 64.00% | 65.00% | 66.65% | $0.00 | 9.01% | 20.39 | 3.83 |
| PNM Resources, Inc | PNM | $33.49 | 7.60% | 8.76% | 9.00% | 7.60% | 5.32% | 51.00% | 55.00% | 66.65% | ($0.00) | 10.57% | 20.39 | 3.83 |
| Portland General Electric Company | POR | $41.66 | 6.40% | 6.57% | 5.50% | 5.50% | 5.32% | 56.00% | 56.00% | 66.65% | $0.00 | 9.32% | 20.39 | 3.83 |
| SCANA Corporation | SCG | $71.01 | 5.30% | 5.40% | 4.50% | 4.50% | 5.32% | 59.00% | 60.00% | 66.66% | $0.00 | 9.69% | 20.39 | 3.83 |
| Xcel Energy Inc | XEL | $42.20 | 5.30% | 5.27% | 5.50% | 5.27% | 5.32% | 62.00% | 63.00% | 66.66% | $0.00 | 9.54% | 20.39 | 3.83 |
| | | | | | | | | | | | MEAN | 9.33% | | |
| | | | | | | | | | | | MAX | 10.57% | | |
| | | | | | | | | | | | MIN | 8.42% | | |

| Projected Annual Earnings per Share | | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] | [22] | [23] | [24] | [25] | [26] | [27] | [28] | [29] | [30] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc | ALE | $3.38 | $3.52 | $3.66 | $3.80 | $3.95 | $4.11 | $4.29 | $4.48 | $4.68 | $4.91 | $5.16 | $5.44 | $5.73 | $6.03 | $6.35 | $6.69 | $7.05 |
| Alliant Energy Corporation | LNT | $1.69 | $1.79 | $1.90 | $2.01 | $2.13 | $2.26 | $2.39 | $2.53 | $2.68 | $2.82 | $2.98 | $3.14 | $3.30 | $3.48 | $3.66 | $3.86 | $4.07 |
| Ameren Corporation | AEE | $2.38 | $2.50 | $2.63 | $2.77 | $2.92 | $3.07 | $3.23 | $3.40 | $3.57 | $3.76 | $3.96 | $4.17 | $4.40 | $4.63 | $4.88 | $5.14 | $5.41 |
| American Electric Power Company, Inc. | AEP | $3.59 | $3.73 | $3.88 | $4.04 | $4.20 | $4.37 | $4.55 | $4.75 | $4.98 | $5.22 | $5.49 | $5.78 | $6.08 | $6.41 | $6.75 | $7.11 | $7.49 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.00 | $2.12 | $2.25 | $2.39 | $2.53 | $2.68 | $2.83 | $2.99 | $3.16 | $3.33 | $3.51 | $3.69 | $3.69 | $4.10 | $4.32 | $4.55 |
| DTE Energy Company | DTE | $4.45 | $4.67 | $4.91 | $5.15 | $5.41 | $5.68 | $5.97 | $6.27 | $6.59 | $6.94 | $7.30 | $7.69 | $8.10 | $8.53 | $8.99 | $9.47 | $9.97 |
| IDACORP, Inc | IDA | $3.87 | $3.99 | $4.11 | $4.23 | $4.36 | $4.49 | $4.64 | $4.81 | $5.01 | $5.24 | $5.50 | $5.79 | $6.10 | $6.43 | $6.77 | $7.13 | $7.51 |
| NorthWestern Corporation | NWE | $2.90 | $3.05 | $3.20 | $3.36 | $3.52 | $3.70 | $3.89 | $4.09 | $4.30 | $4.52 | $4.76 | $5.01 | $5.28 | $5.56 | $5.86 | $6.17 | $6.50 |
| OGE Energy Corp. | OGE | $1.69 | $1.74 | $1.79 | $1.85 | $1.90 | $1.96 | $2.03 | $2.10 | $2.19 | $2.29 | $2.40 | $2.53 | $2.66 | $2.81 | $2.96 | $3.11 | $3.28 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.07 | $4.22 | $4.38 | $4.54 | $4.71 | $4.90 | $5.10 | $5.34 | $5.59 | $5.87 | $6.19 | $6.52 | $6.86 | $7.23 | $7.61 | $8.02 |
| PNM Resources, Inc | PNM | $1.64 | $1.76 | $1.90 | $2.04 | $2.20 | $2.37 | $2.54 | $2.71 | $2.88 | $3.06 | $3.23 | $3.41 | $3.59 | $3.78 | $3.98 | $4.19 | $4.42 |
| Portland General Electric Company | POR | $2.04 | $2.15 | $2.27 | $2.40 | $2.53 | $2.67 | $2.81 | $2.97 | $3.13 | $3.29 | $3.47 | $3.65 | $3.65 | $4.05 | $4.27 | $4.50 | $4.74 |
| SCANA Corporation | SCG | $3.81 | $3.98 | $4.16 | $4.35 | $4.54 | $4.75 | $4.97 | $5.21 | $5.46 | $5.74 | $6.03 | $6.36 | $6.69 | $7.05 | $7.42 | $7.82 | $8.24 |
| Xcel Energy Inc | XEL | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.71 | $2.86 | $3.01 | $3.17 | $3.34 | $3.51 | $3.70 | $3.90 | $4.11 | $4.32 | $4.55 | $4.80 |

| Projected Annual Dividend Payout Ratio | | | [31] | [32] | [33] | [34] | [35] | [36] | [37] | [38] | [39] | [40] | [41] | [42] | [43] | [44] | [45] | [46] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc | ALE | | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.65% | 66.66% | 66.66% | 66.66% | 66.65% | 66.65% |
| Alliant Energy Corporation | LNT | | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.65% | 66.66% | 66.66% | 66.66% | 66.65% | 66.65% |
| Ameren Corporation | AEE | | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.48% | 64.96% | 65.44% | 65.92% | 66.40% | 66.65% | 66.66% | 66.66% | 66.65% | 66.65% | 66.65% |
| American Electric Power Company, Inc. | AEP | | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.98% | 66.96% | 66.94% | 66.92% | 66.90% | 66.66% | 66.66% | 66.66% | 66.65% | 66.65% | 66.65% |
| Avista Corporation | AVA | | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.65% |
| CMS Energy Corporation | CMS | | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.66% | 66.65% | 66.66% | 66.65% | 66.65% | 66.66% |
| DTE Energy Company | DTE | | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| IDACORP, Inc. | IDA | | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.66% | 66.66% | 66.66% | 66.65% | 66.66% | 66.66% |
| NorthWestern Corporation | NWE | | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.65% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| OGE Energy Corp. | OGE | | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.48% | 68.96% | 68.44% | 67.92% | 67.40% | 66.68% | 66.68% | 66.66% | 66.66% | 66.68% | 66.68% |
| Otter Tail Corporation | OTTR | | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.68% | 66.68% | 66.66% | 66.66% | 66.66% | 66.66% |
| Pinnacle West Capital Corporation | PNW | | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.66% | 66.68% | 66.66% | 66.65% | 66.65% | 66.65% |
| PNM Resources, Inc. | PNM | | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Portland General Electric Company | POR | | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.68% | 66.66% | 66.66% | 66.65% | 66.65% | 66.65% |
| SCANA Corporation | SCG | | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.66% | 66.66% | 66.66% | 66.66% | 66.65% | 66.65% |
| Xcel Energy Inc. | XEL | | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.68% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |

| Projected Annual Cash Flows | | | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | Terminal Value |
| ALLETE, Inc. | ALE | | $2.32 | $2.39 | $2.45 | $2.52 | $2.59 | $2.73 | $2.88 | $3.04 | $3.22 | $3.42 | $3.64 | $3.83 | $4.04 | $4.25 | $4.48 | $4.71 | $143.70 |
| Alliant Energy Corporation | LNT | | $1.15 | $1.20 | $1.26 | $1.32 | $1.38 | $1.48 | $1.59 | $1.71 | $1.83 | $1.96 | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.72 | $82.68 |
| Ameren Corporation | AEE | | $1.70 | $1.76 | $1.83 | $1.89 | $1.96 | $2.08 | $2.21 | $2.34 | $2.48 | $2.63 | $2.79 | $2.94 | $3.10 | $3.26 | $3.43 | $3.62 | $110.27 |
| American Electric Power Company, Inc. | AEP | | $2.39 | $2.51 | $2.65 | $2.78 | $2.93 | $3.05 | $3.18 | $3.33 | $3.49 | $3.67 | $3.86 | $4.07 | $4.29 | $4.51 | $4.75 | $5.01 | $152.63 |
| Avista Corporation | AVA | | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $86.33 |
| CMS Energy Corporation | CMS | | $1.26 | $1.33 | $1.41 | $1.49 | $1.57 | $1.68 | $1.80 | $1.93 | $2.06 | $2.20 | $2.35 | $2.47 | $2.60 | $2.74 | $2.89 | $3.04 | $92.69 |
| DTE Energy Company | DTE | | $2.94 | $3.07 | $3.19 | $3.33 | $3.46 | $3.70 | $3.95 | $4.22 | $4.50 | $4.81 | $5.15 | $5.42 | $5.71 | $6.01 | $6.33 | $6.67 | $203.26 |
| IDACORP, Inc. | IDA | | $2.11 | $2.25 | $2.39 | $2.54 | $2.69 | $2.84 | $3.00 | $3.18 | $3.39 | $3.62 | $3.87 | $4.08 | $4.30 | $4.53 | $4.77 | $5.02 | $153.06 |
| NorthWestern Corporation | NWE | | $1.93 | $2.03 | $2.08 | $2.13 | $2.18 | $2.35 | $2.52 | $2.71 | $2.91 | $3.12 | $3.35 | $3.53 | $3.72 | $3.92 | $4.13 | $4.35 | $132.46 |
| OGE Energy Corp. | OGE | | $1.17 | $1.21 | $1.26 | $1.32 | $1.37 | $1.41 | $1.45 | $1.50 | $1.55 | $1.62 | $1.69 | $1.78 | $1.88 | $1.98 | $2.08 | $2.19 | $66.84 |
| Otter Tail Corporation | OTTR | | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $76.51 |
| Pinnacle West Capital Corporation | PNW | | $2.60 | $2.71 | $2.82 | $2.94 | $3.06 | $3.20 | $3.35 | $3.52 | $3.70 | $3.91 | $4.14 | $4.36 | $4.59 | $4.83 | $5.09 | $5.36 | $163.45 |
| PNM Resources, Inc. | PNM | | $0.90 | $0.99 | $1.08 | $1.19 | $1.30 | $1.45 | $1.60 | $1.76 | $1.93 | $2.10 | $2.28 | $2.40 | $2.53 | $2.66 | $2.80 | $2.95 | $90.01 |
| Portland General Electric Company | POR | | $1.21 | $1.27 | $1.34 | $1.42 | $1.49 | $1.63 | $1.77 | $1.92 | $2.08 | $2.26 | $2.44 | $2.57 | $2.71 | $2.86 | $3.01 | $3.17 | $96.56 |
| SCANA Corporation | SCG | | $2.35 | $2.47 | $2.59 | $2.71 | $2.85 | $3.04 | $3.24 | $3.46 | $3.71 | $3.97 | $4.25 | $4.48 | $4.71 | $4.97 | $5.23 | $5.51 | $167.91 |
| Xcel Energy Inc. | XEL | | $1.37 | $1.45 | $1.53 | $1.62 | $1.71 | $1.82 | $1.93 | $2.06 | $2.19 | $2.33 | $2.48 | $2.61 | $2.75 | $2.89 | $3.05 | $3.21 | $97.79 |

| Projected Annual Data Investor Cash Flows | | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] | [81] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | Initial Outflow | 6/30/16 | 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 | 6/30/31 |
| ALLETE, Inc | ALE | ($59.67) | $0.00 | $1.17 | $2.37 | $2.52 | $2.59 | $2.73 | $2.88 | $3.04 | $3.22 | $3.42 | $3.64 | $3.83 | $4.04 | $4.25 | $4.48 | $4.71 | $148.42 |
| Alliant Energy Corporation | LNT | ($38.20) | $0.00 | $0.58 | $1.18 | $1.32 | $1.38 | $1.48 | $1.59 | $1.71 | $1.83 | $1.96 | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.72 | $85.60 |
| Ameren Corporation | AEE | ($50.12) | $0.00 | $0.86 | $1.75 | $1.89 | $1.96 | $2.08 | $2.21 | $2.34 | $2.48 | $2.63 | $2.79 | $2.94 | $3.10 | $3.26 | $3.43 | $3.62 | $113.89 |
| American Electric Power Company, Inc. | AEP | ($66.05) | $0.00 | $1.20 | $2.44 | $2.78 | $2.93 | $3.05 | $3.18 | $3.33 | $3.49 | $3.67 | $3.86 | $4.07 | $4.29 | $4.51 | $4.75 | $5.01 | $157.64 |
| Avista Corporation | AVA | ($41.65) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $89.16 |
| CMS Energy Corporation | CMS | ($42.95) | $0.00 | $0.64 | $1.30 | $1.49 | $1.57 | $1.68 | $1.80 | $1.93 | $2.06 | $2.20 | $2.35 | $2.47 | $2.60 | $2.74 | $2.89 | $3.04 | $95.73 |
| DTE Energy Company | DTE | ($92.91) | $0.00 | $1.48 | $3.02 | $3.33 | $3.46 | $3.70 | $3.95 | $4.22 | $4.50 | $4.81 | $5.15 | $5.42 | $5.71 | $6.01 | $6.33 | $6.67 | $209.93 |
| IDACORP, Inc | IDA | ($74.50) | $0.00 | $1.06 | $2.14 | $2.54 | $2.69 | $2.84 | $3.00 | $3.18 | $3.39 | $3.62 | $3.87 | $4.08 | $4.30 | $4.53 | $4.77 | $5.02 | $158.08 |
| NorthWestern Corporation | NWE | ($59.68) | $0.00 | $1.00 | $2.03 | $2.13 | $2.18 | $2.35 | $2.52 | $2.71 | $2.91 | $3.12 | $3.35 | $3.53 | $3.72 | $3.92 | $4.13 | $4.35 | $136.81 |
| OGE Energy Corp. | OGE | ($30.95) | $0.00 | $0.59 | $1.18 | $1.32 | $1.37 | $1.41 | $1.45 | $1.50 | $1.55 | $1.62 | $1.69 | $1.78 | $1.88 | $1.98 | $2.08 | $2.19 | $69.03 |
| Otter Tail Corporation | OTTR | ($30.96) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $79.02 |
| Pinnacle West Capital Corporation | PNW | ($75.82) | $0.00 | $1.31 | $2.65 | $2.94 | $3.06 | $3.20 | $3.35 | $3.52 | $3.70 | $3.91 | $4.14 | $4.36 | $4.59 | $4.83 | $5.09 | $5.36 | $168.81 |
| PNM Resources, Inc. | PNM | ($33.49) | $0.00 | $0.45 | $0.93 | $1.19 | $1.30 | $1.45 | $1.60 | $1.76 | $1.93 | $2.10 | $2.28 | $2.40 | $2.53 | $2.66 | $2.80 | $2.95 | $92.97 |
| Portland General Electric Company | POR | ($41.66) | $0.00 | $0.61 | $1.24 | $1.42 | $1.49 | $1.63 | $1.77 | $1.92 | $2.08 | $2.26 | $2.44 | $2.57 | $2.71 | $2.86 | $3.01 | $3.17 | $99.73 |
| SCANA Corporation | SCG | ($71.01) | $0.00 | $1.18 | $2.40 | $2.71 | $2.85 | $3.04 | $3.24 | $3.46 | $3.71 | $3.97 | $4.25 | $4.48 | $4.71 | $4.97 | $5.23 | $5.51 | $173.42 |
| Xcel Energy Inc. | XEL | ($42.20) | $0.00 | $0.69 | $1.41 | $1.62 | $1.71 | $1.82 | $1.93 | $2.06 | $2.19 | $2.33 | $2.48 | $2.61 | $2.75 | $2.89 | $3.05 | $3.21 | $100.99 |

Multi-Stage Growth Discounted Cash Flow Model with Terminal P/E
60 Day Average Stock Price
Low EPS Growth Rate Estimate in First Stage

**Inputs**

| | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Stock | EPS Growth Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| Company | Ticker | Price | Zacks | First Call | Value Line | Low Growth | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc. | ALE | $57.08 | 6.50% | 5.00% | 4.00% | 4.00% | 5.32% | 66.00% | 63.00% | 66.88% | $0.00 | 10.43% | 20.39 | 3.83 |
| Alliant Energy Corporation | LNT | $36.64 | 6.10% | 6.60% | 6.00% | 6.00% | 5.32% | 64.00% | 61.00% | 66.88% | $0.00 | 9.27% | 20.39 | 3.83 |
| Ameren Corporation | AEE | $48.90 | 6.10% | 5.20% | 6.00% | 5.20% | 5.32% | 68.00% | 64.00% | 66.88% | $0.00 | 9.36% | 20.39 | 3.83 |
| American Electric Power Company, Inc. | AEP | $65.03 | 4.90% | 4.10% | 4.00% | 4.00% | 5.32% | 64.00% | 67.00% | 66.88% | $0.00 | 9.83% | 20.39 | 3.83 |
| Avista Corporation | AVA | $40.48 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.88% | $0.00 | 8.84% | 20.39 | 3.83 |
| CMS Energy Corporation | CMS | $41.70 | 6.40% | 7.24% | 6.00% | 6.00% | 5.32% | 63.00% | 62.00% | 66.88% | $0.00 | 9.12% | 20.39 | 3.83 |
| DTE Energy Company | DTE | $59.93 | 5.60% | 5.35% | 5.00% | 5.00% | 5.32% | 63.00% | 61.00% | 66.88% | $0.00 | 9.30% | 20.39 | 3.83 |
| IDACORP, Inc. | IDA | $73.58 | 4.00% | 4.00% | 3.00% | 3.00% | 5.32% | 53.00% | 60.00% | 66.88% | $0.00 | 8.54% | 20.39 | 3.83 |
| NorthWestern Corporation | NWE | $59.59 | 5.00% | 5.00% | 6.50% | 5.00% | 5.32% | 65.00% | 59.00% | 66.88% | $0.00 | 9.13% | 20.39 | 3.83 |
| OGE Energy Corp. | OGE | $29.13 | 5.20% | 4.30% | 3.00% | 3.00% | 5.32% | 67.00% | 70.00% | 66.88% | ($0.00) | 9.76% | 20.39 | 3.83 |
| Otter Tail Corporation | OTTR | $29.44 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 80.00% | 63.00% | 66.88% | ($0.00) | 10.75% | 20.39 | 3.83 |
| Pinnacle West Capital Corporation | PNW | $73.65 | 4.00% | 3.73% | 4.00% | 3.73% | 5.32% | 64.00% | 65.00% | 66.88% | $0.00 | 9.28% | 20.39 | 3.83 |
| PNM Resources, Inc. | PNM | $32.94 | 7.60% | 8.76% | 9.00% | 7.60% | 5.32% | 51.00% | 55.00% | 66.88% | ($0.00) | 10.72% | 20.39 | 3.83 |
| Portland General Electric Company | POR | $40.24 | 6.40% | 6.57% | 5.50% | 5.50% | 5.32% | 56.00% | 56.00% | 66.88% | $0.00 | 9.66% | 20.39 | 3.83 |
| SCANA Corporation | SCG | $69.22 | 5.30% | 5.40% | 4.50% | 4.50% | 5.32% | 59.00% | 60.00% | 66.88% | $0.00 | 9.93% | 20.39 | 3.83 |
| Xcel Energy Inc. | XEL | $41.15 | 5.30% | 5.27% | 5.50% | 5.27% | 5.32% | 62.00% | 63.00% | 66.88% | $0.00 | 9.78% | 20.39 | 3.83 |
| | | | | | | | | | | | MEAN | 9.61% | | |
| | | | | | | | | | | | MAX | 10.75% | | |
| | | | | | | | | | | | MIN | 8.54% | | |

**Projected Annual Earnings per Share**

| | | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] | [22] | [23] | [24] | [25] | [26] | [27] | [28] | [29] | [30] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | $3.38 | $3.52 | $3.66 | $3.80 | $3.95 | $4.11 | $4.29 | $4.48 | $4.68 | $4.91 | $5.16 | $5.44 | $5.73 | $6.03 | $6.35 | $6.69 | $7.05 |
| Alliant Energy Corporation | LNT | $1.69 | $1.79 | $1.90 | $2.01 | $2.13 | $2.26 | $2.39 | $2.53 | $2.68 | $2.82 | $2.98 | $3.14 | $3.30 | $3.48 | $3.66 | $3.86 | $4.07 |
| Ameren Corporation | AEE | $2.38 | $2.50 | $2.63 | $2.77 | $2.92 | $3.07 | $3.23 | $3.40 | $3.57 | $3.76 | $3.96 | $4.17 | $4.40 | $4.63 | $4.88 | $5.14 | $5.41 |
| American Electric Power Company, Inc. | AEP | $3.59 | $3.73 | $3.88 | $4.04 | $4.20 | $4.37 | $4.55 | $4.75 | $4.98 | $5.22 | $5.49 | $5.78 | $6.08 | $6.41 | $6.75 | $7.11 | $7.49 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.00 | $2.12 | $2.25 | $2.39 | $2.53 | $2.68 | $2.83 | $2.99 | $3.16 | $3.33 | $3.51 | $3.69 | $3.89 | $4.10 | $4.32 | $4.55 |
| DTE Energy Company | DTE | $4.45 | $4.67 | $4.91 | $5.15 | $5.41 | $5.68 | $5.97 | $6.27 | $6.59 | $6.94 | $7.30 | $7.69 | $8.10 | $8.53 | $8.99 | $9.47 | $9.97 |
| IDACORP, Inc. | IDA | $3.87 | $3.99 | $4.11 | $4.23 | $4.36 | $4.49 | $4.64 | $4.81 | $5.01 | $5.24 | $5.50 | $5.79 | $6.10 | $6.43 | $6.77 | $7.13 | $7.51 |
| NorthWestern Corporation | NWE | $2.90 | $3.05 | $3.20 | $3.36 | $3.52 | $3.70 | $3.89 | $4.09 | $4.30 | $4.52 | $4.76 | $5.01 | $5.28 | $5.56 | $5.86 | $6.17 | $6.50 |
| OGE Energy Corp. | OGE | $1.69 | $1.74 | $1.79 | $1.85 | $1.90 | $1.96 | $2.03 | $2.10 | $2.19 | $2.29 | $2.40 | $2.53 | $2.66 | $2.81 | $2.96 | $3.11 | $3.28 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.07 | $4.22 | $4.38 | $4.54 | $4.71 | $4.90 | $5.10 | $5.34 | $5.59 | $5.87 | $6.19 | $6.52 | $6.86 | $7.23 | $7.61 | $8.02 |
| PNM Resources, Inc. | PNM | $1.64 | $1.76 | $1.90 | $2.04 | $2.20 | $2.37 | $2.54 | $2.71 | $2.88 | $3.06 | $3.23 | $3.41 | $3.59 | $3.78 | $3.98 | $4.19 | $4.42 |
| Portland General Electric Company | POR | $2.04 | $2.15 | $2.27 | $2.40 | $2.53 | $2.67 | $2.81 | $2.97 | $3.13 | $3.29 | $3.47 | $3.65 | $3.85 | $4.05 | $4.27 | $4.50 | $4.74 |
| SCANA Corporation | SCG | $3.81 | $3.98 | $4.16 | $4.35 | $4.54 | $4.75 | $4.97 | $5.21 | $5.46 | $5.74 | $6.03 | $6.36 | $6.69 | $7.05 | $7.42 | $7.82 | $8.24 |
| Xcel Energy Inc. | XEL | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.71 | $2.86 | $3.01 | $3.17 | $3.34 | $3.51 | $3.70 | $3.90 | $4.11 | $4.32 | $4.55 | $4.80 |

**Projected Annual Dividend Payout Ratio**

| | | [31] | [32] | [33] | [34] | [35] | [36] | [37] | [38] | [39] | [40] | [41] | [42] | [43] | [44] | [45] | [46] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Alliant Energy Corporation | LNT | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Ameren Corporation | AEE | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.48% | 64.96% | 65.44% | 65.92% | 66.40% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| American Electric Power Company, Inc. | AEP | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.98% | 66.96% | 66.94% | 66.92% | 66.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Avista Corporation | AVA | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| CMS Energy Corporation | CMS | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| DTE Energy Company | DTE | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| IDACORP, Inc. | IDA | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| NorthWestern Corporation | NWE | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| OGE Energy Corp. | OGE | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.48% | 68.96% | 68.44% | 67.92% | 67.40% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Otter Tail Corporation | OTTR | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Pinnacle West Capital Corporation | PNW | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| PNM Resources, Inc. | PNM | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Portland General Electric Company | POR | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| SCANA Corporation | SCG | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Xcel Energy Inc. | XEL | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |

**Projected Annual Cash Flows**

| | | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | Terminal Value |
| ALLETE, Inc. | ALE | $2.32 | $2.39 | $2.45 | $2.52 | $2.59 | $2.73 | $2.88 | $3.04 | $3.22 | $3.42 | $3.64 | $3.83 | $4.04 | $4.25 | $4.48 | $4.71 | $143.70 |
| Alliant Energy Corporation | LNT | $1.15 | $1.20 | $1.26 | $1.32 | $1.38 | $1.48 | $1.59 | $1.71 | $1.83 | $1.96 | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.72 | $82.88 |
| Ameren Corporation | AEE | $1.70 | $1.76 | $1.83 | $1.89 | $1.96 | $2.08 | $2.21 | $2.34 | $2.48 | $2.63 | $2.79 | $2.94 | $3.10 | $3.26 | $3.43 | $3.62 | $110.27 |
| American Electric Power Company, Inc. | AEP | $2.39 | $2.51 | $2.65 | $2.78 | $2.93 | $3.05 | $3.18 | $3.33 | $3.49 | $3.67 | $3.86 | $4.07 | $4.29 | $4.51 | $4.75 | $5.01 | $152.63 |
| Avista Corporation | AVA | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $86.33 |
| CMS Energy Corporation | CMS | $1.26 | $1.33 | $1.41 | $1.49 | $1.57 | $1.68 | $1.80 | $1.93 | $2.06 | $2.20 | $2.35 | $2.47 | $2.60 | $2.74 | $2.89 | $3.04 | $92.69 |
| DTE Energy Company | DTE | $2.94 | $3.07 | $3.19 | $3.33 | $3.46 | $3.70 | $3.95 | $4.22 | $4.50 | $4.81 | $5.15 | $5.42 | $5.71 | $6.01 | $6.33 | $6.67 | $203.26 |
| IDACORP, Inc. | IDA | $2.11 | $2.25 | $2.39 | $2.54 | $2.69 | $2.84 | $3.00 | $3.18 | $3.39 | $3.62 | $3.87 | $4.08 | $4.30 | $4.53 | $4.77 | $5.02 | $153.06 |
| NorthWestern Corporation | NWE | $1.98 | $2.03 | $2.08 | $2.13 | $2.18 | $2.35 | $2.52 | $2.71 | $2.91 | $3.12 | $3.35 | $3.53 | $3.72 | $3.92 | $4.13 | $4.35 | $132.46 |
| OGE Energy Corp. | OGE | $1.17 | $1.21 | $1.26 | $1.32 | $1.37 | $1.41 | $1.45 | $1.50 | $1.55 | $1.62 | $1.69 | $1.78 | $1.88 | $1.98 | $2.08 | $2.19 | $66.84 |
| Otter Tail Corporation | OTTR | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $76.51 |
| Pinnacle West Capital Corporation | PNW | $2.60 | $2.71 | $2.82 | $2.94 | $3.06 | $3.20 | $3.35 | $3.52 | $3.70 | $3.91 | $4.14 | $4.36 | $4.59 | $4.83 | $5.09 | $5.36 | $163.45 |
| PNM Resources, Inc. | PNM | $0.90 | $0.99 | $1.08 | $1.19 | $1.30 | $1.45 | $1.60 | $1.76 | $1.93 | $2.10 | $2.28 | $2.40 | $2.53 | $2.66 | $2.80 | $2.95 | $90.01 |
| Portland General Electric Company | POR | $1.21 | $1.27 | $1.34 | $1.42 | $1.49 | $1.63 | $1.77 | $1.92 | $2.08 | $2.26 | $2.44 | $2.57 | $2.71 | $2.86 | $3.01 | $3.17 | $96.56 |
| SCANA Corporation | SCG | $2.35 | $2.47 | $2.59 | $2.71 | $2.85 | $3.04 | $3.24 | $3.46 | $3.71 | $3.97 | $4.25 | $4.48 | $4.71 | $4.97 | $5.23 | $5.51 | $167.91 |
| Xcel Energy Inc. | XEL | $1.37 | $1.45 | $1.53 | $1.62 | $1.71 | $1.82 | $1.93 | $2.06 | $2.19 | $2.33 | $2.48 | $2.61 | $2.75 | $2.89 | $3.05 | $3.21 | $97.79 |

**Projected Annual Data Investor Cash Flows**

| | | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] | [81] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | Initial Outflow | 6/30/16 | 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 | 6/30/31 |
| ALLETE, Inc. | ALE | ($57.08) | $0.00 | $1.17 | $2.37 | $2.52 | $2.59 | $2.73 | $2.88 | $3.04 | $3.22 | $3.42 | $3.64 | $3.83 | $4.04 | $4.25 | $4.48 | $4.71 | $148.42 |
| Alliant Energy Corporation | LNT | ($36.64) | $0.00 | $0.58 | $1.18 | $1.32 | $1.38 | $1.48 | $1.59 | $1.71 | $1.83 | $1.96 | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.72 | $85.60 |
| Ameren Corporation | AEE | ($48.90) | $0.00 | $0.86 | $1.75 | $1.89 | $1.96 | $2.08 | $2.21 | $2.34 | $2.48 | $2.63 | $2.79 | $2.94 | $3.10 | $3.26 | $3.43 | $3.62 | $113.89 |
| American Electric Power Company, Inc. | AEP | ($65.03) | $0.00 | $1.20 | $2.44 | $2.78 | $2.93 | $3.05 | $3.18 | $3.33 | $3.49 | $3.67 | $3.86 | $4.07 | $4.29 | $4.51 | $4.75 | $5.01 | $157.64 |
| Avista Corporation | AVA | ($40.48) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $89.16 |
| CMS Energy Corporation | CMS | ($41.70) | $0.00 | $0.64 | $1.30 | $1.49 | $1.57 | $1.68 | $1.80 | $1.93 | $2.06 | $2.20 | $2.35 | $2.47 | $2.60 | $2.74 | $2.89 | $3.04 | $95.73 |
| DTE Energy Company | DTE | ($59.93) | $0.00 | $1.48 | $3.02 | $3.33 | $3.46 | $3.70 | $3.95 | $4.22 | $4.50 | $4.81 | $5.15 | $5.42 | $5.71 | $6.01 | $6.33 | $6.67 | $209.93 |
| IDACORP, Inc. | IDA | ($73.58) | $0.00 | $1.06 | $2.14 | $2.54 | $2.69 | $2.84 | $3.00 | $3.18 | $3.39 | $3.62 | $3.87 | $4.08 | $4.30 | $4.53 | $4.77 | $5.02 | $158.08 |
| NorthWestern Corporation | NWE | ($59.59) | $0.00 | $1.00 | $2.03 | $2.13 | $2.18 | $2.35 | $2.52 | $2.71 | $2.91 | $3.12 | $3.35 | $3.53 | $3.72 | $3.92 | $4.13 | $4.35 | $136.81 |
| OGE Energy Corp. | OGE | ($29.13) | $0.00 | $0.59 | $1.18 | $1.32 | $1.37 | $1.41 | $1.45 | $1.50 | $1.55 | $1.62 | $1.69 | $1.78 | $1.88 | $1.98 | $2.08 | $2.19 | $69.03 |
| Otter Tail Corporation | OTTR | ($29.44) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $79.02 |
| Pinnacle West Capital Corporation | PNW | ($73.65) | $0.00 | $1.31 | $2.65 | $2.94 | $3.06 | $3.20 | $3.35 | $3.52 | $3.70 | $3.91 | $4.14 | $4.36 | $4.59 | $4.83 | $5.09 | $5.36 | $168.81 |
| PNM Resources, Inc. | PNM | ($32.94) | $0.00 | $0.45 | $0.93 | $1.19 | $1.30 | $1.45 | $1.60 | $1.76 | $1.93 | $2.10 | $2.28 | $2.40 | $2.53 | $2.66 | $2.80 | $2.95 | $92.97 |
| Portland General Electric Company | POR | ($40.24) | $0.00 | $0.61 | $1.24 | $1.42 | $1.49 | $1.63 | $1.77 | $1.92 | $2.08 | $2.26 | $2.44 | $2.57 | $2.71 | $2.86 | $3.01 | $3.17 | $99.73 |
| SCANA Corporation | SCG | ($69.22) | $0.00 | $1.18 | $2.40 | $2.71 | $2.85 | $3.04 | $3.24 | $3.46 | $3.71 | $3.97 | $4.25 | $4.48 | $4.71 | $4.97 | $5.23 | $5.51 | $173.42 |
| Xcel Energy Inc. | XEL | ($41.15) | $0.00 | $0.69 | $1.41 | $1.62 | $1.71 | $1.82 | $1.93 | $2.06 | $2.19 | $2.33 | $2.48 | $2.61 | $2.75 | $2.89 | $3.05 | $3.21 | $100.99 |

Multi-Stage Growth Discounted Cash Flow Model with Terminal P/E
180 Day Average Stock Price
Low EPS Growth Rate Estimate in First Stage

| Inputs | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Stock | EPS Growth Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| | | | | | Value | Low | | | | | | | | |
| Company | Ticker | Price | Zacks | First Call | Line | Growth | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc. | ALE | $54.07 | 5.50% | 5.00% | 4.00% | 4.00% | 5.32% | 66.00% | 63.00% | 66.65% | ($0.00) | 10.96% | 20.39 | 3.83 |
| Alliant Energy Corporation | LNT | $33.83 | 6.10% | 6.60% | 6.00% | 6.00% | 5.32% | 64.00% | 61.00% | 66.65% | ($0.00) | 10.00% | 20.39 | 3.83 |
| Ameren Corporation | AEE | $46.40 | 6.10% | 5.20% | 6.00% | 5.20% | 5.32% | 68.00% | 64.00% | 66.65% | $0.00 | 9.85% | 20.39 | 3.83 |
| American Electric Power Company, Inc. | AEP | $61.54 | 4.90% | 4.10% | 4.00% | 4.00% | 5.32% | 64.00% | 67.00% | 66.65% | $0.00 | 10.35% | 20.39 | 3.83 |
| Avista Corporation | AVA | $37.83 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.65% | $0.00 | 9.46% | 20.39 | 3.83 |
| CMS Energy Corporation | CMS | $39.10 | 6.40% | 7.24% | 6.00% | 6.00% | 5.32% | 63.00% | 62.00% | 66.65% | $0.00 | 9.71% | 20.39 | 3.83 |
| DTE Energy Company | DTE | $65.60 | 5.60% | 5.35% | 5.00% | 5.00% | 5.32% | 63.00% | 61.00% | 66.65% | $0.00 | 9.73% | 20.39 | 3.83 |
| IDACORP, Inc. | IDA | $70.62 | 4.00% | 4.00% | 3.00% | 3.00% | 5.32% | 53.00% | 60.00% | 66.65% | $0.00 | 8.86% | 20.39 | 3.83 |
| NorthWestern Corporation | NWE | $57.21 | 5.00% | 5.00% | 6.50% | 5.00% | 5.32% | 65.00% | 59.00% | 66.65% | $0.00 | 9.50% | 20.39 | 3.83 |
| OGE Energy Corp. | OGE | $27.72 | 5.20% | 4.30% | 3.00% | 3.00% | 5.32% | 67.00% | 70.00% | 66.65% | ($0.00) | 10.23% | 20.39 | 3.83 |
| Otter Tail Corporation | OTTR | $28.18 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 80.00% | 63.00% | 66.65% | ($0.00) | 11.16% | 20.39 | 3.83 |
| Pinnacle West Capital Corporation | PNW | $69.12 | 4.00% | 3.73% | 4.00% | 3.73% | 5.32% | 64.00% | 65.00% | 66.65% | $0.00 | 9.87% | 20.39 | 3.83 |
| PNM Resources, Inc. | PNM | $31.32 | 7.60% | 8.76% | 9.00% | 7.60% | 5.32% | 51.00% | 55.00% | 66.65% | ($0.00) | 11.20% | 20.39 | 3.83 |
| Portland General Electric Company | POR | $38.74 | 6.40% | 6.57% | 5.50% | 5.50% | 5.32% | 56.00% | 56.00% | 66.65% | ($0.00) | 10.03% | 20.39 | 3.83 |
| SCANA Corporation | SCG | $64.66 | 5.30% | 5.40% | 4.50% | 4.50% | 5.32% | 59.00% | 60.00% | 66.65% | $0.00 | 10.54% | 20.39 | 3.83 |
| Xcel Energy Inc. | XEL | $38.85 | 5.30% | 5.27% | 5.50% | 5.27% | 5.32% | 62.00% | 63.00% | 66.65% | ($0.00) | 10.32% | 20.39 | 3.83 |
| | | | | | | | | | | | MEAN | 10.11% | | |
| | | | | | | | | | | | MAX | 11.20% | | |
| | | | | | | | | | | | MIN | 8.86% | | |

| Projected Annual Earnings per Share | | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] | [22] | [23] | [24] | [25] | [26] | [27] | [28] | [29] | [30] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | $3.38 | $3.52 | $3.66 | $3.80 | $3.95 | $4.11 | $4.29 | $4.48 | $4.68 | $4.91 | $5.16 | $5.44 | $5.73 | $6.03 | $6.35 | $6.69 | $7.05 |
| Alliant Energy Corporation | LNT | $1.69 | $1.79 | $1.90 | $2.01 | $2.13 | $2.26 | $2.39 | $2.53 | $2.68 | $2.82 | $2.98 | $3.14 | $3.30 | $3.48 | $3.66 | $3.86 | $4.07 |
| Ameren Corporation | AEE | $2.38 | $2.50 | $2.63 | $2.77 | $2.92 | $3.07 | $3.23 | $3.40 | $3.57 | $3.76 | $3.96 | $4.17 | $4.40 | $4.63 | $4.88 | $5.14 | $5.41 |
| American Electric Power Company, Inc. | AEP | $3.59 | $3.73 | $3.88 | $4.04 | $4.20 | $4.37 | $4.55 | $4.75 | $4.98 | $5.22 | $5.49 | $5.78 | $6.08 | $6.41 | $6.75 | $7.11 | $7.49 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.00 | $2.12 | $2.25 | $2.39 | $2.53 | $2.68 | $2.83 | $2.99 | $3.16 | $3.33 | $3.51 | $3.69 | $3.89 | $4.10 | $4.32 | $4.55 |
| DTE Energy Company | DTE | $4.45 | $4.67 | $4.91 | $5.15 | $5.41 | $5.68 | $5.97 | $6.27 | $6.59 | $6.94 | $7.30 | $7.69 | $8.10 | $8.53 | $8.99 | $9.47 | $9.97 |
| IDACORP, Inc. | IDA | $3.87 | $3.99 | $4.11 | $4.23 | $4.36 | $4.49 | $4.64 | $4.81 | $5.01 | $5.24 | $5.50 | $5.79 | $6.10 | $6.43 | $6.77 | $7.13 | $7.51 |
| NorthWestern Corporation | NWE | $2.90 | $3.05 | $3.20 | $3.36 | $3.52 | $3.70 | $3.89 | $4.09 | $4.30 | $4.52 | $4.76 | $5.01 | $5.28 | $5.56 | $5.86 | $6.17 | $6.50 |
| OGE Energy Corp. | OGE | $1.69 | $1.74 | $1.79 | $1.85 | $1.90 | $1.96 | $2.03 | $2.10 | $2.19 | $2.29 | $2.40 | $2.53 | $2.66 | $2.81 | $2.96 | $3.11 | $3.28 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.76 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.07 | $4.22 | $4.38 | $4.54 | $4.71 | $4.90 | $5.10 | $5.34 | $5.59 | $5.87 | $6.19 | $6.52 | $6.86 | $7.23 | $7.61 | $8.02 |
| PNM Resources, Inc. | PNM | $1.64 | $1.76 | $1.90 | $2.04 | $2.20 | $2.37 | $2.54 | $2.71 | $2.88 | $3.06 | $3.23 | $3.41 | $3.59 | $3.78 | $3.98 | $4.19 | $4.42 |
| Portland General Electric Company | POR | $2.04 | $2.15 | $2.27 | $2.40 | $2.53 | $2.67 | $2.81 | $2.97 | $3.13 | $3.29 | $3.47 | $3.65 | $3.65 | $4.05 | $4.27 | $4.50 | $4.74 |
| SCANA Corporation | SCG | $3.81 | $3.98 | $4.16 | $4.35 | $4.54 | $4.75 | $4.97 | $5.21 | $5.46 | $5.74 | $6.03 | $6.36 | $6.69 | $7.05 | $7.42 | $7.82 | $8.24 |
| Xcel Energy Inc. | XEL | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.71 | $2.66 | $3.01 | $3.17 | $3.34 | $3.51 | $3.70 | $3.90 | $4.11 | $4.32 | $4.55 | $4.80 |

| Projected Annual Dividend Payout Ratio | | | [31] | [32] | [33] | [34] | [35] | [36] | [37] | [38] | [39] | [40] | [41] | [42] | [43] | [44] | [45] | [46] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| Alliant Energy Corporation | LNT | | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.96% | 62.96% | 63.94% | 64.92% | 65.90% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| Ameren Corporation | AEE | | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.46% | 64.95% | 65.44% | 65.92% | 66.40% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| American Electric Power Company, Inc. | AEP | | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.96% | 66.96% | 66.94% | 66.92% | 66.90% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| Avista Corporation | AVA | | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| CMS Energy Corporation | CMS | | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| DTE Energy Company | DTE | | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.96% | 62.96% | 63.94% | 64.92% | 65.90% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| IDACORP, Inc. | IDA | | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| NorthWestern Corporation | NWE | | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| OGE Energy Corp. | OGE | | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.46% | 68.96% | 68.44% | 67.92% | 67.40% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| Otter Tail Corporation | OTTR | | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| Pinnacle West Capital Corporation | PNW | | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| PNM Resources, Inc. | PNM | | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.96% | 58.96% | 60.94% | 62.92% | 64.90% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| Portland General Electric Company | POR | | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| SCANA Corporation | SCG | | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |
| Xcel Energy Inc. | XEL | | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% | 66.65% |

| Projected Annual Cash Flows | | | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | Terminal Value |
| ALLETE, Inc. | ALE | | $2.32 | $2.39 | $2.45 | $2.52 | $2.59 | $2.73 | $2.88 | $3.04 | $3.22 | $3.42 | $3.64 | $3.83 | $4.04 | $4.25 | $4.48 | $4.71 | $143.70 |
| Alliant Energy Corporation | LNT | | $1.15 | $1.20 | $1.26 | $1.32 | $1.38 | $1.48 | $1.59 | $1.71 | $1.83 | $1.96 | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.72 | $82.88 |
| Ameren Corporation | AEE | | $1.70 | $1.76 | $1.83 | $1.89 | $1.96 | $2.08 | $2.21 | $2.34 | $2.48 | $2.63 | $2.79 | $2.94 | $3.10 | $3.26 | $3.43 | $3.62 | $110.27 |
| American Electric Power Company, Inc. | AEP | | $2.39 | $2.51 | $2.65 | $2.78 | $2.93 | $3.05 | $3.18 | $3.33 | $3.49 | $3.67 | $3.86 | $4.07 | $4.29 | $4.51 | $4.75 | $5.01 | $152.63 |
| Avista Corporation | AVA | | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $86.33 |
| CMS Energy Corporation | CMS | | $1.26 | $1.33 | $1.41 | $1.49 | $1.57 | $1.68 | $1.80 | $1.93 | $2.06 | $2.20 | $2.35 | $2.47 | $2.60 | $2.74 | $2.89 | $3.04 | $92.69 |
| DTE Energy Company | DTE | | $2.94 | $3.07 | $3.19 | $3.33 | $3.46 | $3.70 | $3.95 | $4.22 | $4.50 | $4.81 | $5.15 | $5.42 | $5.71 | $6.01 | $6.33 | $6.67 | $203.26 |
| IDACORP, Inc. | IDA | | $2.11 | $2.25 | $2.39 | $2.54 | $2.69 | $2.84 | $3.00 | $3.18 | $3.39 | $3.62 | $3.87 | $4.08 | $4.30 | $4.53 | $4.77 | $5.02 | $153.06 |
| NorthWestern Corporation | NWE | | $1.98 | $2.03 | $2.08 | $2.13 | $2.18 | $2.35 | $2.52 | $2.71 | $2.91 | $3.12 | $3.35 | $3.53 | $3.72 | $3.92 | $4.13 | $4.35 | $132.46 |
| OGE Energy Corp. | OGE | | $1.17 | $1.21 | $1.26 | $1.32 | $1.37 | $1.41 | $1.45 | $1.50 | $1.55 | $1.62 | $1.69 | $1.78 | $1.88 | $1.98 | $2.08 | $2.19 | $66.84 |
| Otter Tail Corporation | OTTR | | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $76.51 |
| Pinnacle West Capital Corporation | PNW | | $2.60 | $2.71 | $2.82 | $2.94 | $3.06 | $3.20 | $3.35 | $3.52 | $3.70 | $3.91 | $4.14 | $4.36 | $4.59 | $4.83 | $5.09 | $5.36 | $163.45 |
| PNM Resources, Inc. | PNM | | $0.90 | $0.99 | $1.08 | $1.19 | $1.30 | $1.45 | $1.60 | $1.76 | $1.93 | $2.10 | $2.28 | $2.40 | $2.53 | $2.66 | $2.80 | $2.95 | $90.01 |
| Portland General Electric Company | POR | | $1.21 | $1.27 | $1.34 | $1.42 | $1.49 | $1.63 | $1.77 | $1.92 | $2.08 | $2.26 | $2.44 | $2.57 | $2.71 | $2.86 | $3.01 | $3.17 | $96.56 |
| SCANA Corporation | SCG | | $2.35 | $2.47 | $2.59 | $2.71 | $2.85 | $3.04 | $3.24 | $3.46 | $3.71 | $3.97 | $4.25 | $4.48 | $4.71 | $4.97 | $5.23 | $5.51 | $167.91 |
| Xcel Energy Inc. | XEL | | $1.37 | $1.45 | $1.53 | $1.62 | $1.71 | $1.82 | $1.93 | $2.06 | $2.19 | $2.33 | $2.48 | $2.61 | $2.75 | $2.89 | $3.05 | $3.21 | $97.79 |

| Projected Annual Data Investor Cash Flows | | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] | [81] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | Initial Outflow | 6/30/16 | 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 | 6/30/31 |
| ALLETE, Inc. | ALE | ($54.07) | $0.00 | $1.17 | $2.37 | $2.52 | $2.59 | $2.73 | $2.88 | $3.04 | $3.22 | $3.42 | $3.64 | $3.83 | $4.04 | $4.25 | $4.48 | $4.71 | $148.42 |
| Alliant Energy Corporation | LNT | ($33.83) | $0.00 | $0.58 | $1.18 | $1.32 | $1.38 | $1.48 | $1.59 | $1.71 | $1.83 | $1.96 | $2.10 | $2.21 | $2.33 | $2.45 | $2.58 | $2.72 | $85.60 |
| Ameren Corporation | AEE | ($46.40) | $0.00 | $0.86 | $1.75 | $1.89 | $1.96 | $2.08 | $2.21 | $2.34 | $2.48 | $2.63 | $2.79 | $2.94 | $3.10 | $3.26 | $3.43 | $3.62 | $113.89 |
| American Electric Power Company, Inc. | AEP | ($61.54) | $0.00 | $1.20 | $2.44 | $2.78 | $2.93 | $3.05 | $3.18 | $3.33 | $3.49 | $3.67 | $3.86 | $4.07 | $4.29 | $4.51 | $4.75 | $5.01 | $157.64 |
| Avista Corporation | AVA | ($37.83) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $89.16 |
| CMS Energy Corporation | CMS | ($39.10) | $0.00 | $0.64 | $1.30 | $1.49 | $1.57 | $1.68 | $1.80 | $1.93 | $2.06 | $2.20 | $2.35 | $2.47 | $2.60 | $2.74 | $2.89 | $3.04 | $95.73 |
| DTE Energy Company | DTE | ($65.60) | $0.00 | $1.48 | $3.02 | $3.33 | $3.46 | $3.70 | $3.95 | $4.22 | $4.50 | $4.81 | $5.15 | $5.42 | $5.71 | $6.01 | $6.33 | $6.67 | $209.93 |
| IDACORP, Inc. | IDA | ($70.62) | $0.00 | $1.06 | $2.14 | $2.54 | $2.69 | $2.84 | $3.00 | $3.18 | $3.39 | $3.62 | $3.87 | $4.08 | $4.30 | $4.53 | $4.77 | $5.02 | $158.08 |
| NorthWestern Corporation | NWE | ($57.21) | $0.00 | $1.00 | $2.03 | $2.13 | $2.18 | $2.35 | $2.52 | $2.71 | $2.91 | $3.12 | $3.35 | $3.53 | $3.72 | $3.92 | $4.13 | $4.35 | $136.81 |
| OGE Energy Corp. | OGE | ($27.72) | $0.00 | $0.59 | $1.18 | $1.32 | $1.37 | $1.41 | $1.45 | $1.50 | $1.55 | $1.62 | $1.69 | $1.78 | $1.88 | $1.98 | $2.08 | $2.19 | $69.03 |
| Otter Tail Corporation | OTTR | ($28.18) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $79.02 |
| Pinnacle West Capital Corporation | PNW | ($69.12) | $0.00 | $1.31 | $2.65 | $2.94 | $3.06 | $3.20 | $3.35 | $3.52 | $3.70 | $3.91 | $4.14 | $4.36 | $4.59 | $4.83 | $5.09 | $5.36 | $168.81 |
| PNM Resources, Inc. | PNM | ($31.32) | $0.00 | $0.45 | $0.93 | $1.19 | $1.30 | $1.45 | $1.60 | $1.76 | $1.93 | $2.10 | $2.28 | $2.40 | $2.53 | $2.66 | $2.80 | $2.95 | $92.97 |
| Portland General Electric Company | POR | ($38.74) | $0.00 | $0.61 | $1.24 | $1.42 | $1.49 | $1.63 | $1.77 | $1.92 | $2.08 | $2.26 | $2.44 | $2.57 | $2.71 | $2.86 | $3.01 | $3.17 | $99.73 |
| SCANA Corporation | SCG | ($64.66) | $0.00 | $1.18 | $2.40 | $2.71 | $2.65 | $3.04 | $3.24 | $3.46 | $3.71 | $3.97 | $4.25 | $4.48 | $4.71 | $4.97 | $5.23 | $5.51 | $173.42 |
| Xcel Energy Inc. | XEL | ($38.65) | $0.00 | $0.69 | $1.41 | $1.62 | $1.71 | $1.82 | $1.93 | $2.06 | $2.19 | $2.33 | $2.48 | $2.61 | $2.75 | $2.89 | $3.05 | $3.21 | $100.99 |

Multi-Stage Growth Discounted Cash Flow Model with Terminal P/E
30 Day Average Stock Price
High EPS Growth Rate Estimate in First Stage

| Inputs | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Stock | EPS Growth Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| Company | Ticker | Price | Zacks | First Call | Value Line | High Growth | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc | ALE | $59.67 | 5.50% | 5.00% | 4.00% | 5.50% | 5.32% | 66.00% | 63.00% | 66.88% | ($0.00) | 10.95% | 20.39 | 3.83 |
| Alliant Energy Corporation | LNT | $38.20 | 6.10% | 6.60% | 6.00% | 6.60% | 5.32% | 64.00% | 61.00% | 66.88% | $0.00 | 9.24% | 20.39 | 3.83 |
| Ameren Corporation | AEE | $50.12 | 6.10% | 5.20% | 6.00% | 6.10% | 5.32% | 68.00% | 64.00% | 66.88% | $0.00 | 9.68% | 20.39 | 3.83 |
| American Electric Power Company, Inc | AEP | $66.05 | 4.90% | 4.10% | 4.00% | 4.90% | 5.32% | 64.00% | 67.00% | 66.88% | $0.00 | 10.24% | 20.39 | 3.83 |
| Avista Corporation | AVA | $41.65 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.88% | $0.00 | 8.56% | 20.39 | 3.83 |
| CMS Energy Corporation | CMS | $42.95 | 6.40% | 7.24% | 6.00% | 7.24% | 5.32% | 63.00% | 62.00% | 66.88% | $0.00 | 9.59% | 20.39 | 3.83 |
| DTE Energy Company | DTE | $92.91 | 5.60% | 5.35% | 5.00% | 5.60% | 5.32% | 63.00% | 61.00% | 66.88% | $0.00 | 9.46% | 20.39 | 3.83 |
| IDACORP, Inc. | IDA | $74.50 | 4.00% | 4.00% | 3.00% | 4.00% | 5.32% | 53.00% | 60.00% | 66.88% | $0.00 | 9.03% | 20.39 | 3.83 |
| NorthWestern Corporation | NWE | $59.68 | 5.00% | 5.00% | 6.50% | 6.50% | 5.32% | 65.00% | 59.00% | 66.88% | $0.00 | 10.02% | 20.39 | 3.83 |
| OGE Energy Corp. | OGE | $30.95 | 5.20% | 4.30% | 3.00% | 5.20% | 5.32% | 67.00% | 70.00% | 66.88% | ($0.00) | 10.56% | 20.39 | 3.83 |
| Otter Tail Corporation | OTTR | $30.96 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 60.00% | 63.00% | 66.88% | ($0.00) | 10.26% | 20.39 | 3.83 |
| Pinnacle West Capital Corporation | PNW | $75.82 | 4.00% | 3.73% | 4.00% | 4.00% | 5.32% | 64.00% | 65.00% | 66.88% | $0.00 | 9.17% | 20.39 | 3.83 |
| PNM Resources, Inc. | PNM | $33.49 | 7.60% | 8.76% | 9.00% | 9.00% | 5.32% | 51.00% | 55.00% | 66.88% | ($0.00) | 11.42% | 20.39 | 3.83 |
| Portland General Electric Company | POR | $41.66 | 6.40% | 6.57% | 5.50% | 6.57% | 5.32% | 56.00% | 56.00% | 66.88% | $0.00 | 9.96% | 20.39 | 3.83 |
| SCANA Corporation | SCG | $71.01 | 5.30% | 5.40% | 4.50% | 5.40% | 5.32% | 59.00% | 60.00% | 66.88% | $0.00 | 10.24% | 20.39 | 3.83 |
| Xcel Energy Inc. | XEL | $42.20 | 5.30% | 5.27% | 5.50% | 5.50% | 5.32% | 62.00% | 63.00% | 66.88% | $0.00 | 9.69% | 20.39 | 3.83 |
| | | | | | | | | | | | MEAN | 9.86% | | |
| | | | | | | | | | | | MAX | 11.42% | | |
| | | | | | | | | | | | MIN | 8.56% | | |

| Projected Annual Earnings per Share | | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] | [22] | [23] | [24] | [25] | [26] | [27] | [28] | [29] | [30] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc | ALE | $3.38 | $3.57 | $3.76 | $3.97 | $4.19 | $4.42 | $4.66 | $4.91 | $5.18 | $5.46 | $5.75 | $6.06 | $6.38 | $6.72 | $7.07 | $7.45 | $7.85 |
| Alliant Energy Corporation | LNT | $1.69 | $1.80 | $1.92 | $2.05 | $2.18 | $2.33 | $2.47 | $2.63 | $2.78 | $2.94 | $3.11 | $3.27 | $3.45 | $3.63 | $3.82 | $4.03 | $4.24 |
| Ameren Corporation | AEE | $2.38 | $2.53 | $2.68 | $2.84 | $3.02 | $3.20 | $3.39 | $3.59 | $3.79 | $4.01 | $4.22 | $4.45 | $4.69 | $4.94 | $5.20 | $5.47 | $5.77 |
| American Electric Power Company, Inc | AEP | $3.59 | $3.77 | $3.95 | $4.14 | $4.35 | $4.56 | $4.79 | $5.03 | $5.29 | $5.56 | $5.85 | $6.16 | $6.49 | $6.84 | $7.20 | $7.58 | $7.99 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.03 | $2.17 | $2.33 | $2.50 | $2.68 | $2.87 | $3.06 | $3.25 | $3.44 | $3.64 | $3.83 | $4.03 | $4.25 | $4.47 | $4.71 | $4.96 |
| DTE Energy Company | DTE | $4.45 | $4.71 | $4.98 | $5.27 | $5.58 | $5.90 | $6.24 | $6.59 | $6.95 | $7.34 | $7.73 | $8.14 | $8.58 | $9.03 | $9.51 | $10.02 | $10.55 |
| IDACORP, Inc | IDA | $3.87 | $4.02 | $4.19 | $4.35 | $4.53 | $4.71 | $4.91 | $5.13 | $5.36 | $5.63 | $5.91 | $6.23 | $6.56 | $6.91 | $7.28 | $7.66 | $8.07 |
| NorthWestern Corporation | NWE | $2.90 | $3.09 | $3.29 | $3.50 | $3.73 | $3.97 | $4.22 | $4.48 | $4.75 | $5.02 | $5.29 | $5.58 | $5.87 | $6.19 | $6.52 | $6.86 | $7.23 |
| OGE Energy Corp. | OGE | $1.69 | $1.78 | $1.87 | $1.97 | $2.07 | $2.18 | $2.29 | $2.41 | $2.54 | $2.67 | $2.81 | $2.96 | $3.12 | $3.29 | $3.46 | $3.65 | $3.84 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.08 | $4.24 | $4.41 | $4.59 | $4.77 | $4.97 | $5.19 | $5.43 | $5.70 | $5.99 | $6.31 | $6.64 | $7.00 | $7.37 | $7.76 | $8.18 |
| PNM Resources, Inc. | PNM | $1.64 | $1.79 | $1.95 | $2.12 | $2.31 | $2.52 | $2.73 | $2.95 | $3.16 | $3.37 | $3.57 | $3.76 | $3.95 | $4.17 | $4.39 | $4.62 | $4.87 |
| Portland General Electric Company | POR | $2.04 | $2.17 | $2.32 | $2.47 | $2.63 | $2.80 | $2.98 | $3.17 | $3.35 | $3.55 | $3.74 | $3.94 | $4.15 | $4.37 | $4.61 | $4.85 | $5.11 |
| SCANA Corporation | SCG | $3.81 | $4.02 | $4.23 | $4.46 | $4.70 | $4.96 | $5.22 | $5.50 | $5.80 | $6.11 | $6.43 | $6.78 | $7.14 | $7.52 | $7.92 | $8.34 | $8.78 |
| Xcel Energy Inc. | XEL | $2.10 | $2.22 | $2.34 | $2.47 | $2.60 | $2.74 | $2.89 | $3.05 | $3.22 | $3.39 | $3.57 | $3.76 | $3.96 | $4.17 | $4.40 | $4.63 | $4.88 |

| Projected Annual Dividend Payout Ratio | | [31] | [32] | [33] | [34] | [35] | [36] | [37] | [38] | [39] | [40] | [41] | [42] | [43] | [44] | [45] | [46] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| ALLETE, Inc. | ALE | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Alliant Energy Corporation | LNT | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Ameren Corporation | AEE | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.48% | 64.96% | 65.44% | 65.92% | 66.40% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| American Electric Power Company, Inc | AEP | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.98% | 66.96% | 66.94% | 66.92% | 66.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Avista Corporation | AVA | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| CMS Energy Corporation | CMS | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| DTE Energy Company | DTE | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.98% | 62.96% | 63.94% | 64.92% | 65.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| IDACORP, Inc | IDA | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| NorthWestern Corporation | NWE | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| OGE Energy Corp | OGE | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.48% | 68.96% | 68.44% | 67.92% | 67.40% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Otter Tail Corporation | OTTR | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Pinnacle West Capital Corporation | PNW | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| PNM Resources, Inc. | PNM | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Portland General Electric Company | POR | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| SCANA Corporation | SCG | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |
| Xcel Energy Inc | XEL | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% | 66.88% |

| Projected Annual Cash Flows | | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | Terminal Value |
| ALLETE, Inc. | ALE | $2.35 | $2.45 | $2.56 | $2.67 | $2.78 | $2.97 | $3.16 | $3.36 | $3.58 | $3.81 | $4.05 | $4.27 | $4.49 | $4.73 | $4.98 | $5.25 | $159.99 |
| Alliant Energy Corporation | LNT | $1.15 | $1.21 | $1.28 | $1.35 | $1.42 | $1.53 | $1.65 | $1.78 | $1.91 | $2.05 | $2.19 | $2.31 | $2.43 | $2.56 | $2.69 | $2.84 | $86.47 |
| Ameren Corporation | AEE | $1.72 | $1.80 | $1.88 | $1.96 | $2.05 | $2.19 | $2.33 | $2.48 | $2.64 | $2.80 | $2.98 | $3.13 | $3.30 | $3.48 | $3.66 | $3.86 | $117.55 |
| American Electric Power Company, Inc | AEP | $2.41 | $2.56 | $2.71 | $2.88 | $3.06 | $3.21 | $3.37 | $3.54 | $3.72 | $3.91 | $4.12 | $4.34 | $4.57 | $4.81 | $5.07 | $5.34 | $162.81 |
| Avista Corporation | AVA | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $86.33 |
| CMS Energy Corporation | CMS | $1.28 | $1.36 | $1.46 | $1.56 | $1.66 | $1.80 | $1.94 | $2.09 | $2.25 | $2.40 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $101.15 |
| DTE Energy Company | DTE | $2.97 | $3.11 | $3.27 | $3.43 | $3.60 | $3.87 | $4.15 | $4.45 | $4.76 | $5.10 | $5.45 | $5.74 | $6.04 | $6.36 | $6.70 | $7.06 | $215.17 |
| IDACORP, Inc | IDA | $2.13 | $2.29 | $2.46 | $2.64 | $2.83 | $3.00 | $3.19 | $3.40 | $3.63 | $3.89 | $4.16 | $4.39 | $4.62 | $4.87 | $5.13 | $5.40 | $164.54 |
| NorthWestern Corporation | NWE | $2.01 | $2.09 | $2.17 | $2.26 | $2.34 | $2.55 | $2.76 | $2.99 | $3.22 | $3.47 | $3.73 | $3.93 | $4.14 | $4.36 | $4.59 | $4.83 | $147.34 |
| OGE Energy Corp. | OGE | $1.19 | $1.27 | $1.35 | $1.43 | $1.52 | $1.59 | $1.66 | $1.74 | $1.81 | $1.90 | $1.98 | $2.09 | $2.20 | $2.32 | $2.44 | $2.57 | $78.30 |
| Otter Tail Corporation | OTTR | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $76.51 |
| Pinnacle West Capital Corporation | PNW | $2.61 | $2.72 | $2.84 | $2.97 | $3.10 | $3.25 | $3.41 | $3.58 | $3.78 | $3.99 | $4.22 | $4.44 | $4.68 | $4.93 | $5.19 | $5.47 | $166.66 |
| PNM Resources, Inc. | PNM | $0.91 | $1.01 | $1.13 | $1.25 | $1.39 | $1.56 | $1.74 | $1.92 | $2.12 | $2.31 | $2.51 | $2.65 | $2.79 | $2.93 | $3.09 | $3.25 | $99.21 |
| Portland General Electric Company | POR | $1.22 | $1.30 | $1.38 | $1.47 | $1.57 | $1.72 | $1.89 | $2.06 | $2.24 | $2.44 | $2.64 | $2.78 | $2.92 | $3.08 | $3.24 | $3.42 | $104.16 |
| SCANA Corporation | SCG | $2.37 | $2.51 | $2.65 | $2.81 | $2.97 | $3.19 | $3.43 | $3.68 | $3.95 | $4.23 | $4.53 | $4.77 | $5.03 | $5.30 | $5.58 | $5.87 | $179.06 |
| Xcel Energy Inc | XEL | $1.37 | $1.46 | $1.54 | $1.63 | $1.73 | $1.84 | $1.96 | $2.09 | $2.22 | $2.37 | $2.52 | $2.65 | $2.79 | $2.94 | $3.10 | $3.26 | $99.40 |

| Projected Annual Data Investor Cash Flows | | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] | [81] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | Ticker | Initial Outflow | 6/30/16 | 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 | 6/30/31 |
| ALLETE, Inc | ALE | ($59.67) | $0.00 | $1.19 | $2.42 | $2.67 | $2.78 | $2.97 | $3.16 | $3.36 | $3.58 | $3.81 | $4.05 | $4.27 | $4.49 | $4.73 | $4.98 | $5.25 | $165.23 |
| Alliant Energy Corporation | LNT | ($38.20) | $0.00 | $0.58 | $1.19 | $1.35 | $1.42 | $1.53 | $1.65 | $1.78 | $1.91 | $2.05 | $2.19 | $2.31 | $2.43 | $2.56 | $2.69 | $2.84 | $89.31 |
| Ameren Corporation | AEE | ($50.12) | $0.00 | $0.87 | $1.77 | $1.96 | $2.05 | $2.19 | $2.33 | $2.48 | $2.64 | $2.80 | $2.98 | $3.13 | $3.30 | $3.48 | $3.66 | $3.86 | $121.41 |
| American Electric Power Company, Inc | AEP | ($66.05) | $0.00 | $1.21 | $2.47 | $2.88 | $3.06 | $3.21 | $3.37 | $3.54 | $3.72 | $3.91 | $4.12 | $4.34 | $4.57 | $4.81 | $5.07 | $5.34 | $168.15 |
| Avista Corporation | AVA | ($41.65) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $89.16 |
| CMS Energy Corporation | CMS | ($42.95) | $0.00 | $0.64 | $1.32 | $1.56 | $1.66 | $1.80 | $1.94 | $2.09 | $2.25 | $2.40 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $104.47 |
| DTE Energy Company | DTE | ($92.91) | $0.00 | $1.50 | $3.05 | $3.43 | $3.60 | $3.87 | $4.15 | $4.45 | $4.76 | $5.10 | $5.45 | $5.74 | $6.04 | $6.36 | $6.70 | $7.06 | $222.23 |
| IDACORP, Inc | IDA | ($74.50) | $0.00 | $1.08 | $2.18 | $2.64 | $2.83 | $3.00 | $3.19 | $3.40 | $3.63 | $3.89 | $4.16 | $4.39 | $4.62 | $4.87 | $5.13 | $5.40 | $169.94 |
| NorthWestern Corporation | NWE | ($59.68) | $0.00 | $1.01 | $2.07 | $2.26 | $2.34 | $2.55 | $2.76 | $2.99 | $3.22 | $3.47 | $3.73 | $3.93 | $4.14 | $4.36 | $4.59 | $4.83 | $152.17 |
| OGE Energy Corp. | OGE | ($30.95) | $0.00 | $0.60 | $1.22 | $1.43 | $1.52 | $1.59 | $1.66 | $1.74 | $1.81 | $1.90 | $1.98 | $2.09 | $2.20 | $2.32 | $2.44 | $2.57 | $80.87 |
| Otter Tail Corporation | OTTR | ($30.96) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $79.02 |
| Pinnacle West Capital Corporation | PNW | ($75.82) | $0.00 | $1.32 | $2.66 | $2.97 | $3.10 | $3.25 | $3.41 | $3.58 | $3.78 | $3.99 | $4.22 | $4.44 | $4.68 | $4.93 | $5.19 | $5.47 | $172.13 |
| PNM Resources, Inc | PNM | ($33.49) | $0.00 | $0.46 | $0.95 | $1.25 | $1.39 | $1.56 | $1.74 | $1.92 | $2.12 | $2.31 | $2.51 | $2.65 | $2.79 | $2.93 | $3.09 | $3.25 | $102.47 |
| Portland General Electric Company | POR | ($41.66) | $0.00 | $0.61 | $1.26 | $1.47 | $1.57 | $1.72 | $1.89 | $2.06 | $2.24 | $2.44 | $2.64 | $2.78 | $2.92 | $3.08 | $3.24 | $3.42 | $107.57 |
| SCANA Corporation | SCG | ($71.01) | $0.00 | $1.19 | $2.43 | $2.81 | $2.97 | $3.19 | $3.43 | $3.68 | $3.95 | $4.23 | $4.53 | $4.77 | $5.03 | $5.30 | $5.58 | $5.87 | $184.93 |
| Xcel Energy Inc. | XEL | ($42.20) | $0.00 | $0.69 | $1.41 | $1.63 | $1.73 | $1.84 | $1.96 | $2.09 | $2.22 | $2.37 | $2.52 | $2.65 | $2.79 | $2.94 | $3.10 | $3.26 | $102.66 |

Multi-Stage Growth Discounted Cash Flow Model with Terminal P/E
90 Day Average Stock Price
High EPS Growth Rate Estimate in First Stage

| Inputs | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Stock | EPS Growth Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| | | | | | Value | High | | | | | | | | |
| Company | Ticker | Price | Zacks | First Call | Line | Growth | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc. | ALE | $57.08 | 5.50% | 5.00% | 4.00% | 5.50% | 5.32% | 66.00% | 63.00% | 66.85% | ($0.00) | 11.35% | 20.39 | 3.83 |
| Alliant Energy Corporation | LNT | $36.64 | 6.10% | 6.60% | 6.00% | 6.60% | 5.32% | 64.00% | 61.00% | 66.85% | ($0.00) | 9.63% | 20.39 | 3.83 |
| Ameren Corporation | AEE | $48.90 | 6.10% | 5.20% | 6.00% | 6.10% | 5.32% | 68.00% | 64.00% | 66.85% | $0.00 | 9.91% | 20.39 | 3.83 |
| American Electric Power Company, Inc. | AEP | $65.03 | 4.90% | 4.10% | 4.00% | 4.90% | 5.32% | 64.00% | 67.00% | 66.85% | $0.00 | 10.39% | 20.39 | 3.83 |
| Avista Corporation | AVA | $40.48 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.85% | $0.00 | 8.84% | 20.39 | 3.83 |
| CMS Energy Corporation | CMS | $41.70 | 6.40% | 7.24% | 6.00% | 7.24% | 5.32% | 63.00% | 62.00% | 66.85% | $0.00 | 9.66% | 20.39 | 3.83 |
| DTE Energy Company | DTE | $69.93 | 5.80% | 5.35% | 5.00% | 5.80% | 5.32% | 63.00% | 61.00% | 66.85% | $0.00 | 9.79% | 20.39 | 3.83 |
| IDACORP, Inc. | IDA | $73.58 | 4.00% | 4.00% | 3.00% | 4.00% | 5.32% | 53.00% | 60.00% | 66.85% | $0.00 | 9.15% | 20.39 | 3.83 |
| NorthWestern Corporation | NWE | $59.59 | 5.00% | 5.00% | 6.50% | 6.50% | 5.32% | 65.00% | 59.00% | 66.85% | $0.00 | 10.04% | 20.39 | 3.83 |
| OGE Energy Corp. | OGE | $29.13 | 5.20% | 4.30% | 3.00% | 5.20% | 5.32% | 67.00% | 70.00% | 66.85% | ($0.00) | 11.15% | 20.39 | 3.83 |
| Otter Tail Corporation | OTTR | $29.44 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 60.00% | 63.00% | 66.85% | ($0.00) | 10.75% | 20.39 | 3.83 |
| Pinnacle West Capital Corporation | PNW | $73.65 | 4.00% | 3.73% | 4.00% | 4.00% | 5.32% | 64.00% | 65.00% | 66.85% | $0.00 | 9.44% | 20.39 | 3.83 |
| PNM Resources, Inc. | PNM | $32.94 | 7.60% | 8.76% | 9.00% | 9.00% | 5.32% | 51.00% | 55.00% | 66.85% | ($0.00) | 11.57% | 20.39 | 3.83 |
| Portland General Electric Company | POR | $40.24 | 6.40% | 6.57% | 5.50% | 6.57% | 5.32% | 56.00% | 56.00% | 66.85% | ($0.00) | 10.33% | 20.39 | 3.83 |
| SCANA Corporation | SCG | $69.22 | 5.30% | 5.40% | 4.50% | 5.40% | 5.32% | 59.00% | 60.00% | 66.85% | $0.00 | 10.49% | 20.39 | 3.83 |
| Xcel Energy Inc. | XEL | $41.15 | 5.30% | 5.27% | 5.50% | 5.50% | 5.32% | 62.00% | 63.00% | 66.85% | ($0.00) | 9.92% | 20.39 | 3.83 |
| | | | | | | | | | | | MEAN | 10.16% | | |
| | | | | | | | | | | | MAX | 11.57% | | |
| | | | | | | | | | | | MIN | 8.84% | | |

Projected Annual Earnings per Share

| Company | Ticker | [14] 2015 | [15] 2016 | [16] 2017 | [17] 2018 | [18] 2019 | [19] 2020 | [20] 2021 | [21] 2022 | [22] 2023 | [23] 2024 | [24] 2025 | [25] 2026 | [26] 2027 | [27] 2028 | [28] 2029 | [29] 2030 | [30] 2031 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | $3.38 | $3.57 | $3.76 | $3.97 | $4.19 | $4.42 | $4.66 | $4.91 | $5.18 | $5.46 | $5.75 | $6.06 | $6.38 | $6.72 | $7.07 | $7.45 | $7.65 |
| Alliant Energy Corporation | LNT | $1.69 | $1.80 | $1.92 | $2.05 | $2.18 | $2.33 | $2.47 | $2.63 | $2.78 | $2.94 | $3.11 | $3.27 | $3.45 | $3.63 | $3.82 | $4.03 | $4.24 |
| Ameren Corporation | AEE | $2.38 | $2.53 | $2.68 | $2.84 | $3.02 | $3.20 | $3.39 | $3.59 | $3.79 | $4.01 | $4.22 | $4.45 | $4.69 | $4.94 | $5.20 | $5.47 | $5.77 |
| American Electric Power Company, Inc. | AEP | $3.59 | $3.77 | $3.95 | $4.14 | $4.35 | $4.56 | $4.79 | $5.03 | $5.29 | $5.56 | $5.65 | $6.16 | $6.49 | $6.84 | $7.20 | $7.58 | $7.99 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.03 | $2.17 | $2.33 | $2.50 | $2.68 | $2.87 | $3.06 | $3.25 | $3.44 | $3.64 | $3.83 | $4.03 | $4.25 | $4.47 | $4.71 | $4.96 |
| DTE Energy Company | DTE | $4.45 | $4.71 | $4.98 | $5.27 | $5.58 | $5.90 | $6.24 | $6.59 | $6.95 | $7.34 | $7.73 | $8.14 | $8.58 | $9.03 | $9.51 | $10.02 | $10.55 |
| IDACORP, Inc. | IDA | $3.87 | $4.02 | $4.19 | $4.35 | $4.53 | $4.71 | $4.91 | $5.13 | $5.36 | $5.63 | $5.91 | $6.23 | $6.56 | $6.91 | $7.28 | $7.66 | $8.07 |
| NorthWestern Corporation | NWE | $2.90 | $3.09 | $3.29 | $3.50 | $3.73 | $3.97 | $4.22 | $4.48 | $4.75 | $5.02 | $5.29 | $5.58 | $5.87 | $6.19 | $6.52 | $6.86 | $7.23 |
| OGE Energy Corp. | OGE | $1.69 | $1.78 | $1.87 | $1.97 | $2.07 | $2.18 | $2.29 | $2.41 | $2.54 | $2.67 | $2.81 | $2.96 | $3.12 | $3.29 | $3.46 | $3.65 | $3.84 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.08 | $4.24 | $4.41 | $4.59 | $4.77 | $4.97 | $5.19 | $5.43 | $5.70 | $5.99 | $6.31 | $6.64 | $7.00 | $7.37 | $7.76 | $8.18 |
| PNM Resources, Inc. | PNM | $1.64 | $1.79 | $1.95 | $2.12 | $2.31 | $2.52 | $2.73 | $2.95 | $3.16 | $3.37 | $3.57 | $3.76 | $3.95 | $4.17 | $4.39 | $4.62 | $4.87 |
| Portland General Electric Company | POR | $2.04 | $2.17 | $2.32 | $2.47 | $2.63 | $2.80 | $2.98 | $3.17 | $3.35 | $3.55 | $3.74 | $3.94 | $4.15 | $4.37 | $4.61 | $4.85 | $5.11 |
| SCANA Corporation | SCG | $3.81 | $4.02 | $4.23 | $4.46 | $4.70 | $4.96 | $5.22 | $5.50 | $5.80 | $6.11 | $6.43 | $6.78 | $7.14 | $7.52 | $7.92 | $8.34 | $8.78 |
| Xcel Energy Inc. | XEL | $2.10 | $2.22 | $2.34 | $2.47 | $2.60 | $2.74 | $2.89 | $3.05 | $3.22 | $3.39 | $3.57 | $3.76 | $3.96 | $4.17 | $4.40 | $4.63 | $4.88 |

Projected Annual Dividend Payout Ratio

| Company | Ticker | [31] 2016 | [32] 2017 | [33] 2018 | [34] 2019 | [35] 2020 | [36] 2021 | [37] 2022 | [38] 2023 | [39] 2024 | [40] 2025 | [41] 2026 | [42] 2027 | [43] 2028 | [44] 2029 | [45] 2030 | [46] 2031 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Alliant Energy Corporation | LNT | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.95% | 62.96% | 63.94% | 64.92% | 65.90% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Ameren Corporation | AEE | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.46% | 64.96% | 65.44% | 65.92% | 66.40% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| American Electric Power Company, Inc. | AEP | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.96% | 66.96% | 66.94% | 66.92% | 66.90% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Avista Corporation | AVA | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| CMS Energy Corporation | CMS | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.88% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| DTE Energy Company | DTE | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.95% | 62.96% | 63.94% | 64.92% | 65.90% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| IDACORP, Inc. | IDA | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| NorthWestern Corporation | NWE | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.85% | 66.88% | 66.85% | 66.85% | 66.85% | 66.85% |
| OGE Energy Corp. | OGE | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.48% | 68.96% | 68.44% | 67.92% | 67.40% | 66.88% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Otter Tail Corporation | OTTR | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.88% | 66.85% | 66.85% | 66.85% | 66.88% | 66.85% |
| Pinnacle West Capital Corporation | PNW | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.88% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| PNM Resources, Inc. | PNM | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% | 66.85% |
| Portland General Electric Company | POR | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.88% | 66.85% | 66.85% | 66.85% | 66.85% | 66.88% |
| SCANA Corporation | SCG | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.85% | 66.88% | 66.85% | 66.88% | 66.85% | 66.88% |
| Xcel Energy Inc. | XEL | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.85% | 66.88% | 66.88% | 66.85% | 66.85% | 66.85% |

Projected Annual Cash Flows

| Company | Ticker | [47] 2016 | [48] 2017 | [49] 2018 | [50] 2019 | [51] 2020 | [52] 2021 | [53] 2022 | [54] 2023 | [55] 2024 | [56] 2025 | [57] 2026 | [58] 2027 | [59] 2028 | [60] 2029 | [61] 2030 | [62] 2031 | [63] Terminal Value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | $2.35 | $2.45 | $2.56 | $2.67 | $2.78 | $2.97 | $3.16 | $3.36 | $3.58 | $3.81 | $4.05 | $4.27 | $4.49 | $4.73 | $4.98 | $5.25 | $159.99 |
| Alliant Energy Corporation | LNT | $1.15 | $1.21 | $1.28 | $1.35 | $1.42 | $1.53 | $1.65 | $1.78 | $1.91 | $2.05 | $2.19 | $2.31 | $2.43 | $2.56 | $2.69 | $2.84 | $86.47 |
| Ameren Corporation | AEE | $1.72 | $1.80 | $1.89 | $1.96 | $2.05 | $2.19 | $2.33 | $2.48 | $2.64 | $2.80 | $2.98 | $3.13 | $3.30 | $3.48 | $3.66 | $3.86 | $117.55 |
| American Electric Power Company, Inc. | AEP | $2.41 | $2.56 | $2.71 | $2.88 | $3.06 | $3.21 | $3.37 | $3.54 | $3.72 | $3.91 | $4.12 | $4.34 | $4.57 | $4.81 | $5.07 | $5.34 | $162.81 |
| Avista Corporation | AVA | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $86.33 |
| CMS Energy Corporation | CMS | $1.28 | $1.36 | $1.46 | $1.56 | $1.66 | $1.80 | $1.94 | $2.09 | $2.25 | $2.40 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $101.15 |
| DTE Energy Company | DTE | $2.97 | $3.11 | $3.27 | $3.43 | $3.60 | $3.87 | $4.15 | $4.45 | $4.76 | $5.10 | $5.45 | $5.74 | $6.04 | $6.36 | $6.70 | $7.06 | $215.17 |
| IDACORP, Inc. | IDA | $2.13 | $2.29 | $2.46 | $2.64 | $2.83 | $3.00 | $3.19 | $3.40 | $3.63 | $3.89 | $4.16 | $4.39 | $4.62 | $4.87 | $5.13 | $5.40 | $164.54 |
| NorthWestern Corporation | NWE | $2.01 | $2.09 | $2.17 | $2.26 | $2.34 | $2.55 | $2.76 | $2.99 | $3.22 | $3.47 | $3.73 | $3.93 | $4.14 | $4.36 | $4.59 | $4.83 | $147.34 |
| OGE Energy Corp. | OGE | $1.19 | $1.27 | $1.35 | $1.43 | $1.52 | $1.59 | $1.66 | $1.74 | $1.81 | $1.90 | $1.98 | $2.09 | $2.20 | $2.32 | $2.44 | $2.57 | $78.30 |
| Otter Tail Corporation | OTTR | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $76.51 |
| Pinnacle West Capital Corporation | PNW | $2.61 | $2.72 | $2.84 | $2.97 | $3.10 | $3.25 | $3.41 | $3.58 | $3.78 | $3.99 | $4.22 | $4.44 | $4.68 | $4.93 | $5.19 | $5.47 | $166.66 |
| PNM Resources, Inc. | PNM | $0.91 | $1.01 | $1.13 | $1.25 | $1.39 | $1.56 | $1.74 | $1.92 | $2.12 | $2.31 | $2.51 | $2.65 | $2.79 | $2.93 | $3.09 | $3.25 | $99.21 |
| Portland General Electric Company | POR | $1.22 | $1.30 | $1.38 | $1.47 | $1.57 | $1.72 | $1.89 | $2.06 | $2.24 | $2.44 | $2.64 | $2.78 | $2.92 | $3.08 | $3.24 | $3.42 | $104.16 |
| SCANA Corporation | SCG | $2.37 | $2.51 | $2.65 | $2.81 | $2.97 | $3.19 | $3.43 | $3.68 | $3.95 | $4.23 | $4.53 | $4.77 | $5.03 | $5.30 | $5.58 | $5.87 | $179.06 |
| Xcel Energy Inc. | XEL | $1.37 | $1.46 | $1.54 | $1.63 | $1.73 | $1.84 | $1.96 | $2.09 | $2.22 | $2.37 | $2.52 | $2.65 | $2.79 | $2.94 | $3.10 | $3.26 | $99.40 |

Projected Annual Data Investor Cash Flows

| Company | Ticker | [64] Initial Outflow | [65] 6/30/16 | [66] 12/31/16 | [67] 6/30/17 | [68] 6/30/18 | [69] 6/30/19 | [70] 6/30/20 | [71] 6/30/21 | [72] 6/30/22 | [73] 6/30/23 | [74] 6/30/24 | [75] 6/30/25 | [76] 6/30/26 | [77] 6/30/27 | [78] 6/30/28 | [79] 6/30/29 | [80] 6/30/30 | [81] 6/30/31 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | ($57.08) | $0.00 | $1.19 | $2.42 | $2.67 | $2.78 | $2.97 | $3.16 | $3.36 | $3.58 | $3.81 | $4.05 | $4.27 | $4.49 | $4.73 | $4.98 | $5.25 | $165.23 |
| Alliant Energy Corporation | LNT | ($36.64) | $0.00 | $0.58 | $1.19 | $1.35 | $1.42 | $1.53 | $1.65 | $1.78 | $1.91 | $2.05 | $2.19 | $2.31 | $2.43 | $2.56 | $2.69 | $2.84 | $89.31 |
| Ameren Corporation | AEE | ($48.90) | $0.00 | $0.87 | $1.77 | $1.96 | $2.05 | $2.19 | $2.33 | $2.48 | $2.64 | $2.80 | $2.98 | $3.13 | $3.30 | $3.48 | $3.66 | $3.86 | $121.41 |
| American Electric Power Company, Inc. | AEP | ($65.03) | $0.00 | $1.21 | $2.47 | $2.88 | $3.06 | $3.21 | $3.37 | $3.54 | $3.72 | $3.91 | $4.12 | $4.34 | $4.57 | $4.81 | $5.07 | $5.34 | $168.15 |
| Avista Corporation | AVA | ($40.48) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $89.16 |
| CMS Energy Corporation | CMS | ($41.70) | $0.00 | $0.64 | $1.32 | $1.56 | $1.66 | $1.80 | $1.94 | $2.09 | $2.25 | $2.40 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $104.47 |
| DTE Energy Company | DTE | ($69.93) | $0.00 | $1.50 | $3.05 | $3.43 | $3.60 | $3.87 | $4.15 | $4.45 | $4.76 | $5.10 | $5.45 | $5.74 | $6.04 | $6.36 | $6.70 | $7.06 | $222.23 |
| IDACORP, Inc. | IDA | ($73.58) | $0.00 | $1.08 | $2.18 | $2.64 | $2.83 | $3.00 | $3.19 | $3.40 | $3.63 | $3.89 | $4.16 | $4.39 | $4.62 | $4.87 | $5.13 | $5.40 | $169.94 |
| NorthWestern Corporation | NWE | ($59.59) | $0.00 | $1.01 | $2.07 | $2.26 | $2.34 | $2.55 | $2.76 | $2.99 | $3.22 | $3.47 | $3.73 | $3.93 | $4.14 | $4.36 | $4.59 | $4.83 | $152.17 |
| OGE Energy Corp. | OGE | ($29.13) | $0.00 | $0.60 | $1.22 | $1.43 | $1.52 | $1.59 | $1.66 | $1.74 | $1.81 | $1.90 | $1.98 | $2.09 | $2.20 | $2.32 | $2.44 | $2.57 | $80.87 |
| Otter Tail Corporation | OTTR | ($29.44) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $79.02 |
| Pinnacle West Capital Corporation | PNW | ($73.65) | $0.00 | $1.32 | $2.66 | $2.97 | $3.10 | $3.25 | $3.41 | $3.58 | $3.78 | $3.99 | $4.22 | $4.44 | $4.68 | $4.93 | $5.19 | $5.47 | $172.13 |
| PNM Resources, Inc. | PNM | ($32.94) | $0.00 | $0.46 | $0.95 | $1.25 | $1.39 | $1.56 | $1.74 | $1.92 | $2.12 | $2.31 | $2.51 | $2.65 | $2.79 | $2.93 | $3.09 | $3.25 | $102.47 |
| Portland General Electric Company | POR | ($40.24) | $0.00 | $0.61 | $1.26 | $1.47 | $1.57 | $1.72 | $1.89 | $2.06 | $2.24 | $2.44 | $2.64 | $2.78 | $2.92 | $3.08 | $3.24 | $3.42 | $107.57 |
| SCANA Corporation | SCG | ($69.22) | $0.00 | $1.19 | $2.43 | $2.81 | $2.97 | $3.19 | $3.43 | $3.68 | $3.95 | $4.23 | $4.53 | $4.77 | $5.03 | $5.30 | $5.58 | $5.87 | $184.93 |
| Xcel Energy Inc. | XEL | ($41.15) | $0.00 | $0.69 | $1.41 | $1.63 | $1.73 | $1.84 | $1.96 | $2.09 | $2.22 | $2.37 | $2.52 | $2.65 | $2.79 | $2.94 | $3.10 | $3.26 | $102.66 |

Multi-Stage Growth Discounted Cash Flow Model with Terminal P/E
180 Day Average Stock Price
High EPS Growth Rate Estimate in First Stage

| Inputs | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Stock | EPS Growth Rate Estimates | | | | Long-Term | Payout Ratio | | | Iterative Solution | | Terminal | Terminal |
| | | | | | Value | High | | | | | | | | |
| Company | Ticker | Price | Zacks | First Call | Line | Growth | Growth | 2016 | 2020 | 2026 | Proof | IRR | P/E Ratio | PEG Ratio |
| ALLETE, Inc | ALE | $54.07 | 5.50% | 5.00% | 4.00% | 5.50% | 5.32% | 66.00% | 63.00% | 66.66% | ($0.00) | 11.92% | 20.39 | 3.83 |
| Alliant Energy Corporation | LNT | $33.83 | 6.10% | 6.60% | 6.00% | 6.60% | 5.32% | 64.00% | 61.00% | 66.66% | ($0.00) | 10.37% | 20.39 | 3.83 |
| Ameren Corporation | AEE | $46.40 | 6.10% | 5.20% | 6.00% | 6.10% | 5.32% | 68.00% | 64.00% | 66.66% | ($0.00) | 10.41% | 20.39 | 3.83 |
| American Electric Power Company, Inc | AEP | $61.54 | 4.90% | 4.10% | 4.00% | 4.90% | 5.32% | 64.00% | 67.00% | 66.66% | ($0.00) | 10.92% | 20.39 | 3.83 |
| Avista Corporation | AVA | $37.83 | 5.00% | 5.00% | 5.00% | 5.00% | 5.32% | 68.00% | 63.00% | 66.66% | $0.00 | 9.45% | 20.39 | 3.83 |
| CMS Energy Corporation | CMS | $39.10 | 6.40% | 7.24% | 6.00% | 7.24% | 5.32% | 63.00% | 62.00% | 66.66% | ($0.00) | 10.46% | 20.39 | 3.83 |
| DTE Energy Company | DTE | $85.80 | 5.80% | 5.35% | 5.00% | 5.80% | 5.32% | 63.00% | 61.00% | 66.66% | $0.00 | 10.23% | 20.39 | 3.83 |
| IDACORP, Inc | IDA | $70.82 | 4.00% | 4.00% | 3.00% | 4.00% | 5.32% | 53.00% | 60.00% | 66.66% | $0.00 | 9.60% | 20.39 | 3.83 |
| NorthWestern Corporation | NWE | $57.21 | 5.00% | 5.00% | 6.50% | 6.50% | 5.32% | 65.00% | 59.00% | 66.66% | $0.00 | 10.42% | 20.39 | 3.83 |
| OGE Energy Corp. | OGE | $27.72 | 5.20% | 4.30% | 3.00% | 5.20% | 5.32% | 67.00% | 70.00% | 66.66% | ($0.00) | 11.65% | 20.39 | 3.83 |
| Otter Tail Corporation | OTTR | $28.18 | NA | 6.00% | 6.00% | 6.00% | 5.32% | 80.00% | 63.00% | 66.66% | ($0.00) | 11.16% | 20.39 | 3.83 |
| Pinnacle West Capital Corporation | PNW | $69.12 | 4.00% | 3.73% | 4.00% | 4.00% | 5.32% | 64.00% | 65.00% | 66.66% | $0.00 | 10.04% | 20.39 | 3.83 |
| PNM Resources, Inc | PNM | $31.32 | 7.60% | 8.76% | 9.00% | 9.00% | 5.32% | 51.00% | 55.00% | 66.66% | ($0.00) | 12.05% | 20.39 | 3.83 |
| Portland General Electric Company | POR | $38.74 | 6.40% | 6.57% | 5.50% | 6.57% | 5.32% | 56.00% | 56.00% | 66.66% | ($0.00) | 10.65% | 20.39 | 3.83 |
| SCANA Corporation | SCG | $64.66 | 5.30% | 5.40% | 4.50% | 5.40% | 5.32% | 59.00% | 60.00% | 66.66% | ($0.00) | 11.11% | 20.39 | 3.83 |
| Xcel Energy Inc. | XEL | $38.65 | 5.30% | 5.27% | 5.50% | 5.50% | 5.32% | 62.00% | 63.00% | 66.66% | ($0.00) | 10.46% | 20.39 | 3.83 |
| | | | | | | | | | | | MEAN | 10.68% | | |
| | | | | | | | | | | | MAX | 12.05% | | |
| | | | | | | | | | | | MIN | 9.45% | | |

Projected Annual
Earnings per Share

| Company | Ticker | [14] 2015 | [15] 2016 | [16] 2017 | [17] 2018 | [18] 2019 | [19] 2020 | [20] 2021 | [21] 2022 | [22] 2023 | [23] 2024 | [24] 2025 | [25] 2026 | [26] 2027 | [27] 2028 | [28] 2029 | [29] 2030 | [30] 2031 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | $3.38 | $3.57 | $3.76 | $3.97 | $4.19 | $4.42 | $4.66 | $4.91 | $5.18 | $5.46 | $5.75 | $6.06 | $6.39 | $6.72 | $7.07 | $7.45 | $7.85 |
| Alliant Energy Corporation | LNT | $1.69 | $1.80 | $1.92 | $2.05 | $2.18 | $2.33 | $2.47 | $2.63 | $2.78 | $2.94 | $3.11 | $3.27 | $3.45 | $3.63 | $3.82 | $4.03 | $4.24 |
| Ameren Corporation | AEE | $2.38 | $2.53 | $2.68 | $2.84 | $3.02 | $3.20 | $3.39 | $3.59 | $3.79 | $4.01 | $4.22 | $4.45 | $4.69 | $4.94 | $5.20 | $5.47 | $5.77 |
| American Electric Power Company, Inc | AEP | $3.59 | $3.77 | $3.95 | $4.14 | $4.35 | $4.66 | $4.79 | $5.03 | $5.29 | $5.56 | $5.85 | $6.16 | $6.49 | $6.84 | $7.20 | $7.58 | $7.99 |
| Avista Corporation | AVA | $1.89 | $1.98 | $2.08 | $2.19 | $2.30 | $2.41 | $2.53 | $2.66 | $2.80 | $2.95 | $3.10 | $3.27 | $3.44 | $3.62 | $3.82 | $4.02 | $4.23 |
| CMS Energy Corporation | CMS | $1.89 | $2.03 | $2.17 | $2.33 | $2.50 | $2.68 | $2.87 | $3.06 | $3.25 | $3.44 | $3.64 | $3.83 | $4.03 | $4.25 | $4.47 | $4.71 | $4.96 |
| DTE Energy Company | DTE | $4.45 | $4.71 | $4.98 | $5.27 | $5.58 | $5.90 | $6.24 | $6.59 | $6.95 | $7.34 | $7.73 | $8.14 | $8.58 | $9.03 | $9.51 | $10.02 | $10.55 |
| IDACORP, Inc. | IDA | $3.87 | $4.02 | $4.19 | $4.35 | $4.53 | $4.71 | $4.91 | $5.13 | $5.36 | $5.63 | $5.91 | $6.23 | $6.56 | $6.91 | $7.28 | $7.66 | $8.07 |
| NorthWestern Corporation | NWE | $2.90 | $3.09 | $3.29 | $3.50 | $3.73 | $3.97 | $4.22 | $4.48 | $4.75 | $5.02 | $5.29 | $5.58 | $5.87 | $6.19 | $6.52 | $6.86 | $7.23 |
| OGE Energy Corp. | OGE | $1.69 | $1.78 | $1.87 | $1.97 | $2.07 | $2.18 | $2.29 | $2.41 | $2.54 | $2.67 | $2.81 | $2.96 | $3.12 | $3.29 | $3.46 | $3.65 | $3.84 |
| Otter Tail Corporation | OTTR | $1.56 | $1.65 | $1.75 | $1.86 | $1.97 | $2.09 | $2.21 | $2.34 | $2.47 | $2.61 | $2.75 | $2.90 | $3.05 | $3.21 | $3.38 | $3.56 | $3.75 |
| Pinnacle West Capital Corporation | PNW | $3.92 | $4.03 | $4.24 | $4.41 | $4.59 | $4.77 | $4.97 | $5.19 | $5.43 | $5.70 | $5.99 | $6.31 | $6.64 | $7.00 | $7.37 | $7.76 | $8.18 |
| PNM Resources, Inc. | PNM | $1.64 | $1.79 | $1.95 | $2.12 | $2.31 | $2.52 | $2.73 | $2.95 | $3.16 | $3.37 | $3.57 | $3.76 | $3.95 | $4.17 | $4.39 | $4.62 | $4.87 |
| Portland General Electric Company | POR | $2.04 | $2.17 | $2.32 | $2.47 | $2.63 | $2.80 | $2.98 | $3.17 | $3.35 | $3.55 | $3.74 | $3.94 | $4.15 | $4.37 | $4.61 | $4.85 | $5.11 |
| SCANA Corporation | SCG | $3.81 | $4.02 | $4.23 | $4.46 | $4.70 | $4.96 | $5.22 | $5.50 | $5.80 | $6.11 | $6.43 | $6.78 | $7.14 | $7.52 | $7.92 | $8.34 | $8.78 |
| Xcel Energy Inc. | XEL | $2.10 | $2.22 | $2.34 | $2.47 | $2.60 | $2.74 | $2.89 | $3.05 | $3.22 | $3.39 | $3.57 | $3.76 | $3.96 | $4.17 | $4.40 | $4.63 | $4.88 |

Projected Annual
Dividend Payout Ratio

| Company | Ticker | [31] 2016 | [32] 2017 | [33] 2018 | [34] 2019 | [35] 2020 | [36] 2021 | [37] 2022 | [38] 2023 | [39] 2024 | [40] 2025 | [41] 2026 | [42] 2027 | [43] 2028 | [44] 2029 | [45] 2030 | [46] 2031 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | 66.00% | 65.25% | 64.50% | 63.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Alliant Energy Corporation | LNT | 64.00% | 63.25% | 62.50% | 61.75% | 61.00% | 61.96% | 62.95% | 63.94% | 64.92% | 65.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Ameren Corporation | AEE | 68.00% | 67.00% | 66.00% | 65.00% | 64.00% | 64.48% | 64.96% | 65.44% | 65.92% | 66.40% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| American Electric Power Company, Inc | AEP | 64.00% | 64.75% | 65.50% | 66.25% | 67.00% | 66.98% | 66.96% | 66.94% | 66.92% | 66.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Avista Corporation | AVA | 68.00% | 66.75% | 65.50% | 64.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| CMS Energy Corporation | CMS | 63.00% | 62.75% | 62.50% | 62.25% | 62.00% | 62.81% | 63.63% | 64.44% | 65.25% | 66.07% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| DTE Energy Company | DTE | 63.00% | 62.50% | 62.00% | 61.50% | 61.00% | 61.96% | 62.96% | 63.94% | 64.92% | 65.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| IDACORP, Inc | IDA | 53.00% | 54.75% | 56.50% | 58.25% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| NorthWestern Corporation | NWE | 65.00% | 63.50% | 62.00% | 60.50% | 59.00% | 60.31% | 61.63% | 62.94% | 64.25% | 65.57% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| OGE Energy Corp. | OGE | 67.00% | 67.75% | 68.50% | 69.25% | 70.00% | 69.48% | 68.96% | 68.44% | 67.92% | 67.40% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Otter Tail Corporation | OTTR | 80.00% | 75.75% | 71.50% | 67.25% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Pinnacle West Capital Corporation | PNW | 64.00% | 64.25% | 64.50% | 64.75% | 65.00% | 65.31% | 65.63% | 65.94% | 66.25% | 66.57% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| PNM Resources, Inc. | PNM | 51.00% | 52.00% | 53.00% | 54.00% | 55.00% | 56.98% | 58.96% | 60.94% | 62.92% | 64.90% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Portland General Electric Company | POR | 56.00% | 56.00% | 56.00% | 56.00% | 56.00% | 57.81% | 59.63% | 61.44% | 63.25% | 65.07% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| SCANA Corporation | SCG | 59.00% | 59.25% | 59.50% | 59.75% | 60.00% | 61.15% | 62.29% | 63.44% | 64.59% | 65.73% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |
| Xcel Energy Inc. | XEL | 62.00% | 62.25% | 62.50% | 62.75% | 63.00% | 63.65% | 64.29% | 64.94% | 65.59% | 66.23% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% | 66.66% |

Projected Annual
Cash Flows

| Company | Ticker | [47] 2016 | [48] 2017 | [49] 2018 | [50] 2019 | [51] 2020 | [52] 2021 | [53] 2022 | [54] 2023 | [55] 2024 | [56] 2025 | [57] 2026 | [58] 2027 | [59] 2028 | [60] 2029 | [61] 2030 | [62] 2031 | [63] Terminal Value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc. | ALE | $2.35 | $2.45 | $2.56 | $2.67 | $2.78 | $2.97 | $3.16 | $3.36 | $3.58 | $3.81 | $4.05 | $4.27 | $4.49 | $4.73 | $4.98 | $5.25 | $159.99 |
| Alliant Energy Corporation | LNT | $1.15 | $1.21 | $1.28 | $1.35 | $1.42 | $1.53 | $1.65 | $1.78 | $1.91 | $2.05 | $2.19 | $2.31 | $2.43 | $2.56 | $2.69 | $2.84 | $86.47 |
| Ameren Corporation | AEE | $1.72 | $1.80 | $1.88 | $1.96 | $2.05 | $2.19 | $2.33 | $2.48 | $2.64 | $2.80 | $2.98 | $3.13 | $3.30 | $3.48 | $3.66 | $3.86 | $117.55 |
| American Electric Power Company, Inc | AEP | $2.41 | $2.56 | $2.71 | $2.88 | $3.06 | $3.21 | $3.37 | $3.54 | $3.72 | $3.91 | $4.12 | $4.34 | $4.57 | $4.81 | $5.07 | $5.34 | $162.81 |
| Avista Corporation | AVA | $1.35 | $1.39 | $1.43 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $86.33 |
| CMS Energy Corporation | CMS | $1.28 | $1.36 | $1.46 | $1.56 | $1.66 | $1.80 | $1.94 | $2.09 | $2.25 | $2.40 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $101.15 |
| DTE Energy Company | DTE | $2.97 | $3.11 | $3.27 | $3.43 | $3.60 | $3.87 | $4.15 | $4.45 | $4.76 | $5.10 | $5.45 | $5.74 | $6.04 | $6.36 | $6.70 | $7.06 | $215.17 |
| IDACORP, Inc. | IDA | $2.13 | $2.29 | $2.46 | $2.64 | $2.83 | $3.00 | $3.19 | $3.40 | $3.63 | $3.89 | $4.16 | $4.39 | $4.62 | $4.87 | $5.13 | $5.40 | $164.54 |
| NorthWestern Corporation | NWE | $2.01 | $2.09 | $2.17 | $2.26 | $2.34 | $2.55 | $2.76 | $2.99 | $3.22 | $3.47 | $3.73 | $3.93 | $4.14 | $4.36 | $4.59 | $4.83 | $147.34 |
| OGE Energy Corp. | OGE | $1.19 | $1.27 | $1.35 | $1.43 | $1.52 | $1.59 | $1.66 | $1.74 | $1.81 | $1.90 | $1.98 | $2.09 | $2.20 | $2.32 | $2.44 | $2.57 | $78.30 |
| Otter Tail Corporation | OTTR | $1.32 | $1.33 | $1.33 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $76.51 |
| Pinnacle West Capital Corporation | PNW | $2.61 | $2.72 | $2.84 | $2.97 | $3.10 | $3.25 | $3.41 | $3.58 | $3.78 | $3.99 | $4.22 | $4.44 | $4.68 | $4.93 | $5.19 | $5.47 | $166.66 |
| PNM Resources, Inc. | PNM | $0.91 | $1.01 | $1.13 | $1.25 | $1.39 | $1.56 | $1.74 | $1.92 | $2.12 | $2.31 | $2.51 | $2.65 | $2.79 | $2.93 | $3.09 | $3.25 | $99.21 |
| Portland General Electric Company | POR | $1.22 | $1.30 | $1.38 | $1.47 | $1.57 | $1.72 | $1.89 | $2.06 | $2.24 | $2.44 | $2.64 | $2.78 | $2.92 | $3.08 | $3.24 | $3.42 | $104.16 |
| SCANA Corporation | SCG | $2.37 | $2.51 | $2.65 | $2.81 | $2.97 | $3.19 | $3.43 | $3.68 | $3.95 | $4.23 | $4.53 | $4.77 | $5.03 | $5.30 | $5.58 | $5.87 | $179.06 |
| Xcel Energy Inc | XEL | $1.37 | $1.46 | $1.54 | $1.63 | $1.73 | $1.84 | $1.96 | $2.09 | $2.22 | $2.37 | $2.52 | $2.65 | $2.79 | $2.94 | $3.10 | $3.26 | $99.40 |

Projected Annual Data
Investor Cash Flows

| Company | Ticker | [64] Initial Outflow | [65] 6/30/16 | [66] 12/31/16 | [67] 6/30/17 | [68] 6/30/18 | [69] 6/30/19 | [70] 6/30/20 | [71] 6/30/21 | [72] 6/30/22 | [73] 6/30/23 | [74] 6/30/24 | [75] 6/30/25 | [76] 6/30/26 | [77] 6/30/27 | [78] 6/30/28 | [79] 6/30/29 | [80] 6/30/30 | [81] 6/30/31 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLETE, Inc | ALE | ($54.07) | $0.00 | $1.19 | $2.42 | $2.67 | $2.78 | $2.97 | $3.16 | $3.36 | $3.58 | $3.81 | $4.05 | $4.27 | $4.49 | $4.73 | $4.98 | $5.25 | $165.23 |
| Alliant Energy Corporation | LNT | ($33.83) | $0.00 | $0.58 | $1.19 | $1.35 | $1.42 | $1.53 | $1.65 | $1.78 | $1.91 | $2.05 | $2.19 | $2.31 | $2.43 | $2.56 | $2.69 | $2.84 | $89.31 |
| Ameren Corporation | AEE | ($46.40) | $0.00 | $0.87 | $1.77 | $1.96 | $2.05 | $2.19 | $2.33 | $2.48 | $2.64 | $2.80 | $2.98 | $3.13 | $3.30 | $3.48 | $3.66 | $3.86 | $121.41 |
| American Electric Power Company, Inc | AEP | ($61.54) | $0.00 | $1.21 | $2.47 | $2.88 | $3.06 | $3.21 | $3.37 | $3.54 | $3.72 | $3.91 | $4.12 | $4.34 | $4.57 | $4.81 | $5.07 | $5.34 | $168.15 |
| Avista Corporation | AVA | ($37.83) | $0.00 | $0.68 | $1.38 | $1.48 | $1.52 | $1.61 | $1.71 | $1.82 | $1.93 | $2.05 | $2.19 | $2.30 | $2.42 | $2.55 | $2.69 | $2.83 | $89.16 |
| CMS Energy Corporation | CMS | ($39.10) | $0.00 | $0.64 | $1.32 | $1.56 | $1.66 | $1.80 | $1.94 | $2.09 | $2.25 | $2.40 | $2.56 | $2.70 | $2.84 | $2.99 | $3.15 | $3.32 | $104.47 |
| DTE Energy Company | DTE | ($85.80) | $0.00 | $1.50 | $3.05 | $3.43 | $3.60 | $3.87 | $4.15 | $4.45 | $4.76 | $5.10 | $5.45 | $5.74 | $6.04 | $6.36 | $6.70 | $7.06 | $222.23 |
| IDACORP, Inc | IDA | ($70.82) | $0.00 | $1.08 | $2.18 | $2.64 | $2.83 | $3.00 | $3.19 | $3.40 | $3.63 | $3.89 | $4.16 | $4.39 | $4.62 | $4.87 | $5.13 | $5.40 | $169.94 |
| NorthWestern Corporation | NWE | ($57.21) | $0.00 | $1.01 | $2.07 | $2.26 | $2.34 | $2.55 | $2.76 | $2.99 | $3.22 | $3.47 | $3.73 | $3.93 | $4.14 | $4.36 | $4.59 | $4.83 | $152.17 |
| OGE Energy Corp. | OGE | ($27.72) | $0.00 | $0.60 | $1.22 | $1.43 | $1.52 | $1.59 | $1.66 | $1.74 | $1.81 | $1.90 | $1.98 | $2.09 | $2.20 | $2.32 | $2.44 | $2.57 | $80.87 |
| Otter Tail Corporation | OTTR | ($28.18) | $0.00 | $0.67 | $1.36 | $1.32 | $1.32 | $1.41 | $1.50 | $1.60 | $1.71 | $1.82 | $1.94 | $2.04 | $2.15 | $2.26 | $2.38 | $2.51 | $79.02 |
| Pinnacle West Capital Corporation | PNW | ($69.12) | $0.00 | $1.32 | $2.66 | $2.97 | $3.10 | $3.25 | $3.41 | $3.58 | $3.78 | $3.99 | $4.22 | $4.44 | $4.68 | $4.93 | $5.19 | $5.47 | $172.13 |
| PNM Resources, Inc. | PNM | ($31.32) | $0.00 | $0.46 | $0.95 | $1.25 | $1.39 | $1.56 | $1.74 | $1.92 | $2.12 | $2.31 | $2.51 | $2.65 | $2.79 | $2.93 | $3.09 | $3.25 | $102.47 |
| Portland General Electric Company | POR | ($38.74) | $0.00 | $0.61 | $1.26 | $1.47 | $1.57 | $1.72 | $1.89 | $2.06 | $2.24 | $2.44 | $2.64 | $2.78 | $2.92 | $3.08 | $3.24 | $3.42 | $107.57 |
| SCANA Corporation | SCG | ($64.66) | $0.00 | $1.19 | $2.43 | $2.81 | $2.97 | $3.19 | $3.43 | $3.68 | $3.95 | $4.23 | $4.53 | $4.77 | $5.03 | $5.30 | $5.58 | $5.87 | $184.93 |
| Xcel Energy Inc | XEL | ($38.65) | $0.00 | $0.69 | $1.41 | $1.63 | $1.73 | $1.84 | $1.96 | $2.09 | $2.22 | $2.37 | $2.52 | $2.65 | $2.79 | $2.94 | $3.10 | $3.26 | $102.66 |

Multi-Stage DCF Notes:

[1] Source: Bloomberg, based on 30-, 90-, and 180-day historical average as of June 30, 2016
[2] Source: Zacks
[3] Source: Yahoo! Finance
[4] Source: Value Line
[5] Equals indicated value (average, minimum, maximum) of Columns [2], [3], [4]
[6] Source: Federal Reserve, Bureau of Economic Analysis
[7] Source: Value Line
[8] Source: Value Line
[9] Source: Bloomberg Professional
[10] Equals Column [1] + Column [62]
[11] Equals result of Excel Solver function, goal: Column [10] equals $0.00
[12] Equals Column [61] / Column [30]
[13] Equals Column [12] / (Column [6] x 100)
[14] Source: Value Line
[15] Equals Column [14] x (1 + Column [5])
[16] Equals Column [15] x (1 + Column [5])
[17] Equals Column [16] x (1 + Column [5])
[18] Equals Column [17] x (1 + Column [5])
[19] Equals Column [18] x (1 + Column [5])
[20] Equals (1 + (Column [5] + (((Column [6] − Column [5]) / (2026 − 2021 + 1)) x (2021 − 2020)))) x Column [19]
[21] Equals (1 + (Column [5] + (((Column [6] − Column [5]) / (2026 − 2021 + 1)) x (2022 − 2020)))) x Column [20]
[22] Equals (1 + (Column [5] + (((Column [6] − Column [5]) / (2026 − 2021 + 1)) x (2023 − 2020)))) x Column [21]
[23] Equals (1 + (Column [5] + (((Column [6] − Column [5]) / (2026 − 2021 + 1)) x (2024 − 2020)))) x Column [22]
[24] Equals (1 + (Column [5] + (((Column [6] − Column [5]) / (2026 − 2021 + 1)) x (2025 − 2020)))) x Column [23]
[25] Equals Column [24] x (1 + Column [6])
[26] Equals Column [25] x (1 + Column [6])
[27] Equals Column [26] x (1 + Column [6])
[28] Equals Column [27] x (1 + Column [6])
[29] Equals Column [28] x (1 + Column [6])
[30] Equals Column [29] x (1 + Column [6])
[31] Equals Column [7]
[32] Equals Column [31] + ((Column [35] − Column [31]) / 4)
[33] Equals Column [32] + ((Column [35] − Column [31]) / 4)
[34] Equals Column [33] + ((Column [35] − Column [31]) / 4)
[35] Equals Column [8]
[36] Equals Column [35] + ((Column [42] − Column [35]) / 6)
[37] Equals Column [36] + ((Column [42] − Column [35]) / 6)
[38] Equals Column [37] + ((Column [42] − Column [35]) / 6)
[39] Equals Column [38] + ((Column [42] − Column [35]) / 6)
[40] Equals Column [39] + ((Column [42] − Column [35]) / 6)
[41] Equals Column [9]
[42] Equals Column [9]
[43] Equals Column [9]
[44] Equals Column [9]
[45] Equals Column [9]
[46] Equals Column [9]
[47] Equals Column [15] x Column [31]
[48] Equals Column [16] x Column [32]
[49] Equals Column [17] x Column [33]
[50] Equals Column [18] x Column [34]
[51] Equals Column [19] x Column [35]
[52] Equals Column [20] x Column [36]
[53] Equals Column [21] x Column [37]
[54] Equals Column [22] x Column [38]
[55] Equals Column [23] x Column [39]
[56] Equals Column [24] x Column [40]
[57] Equals Column [25] x Column [41]
[58] Equals Column [26] x Column [42]
[59] Equals Column [27] x Column [43]
[60] Equals Column [28] x Column [44]
[61] Equals Column [29] x Column [45]
[62] Equals Column [30] x Column [46]
[63] Equals (Column [62] x (1 + Column [6])) / (Column [11] − Column [6])
[64] Equals negative net present value; discount rate equals Column [11], cash flows equal Column [65] through Column [81]
[65] Equals $0.00
[66] Equals Column [47] x (12/31/2016 - 6/30/2016) / 365
[67] Equals Column [47] + (0.5 x Column [5])
[68] Equals Column [49]
[69] Equals Column [50]
[70] Equals Column [51]
[71] Equals Column [52]
[72] Equals Column [53]
[73] Equals Column [54]
[74] Equals Column [55]
[75] Equals Column [56]
[76] Equals Column [57]
[77] Equals Column [58]
[78] Equals Column [59]
[79] Equals Column [60]
[80] Equals Column [61]
[81] Equals Column [62] + [63]

Ex-Ante Market Risk Premium
Market DCF Method Based - Bloomberg

| [1] S&P 500 Est. Required Market Return | [2] Current 30-Year Treasury (30-day average) | [3] Implied Market Risk Premium |
|---|---|---|
| 13.09% | 2.50% | 10.59% |

| Company | Ticker | [4] Market Capitalization | [5] Weight in Index | [6] Estimated Dividend Yield | [7] Long-Term Growth Est. | [8] DCF Result | [9] Weighted DCF Result |
|---|---|---|---|---|---|---|---|
| AGILENT TECHNOLOGIES INC | A | 14,440.14 | 0.08% | 1.01% | 10.13% | 11.19% | 0.0084% |
| ALCOA INC | AA | 12,191.04 | 0.06% | 1.31% | 5.00% | 6.34% | 0.0040% |
| AMERICAN AIRLINES GROUP INC | AAL | 16,368.04 | 0.09% | 1.50% | -21.78% | -20.44% | -0.0174% |
| ADVANCE AUTO PARTS INC | AAP | 11,888.86 | 0.06% | 0.16% | 12.01% | 12.17% | 0.0075% |
| APPLE INC | AAPL | 523,641.83 | 2.72% | 2.29% | 11.56% | 13.99% | 0.3808% |
| ABBVIE INC | ABBV | 100,130.67 | 0.52% | 3.70% | 13.51% | 17.46% | 0.0909% |
| AMERISOURCEBERGEN CORP | ABC | 17,121.60 | 0.09% | 1.70% | 11.20% | 12.99% | 0.0116% |
| ABBOTT LABORATORIES | ABT | 57,752.37 | 0.30% | 2.66% | 11.73% | 14.55% | 0.0437% |
| ACCENTURE PLC-CL A | ACN | 73,850.67 | 0.38% | 2.03% | 9.82% | 11.95% | 0.0459% |
| ADOBE SYSTEMS INC | ADBE | 47,731.28 | 0.25% | 0.00% | 20.26% | 20.26% | 0.0503% |
| ANALOG DEVICES INC | ADI | 17,408.29 | 0.09% | 2.93% | 8.92% | 11.98% | 0.0108% |
| ARCHER-DANIELS-MIDLAND CO | ADM | 25,201.40 | 0.13% | 2.81% | 7.15% | 10.06% | 0.0132% |
| AUTOMATIC DATA PROCESSING | ADP | 41,849.98 | 0.22% | 2.25% | 10.29% | 12.65% | 0.0275% |
| ALLIANCE DATA SYSTEMS CORP | ADS | 11,547.48 | 0.06% | 0.00% | 13.83% | 13.83% | 0.0083% |
| AUTODESK INC | ADSK | 12,162.88 | 0.06% | 0.00% | 20.96% | 20.96% | 0.0133% |
| AMEREN CORPORATION | AEE | 13,000.37 | 0.07% | 3.25% | 4.43% | 7.75% | 0.0052% |
| AMERICAN ELECTRIC POWER | AEP | 34,436.15 | 0.18% | 3.22% | 5.05% | 8.35% | 0.0150% |
| AES CORP | AES | 8,224.33 | 0.04% | 3.53% | 7.33% | 10.99% | 0.0047% |
| AETNA INC | AET | 42,818.78 | 0.22% | 0.82% | 10.57% | 11.44% | 0.0255% |
| AFLAC INC | AFL | 29,873.30 | 0.16% | 2.31% | 3.86% | 6.22% | 0.0097% |
| ALLERGAN PLC | AGN | 91,409.25 | 0.48% | 0.00% | 12.32% | 12.32% | 0.0585% |
| AMERICAN INTERNATIONAL GROUP | AIG | 59,185.62 | 0.31% | 2.42% | 9.50% | 12.04% | 0.0370% |
| APARTMENT INVT & MGMT CO -A | AIV | 6,915.68 | 0.04% | 2.99% | 6.82% | 9.92% | 0.0036% |
| ASSURANT INC | AIZ | 5,345.77 | 0.03% | 2.27% | 12.36% | 14.77% | 0.0041% |
| ARTHUR J GALLAGHER & CO | AJG | 8,431.34 | 0.04% | 3.19% | 7.97% | 11.29% | 0.0050% |
| AKAMAI TECHNOLOGIES INC | AKAM | 9,820.85 | 0.05% | 0.00% | 15.60% | 15.60% | 0.0080% |
| ALASKA AIR GROUP INC | ALK | 7,184.39 | 0.04% | 1.89% | 2.65% | 4.56% | 0.0017% |
| ALLSTATE CORP | ALL | 26,186.99 | 0.14% | 1.89% | 9.00% | 10.97% | 0.0149% |
| ALLEGION PLC | ALLE | 6,646.79 | 0.03% | 0.70% | 13.10% | 13.85% | 0.0048% |
| ALEXION PHARMACEUTICALS INC | ALXN | 26,156.59 | 0.14% | 0.00% | 27.12% | 27.12% | 0.0369% |
| APPLIED MATERIALS INC | AMAT | 26,106.78 | 0.14% | 1.70% | 15.43% | 17.26% | 0.0234% |
| AMETEK INC | AME | 10,790.55 | 0.06% | 0.85% | 10.30% | 11.20% | 0.0063% |
| AFFILIATED MANAGERS GROUP | AMG | 7,979.77 | 0.04% | 0.00% | 13.73% | 13.73% | 0.0057% |
| AMGEN INC | AMGN | 114,297.68 | 0.59% | 2.61% | 7.92% | 10.64% | 0.0632% |
| AMERIPRISE FINANCIAL INC | AMP | 14,898.34 | 0.08% | 3.16% | 13.23% | 16.60% | 0.0129% |
| AMERICAN TOWER CORP | AMT | 48,241.62 | 0.25% | 1.91% | 20.41% | 22.52% | 0.0565% |
| AMAZON.COM INC | AMZN | 337,649.52 | 1.76% | 0.00% | 47.03% | 47.03% | 0.8256% |
| AUTONATION INC | AN | 4,843.81 | 0.03% | 0.00% | 8.33% | 8.33% | 0.0021% |
| ANTHEM INC | ANTM | 34,536.25 | 0.18% | 1.98% | 8.87% | 10.93% | 0.0196% |
| AON PLC | AON | 28,937.41 | 0.15% | 1.19% | 12.08% | 13.35% | 0.0201% |
| APACHE CORP | APA | 21,072.97 | 0.11% | 1.79% | 8.50% | 10.37% | 0.0114% |
| ANADARKO PETROLEUM CORP | APC | 27,180.22 | 0.14% | 0.38% | 8.33% | 8.72% | 0.0123% |
| AIR PRODUCTS & CHEMICALS INC | APD | 30,692.17 | 0.16% | 2.36% | 8.17% | 10.63% | 0.0170% |
| AMPHENOL CORP-CL A | APH | 17,653.46 | 0.09% | 1.01% | 9.26% | 10.31% | 0.0095% |
| ACTIVISION BLIZZARD INC | ATVI | 29,319.79 | 0.15% | 0.66% | 12.00% | 12.70% | 0.0194% |
| AVALONBAY COMMUNITIES INC | AVB | 24,742.75 | 0.13% | 2.98% | 7.25% | 10.34% | 0.0133% |
| BROADCOM LTD | AVGO | 61,463.59 | 0.32% | 1.23% | 15.70% | 17.02% | 0.0544% |
| AVERY DENNISON CORP | AVY | 6,665.90 | 0.03% | 2.21% | 8.20% | 10.50% | 0.0036% |
| AMERICAN WATER WORKS CO INC | AWK | 15,018.65 | 0.08% | 1.75% | 7.34% | 9.16% | 0.0072% |
| AMERICAN EXPRESS CO | AXP | 57,784.77 | 0.30% | 2.00% | 9.00% | 11.09% | 0.0333% |
| ACUITY BRANDS INC | AYI | 10,882.24 | 0.06% | 0.21% | 19.60% | 19.83% | 0.0112% |
| AUTOZONE INC | AZO | 23,205.56 | 0.12% | 0.00% | 11.93% | 11.93% | 0.0144% |
| BOEING CO/THE | BA | 82,728.64 | 0.43% | 3.37% | 12.08% | 15.65% | 0.0673% |
| BANK OF AMERICA CORP | BAC | 136,308.32 | 0.71% | 2.00% | 7.50% | 9.58% | 0.0679% |
| BAXTER INTERNATIONAL INC | BAX | 24,973.32 | 0.13% | 1.09% | 12.04% | 13.20% | 0.0171% |
| BED BATH & BEYOND INC | BBBY | 6,671.73 | 0.03% | 1.10% | 6.83% | 7.97% | 0.0028% |
| BB&T CORP | BBT | 28,917.04 | 0.15% | 3.18% | 5.27% | 8.54% | 0.0128% |
| BEST BUY CO INC | BBY | 9,876.23 | 0.05% | 4.17% | 10.18% | 14.57% | 0.0075% |
| CR BARD INC | BCR | 17,241.62 | 0.09% | 0.42% | 10.75% | 11.19% | 0.0100% |
| BECTON DICKINSON AND CO | BDX | 35,987.34 | 0.19% | 1.56% | 11.38% | 13.03% | 0.0244% |
| FRANKLIN RESOURCES INC | BEN | 19,519.16 | 0.10% | 2.16% | 4.88% | 7.09% | 0.0072% |
| BROWN-FORMAN CORP-CLASS B | BF/B | 20,347.91 | 0.11% | 1.42% | 9.61% | 11.09% | 0.0117% |
| BAKER HUGHES INC | BHI | 19,763.05 | 0.10% | 1.51% | 14.00% | 15.62% | 0.0160% |
| BIOGEN INC | BIIB | 52,971.03 | 0.28% | 0.00% | 8.26% | 8.26% | 0.0228% |
| BANK OF NEW YORK MELLON CORP | BK | 41,844.66 | 0.22% | 1.89% | 15.87% | 17.90% | 0.0390% |
| BLACKROCK INC | BLK | 56,501.55 | 0.29% | 2.67% | 12.67% | 15.52% | 0.0456% |
| BALL CORP | BLL | 10,250.51 | 0.05% | 0.58% | 4.40% | 4.99% | 0.0027% |
| BRISTOL-MYERS SQUIBB CO | BMY | 122,777.55 | 0.64% | 2.08% | 20.56% | 22.85% | 0.1459% |
| BERKSHIRE HATHAWAY INC-CL B | BRK/B | 356,822.76 | 1.86% | 0.00% | 7.10% | 7.10% | 0.1317% |
| BOSTON SCIENTIFIC CORP | BSX | 31,709.98 | 0.16% | 0.00% | 11.73% | 11.73% | 0.0193% |
| BORGWARNER INC | BWA | 6,424.12 | 0.03% | 1.76% | 11.60% | 13.46% | 0.0045% |
| BOSTON PROPERTIES INC | BXP | 20,261.33 | 0.11% | 2.25% | 6.55% | 8.88% | 0.0094% |
| CITIGROUP INC | C | 124,411.65 | 0.65% | 0.92% | 11.80% | 12.78% | 0.0827% |
| CA INC | CA | 13,800.48 | 0.07% | 3.15% | 5.50% | 8.73% | 0.0063% |
| CONAGRA FOODS INC | CAG | 20,865.00 | 0.11% | 2.20% | 8.00% | 10.29% | 0.0112% |
| CARDINAL HEALTH INC | CAH | 25,416.85 | 0.13% | 1.95% | 11.90% | 13.97% | 0.0185% |

| Company | Ticker | [4] Market Capitalization | [5] Weight in Index | [6] Estimated Dividend Yield | [7] Long-Term Growth Est. | [8] DCF Result | [9] Weighted DCF Result |
|---|---|---|---|---|---|---|---|
| CATERPILLAR INC | CAT | 44,264.82 | 0.23% | 4.10% | 7.23% | 11.47% | 0.0264% |
| CHUBB LTD | CB | 60,711.98 | 0.32% | 2.10% | 7.86% | 10.04% | 0.0317% |
| CBRE GROUP INC - A | CBG | 8,882.34 | 0.05% | 0.00% | 12.50% | 12.50% | 0.0058% |
| CBS CORP-CLASS B NON VOTING | CBS | 24,804.60 | 0.13% | 1.20% | 17.03% | 18.33% | 0.0236% |
| CROWN CASTLE INTL CORP | CCI | 34,238.68 | 0.18% | 3.54% | 15.50% | 19.32% | 0.0344% |
| CARNIVAL CORP | CCL | 33,238.05 | 0.17% | 2.93% | 16.58% | 19.75% | 0.0341% |
| CELGENE CORP | CELG | 76,398.95 | 0.40% | 0.00% | 22.42% | 22.42% | 0.0891% |
| CERNER CORP | CERN | 19,811.59 | 0.10% | 0.00% | 16.13% | 16.13% | 0.0166% |
| CF INDUSTRIES HOLDINGS INC | CF | 5,617.56 | 0.03% | 4.99% | 17.15% | 22.57% | 0.0066% |
| CITIZENS FINANCIAL GROUP | CFG | 10,569.02 | 0.05% | 2.34% | 9.00% | 11.45% | 0.0063% |
| CHURCH & DWIGHT CO INC | CHD | 13,203.88 | 0.07% | 1.38% | 9.29% | 10.73% | 0.0074% |
| CHESAPEAKE ENERGY CORP | CHK | 2,930.12 | 0.02% | 0.00% | -3.48% | -3.48% | -0.0005% |
| C.H. ROBINSON WORLDWIDE INC | CHRW | 10,600.42 | 0.06% | 2.35% | 10.28% | 12.74% | 0.0070% |
| CIGNA CORP | CI | 32,831.11 | 0.17% | 0.03% | 8.62% | 8.66% | 0.0148% |
| CINCINNATI FINANCIAL CORP | CINF | 12,317.88 | 0.06% | 0.00% | 16.30% | 16.30% | 0.0104% |
| COLGATE-PALMOLIVE CO | CL | 65,368.89 | 0.34% | 2.15% | 8.38% | 10.62% | 0.0361% |
| CLOROX COMPANY | CLX | 17,899.42 | 0.09% | 2.24% | 6.47% | 8.78% | 0.0082% |
| COMERICA INC | CMA | 7,203.26 | 0.04% | 2.12% | 5.04% | 7.22% | 0.0027% |
| COMCAST CORP-CLASS A | CMCSA | 158,228.88 | 0.82% | 1.70% | 11.32% | 13.12% | 0.1079% |
| CME GROUP INC | CME | 32,983.82 | 0.17% | 5.11% | 12.78% | 18.21% | 0.0312% |
| CHIPOTLE MEXICAN GRILL INC | CMG | 11,761.16 | 0.06% | 0.00% | 16.72% | 16.72% | 0.0102% |
| CUMMINS INC | CMI | 19,155.23 | 0.10% | 3.53% | 4.26% | 7.86% | 0.0078% |
| CMS ENERGY CORP | CMS | 12,839.04 | 0.07% | 2.70% | 6.00% | 8.78% | 0.0059% |
| CENTENE CORP | CNC | 12,166.66 | 0.06% | 0.00% | 16.57% | 16.57% | 0.0105% |
| CENTERPOINT ENERGY INC | CNP | 10,334.87 | 0.05% | 4.30% | 5.67% | 10.09% | 0.0054% |
| CAPITAL ONE FINANCIAL CORP | COF | 32,523.44 | 0.17% | 2.67% | 6.57% | 9.33% | 0.0158% |
| CABOT OIL & GAS CORP | COG | 11,969.11 | 0.06% | 0.31% | 40.79% | 41.16% | 0.0256% |
| COACH INC | COH | 11,326.93 | 0.06% | 3.31% | 14.23% | 17.78% | 0.0105% |
| ROCKWELL COLLINS INC | COL | 11,084.73 | 0.06% | 1.58% | 8.32% | 9.97% | 0.0057% |
| CONOCOPHILLIPS | COP | 53,993.68 | 0.28% | 2.30% | 6.67% | 9.04% | 0.0254% |
| COSTCO WHOLESALE CORP | COST | 68,793.82 | 0.36% | 1.08% | 10.55% | 11.69% | 0.0418% |
| CAMPBELL SOUP CO | CPB | 20,534.29 | 0.11% | 2.03% | 7.32% | 9.42% | 0.0101% |
| COLUMBIA PIPELINE GROUP | CPGX | 10,206.23 | N/A | 2.20% | N/A | N/A | N/A |
| SALESFORCE.COM INC | CRM | 53,800.28 | 0.28% | 0.00% | 25.42% | 25.42% | 0.0711% |
| CISCO SYSTEMS INC | CSCO | 144,302.44 | 0.75% | 3.28% | 8.77% | 12.19% | 0.0914% |
| CSRA INC | CSRA | 3,829.02 | 0.02% | 1.71% | 10.00% | 11.79% | 0.0023% |
| CSX CORP | CSX | 24,929.01 | 0.13% | 2.85% | 6.46% | 9.40% | 0.0122% |
| CINTAS CORP | CTAS | 10,500.22 | 0.05% | 1.08% | 11.84% | 12.98% | 0.0071% |
| CENTURYLINK INC | CTL | 15,840.97 | 0.08% | 7.45% | -1.52% | 5.87% | 0.0048% |
| COGNIZANT TECH SOLUTIONS-A | CTSH | 34,679.97 | 0.18% | 0.00% | 13.78% | 13.78% | 0.0249% |
| CITRIX SYSTEMS INC | CTXS | 12,422.12 | 0.06% | 0.00% | 16.70% | 16.70% | 0.0108% |
| CVS HEALTH CORP | CVS | 102,826.88 | 0.53% | 1.73% | 13.85% | 15.70% | 0.0840% |
| CHEVRON CORP | CVX | 197,573.35 | 1.03% | 4.10% | 3.25% | 7.42% | 0.0762% |
| CONCHO RESOURCES INC | CXO | 15,690.05 | 0.08% | 0.00% | 25.00% | 25.00% | 0.0204% |
| DOMINION RESOURCES INC/VA | D | 48,021.89 | 0.25% | 3.59% | 6.25% | 9.96% | 0.0249% |
| DELTA AIR LINES INC | DAL | 28,109.11 | 0.15% | 1.67% | 15.98% | 17.77% | 0.0260% |
| DU PONT (E.I.) DE NEMOURS | DD | 56,632.99 | 0.29% | 2.44% | 8.25% | 10.79% | 0.0318% |
| DEERE & CO | DE | 25,467.54 | 0.13% | 2.98% | 7.76% | 10.85% | 0.0144% |
| DISCOVER FINANCIAL SERVICES | DFS | 22,091.15 | 0.11% | 2.21% | 8.13% | 10.43% | 0.0120% |
| DOLLAR GENERAL CORP | DG | 26,675.16 | 0.14% | 1.05% | 13.89% | 15.01% | 0.0208% |
| QUEST DIAGNOSTICS INC | DGX | 11,516.03 | 0.06% | 1.95% | 8.91% | 10.94% | 0.0066% |
| DR HORTON INC | DHI | 11,676.73 | 0.06% | 1.03% | 14.71% | 15.81% | 0.0096% |
| DANAHER CORP | DHR | 69,558.24 | 0.36% | 0.63% | 11.98% | 12.64% | 0.0457% |
| WALT DISNEY CO/THE | DIS | 158,707.15 | 0.83% | 1.49% | 9.80% | 11.36% | 0.0938% |
| DISCOVERY COMMUNICATIONS-A | DISCA | 15,147.86 | 0.08% | 0.00% | 13.45% | 13.45% | 0.0106% |
| DELPHI AUTOMOTIVE PLC | DLPH | 17,088.36 | 0.09% | 1.86% | 9.88% | 11.83% | 0.0105% |
| DIGITAL REALTY TRUST INC | DLR | 17,364.98 | 0.09% | 3.23% | 5.94% | 9.26% | 0.0084% |
| DOLLAR TREE INC | DLTR | 22,209.17 | 0.12% | 0.00% | 17.67% | 17.67% | 0.0204% |
| DUN & BRADSTREET CORP | DNB | 4,417.72 | 0.02% | 1.58% | 11.75% | 13.43% | 0.0031% |
| DIAMOND OFFSHORE DRILLING | DO | 3,337.34 | N/A | 0.00% | N/A | N/A | N/A |
| DOVER CORP | DOV | 10,754.91 | 0.06% | 2.48% | 10.48% | 13.08% | 0.0073% |
| DOW CHEMICAL CO/THE | DOW | 55,963.47 | 0.29% | 3.73% | 6.00% | 9.85% | 0.0286% |
| DR PEPPER SNAPPLE GROUP INC | DPS | 17,955.02 | 0.09% | 2.18% | 13.24% | 15.57% | 0.0145% |
| DARDEN RESTAURANTS INC | DRI | 8,026.81 | 0.04% | 3.46% | 13.38% | 17.08% | 0.0071% |
| DTE ENERGY COMPANY | DTE | 17,785.64 | 0.09% | 3.02% | 5.54% | 8.65% | 0.0080% |
| DUKE ENERGY CORP | DUK | 59,091.55 | 0.31% | 3.95% | 4.71% | 8.75% | 0.0269% |
| DAVITA HEALTHCARE PARTNERS I | DVA | 15,966.58 | 0.08% | 0.00% | 10.11% | 10.11% | 0.0084% |
| DEVON ENERGY CORP | DVN | 18,995.00 | 0.10% | 1.16% | 7.97% | 9.17% | 0.0091% |
| ELECTRONIC ARTS INC | EA | 22,832.80 | 0.12% | 0.00% | 11.27% | 11.27% | 0.0134% |
| EBAY INC | EBAY | 26,895.85 | 0.14% | 0.00% | 8.89% | 8.89% | 0.0124% |
| ECOLAB INC | ECL | 34,786.00 | 0.18% | 1.20% | 12.36% | 13.63% | 0.0247% |
| CONSOLIDATED EDISON INC | ED | 24,466.66 | 0.13% | 3.33% | 3.07% | 6.45% | 0.0082% |
| EQUIFAX INC | EFX | 15,281.39 | 0.08% | 1.03% | 9.21% | 10.28% | 0.0082% |
| EDISON INTERNATIONAL | EIX | 25,305.76 | 0.13% | 2.48% | 5.44% | 7.99% | 0.0105% |
| ESTEE LAUDER COMPANIES-CL A | EL | 33,608.03 | 0.17% | 1.25% | 11.73% | 13.05% | 0.0228% |
| EMC CORP/MA | EMC | 53,108.30 | 0.28% | 1.78% | 10.58% | 12.45% | 0.0344% |
| EASTMAN CHEMICAL CO | EMN | 10,038.11 | 0.05% | 2.66% | 5.50% | 8.24% | 0.0043% |
| EMERSON ELECTRIC CO | EMR | 33,557.19 | 0.17% | 3.64% | 7.33% | 11.10% | 0.0194% |
| ENDO INTERNATIONAL PLC | ENDP | 3,471.29 | 0.02% | 0.00% | 4.70% | 4.70% | 0.0008% |
| EOG RESOURCES INC | EOG | 45,904.07 | 0.24% | 0.78% | -9.66% | -8.92% | -0.0213% |
| EQUINIX INC | EQIX | 26,919.74 | 0.14% | 1.80% | 22.05% | 24.05% | 0.0337% |
| EQUITY RESIDENTIAL | EQR | 25,175.79 | 0.13% | 18.91% | 6.08% | 25.56% | 0.0335% |
| EQT CORP | EQT | 13,375.03 | 0.07% | 0.15% | 25.00% | 25.17% | 0.0175% |
| EVERSOURCE ENERGY | ES | 19,000.70 | 0.10% | 2.97% | 7.00% | 10.07% | 0.0100% |
| EXPRESS SCRIPTS HOLDING CO | ESRX | 47,946.23 | 0.25% | 0.00% | 12.85% | 12.85% | 0.0320% |
| ESSEX PROPERTY TRUST INC | ESS | 14,923.95 | 0.08% | 2.79% | 6.83% | 9.72% | 0.0075% |
| E*TRADE FINANCIAL CORP | ETFC | 6,547.34 | 0.03% | 0.03% | 17.87% | 17.90% | 0.0061% |
| EATON CORP PLC | ETN | 27,356.34 | 0.14% | 3.83% | 8.42% | 12.41% | 0.0176% |

| Company | Ticker | [4] Market Capitalization | [5] Weight in Index | [6] Estimated Dividend Yield | [7] Long-Term Growth Est. | [8] DCF Result | [9] Weighted DCF Result |
|---|---|---|---|---|---|---|---|
| ENTERGY CORP | ETR | 14,540.57 | 0.08% | 4.22% | 1.56% | 5.82% | 0.0044% |
| EDWARDS LIFESCIENCES CORP | EW | 21,119.10 | 0.11% | 0.00% | 14.57% | 14.57% | 0.0160% |
| EXELON CORP | EXC | 33,512.82 | 0.17% | 3.47% | 4.00% | 7.53% | 0.0131% |
| EXPEDITORS INTL WASH INC | EXPD | 8,928.17 | 0.05% | 1.56% | 8.53% | 10.16% | 0.0047% |
| EXPEDIA INC | EXPE | 15,849.71 | 0.08% | 0.81% | 22.29% | 23.18% | 0.0191% |
| EXTRA SPACE STORAGE INC | EXR | 11,586.72 | 0.06% | 2.98% | 7.35% | 10.44% | 0.0063% |
| FORD MOTOR CO | F | 49,938.54 | 0.26% | 4.77% | 6.72% | 11.65% | 0.0303% |
| FASTENAL CO | FAST | 12,823.53 | 0.07% | 2.71% | 12.02% | 14.89% | 0.0099% |
| FACEBOOK INC-A | FB | 326,875.71 | 1.70% | 0.00% | 31.69% | 31.69% | 0.5386% |
| FORTUNE BRANDS HOME & SECURI | FBHS | 8,891.21 | 0.05% | 1.11% | 18.63% | 19.84% | 0.0092% |
| FREEPORT-MCMORAN INC | FCX | 13,948.86 | N/A | 0.00% | N/A | N/A | N/A |
| FEDEX CORP | FDX | 40,741.36 | 0.21% | 1.03% | 12.25% | 13.34% | 0.0283% |
| FIRSTENERGY CORP | FE | 14,826.71 | 0.08% | 4.12% | -1.55% | 2.54% | 0.0020% |
| F5 NETWORKS INC | FFIV | 7,625.15 | 0.04% | 0.00% | 13.18% | 13.18% | 0.0052% |
| FIDELITY NATIONAL INFO SERV | FIS | 24,053.13 | 0.13% | 1.45% | 12.13% | 13.66% | 0.0171% |
| FISERV INC | FISV | 24,173.93 | 0.13% | 0.00% | 12.50% | 12.50% | 0.0157% |
| FIFTH THIRD BANCORP | FITB | 13,504.16 | 0.07% | 3.09% | 3.83% | 6.98% | 0.0049% |
| FOOT LOCKER INC | FL | 7,423.05 | 0.04% | 2.05% | 10.75% | 12.91% | 0.0050% |
| FLIR SYSTEMS INC | FLIR | 4,259.71 | 0.02% | 1.49% | 15.00% | 16.60% | 0.0037% |
| FLUOR CORP | FLR | 6,861.26 | 0.04% | 1.71% | 2.39% | 4.12% | 0.0015% |
| FLOWSERVE CORP | FLS | 5,888.67 | 0.03% | 1.68% | 11.67% | 13.45% | 0.0041% |
| FMC CORP | FMC | 6,194.03 | 0.03% | 1.46% | 9.53% | 11.06% | 0.0036% |
| TWENTY-FIRST CENTURY FOX-A | FOXA | 51,399.08 | 0.27% | 1.21% | 13.84% | 15.13% | 0.0404% |
| FEDERAL REALTY INVS TRUST | FRT | 11,738.17 | 0.06% | 2.32% | 6.26% | 8.65% | 0.0053% |
| FIRST SOLAR INC | FSLR | 4,956.84 | 0.03% | 0.00% | 10.00% | 10.00% | 0.0026% |
| FMC TECHNOLOGIES INC | FTI | 6,036.90 | 0.03% | 0.00% | -8.10% | -8.10% | -0.0025% |
| FRONTIER COMMUNICATIONS CORP | FTR | 5,795.00 | 0.03% | 8.50% | 11.55% | 20.54% | 0.0062% |
| AGL RESOURCES INC | GAS | 7,961.26 | 0.04% | 3.21% | 6.50% | 9.82% | 0.0041% |
| GENERAL DYNAMICS CORP | GD | 42,558.28 | 0.22% | 2.14% | 7.83% | 10.05% | 0.0222% |
| GENERAL ELECTRIC CO | GE | 289,479.28 | 1.51% | 2.96% | 9.98% | 13.09% | 0.1970% |
| GENERAL GROWTH PROPERTIES | GGP | 26,336.92 | 0.14% | 2.59% | 6.73% | 9.40% | 0.0129% |
| GILEAD SCIENCES INC | GILD | 111,100.55 | 0.58% | 2.21% | 1.96% | 4.20% | 0.0242% |
| GENERAL MILLS INC | GIS | 42,392.72 | 0.22% | 2.64% | 9.63% | 12.40% | 0.0273% |
| CORNING INC | GLW | 22,023.14 | 0.11% | 2.65% | 12.34% | 15.15% | 0.0174% |
| GENERAL MOTORS CO | GM | 43,577.06 | 0.23% | 5.37% | 9.44% | 15.06% | 0.0341% |
| ALPHABET INC-CL A | GOOGL | 478,804.14 | 2.49% | 0.00% | 15.66% | 15.66% | 0.3899% |
| GENUINE PARTS CO | GPC | 15,149.34 | 0.08% | 2.60% | 6.33% | 9.01% | 0.0071% |
| GLOBAL PAYMENTS INC | GPN | 10,992.57 | 0.06% | 0.06% | 14.42% | 14.48% | 0.0083% |
| GAP INC/THE | GPS | 8,444.80 | 0.04% | 4.30% | 6.91% | 11.37% | 0.0050% |
| GARMIN LTD | GRMN | 8,019.66 | 0.04% | 4.83% | 5.68% | 10.65% | 0.0044% |
| GOLDMAN SACHS GROUP INC | GS | 64,513.58 | 0.34% | 1.81% | 14.11% | 16.05% | 0.0538% |
| GOODYEAR TIRE & RUBBER CO | GT | 6,824.13 | 0.04% | 1.10% | 7.00% | 8.14% | 0.0029% |
| WW GRAINGER INC | GWW | 13,935.47 | 0.07% | 2.15% | 9.34% | 11.59% | 0.0084% |
| HALLIBURTON CO | HAL | 38,916.11 | 0.20% | 1.57% | 12.53% | 14.19% | 0.0287% |
| HARMAN INTERNATIONAL | HAR | 5,067.24 | 0.03% | 1.97% | 17.50% | 19.64% | 0.0052% |
| HASBRO INC | HAS | 10,473.73 | 0.05% | 2.43% | 10.40% | 12.96% | 0.0071% |
| HUNTINGTON BANCSHARES INC | HBAN | 7,141.87 | 0.04% | 3.21% | 5.32% | 8.62% | 0.0032% |
| HANESBRANDS INC | HBI | 9,487.01 | 0.05% | 1.74% | 12.03% | 13.88% | 0.0068% |
| HCA HOLDINGS INC | HCA | 30,115.06 | 0.16% | 0.00% | 11.00% | 11.00% | 0.0172% |
| WELLTOWER INC | HCN | 27,192.32 | 0.14% | 4.49% | 4.67% | 9.26% | 0.0131% |
| HCP INC | HCP | 16,525.56 | 0.09% | 6.45% | 2.81% | 9.35% | 0.0080% |
| HOME DEPOT INC | HD | 158,847.29 | 0.83% | 2.16% | 13.47% | 15.77% | 0.1302% |
| HESS CORP | HES | 19,034.83 | 0.10% | 1.66% | -20.09% | -18.60% | -0.0184% |
| HARTFORD FINANCIAL SVCS GRP | HIG | 17,458.42 | 0.09% | 1.98% | 9.33% | 11.41% | 0.0104% |
| HARLEY-DAVIDSON INC | HOG | 8,203.38 | 0.04% | 3.09% | 10.35% | 13.60% | 0.0058% |
| HOLOGIC INC | HOLX | 9,647.51 | 0.05% | 0.00% | 8.94% | 8.94% | 0.0045% |
| HONEYWELL INTERNATIONAL INC | HON | 88,649.27 | 0.46% | 2.11% | 9.32% | 11.53% | 0.0531% |
| STARWOOD HOTELS & RESORTS | HOT | 12,537.31 | 0.07% | 2.03% | 7.26% | 9.36% | 0.0061% |
| HELMERICH & PAYNE | HP | 7,252.67 | 0.04% | 4.12% | -1.40% | 2.69% | 0.0010% |
| HEWLETT PACKARD ENTERPRIS | HPE | 30,359.53 | 0.16% | 1.20% | 6.42% | 7.66% | 0.0121% |
| HP INC | HPQ | 21,468.11 | 0.11% | 4.22% | 2.83% | 7.11% | 0.0079% |
| H&R BLOCK INC | HRB | 5,071.90 | 0.03% | 3.83% | 11.00% | 15.04% | 0.0040% |
| HORMEL FOODS CORP | HRL | 19,392.89 | 0.10% | 1.57% | 5.90% | 7.51% | 0.0076% |
| HARRIS CORP | HRS | 10,407.13 | N/A | 2.38% | N/A | N/A | N/A |
| HENRY SCHEIN INC | HSIC | 14,509.34 | 0.08% | 0.00% | 11.43% | 11.43% | 0.0086% |
| HOST HOTELS & RESORTS INC | HST | 12,113.98 | 0.06% | 5.13% | 5.00% | 10.25% | 0.0065% |
| HERSHEY CO/THE | HSY | 24,215.69 | 0.13% | 2.09% | 9.18% | 11.36% | 0.0143% |
| HUMANA INC | HUM | 26,808.71 | 0.14% | 0.66% | 13.14% | 13.85% | 0.0193% |
| INTL BUSINESS MACHINES CORP | IBM | 145,703.01 | 0.76% | 3.54% | 3.54% | 7.15% | 0.0542% |
| INTERCONTINENTAL EXCHANGE IN | ICE | 30,470.92 | 0.16% | 1.33% | 14.24% | 15.66% | 0.0248% |
| INTL FLAVORS & FRAGRANCES | IFF | 10,049.53 | 0.05% | 1.83% | 11.00% | 12.94% | 0.0068% |
| ILLUMINA INC | ILMN | 20,663.94 | 0.11% | 0.00% | 13.98% | 13.98% | 0.0150% |
| INTEL CORP | INTC | 154,881.60 | 0.81% | 3.16% | 8.52% | 11.81% | 0.0951% |
| INTUIT INC | INTU | 28,557.79 | 0.15% | 1.08% | 17.11% | 18.28% | 0.0271% |
| INTERNATIONAL PAPER CO | IP | 17,425.57 | 0.09% | 4.20% | 7.50% | 11.86% | 0.0107% |
| INTERPUBLIC GROUP OF COS INC | IPG | 9,295.56 | 0.05% | 2.54% | 8.00% | 10.64% | 0.0051% |
| INGERSOLL-RAND PLC | IR | 16,395.29 | 0.09% | 2.01% | 10.71% | 12.82% | 0.0109% |
| IRON MOUNTAIN INC | IRM | 10,461.09 | N/A | 4.77% | N/A | N/A | N/A |
| INTUITIVE SURGICAL INC | ISRG | 25,173.51 | 0.13% | 0.00% | 13.07% | 13.07% | 0.0171% |
| ILLINOIS TOOL WORKS | ITW | 37,432.02 | 0.19% | 2.17% | 6.65% | 8.90% | 0.0173% |
| INVESCO LTD | IVZ | 10,656.98 | 0.06% | 4.37% | 9.55% | 14.13% | 0.0078% |
| HUNT (JB) TRANSPRT SVCS INC | JBHT | 9,117.12 | 0.05% | 1.08% | 13.74% | 14.90% | 0.0071% |
| JOHNSON CONTROLS INC | JCI | 28,696.86 | 0.15% | 2.58% | 9.20% | 11.90% | 0.0178% |
| JACOBS ENGINEERING GROUP INC | JEC | 6,073.09 | 0.03% | 0.00% | 6.92% | 6.92% | 0.0022% |
| JOHNSON & JOHNSON | JNJ | 333,653.15 | 1.73% | 2.59% | 6.29% | 8.96% | 0.1554% |
| JUNIPER NETWORKS INC | JNPR | 8,634.92 | 0.04% | 1.88% | 9.56% | 11.53% | 0.0052% |
| JPMORGAN CHASE & CO | JPM | 227,224.79 | 1.18% | 3.04% | 4.21% | 7.31% | 0.0863% |
| NORDSTROM INC | JWN | 6,599.20 | 0.03% | 4.05% | 8.23% | 12.45% | 0.0043% |

| | | [4] | [5] | [6] | [7] | [8] | [9] |
|---|---|---|---|---|---|---|---|
| Company | Ticker | Market Capitalization | Weight in Index | Estimated Dividend Yield | Long-Term Growth Est. | DCF Result | Weighted DCF Result |
| KELLOGG CO | K | 28,581.44 | 0.15% | 2.52% | 5.82% | 8.42% | 0.0125% |
| KEYCORP | KEY | 9,308.22 | 0.05% | 3.05% | 4.50% | 7.62% | 0.0037% |
| KRAFT HEINZ CO/THE | KHC | 107,587.72 | 0.56% | 2.65% | 20.38% | 23.30% | 0.1303% |
| KIMCO REALTY CORP | KIM | 13,168.58 | 0.07% | 3.27% | 5.67% | 9.04% | 0.0062% |
| KLA-TENCOR CORP | KLAC | 11,405.64 | 0.06% | 2.87% | 5.55% | 8.50% | 0.0050% |
| KIMBERLY-CLARK CORP | KMB | 49,510.37 | 0.26% | 2.67% | 7.64% | 10.41% | 0.0268% |
| KINDER MORGAN INC | KMI | 41,774.73 | 0.22% | 2.68% | 14.65% | 17.52% | 0.0381% |
| CARMAX INC | KMX | 9,486.29 | 0.05% | 0.00% | 12.92% | 12.92% | 0.0064% |
| COCA-COLA CO/THE | KO | 196,106.59 | 1.02% | 3.05% | 5.72% | 8.86% | 0.0903% |
| MICHAEL KORS HOLDINGS LTD | KORS | 8,730.68 | 0.05% | 0.00% | 5.35% | 5.35% | 0.0024% |
| KROGER CO | KR | 34,913.43 | 0.18% | 1.20% | 9.44% | 10.70% | 0.0194% |
| KOHLS CORP | KSS | 6,966.25 | 0.04% | 5.33% | 3.25% | 8.67% | 0.0031% |
| KANSAS CITY SOUTHERN | KSU | 9,728.61 | 0.05% | 1.50% | 9.42% | 10.99% | 0.0056% |
| LOEWS CORP | L | 13,930.18 | N/A | 0.61% | N/A | N/A | N/A |
| L BRANDS INC | LB | 19,300.04 | 0.10% | 6.58% | 10.54% | 17.47% | 0.0175% |
| LEGGETT & PLATT INC | LEG | 6,865.40 | 0.04% | 2.56% | 10.00% | 12.69% | 0.0045% |
| LENNAR CORP-A | LEN | 9,621.04 | 0.05% | 0.35% | 11.68% | 12.04% | 0.0060% |
| LABORATORY CRP OF AMER HLDGS | LH | 13,339.65 | 0.07% | 0.00% | 11.29% | 11.29% | 0.0078% |
| LKQ CORP | LKQ | 9,721.73 | 0.05% | 0.00% | 16.13% | 16.13% | 0.0082% |
| L-3 COMMUNICATIONS HOLDINGS | LLL | 11,288.20 | 0.06% | 1.94% | 9.94% | 11.98% | 0.0070% |
| LINEAR TECHNOLOGY CORP | LLTC | 11,125.24 | 0.06% | 2.65% | 6.91% | 9.65% | 0.0056% |
| ELI LILLY & CO | LLY | 86,927.16 | 0.45% | 2.59% | 11.85% | 14.59% | 0.0660% |
| LEGG MASON INC | LM | 3,099.71 | 0.02% | 2.98% | 15.82% | 19.04% | 0.0031% |
| LOCKHEED MARTIN CORP | LMT | 75,556.11 | 0.39% | 2.71% | 7.61% | 10.42% | 0.0409% |
| LINCOLN NATIONAL CORP | LNC | 9,266.31 | 0.05% | 2.62% | 11.80% | 14.58% | 0.0070% |
| LOWE'S COS INC | LOW | 70,152.91 | 0.36% | 1.55% | 16.39% | 18.07% | 0.0659% |
| LAM RESEARCH CORP | LRCX | 13,415.78 | 0.07% | 1.41% | 9.72% | 11.20% | 0.0078% |
| LEUCADIA NATIONAL CORP | LUK | 6,279.18 | 0.03% | 1.44% | 18.00% | 19.57% | 0.0064% |
| SOUTHWEST AIRLINES CO | LUV | 25,042.91 | 0.13% | 0.88% | 8.46% | 9.37% | 0.0122% |
| LEVEL 3 COMMUNICATIONS INC | LVLT | 18,429.96 | 0.10% | 0.00% | -0.69% | -0.69% | -0.0007% |
| LYONDELLBASELL INDU-CL A | LYB | 31,757.03 | 0.17% | 4.49% | 5.67% | 10.28% | 0.0170% |
| MACY'S INC | M | 10,365.16 | 0.05% | 4.50% | 9.67% | 14.38% | 0.0078% |
| MASTERCARD INC-CLASS A | MA | 96,751.30 | 0.50% | 0.86% | 14.60% | 15.53% | 0.0781% |
| MACERICH CO/THE | MAC | 12,679.79 | 0.07% | 5.05% | 7.12% | 12.35% | 0.0081% |
| MARRIOTT INTERNATIONAL -CL A | MAR | 16,896.24 | 0.09% | 1.73% | 11.96% | 13.79% | 0.0121% |
| MASCO CORP | MAS | 10,295.17 | 0.05% | 1.24% | 14.68% | 16.00% | 0.0086% |
| MATTEL INC | MAT | 10,652.55 | 0.06% | 4.86% | 10.15% | 15.25% | 0.0084% |
| MCDONALD'S CORP | MCD | 105,641.38 | 0.55% | 3.04% | 10.31% | 13.51% | 0.0742% |
| MICROCHIP TECHNOLOGY INC | MCHP | 10,904.02 | 0.06% | 2.76% | 9.64% | 12.53% | 0.0071% |
| MCKESSON CORP | MCK | 42,125.74 | 0.22% | 0.62% | 12.00% | 12.65% | 0.0277% |
| MOODY'S CORP | MCO | 18,207.85 | 0.09% | 1.53% | 11.00% | 12.61% | 0.0119% |
| MONDELEZ INTERNATIONAL INC-A | MDLZ | 70,634.28 | 0.37% | 1.50% | 12.99% | 14.58% | 0.0535% |
| MEDTRONIC PLC | MDT | 121,020.89 | 0.63% | 1.96% | 8.31% | 10.35% | 0.0651% |
| METLIFE INC | MET | 43,759.89 | 0.23% | 4.04% | 5.10% | 9.25% | 0.0210% |
| MOHAWK INDUSTRIES INC | MHK | 14,059.56 | 0.07% | 0.00% | 11.10% | 11.10% | 0.0081% |
| MEAD JOHNSON NUTRITION CO | MJN | 16,939.75 | 0.09% | 1.92% | 9.84% | 11.85% | 0.0104% |
| MCCORMICK & CO-NON VTG SHRS | MKC | 13,533.19 | 0.07% | 1.60% | 9.10% | 10.77% | 0.0076% |
| MARTIN MARIETTA MATERIALS | MLM | 12,197.22 | 0.06% | 0.83% | 22.16% | 23.08% | 0.0146% |
| MARSH & MCLENNAN COS | MMC | 35,683.62 | 0.19% | 1.94% | 11.62% | 13.67% | 0.0254% |
| 3M CO | MMM | 106,212.82 | 0.55% | 2.54% | 8.88% | 11.53% | 0.0637% |
| MALLINCKRODT PLC | MNK | 6,644.80 | 0.03% | 0.00% | 9.35% | 9.35% | 0.0032% |
| MONSTER BEVERAGE CORP | MNST | 32,630.99 | 0.17% | 0.00% | 18.96% | 18.96% | 0.0322% |
| ALTRIA GROUP INC | MO | 134,915.06 | 0.70% | 3.45% | 7.67% | 11.25% | 0.0789% |
| MONSANTO CO | MON | 45,249.69 | 0.24% | 2.09% | 7.85% | 10.02% | 0.0236% |
| MOSAIC CO/THE | MOS | 9,158.19 | 0.05% | 4.20% | 0.85% | 5.07% | 0.0024% |
| MARATHON PETROLEUM CORP | MPC | 20,112.53 | 0.10% | 3.47% | 5.63% | 9.21% | 0.0096% |
| MERCK & CO. INC. | MRK | 159,465.94 | 0.83% | 3.19% | 5.08% | 8.35% | 0.0693% |
| MARATHON OIL CORP | MRO | 12,723.20 | 0.07% | 1.33% | -12.38% | -11.13% | -0.0074% |
| MORGAN STANLEY | MS | 50,323.69 | 0.26% | 2.68% | 6.43% | 9.20% | 0.0241% |
| MICROSOFT CORP | MSFT | 402,220.09 | 2.09% | 2.76% | 8.46% | 11.33% | 0.2370% |
| MOTOROLA SOLUTIONS INC | MSI | 11,518.65 | 0.06% | 2.50% | 5.28% | 7.84% | 0.0047% |
| M & T BANK CORP | MTB | 18,798.45 | 0.10% | 2.41% | 4.84% | 7.30% | 0.0071% |
| MICRON TECHNOLOGY INC | MU | 14,269.71 | 0.07% | 0.00% | 6.10% | 6.10% | 0.0045% |
| MURPHY OIL CORP | MUR | 5,467.20 | N/A | 4.38% | N/A | N/A | N/A |
| MYLAN NV | MYL | 21,981.82 | 0.11% | 0.00% | 9.42% | 9.42% | 0.0108% |
| NAVIENT CORP | NAVI | 3,949.64 | N/A | 5.41% | N/A | N/A | N/A |
| NOBLE ENERGY INC | NBL | 15,409.47 | 0.08% | 1.11% | 7.03% | 8.18% | 0.0066% |
| NASDAQ INC | NDAQ | 10,639.16 | 0.06% | 1.90% | 7.48% | 9.45% | 0.0052% |
| NEXTERA ENERGY INC | NEE | 60,172.55 | 0.31% | 2.67% | 6.32% | 9.07% | 0.0284% |
| NEWMONT MINING CORP | NEM | 20,754.37 | 0.11% | 0.27% | 6.13% | 6.41% | 0.0069% |
| NETFLIX INC | NFLX | 39,180.77 | 0.20% | 0.00% | 35.50% | 35.50% | 0.0723% |
| NEWFIELD EXPLORATION CO | NFX | 8,769.08 | 0.05% | 0.00% | 27.50% | 27.50% | 0.0125% |
| NISOURCE INC | NI | 8,527.36 | N/A | 2.41% | N/A | N/A | N/A |
| NIKE INC -CL B | NKE | 92,996.64 | 0.48% | 1.34% | 13.64% | 15.07% | 0.0729% |
| NIELSEN HOLDINGS PLC | NLSN | 18,751.04 | 0.10% | 2.34% | 12.33% | 14.81% | 0.0144% |
| NORTHROP GRUMMAN CORP | NOC | 40,110.79 | 0.21% | 1.54% | 7.54% | 9.14% | 0.0191% |
| NATIONAL OILWELL VARCO INC | NOV | 12,688.10 | 0.07% | 1.81% | -14.31% | -12.62% | -0.0083% |
| NRG ENERGY INC | NRG | 4,720.47 | N/A | 1.60% | N/A | N/A | N/A |
| NORFOLK SOUTHERN CORP | NSC | 25,176.16 | 0.13% | 2.82% | 12.44% | 15.44% | 0.0202% |
| NETAPP INC | NTAP | 6,887.17 | 0.04% | 3.09% | 8.97% | 12.19% | 0.0044% |
| NORTHERN TRUST CORP | NTRS | 15,118.13 | 0.08% | 2.26% | 11.45% | 13.84% | 0.0109% |
| NUCOR CORP | NUE | 15,708.85 | 0.08% | 3.04% | 8.40% | 11.57% | 0.0094% |
| NVIDIA CORP | NVDA | 25,103.34 | 0.13% | 0.98% | 9.67% | 10.70% | 0.0140% |
| NEWELL BRANDS INC | NWL | 23,214.12 | 0.12% | 1.55% | 13.77% | 15.43% | 0.0186% |
| NEWS CORP - CLASS A | NWSA | 6,646.70 | 0.03% | 1.76% | 8.80% | 10.64% | 0.0037% |
| REALTY INCOME CORP | O | 17,869.29 | 0.09% | 3.46% | 3.67% | 7.19% | 0.0067% |
| OWENS-ILLINOIS INC | OI | 2,916.16 | 0.02% | 0.00% | 7.37% | 7.37% | 0.0011% |
| ONEOK INC | OKE | 9,969.46 | 0.05% | 5.19% | 7.30% | 12.68% | 0.0066% |

| Company | Ticker | [4] Market Capitalization | [5] Weight in Index | [6] Estimated Dividend Yield | [7] Long-Term Growth Est. | [8] DCF Result | [9] Weighted DCF Result |
|---|---|---|---|---|---|---|---|
| OMNICOM GROUP | OMC | 19,374.24 | 0.10% | 2.64% | 6.45% | 9.17% | 0.0092% |
| ORACLE CORP | ORCL | 168,743.34 | 0.88% | 1.45% | 8.25% | 9.76% | 0.0857% |
| O'REILLY AUTOMOTIVE INC | ORLY | 26,149.18 | 0.14% | 0.00% | 15.54% | 15.54% | 0.0211% |
| OCCIDENTAL PETROLEUM CORP | OXY | 57,708.31 | 0.30% | 3.99% | 8.00% | 12.15% | 0.0365% |
| PAYCHEX INC | PAYX | 21,427.20 | N/A | 2.82% | N/A | N/A | N/A |
| PEOPLE'S UNITED FINANCIAL | PBCT | 4,557.22 | N/A | 4.62% | N/A | N/A | N/A |
| PITNEY BOWES INC | PBI | 3,357.44 | 0.02% | 4.21% | 14.00% | 18.51% | 0.0032% |
| PACCAR INC | PCAR | 18,178.51 | 0.09% | 3.57% | 7.83% | 11.55% | 0.0109% |
| P G & E CORP | PCG | 31,707.02 | 0.16% | 3.03% | 4.98% | 8.08% | 0.0133% |
| PRICELINE GROUP INC/THE | PCLN | 61,970.30 | 0.32% | 0.00% | 18.01% | 18.01% | 0.0580% |
| PATTERSON COS INC | PDCO | 4,745.84 | 0.02% | 2.10% | 6.95% | 9.12% | 0.0023% |
| PUBLIC SERVICE ENTERPRISE GP | PEG | 23,581.37 | 0.12% | 3.52% | 3.22% | 6.80% | 0.0083% |
| PEPSICO INC | PEP | 153,021.54 | 0.80% | 2.77% | 6.41% | 9.27% | 0.0738% |
| PFIZER INC | PFE | 213,543.35 | 1.11% | 3.41% | 5.80% | 9.31% | 0.1033% |
| PRINCIPAL FINANCIAL GROUP | PFG | 11,915.84 | 0.06% | 3.83% | 9.03% | 13.03% | 0.0081% |
| PROCTER & GAMBLE CO/THE | PG | 225,379.00 | 1.17% | 3.14% | 6.25% | 9.49% | 0.1112% |
| PROGRESSIVE CORP | PGR | 19,530.38 | 0.10% | 1.98% | 8.37% | 10.43% | 0.0106% |
| PARKER HANNIFIN CORP | PH | 14,552.33 | 0.08% | 2.33% | 8.21% | 10.64% | 0.0080% |
| PULTEGROUP INC | PHM | 6,744.17 | 0.04% | 1.85% | 14.04% | 16.02% | 0.0056% |
| PERKINELMER INC | PKI | 5,715.38 | 0.03% | 0.54% | 19.78% | 20.37% | 0.0061% |
| PROLOGIS INC | PLD | 25,749.96 | 0.13% | 3.43% | 5.04% | 8.55% | 0.0114% |
| PHILIP MORRIS INTERNATIONAL | PM | 157,794.61 | 0.82% | 4.09% | 8.24% | 12.50% | 0.1026% |
| PNC FINANCIAL SERVICES GROUP | PNC | 40,639.96 | 0.21% | 2.62% | 6.03% | 8.72% | 0.0184% |
| PENTAIR PLC | PNR | 10,533.96 | 0.05% | 2.31% | 8.66% | 11.07% | 0.0061% |
| PINNACLE WEST CAPITAL | PNW | 9,009.01 | 0.05% | 3.13% | 4.64% | 7.84% | 0.0037% |
| PPG INDUSTRIES INC | PPG | 27,710.50 | 0.14% | 1.49% | 8.50% | 10.05% | 0.0145% |
| PPL CORP | PPL | 25,554.68 | 0.13% | 4.03% | 3.83% | 7.93% | 0.0105% |
| PERRIGO CO PLC | PRGO | 12,986.00 | 0.07% | 0.64% | 9.68% | 10.35% | 0.0070% |
| PRUDENTIAL FINANCIAL INC | PRU | 31,532.28 | 0.16% | 3.95% | 7.90% | 12.01% | 0.0197% |
| PUBLIC STORAGE | PSA | 44,314.71 | 0.23% | 2.78% | 5.51% | 8.67% | 0.0193% |
| PHILLIPS 66 | PSX | 41,699.63 | 0.22% | 3.01% | 9.79% | 12.94% | 0.0281% |
| PVH CORP | PVH | 7,619.10 | 0.04% | 0.16% | 6.36% | 6.52% | 0.0026% |
| QUANTA SERVICES INC | PWR | 3,491.95 | 0.02% | 0.00% | 8.00% | 8.00% | 0.0015% |
| PRAXAIR INC | PX | 32,060.92 | 0.17% | 2.68% | 7.11% | 9.89% | 0.0165% |
| PIONEER NATURAL RESOURCES CO | PXD | 25,526.41 | 0.13% | 0.05% | 20.00% | 20.06% | 0.0266% |
| PAYPAL HOLDINGS INC | PYPL | 44,251.09 | 0.23% | 0.00% | 15.50% | 15.50% | 0.0357% |
| QUALCOMM INC | QCOM | 78,689.78 | 0.41% | 3.66% | 10.50% | 14.35% | 0.0587% |
| QORVO INC | QRVO | 7,062.69 | 0.04% | 0.00% | 14.70% | 14.70% | 0.0054% |
| RYDER SYSTEM INC | R | 3,283.43 | 0.02% | 2.76% | 9.92% | 12.82% | 0.0022% |
| REYNOLDS AMERICAN INC | RAI | 76,976.51 | 0.40% | 3.14% | 9.44% | 12.72% | 0.0509% |
| ROYAL CARIBBEAN CRUISES LTD | RCL | 14,453.46 | 0.08% | 2.34% | 24.87% | 27.49% | 0.0207% |
| REGENERON PHARMACEUTICALS | REGN | 36,696.60 | 0.19% | 0.00% | 22.75% | 22.75% | 0.0434% |
| REGIONS FINANCIAL CORP | RF | 10,779.73 | 0.06% | 3.11% | 5.26% | 8.46% | 0.0047% |
| ROBERT HALF INTL INC | RHI | 5,011.12 | 0.03% | 2.31% | 11.63% | 14.07% | 0.0037% |
| RED HAT INC | RHT | 13,147.06 | 0.07% | 0.00% | 17.70% | 17.70% | 0.0121% |
| TRANSOCEAN LTD | RIG | 4,342.25 | 0.02% | 0.00% | -6.20% | -6.20% | -0.0014% |
| RALPH LAUREN CORP | RL | 7,451.16 | 0.04% | 2.30% | 7.46% | 9.84% | 0.0038% |
| ROCKWELL AUTOMATION INC | ROK | 14,956.86 | 0.08% | 2.66% | 6.93% | 9.68% | 0.0075% |
| ROPER TECHNOLOGIES INC | ROP | 17,260.82 | 0.09% | 0.68% | 11.43% | 12.15% | 0.0109% |
| ROSS STORES INC | ROST | 22,648.21 | 0.12% | 0.95% | 12.46% | 13.46% | 0.0159% |
| RANGE RESOURCES CORP | RRC | 7,322.82 | 0.04% | 0.22% | -24.07% | -23.87% | -0.0091% |
| REPUBLIC SERVICES INC | RSG | 17,645.41 | 0.09% | 2.39% | 8.11% | 10.60% | 0.0097% |
| RAYTHEON COMPANY | RTN | 40,374.43 | 0.21% | 2.12% | 7.94% | 10.14% | 0.0213% |
| STARBUCKS CORP | SBUX | 83,675.09 | 0.44% | 1.43% | 18.45% | 20.01% | 0.0871% |
| SCANA CORP | SCG | 10,813.09 | 0.06% | 3.03% | 5.55% | 8.66% | 0.0049% |
| SCHWAB (CHARLES) CORP | SCHW | 33,452.00 | 0.17% | 1.02% | 17.31% | 18.42% | 0.0320% |
| SPECTRA ENERGY CORP | SE | 25,674.32 | 0.13% | 4.46% | 10.20% | 14.88% | 0.0199% |
| SEALED AIR CORP | SEE | 9,062.66 | 0.05% | 1.27% | 4.27% | 5.57% | 0.0026% |
| SHERWIN-WILLIAMS CO/THE | SHW | 27,163.04 | 0.14% | 1.14% | 15.80% | 17.03% | 0.0241% |
| SIGNET JEWELERS LTD | SIG | 6,428.46 | 0.03% | 1.26% | 14.40% | 15.75% | 0.0053% |
| JM SMUCKER CO/THE | SJM | 17,744.54 | 0.09% | 1.88% | 8.30% | 10.26% | 0.0095% |
| SCHLUMBERGER LTD | SLB | 110,018.25 | 0.57% | 2.53% | 5.63% | 8.23% | 0.0471% |
| SL GREEN REALTY CORP | SLG | 11,098.15 | 0.06% | 2.79% | 4.85% | 7.71% | 0.0044% |
| SNAP-ON INC | SNA | 9,176.66 | 0.05% | 2.03% | 4.80% | 6.88% | 0.0033% |
| SCRIPPS NETWORKS INTER-CL A | SNI | 8,030.06 | 0.04% | 1.62% | 11.73% | 13.45% | 0.0056% |
| SOUTHERN CO/THE | SO | 50,334.56 | 0.26% | 4.15% | 4.12% | 8.36% | 0.0219% |
| SIMON PROPERTY GROUP INC | SPG | 67,112.51 | 0.35% | 3.01% | 7.92% | 11.05% | 0.0386% |
| S&P GLOBAL INC | SPGI | 28,402.45 | 0.15% | 1.35% | 10.00% | 11.42% | 0.0169% |
| STAPLES INC | SPLS | 5,571.00 | 0.03% | 5.57% | 1.60% | 7.22% | 0.0021% |
| STERICYCLE INC | SRCL | 6,841.10 | 0.05% | 0.00% | 14.28% | 14.28% | 0.0066% |
| SEMPRA ENERGY | SRE | 28,447.62 | 0.15% | 2.65% | 6.88% | 9.62% | 0.0142% |
| SUNTRUST BANKS INC | STI | 20,586.32 | 0.11% | 2.46% | 6.19% | 8.73% | 0.0093% |
| ST JUDE MEDICAL INC | STJ | 22,173.64 | 0.12% | 1.59% | 10.63% | 12.30% | 0.0142% |
| STATE STREET CORP | STT | 21,349.10 | 0.11% | 2.65% | 10.71% | 13.50% | 0.0150% |
| SEAGATE TECHNOLOGY | STX | 7,271.06 | 0.04% | 9.81% | 1.43% | 11.31% | 0.0043% |
| CONSTELLATION BRANDS INC-A | STZ | 33,177.89 | 0.17% | 0.97% | 14.80% | 15.84% | 0.0273% |
| STANLEY BLACK & DECKER INC | SWK | 16,695.97 | 0.09% | 2.03% | 10.50% | 12.64% | 0.0110% |
| SKYWORKS SOLUTIONS INC | SWKS | 12,038.27 | 0.06% | 1.66% | 17.77% | 19.57% | 0.0123% |
| SOUTHWESTERN ENERGY CO | SWN | 6,021.63 | 0.03% | 0.00% | -19.71% | -19.71% | -0.0062% |
| SYNCHRONY FINANCIAL | SYF | 21,081.51 | 0.11% | 1.09% | 6.25% | 7.37% | 0.0081% |
| STRYKER CORP | SYK | 44,814.15 | 0.23% | 1.28% | 10.41% | 11.76% | 0.0274% |
| SYMANTEC CORP | SYMC | 12,576.48 | 0.07% | 1.48% | 8.69% | 10.23% | 0.0067% |
| SYSCO CORP | SYY | 28,592.80 | 0.15% | 2.41% | 9.21% | 11.73% | 0.0174% |
| AT&T INC | T | 266,000.76 | 1.38% | 4.46% | 3.92% | 8.47% | 0.1171% |
| MOLSON COORS BREWING CO -B | TAP | 21,710.61 | 0.11% | 1.62% | 19.77% | 21.55% | 0.0243% |
| TERADATA CORP | TDC | 3,259.10 | 0.02% | 0.00% | 9.67% | 9.67% | 0.0016% |
| TRANSDIGM GROUP INC | TDG | 13,970.15 | 0.07% | 0.00% | 13.88% | 13.88% | 0.0101% |
| TECO ENERGY INC | TE | 6,510.60 | 0.03% | 3.35% | 5.87% | 9.32% | 0.0032% |

| Company | Ticker | [4] Market Capitalization | [5] Weight in Index | [6] Estimated Dividend Yield | [7] Long-Term Growth Est. | [8] DCF Result | [9] Weighted DCF Result |
|---|---|---|---|---|---|---|---|
| TE CONNECTIVITY LTD | TEL | 20,423.46 | 0.11% | 2.39% | 12.20% | 14.73% | 0.0156% |
| TEGNA INC | TGNA | 5,041.51 | 0.03% | 2.42% | 8.03% | 10.55% | 0.0028% |
| TARGET CORP | TGT | 41,143.15 | 0.21% | 3.30% | 10.69% | 14.17% | 0.0303% |
| TIFFANY & CO | TIF | 7,641.70 | 0.04% | 2.73% | 8.32% | 11.16% | 0.0044% |
| TJX COMPANIES INC | TJX | 51,055.48 | 0.27% | 1.33% | 11.56% | 12.97% | 0.0344% |
| TORCHMARK CORP | TMK | 7,458.63 | 0.04% | 0.91% | 7.98% | 8.93% | 0.0035% |
| THERMO FISHER SCIENTIFIC INC | TMO | 58,145.37 | 0.30% | 0.41% | 11.83% | 12.26% | 0.0371% |
| TRIPADVISOR INC | TRIP | 9,368.91 | 0.05% | 0.00% | 14.94% | 14.94% | 0.0073% |
| T ROWE PRICE GROUP INC | TROW | 18,111.38 | 0.09% | 2.96% | 10.46% | 13.57% | 0.0128% |
| TRAVELERS COS INC/THE | TRV | 34,806.66 | 0.18% | 2.21% | 8.04% | 10.34% | 0.0187% |
| TRACTOR SUPPLY COMPANY | TSCO | 12,165.87 | 0.06% | 0.96% | 15.66% | 16.70% | 0.0106% |
| TYSON FOODS INC-CL A | TSN | 26,879.48 | 0.14% | 0.92% | 12.30% | 13.27% | 0.0186% |
| TESORO CORP | TSO | 8,988.59 | 0.05% | 2.75% | -1.11% | 1.63% | 0.0008% |
| TOTAL SYSTEM SERVICES INC | TSS | 9,751.64 | 0.05% | 0.75% | 11.00% | 11.79% | 0.0060% |
| TIME WARNER INC | TWX | 57,831.44 | 0.30% | 2.19% | 14.38% | 16.73% | 0.0503% |
| TEXAS INSTRUMENTS INC | TXN | 62,914.82 | 0.33% | 2.45% | 10.00% | 12.58% | 0.0411% |
| TEXTRON INC | TXT | 9,828.49 | 0.05% | 0.23% | 7.31% | 7.55% | 0.0039% |
| TYCO INTERNATIONAL PLC | TYC | 18,126.21 | 0.09% | 2.02% | 10.03% | 12.15% | 0.0115% |
| UNDER ARMOUR INC-CLASS A | UA | 16,643.53 | 0.09% | 0.00% | 23.89% | 23.89% | 0.0207% |
| UNITED CONTINENTAL HOLDINGS | UAL | 13,777.11 | 0.07% | 0.00% | -12.07% | -12.07% | -0.0086% |
| UDR INC | UDR | 9,862.71 | 0.05% | 3.20% | 6.73% | 10.03% | 0.0051% |
| UNIVERSAL HEALTH SERVICES-B | UHS | 13,018.95 | 0.07% | 0.30% | 8.88% | 9.19% | 0.0062% |
| ULTA SALON COSMETICS & FRAGR | ULTA | 15,216.45 | 0.08% | 0.00% | 21.00% | 21.00% | 0.0166% |
| UNITEDHEALTH GROUP INC | UNH | 134,253.54 | 0.70% | 1.43% | 13.02% | 14.54% | 0.1015% |
| UNUM GROUP | UNM | 7,558.35 | 0.04% | 2.46% | 7.60% | 10.15% | 0.0040% |
| UNION PACIFIC CORP | UNP | 73,380.24 | 0.38% | 2.57% | 13.08% | 15.83% | 0.0604% |
| UNITED PARCEL SERVICE-CL B | UPS | 95,081.12 | 0.49% | 2.89% | 10.04% | 13.08% | 0.0647% |
| URBAN OUTFITTERS INC | URBN | 3,221.25 | 0.02% | 0.00% | 13.01% | 13.01% | 0.0022% |
| UNITED RENTALS INC | URI | 5,938.51 | 0.03% | 0.00% | 14.13% | 14.13% | 0.0044% |
| US BANCORP | USB | 69,625.84 | 0.36% | 2.67% | 5.86% | 8.61% | 0.0312% |
| UNITED TECHNOLOGIES CORP | UTX | 85,820.58 | 0.45% | 2.61% | 9.56% | 12.29% | 0.0548% |
| VISA INC-CLASS A SHARES | V | 176,888.54 | 0.92% | 0.76% | 17.45% | 18.27% | 0.1680% |
| VARIAN MEDICAL SYSTEMS INC | VAR | 7,829.49 | 0.04% | 0.00% | 12.05% | 12.05% | 0.0049% |
| VF CORP | VFC | 25,642.45 | 0.13% | 2.46% | 10.77% | 13.36% | 0.0178% |
| VIACOM INC-CLASS B | VIAB | 16,668.47 | 0.09% | 3.89% | 5.81% | 9.81% | 0.0085% |
| VALERO ENERGY CORP | VLO | 23,959.93 | 0.12% | 4.74% | 2.70% | 7.50% | 0.0093% |
| VULCAN MATERIALS CO | VMC | 16,030.53 | 0.08% | 0.67% | 23.08% | 23.82% | 0.0199% |
| VORNADO REALTY TRUST | VNO | 18,899.75 | 0.10% | 2.59% | 5.36% | 8.02% | 0.0079% |
| VERISK ANALYTICS INC | VRSK | 13,634.93 | 0.07% | 0.00% | 12.00% | 12.00% | 0.0085% |
| VERISIGN INC | VRSN | 9,378.79 | 0.05% | 0.00% | 9.85% | 9.85% | 0.0048% |
| VERTEX PHARMACEUTICALS INC | VRTX | 21,277.04 | 0.11% | 0.00% | 50.53% | 50.53% | 0.0559% |
| VENTAS INC | VTR | 24,622.78 | 0.13% | 4.05% | 1.93% | 6.01% | 0.0077% |
| VERIZON COMMUNICATIONS INC | VZ | 227,619.92 | 1.18% | 4.09% | 3.95% | 8.12% | 0.0961% |
| WATERS CORP | WAT | 11,384.42 | 0.06% | 0.00% | 8.92% | 8.92% | 0.0053% |
| WALGREENS BOOTS ALLIANCE INC | WBA | 89,952.06 | 0.47% | 1.75% | 13.59% | 15.46% | 0.0723% |
| WESTERN DIGITAL CORP | WDC | 13,300.73 | 0.07% | 3.88% | 1.90% | 5.81% | 0.0040% |
| WEC ENERGY GROUP INC | WEC | 20,611.76 | 0.11% | 3.03% | 5.50% | 8.62% | 0.0092% |
| WELLS FARGO & CO | WFC | 240,296.67 | 1.25% | 3.27% | 11.47% | 14.93% | 0.1866% |
| WHOLE FOODS MARKET INC | WFM | 10,279.29 | 0.05% | 1.69% | 8.55% | 10.31% | 0.0055% |
| WHIRLPOOL CORP | WHR | 12,659.12 | 0.07% | 2.26% | 15.17% | 17.60% | 0.0116% |
| WILLIS TOWERS WATSON PLC | WLTW | 17,209.58 | 0.09% | 1.54% | 21.47% | 23.18% | 0.0207% |
| WASTE MANAGEMENT INC | WM | 29,441.22 | 0.15% | 2.47% | 8.50% | 11.08% | 0.0170% |
| WILLIAMS COS INC | WMB | 16,234.82 | 0.08% | 10.29% | -2.07% | 8.11% | 0.0068% |
| WAL-MART STORES INC | WMT | 227,577.54 | 1.18% | 2.73% | 2.87% | 5.64% | 0.0668% |
| WESTROCK CO | WRK | 9,818.94 | 0.05% | 3.86% | 2.85% | 6.76% | 0.0035% |
| WESTERN UNION CO | WU | 9,420.00 | 0.05% | 3.34% | 6.80% | 10.25% | 0.0050% |
| WEYERHAEUSER CO | WY | 22,240.38 | 0.12% | 4.26% | 12.27% | 16.78% | 0.0194% |
| WYNDHAM WORLDWIDE CORP | WYN | 7,974.32 | 0.04% | 2.81% | 7.65% | 10.57% | 0.0044% |
| WYNN RESORTS LTD | WYNN | 9,226.33 | 0.05% | 2.25% | 10.00% | 12.37% | 0.0059% |
| CIMAREX ENERGY CO | XEC | 11,313.33 | 0.06% | 0.34% | -4.37% | -4.04% | -0.0024% |
| XCEL ENERGY INC | XEL | 22,746.13 | 0.12% | 3.04% | 5.00% | 8.12% | 0.0096% |
| XL GROUP PLC | XL | 9,439.01 | 0.05% | 2.48% | 9.00% | 11.59% | 0.0057% |
| XILINX INC | XLNX | 11,684.36 | 0.06% | 2.83% | 8.23% | 11.18% | 0.0068% |
| EXXON MOBIL CORP | XOM | 388,703.35 | 2.02% | 3.18% | 13.71% | 17.11% | 0.3457% |
| DENTSPLY SIRONA INC | XRAY | 14,531.69 | 0.08% | 0.47% | 9.92% | 10.42% | 0.0079% |
| XEROX CORP | XRX | 9,613.39 | 0.05% | 3.30% | 11.60% | 15.09% | 0.0075% |
| XYLEM INC | XYL | 7,987.77 | 0.04% | 1.39% | 15.00% | 16.49% | 0.0068% |
| YAHOO! INC | YHOO | 35,678.96 | 0.19% | 0.00% | 4.93% | 4.93% | 0.0091% |
| YUM! BRANDS INC | YUM | 33,784.99 | 0.18% | 2.28% | 11.85% | 14.26% | 0.0251% |
| ZIMMER BIOMET HOLDINGS INC | ZBH | 24,037.33 | 0.12% | 0.78% | 10.49% | 11.31% | 0.0141% |
| ZIONS BANCORPORATION | ZION | 5,142.19 | 0.03% | 1.18% | 9.00% | 10.24% | 0.0027% |
| ZOETIS INC | ZTS | 23,549.76 | 0.12% | 0.80% | 13.93% | 14.79% | 0.0181% |
| | | 19,232,690.21 | | | | | 13.09% |

[1] Equals sum of Col. [9]
[2] Source: Bloomberg Professional
[3] Equals [1] – [2]
[4] Source: Bloomberg Professional
[5] Equals weight in S&P 500 based on market capitalization
[6] Source: Bloomberg Professional
[7] Source: Bloomberg Professional
[8] Equals ([6] x (1 + (0.5 x [7]))) + [7]
[9] Equals Col. [5] x Col. [8]

Ex-Ante Market Risk Premium
Market DCF Method Based - Value Line

| [1] S&P 500 Est. Required Market Return | [2] Current 30-Year Treasury (30-day average) | [3] Implied Market Risk Premium |
|---|---|---|
| 13.63% | 2.50% | 11.13% |

| Company | Ticker | [4] Market Capitalization | [5] Weight in Index | [6] Estimated Dividend Yield | [7] Long-Term Growth Est. | [8] DCF Result | [9] Weighted DCF Result |
|---|---|---|---|---|---|---|---|
| AGILENT TECHNOLOGIES INC | A | 15,195.37 | 0.09% | 0.99% | 4.50% | 5.51% | 0.0048% |
| ALCOA INC | AA | 13,348.34 | 0.08% | 1.18% | 11.50% | 12.75% | 0.0097% |
| AMERICAN AIRLINES GROUP INC | AAL | 17,763.01 | N/A | 1.32% | N/A | N/A | N/A |
| ADVANCE AUTO PARTS INC | AAP | 11,396.03 | 0.06% | 0.16% | 11.50% | 11.67% | 0.0076% |
| APPLE INC | AAPL | 526,478.70 | 3.00% | 2.43% | 11.50% | 14.07% | 0.4218% |
| ABBVIE INC | ABBV | 99,160.27 | 0.56% | 3.72% | 13.00% | 16.96% | 0.0958% |
| AMERISOURCEBERGEN CORP | ABC | 17,371.28 | 0.10% | 1.75% | 11.00% | 12.85% | 0.0127% |
| ABBOTT LABORATORIES | ABT | 58,222.49 | 0.33% | 2.62% | 7.50% | 10.22% | 0.0339% |
| ACCENTURE PLC-CL A | ACN | 76,896.48 | 0.44% | 1.97% | 6.50% | 8.53% | 0.0374% |
| ADOBE SYSTEMS INC | ADBE | 48,171.68 | 0.27% | 0.00% | 35.50% | 35.50% | 0.0974% |
| ANALOG DEVICES INC | ADI | 17,860.11 | 0.10% | 2.89% | 11.00% | 14.05% | 0.0143% |
| ARCHER-DANIELS-MIDLAND CO | ADM | 25,070.77 | 0.14% | 2.81% | 6.00% | 8.89% | 0.0127% |
| AUTOMATIC DATA PROCESSING | ADP | 41,021.64 | 0.23% | 2.52% | 9.50% | 12.14% | 0.0284% |
| ALLIANCE DATA SYSTEMS CORP | ADS | 11,894.99 | 0.07% | 0.00% | 10.50% | 10.50% | 0.0071% |
| AUTODESK INC | ADSK | 13,268.18 | N/A | 0.00% | N/A | N/A | N/A |
| AMEREN CORPORATION | AEE | 12,493.90 | 0.07% | 3.40% | 6.00% | 9.50% | 0.0068% |
| AMERICAN ELECTRIC POWER | AEP | 32,711.87 | 0.19% | 3.45% | 4.00% | 7.52% | 0.0140% |
| AES CORP | AES | 7,973.68 | 0.05% | 3.64% | 8.50% | 12.29% | 0.0056% |
| AETNA INC | AET | 42,422.60 | 0.24% | 0.83% | 9.50% | 10.37% | 0.0250% |
| AFLAC INC | AFL | 29,799.12 | 0.17% | 2.34% | 4.50% | 6.89% | 0.0117% |
| ALLERGAN PLC | AGN | 92,329.86 | 0.53% | 0.00% | 15.00% | 15.00% | 0.0789% |
| AMERICAN INTERNATIONAL GROUP | AIG | 61,862.68 | 0.35% | 2.34% | 5.00% | 7.40% | 0.0261% |
| APARTMENT INVT & MGMT CO -A | AIV | - | N/A | 3.13% | N/A | N/A | N/A |
| ASSURANT INC | AIZ | 5,423.63 | 0.03% | 2.31% | 7.00% | 9.39% | 0.0029% |
| ARTHUR J GALLAGHER & CO | AJG | 8,422.88 | 0.05% | 3.20% | 15.00% | 18.44% | 0.0088% |
| AKAMAI TECHNOLOGIES INC | AKAM | 10,064.78 | 0.06% | 0.00% | 13.00% | 13.00% | 0.0075% |
| ALASKA AIR GROUP INC | ALK | 7,328.22 | 0.04% | 1.86% | 13.50% | 15.49% | 0.0065% |
| ALLSTATE CORP | ALL | 25,447.50 | 0.14% | 1.95% | 6.50% | 8.51% | 0.0123% |
| ALLEGION PLC | ALLE | 6,629.58 | 0.04% | 0.69% | 10.50% | 11.23% | 0.0042% |
| ALEXION PHARMACEUTICALS INC | ALXN | 27,704.64 | 0.16% | 0.00% | 27.50% | 27.50% | 0.0434% |
| APPLIED MATERIALS INC | AMAT | 26,705.81 | 0.15% | 1.63% | 18.00% | 19.78% | 0.0301% |
| AMETEK INC | AME | 11,079.97 | 0.06% | 0.76% | 6.00% | 6.78% | 0.0043% |
| AFFILIATED MANAGERS GROUP | AMG | 8,903.45 | 0.05% | 0.00% | 8.50% | 8.50% | 0.0043% |
| AMGEN INC | AMGN | 114,400.40 | 0.65% | 2.76% | 8.50% | 11.38% | 0.0741% |
| AMERIPRISE FINANCIAL INC | AMP | 16,965.64 | 0.10% | 2.95% | 11.00% | 14.11% | 0.0136% |
| AMERICAN TOWER CORP | AMT | 47,326.04 | 0.27% | 2.01% | 15.50% | 17.67% | 0.0476% |
| AMAZON.COM INC | AMZN | 340,821.80 | 1.94% | 0.00% | 90.00% | 90.00% | 1.7467% |
| AUTONATION INC | AN | 5,024.11 | 0.03% | 0.00% | 9.00% | 9.00% | 0.0026% |
| ANTHEM INC | ANTM | 33,819.75 | 0.19% | 2.02% | 7.50% | 9.60% | 0.0185% |
| AON PLC | AON | 28,836.72 | 0.16% | 1.21% | 12.00% | 13.28% | 0.0218% |
| APACHE CORP | APA | 22,015.42 | 0.13% | 1.72% | 5.00% | 6.76% | 0.0085% |
| ANADARKO PETROLEUM CORP | APC | 28,337.41 | N/A | 0.36% | N/A | N/A | N/A |
| AIR PRODUCTS & CHEMICALS INC | APD | 31,552.14 | 0.18% | 2.36% | 12.00% | 14.50% | 0.0261% |
| AMPHENOL CORP-CL A | APH | 18,320.46 | 0.10% | 0.94% | 8.00% | 8.98% | 0.0094% |
| ACTIVISION BLIZZARD INC | ATVI | 28,723.23 | 0.16% | 0.72% | 8.00% | 8.75% | 0.0143% |
| AVALONBAY COMMUNITIES INC | AVB | - | N/A | 3.15% | N/A | N/A | N/A |
| BROADCOM LTD | AVGO | 62,625.39 | 0.36% | 1.26% | 23.00% | 24.40% | 0.0870% |
| AVERY DENNISON CORP | AVY | 6,884.97 | 0.04% | 2.17% | 9.50% | 11.77% | 0.0046% |
| AMERICAN WATER WORKS CO INC | AWK | 14,030.40 | 0.08% | 1.90% | 8.00% | 9.98% | 0.0080% |
| AMERICAN EXPRESS CO | AXP | 60,150.75 | 0.34% | 2.02% | 3.00% | 5.05% | 0.0173% |
| ACUITY BRANDS INC | AYI | 11,091.79 | 0.06% | 0.20% | 19.50% | 19.72% | 0.0125% |
| AUTOZONE INC | AZO | 22,502.48 | 0.13% | 0.00% | 11.50% | 11.50% | 0.0147% |
| BOEING CO/THE | BA | 85,447.28 | 0.49% | 3.44% | 10.50% | 14.12% | 0.0687% |
| BANK OF AMERICA CORP | BAC | 144,789.80 | 0.82% | 1.71% | 22.00% | 23.90% | 0.1970% |
| BAXTER INTERNATIONAL INC | BAX | 25,334.21 | 0.14% | 1.13% | -4.50% | -3.40% | -0.0049% |
| BED BATH & BEYOND INC | BBBY | 7,170.02 | 0.04% | 1.14% | 3.00% | 4.16% | 0.0017% |
| BB&T CORP | BBT | 28,908.90 | 0.16% | 3.25% | 7.50% | 10.87% | 0.0179% |
| BEST BUY CO INC | BBY | 9,859.32 | 0.06% | 3.68% | 8.00% | 11.83% | 0.0066% |
| CR BARD INC | BCR | 16,913.96 | 0.10% | 0.45% | 9.00% | 9.47% | 0.0091% |
| BECTON DICKINSON AND CO | BDX | 36,539.06 | 0.21% | 1.60% | 9.50% | 11.18% | 0.0233% |
| FRANKLIN RESOURCES INC | BEN | 20,268.52 | 0.12% | 2.26% | 4.50% | 6.81% | 0.0079% |
| BROWN-FORMAN CORP-CLASS B | BF/B | 19,706.96 | 0.11% | 1.41% | 8.00% | 9.47% | 0.0106% |
| BAKER HUGHES INC | BHI | 20,656.40 | 0.12% | 1.44% | 30.00% | 31.66% | 0.0372% |
| BIOGEN INC | BIIB | 52,269.95 | 0.30% | 0.00% | 10.50% | 10.50% | 0.0313% |
| BANK OF NEW YORK MELLON CORP | BK | 44,742.03 | 0.25% | 1.64% | 11.00% | 12.73% | 0.0324% |
| BLACKROCK INC | BLK | 58,376.02 | 0.33% | 2.57% | 8.00% | 10.67% | 0.0355% |
| BALL CORP | BLL | 10,410.45 | 0.06% | 0.71% | 11.00% | 11.75% | 0.0070% |
| BRISTOL-MYERS SQUIBB CO | BMY | 120,655.00 | 0.69% | 2.09% | 17.50% | 19.77% | 0.1359% |
| BERKSHIRE HATHAWAY INC-CL B | BRK/B | 359,874.30 | N/A | 0.00% | N/A | N/A | N/A |
| BOSTON SCIENTIFIC CORP | BSX | 31,114.41 | 0.18% | 0.00% | 18.00% | 18.00% | 0.0319% |
| BORGWARNER INC | BWA | 7,333.76 | 0.04% | 1.54% | 8.50% | 10.11% | 0.0042% |
| BOSTON PROPERTIES INC | BXP | - | N/A | 2.00% | N/A | N/A | N/A |
| CITIGROUP INC | C | 130,486.90 | 0.74% | 0.45% | 12.00% | 12.48% | 0.0927% |
| CA INC | CA | 13,849.80 | 0.08% | 3.04% | 4.50% | 7.61% | 0.0060% |
| CONAGRA FOODS INC | CAG | 20,908.64 | 0.12% | 2.09% | 6.00% | 8.15% | 0.0097% |
| CARDINAL HEALTH INC | CAH | 25,467.12 | 0.15% | 2.38% | 14.00% | 16.55% | 0.0240% |

| Company | Ticker | [4] Market Capitalization | [5] Weight in Index | [6] Estimated Dividend Yield | [7] Long-Term Growth Est. | [8] DCF Result | [9] Weighted DCF Result |
|---|---|---|---|---|---|---|---|
| CATERPILLAR INC | CAT | 45,670.23 | 0.26% | 3.94% | 5.00% | 9.04% | 0.0235% |
| CHUBB LTD | CB | 59,725.50 | 0.34% | 2.15% | 8.00% | 10.24% | 0.0348% |
| CBRE GROUP INC - A | CBG | 10,062.14 | 0.06% | 0.00% | 10.00% | 10.00% | 0.0057% |
| CBS CORP-CLASS B NON VOTING | CBS | 24,375.26 | 0.14% | 1.12% | 13.00% | 14.19% | 0.0197% |
| CROWN CASTLE INTL CORP | CCI | 32,432.77 | 0.18% | 3.87% | 21.00% | 25.28% | 0.0467% |
| CARNIVAL CORP | CCL | 37,266.80 | 0.21% | 2.84% | 15.50% | 18.56% | 0.0394% |
| CELGENE CORP | CELG | 77,981.30 | 0.44% | 0.00% | 24.00% | 24.00% | 0.1066% |
| CERNER CORP | CERN | 19,223.47 | 0.11% | 0.00% | 13.50% | 13.50% | 0.0148% |
| CF INDUSTRIES HOLDINGS INC | CF | 6,442.30 | 0.04% | 4.88% | 8.00% | 13.08% | 0.0048% |
| CITIZENS FINANCIAL GROUP | CFG | 11,700.02 | N/A | 2.17% | N/A | N/A | N/A |
| CHURCH & DWIGHT CO INC | CHD | 12,882.26 | 0.07% | 1.41% | 7.00% | 8.46% | 0.0062% |
| CHESAPEAKE ENERGY CORP | CHK | 3,169.84 | N/A | 0.00% | N/A | N/A | N/A |
| C.H. ROBINSON WORLDWIDE INC | CHRW | 10,286.79 | 0.06% | 2.39% | 7.50% | 9.98% | 0.0058% |
| CIGNA CORP | CI | 33,282.56 | 0.19% | 0.03% | 12.50% | 12.53% | 0.0238% |
| CINCINNATI FINANCIAL CORP | CINF | 11,807.21 | 0.07% | 2.67% | 6.50% | 9.26% | 0.0062% |
| COLGATE-PALMOLIVE CO | CL | 64,895.62 | 0.37% | 2.15% | 14.00% | 16.30% | 0.0602% |
| CLOROX COMPANY | CLX | 17,355.54 | 0.10% | 2.41% | 8.50% | 11.01% | 0.0109% |
| COMERICA INC | CMA | 7,787.47 | 0.04% | 1.98% | 6.50% | 8.54% | 0.0038% |
| COMCAST CORP-CLASS A | CMCSA | 152,792.00 | 0.87% | 1.75% | 10.00% | 11.84% | 0.1030% |
| CME GROUP INC | CME | 32,426.98 | 0.18% | 2.50% | 9.50% | 12.12% | 0.0224% |
| CHIPOTLE MEXICAN GRILL INC | CMG | 12,000.10 | 0.07% | 0.00% | 13.50% | 13.50% | 0.0092% |
| CUMMINS INC | CMI | 20,270.79 | 0.12% | 3.26% | 5.00% | 8.36% | 0.0097% |
| CMS ENERGY CORP | CMS | 12,170.33 | 0.07% | 2.94% | 6.00% | 9.03% | 0.0063% |
| CENTENE CORP | CNC | 11,904.16 | 0.07% | 0.00% | 19.50% | 19.50% | 0.0132% |
| CENTERPOINT ENERGY INC | CNP | 10,115.12 | 0.06% | 4.47% | 2.00% | 6.51% | 0.0038% |
| CAPITAL ONE FINANCIAL CORP | COF | 33,749.82 | 0.19% | 2.44% | 3.50% | 5.98% | 0.0115% |
| CABOT OIL & GAS CORP | COG | 11,741.25 | 0.07% | 0.32% | 39.00% | 39.38% | 0.0263% |
| COACH INC | COH | 11,235.50 | 0.06% | 3.34% | 4.50% | 7.92% | 0.0051% |
| ROCKWELL COLLINS INC | COL | 11,320.02 | 0.06% | 1.61% | 8.00% | 9.67% | 0.0062% |
| CONOCOPHILLIPS | COP | 56,507.59 | 0.32% | 2.19% | 6.50% | 8.76% | 0.0282% |
| COSTCO WHOLESALE CORP | COST | 68,836.93 | 0.39% | 1.15% | 9.00% | 10.20% | 0.0400% |
| CAMPBELL SOUP CO | CPB | 19,355.76 | 0.11% | 2.00% | 5.50% | 7.56% | 0.0083% |
| COLUMBIA PIPELINE GROUP | CPGX | 10,201.76 | N/A | 2.12% | N/A | N/A | N/A |
| SALESFORCE.COM INC | CRM | 55,744.70 | N/A | 0.00% | N/A | N/A | N/A |
| CISCO SYSTEMS INC | CSCO | 147,093.50 | 0.84% | 3.56% | 6.00% | 9.67% | 0.0810% |
| CSRA INC | CSRA | 4,002.10 | N/A | 1.63% | N/A | N/A | N/A |
| CSX CORP | CSX | 25,808.41 | 0.15% | 2.67% | 7.00% | 9.76% | 0.0143% |
| CINTAS CORP | CTAS | 10,244.95 | 0.06% | 1.10% | 11.00% | 12.16% | 0.0071% |
| CENTURYLINK INC | CTL | 15,576.60 | 0.09% | 7.57% | 14.50% | 22.62% | 0.0201% |
| COGNIZANT TECH SOLUTIONS-A | CTSH | 38,008.74 | 0.22% | 0.00% | 12.50% | 12.50% | 0.0271% |
| CITRIX SYSTEMS INC | CTXS | 13,345.13 | 0.08% | 0.00% | 11.00% | 11.00% | 0.0084% |
| CVS HEALTH CORP | CVS | 101,635.60 | 0.58% | 1.81% | 11.50% | 13.41% | 0.0776% |
| CHEVRON CORP | CVX | 196,838.30 | 1.12% | 4.10% | 4.50% | 8.69% | 0.0974% |
| CONCHO RESOURCES INC | CXO | 17,096.87 | 0.10% | 0.00% | 16.50% | 16.50% | 0.0161% |
| DOMINION RESOURCES INC/VA | D | 44,148.15 | 0.25% | 3.94% | 8.00% | 12.10% | 0.0304% |
| DELTA AIR LINES INC | DAL | 29,559.27 | 0.17% | 2.09% | 14.50% | 16.74% | 0.0282% |
| DU PONT (E.I.) DE NEMOURS | DD | 60,448.64 | 0.34% | 2.31% | 7.00% | 9.39% | 0.0323% |
| DEERE & CO | DE | 26,488.89 | 0.15% | 2.85% | -1.50% | 1.33% | 0.0020% |
| DISCOVER FINANCIAL SERVICES | DFS | 22,484.24 | 0.13% | 2.06% | 5.00% | 7.11% | 0.0091% |
| DOLLAR GENERAL CORP | DG | 26,016.77 | 0.15% | 1.15% | 13.50% | 14.73% | 0.0218% |
| QUEST DIAGNOSTICS INC | DGX | 11,354.73 | 0.06% | 1.99% | 10.00% | 12.09% | 0.0078% |
| DR HORTON INC | DHI | 11,600.17 | 0.07% | 1.02% | 13.00% | 14.09% | 0.0093% |
| DANAHER CORP | DHR | N/A | N/A | 0.00% | N/A | N/A | N/A |
| WALT DISNEY CO/THE | DIS | 168,334.00 | 0.96% | 1.43% | 10.00% | 11.50% | 0.1102% |
| DISCOVERY COMMUNICATIONS-A | DISCA | 10,698.84 | 0.06% | 0.00% | 17.00% | 17.00% | 0.0104% |
| DELPHI AUTOMOTIVE PLC | DLPH | 19,348.80 | 0.11% | 1.75% | 14.50% | 16.38% | 0.0180% |
| DIGITAL REALTY TRUST INC | DLR | - | N/A | 3.44% | N/A | N/A | N/A |
| DOLLAR TREE INC | DLTR | 21,764.73 | 0.12% | 0.00% | 21.00% | 21.00% | 0.0260% |
| DUN & BRADSTREET CORP | DNB | 4,631.43 | 0.03% | 1.51% | 5.00% | 6.55% | 0.0017% |
| DIAMOND OFFSHORE DRILLING | DO | 3,547.22 | 0.02% | 0.00% | 11.50% | 11.50% | 0.0023% |
| DOVER CORP | DOV | 11,117.98 | 0.06% | 2.34% | 2.00% | 4.36% | 0.0028% |
| DOW CHEMICAL CO/THE | DOW | 60,273.41 | 0.34% | 3.58% | 9.50% | 13.25% | 0.0455% |
| DR PEPPER SNAPPLE GROUP INC | DPS | 17,282.27 | 0.10% | 2.31% | 8.00% | 10.40% | 0.0102% |
| DARDEN RESTAURANTS INC | DRI | 8,614.83 | 0.05% | 2.94% | 13.50% | 16.64% | 0.0082% |
| DTE ENERGY COMPANY | DTE | 16,877.66 | 0.10% | 3.28% | 5.00% | 8.36% | 0.0080% |
| DUKE ENERGY CORP | DUK | 56,532.45 | 0.32% | 4.13% | 4.50% | 8.72% | 0.0281% |
| DAVITA HEALTHCARE PARTNERS I | DVA | 15,923.22 | 0.09% | 0.00% | 11.00% | 11.00% | 0.0100% |
| DEVON ENERGY CORP | DVN | 20,331.20 | 0.12% | 0.62% | 1.00% | 1.62% | 0.0019% |
| ELECTRONIC ARTS INC | EA | 22,860.78 | 0.13% | 0.00% | 17.00% | 17.00% | 0.0221% |
| EBAY INC | EBAY | 28,403.55 | 0.16% | 0.00% | 3.50% | 3.50% | 0.0057% |
| ECOLAB INC | ECL | 35,471.70 | 0.20% | 1.16% | 8.50% | 9.71% | 0.0196% |
| CONSOLIDATED EDISON INC | ED | 22,596.84 | 0.13% | 3.54% | 1.50% | 5.07% | 0.0065% |
| EQUIFAX INC | EFX | 15,108.24 | 0.09% | 1.04% | 9.50% | 10.59% | 0.0091% |
| EDISON INTERNATIONAL | EIX | 24,106.76 | 0.14% | 2.69% | 3.50% | 6.24% | 0.0086% |
| ESTEE LAUDER COMPANIES-CL A | EL | 35,052.88 | 0.20% | 1.26% | 8.00% | 9.31% | 0.0186% |
| EMC CORP/MA | EMC | 54,410.58 | 0.31% | 1.65% | 3.50% | 5.18% | 0.0160% |
| EASTMAN CHEMICAL CO | EMN | 10,789.86 | 0.06% | 2.52% | 9.50% | 12.14% | 0.0075% |
| EMERSON ELECTRIC CO | EMR | 34,523.82 | 0.20% | 3.54% | 2.00% | 5.58% | 0.0110% |
| ENDO INTERNATIONAL PLC | ENDP | 3,526.89 | 0.02% | 0.00% | 39.00% | 39.00% | 0.0078% |
| EOG RESOURCES INC | EOG | 46,491.22 | 0.26% | 0.91% | 2.50% | 3.42% | 0.0091% |
| EQUINIX INC | EQIX | 26,759.63 | 0.15% | 1.82% | 24.50% | 26.54% | 0.0404% |
| EQUITY RESIDENTIAL | EQR | - | N/A | 3.10% | N/A | N/A | N/A |
| EQT CORP | EQT | 12,648.38 | 0.07% | 0.15% | 12.00% | 12.16% | 0.0088% |
| EVERSOURCE ENERGY | ES | 17,896.82 | 0.10% | 3.26% | 6.00% | 9.36% | 0.0095% |
| EXPRESS SCRIPTS HOLDING CO | ESRX | 48,670.87 | 0.28% | 0.00% | 15.50% | 15.50% | 0.0430% |
| ESSEX PROPERTY TRUST INC | ESS | - | N/A | 2.99% | N/A | N/A | N/A |
| E*TRADE FINANCIAL CORP | ETFC | 7,320.79 | 0.04% | 0.00% | 17.50% | 17.50% | 0.0073% |
| EATON CORP PLC | ETN | 28,771.56 | 0.16% | 3.63% | 5.00% | 8.72% | 0.0143% |

| Company | Ticker | [4] Market Capitalization | [5] Weight in Index | [6] Estimated Dividend Yield | [7] Long-Term Growth Est. | [8] DCF Result | [9] Weighted DCF Result |
|---|---|---|---|---|---|---|---|
| ENTERGY CORP | ETR | 13,966.07 | 0.08% | 4.42% | 3.50% | 8.00% | 0.0064% |
| EDWARDS LIFESCIENCES CORP | EW | 20,995.05 | 0.12% | 0.00% | 17.00% | 17.00% | 0.0203% |
| EXELON CORP | EXC | 32,223.90 | 0.18% | 3.63% | 7.00% | 10.76% | 0.0197% |
| EXPEDITORS INTL WASH INC | EXPD | 8,898.35 | 0.05% | 1.63% | 11.00% | 12.72% | 0.0064% |
| EXPEDIA INC | EXPE | 16,460.71 | 0.09% | 0.87% | 23.00% | 23.97% | 0.0225% |
| EXTRA SPACE STORAGE INC | EXR | - | N/A | 3.59% | N/A | N/A | N/A |
| FORD MOTOR CO | F | 53,235.99 | 0.30% | 4.48% | 7.00% | 11.64% | 0.0353% |
| FASTENAL CO | FAST | 13,161.05 | 0.07% | 2.63% | 7.00% | 9.72% | 0.0073% |
| FACEBOOK INC-A | FB | 329,128.80 | 1.87% | 0.00% | 34.00% | 34.00% | 0.6372% |
| FORTUNE BRANDS HOME & SECURI | FBHS | 8,717.89 | 0.05% | 1.13% | 15.00% | 16.21% | 0.0080% |
| FREEPORT-MCMORAN INC | FCX | 14,736.04 | 0.08% | 0.00% | 36.50% | 36.50% | 0.0306% |
| FEDEX CORP | FDX | 50,209.02 | 0.29% | 1.01% | 12.50% | 13.57% | 0.0386% |
| FIRSTENERGY CORP | FE | 14,083.45 | 0.08% | 4.34% | 9.00% | 13.54% | 0.0109% |
| F5 NETWORKS INC | FFIV | 8,134.17 | 0.05% | 0.00% | 9.00% | 9.00% | 0.0042% |
| FIDELITY NATIONAL INFO SERV | FIS | 24,020.75 | 0.14% | 1.41% | 13.50% | 15.01% | 0.0205% |
| FISERV INC | FISV | 23,555.49 | 0.13% | 0.00% | 9.50% | 9.50% | 0.0127% |
| FIFTH THIRD BANCORP | FITB | 14,723.70 | 0.08% | 2.93% | 3.00% | 5.97% | 0.0050% |
| FOOT LOCKER INC | FL | 7,226.46 | 0.04% | 2.07% | 9.00% | 11.16% | 0.0046% |
| FLIR SYSTEMS INC | FLIR | 4,342.20 | 0.02% | 1.59% | 8.00% | 9.65% | 0.0024% |
| FLUOR CORP | FLR | 7,376.04 | 0.04% | 1.59% | 1.50% | 3.10% | 0.0013% |
| FLOWSERVE CORP | FLS | 6,517.90 | 0.04% | 1.51% | 2.50% | 4.03% | 0.0015% |
| FMC CORP | FMC | 6,593.97 | 0.04% | 1.38% | 4.50% | 5.91% | 0.0022% |
| TWENTY-FIRST CENTURY FOX-A | FOXA | 31,995.17 | 0.18% | 1.03% | 10.50% | 11.58% | 0.0211% |
| FEDERAL REALTY INVS TRUST | FRT | - | N/A | 2.52% | N/A | N/A | N/A |
| FIRST SOLAR INC | FSLR | 4,972.96 | 0.03% | 0.00% | 8.50% | 8.50% | 0.0024% |
| FMC TECHNOLOGIES INC | FTI | 6,358.48 | 0.04% | 0.00% | -1.00% | -1.00% | -0.0004% |
| FRONTIER COMMUNICATIONS CORP | FTR | 5,980.56 | 0.03% | 8.24% | 13.50% | 22.30% | 0.0076% |
| AGL RESOURCES INC | GAS | 7,962.40 | 0.05% | 3.21% | 5.00% | 8.29% | 0.0038% |
| GENERAL DYNAMICS CORP | GD | 42,723.34 | 0.24% | 2.18% | 7.00% | 9.26% | 0.0225% |
| GENERAL ELECTRIC CO | GE | 286,812.50 | 1.63% | 2.95% | 9.50% | 12.59% | 0.2056% |
| GENERAL GROWTH PROPERTIES | GGP | - | N/A | 2.69% | N/A | N/A | N/A |
| GILEAD SCIENCES INC | GILD | 112,382.80 | 0.64% | 2.26% | 10.00% | 12.37% | 0.0792% |
| GENERAL MILLS INC | GIS | 39,634.68 | 0.23% | 2.76% | 5.00% | 7.83% | 0.0177% |
| CORNING INC | GLW | 22,349.25 | 0.13% | 2.60% | 6.00% | 8.68% | 0.0110% |
| GENERAL MOTORS CO | GM | 45,917.58 | 0.26% | 5.10% | 11.00% | 16.38% | 0.0428% |
| ALPHABET INC-CL A | GOOGL | N/A | N/A | 0.00% | N/A | N/A | N/A |
| GENUINE PARTS CO | GPC | 14,874.02 | 0.08% | 2.65% | 7.00% | 9.74% | 0.0083% |
| GLOBAL PAYMENTS INC | GPN | 9,809.47 | 0.06% | 0.05% | 14.00% | 14.05% | 0.0079% |
| GAP INC/THE | GPS | 8,330.14 | 0.05% | 4.44% | 1.50% | 5.97% | 0.0028% |
| GARMIN LTD | GRMN | 8,188.27 | 0.05% | 4.76% | -1.00% | 3.74% | 0.0017% |
| GOLDMAN SACHS GROUP INC | GS | 63,746.54 | 0.36% | 1.70% | 7.00% | 8.76% | 0.0318% |
| GOODYEAR TIRE & RUBBER CO | GT | 7,291.06 | 0.04% | 1.13% | 8.50% | 9.68% | 0.0040% |
| WW GRAINGER INC | GWW | 13,856.93 | 0.08% | 2.16% | 6.00% | 8.22% | 0.0065% |
| HALLIBURTON CO | HAL | 39,330.72 | 0.22% | 1.57% | 8.00% | 9.63% | 0.0216% |
| HARMAN INTERNATIONAL | HAR | 5,420.74 | 0.03% | 1.82% | 17.00% | 18.97% | 0.0059% |
| HASBRO INC | HAS | 10,763.36 | 0.06% | 2.37% | 11.00% | 13.50% | 0.0083% |
| HUNTINGTON BANCSHARES INC | HBAN | 7,512.78 | 0.04% | 3.29% | 9.00% | 12.44% | 0.0053% |
| HANESBRANDS INC | HBI | 9,992.77 | 0.06% | 1.66% | 11.50% | 13.26% | 0.0075% |
| HCA HOLDINGS INC | HCA | 31,393.59 | 0.18% | 0.00% | 11.00% | 11.00% | 0.0197% |
| WELLTOWER INC | HCN | - | N/A | 4.78% | N/A | N/A | N/A |
| HCP INC | HCP | - | 0.00% | 6.74% | 74.00% | 83.23% | 0.0000% |
| HOME DEPOT INC | HD | 159,721.10 | 0.91% | 2.15% | 12.50% | 14.78% | 0.1345% |
| HESS CORP | HES | 18,930.29 | 0.11% | 1.67% | -1.00% | 0.66% | 0.0007% |
| HARTFORD FINANCIAL SVCS GRP | HIG | 17,786.31 | 0.10% | 1.87% | 11.50% | 13.48% | 0.0137% |
| HARLEY-DAVIDSON INC | HOG | 8,485.88 | 0.05% | 2.99% | 9.00% | 12.12% | 0.0059% |
| HOLOGIC INC | HOLX | 9,965.05 | 0.06% | 0.00% | 21.00% | 21.00% | 0.0119% |
| HONEYWELL INTERNATIONAL INC | HON | 89,411.34 | 0.51% | 2.03% | 8.50% | 10.62% | 0.0541% |
| STARWOOD HOTELS & RESORTS | HOT | 12,871.33 | 0.07% | 1.98% | 5.50% | 7.53% | 0.0055% |
| HELMERICH & PAYNE | HP | 7,473.06 | 0.04% | 4.05% | -6.00% | -2.07% | -0.0009% |
| HEWLETT PACKARD ENTERPRIS | HPE | 33,876.60 | N/A | 1.12% | N/A | N/A | N/A |
| HP INC | HPQ | 22,157.45 | N/A | 3.86% | N/A | N/A | N/A |
| H&R BLOCK INC | HRB | 5,127.65 | 0.03% | 3.85% | 8.00% | 12.00% | 0.0035% |
| HORMEL FOODS CORP | HRL | 18,334.22 | 0.10% | 1.79% | 14.00% | 15.92% | 0.0166% |
| HARRIS CORP | HRS | 10,473.83 | 0.06% | 2.47% | 7.50% | 10.06% | 0.0060% |
| HENRY SCHEIN INC | HSIC | 14,574.67 | 0.08% | 0.00% | 9.00% | 9.00% | 0.0075% |
| HOST HOTELS & RESORTS INC | HST | - | N/A | 4.72% | N/A | N/A | N/A |
| HERSHEY CO/THE | HSY | 20,796.21 | 0.12% | 2.40% | 6.00% | 8.47% | 0.0100% |
| HUMANA INC | HUM | 27,915.93 | 0.16% | 0.62% | 9.50% | 10.15% | 0.0161% |
| INTL BUSINESS MACHINES CORP | IBM | 149,130.10 | 0.85% | 3.64% | 0.50% | 4.15% | 0.0352% |
| INTERCONTINENTAL EXCHANGE IN | ICE | 30,469.95 | 0.17% | 1.33% | 14.00% | 15.42% | 0.0268% |
| INTL FLAVORS & FRAGRANCES | IFF | 10,150.16 | 0.06% | 1.76% | 4.50% | 6.30% | 0.0036% |
| ILLUMINA INC | ILMN | 21,578.05 | 0.12% | 0.00% | 22.50% | 22.50% | 0.0276% |
| INTEL CORP | INTC | 155,580.80 | 0.89% | 3.15% | 9.50% | 12.80% | 0.1134% |
| INTUIT INC | INTU | 28,378.53 | 0.16% | 1.10% | 13.00% | 14.17% | 0.0229% |
| INTERNATIONAL PAPER CO | IP | 17,799.25 | 0.10% | 4.07% | 15.00% | 19.38% | 0.0196% |
| INTERPUBLIC GROUP OF COS INC | IPG | 9,899.16 | 0.06% | 2.56% | 13.00% | 15.73% | 0.0089% |
| INGERSOLL-RAND PLC | IR | 17,056.41 | 0.10% | 1.93% | 8.50% | 10.51% | 0.0102% |
| IRON MOUNTAIN INC | IRM | 8,179.07 | 0.05% | 5.03% | 13.00% | 18.36% | 0.0085% |
| INTUITIVE SURGICAL INC | ISRG | 25,196.29 | 0.14% | 0.00% | 11.50% | 11.50% | 0.0165% |
| ILLINOIS TOOL WORKS | ITW | 38,387.91 | 0.22% | 2.06% | 10.00% | 12.16% | 0.0266% |
| INVESCO LTD | IVZ | 14,525.65 | 0.08% | 3.78% | 7.00% | 10.91% | 0.0090% |
| HUNT (JB) TRANSPRT SVCS INC | JBHT | 9,096.81 | 0.05% | 1.09% | 11.00% | 12.15% | 0.0063% |
| JOHNSON CONTROLS INC | JCI | 29,170.16 | 0.17% | 2.58% | 9.50% | 12.20% | 0.0203% |
| JACOBS ENGINEERING GROUP INC | JEC | 6,485.95 | 0.04% | 0.00% | 4.00% | 4.00% | 0.0015% |
| JOHNSON & JOHNSON | JNJ | 322,995.20 | 1.84% | 2.77% | 8.50% | 11.39% | 0.2094% |
| JUNIPER NETWORKS INC | JNPR | 9,286.65 | 0.05% | 1.79% | 10.00% | 11.88% | 0.0063% |
| JPMORGAN CHASE & CO | JPM | 234,209.00 | 1.33% | 3.00% | 6.50% | 9.60% | 0.1280% |
| NORDSTROM INC | JWN | 6,632.55 | 0.04% | 3.92% | 4.00% | 8.00% | 0.0030% |

| Company | Ticker | [4] Market Capitalization | [5] Weight in Index | [6] Estimated Dividend Yield | [7] Long-Term Growth Est. | [8] DCF Result | [9] Weighted DCF Result |
|---|---|---|---|---|---|---|---|
| KELLOGG CO | K | 27,240.50 | 0.16% | 2.62% | 5.00% | 7.69% | 0.0119% |
| KEYCORP | KEY | 10,099.08 | 0.06% | 2.84% | 7.50% | 10.45% | 0.0060% |
| KRAFT HEINZ CO/THE | KHC | 104,851.30 | N/A | 2.72% | N/A | N/A | N/A |
| KIMCO REALTY CORP | KIM | - | N/A | 3.57% | N/A | N/A | N/A |
| KLA-TENCOR CORP | KLAC | 11,654.75 | 0.07% | 2.78% | 12.50% | 15.45% | 0.0103% |
| KIMBERLY-CLARK CORP | KMB | 48,242.74 | 0.27% | 2.75% | 10.00% | 12.89% | 0.0354% |
| KINDER MORGAN INC | KMI | 42,132.49 | 0.24% | 2.65% | 13.00% | 15.82% | 0.0380% |
| CARMAX INC | KMX | 9,147.57 | 0.05% | 0.00% | 12.50% | 12.50% | 0.0065% |
| COCA-COLA CO/THE | KO | 195,286.60 | 1.11% | 3.11% | 4.00% | 7.17% | 0.0798% |
| MICHAEL KORS HOLDINGS LTD | KORS | 9,117.41 | 0.05% | 0.00% | 9.00% | 9.00% | 0.0047% |
| KROGER CO | KR | 33,525.89 | 0.19% | 1.36% | 10.50% | 11.93% | 0.0228% |
| KOHLS CORP | KSS | 6,892.65 | 0.04% | 5.44% | 8.00% | 13.66% | 0.0054% |
| KANSAS CITY SOUTHERN | KSU | 9,838.50 | 0.06% | 1.45% | 9.00% | 10.52% | 0.0059% |
| LOEWS CORP | L | 13,763.21 | 0.08% | 0.61% | 12.50% | 13.15% | 0.0103% |
| L BRANDS INC | LB | 19,915.20 | 0.11% | 3.47% | 8.00% | 11.61% | 0.0132% |
| LEGGETT & PLATT INC | LEG | 6,865.40 | 0.04% | 2.66% | 11.00% | 13.81% | 0.0054% |
| LENNAR CORP-A | LEN | 10,001.15 | 0.06% | 0.34% | 12.50% | 12.86% | 0.0073% |
| LABORATORY CRP OF AMER HLDGS | LH | 13,393.48 | 0.08% | 0.00% | 9.50% | 9.50% | 0.0072% |
| LKQ CORP | LKQ | 10,302.21 | 0.06% | 0.00% | 15.00% | 15.00% | 0.0088% |
| L-3 COMMUNICATIONS HOLDINGS | LLL | 11,161.85 | 0.06% | 1.94% | 6.50% | 8.50% | 0.0054% |
| LINEAR TECHNOLOGY CORP | LLTC | 11,399.80 | 0.06% | 2.69% | 5.50% | 8.26% | 0.0054% |
| ELI LILLY & CO | LLY | 81,617.71 | 0.46% | 2.76% | 9.50% | 12.39% | 0.0576% |
| LEGG MASON INC | LM | 3,512.10 | 0.02% | 2.70% | 10.50% | 13.34% | 0.0027% |
| LOCKHEED MARTIN CORP | LMT | 73,068.72 | 0.42% | 2.88% | 8.00% | 11.00% | 0.0457% |
| LINCOLN NATIONAL CORP | LNC | 10,604.65 | 0.06% | 2.34% | 7.00% | 9.42% | 0.0057% |
| LOWE'S COS INC | LOW | 70,241.59 | 0.40% | 1.78% | 14.00% | 15.90% | 0.0636% |
| LAM RESEARCH CORP | LRCX | 13,889.43 | 0.08% | 1.38% | 16.00% | 17.49% | 0.0138% |
| LEUCADIA NATIONAL CORP | LUK | N/A | N/A | 0.00% | N/A | N/A | N/A |
| SOUTHWEST AIRLINES CO | LUV | 26,473.32 | 0.15% | 1.01% | 17.50% | 18.60% | 0.0280% |
| LEVEL 3 COMMUNICATIONS INC | LVLT | 18,724.91 | 0.11% | 0.00% | 38.00% | 38.00% | 0.0405% |
| LYONDELLBASELL INDU-CL A | LYB | 33,845.89 | 0.19% | 4.30% | 6.50% | 10.94% | 0.0211% |
| MACY'S INC | M | 10,294.22 | 0.06% | 4.52% | 3.00% | 7.59% | 0.0044% |
| MASTERCARD INC-CLASS A | MA | 105,472.40 | 0.60% | 0.79% | 11.00% | 11.83% | 0.0711% |
| MACERICH CO/THE | MAC | - | N/A | 3.39% | N/A | N/A | N/A |
| MARRIOTT INTERNATIONAL -CL A | MAR | 17,529.30 | 0.10% | 1.74% | 12.50% | 14.35% | 0.0143% |
| MASCO CORP | MAS | 10,347.48 | 0.06% | 1.21% | 14.50% | 15.80% | 0.0093% |
| MATTEL INC | MAT | 11,022.15 | 0.06% | 4.69% | 6.50% | 11.34% | 0.0071% |
| MCDONALD'S CORP | MCD | 106,398.10 | 0.61% | 2.97% | 6.00% | 9.06% | 0.0549% |
| MICROCHIP TECHNOLOGY INC | MCHP | 10,752.89 | 0.06% | 2.73% | 8.00% | 10.84% | 0.0066% |
| MCKESSON CORP | MCK | 42,060.01 | 0.24% | 0.61% | 12.00% | 12.65% | 0.0303% |
| MOODY'S CORP | MCO | 19,763.05 | 0.11% | 1.46% | 7.50% | 9.01% | 0.0101% |
| MONDELEZ INTERNATIONAL INC-A | MDLZ | 69,723.36 | 0.40% | 1.65% | 11.50% | 13.24% | 0.0526% |
| MEDTRONIC PLC | MDT | 120,167.50 | 0.68% | 1.84% | 7.00% | 8.90% | 0.0609% |
| METLIFE INC | MET | 48,521.94 | 0.28% | 3.62% | 6.50% | 10.24% | 0.0283% |
| MOHAWK INDUSTRIES INC | MHK | 14,657.12 | 0.08% | 0.00% | 10.50% | 10.50% | 0.0088% |
| MEAD JOHNSON NUTRITION CO | MJN | 16,543.49 | 0.09% | 1.86% | 6.50% | 8.42% | 0.0079% |
| MCCORMICK & CO-NON VTG SHRS | MKC | 12,997.43 | 0.07% | 1.68% | 7.50% | 9.24% | 0.0068% |
| MARTIN MARIETTA MATERIALS | MLM | 11,935.77 | 0.07% | 0.85% | 24.50% | 25.45% | 0.0173% |
| MARSH & MCLENNAN COS | MMC | 35,416.49 | 0.20% | 2.00% | 9.00% | 11.09% | 0.0224% |
| 3M CO | MMM | 105,600.30 | 0.60% | 2.55% | 8.50% | 11.16% | 0.0671% |
| MALLINCKRODT PLC | MNK | 6,417.92 | N/A | 0.00% | N/A | N/A | N/A |
| MONSTER BEVERAGE CORP | MNST | 31,962.72 | 0.18% | 0.00% | 13.50% | 13.50% | 0.0246% |
| ALTRIA GROUP INC | MO | 129,749.40 | 0.74% | 3.44% | 9.50% | 13.10% | 0.0968% |
| MONSANTO CO | MON | 47,669.84 | 0.27% | 1.98% | 6.00% | 8.04% | 0.0218% |
| MOSAIC CO/THE | MOS | 9,794.34 | 0.06% | 4.29% | 5.00% | 9.40% | 0.0052% |
| MARATHON PETROLEUM CORP | MPC | 19,408.60 | 0.11% | 3.55% | 6.50% | 10.17% | 0.0112% |
| MERCK & CO. INC. | MRK | 159,747.80 | 0.91% | 3.19% | 6.00% | 9.29% | 0.0845% |
| MARATHON OIL CORP | MRO | 12,943.58 | 0.07% | 1.31% | 9.00% | 10.37% | 0.0076% |
| MORGAN STANLEY | MS | 52,896.05 | 0.30% | 2.20% | 14.50% | 16.86% | 0.0508% |
| MICROSOFT CORP | MSFT | 408,531.70 | 2.33% | 2.77% | 7.00% | 9.87% | 0.2295% |
| MOTOROLA SOLUTIONS INC | MSI | 11,874.54 | 0.07% | 2.54% | 9.00% | 11.65% | 0.0079% |
| M & T BANK CORP | MTB | 19,161.59 | 0.11% | 2.33% | 5.00% | 7.39% | 0.0081% |
| MICRON TECHNOLOGY INC | MU | 15,314.50 | 0.09% | 0.00% | 1.00% | 1.00% | 0.0009% |
| MURPHY OIL CORP | MUR | 5,580.84 | N/A | 4.32% | N/A | N/A | N/A |
| MYLAN NV | MYL | 22,681.18 | 0.13% | 0.00% | 20.50% | 20.50% | 0.0265% |
| NAVIENT CORP | NAVI | 4,075.50 | N/A | 5.18% | N/A | N/A | N/A |
| NOBLE ENERGY INC | NBL | 15,999.35 | N/A | 1.08% | N/A | N/A | N/A |
| NASDAQ INC | NDAQ | 10,595.64 | 0.06% | 1.99% | 10.00% | 12.09% | 0.0073% |
| NEXTERA ENERGY INC | NEE | 57,076.41 | 0.33% | 2.90% | 6.00% | 8.99% | 0.0292% |
| NEWMONT MINING CORP | NEM | 18,775.49 | 0.11% | 0.28% | -1.00% | -0.72% | -0.0008% |
| NETFLIX INC | NFLX | 39,256.97 | 0.22% | 0.00% | 35.00% | 35.00% | 0.0782% |
| NEWFIELD EXPLORATION CO | NFX | 8,506.06 | 0.05% | 0.00% | 11.50% | 11.50% | 0.0056% |
| NISOURCE INC | NI | 8,091.85 | 0.05% | 2.62% | 1.50% | 4.14% | 0.0019% |
| NIKE INC -CL B | NKE | 91,192.20 | 0.52% | 1.18% | 15.00% | 16.27% | 0.0845% |
| NIELSEN HOLDINGS PLC | NLSN | 19,388.05 | 0.11% | 2.31% | 9.00% | 11.41% | 0.0126% |
| NORTHROP GRUMMAN CORP | NOC | 38,823.99 | 0.22% | 1.68% | 7.50% | 9.24% | 0.0204% |
| NATIONAL OILWELL VARCO INC | NOV | 13,762.91 | 0.08% | 0.55% | -9.00% | -8.47% | -0.0066% |
| NRG ENERGY INC | NRG | 4,575.58 | N/A | 0.83% | N/A | N/A | N/A |
| NORFOLK SOUTHERN CORP | NSC | 25,729.21 | 0.15% | 2.71% | 6.50% | 9.30% | 0.0136% |
| NETAPP INC | NTAP | 7,571.82 | N/A | 2.92% | N/A | N/A | N/A |
| NORTHERN TRUST CORP | NTRS | 16,322.85 | 0.09% | 2.01% | 7.50% | 9.59% | 0.0089% |
| NUCOR CORP | NUE | 16,055.42 | 0.09% | 2.97% | 24.50% | 27.83% | 0.0254% |
| NVIDIA CORP | NVDA | 25,893.66 | 0.15% | 0.95% | 11.50% | 12.50% | 0.0184% |
| NEWELL BRANDS INC | NWL | 13,265.17 | 0.08% | 1.54% | 14.00% | 15.65% | 0.0118% |
| NEWS CORP - CLASS A | NWSA | 6,877.82 | 0.04% | 1.69% | 27.50% | 29.42% | 0.0115% |
| REALTY INCOME CORP | O | - | N/A | 3.72% | N/A | N/A | N/A |
| OWENS-ILLINOIS INC | OI | 3,206.00 | 0.02% | 0.00% | 6.00% | 6.00% | 0.0011% |
| ONEOK INC | OKE | 9,845.24 | 0.06% | 5.36% | 12.50% | 18.20% | 0.0102% |

| Company | Ticker | [4] Market Capitalization | [5] Weight in Index | [6] Estimated Dividend Yield | [7] Long-Term Growth Est. | [8] DCF Result | [9] Weighted DCF Result |
|---|---|---|---|---|---|---|---|
| OMNICOM GROUP | OMC | 20,199.24 | 0.12% | 2.66% | 9.00% | 11.78% | 0.0135% |
| ORACLE CORP | ORCL | 169,439.00 | 0.96% | 1.47% | 4.50% | 6.00% | 0.0579% |
| O'REILLY AUTOMOTIVE INC | ORLY | 25,560.11 | 0.15% | 0.00% | 11.00% | 11.00% | 0.0160% |
| OCCIDENTAL PETROLEUM CORP | OXY | 59,816.31 | 0.34% | 3.91% | 4.00% | 7.99% | 0.0272% |
| PAYCHEX INC | PAYX | 20,271.21 | 0.12% | 3.20% | 9.00% | 12.34% | 0.0142% |
| PEOPLE'S UNITED FINANCIAL | PBCT | 4,940.06 | 0.03% | 4.27% | 10.50% | 14.99% | 0.0042% |
| PITNEY BOWES INC | PBI | 3,498.79 | 0.02% | 4.12% | 4.00% | 8.20% | 0.0016% |
| PACCAR INC | PCAR | 19,745.04 | 0.11% | 3.90% | 7.00% | 11.04% | 0.0124% |
| P G & E CORP | PCG | 30,792.06 | 0.18% | 3.16% | 12.00% | 15.35% | 0.0269% |
| PRICELINE GROUP INC/THE | PCLN | 69,006.74 | 0.39% | 0.00% | 15.50% | 15.50% | 0.0609% |
| PATTERSON COS INC | PDCO | 4,801.85 | 0.03% | 2.04% | 9.50% | 11.64% | 0.0032% |
| PUBLIC SERVICE ENTERPRISE GP | PEG | 22,371.50 | 0.13% | 3.75% | 3.00% | 6.81% | 0.0087% |
| PEPSICO INC | PEP | 151,020.30 | 0.86% | 2.88% | 7.00% | 9.98% | 0.0858% |
| PFIZER INC | PFE | 209,783.10 | 1.19% | 3.47% | 12.00% | 15.68% | 0.1873% |
| PRINCIPAL FINANCIAL GROUP | PFG | 12,928.61 | 0.07% | 3.50% | 5.00% | 8.59% | 0.0063% |
| PROCTER & GAMBLE CO/THE | PG | 224,154.60 | 1.28% | 3.18% | 6.50% | 9.78% | 0.1249% |
| PROGRESSIVE CORP | PGR | 18,941.67 | 0.11% | 2.74% | 8.50% | 11.36% | 0.0122% |
| PARKER HANNIFIN CORP | PH | 15,354.98 | 0.09% | 2.21% | 5.50% | 7.77% | 0.0068% |
| PULTEGROUP INC | PHM | 7,001.58 | 0.04% | 1.93% | 11.00% | 13.04% | 0.0052% |
| PERKINELMER INC | PKI | 5,911.88 | 0.03% | 0.52% | 6.50% | 7.04% | 0.0024% |
| PROLOGIS INC | PLD | - | N/A | 3.35% | N/A | N/A | N/A |
| PHILIP MORRIS INTERNATIONAL | PM | 158,073.20 | 0.90% | 4.00% | 5.00% | 9.10% | 0.0819% |
| PNC FINANCIAL SERVICES GROUP | PNC | 43,248.33 | 0.25% | 2.35% | 4.00% | 6.40% | 0.0158% |
| PENTAIR PLC | PNR | 11,114.86 | 0.06% | 2.15% | 12.50% | 14.78% | 0.0094% |
| PINNACLE WEST CAPITAL | PNW | 8,592.23 | 0.05% | 3.31% | 4.00% | 7.38% | 0.0036% |
| PPG INDUSTRIES INC | PPG | 29,591.53 | 0.17% | 1.44% | 9.50% | 11.01% | 0.0185% |
| PPL CORP | PPL | 26,334.60 | 0.15% | 3.93% | 4.00% | 8.01% | 0.0120% |
| PERRIGO CO PLC | PRGO | 13,937.28 | 0.08% | 0.61% | 15.00% | 15.66% | 0.0124% |
| PRUDENTIAL FINANCIAL INC | PRU | 34,100.08 | 0.19% | 3.64% | 2.00% | 5.68% | 0.0110% |
| PUBLIC STORAGE | PSA | - | N/A | 2.99% | N/A | N/A | N/A |
| PHILLIPS 66 | PSX | 42,503.73 | 0.24% | 3.18% | 2.50% | 5.72% | 0.0138% |
| PVH CORP | PVH | 8,320.40 | 0.05% | 0.15% | 5.50% | 5.65% | 0.0027% |
| QUANTA SERVICES INC | PWR | 3,702.43 | 0.02% | 0.00% | 8.50% | 8.50% | 0.0018% |
| PRAXAIR INC | PX | 32,862.53 | 0.19% | 2.69% | 6.50% | 9.28% | 0.0174% |
| PIONEER NATURAL RESOURCES CO | PXD | 26,265.62 | 0.15% | 0.05% | 18.50% | 18.55% | 0.0278% |
| PAYPAL HOLDINGS INC | PYPL | 44,285.29 | N/A | 0.00% | N/A | N/A | N/A |
| QUALCOMM INC | QCOM | 81,491.85 | 0.46% | 3.82% | 4.50% | 8.41% | 0.0390% |
| QORVO INC | QRVO | 7,987.33 | N/A | 0.00% | N/A | N/A | N/A |
| RYDER SYSTEM INC | R | 3,536.34 | 0.02% | 2.49% | 9.00% | 11.60% | 0.0023% |
| REYNOLDS AMERICAN INC | RAI | 72,566.01 | 0.41% | 3.30% | 10.00% | 13.47% | 0.0556% |
| ROYAL CARIBBEAN CRUISES LTD | RCL | 16,652.52 | 0.09% | 1.94% | 16.50% | 18.60% | 0.0176% |
| REGENERON PHARMACEUTICALS | REGN | 36,813.99 | 0.21% | 0.00% | 23.00% | 23.00% | 0.0482% |
| REGIONS FINANCIAL CORP | RF | 12,046.98 | 0.07% | 2.86% | 7.50% | 10.47% | 0.0072% |
| ROBERT HALF INTL INC | RHI | 5,212.01 | 0.03% | 2.24% | 11.00% | 13.36% | 0.0040% |
| RED HAT INC | RHT | 14,203.09 | 0.08% | 0.00% | 16.50% | 16.50% | 0.0133% |
| TRANSOCEAN LTD | RIG | 4,391.94 | 0.03% | 0.00% | -19.00% | -19.00% | -0.0048% |
| RALPH LAUREN CORP | RL | 8,062.03 | 0.05% | 2.16% | 4.50% | 6.71% | 0.0031% |
| ROCKWELL AUTOMATION INC | ROK | 15,699.42 | 0.09% | 2.41% | 3.00% | 5.45% | 0.0049% |
| ROPER TECHNOLOGIES INC | ROP | 17,498.66 | 0.10% | 0.69% | 7.00% | 7.71% | 0.0077% |
| ROSS STORES INC | ROST | 21,601.51 | 0.12% | 1.04% | 9.00% | 10.09% | 0.0124% |
| RANGE RESOURCES CORP | RRC | 7,711.03 | 0.04% | 0.18% | 12.00% | 12.19% | 0.0054% |
| REPUBLIC SERVICES INC | RSG | 17,173.32 | 0.10% | 2.53% | 8.50% | 11.14% | 0.0109% |
| RAYTHEON COMPANY | RTN | 40,044.51 | 0.23% | 2.17% | 9.00% | 11.27% | 0.0257% |
| STARBUCKS CORP | SBUX | 82,202.38 | 0.47% | 1.59% | 16.50% | 18.22% | 0.0853% |
| SCANA CORP | SCG | 10,197.13 | 0.06% | 3.27% | 4.50% | 7.84% | 0.0046% |
| SCHWAB (CHARLES) CORP | SCHW | 39,234.18 | 0.22% | 0.94% | 12.00% | 13.00% | 0.0290% |
| SPECTRA ENERGY CORP | SE | 23,981.04 | 0.14% | 4.62% | 11.50% | 16.39% | 0.0224% |
| SEALED AIR CORP | SEE | 9,433.96 | 0.05% | 1.34% | 16.00% | 17.45% | 0.0094% |
| SHERWIN-WILLIAMS CO/THE | SHW | 26,724.58 | 0.15% | 1.22% | 11.00% | 12.29% | 0.0187% |
| SIGNET JEWELERS LTD | SIG | 6,786.30 | 0.04% | 1.20% | 15.00% | 16.29% | 0.0063% |
| JM SMUCKER CO/THE | SJM | 17,541.03 | 0.10% | 1.89% | 7.00% | 8.96% | 0.0089% |
| SCHLUMBERGER LTD | SLB | 99,673.26 | 0.57% | 2.51% | 10.00% | 12.64% | 0.0717% |
| SL GREEN REALTY CORP | SLG | - | N/A | 2.73% | N/A | N/A | N/A |
| SNAP-ON INC | SNA | 9,047.59 | 0.05% | 1.57% | 10.00% | 11.65% | 0.0060% |
| SCRIPPS NETWORKS INTER-CL A | SNI | 8,019.46 | 0.05% | 1.61% | 9.00% | 10.68% | 0.0049% |
| SOUTHERN CO/THE | SO | 46,903.71 | 0.27% | 4.43% | 2.50% | 6.99% | 0.0187% |
| SIMON PROPERTY GROUP INC | SPG | - | N/A | 3.06% | N/A | N/A | N/A |
| S&P GLOBAL INC | SPGI | 29,258.99 | 0.17% | 1.30% | 11.00% | 12.37% | 0.0206% |
| STAPLES INC | SPLS | 5,784.27 | N/A | 5.36% | N/A | N/A | N/A |
| STERICYCLE INC | SRCL | 8,769.73 | 0.05% | 0.00% | 9.00% | 9.00% | 0.0045% |
| SEMPRA ENERGY | SRE | 27,658.92 | 0.16% | 2.77% | 10.00% | 12.91% | 0.0203% |
| SUNTRUST BANKS INC | STI | 21,840.19 | 0.12% | 2.36% | 7.00% | 9.44% | 0.0117% |
| ST JUDE MEDICAL INC | STJ | 22,281.27 | 0.13% | 1.63% | 5.50% | 7.17% | 0.0091% |
| STATE STREET CORP | STT | 23,840.58 | 0.14% | 2.39% | 5.50% | 7.96% | 0.0108% |
| SEAGATE TECHNOLOGY | STX | 7,306.30 | 0.04% | 10.29% | -2.00% | 8.19% | 0.0034% |
| CONSTELLATION BRANDS INC-A | STZ | 31,077.11 | 0.18% | 1.04% | 16.50% | 17.63% | 0.0312% |
| STANLEY BLACK & DECKER INC | SWK | 17,270.96 | 0.10% | 1.91% | 8.50% | 10.49% | 0.0103% |
| SKYWORKS SOLUTIONS INC | SWKS | 12,783.34 | 0.07% | 1.55% | 17.50% | 19.19% | 0.0140% |
| SOUTHWESTERN ENERGY CO | SWN | 5,287.44 | 0.03% | 0.00% | -5.00% | -5.00% | -0.0015% |
| SYNCHRONY FINANCIAL | SYF | 21,679.58 | N/A | 0.00% | N/A | N/A | N/A |
| STRYKER CORP | SYK | 44,274.12 | 0.25% | 1.28% | 18.50% | 19.90% | 0.0502% |
| SYMANTEC CORP | SYMC | 12,998.88 | 0.07% | 1.41% | -1.00% | 0.40% | 0.0003% |
| SYSCO CORP | SYY | 28,411.44 | 0.16% | 2.51% | 10.50% | 13.14% | 0.0213% |
| AT&T INC | T | 257,822.60 | 1.47% | 4.63% | 6.50% | 11.28% | 0.1656% |
| MOLSON COORS BREWING CO -B | TAP | 21,868.66 | 0.12% | 1.61% | 8.00% | 9.67% | 0.0121% |
| TERADATA CORP | TDC | 3,695.66 | 0.02% | 0.00% | 3.50% | 3.50% | 0.0007% |
| TRANSDIGM GROUP INC | TDG | 14,054.79 | 0.08% | 0.00% | 20.50% | 20.50% | 0.0164% |
| TECO ENERGY INC | TE | 6,516.29 | 0.04% | 3.36% | 7.50% | 10.99% | 0.0041% |

| Company | Ticker | [4] Market Capitalization | [5] Weight in Index | [6] Estimated Dividend Yield | [7] Long-Term Growth Est. | [8] DCF Result | [9] Weighted DCF Result |
|---|---|---|---|---|---|---|---|
| TE CONNECTIVITY LTD | TEL | 22,522.56 | 0.13% | 2.35% | 9.00% | 11.46% | 0.0147% |
| TEGNA INC | TGNA | 4,984.92 | 0.03% | 2.44% | 1.00% | 3.45% | 0.0010% |
| TARGET CORP | TGT | 41,420.29 | 0.24% | 3.44% | 11.00% | 14.63% | 0.0345% |
| TIFFANY & CO | TIF | 7,891.38 | 0.04% | 2.87% | 7.50% | 10.48% | 0.0047% |
| TJX COMPANIES INC | TJX | 50,824.06 | 0.29% | 1.35% | 10.00% | 11.42% | 0.0330% |
| TORCHMARK CORP | TMK | 7,554.99 | 0.04% | 0.90% | 7.00% | 7.93% | 0.0034% |
| THERMO FISHER SCIENTIFIC INC | TMO | 59,868.92 | 0.34% | 0.39% | 9.00% | 9.41% | 0.0321% |
| TRIPADVISOR INC | TRIP | 9,611.83 | 0.05% | 0.00% | 16.50% | 16.50% | 0.0090% |
| T ROWE PRICE GROUP INC | TROW | 18,242.52 | 0.10% | 2.98% | 7.50% | 10.59% | 0.0110% |
| TRAVELERS COS INC/THE | TRV | 33,289.74 | 0.19% | 2.35% | 1.50% | 3.87% | 0.0073% |
| TRACTOR SUPPLY COMPANY | TSCO | 12,469.07 | 0.07% | 1.06% | 14.00% | 15.13% | 0.0107% |
| TYSON FOODS INC-CL A | TSN | 23,443.20 | 0.13% | 1.01% | 12.50% | 13.57% | 0.0181% |
| TESORO CORP | TSO | 9,327.92 | 0.05% | 2.57% | 5.50% | 8.14% | 0.0043% |
| TOTAL SYSTEM SERVICES INC | TSS | 9,681.75 | 0.06% | 0.76% | 12.00% | 12.81% | 0.0071% |
| TIME WARNER INC | TWX | 57,636.45 | 0.33% | 2.20% | 11.50% | 13.83% | 0.0454% |
| TEXAS INSTRUMENTS INC | TXN | 63,715.95 | 0.36% | 2.40% | 7.50% | 9.99% | 0.0362% |
| TEXTRON INC | TXT | 10,324.26 | 0.06% | 0.21% | 15.50% | 15.73% | 0.0092% |
| TYCO INTERNATIONAL PLC | TYC | 18,682.19 | 0.11% | 1.87% | 9.50% | 11.46% | 0.0122% |
| UNDER ARMOUR INC-CLASS A | UA | 16,676.17 | 0.09% | 0.00% | 24.50% | 24.50% | 0.0233% |
| UNITED CONTINENTAL HOLDINGS | UAL | 15,326.41 | 0.09% | 0.00% | 7.00% | 7.00% | 0.0061% |
| UDR INC | UDR | - | N/A | 3.35% | N/A | N/A | N/A |
| UNIVERSAL HEALTH SERVICES-B | UHS | 13,419.52 | 0.08% | 0.29% | 11.50% | 11.81% | 0.0090% |
| ULTA SALON COSMETICS & FRAGR | ULTA | 15,160.26 | 0.09% | 0.00% | 18.00% | 18.00% | 0.0155% |
| UNITEDHEALTH GROUP INC | UNH | 132,787.30 | 0.76% | 1.80% | 14.00% | 15.93% | 0.1204% |
| UNUM GROUP | UNM | 8,444.31 | 0.05% | 2.08% | 11.00% | 13.19% | 0.0063% |
| UNION PACIFIC CORP | UNP | 74,456.73 | 0.42% | 2.49% | 7.00% | 9.58% | 0.0406% |
| UNITED PARCEL SERVICE-CL B | UPS | 94,782.48 | 0.54% | 2.95% | 9.50% | 12.59% | 0.0680% |
| URBAN OUTFITTERS INC | URBN | 3,150.45 | 0.02% | 0.00% | 13.50% | 13.50% | 0.0024% |
| UNITED RENTALS INC | URI | 6,455.70 | 0.04% | 0.00% | 13.00% | 13.00% | 0.0048% |
| US BANCORP | USB | 73,142.62 | 0.42% | 2.51% | 4.50% | 7.07% | 0.0294% |
| UNITED TECHNOLOGIES CORP | UTX | 85,636.50 | 0.49% | 2.58% | 6.50% | 9.16% | 0.0447% |
| VISA INC-CLASS A SHARES | V | 169,680.90 | 0.97% | 0.77% | 12.00% | 12.82% | 0.1238% |
| VARIAN MEDICAL SYSTEMS INC | VAR | 8,055.82 | 0.05% | 0.00% | 7.50% | 7.50% | 0.0034% |
| VF CORP | VFC | 27,117.84 | 0.15% | 2.28% | 11.00% | 13.41% | 0.0207% |
| VIACOM INC-CLASS B | VIAB | 17,222.81 | 0.10% | 3.68% | 5.00% | 8.77% | 0.0086% |
| VALERO ENERGY CORP | VLO | 25,232.42 | 0.14% | 4.47% | 5.50% | 10.09% | 0.0145% |
| VULCAN MATERIALS CO | VMC | 15,873.75 | 0.09% | 0.67% | 33.50% | 34.28% | 0.0310% |
| VORNADO REALTY TRUST | VNO | 18,675.11 | 0.11% | 2.55% | 22.50% | 25.34% | 0.0269% |
| VERISK ANALYTICS INC | VRSK | 13,460.24 | 0.08% | 0.00% | 11.00% | 11.00% | 0.0084% |
| VERISIGN INC | VRSN | 9,502.96 | 0.05% | 0.00% | 11.50% | 11.50% | 0.0062% |
| VERTEX PHARMACEUTICALS INC | VRTX | 21,810.71 | N/A | 0.00% | N/A | N/A | N/A |
| VENTAS INC | VTR | - | N/A | 4.27% | N/A | N/A | N/A |
| VERIZON COMMUNICATIONS INC | VZ | 222,850.70 | 1.27% | 4.13% | 3.00% | 7.19% | 0.0913% |
| WATERS CORP | WAT | 11,199.19 | 0.06% | 0.00% | 9.00% | 9.00% | 0.0057% |
| WALGREENS BOOTS ALLIANCE INC | WBA | 91,835.88 | 0.52% | 1.69% | 13.00% | 14.80% | 0.0774% |
| WESTERN DIGITAL CORP | WDC | 11,838.73 | 0.07% | 3.94% | -0.50% | 3.43% | 0.0023% |
| WEC ENERGY GROUP INC | WEC | 19,816.32 | 0.11% | 3.23% | 6.00% | 9.33% | 0.0105% |
| WELLS FARGO & CO | WFC | 243,186.50 | 1.38% | 3.17% | 5.00% | 8.25% | 0.1142% |
| WHOLE FOODS MARKET INC | WFM | 9,961.62 | 0.06% | 1.83% | 8.00% | 9.90% | 0.0056% |
| WHIRLPOOL CORP | WHR | 13,588.80 | 0.08% | 2.24% | 11.50% | 13.87% | 0.0107% |
| WILLIS TOWERS WATSON PLC | WLTW | N/A | N/A | 0.00% | N/A | N/A | N/A |
| WASTE MANAGEMENT INC | WM | 28,217.74 | 0.16% | 2.62% | 7.50% | 10.22% | 0.0164% |
| WILLIAMS COS INC | WMB | 16,335.00 | 0.09% | 12.12% | 16.50% | 29.62% | 0.0276% |
| WAL-MART STORES INC | WMT | 225,312.50 | 1.28% | 2.77% | 2.00% | 4.80% | 0.0616% |
| WESTROCK CO | WRK | 10,477.13 | N/A | 3.61% | N/A | N/A | N/A |
| WESTERN UNION CO | WU | 9,529.15 | 0.05% | 3.30% | 8.00% | 11.43% | 0.0062% |
| WEYERHAEUSER CO | WY | 22,406.98 | 0.13% | 4.20% | 10.50% | 14.92% | 0.0190% |
| WYNDHAM WORLDWIDE CORP | WYN | 8,044.87 | 0.05% | 2.78% | 5.50% | 8.36% | 0.0038% |
| WYNN RESORTS LTD | WYNN | 10,350.01 | 0.06% | 1.97% | 6.50% | 8.53% | 0.0050% |
| CIMAREX ENERGY CO | XEC | 11,405.30 | 0.06% | 0.27% | 11.00% | 11.28% | 0.0073% |
| XCEL ENERGY INC | XEL | 21,689.59 | 0.12% | 3.23% | 5.50% | 8.82% | 0.0109% |
| XL GROUP PLC | XL | 9,809.11 | 0.06% | 2.40% | 9.00% | 11.51% | 0.0064% |
| XILINX INC | XLNX | 12,034.91 | 0.07% | 2.78% | 6.00% | 8.86% | 0.0061% |
| EXXON MOBIL CORP | XOM | 380,694.60 | 2.17% | 3.27% | 5.00% | 8.35% | 0.1811% |
| DENTSPLY SIRONA INC | XRAY | 15,037.98 | 0.09% | 0.48% | 8.00% | 8.50% | 0.0073% |
| XEROX CORP | XRX | 10,150.28 | 0.06% | 3.19% | 4.50% | 7.76% | 0.0045% |
| XYLEM INC | XYL | 8,292.02 | 0.05% | 1.34% | 9.50% | 10.90% | 0.0051% |
| YAHOO! INC | YHOO | 35,824.85 | N/A | 0.00% | N/A | N/A | N/A |
| YUM! BRANDS INC | YUM | 34,961.30 | 0.20% | 2.28% | 10.00% | 12.39% | 0.0247% |
| ZIMMER BIOMET HOLDINGS INC | ZBH | 24,075.17 | 0.14% | 0.81% | 13.00% | 13.86% | 0.0190% |
| ZIONS BANCORPORATION | ZION | 5,759.96 | 0.03% | 1.14% | 11.00% | 12.20% | 0.0040% |
| ZOETIS INC | ZTS | 23,778.38 | 0.14% | 0.79% | 11.00% | 11.83% | 0.0160% |
| | | 17,561,166 | | | | | 13.63% |

[1] Equals sum of Col. [9]
[2] Source: Bloomberg Professional
[3] Equals [1] – [2]
[4] Source: Value Line
[5] Equals weight in S&P 500 based on market capitalization
[6] Source: Value Line
[7] Source: Value Line
[8] Equals ([6] x (1 + (0.5 x [7]))) + [7]
[9] Equals Col. [5] x Col. [8]

Bloomberg and Value Line Beta Coefficients

| Company | Ticker | [1] Bloomberg | [2] Value Line |
|---|---|---|---|
| ALLETE, Inc. | ALE | 0.612 | 0.75 |
| Alliant Energy Corporation | LNT | 0.612 | 0.75 |
| Ameren Corporation | AEE | 0.617 | 0.75 |
| American Electric Power Company, Inc. | AEP | 0.559 | 0.70 |
| Avista Corporation | AVA | 0.580 | 0.75 |
| CMS Energy Corporation | CMS | 0.542 | 0.70 |
| DTE Energy Company | DTE | 0.598 | 0.70 |
| IDACORP, Inc. | IDA | 0.672 | 0.80 |
| NorthWestern Corporation | NWE | 0.607 | 0.70 |
| OGE Energy Corp. | OGE | 0.700 | 0.95 |
| Otter Tail Corporation | OTTR | 0.692 | 0.80 |
| Pinnacle West Capital Corporation | PNW | 0.599 | 0.75 |
| PNM Resources, Inc. | PNM | 0.638 | 0.80 |
| Portland General Electric Company | POR | 0.606 | 0.80 |
| SCANA Corporation | SCG | 0.589 | 0.70 |
| Xcel Energy Inc. | XEL | 0.479 | 0.65 |
| Mean | | 0.606 | 0.75 |

Notes:
[1] Source: Bloomberg Professional
[2] Source: Value Line

Capital Asset Pricing Model Results
Bloomberg and Value Line Derived Market Risk Premium

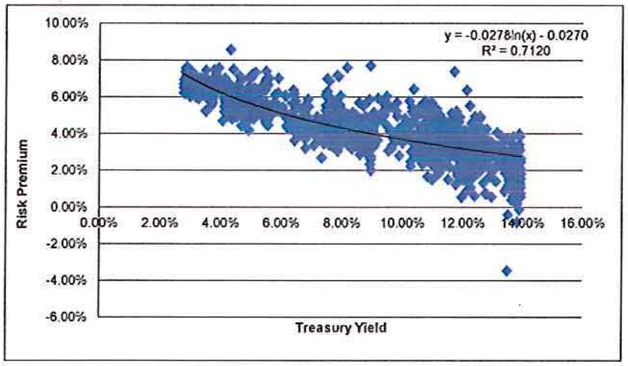
| | [1] | [2] | [3] | [4] | [5] | [6] |
|---|---|---|---|---|---|---|
| | | | Ex-Ante Market Risk Premium | | CAPM Result | |
| | Risk-Free Rate | Average Beta Coefficient | Bloomberg Market DCF Derived | Value Line Market DCF Derived | Bloomberg Market DCF Derived | Value Line Market DCF Derived |
| ***PROXY GROUP BLOOMBERG BETA COEFFICIENT*** | | | | | | |
| Current 30-Year Treasury (30-day average) [7] | 2.50% | 0.606 | 10.59% | 11.13% | 8.92% | 9.25% |
| Near-Term Projected 30-Year Treasury [8] | 3.08% | 0.606 | 10.59% | 11.13% | 9.50% | 9.83% |
| Mean | | | | | 9.21% | 9.54% |

| | | | Ex-Ante Market Risk Premium | | CAPM Result | |
|---|---|---|---|---|---|---|
| | Risk-Free Rate | Average Beta Coefficient | Bloomberg Market DCF Derived | Value Line Market DCF Derived | Bloomberg Market DCF Derived | Value Line Market DCF Derived |
| ***PROXY GROUP VALUE LINE AVERAGE BETA COEFFICIENT*** | | | | | | |
| Current 30-Year Treasury (30-day average) [7] | 2.50% | 0.753 | 10.59% | 11.13% | 10.48% | 10.88% |
| Near-Term Projected 30-Year Treasury [8] | 3.08% | 0.753 | 10.59% | 11.13% | 11.06% | 11.46% |
| Mean | | | | | 10.77% | 11.17% |

Notes:
[1] *See Notes [7] and [8]*
[2] Source: Exhibit RBH-4
[3] Source: Exhibit RBH-3
[4] Source: Exhibit RBH-3
[5] Equals Col. [1] + (Col. [2] x Col. [3])
[6] Equals Col. [1] + (Col. [2] x Col. [4])
[7] Source: Bloomberg Professional
[8] Source: Blue Chip Financial Forecasts, Vol. 35, No. 6, June 1, 2016, at 2.

Bond Yield Plus Risk Premium

| | [1] | [2] | [3] | [4] | [5] |
|---|---|---|---|---|---|
| | Constant | Slope | 30-Year Treasury Yield | Risk Premium | Return on Equity |
| | -2.70% | -2.78% | | | |
| Current 30-Year Treasury | | | 2.50% | 7.53% | 10.04% |
| Near-Term Projected 30-Year Treasury | | | 3.08% | 6.96% | 10.04% |
| Long-Term Projected 30-Year Treasury | | | 4.45% | 5.94% | 10.39% |
| Current: 3-Months ending June 30, 2016 | | | 2.57% | 7.46% | 10.03% |
| Early 2015: 3-Months ending Mar. 31, 2015 | | | 2.55% | 7.48% | 10.03% |
| Late 2014: 3-Months ending Dec. 31, 2014 | | | 2.97% | 7.06% | 10.03% |




Notes:
[1] Constant of regression equation
[2] Slope of regression equation
[3] Source: Current = Bloomberg Professional,
Near Term Projected = Blue Chip Financial Forecasts, Vol. 35, No. 6, June 1, 2016, at 2,
Long Term Projected = Blue Chip Financial Forecasts, Vol. 35, No. 6, June 1, 2016, at 14
[4] Equals [1] + ln([3]) x [2]
[5] Equals [3] + [4]
[6] Source: SNL Financial
[7] Source: SNL Financial
[8] Source: Bloomberg Professional, equals 200-trading day average (i.e. lag period)
[9] Equals [7] - [8]

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 1/1/1980 | 14.50% | 9.36% | 5.14% |
| 1/7/1980 | 14.39% | 9.38% | 5.01% |
| 1/9/1980 | 15.00% | 9.40% | 5.60% |
| 1/14/1980 | 15.17% | 9.42% | 5.75% |
| 1/17/1980 | 13.93% | 9.44% | 4.49% |
| 1/23/1980 | 15.50% | 9.47% | 6.03% |
| 1/30/1980 | 13.86% | 9.52% | 4.34% |
| 1/31/1980 | 12.61% | 9.53% | 3.08% |
| 2/6/1980 | 13.71% | 9.58% | 4.13% |
| 2/13/1980 | 12.80% | 9.63% | 3.17% |
| 2/14/1980 | 13.00% | 9.65% | 3.35% |
| 2/19/1980 | 13.50% | 9.68% | 3.82% |
| 2/27/1980 | 13.75% | 9.78% | 3.97% |
| 2/29/1980 | 13.75% | 9.81% | 3.94% |
| 2/29/1980 | 14.00% | 9.81% | 4.19% |
| 2/29/1980 | 14.77% | 9.81% | 4.96% |
| 3/7/1980 | 12.70% | 9.89% | 2.81% |
| 3/14/1980 | 13.50% | 9.97% | 3.53% |
| 3/26/1980 | 14.16% | 10.10% | 4.06% |
| 3/27/1980 | 14.24% | 10.12% | 4.12% |
| 3/28/1980 | 14.50% | 10.13% | 4.37% |
| 4/11/1980 | 12.75% | 10.27% | 2.48% |
| 4/14/1980 | 13.85% | 10.29% | 3.56% |
| 4/16/1980 | 15.50% | 10.31% | 5.19% |
| 4/22/1980 | 13.25% | 10.35% | 2.90% |
| 4/22/1980 | 13.90% | 10.35% | 3.55% |
| 4/24/1980 | 16.80% | 10.38% | 6.43% |
| 4/29/1980 | 15.50% | 10.41% | 5.09% |
| 5/6/1980 | 13.70% | 10.45% | 3.25% |
| 5/7/1980 | 15.00% | 10.45% | 4.55% |
| 5/8/1980 | 13.75% | 10.46% | 3.29% |
| 5/9/1980 | 14.35% | 10.47% | 3.88% |
| 5/13/1980 | 13.60% | 10.48% | 3.12% |
| 5/15/1980 | 13.25% | 10.49% | 2.76% |
| 5/19/1980 | 13.75% | 10.51% | 3.24% |
| 5/27/1980 | 13.62% | 10.54% | 3.08% |
| 5/27/1980 | 14.60% | 10.54% | 4.06% |
| 5/29/1980 | 16.00% | 10.56% | 5.44% |
| 5/30/1980 | 13.80% | 10.56% | 3.24% |
| 6/2/1980 | 15.63% | 10.57% | 5.06% |
| 6/9/1980 | 15.90% | 10.60% | 5.30% |
| 6/10/1980 | 13.78% | 10.60% | 3.18% |
| 6/12/1980 | 14.25% | 10.61% | 3.64% |
| 6/19/1980 | 13.40% | 10.62% | 2.78% |
| 6/30/1980 | 13.00% | 10.65% | 2.35% |
| 6/30/1980 | 13.40% | 10.65% | 2.75% |
| 7/9/1980 | 14.75% | 10.67% | 4.08% |
| 7/10/1980 | 15.00% | 10.68% | 4.32% |
| 7/15/1980 | 15.80% | 10.70% | 5.10% |
| 7/18/1980 | 13.80% | 10.71% | 3.09% |
| 7/22/1980 | 14.10% | 10.72% | 3.38% |
| 7/24/1980 | 15.00% | 10.73% | 4.27% |
| 7/25/1980 | 13.48% | 10.73% | 2.75% |
| 7/31/1980 | 14.58% | 10.75% | 3.83% |
| 8/8/1980 | 13.50% | 10.78% | 2.72% |
| 8/8/1980 | 14.00% | 10.78% | 3.22% |
| 8/8/1980 | 15.45% | 10.78% | 4.67% |
| 8/11/1980 | 14.85% | 10.78% | 4.07% |
| 8/14/1980 | 14.00% | 10.79% | 3.21% |
| 8/14/1980 | 16.25% | 10.79% | 5.46% |
| 8/25/1980 | 13.75% | 10.82% | 2.93% |
| 8/27/1980 | 13.80% | 10.83% | 2.97% |
| 8/29/1980 | 12.50% | 10.84% | 1.66% |
| 9/15/1980 | 13.50% | 10.88% | 2.62% |
| 9/15/1980 | 13.93% | 10.88% | 3.05% |
| 9/15/1980 | 15.80% | 10.88% | 4.92% |
| 9/24/1980 | 12.50% | 10.93% | 1.57% |
| 9/24/1980 | 15.00% | 10.93% | 4.07% |
| 9/26/1980 | 13.75% | 10.94% | 2.81% |
| 9/30/1980 | 14.10% | 10.96% | 3.14% |
| 9/30/1980 | 14.20% | 10.96% | 3.24% |
| 10/1/1980 | 13.90% | 10.97% | 2.93% |
| 10/3/1980 | 15.50% | 10.98% | 4.52% |
| 10/7/1980 | 12.50% | 10.99% | 1.51% |
| 10/9/1980 | 13.25% | 11.00% | 2.25% |
| 10/9/1980 | 14.50% | 11.00% | 3.50% |
| 10/9/1980 | 14.50% | 11.00% | 3.50% |
| 10/16/1980 | 16.10% | 11.02% | 5.08% |
| 10/17/1980 | 14.50% | 11.03% | 3.47% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 10/31/1980 | 13.75% | 11.11% | 2.64% |
| 10/31/1980 | 14.25% | 11.11% | 3.14% |
| 11/4/1980 | 15.00% | 11.12% | 3.88% |
| 11/5/1980 | 13.75% | 11.12% | 2.63% |
| 11/5/1980 | 14.00% | 11.12% | 2.88% |
| 11/8/1980 | 13.75% | 11.14% | 2.61% |
| 11/10/1980 | 14.85% | 11.15% | 3.70% |
| 11/17/1980 | 14.00% | 11.18% | 2.82% |
| 11/18/1980 | 14.00% | 11.19% | 2.81% |
| 11/19/1980 | 13.00% | 11.19% | 1.81% |
| 11/24/1980 | 14.00% | 11.21% | 2.79% |
| 11/26/1980 | 14.00% | 11.21% | 2.79% |
| 12/8/1980 | 14.15% | 11.22% | 2.93% |
| 12/8/1980 | 15.10% | 11.22% | 3.88% |
| 12/9/1980 | 15.35% | 11.22% | 4.13% |
| 12/12/1980 | 15.45% | 11.23% | 4.22% |
| 12/17/1980 | 13.25% | 11.23% | 2.02% |
| 12/18/1980 | 15.80% | 11.23% | 4.57% |
| 12/19/1980 | 14.50% | 11.23% | 3.27% |
| 12/19/1980 | 14.64% | 11.23% | 3.41% |
| 12/22/1980 | 13.45% | 11.23% | 2.22% |
| 12/22/1980 | 15.00% | 11.23% | 3.77% |
| 12/30/1980 | 14.50% | 11.22% | 3.28% |
| 12/30/1980 | 14.95% | 11.22% | 3.73% |
| 12/31/1980 | 13.39% | 11.22% | 2.17% |
| 1/2/1981 | 15.25% | 11.22% | 4.03% |
| 1/7/1981 | 14.30% | 11.21% | 3.09% |
| 1/19/1981 | 15.25% | 11.20% | 4.05% |
| 1/23/1981 | 13.10% | 11.20% | 1.90% |
| 1/23/1981 | 14.40% | 11.20% | 3.20% |
| 1/26/1981 | 15.25% | 11.20% | 4.05% |
| 1/27/1981 | 15.00% | 11.21% | 3.79% |
| 1/31/1981 | 13.47% | 11.22% | 2.25% |
| 2/3/1981 | 15.25% | 11.23% | 4.02% |
| 2/5/1981 | 15.75% | 11.25% | 4.50% |
| 2/11/1981 | 15.60% | 11.28% | 4.32% |
| 2/20/1981 | 15.25% | 11.33% | 3.92% |
| 3/11/1981 | 15.40% | 11.49% | 3.91% |
| 3/12/1981 | 14.51% | 11.50% | 3.01% |
| 3/12/1981 | 16.00% | 11.50% | 4.50% |
| 3/13/1981 | 13.02% | 11.52% | 1.50% |
| 3/18/1981 | 16.19% | 11.55% | 4.64% |
| 3/19/1981 | 13.75% | 11.56% | 2.19% |
| 3/23/1981 | 14.30% | 11.58% | 2.72% |
| 3/25/1981 | 15.30% | 11.60% | 3.70% |
| 4/1/1981 | 14.53% | 11.68% | 2.85% |
| 4/3/1981 | 19.10% | 11.71% | 7.39% |
| 4/9/1981 | 15.00% | 11.78% | 3.22% |
| 4/9/1981 | 15.30% | 11.78% | 3.52% |
| 4/9/1981 | 16.50% | 11.78% | 4.72% |
| 4/9/1981 | 17.00% | 11.78% | 5.22% |
| 4/10/1981 | 13.75% | 11.80% | 1.95% |
| 4/13/1981 | 13.57% | 11.82% | 1.75% |
| 4/15/1981 | 15.30% | 11.85% | 3.45% |
| 4/16/1981 | 13.50% | 11.87% | 1.63% |
| 4/17/1981 | 14.10% | 11.87% | 2.23% |
| 4/21/1981 | 14.00% | 11.90% | 2.10% |
| 4/21/1981 | 16.80% | 11.90% | 4.90% |
| 4/24/1981 | 16.00% | 11.95% | 4.05% |
| 4/27/1981 | 12.50% | 11.97% | 0.53% |
| 4/27/1981 | 13.61% | 11.97% | 1.64% |
| 4/29/1981 | 13.65% | 12.00% | 1.65% |
| 4/30/1981 | 13.50% | 12.02% | 1.48% |
| 5/4/1981 | 16.22% | 12.05% | 4.17% |
| 5/5/1981 | 14.40% | 12.07% | 2.33% |
| 5/7/1981 | 16.25% | 12.11% | 4.14% |
| 5/7/1981 | 16.27% | 12.11% | 4.16% |
| 5/8/1981 | 13.00% | 12.13% | 0.87% |
| 5/8/1981 | 16.00% | 12.13% | 3.87% |
| 5/12/1981 | 13.50% | 12.16% | 1.34% |
| 5/15/1981 | 15.75% | 12.22% | 3.53% |
| 5/18/1981 | 14.88% | 12.23% | 2.65% |
| 5/20/1981 | 16.00% | 12.26% | 3.74% |
| 5/21/1981 | 14.00% | 12.27% | 1.73% |
| 5/26/1981 | 14.90% | 12.30% | 2.60% |
| 5/27/1981 | 15.00% | 12.31% | 2.69% |
| 5/29/1981 | 15.50% | 12.34% | 3.16% |
| 6/1/1981 | 16.50% | 12.35% | 4.15% |
| 6/3/1981 | 14.67% | 12.37% | 2.30% |
| 6/5/1981 | 13.00% | 12.39% | 0.61% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 6/10/1981 | 16.75% | 12.42% | 4.33% |
| 6/17/1981 | 14.40% | 12.46% | 1.94% |
| 6/18/1981 | 16.33% | 12.47% | 3.86% |
| 6/25/1981 | 14.75% | 12.51% | 2.24% |
| 6/26/1981 | 16.00% | 12.52% | 3.48% |
| 6/30/1981 | 15.25% | 12.54% | 2.71% |
| 7/1/1981 | 15.50% | 12.56% | 2.94% |
| 7/1/1981 | 17.50% | 12.56% | 4.94% |
| 7/10/1981 | 16.00% | 12.62% | 3.38% |
| 7/14/1981 | 16.90% | 12.64% | 4.26% |
| 7/15/1981 | 16.00% | 12.65% | 3.35% |
| 7/17/1981 | 15.00% | 12.67% | 2.33% |
| 7/20/1981 | 15.00% | 12.68% | 2.32% |
| 7/21/1981 | 14.00% | 12.69% | 1.31% |
| 7/28/1981 | 13.48% | 12.74% | 0.74% |
| 7/31/1981 | 13.50% | 12.78% | 0.72% |
| 7/31/1981 | 15.00% | 12.78% | 2.22% |
| 7/31/1981 | 16.00% | 12.78% | 3.22% |
| 8/5/1981 | 15.71% | 12.83% | 2.88% |
| 8/10/1981 | 14.50% | 12.87% | 1.63% |
| 8/11/1981 | 15.00% | 12.88% | 2.12% |
| 8/20/1981 | 13.50% | 12.95% | 0.55% |
| 8/20/1981 | 16.50% | 12.95% | 3.55% |
| 8/24/1981 | 15.00% | 12.97% | 2.03% |
| 8/28/1981 | 15.00% | 13.01% | 1.99% |
| 9/3/1981 | 14.50% | 13.05% | 1.45% |
| 9/10/1981 | 14.50% | 13.11% | 1.39% |
| 9/11/1981 | 16.00% | 13.12% | 2.88% |
| 9/16/1981 | 16.00% | 13.15% | 2.85% |
| 9/17/1981 | 16.50% | 13.16% | 3.34% |
| 9/23/1981 | 15.85% | 13.20% | 2.65% |
| 9/28/1981 | 15.50% | 13.23% | 2.27% |
| 10/9/1981 | 15.75% | 13.33% | 2.42% |
| 10/15/1981 | 16.25% | 13.37% | 2.88% |
| 10/16/1981 | 15.50% | 13.38% | 2.12% |
| 10/16/1981 | 16.50% | 13.38% | 3.12% |
| 10/19/1981 | 14.25% | 13.39% | 0.86% |
| 10/20/1981 | 15.25% | 13.41% | 1.84% |
| 10/20/1981 | 17.00% | 13.41% | 3.59% |
| 10/23/1981 | 16.00% | 13.45% | 2.55% |
| 10/27/1981 | 10.00% | 13.48% | -3.48% |
| 10/29/1981 | 14.75% | 13.51% | 1.24% |
| 10/29/1981 | 16.50% | 13.51% | 2.99% |
| 11/3/1981 | 15.17% | 13.53% | 1.64% |
| 11/5/1981 | 16.60% | 13.55% | 3.05% |
| 11/6/1981 | 15.17% | 13.56% | 1.61% |
| 11/24/1981 | 15.50% | 13.61% | 1.89% |
| 11/25/1981 | 15.25% | 13.61% | 1.64% |
| 11/25/1981 | 15.35% | 13.61% | 1.74% |
| 11/25/1981 | 16.10% | 13.61% | 2.49% |
| 11/25/1981 | 16.10% | 13.61% | 2.49% |
| 12/1/1981 | 15.70% | 13.61% | 2.09% |
| 12/1/1981 | 16.00% | 13.61% | 2.39% |
| 12/1/1981 | 16.49% | 13.61% | 2.88% |
| 12/1/1981 | 16.50% | 13.61% | 2.89% |
| 12/4/1981 | 16.00% | 13.61% | 2.39% |
| 12/11/1981 | 16.25% | 13.63% | 2.62% |
| 12/14/1981 | 14.00% | 13.63% | 0.37% |
| 12/15/1981 | 15.81% | 13.63% | 2.18% |
| 12/15/1981 | 16.00% | 13.63% | 2.37% |
| 12/16/1981 | 15.25% | 13.63% | 1.62% |
| 12/17/1981 | 16.50% | 13.63% | 2.87% |
| 12/18/1981 | 15.45% | 13.63% | 1.82% |
| 12/30/1981 | 14.25% | 13.67% | 0.58% |
| 12/30/1981 | 16.00% | 13.67% | 2.33% |
| 12/30/1981 | 16.25% | 13.67% | 2.58% |
| 12/31/1981 | 16.15% | 13.67% | 2.48% |
| 1/4/1982 | 15.50% | 13.67% | 1.83% |
| 1/11/1982 | 14.50% | 13.72% | 0.78% |
| 1/11/1982 | 17.00% | 13.72% | 3.28% |
| 1/13/1982 | 14.75% | 13.74% | 1.01% |
| 1/14/1982 | 15.75% | 13.75% | 2.00% |
| 1/15/1982 | 15.00% | 13.76% | 1.24% |
| 1/15/1982 | 16.50% | 13.76% | 2.74% |
| 1/22/1982 | 16.25% | 13.79% | 2.46% |
| 1/27/1982 | 16.84% | 13.81% | 3.03% |
| 1/28/1982 | 13.00% | 13.81% | -0.81% |
| 1/29/1982 | 15.50% | 13.82% | 1.68% |
| 2/1/1982 | 15.85% | 13.82% | 2.03% |
| 2/3/1982 | 16.44% | 13.84% | 2.60% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 2/8/1982 | 15.50% | 13.86% | 1.64% |
| 2/11/1982 | 16.00% | 13.88% | 2.12% |
| 2/11/1982 | 16.20% | 13.88% | 2.32% |
| 2/17/1982 | 15.00% | 13.89% | 1.11% |
| 2/19/1982 | 15.17% | 13.89% | 1.28% |
| 2/26/1982 | 15.25% | 13.89% | 1.36% |
| 3/1/1982 | 15.03% | 13.89% | 1.14% |
| 3/1/1982 | 16.00% | 13.89% | 2.11% |
| 3/3/1982 | 15.00% | 13.88% | 1.12% |
| 3/8/1982 | 17.10% | 13.88% | 3.22% |
| 3/12/1982 | 16.25% | 13.88% | 2.37% |
| 3/17/1982 | 17.30% | 13.88% | 3.42% |
| 3/22/1982 | 15.10% | 13.89% | 1.21% |
| 3/27/1982 | 15.40% | 13.89% | 1.51% |
| 3/30/1982 | 15.50% | 13.90% | 1.60% |
| 3/31/1982 | 17.00% | 13.91% | 3.09% |
| 4/1/1982 | 14.70% | 13.91% | 0.79% |
| 4/1/1982 | 16.50% | 13.91% | 2.59% |
| 4/2/1982 | 15.50% | 13.91% | 1.59% |
| 4/5/1982 | 15.50% | 13.92% | 1.58% |
| 4/8/1982 | 16.40% | 13.93% | 2.47% |
| 4/13/1982 | 14.50% | 13.94% | 0.56% |
| 4/23/1982 | 15.75% | 13.94% | 1.81% |
| 4/27/1982 | 15.00% | 13.94% | 1.06% |
| 4/28/1982 | 15.75% | 13.94% | 1.81% |
| 4/30/1982 | 14.70% | 13.94% | 0.76% |
| 4/30/1982 | 15.50% | 13.94% | 1.56% |
| 5/3/1982 | 16.60% | 13.94% | 2.66% |
| 5/4/1982 | 16.00% | 13.94% | 2.06% |
| 5/14/1982 | 15.50% | 13.92% | 1.58% |
| 5/18/1982 | 15.42% | 13.92% | 1.50% |
| 5/19/1982 | 14.69% | 13.92% | 0.77% |
| 5/20/1982 | 15.00% | 13.91% | 1.09% |
| 5/20/1982 | 15.10% | 13.91% | 1.19% |
| 5/20/1982 | 15.50% | 13.91% | 1.59% |
| 5/20/1982 | 16.30% | 13.91% | 2.39% |
| 5/21/1982 | 17.75% | 13.91% | 3.84% |
| 5/27/1982 | 15.00% | 13.89% | 1.11% |
| 5/28/1982 | 15.50% | 13.89% | 1.61% |
| 5/28/1982 | 17.00% | 13.89% | 3.11% |
| 6/1/1982 | 13.75% | 13.89% | -0.14% |
| 6/1/1982 | 16.60% | 13.89% | 2.71% |
| 6/9/1982 | 17.86% | 13.88% | 3.98% |
| 6/14/1982 | 15.75% | 13.88% | 1.87% |
| 6/15/1982 | 14.85% | 13.88% | 0.97% |
| 6/18/1982 | 15.50% | 13.87% | 1.63% |
| 6/21/1982 | 14.90% | 13.87% | 1.03% |
| 6/23/1982 | 16.00% | 13.86% | 2.14% |
| 6/23/1982 | 16.17% | 13.86% | 2.31% |
| 6/24/1982 | 14.85% | 13.86% | 0.99% |
| 6/25/1982 | 14.70% | 13.86% | 0.84% |
| 7/1/1982 | 16.00% | 13.84% | 2.16% |
| 7/2/1982 | 15.62% | 13.84% | 1.78% |
| 7/2/1982 | 17.00% | 13.84% | 3.16% |
| 7/13/1982 | 14.00% | 13.82% | 0.18% |
| 7/13/1982 | 16.80% | 13.82% | 2.98% |
| 7/14/1982 | 15.76% | 13.82% | 1.94% |
| 7/14/1982 | 16.02% | 13.82% | 2.20% |
| 7/19/1982 | 16.50% | 13.80% | 2.70% |
| 7/22/1982 | 14.50% | 13.77% | 0.73% |
| 7/22/1982 | 17.00% | 13.77% | 3.23% |
| 7/27/1982 | 16.75% | 13.75% | 3.00% |
| 7/29/1982 | 16.50% | 13.74% | 2.76% |
| 8/11/1982 | 17.50% | 13.68% | 3.82% |
| 8/18/1982 | 17.07% | 13.63% | 3.44% |
| 8/20/1982 | 15.73% | 13.60% | 2.13% |
| 8/25/1982 | 16.00% | 13.57% | 2.43% |
| 8/26/1982 | 15.50% | 13.56% | 1.94% |
| 8/30/1982 | 15.00% | 13.55% | 1.45% |
| 9/3/1982 | 16.20% | 13.53% | 2.67% |
| 9/8/1982 | 15.00% | 13.52% | 1.48% |
| 9/15/1982 | 13.08% | 13.50% | -0.42% |
| 9/15/1982 | 16.25% | 13.50% | 2.75% |
| 9/16/1982 | 16.00% | 13.50% | 2.50% |
| 9/17/1982 | 15.25% | 13.50% | 1.75% |
| 9/23/1982 | 17.17% | 13.47% | 3.70% |
| 9/24/1982 | 14.50% | 13.46% | 1.04% |
| 9/27/1982 | 15.25% | 13.46% | 1.79% |
| 10/1/1982 | 15.50% | 13.42% | 2.08% |
| 10/15/1982 | 15.90% | 13.32% | 2.58% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 10/22/1982 | 15.75% | 13.24% | 2.51% |
| 10/22/1982 | 17.15% | 13.24% | 3.91% |
| 10/29/1982 | 15.54% | 13.16% | 2.38% |
| 11/1/1982 | 15.50% | 13.15% | 2.35% |
| 11/3/1982 | 17.20% | 13.13% | 4.07% |
| 11/4/1982 | 16.25% | 13.11% | 3.14% |
| 11/5/1982 | 16.20% | 13.09% | 3.11% |
| 11/9/1982 | 16.00% | 13.05% | 2.95% |
| 11/23/1982 | 15.50% | 12.89% | 2.61% |
| 11/23/1982 | 15.85% | 12.89% | 2.96% |
| 11/30/1982 | 16.50% | 12.81% | 3.69% |
| 12/1/1982 | 17.04% | 12.79% | 4.25% |
| 12/6/1982 | 15.00% | 12.73% | 2.27% |
| 12/6/1982 | 16.35% | 12.73% | 3.62% |
| 12/10/1982 | 15.50% | 12.66% | 2.84% |
| 12/13/1982 | 16.00% | 12.65% | 3.35% |
| 12/14/1982 | 15.30% | 12.63% | 2.67% |
| 12/14/1982 | 16.40% | 12.63% | 3.77% |
| 12/20/1982 | 16.00% | 12.57% | 3.43% |
| 12/21/1982 | 14.75% | 12.56% | 2.19% |
| 12/21/1982 | 15.85% | 12.56% | 3.29% |
| 12/22/1982 | 16.25% | 12.54% | 3.71% |
| 12/22/1982 | 16.58% | 12.54% | 4.04% |
| 12/22/1982 | 16.75% | 12.54% | 4.21% |
| 12/29/1982 | 14.90% | 12.48% | 2.42% |
| 12/29/1982 | 16.25% | 12.48% | 3.77% |
| 12/30/1982 | 16.00% | 12.47% | 3.53% |
| 12/30/1982 | 16.35% | 12.47% | 3.88% |
| 12/30/1982 | 16.77% | 12.47% | 4.30% |
| 1/5/1983 | 17.33% | 12.40% | 4.93% |
| 1/11/1983 | 15.90% | 12.34% | 3.56% |
| 1/12/1983 | 14.63% | 12.33% | 2.30% |
| 1/12/1983 | 15.50% | 12.33% | 3.17% |
| 1/20/1983 | 17.75% | 12.24% | 5.51% |
| 1/21/1983 | 15.00% | 12.22% | 2.78% |
| 1/24/1983 | 14.50% | 12.21% | 2.29% |
| 1/24/1983 | 15.50% | 12.21% | 3.29% |
| 1/25/1983 | 15.85% | 12.19% | 3.66% |
| 1/27/1983 | 16.14% | 12.17% | 3.97% |
| 2/1/1983 | 18.50% | 12.13% | 6.37% |
| 2/4/1983 | 14.00% | 12.10% | 1.90% |
| 2/10/1983 | 15.00% | 12.06% | 2.94% |
| 2/21/1983 | 15.50% | 11.98% | 3.52% |
| 2/22/1983 | 15.50% | 11.97% | 3.53% |
| 2/23/1983 | 15.10% | 11.96% | 3.14% |
| 2/23/1983 | 16.00% | 11.96% | 4.04% |
| 3/2/1983 | 15.25% | 11.89% | 3.36% |
| 3/9/1983 | 15.20% | 11.82% | 3.38% |
| 3/15/1983 | 13.00% | 11.77% | 1.23% |
| 3/18/1983 | 15.25% | 11.73% | 3.52% |
| 3/23/1983 | 15.40% | 11.69% | 3.71% |
| 3/24/1983 | 15.00% | 11.67% | 3.33% |
| 3/29/1983 | 15.50% | 11.63% | 3.87% |
| 3/30/1983 | 16.71% | 11.61% | 5.10% |
| 3/31/1983 | 15.00% | 11.59% | 3.41% |
| 4/4/1983 | 15.20% | 11.58% | 3.62% |
| 4/8/1983 | 15.50% | 11.51% | 3.99% |
| 4/11/1983 | 14.81% | 11.49% | 3.32% |
| 4/19/1983 | 14.50% | 11.38% | 3.12% |
| 4/20/1983 | 16.00% | 11.36% | 4.64% |
| 4/29/1983 | 16.00% | 11.24% | 4.76% |
| 5/1/1983 | 14.50% | 11.24% | 3.26% |
| 5/9/1983 | 15.50% | 11.15% | 4.35% |
| 5/11/1983 | 16.46% | 11.12% | 5.34% |
| 5/12/1983 | 14.14% | 11.11% | 3.03% |
| 5/18/1983 | 15.00% | 11.05% | 3.95% |
| 5/23/1983 | 14.90% | 11.01% | 3.89% |
| 5/23/1983 | 15.50% | 11.01% | 4.49% |
| 5/25/1983 | 15.50% | 10.98% | 4.52% |
| 5/27/1983 | 15.00% | 10.96% | 4.04% |
| 5/31/1983 | 14.00% | 10.95% | 3.05% |
| 5/31/1983 | 15.50% | 10.95% | 4.55% |
| 6/2/1983 | 14.50% | 10.93% | 3.57% |
| 6/17/1983 | 15.03% | 10.84% | 4.19% |
| 7/1/1983 | 14.80% | 10.78% | 4.02% |
| 7/1/1983 | 14.90% | 10.78% | 4.12% |
| 7/8/1983 | 16.25% | 10.76% | 5.49% |
| 7/13/1983 | 13.20% | 10.75% | 2.45% |
| 7/19/1983 | 15.00% | 10.74% | 4.26% |
| 7/19/1983 | 15.10% | 10.74% | 4.36% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 7/25/1983 | 16.25% | 10.73% | 5.52% |
| 7/28/1983 | 15.90% | 10.74% | 5.16% |
| 8/3/1983 | 16.34% | 10.75% | 5.59% |
| 8/3/1983 | 16.50% | 10.75% | 5.75% |
| 8/19/1983 | 15.00% | 10.80% | 4.20% |
| 8/22/1983 | 15.50% | 10.80% | 4.70% |
| 8/22/1983 | 16.40% | 10.80% | 5.60% |
| 8/31/1983 | 14.75% | 10.84% | 3.91% |
| 9/7/1983 | 15.00% | 10.86% | 4.14% |
| 9/14/1983 | 15.78% | 10.89% | 4.89% |
| 9/16/1983 | 15.00% | 10.90% | 4.10% |
| 9/19/1983 | 14.50% | 10.91% | 3.59% |
| 9/20/1983 | 16.50% | 10.91% | 5.59% |
| 9/28/1983 | 14.50% | 10.94% | 3.56% |
| 9/29/1983 | 15.50% | 10.95% | 4.55% |
| 9/30/1983 | 15.25% | 10.95% | 4.30% |
| 9/30/1983 | 16.15% | 10.95% | 5.20% |
| 10/4/1983 | 14.80% | 10.96% | 3.84% |
| 10/7/1983 | 16.00% | 10.97% | 5.03% |
| 10/13/1983 | 15.52% | 10.99% | 4.53% |
| 10/17/1983 | 15.50% | 11.00% | 4.50% |
| 10/18/1983 | 14.50% | 11.00% | 3.50% |
| 10/19/1983 | 16.25% | 11.01% | 5.24% |
| 10/19/1983 | 16.50% | 11.01% | 5.49% |
| 10/26/1983 | 15.00% | 11.04% | 3.96% |
| 10/27/1983 | 15.20% | 11.04% | 4.16% |
| 11/1/1983 | 16.00% | 11.06% | 4.94% |
| 11/9/1983 | 14.90% | 11.09% | 3.81% |
| 11/10/1983 | 14.35% | 11.10% | 3.25% |
| 11/23/1983 | 16.00% | 11.13% | 4.87% |
| 11/23/1983 | 16.15% | 11.13% | 5.02% |
| 11/30/1983 | 15.00% | 11.14% | 3.86% |
| 12/5/1983 | 15.25% | 11.15% | 4.10% |
| 12/6/1983 | 15.07% | 11.15% | 3.92% |
| 12/8/1983 | 15.90% | 11.16% | 4.74% |
| 12/9/1983 | 14.75% | 11.17% | 3.58% |
| 12/12/1983 | 14.50% | 11.17% | 3.33% |
| 12/15/1983 | 15.56% | 11.19% | 4.37% |
| 12/19/1983 | 14.80% | 11.21% | 3.59% |
| 12/20/1983 | 14.69% | 11.22% | 3.47% |
| 12/20/1983 | 16.00% | 11.22% | 4.78% |
| 12/20/1983 | 16.25% | 11.22% | 5.03% |
| 12/22/1983 | 14.75% | 11.23% | 3.52% |
| 12/22/1983 | 15.75% | 11.23% | 4.52% |
| 1/3/1984 | 14.75% | 11.27% | 3.48% |
| 1/10/1984 | 15.90% | 11.30% | 4.60% |
| 1/12/1984 | 15.60% | 11.31% | 4.29% |
| 1/18/1984 | 13.75% | 11.33% | 2.42% |
| 1/19/1984 | 15.90% | 11.33% | 4.57% |
| 1/30/1984 | 16.10% | 11.37% | 4.73% |
| 1/31/1984 | 15.25% | 11.37% | 3.88% |
| 2/1/1984 | 14.80% | 11.38% | 3.42% |
| 2/6/1984 | 13.75% | 11.40% | 2.35% |
| 2/6/1984 | 14.75% | 11.40% | 3.35% |
| 2/9/1984 | 15.25% | 11.42% | 3.83% |
| 2/15/1984 | 15.70% | 11.44% | 4.26% |
| 2/20/1984 | 15.00% | 11.46% | 3.54% |
| 2/20/1984 | 15.00% | 11.46% | 3.54% |
| 2/22/1984 | 14.75% | 11.47% | 3.28% |
| 2/28/1984 | 14.50% | 11.51% | 2.99% |
| 3/2/1984 | 14.25% | 11.54% | 2.71% |
| 3/20/1984 | 16.00% | 11.64% | 4.36% |
| 3/23/1984 | 15.50% | 11.67% | 3.83% |
| 3/26/1984 | 14.71% | 11.68% | 3.03% |
| 4/2/1984 | 15.50% | 11.71% | 3.79% |
| 4/6/1984 | 14.74% | 11.75% | 2.99% |
| 4/11/1984 | 15.72% | 11.78% | 3.94% |
| 4/17/1984 | 15.00% | 11.81% | 3.19% |
| 4/18/1984 | 16.20% | 11.82% | 4.38% |
| 4/25/1984 | 14.64% | 11.85% | 2.79% |
| 4/30/1984 | 14.40% | 11.87% | 2.53% |
| 5/16/1984 | 14.69% | 11.98% | 2.71% |
| 5/16/1984 | 15.00% | 11.98% | 3.02% |
| 5/22/1984 | 14.40% | 12.02% | 2.38% |
| 5/29/1984 | 15.10% | 12.06% | 3.04% |
| 6/13/1984 | 15.25% | 12.15% | 3.10% |
| 6/15/1984 | 15.60% | 12.17% | 3.43% |
| 6/22/1984 | 16.25% | 12.21% | 4.04% |
| 6/29/1984 | 15.25% | 12.26% | 2.99% |
| 7/2/1984 | 13.35% | 12.27% | 1.08% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 7/10/1984 | 16.00% | 12.31% | 3.69% |
| 7/12/1984 | 16.50% | 12.32% | 4.18% |
| 7/13/1984 | 16.25% | 12.33% | 3.92% |
| 7/17/1984 | 14.14% | 12.35% | 1.79% |
| 7/18/1984 | 15.30% | 12.36% | 2.94% |
| 7/18/1984 | 15.50% | 12.36% | 3.14% |
| 7/19/1984 | 14.30% | 12.37% | 1.93% |
| 7/24/1984 | 16.79% | 12.39% | 4.40% |
| 7/31/1984 | 16.00% | 12.43% | 3.57% |
| 8/3/1984 | 14.25% | 12.44% | 1.81% |
| 8/17/1984 | 14.30% | 12.49% | 1.81% |
| 8/20/1984 | 15.00% | 12.49% | 2.51% |
| 8/27/1984 | 16.30% | 12.51% | 3.79% |
| 8/31/1984 | 15.55% | 12.52% | 3.03% |
| 9/6/1984 | 16.00% | 12.53% | 3.47% |
| 9/10/1984 | 14.75% | 12.54% | 2.21% |
| 9/13/1984 | 15.00% | 12.55% | 2.45% |
| 9/17/1984 | 17.38% | 12.56% | 4.82% |
| 9/26/1984 | 14.50% | 12.57% | 1.93% |
| 9/28/1984 | 15.00% | 12.57% | 2.43% |
| 9/28/1984 | 16.25% | 12.57% | 3.68% |
| 10/9/1984 | 14.75% | 12.58% | 2.17% |
| 10/12/1984 | 15.60% | 12.59% | 3.01% |
| 10/22/1984 | 15.00% | 12.59% | 2.41% |
| 10/26/1984 | 16.40% | 12.58% | 3.82% |
| 10/31/1984 | 16.25% | 12.58% | 3.67% |
| 11/7/1984 | 15.60% | 12.58% | 3.02% |
| 11/9/1984 | 16.00% | 12.58% | 3.42% |
| 11/14/1984 | 15.75% | 12.58% | 3.17% |
| 11/20/1984 | 15.25% | 12.58% | 2.67% |
| 11/20/1984 | 15.92% | 12.58% | 3.34% |
| 11/23/1984 | 15.00% | 12.58% | 2.42% |
| 11/28/1984 | 16.15% | 12.57% | 3.58% |
| 12/3/1984 | 15.80% | 12.56% | 3.24% |
| 12/4/1984 | 16.50% | 12.56% | 3.94% |
| 12/18/1984 | 16.40% | 12.53% | 3.87% |
| 12/19/1984 | 14.75% | 12.53% | 2.22% |
| 12/19/1984 | 15.00% | 12.53% | 2.47% |
| 12/20/1984 | 16.00% | 12.53% | 3.47% |
| 12/28/1984 | 16.00% | 12.50% | 3.50% |
| 1/3/1985 | 14.75% | 12.49% | 2.26% |
| 1/10/1985 | 15.75% | 12.47% | 3.28% |
| 1/11/1985 | 16.30% | 12.46% | 3.84% |
| 1/23/1985 | 15.80% | 12.43% | 3.37% |
| 1/24/1985 | 15.82% | 12.43% | 3.39% |
| 1/25/1985 | 16.75% | 12.42% | 4.33% |
| 1/30/1985 | 14.90% | 12.40% | 2.50% |
| 1/31/1985 | 14.75% | 12.39% | 2.36% |
| 2/8/1985 | 14.47% | 12.35% | 2.12% |
| 3/1/1985 | 13.84% | 12.31% | 1.53% |
| 3/8/1985 | 16.85% | 12.28% | 4.57% |
| 3/14/1985 | 15.50% | 12.25% | 3.25% |
| 3/15/1985 | 15.62% | 12.25% | 3.37% |
| 3/29/1985 | 15.62% | 12.17% | 3.45% |
| 4/3/1985 | 14.60% | 12.14% | 2.46% |
| 4/9/1985 | 15.50% | 12.11% | 3.39% |
| 4/16/1985 | 15.70% | 12.06% | 3.64% |
| 4/22/1985 | 14.00% | 12.02% | 1.98% |
| 4/26/1985 | 15.50% | 11.98% | 3.52% |
| 4/29/1985 | 15.00% | 11.97% | 3.03% |
| 5/2/1985 | 14.68% | 11.94% | 2.74% |
| 5/8/1985 | 15.62% | 11.89% | 3.73% |
| 5/10/1985 | 16.50% | 11.87% | 4.63% |
| 5/29/1985 | 14.61% | 11.73% | 2.88% |
| 5/31/1985 | 16.00% | 11.71% | 4.29% |
| 6/14/1985 | 15.50% | 11.61% | 3.89% |
| 7/9/1985 | 15.00% | 11.45% | 3.55% |
| 7/16/1985 | 14.50% | 11.39% | 3.11% |
| 7/26/1985 | 14.50% | 11.33% | 3.17% |
| 8/2/1985 | 14.80% | 11.29% | 3.51% |
| 8/7/1985 | 15.00% | 11.27% | 3.73% |
| 8/28/1985 | 14.25% | 11.15% | 3.10% |
| 8/28/1985 | 15.50% | 11.15% | 4.35% |
| 8/29/1985 | 14.50% | 11.15% | 3.35% |
| 9/9/1985 | 14.60% | 11.11% | 3.49% |
| 9/9/1985 | 14.90% | 11.11% | 3.79% |
| 9/17/1985 | 14.90% | 11.08% | 3.82% |
| 9/23/1985 | 15.00% | 11.06% | 3.94% |
| 9/27/1985 | 15.50% | 11.05% | 4.45% |
| 9/27/1985 | 15.80% | 11.05% | 4.75% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 10/2/1985 | 14.00% | 11.03% | 2.97% |
| 10/2/1985 | 14.75% | 11.03% | 3.72% |
| 10/3/1985 | 15.25% | 11.03% | 4.22% |
| 10/24/1985 | 15.40% | 10.96% | 4.44% |
| 10/24/1985 | 15.82% | 10.96% | 4.86% |
| 10/24/1985 | 15.85% | 10.96% | 4.89% |
| 10/28/1985 | 16.00% | 10.95% | 5.05% |
| 10/29/1985 | 16.65% | 10.94% | 5.71% |
| 10/31/1985 | 15.06% | 10.93% | 4.13% |
| 11/4/1985 | 14.50% | 10.92% | 3.58% |
| 11/7/1985 | 15.50% | 10.90% | 4.60% |
| 11/8/1985 | 14.30% | 10.89% | 3.41% |
| 12/12/1985 | 14.75% | 10.73% | 4.02% |
| 12/18/1985 | 15.00% | 10.69% | 4.31% |
| 12/20/1985 | 14.50% | 10.67% | 3.83% |
| 12/20/1985 | 14.50% | 10.67% | 3.83% |
| 12/20/1985 | 15.00% | 10.67% | 4.33% |
| 1/24/1986 | 15.40% | 10.41% | 4.99% |
| 1/31/1986 | 15.00% | 10.35% | 4.65% |
| 2/5/1986 | 15.00% | 10.32% | 4.68% |
| 2/5/1986 | 15.75% | 10.32% | 5.43% |
| 2/10/1986 | 13.30% | 10.29% | 3.01% |
| 2/11/1986 | 12.50% | 10.28% | 2.22% |
| 2/14/1986 | 14.40% | 10.24% | 4.16% |
| 2/18/1986 | 16.00% | 10.23% | 5.77% |
| 2/24/1986 | 14.50% | 10.18% | 4.32% |
| 2/26/1986 | 14.00% | 10.15% | 3.85% |
| 3/5/1986 | 14.90% | 10.08% | 4.82% |
| 3/11/1986 | 14.50% | 10.02% | 4.48% |
| 3/12/1986 | 13.50% | 10.00% | 3.50% |
| 3/27/1986 | 14.10% | 9.86% | 4.24% |
| 3/31/1986 | 13.50% | 9.84% | 3.66% |
| 4/1/1986 | 14.00% | 9.83% | 4.17% |
| 4/2/1986 | 15.50% | 9.81% | 5.69% |
| 4/4/1986 | 15.00% | 9.78% | 5.22% |
| 4/14/1986 | 13.40% | 9.69% | 3.71% |
| 4/23/1986 | 15.00% | 9.57% | 5.43% |
| 5/16/1986 | 14.50% | 9.32% | 5.18% |
| 5/16/1986 | 14.50% | 9.32% | 5.18% |
| 5/29/1986 | 13.90% | 9.19% | 4.71% |
| 5/30/1986 | 15.10% | 9.18% | 5.92% |
| 6/2/1986 | 12.81% | 9.17% | 3.64% |
| 6/11/1986 | 14.00% | 9.07% | 4.93% |
| 6/24/1986 | 16.63% | 8.94% | 7.69% |
| 6/26/1986 | 12.00% | 8.91% | 3.09% |
| 6/26/1986 | 14.75% | 8.91% | 5.84% |
| 6/30/1986 | 13.00% | 8.87% | 4.13% |
| 7/10/1986 | 14.34% | 8.75% | 5.59% |
| 7/11/1986 | 12.75% | 8.73% | 4.02% |
| 7/14/1986 | 12.60% | 8.71% | 3.89% |
| 7/17/1986 | 12.40% | 8.66% | 3.74% |
| 7/25/1986 | 14.25% | 8.57% | 5.68% |
| 8/6/1986 | 13.50% | 8.44% | 5.06% |
| 8/14/1986 | 13.50% | 8.35% | 5.15% |
| 9/16/1986 | 12.75% | 8.06% | 4.69% |
| 9/19/1986 | 13.25% | 8.03% | 5.22% |
| 10/1/1986 | 14.00% | 7.95% | 6.05% |
| 10/3/1986 | 13.40% | 7.93% | 5.47% |
| 10/31/1986 | 13.50% | 7.77% | 5.73% |
| 11/5/1986 | 13.00% | 7.75% | 5.25% |
| 12/3/1986 | 12.90% | 7.58% | 5.32% |
| 12/4/1986 | 14.44% | 7.58% | 6.86% |
| 12/16/1986 | 13.60% | 7.52% | 6.08% |
| 12/22/1986 | 13.80% | 7.51% | 6.29% |
| 12/30/1986 | 13.00% | 7.49% | 5.51% |
| 1/2/1987 | 13.00% | 7.49% | 5.51% |
| 1/12/1987 | 12.40% | 7.47% | 4.93% |
| 1/27/1987 | 12.71% | 7.46% | 5.25% |
| 3/2/1987 | 12.47% | 7.47% | 5.00% |
| 3/3/1987 | 13.60% | 7.47% | 6.13% |
| 3/4/1987 | 12.38% | 7.47% | 4.91% |
| 3/10/1987 | 13.50% | 7.47% | 6.03% |
| 3/13/1987 | 13.00% | 7.47% | 5.53% |
| 3/31/1987 | 13.00% | 7.46% | 5.54% |
| 4/6/1987 | 13.00% | 7.47% | 5.53% |
| 4/14/1987 | 12.50% | 7.49% | 5.01% |
| 4/16/1987 | 14.50% | 7.50% | 7.00% |
| 4/27/1987 | 12.00% | 7.54% | 4.46% |
| 5/5/1987 | 12.85% | 7.58% | 5.27% |
| 5/12/1987 | 12.65% | 7.62% | 5.03% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 5/28/1987 | 13.50% | 7.70% | 5.80% |
| 6/15/1987 | 13.20% | 7.78% | 5.42% |
| 6/29/1987 | 15.00% | 7.83% | 7.17% |
| 6/30/1987 | 12.50% | 7.84% | 4.66% |
| 7/8/1987 | 12.00% | 7.86% | 4.14% |
| 7/10/1987 | 12.90% | 7.86% | 5.04% |
| 7/15/1987 | 13.50% | 7.88% | 5.62% |
| 7/16/1987 | 13.50% | 7.88% | 5.62% |
| 7/16/1987 | 15.00% | 7.88% | 7.12% |
| 7/27/1987 | 13.00% | 7.92% | 5.08% |
| 7/27/1987 | 13.40% | 7.92% | 5.48% |
| 7/27/1987 | 13.50% | 7.92% | 5.58% |
| 7/31/1987 | 12.98% | 7.95% | 5.03% |
| 8/26/1987 | 12.63% | 8.06% | 4.57% |
| 8/26/1987 | 12.75% | 8.06% | 4.69% |
| 8/27/1987 | 13.25% | 8.06% | 5.19% |
| 9/9/1987 | 13.00% | 8.14% | 4.86% |
| 9/30/1987 | 12.75% | 8.31% | 4.44% |
| 9/30/1987 | 13.00% | 8.31% | 4.69% |
| 10/2/1987 | 11.50% | 8.33% | 3.17% |
| 10/15/1987 | 13.00% | 8.43% | 4.57% |
| 11/2/1987 | 13.00% | 8.55% | 4.45% |
| 11/19/1987 | 13.00% | 8.64% | 4.36% |
| 11/30/1987 | 12.00% | 8.68% | 3.32% |
| 12/3/1987 | 14.20% | 8.70% | 5.50% |
| 12/15/1987 | 13.25% | 8.77% | 4.48% |
| 12/16/1987 | 13.50% | 8.78% | 4.72% |
| 12/16/1987 | 13.72% | 8.78% | 4.94% |
| 12/17/1987 | 11.75% | 8.79% | 2.96% |
| 12/18/1987 | 13.50% | 8.80% | 4.70% |
| 12/21/1987 | 12.01% | 8.81% | 3.20% |
| 12/22/1987 | 12.00% | 8.81% | 3.19% |
| 12/22/1987 | 12.00% | 8.81% | 3.19% |
| 12/22/1987 | 12.75% | 8.81% | 3.94% |
| 12/22/1987 | 13.00% | 8.81% | 4.19% |
| 1/20/1988 | 13.80% | 8.94% | 4.86% |
| 1/26/1988 | 13.90% | 8.95% | 4.95% |
| 1/29/1988 | 13.20% | 8.96% | 4.24% |
| 2/4/1988 | 12.60% | 8.96% | 3.64% |
| 3/1/1988 | 11.56% | 8.94% | 2.62% |
| 3/23/1988 | 12.87% | 8.92% | 3.95% |
| 3/24/1988 | 11.24% | 8.92% | 2.32% |
| 3/30/1988 | 12.72% | 8.92% | 3.80% |
| 4/1/1988 | 12.50% | 8.92% | 3.58% |
| 4/7/1988 | 13.25% | 8.93% | 4.32% |
| 4/25/1988 | 10.96% | 8.96% | 2.00% |
| 5/3/1988 | 12.91% | 8.97% | 3.94% |
| 5/11/1988 | 13.50% | 8.99% | 4.51% |
| 5/16/1988 | 13.00% | 8.99% | 4.01% |
| 6/30/1988 | 12.75% | 9.00% | 3.75% |
| 7/1/1988 | 12.75% | 8.99% | 3.76% |
| 7/20/1988 | 13.40% | 8.96% | 4.44% |
| 8/5/1988 | 12.75% | 8.92% | 3.83% |
| 8/23/1988 | 11.70% | 8.93% | 2.77% |
| 8/29/1988 | 12.75% | 8.94% | 3.81% |
| 8/30/1988 | 13.50% | 8.94% | 4.56% |
| 9/8/1988 | 12.60% | 8.95% | 3.65% |
| 10/13/1988 | 13.10% | 8.93% | 4.17% |
| 12/19/1988 | 13.00% | 9.02% | 3.98% |
| 12/20/1988 | 12.25% | 9.02% | 3.23% |
| 12/20/1988 | 13.00% | 9.02% | 3.98% |
| 12/21/1988 | 12.90% | 9.02% | 3.88% |
| 12/27/1988 | 13.00% | 9.03% | 3.97% |
| 12/28/1988 | 13.10% | 9.03% | 4.07% |
| 12/30/1988 | 13.40% | 9.04% | 4.36% |
| 1/27/1989 | 13.00% | 9.05% | 3.95% |
| 1/31/1989 | 13.00% | 9.05% | 3.95% |
| 2/17/1989 | 13.00% | 9.05% | 3.95% |
| 2/20/1989 | 12.40% | 9.05% | 3.35% |
| 3/1/1989 | 12.76% | 9.05% | 3.71% |
| 3/8/1989 | 13.00% | 9.05% | 3.95% |
| 3/30/1989 | 14.00% | 9.05% | 4.95% |
| 4/5/1989 | 14.20% | 9.05% | 5.15% |
| 4/18/1989 | 13.00% | 9.05% | 3.95% |
| 5/5/1989 | 12.40% | 9.05% | 3.35% |
| 6/2/1989 | 13.20% | 9.00% | 4.20% |
| 6/8/1989 | 13.50% | 8.98% | 4.52% |
| 6/27/1989 | 13.25% | 8.91% | 4.34% |
| 6/30/1989 | 13.00% | 8.90% | 4.10% |
| 8/14/1989 | 12.50% | 8.77% | 3.73% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 9/28/1989 | 12.25% | 8.63% | 3.62% |
| 10/24/1989 | 12.50% | 8.54% | 3.96% |
| 11/9/1989 | 13.00% | 8.49% | 4.51% |
| 12/15/1989 | 13.00% | 8.34% | 4.66% |
| 12/20/1989 | 12.90% | 8.32% | 4.58% |
| 12/21/1989 | 12.90% | 8.31% | 4.59% |
| 12/27/1989 | 12.50% | 8.29% | 4.21% |
| 12/27/1989 | 13.00% | 8.29% | 4.71% |
| 1/10/1990 | 12.80% | 8.24% | 4.56% |
| 1/11/1990 | 12.90% | 8.24% | 4.66% |
| 1/17/1990 | 12.80% | 8.22% | 4.58% |
| 1/26/1990 | 12.00% | 8.20% | 3.80% |
| 2/9/1990 | 12.10% | 8.17% | 3.93% |
| 2/24/1990 | 12.86% | 8.15% | 4.71% |
| 3/30/1990 | 12.90% | 8.16% | 4.74% |
| 4/4/1990 | 15.76% | 8.17% | 7.59% |
| 4/12/1990 | 12.52% | 8.18% | 4.34% |
| 4/19/1990 | 12.75% | 8.20% | 4.55% |
| 5/21/1990 | 12.10% | 8.28% | 3.82% |
| 5/29/1990 | 12.40% | 8.30% | 4.10% |
| 5/31/1990 | 12.00% | 8.30% | 3.70% |
| 6/4/1990 | 12.90% | 8.30% | 4.60% |
| 6/6/1990 | 12.25% | 8.31% | 3.94% |
| 6/15/1990 | 13.20% | 8.32% | 4.88% |
| 6/20/1990 | 12.92% | 8.32% | 4.60% |
| 6/27/1990 | 12.90% | 8.33% | 4.57% |
| 6/29/1990 | 12.50% | 8.33% | 4.17% |
| 7/6/1990 | 12.10% | 8.34% | 3.76% |
| 7/6/1990 | 12.35% | 8.34% | 4.01% |
| 8/10/1990 | 12.55% | 8.41% | 4.14% |
| 8/16/1990 | 13.21% | 8.43% | 4.78% |
| 8/22/1990 | 13.10% | 8.45% | 4.65% |
| 8/24/1990 | 13.00% | 8.46% | 4.54% |
| 9/26/1990 | 11.45% | 8.59% | 2.86% |
| 10/2/1990 | 13.00% | 8.61% | 4.39% |
| 10/5/1990 | 12.84% | 8.62% | 4.22% |
| 10/19/1990 | 13.00% | 8.67% | 4.33% |
| 10/25/1990 | 12.30% | 8.68% | 3.62% |
| 11/21/1990 | 12.70% | 8.69% | 4.01% |
| 12/13/1990 | 12.30% | 8.67% | 3.63% |
| 12/17/1990 | 12.87% | 8.67% | 4.20% |
| 12/18/1990 | 13.10% | 8.67% | 4.43% |
| 12/19/1990 | 12.00% | 8.66% | 3.34% |
| 12/20/1990 | 12.75% | 8.66% | 4.09% |
| 12/21/1990 | 12.50% | 8.66% | 3.84% |
| 12/27/1990 | 12.79% | 8.66% | 4.13% |
| 1/2/1991 | 13.10% | 8.65% | 4.45% |
| 1/4/1991 | 12.50% | 8.65% | 3.85% |
| 1/15/1991 | 12.75% | 8.64% | 4.11% |
| 1/25/1991 | 11.70% | 8.63% | 3.07% |
| 2/4/1991 | 12.50% | 8.60% | 3.90% |
| 2/7/1991 | 12.50% | 8.59% | 3.91% |
| 2/12/1991 | 13.00% | 8.58% | 4.43% |
| 2/14/1991 | 12.72% | 8.57% | 4.15% |
| 2/22/1991 | 12.80% | 8.55% | 4.25% |
| 3/6/1991 | 13.10% | 8.53% | 4.57% |
| 3/8/1991 | 12.30% | 8.52% | 3.78% |
| 3/8/1991 | 13.00% | 8.52% | 4.48% |
| 4/22/1991 | 13.00% | 8.49% | 4.51% |
| 5/7/1991 | 13.50% | 8.47% | 5.03% |
| 5/13/1991 | 13.25% | 8.47% | 4.78% |
| 5/30/1991 | 12.75% | 8.44% | 4.31% |
| 6/12/1991 | 12.00% | 8.41% | 3.59% |
| 6/25/1991 | 11.70% | 8.39% | 3.31% |
| 6/28/1991 | 12.50% | 8.38% | 4.12% |
| 7/1/1991 | 12.00% | 8.38% | 3.62% |
| 7/3/1991 | 12.50% | 8.37% | 4.13% |
| 7/19/1991 | 12.10% | 8.34% | 3.76% |
| 8/1/1991 | 12.90% | 8.32% | 4.58% |
| 8/16/1991 | 13.20% | 8.29% | 4.91% |
| 9/27/1991 | 12.50% | 8.23% | 4.27% |
| 9/30/1991 | 12.25% | 8.23% | 4.02% |
| 10/17/1991 | 13.00% | 8.20% | 4.80% |
| 10/23/1991 | 12.50% | 8.20% | 4.30% |
| 10/23/1991 | 12.55% | 8.20% | 4.35% |
| 10/31/1991 | 11.80% | 8.19% | 3.61% |
| 11/1/1991 | 12.00% | 8.19% | 3.81% |
| 11/5/1991 | 12.25% | 8.19% | 4.06% |
| 11/12/1991 | 12.50% | 8.18% | 4.32% |
| 11/12/1991 | 13.25% | 8.18% | 5.07% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 11/25/1991 | 12.40% | 8.18% | 4.22% |
| 11/26/1991 | 11.60% | 8.18% | 3.42% |
| 11/26/1991 | 12.50% | 8.18% | 4.32% |
| 11/27/1991 | 12.10% | 8.18% | 3.92% |
| 12/18/1991 | 12.25% | 8.15% | 4.10% |
| 12/19/1991 | 12.60% | 8.15% | 4.45% |
| 12/19/1991 | 12.80% | 8.15% | 4.65% |
| 12/20/1991 | 12.65% | 8.14% | 4.51% |
| 1/9/1992 | 12.80% | 8.09% | 4.71% |
| 1/16/1992 | 12.75% | 8.07% | 4.68% |
| 1/21/1992 | 12.00% | 8.06% | 3.94% |
| 1/22/1992 | 13.00% | 8.06% | 4.94% |
| 1/27/1992 | 12.65% | 8.05% | 4.60% |
| 1/31/1992 | 12.00% | 8.04% | 3.96% |
| 2/11/1992 | 12.40% | 8.03% | 4.37% |
| 2/25/1992 | 12.50% | 8.01% | 4.49% |
| 3/16/1992 | 11.43% | 7.98% | 3.45% |
| 3/18/1992 | 12.28% | 7.98% | 4.30% |
| 4/2/1992 | 12.10% | 7.95% | 4.15% |
| 4/9/1992 | 11.45% | 7.94% | 3.51% |
| 4/10/1992 | 11.50% | 7.93% | 3.57% |
| 4/14/1992 | 11.50% | 7.93% | 3.57% |
| 5/5/1992 | 11.50% | 7.89% | 3.61% |
| 5/12/1992 | 11.87% | 7.88% | 3.99% |
| 5/12/1992 | 12.46% | 7.88% | 4.58% |
| 6/1/1992 | 12.30% | 7.87% | 4.43% |
| 6/12/1992 | 10.90% | 7.86% | 3.04% |
| 6/26/1992 | 12.35% | 7.85% | 4.50% |
| 6/29/1992 | 11.00% | 7.85% | 3.15% |
| 6/30/1992 | 13.00% | 7.85% | 5.15% |
| 7/13/1992 | 11.90% | 7.84% | 4.06% |
| 7/13/1992 | 13.50% | 7.84% | 5.66% |
| 7/22/1992 | 11.20% | 7.83% | 3.37% |
| 8/3/1992 | 12.00% | 7.81% | 4.19% |
| 8/6/1992 | 12.50% | 7.80% | 4.70% |
| 9/22/1992 | 12.00% | 7.71% | 4.29% |
| 9/28/1992 | 11.40% | 7.71% | 3.69% |
| 9/30/1992 | 11.75% | 7.70% | 4.05% |
| 10/2/1992 | 13.00% | 7.70% | 5.30% |
| 10/12/1992 | 12.20% | 7.70% | 4.50% |
| 10/16/1992 | 13.16% | 7.70% | 5.46% |
| 10/30/1992 | 11.75% | 7.71% | 4.04% |
| 11/3/1992 | 12.00% | 7.71% | 4.29% |
| 12/3/1992 | 11.85% | 7.68% | 4.17% |
| 12/15/1992 | 11.00% | 7.66% | 3.34% |
| 12/16/1992 | 11.90% | 7.66% | 4.24% |
| 12/16/1992 | 12.40% | 7.66% | 4.74% |
| 12/17/1992 | 12.00% | 7.66% | 4.34% |
| 12/22/1992 | 12.30% | 7.65% | 4.65% |
| 12/22/1992 | 12.40% | 7.65% | 4.75% |
| 12/29/1992 | 12.25% | 7.63% | 4.62% |
| 12/30/1992 | 12.00% | 7.63% | 4.37% |
| 12/31/1992 | 11.90% | 7.63% | 4.27% |
| 1/12/1993 | 12.00% | 7.61% | 4.39% |
| 1/21/1993 | 11.25% | 7.59% | 3.66% |
| 2/2/1993 | 11.40% | 7.56% | 3.84% |
| 2/15/1993 | 12.30% | 7.52% | 4.78% |
| 2/24/1993 | 11.90% | 7.49% | 4.41% |
| 2/26/1993 | 11.80% | 7.48% | 4.32% |
| 2/26/1993 | 12.20% | 7.48% | 4.72% |
| 4/23/1993 | 11.75% | 7.29% | 4.46% |
| 5/11/1993 | 11.75% | 7.25% | 4.50% |
| 5/14/1993 | 11.50% | 7.24% | 4.26% |
| 5/25/1993 | 11.50% | 7.23% | 4.27% |
| 5/28/1993 | 11.00% | 7.22% | 3.78% |
| 6/3/1993 | 12.00% | 7.21% | 4.79% |
| 6/16/1993 | 11.50% | 7.19% | 4.31% |
| 6/18/1993 | 12.10% | 7.18% | 4.92% |
| 6/25/1993 | 11.67% | 7.17% | 4.50% |
| 7/21/1993 | 11.38% | 7.10% | 4.28% |
| 7/23/1993 | 10.46% | 7.09% | 3.37% |
| 8/24/1993 | 11.50% | 6.96% | 4.54% |
| 9/21/1993 | 10.50% | 6.81% | 3.69% |
| 9/29/1993 | 11.47% | 6.77% | 4.70% |
| 9/30/1993 | 11.60% | 6.76% | 4.84% |
| 11/2/1993 | 10.80% | 6.60% | 4.20% |
| 11/12/1993 | 12.00% | 6.57% | 5.43% |
| 11/26/1993 | 11.00% | 6.52% | 4.48% |
| 12/14/1993 | 10.55% | 6.48% | 4.07% |
| 12/16/1993 | 10.60% | 6.48% | 4.12% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 12/21/1993 | 11.30% | 6.47% | 4.83% |
| 1/4/1994 | 10.07% | 6.44% | 3.63% |
| 1/13/1994 | 11.00% | 6.42% | 4.58% |
| 1/21/1994 | 11.00% | 6.40% | 4.60% |
| 1/28/1994 | 11.35% | 6.39% | 4.96% |
| 2/3/1994 | 11.40% | 6.38% | 5.02% |
| 2/17/1994 | 10.60% | 6.36% | 4.24% |
| 2/25/1994 | 11.25% | 6.35% | 4.90% |
| 2/25/1994 | 12.00% | 6.35% | 5.65% |
| 3/1/1994 | 11.00% | 6.35% | 4.65% |
| 3/4/1994 | 11.00% | 6.35% | 4.65% |
| 4/25/1994 | 11.00% | 6.41% | 4.59% |
| 5/10/1994 | 11.75% | 6.45% | 5.30% |
| 5/13/1994 | 10.50% | 6.46% | 4.04% |
| 6/3/1994 | 11.00% | 6.54% | 4.46% |
| 6/27/1994 | 11.40% | 6.65% | 4.75% |
| 8/5/1994 | 12.75% | 6.88% | 5.87% |
| 10/31/1994 | 10.00% | 7.33% | 2.67% |
| 11/9/1994 | 10.85% | 7.39% | 3.46% |
| 11/9/1994 | 10.85% | 7.39% | 3.46% |
| 11/18/1994 | 11.20% | 7.45% | 3.75% |
| 11/22/1994 | 11.60% | 7.47% | 4.13% |
| 11/28/1994 | 11.06% | 7.49% | 3.57% |
| 12/8/1994 | 11.50% | 7.54% | 3.96% |
| 12/8/1994 | 11.70% | 7.54% | 4.16% |
| 12/14/1994 | 10.95% | 7.56% | 3.39% |
| 12/15/1994 | 11.50% | 7.57% | 3.93% |
| 12/19/1994 | 11.50% | 7.58% | 3.92% |
| 12/28/1994 | 12.15% | 7.61% | 4.54% |
| 1/9/1995 | 12.28% | 7.64% | 4.64% |
| 1/31/1995 | 11.00% | 7.69% | 3.31% |
| 2/10/1995 | 12.60% | 7.70% | 4.90% |
| 2/17/1995 | 11.90% | 7.70% | 4.20% |
| 3/9/1995 | 11.50% | 7.71% | 3.79% |
| 3/20/1995 | 12.00% | 7.72% | 4.28% |
| 3/23/1995 | 12.81% | 7.72% | 5.09% |
| 3/29/1995 | 11.60% | 7.72% | 3.88% |
| 4/6/1995 | 11.10% | 7.71% | 3.39% |
| 4/7/1995 | 11.00% | 7.71% | 3.29% |
| 4/19/1995 | 11.00% | 7.70% | 3.30% |
| 5/12/1995 | 11.63% | 7.68% | 3.95% |
| 5/25/1995 | 11.20% | 7.65% | 3.55% |
| 6/9/1995 | 11.25% | 7.60% | 3.65% |
| 6/21/1995 | 12.25% | 7.56% | 4.69% |
| 6/30/1995 | 11.10% | 7.52% | 3.58% |
| 9/11/1995 | 11.30% | 7.20% | 4.10% |
| 9/27/1995 | 11.30% | 7.12% | 4.18% |
| 9/27/1995 | 11.50% | 7.12% | 4.38% |
| 9/27/1995 | 11.75% | 7.12% | 4.63% |
| 9/29/1995 | 11.00% | 7.11% | 3.89% |
| 11/9/1995 | 11.38% | 6.90% | 4.48% |
| 11/9/1995 | 12.36% | 6.90% | 5.46% |
| 11/17/1995 | 11.00% | 6.86% | 4.14% |
| 12/4/1995 | 11.35% | 6.78% | 4.57% |
| 12/11/1995 | 11.40% | 6.74% | 4.66% |
| 12/20/1995 | 11.60% | 6.70% | 4.90% |
| 12/27/1995 | 12.00% | 6.66% | 5.34% |
| 2/5/1996 | 12.25% | 6.48% | 5.77% |
| 3/29/1996 | 10.67% | 6.42% | 4.25% |
| 4/8/1996 | 11.00% | 6.42% | 4.58% |
| 4/11/1996 | 12.59% | 6.43% | 6.16% |
| 4/11/1996 | 12.59% | 6.43% | 6.16% |
| 4/24/1996 | 11.25% | 6.43% | 4.82% |
| 4/30/1996 | 11.00% | 6.43% | 4.57% |
| 5/13/1996 | 11.00% | 6.44% | 4.56% |
| 5/23/1996 | 11.25% | 6.43% | 4.82% |
| 6/25/1996 | 11.25% | 6.48% | 4.77% |
| 6/27/1996 | 11.20% | 6.48% | 4.72% |
| 8/12/1996 | 10.40% | 6.57% | 3.83% |
| 9/27/1996 | 11.00% | 6.71% | 4.29% |
| 10/16/1996 | 12.25% | 6.76% | 5.49% |
| 11/5/1996 | 11.00% | 6.81% | 4.19% |
| 11/26/1996 | 11.30% | 6.83% | 4.47% |
| 12/18/1996 | 11.75% | 6.83% | 4.92% |
| 12/31/1996 | 11.50% | 6.83% | 4.67% |
| 1/3/1997 | 10.70% | 6.83% | 3.87% |
| 2/13/1997 | 11.80% | 6.82% | 4.98% |
| 2/20/1997 | 11.80% | 6.82% | 4.98% |
| 3/31/1997 | 10.02% | 6.80% | 3.22% |
| 4/2/1997 | 11.65% | 6.80% | 4.85% |

Bond Yield Plus Risk Premium

| [6]<br>Date of Electric Rate Case | [7]<br>Return on Equity | [8]<br>30-Year Treasury Yield | [9]<br>Risk Premium |
|---|---|---|---|
| 4/28/1997 | 11.50% | 6.81% | 4.69% |
| 4/29/1997 | 11.70% | 6.81% | 4.89% |
| 7/17/1997 | 12.00% | 6.77% | 5.23% |
| 12/12/1997 | 11.00% | 6.60% | 4.40% |
| 12/23/1997 | 11.12% | 6.57% | 4.55% |
| 2/2/1998 | 12.75% | 6.39% | 6.36% |
| 3/2/1998 | 11.25% | 6.29% | 4.96% |
| 3/6/1998 | 10.75% | 6.27% | 4.48% |
| 3/20/1998 | 10.50% | 6.22% | 4.28% |
| 4/30/1998 | 12.20% | 6.12% | 6.08% |
| 7/10/1998 | 11.40% | 5.94% | 5.46% |
| 9/15/1998 | 11.90% | 5.78% | 6.12% |
| 11/30/1998 | 12.60% | 5.58% | 7.02% |
| 12/10/1998 | 12.20% | 5.54% | 6.66% |
| 12/17/1998 | 12.10% | 5.52% | 6.58% |
| 2/5/1999 | 10.30% | 5.38% | 4.92% |
| 3/4/1999 | 10.50% | 5.34% | 5.16% |
| 4/6/1999 | 10.94% | 5.32% | 5.62% |
| 7/29/1999 | 10.75% | 5.52% | 5.23% |
| 9/23/1999 | 10.75% | 5.70% | 5.05% |
| 11/17/1999 | 11.10% | 5.90% | 5.20% |
| 1/7/2000 | 11.50% | 6.05% | 5.45% |
| 1/7/2000 | 11.50% | 6.05% | 5.45% |
| 2/17/2000 | 10.60% | 6.17% | 4.43% |
| 3/28/2000 | 11.25% | 6.20% | 5.05% |
| 5/24/2000 | 11.00% | 6.18% | 4.82% |
| 7/18/2000 | 12.20% | 6.16% | 6.04% |
| 9/29/2000 | 11.16% | 6.03% | 5.13% |
| 11/28/2000 | 12.90% | 5.89% | 7.01% |
| 11/30/2000 | 12.10% | 5.88% | 6.22% |
| 1/23/2001 | 11.25% | 5.79% | 5.46% |
| 2/8/2001 | 11.50% | 5.77% | 5.73% |
| 5/8/2001 | 10.75% | 5.62% | 5.13% |
| 6/26/2001 | 11.00% | 5.62% | 5.38% |
| 7/25/2001 | 11.02% | 5.60% | 5.42% |
| 7/25/2001 | 11.02% | 5.60% | 5.42% |
| 7/31/2001 | 11.00% | 5.59% | 5.41% |
| 8/31/2001 | 10.50% | 5.56% | 4.94% |
| 9/7/2001 | 10.75% | 5.55% | 5.20% |
| 9/10/2001 | 11.00% | 5.55% | 5.45% |
| 9/20/2001 | 10.00% | 5.55% | 4.45% |
| 10/24/2001 | 10.30% | 5.54% | 4.76% |
| 11/28/2001 | 10.60% | 5.49% | 5.11% |
| 12/3/2001 | 12.88% | 5.49% | 7.39% |
| 12/20/2001 | 12.50% | 5.50% | 7.00% |
| 1/22/2002 | 10.00% | 5.50% | 4.50% |
| 3/27/2002 | 10.10% | 5.45% | 4.65% |
| 4/22/2002 | 11.80% | 5.45% | 6.35% |
| 5/28/2002 | 10.17% | 5.46% | 4.71% |
| 6/10/2002 | 12.00% | 5.47% | 6.53% |
| 6/18/2002 | 11.16% | 5.48% | 5.68% |
| 6/20/2002 | 11.00% | 5.48% | 5.52% |
| 6/20/2002 | 12.30% | 5.48% | 6.82% |
| 7/15/2002 | 11.00% | 5.48% | 5.52% |
| 9/12/2002 | 12.30% | 5.45% | 6.85% |
| 9/26/2002 | 10.45% | 5.41% | 5.04% |
| 12/4/2002 | 11.55% | 5.29% | 6.26% |
| 12/13/2002 | 11.75% | 5.27% | 6.48% |
| 12/20/2002 | 11.40% | 5.25% | 6.15% |
| 1/8/2003 | 11.10% | 5.19% | 5.91% |
| 1/31/2003 | 12.45% | 5.13% | 7.32% |
| 2/28/2003 | 12.30% | 5.05% | 7.25% |
| 3/6/2003 | 10.75% | 5.03% | 5.72% |
| 3/7/2003 | 9.96% | 5.02% | 4.94% |
| 3/20/2003 | 12.00% | 4.98% | 7.02% |
| 4/3/2003 | 12.00% | 4.96% | 7.04% |
| 4/15/2003 | 11.15% | 4.94% | 6.21% |
| 6/25/2003 | 10.75% | 4.79% | 5.96% |
| 6/26/2003 | 10.75% | 4.79% | 5.96% |
| 7/9/2003 | 9.75% | 4.79% | 4.96% |
| 7/16/2003 | 9.75% | 4.79% | 4.96% |
| 7/25/2003 | 9.50% | 4.80% | 4.70% |
| 8/26/2003 | 10.50% | 4.83% | 5.67% |
| 12/17/2003 | 9.85% | 4.94% | 4.91% |
| 12/17/2003 | 10.70% | 4.94% | 5.76% |
| 12/18/2003 | 11.50% | 4.94% | 6.56% |
| 12/19/2003 | 12.00% | 4.94% | 7.06% |
| 12/19/2003 | 12.00% | 4.94% | 7.06% |
| 12/23/2003 | 10.50% | 4.94% | 5.56% |
| 1/13/2004 | 12.00% | 4.95% | 7.05% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 3/2/2004 | 10.75% | 4.99% | 5.76% |
| 3/26/2004 | 10.25% | 5.02% | 5.23% |
| 4/5/2004 | 11.25% | 5.03% | 6.22% |
| 5/18/2004 | 10.50% | 5.07% | 5.43% |
| 5/25/2004 | 10.25% | 5.08% | 5.17% |
| 5/27/2004 | 10.25% | 5.08% | 5.17% |
| 6/2/2004 | 11.22% | 5.08% | 6.14% |
| 6/30/2004 | 10.50% | 5.10% | 5.40% |
| 6/30/2004 | 10.50% | 5.10% | 5.40% |
| 7/16/2004 | 11.60% | 5.11% | 6.49% |
| 8/25/2004 | 10.25% | 5.10% | 5.15% |
| 9/9/2004 | 10.40% | 5.10% | 5.30% |
| 11/9/2004 | 10.50% | 5.07% | 5.43% |
| 11/23/2004 | 11.00% | 5.06% | 5.94% |
| 12/14/2004 | 10.97% | 5.07% | 5.90% |
| 12/21/2004 | 11.25% | 5.07% | 6.18% |
| 12/21/2004 | 11.50% | 5.07% | 6.43% |
| 12/22/2004 | 10.70% | 5.07% | 5.63% |
| 12/22/2004 | 11.50% | 5.07% | 6.43% |
| 12/29/2004 | 9.85% | 5.07% | 4.78% |
| 1/6/2005 | 10.70% | 5.08% | 5.62% |
| 2/18/2005 | 10.30% | 4.98% | 5.32% |
| 2/25/2005 | 10.50% | 4.96% | 5.54% |
| 3/10/2005 | 11.00% | 4.93% | 6.07% |
| 3/24/2005 | 10.30% | 4.90% | 5.40% |
| 4/4/2005 | 10.00% | 4.88% | 5.12% |
| 4/7/2005 | 10.25% | 4.87% | 5.38% |
| 5/18/2005 | 10.25% | 4.78% | 5.47% |
| 5/25/2005 | 10.75% | 4.76% | 5.99% |
| 5/26/2005 | 9.75% | 4.76% | 4.99% |
| 6/1/2005 | 9.75% | 4.75% | 5.00% |
| 7/19/2005 | 11.50% | 4.64% | 6.86% |
| 8/5/2005 | 11.75% | 4.62% | 7.13% |
| 8/15/2005 | 10.13% | 4.61% | 5.52% |
| 9/28/2005 | 10.00% | 4.54% | 5.46% |
| 10/4/2005 | 10.75% | 4.54% | 6.21% |
| 12/12/2005 | 11.00% | 4.55% | 6.45% |
| 12/13/2005 | 10.75% | 4.55% | 6.20% |
| 12/21/2005 | 10.29% | 4.54% | 5.75% |
| 12/21/2005 | 10.40% | 4.54% | 5.86% |
| 12/22/2005 | 11.00% | 4.54% | 6.46% |
| 12/22/2005 | 11.15% | 4.54% | 6.61% |
| 12/28/2005 | 10.00% | 4.54% | 5.46% |
| 12/28/2005 | 10.00% | 4.54% | 5.46% |
| 1/5/2006 | 11.00% | 4.53% | 6.47% |
| 1/27/2006 | 9.75% | 4.52% | 5.23% |
| 3/3/2006 | 10.39% | 4.53% | 5.86% |
| 4/17/2006 | 10.20% | 4.61% | 5.59% |
| 4/26/2006 | 10.60% | 4.64% | 5.96% |
| 5/17/2006 | 11.60% | 4.69% | 6.91% |
| 6/6/2006 | 10.00% | 4.74% | 5.26% |
| 6/27/2006 | 10.75% | 4.80% | 5.95% |
| 7/6/2006 | 10.20% | 4.83% | 5.37% |
| 7/24/2006 | 9.60% | 4.86% | 4.74% |
| 7/26/2006 | 10.50% | 4.86% | 5.64% |
| 7/28/2006 | 10.05% | 4.86% | 5.19% |
| 8/23/2006 | 9.55% | 4.89% | 4.66% |
| 9/1/2006 | 10.54% | 4.90% | 5.64% |
| 9/14/2006 | 10.00% | 4.91% | 5.09% |
| 10/6/2006 | 9.67% | 4.92% | 4.75% |
| 11/21/2006 | 10.08% | 4.95% | 5.13% |
| 11/21/2006 | 10.08% | 4.95% | 5.13% |
| 11/21/2006 | 10.12% | 4.95% | 5.17% |
| 12/1/2006 | 10.25% | 4.95% | 5.30% |
| 12/1/2006 | 10.50% | 4.95% | 5.55% |
| 12/7/2006 | 10.75% | 4.95% | 5.80% |
| 12/21/2006 | 10.90% | 4.95% | 5.95% |
| 12/21/2006 | 11.25% | 4.95% | 6.30% |
| 12/22/2006 | 10.25% | 4.95% | 5.30% |
| 1/5/2007 | 10.00% | 4.95% | 5.05% |
| 1/11/2007 | 10.10% | 4.95% | 5.15% |
| 1/11/2007 | 10.10% | 4.95% | 5.15% |
| 1/11/2007 | 10.90% | 4.95% | 5.95% |
| 1/12/2007 | 10.10% | 4.95% | 5.15% |
| 1/13/2007 | 10.40% | 4.95% | 5.45% |
| 1/19/2007 | 10.80% | 4.94% | 5.86% |
| 3/21/2007 | 11.35% | 4.87% | 6.48% |
| 3/22/2007 | 9.75% | 4.86% | 4.89% |
| 5/15/2007 | 10.00% | 4.81% | 5.19% |
| 5/17/2007 | 10.25% | 4.81% | 5.44% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 5/17/2007 | 10.25% | 4.81% | 5.44% |
| 5/22/2007 | 10.20% | 4.80% | 5.40% |
| 5/22/2007 | 10.50% | 4.80% | 5.70% |
| 5/23/2007 | 10.70% | 4.80% | 5.90% |
| 5/25/2007 | 9.67% | 4.80% | 4.87% |
| 6/15/2007 | 9.90% | 4.82% | 5.08% |
| 6/21/2007 | 10.20% | 4.83% | 5.37% |
| 6/22/2007 | 10.50% | 4.83% | 5.67% |
| 6/28/2007 | 10.75% | 4.84% | 5.91% |
| 7/12/2007 | 9.67% | 4.86% | 4.81% |
| 7/19/2007 | 10.00% | 4.87% | 5.13% |
| 7/19/2007 | 10.00% | 4.87% | 5.13% |
| 8/15/2007 | 10.40% | 4.88% | 5.52% |
| 10/9/2007 | 10.00% | 4.91% | 5.09% |
| 10/17/2007 | 9.10% | 4.91% | 4.19% |
| 10/31/2007 | 9.96% | 4.90% | 5.06% |
| 11/29/2007 | 10.90% | 4.87% | 6.03% |
| 12/6/2007 | 10.75% | 4.86% | 5.89% |
| 12/13/2007 | 9.96% | 4.86% | 5.10% |
| 12/14/2007 | 10.70% | 4.86% | 5.84% |
| 12/14/2007 | 10.80% | 4.86% | 5.94% |
| 12/19/2007 | 10.20% | 4.86% | 5.34% |
| 12/20/2007 | 10.20% | 4.85% | 5.35% |
| 12/20/2007 | 11.00% | 4.85% | 6.15% |
| 12/28/2007 | 10.25% | 4.85% | 5.40% |
| 12/31/2007 | 11.25% | 4.85% | 6.40% |
| 1/8/2008 | 10.75% | 4.83% | 5.92% |
| 1/17/2008 | 10.75% | 4.81% | 5.94% |
| 1/28/2008 | 9.40% | 4.80% | 4.60% |
| 1/30/2008 | 10.00% | 4.79% | 5.21% |
| 1/31/2008 | 10.71% | 4.79% | 5.92% |
| 2/29/2008 | 10.25% | 4.75% | 5.50% |
| 3/12/2008 | 10.25% | 4.73% | 5.52% |
| 3/25/2008 | 9.10% | 4.68% | 4.42% |
| 4/22/2008 | 10.25% | 4.60% | 5.65% |
| 4/24/2008 | 10.10% | 4.60% | 5.50% |
| 5/1/2008 | 10.70% | 4.59% | 6.11% |
| 5/19/2008 | 11.00% | 4.56% | 6.44% |
| 5/27/2008 | 10.00% | 4.55% | 5.45% |
| 6/10/2008 | 10.70% | 4.54% | 6.16% |
| 6/27/2008 | 10.50% | 4.54% | 5.96% |
| 6/27/2008 | 11.04% | 4.54% | 6.50% |
| 7/10/2008 | 10.43% | 4.52% | 5.91% |
| 7/16/2008 | 9.40% | 4.52% | 4.88% |
| 7/30/2008 | 10.80% | 4.51% | 6.29% |
| 7/31/2008 | 10.70% | 4.51% | 6.19% |
| 8/11/2008 | 10.25% | 4.51% | 5.74% |
| 8/26/2008 | 10.18% | 4.50% | 5.68% |
| 9/10/2008 | 10.30% | 4.50% | 5.80% |
| 9/24/2008 | 10.65% | 4.48% | 6.17% |
| 9/24/2008 | 10.65% | 4.48% | 6.17% |
| 9/24/2008 | 10.65% | 4.48% | 6.17% |
| 9/30/2008 | 10.20% | 4.48% | 5.72% |
| 10/8/2008 | 10.15% | 4.46% | 5.69% |
| 11/13/2008 | 10.55% | 4.45% | 6.10% |
| 11/17/2008 | 10.20% | 4.44% | 5.76% |
| 12/1/2008 | 10.25% | 4.40% | 5.85% |
| 12/23/2008 | 11.00% | 4.27% | 6.73% |
| 12/29/2008 | 10.00% | 4.24% | 5.76% |
| 12/29/2008 | 10.20% | 4.24% | 5.96% |
| 12/31/2008 | 10.75% | 4.22% | 6.53% |
| 1/14/2009 | 10.50% | 4.15% | 6.35% |
| 1/21/2009 | 10.50% | 4.12% | 6.38% |
| 1/21/2009 | 10.50% | 4.12% | 6.38% |
| 1/21/2009 | 10.50% | 4.12% | 6.38% |
| 1/27/2009 | 10.76% | 4.09% | 6.67% |
| 1/30/2009 | 10.50% | 4.08% | 6.42% |
| 2/4/2009 | 8.75% | 4.06% | 4.69% |
| 3/4/2009 | 10.50% | 3.96% | 6.54% |
| 3/12/2009 | 11.50% | 3.93% | 7.57% |
| 4/2/2009 | 11.10% | 3.85% | 7.25% |
| 4/21/2009 | 10.61% | 3.80% | 6.81% |
| 4/24/2009 | 10.00% | 3.79% | 6.21% |
| 4/30/2009 | 11.25% | 3.78% | 7.47% |
| 5/4/2009 | 10.74% | 3.77% | 6.97% |
| 5/20/2009 | 10.25% | 3.74% | 6.51% |
| 5/28/2009 | 10.50% | 3.74% | 6.76% |
| 6/22/2009 | 10.00% | 3.76% | 6.24% |
| 6/24/2009 | 10.80% | 3.77% | 7.03% |
| 7/8/2009 | 10.63% | 3.77% | 6.86% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 7/17/2009 | 10.50% | 3.78% | 6.72% |
| 8/31/2009 | 10.25% | 3.82% | 6.43% |
| 10/14/2009 | 10.70% | 4.01% | 6.69% |
| 10/23/2009 | 10.88% | 4.06% | 6.82% |
| 11/2/2009 | 10.70% | 4.09% | 6.61% |
| 11/3/2009 | 10.70% | 4.10% | 6.60% |
| 11/24/2009 | 10.25% | 4.15% | 6.10% |
| 11/25/2009 | 10.75% | 4.16% | 6.59% |
| 11/30/2009 | 10.35% | 4.17% | 6.18% |
| 12/3/2009 | 10.50% | 4.18% | 6.32% |
| 12/7/2009 | 10.70% | 4.18% | 6.52% |
| 12/16/2009 | 10.90% | 4.21% | 6.69% |
| 12/16/2009 | 11.00% | 4.21% | 6.79% |
| 12/18/2009 | 10.40% | 4.22% | 6.18% |
| 12/18/2009 | 10.40% | 4.22% | 6.18% |
| 12/22/2009 | 10.20% | 4.23% | 5.97% |
| 12/22/2009 | 10.40% | 4.23% | 6.17% |
| 12/22/2009 | 10.40% | 4.23% | 6.17% |
| 12/30/2009 | 10.00% | 4.26% | 5.74% |
| 1/4/2010 | 10.80% | 4.28% | 6.52% |
| 1/11/2010 | 11.00% | 4.30% | 6.70% |
| 1/26/2010 | 10.13% | 4.35% | 5.78% |
| 1/27/2010 | 10.40% | 4.35% | 6.05% |
| 1/27/2010 | 10.40% | 4.35% | 6.05% |
| 1/27/2010 | 10.70% | 4.35% | 6.35% |
| 2/9/2010 | 9.80% | 4.38% | 5.42% |
| 2/18/2010 | 10.60% | 4.40% | 6.20% |
| 2/24/2010 | 10.18% | 4.41% | 5.77% |
| 3/2/2010 | 9.63% | 4.41% | 5.22% |
| 3/4/2010 | 10.50% | 4.41% | 6.09% |
| 3/5/2010 | 10.50% | 4.41% | 6.09% |
| 3/11/2010 | 11.90% | 4.42% | 7.48% |
| 3/17/2010 | 10.00% | 4.41% | 5.59% |
| 3/25/2010 | 10.15% | 4.42% | 5.73% |
| 4/2/2010 | 10.10% | 4.43% | 5.67% |
| 4/27/2010 | 10.00% | 4.46% | 5.54% |
| 4/29/2010 | 9.90% | 4.46% | 5.44% |
| 4/29/2010 | 10.06% | 4.46% | 5.60% |
| 4/29/2010 | 10.26% | 4.46% | 5.80% |
| 5/12/2010 | 10.30% | 4.45% | 5.85% |
| 5/12/2010 | 10.30% | 4.45% | 5.85% |
| 5/28/2010 | 10.10% | 4.44% | 5.66% |
| 5/28/2010 | 10.20% | 4.44% | 5.76% |
| 6/7/2010 | 10.30% | 4.44% | 5.86% |
| 6/16/2010 | 10.00% | 4.44% | 5.56% |
| 6/28/2010 | 9.67% | 4.43% | 5.24% |
| 6/28/2010 | 10.50% | 4.43% | 6.07% |
| 6/30/2010 | 9.40% | 4.43% | 4.97% |
| 7/1/2010 | 10.25% | 4.43% | 5.82% |
| 7/15/2010 | 10.53% | 4.43% | 6.10% |
| 7/15/2010 | 10.70% | 4.43% | 6.27% |
| 7/30/2010 | 10.70% | 4.41% | 6.29% |
| 8/4/2010 | 10.50% | 4.41% | 6.09% |
| 8/6/2010 | 9.83% | 4.41% | 5.42% |
| 8/25/2010 | 9.90% | 4.37% | 5.53% |
| 9/3/2010 | 10.60% | 4.35% | 6.25% |
| 9/14/2010 | 10.70% | 4.33% | 6.37% |
| 9/16/2010 | 10.00% | 4.33% | 5.67% |
| 9/16/2010 | 10.00% | 4.33% | 5.67% |
| 9/30/2010 | 9.75% | 4.29% | 5.46% |
| 10/14/2010 | 10.35% | 4.24% | 6.11% |
| 10/28/2010 | 10.70% | 4.21% | 6.49% |
| 11/2/2010 | 10.38% | 4.20% | 6.18% |
| 11/4/2010 | 10.70% | 4.20% | 6.50% |
| 11/19/2010 | 10.20% | 4.18% | 6.02% |
| 11/22/2010 | 10.00% | 4.18% | 5.82% |
| 12/1/2010 | 10.13% | 4.16% | 5.97% |
| 12/6/2010 | 9.86% | 4.15% | 5.71% |
| 12/9/2010 | 10.25% | 4.15% | 6.10% |
| 12/13/2010 | 10.70% | 4.15% | 6.55% |
| 12/14/2010 | 10.13% | 4.15% | 5.98% |
| 12/15/2010 | 10.44% | 4.15% | 6.29% |
| 12/17/2010 | 10.00% | 4.15% | 5.85% |
| 12/20/2010 | 10.60% | 4.15% | 6.45% |
| 12/21/2010 | 10.30% | 4.14% | 6.16% |
| 12/27/2010 | 9.90% | 4.14% | 5.76% |
| 12/29/2010 | 11.15% | 4.14% | 7.01% |
| 1/5/2011 | 10.15% | 4.13% | 6.02% |
| 1/12/2011 | 10.30% | 4.12% | 6.18% |
| 1/13/2011 | 10.30% | 4.12% | 6.18% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 1/18/2011 | 10.00% | 4.12% | 5.88% |
| 1/20/2011 | 9.30% | 4.12% | 5.18% |
| 1/20/2011 | 10.13% | 4.12% | 6.01% |
| 1/31/2011 | 9.60% | 4.12% | 5.48% |
| 2/3/2011 | 10.00% | 4.12% | 5.88% |
| 2/25/2011 | 10.00% | 4.14% | 5.86% |
| 3/25/2011 | 9.80% | 4.18% | 5.62% |
| 3/30/2011 | 10.00% | 4.18% | 5.82% |
| 4/12/2011 | 10.00% | 4.21% | 5.79% |
| 4/25/2011 | 10.74% | 4.23% | 6.51% |
| 4/26/2011 | 9.67% | 4.23% | 5.44% |
| 4/27/2011 | 10.40% | 4.24% | 6.16% |
| 5/4/2011 | 10.00% | 4.24% | 5.76% |
| 5/4/2011 | 10.00% | 4.24% | 5.76% |
| 5/24/2011 | 10.50% | 4.27% | 6.23% |
| 6/8/2011 | 10.75% | 4.30% | 6.45% |
| 6/16/2011 | 9.20% | 4.32% | 4.88% |
| 6/17/2011 | 9.95% | 4.32% | 5.63% |
| 7/13/2011 | 10.20% | 4.36% | 5.84% |
| 8/1/2011 | 9.20% | 4.39% | 4.81% |
| 8/8/2011 | 10.00% | 4.38% | 5.62% |
| 8/11/2011 | 10.00% | 4.38% | 5.62% |
| 8/12/2011 | 10.35% | 4.37% | 5.98% |
| 8/19/2011 | 10.25% | 4.36% | 5.89% |
| 9/2/2011 | 12.88% | 4.32% | 8.56% |
| 9/22/2011 | 10.00% | 4.24% | 5.76% |
| 10/12/2011 | 10.30% | 4.14% | 6.16% |
| 10/20/2011 | 10.50% | 4.10% | 6.40% |
| 11/30/2011 | 10.90% | 3.87% | 7.03% |
| 11/30/2011 | 10.90% | 3.87% | 7.03% |
| 12/14/2011 | 10.00% | 3.80% | 6.20% |
| 12/14/2011 | 10.30% | 3.80% | 6.50% |
| 12/20/2011 | 10.20% | 3.76% | 6.44% |
| 12/21/2011 | 10.20% | 3.76% | 6.44% |
| 12/22/2011 | 9.90% | 3.75% | 6.15% |
| 12/22/2011 | 10.40% | 3.75% | 6.65% |
| 12/23/2011 | 10.19% | 3.74% | 6.45% |
| 1/25/2012 | 10.50% | 3.57% | 6.93% |
| 1/27/2012 | 10.50% | 3.56% | 6.94% |
| 2/15/2012 | 10.20% | 3.47% | 6.73% |
| 2/23/2012 | 9.90% | 3.44% | 6.46% |
| 2/27/2012 | 10.25% | 3.43% | 6.82% |
| 2/29/2012 | 10.40% | 3.41% | 6.99% |
| 3/29/2012 | 10.37% | 3.32% | 7.05% |
| 4/4/2012 | 10.00% | 3.30% | 6.70% |
| 4/26/2012 | 10.00% | 3.21% | 6.79% |
| 5/2/2012 | 10.00% | 3.18% | 6.82% |
| 5/7/2012 | 9.80% | 3.17% | 6.63% |
| 5/15/2012 | 10.00% | 3.14% | 6.86% |
| 5/29/2012 | 10.05% | 3.11% | 6.94% |
| 6/7/2012 | 10.30% | 3.08% | 7.22% |
| 6/14/2012 | 9.40% | 3.06% | 6.34% |
| 6/15/2012 | 10.40% | 3.06% | 7.34% |
| 6/18/2012 | 9.60% | 3.06% | 6.54% |
| 6/19/2012 | 9.25% | 3.05% | 6.20% |
| 6/26/2012 | 10.10% | 3.04% | 7.06% |
| 6/29/2012 | 10.00% | 3.04% | 6.96% |
| 7/9/2012 | 10.20% | 3.03% | 7.17% |
| 7/16/2012 | 9.80% | 3.02% | 6.78% |
| 7/20/2012 | 9.31% | 3.01% | 6.30% |
| 7/20/2012 | 9.81% | 3.01% | 6.80% |
| 9/13/2012 | 9.80% | 2.94% | 6.86% |
| 9/19/2012 | 9.80% | 2.94% | 6.86% |
| 9/19/2012 | 10.05% | 2.94% | 7.11% |
| 9/26/2012 | 9.50% | 2.94% | 6.56% |
| 10/12/2012 | 9.60% | 2.93% | 6.67% |
| 10/23/2012 | 9.75% | 2.93% | 6.82% |
| 10/24/2012 | 10.30% | 2.93% | 7.37% |
| 11/9/2012 | 10.30% | 2.92% | 7.38% |
| 11/28/2012 | 10.40% | 2.90% | 7.50% |
| 11/29/2012 | 9.75% | 2.89% | 6.86% |
| 11/29/2012 | 9.88% | 2.89% | 6.99% |
| 12/5/2012 | 9.71% | 2.89% | 6.82% |
| 12/5/2012 | 10.40% | 2.89% | 7.51% |
| 12/12/2012 | 9.80% | 2.88% | 6.92% |
| 12/13/2012 | 9.50% | 2.88% | 6.62% |
| 12/13/2012 | 10.50% | 2.88% | 7.62% |
| 12/14/2012 | 10.40% | 2.88% | 7.52% |
| 12/19/2012 | 9.71% | 2.87% | 6.84% |
| 12/19/2012 | 10.25% | 2.87% | 7.38% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 12/20/2012 | 9.50% | 2.87% | 6.63% |
| 12/20/2012 | 9.80% | 2.87% | 6.93% |
| 12/20/2012 | 10.25% | 2.87% | 7.38% |
| 12/20/2012 | 10.25% | 2.87% | 7.38% |
| 12/20/2012 | 10.30% | 2.87% | 7.43% |
| 12/20/2012 | 10.40% | 2.87% | 7.53% |
| 12/20/2012 | 10.45% | 2.87% | 7.58% |
| 12/21/2012 | 10.20% | 2.87% | 7.33% |
| 12/26/2012 | 9.80% | 2.86% | 6.94% |
| 1/9/2013 | 9.70% | 2.85% | 6.85% |
| 1/9/2013 | 9.70% | 2.85% | 6.85% |
| 1/9/2013 | 9.70% | 2.85% | 6.85% |
| 1/16/2013 | 9.60% | 2.84% | 6.76% |
| 1/16/2013 | 9.60% | 2.84% | 6.76% |
| 2/13/2013 | 10.20% | 2.84% | 7.36% |
| 2/22/2013 | 9.75% | 2.85% | 6.90% |
| 2/27/2013 | 10.00% | 2.86% | 7.14% |
| 3/14/2013 | 9.30% | 2.88% | 6.42% |
| 3/27/2013 | 9.80% | 2.90% | 6.90% |
| 5/1/2013 | 9.84% | 2.94% | 6.90% |
| 5/15/2013 | 10.30% | 2.96% | 7.34% |
| 5/30/2013 | 10.20% | 2.98% | 7.22% |
| 5/31/2013 | 9.00% | 2.98% | 6.02% |
| 6/11/2013 | 10.00% | 3.00% | 7.00% |
| 6/21/2013 | 9.75% | 3.02% | 6.73% |
| 6/25/2013 | 9.80% | 3.03% | 6.77% |
| 7/12/2013 | 9.36% | 3.07% | 6.29% |
| 8/8/2013 | 9.83% | 3.14% | 6.69% |
| 8/14/2013 | 9.15% | 3.16% | 5.99% |
| 9/11/2013 | 10.20% | 3.26% | 6.94% |
| 9/11/2013 | 10.25% | 3.26% | 6.99% |
| 9/24/2013 | 10.20% | 3.31% | 6.89% |
| 10/3/2013 | 9.65% | 3.33% | 6.32% |
| 11/6/2013 | 10.20% | 3.41% | 6.79% |
| 11/21/2013 | 10.00% | 3.44% | 6.56% |
| 11/26/2013 | 10.00% | 3.45% | 6.55% |
| 12/3/2013 | 10.25% | 3.47% | 6.78% |
| 12/4/2013 | 9.50% | 3.47% | 6.03% |
| 12/5/2013 | 10.20% | 3.48% | 6.72% |
| 12/9/2013 | 8.72% | 3.48% | 5.24% |
| 12/9/2013 | 9.75% | 3.48% | 6.27% |
| 12/13/2013 | 9.75% | 3.50% | 6.25% |
| 12/16/2013 | 9.95% | 3.50% | 6.45% |
| 12/16/2013 | 9.95% | 3.50% | 6.45% |
| 12/16/2013 | 10.12% | 3.50% | 6.62% |
| 12/17/2013 | 9.50% | 3.51% | 5.99% |
| 12/17/2013 | 10.95% | 3.51% | 7.44% |
| 12/18/2013 | 8.72% | 3.51% | 5.21% |
| 12/18/2013 | 9.80% | 3.51% | 6.29% |
| 12/19/2013 | 10.15% | 3.51% | 6.64% |
| 12/30/2013 | 9.50% | 3.54% | 5.96% |
| 2/20/2014 | 9.20% | 3.68% | 5.52% |
| 2/26/2014 | 9.75% | 3.69% | 6.06% |
| 3/17/2014 | 9.55% | 3.72% | 5.83% |
| 3/26/2014 | 9.40% | 3.73% | 5.67% |
| 3/26/2014 | 9.96% | 3.73% | 6.23% |
| 4/2/2014 | 9.70% | 3.73% | 5.97% |
| 5/16/2014 | 9.80% | 3.70% | 6.10% |
| 5/30/2014 | 9.70% | 3.68% | 6.02% |
| 6/6/2014 | 10.40% | 3.67% | 6.73% |
| 6/30/2014 | 9.55% | 3.64% | 5.91% |
| 7/2/2014 | 9.62% | 3.64% | 5.98% |
| 7/10/2014 | 9.95% | 3.63% | 6.32% |
| 7/23/2014 | 9.75% | 3.61% | 6.14% |
| 7/29/2014 | 9.45% | 3.60% | 5.85% |
| 7/31/2014 | 9.90% | 3.60% | 6.30% |
| 8/20/2014 | 9.75% | 3.57% | 6.18% |
| 8/25/2014 | 9.60% | 3.56% | 6.04% |
| 8/29/2014 | 9.80% | 3.54% | 6.26% |
| 9/11/2014 | 9.60% | 3.51% | 6.09% |
| 9/15/2014 | 10.25% | 3.51% | 6.74% |
| 10/9/2014 | 9.80% | 3.45% | 6.35% |
| 11/6/2014 | 9.56% | 3.37% | 6.19% |
| 11/6/2014 | 10.20% | 3.37% | 6.83% |
| 11/14/2014 | 10.20% | 3.35% | 6.85% |
| 11/26/2014 | 9.70% | 3.33% | 6.37% |
| 11/26/2014 | 10.20% | 3.33% | 6.87% |
| 12/4/2014 | 9.68% | 3.31% | 6.37% |
| 12/10/2014 | 9.25% | 3.29% | 5.96% |
| 12/10/2014 | 9.25% | 3.29% | 5.96% |

Bond Yield Plus Risk Premium

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] 30-Year Treasury Yield | [9] Risk Premium |
|---|---|---|---|
| 12/11/2014 | 10.07% | 3.29% | 6.78% |
| 12/12/2014 | 10.20% | 3.28% | 6.92% |
| 12/17/2014 | 9.17% | 3.27% | 5.90% |
| 12/18/2014 | 9.83% | 3.26% | 6.57% |
| 1/23/2015 | 9.50% | 3.14% | 6.36% |
| 2/24/2015 | 9.83% | 3.04% | 6.79% |
| 3/18/2015 | 9.75% | 2.98% | 6.77% |
| 3/25/2015 | 9.50% | 2.96% | 6.54% |
| 3/26/2015 | 9.72% | 2.95% | 6.77% |
| 4/23/2015 | 10.20% | 2.87% | 7.33% |
| 4/29/2015 | 9.53% | 2.86% | 6.67% |
| 5/1/2015 | 9.60% | 2.85% | 6.75% |
| 5/26/2015 | 9.75% | 2.83% | 6.92% |
| 6/17/2015 | 9.00% | 2.82% | 6.18% |
| 6/17/2015 | 9.00% | 2.82% | 6.18% |
| 9/2/2015 | 9.50% | 2.79% | 6.71% |
| 9/10/2015 | 9.30% | 2.79% | 6.51% |
| 10/15/2015 | 9.00% | 2.81% | 6.19% |
| 11/19/2015 | 10.00% | 2.88% | 7.12% |
| 11/19/2015 | 10.30% | 2.88% | 7.42% |
| 12/3/2015 | 10.00% | 2.90% | 7.10% |
| 12/9/2015 | 9.14% | 2.90% | 6.24% |
| 12/9/2015 | 9.14% | 2.90% | 6.24% |
| 12/11/2015 | 10.30% | 2.90% | 7.40% |
| 12/15/2015 | 9.60% | 2.91% | 6.69% |
| 12/17/2015 | 9.70% | 2.91% | 6.79% |
| 12/18/2015 | 9.50% | 2.91% | 6.59% |
| 12/30/2015 | 9.50% | 2.93% | 6.57% |
| 1/6/2016 | 9.50% | 2.94% | 6.56% |
| 2/23/2016 | 9.75% | 2.94% | 6.81% |
| 3/16/2016 | 9.85% | 2.91% | 6.94% |
| 4/29/2016 | 9.80% | 2.83% | 6.97% |
| 6/3/2016 | 9.75% | 2.80% | 6.95% |
| 6/8/2016 | 9.48% | 2.80% | 6.68% |
| 6/15/2016 | 9.00% | 2.79% | 6.21% |
| 6/15/2016 | 9.00% | 2.79% | 6.21% |
| | | # of Cases: | 1,475 |
| | | Average: | 4.51% |

Value Line 3-5 Year Projections
Current and Projected Price/Earnings Ratios

| Company | Ticker | Current P/E | 3-5 Yr Proj. P/E |
|---|---|---|---|
| Alliant Energy Corporation | LNT | 20.80 | 15.00 |
| Ameren Corporation | AEE | 19.80 | 14.00 |
| American Electric Power Company, Inc. | AEP | 17.80 | 14.50 |
| Black Hills Corporation | BKH | 23.50 | 15.00 |
| CMS Energy Corporation | CMS | 21.30 | 14.00 |
| DTE Energy Company | DTE | 19.50 | 13.50 |
| Entergy Corporation | ETR | 15.40 | 13.00 |
| Northwestern Corporation | NWE | 21.20 | 13.50 |
| OGE Energy Corp. | OGE | 17.80 | 17.00 |
| Pinnacle West Capital Corporation | PNW | 18.60 | 14.50 |
| PNM Resources, Inc. | PNM | 20.40 | 16.00 |
| Portland General Electric Company | POR | 18.30 | 13.00 |
| Xcel Energy Inc. | XEL | 18.80 | 14.50 |
| | Mean: | 19.48 | 14.42 |
| | Count of projected declines: | | 13.00 |

Notes:
Source: Value Line as of June 30, 2016

Reported Authorized Returns on Equity for Vertically Integrated Electric Utilities
Twelve Months Ending June 30, 2016

| State | Docket | Utility | Authorized ROE | Decision Date |
|---|---|---|---|---|
| Missouri | C-ER-2014-0370 | Kansas City Power & Light | 9.50% | 9/2/2015 |
| Kansas | D-15-KCPE-116-RTS | Kansas City Power & Light | 9.30% | 9/10/2015 |
| Michigan | C-U-17735 | Consumers Energy Co. | 10.30% | 11/19/2015 |
| Wisconsin | D-6690-UR-124 (Elec) | Wisconsin Public Service Corp. | 10.00% | 11/19/2015 |
| Wisconsin | D-4220-UR-121 (Elec) | Northern States Power Co - WI | 10.00% | 12/3/2015 |
| Michigan | C-U-17767 | DTE Electric Co. | 10.30% | 12/11/2015 |
| Oregon | D-UE-294 | Portland General Electric Co. | 9.60% | 12/15/2015 |
| Texas | D-43695 | Southwestern Public Service Co | 9.70% | 12/17/2015 |
| Idaho | C-AVU-E-15-05 | Avista Corp. | 9.50% | 12/18/2015 |
| Wyoming | D-20000-469-ER-15 | PacifiCorp | 9.50% | 12/30/2015 |
| Washington | D-UE-150204 | Avista Corp. | 9.50% | 1/6/2016 |
| Arkansas | D-15-015-U | Entergy Arkansas Inc. | 9.75% | 2/23/2016 |
| Indiana | Ca-44576 | Indianapolis Power & Light Co. | 9.85% | 3/16/2016 |
| New Mexico | C-15-00127-UT | El Paso Electric Co. | 9.48% | 6/8/2016 |
| Indiana | Ca-44688 | Northern IN Public Svc Co. | 9.98% | 7/18/2016 |

| | |
|---|---|
| Mean: | 9.75% |
| Median: | 9.70% |
| Minimum: | 9.30% |
| Maximum: | 10.30% |

Source: SNL: Regulatory Research Associates

S&P 500 Earnings Per Share Growth /
Nominal GDP Growth

| | [1] | [2] | [3] | [4] | [5] |
|---|---|---|---|---|---|
| Year | S&P 500 Index | S&P 500 EPS | S&P 500 EPS Growth | Nominal GDP | Nominal GDP Growth |
| 1968 | 106.50 | 5.76 | - | 942.5 | - |
| 1969 | 91.11 | 5.78 | 0.35% | 1,019.9 | 8.21% |
| 1970 | 90.05 | 5.13 | -11.25% | 1,075.9 | 5.49% |
| 1971 | 99.17 | 5.70 | 11.11% | 1,167.8 | 8.54% |
| 1972 | 117.50 | 6.42 | 12.63% | 1,282.4 | 9.81% |
| 1973 | 94.78 | 8.16 | 27.10% | 1,428.5 | 11.39% |
| 1974 | 67.07 | 8.89 | 8.95% | 1,548.8 | 8.42% |
| 1975 | 88.70 | 7.96 | -10.46% | 1,688.9 | 9.05% |
| 1976 | 104.70 | 9.91 | 24.50% | 1,877.6 | 11.17% |
| 1977 | 93.82 | 10.89 | 9.89% | 2,086.0 | 11.10% |
| 1978 | 96.11 | 12.33 | 13.22% | 2,356.6 | 12.97% |
| 1979 | 107.80 | 14.86 | 20.52% | 2,632.1 | 11.69% |
| 1980 | 133.50 | 14.82 | -0.27% | 2,862.5 | 8.75% |
| 1981 | 123.80 | 15.36 | 3.64% | 3,211.0 | 12.17% |
| 1982 | 139.40 | 12.64 | -17.71% | 3,345.0 | 4.17% |
| 1983 | 164.40 | 14.03 | 11.00% | 3,638.1 | 8.76% |
| 1984 | 164.50 | 16.64 | 18.60% | 4,040.7 | 11.07% |
| 1985 | 207.30 | 14.61 | -12.20% | 4,346.7 | 7.57% |
| 1986 | 248.60 | 14.48 | -0.89% | 4,590.2 | 5.60% |
| 1987 | 241.00 | 17.50 | 20.86% | 4,870.2 | 6.10% |
| 1988 | 276.50 | 23.76 | 35.77% | 5,252.6 | 7.85% |
| 1989 | 348.60 | 22.90 | -3.62% | 5,657.7 | 7.71% |
| 1990 | 328.75 | 21.34 | -6.81% | 5,979.6 | 5.69% |
| 1991 | 388.51 | 15.97 | -25.16% | 6,174.0 | 3.25% |
| 1992 | 435.64 | 19.09 | 19.54% | 6,539.3 | 5.92% |
| 1993 | 465.95 | 21.88 | 14.61% | 6,878.7 | 5.19% |
| 1994 | 455.19 | 30.60 | 39.85% | 7,308.8 | 6.25% |
| 1995 | 614.57 | 33.96 | 10.98% | 7,664.1 | 4.86% |
| 1996 | 743.25 | 38.73 | 14.05% | 8,100.2 | 5.69% |
| 1997 | 962.37 | 39.72 | 2.56% | 8,608.5 | 6.28% |
| 1998 | 1,190.05 | 37.71 | -5.06% | 9,089.2 | 5.58% |
| 1999 | 1,428.68 | 48.17 | 27.74% | 9,660.6 | 6.29% |
| 2000 | 1,330.93 | 50.00 | 3.80% | 10,284.8 | 6.46% |
| 2001 | 1,144.93 | 24.69 | -50.62% | 10,621.8 | 3.28% |
| 2002 | 899.18 | 27.59 | 11.75% | 10,977.5 | 3.35% |
| 2003 | 1,080.64 | 48.74 | 76.66% | 11,510.7 | 4.86% |
| 2004 | 1,199.21 | 58.55 | 20.13% | 12,274.9 | 6.64% |
| 2005 | 1,262.07 | 69.93 | 19.44% | 13,093.7 | 6.67% |
| 2006 | 1,416.42 | 81.51 | 16.56% | 13,855.9 | 5.82% |
| 2007 | 1,479.22 | 66.18 | -18.81% | 14,477.6 | 4.49% |
| 2008 | 877.56 | 14.88 | -77.52% | 14,718.6 | 1.66% |
| 2009 | 1,110.38 | 50.97 | 242.54% | 14,418.7 | -2.04% |
| 2010 | 1,241.53 | 77.35 | 51.76% | 14,964.4 | 3.78% |
| 2011 | 1,243.32 | 86.95 | 12.41% | 15,517.9 | 3.70% |
| 2012 | 1,422.29 | 86.51 | -0.51% | 16,155.3 | 4.11% |
| 2013 | 1,807.78 | 100.20 | 15.82% | 16,663.2 | 3.14% |
| 2014 | 2,054.27 | 102.31 | 18.26% | 17,348.1 | 7.38% |
| 2015 | 2,054.08 | 86.53 | -13.64% | 17,947.0 | 7.70% |
| **CAGR** | | **5.93%** | | **6.47%** | |

Notes:
[1] Source: http://www.econ.yale.edu/~shiller/data.htm
[2] Source: http://www.econ.yale.edu/~shiller/data.htm
[3] Equals annual percent change of Column [2]
[4] Source: Bureau of Economic Analysis, Current-Dollar and Real GDP (June 28, 2016 release)
[5] Equals annual percent change of Column [4]

**Re-creation of Staff Revenue Requirement Cost of Service Report, Schedule 12**
**Multi-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity**
**for the Comparable Electric Utility Companies**
**Long-Term Growth at 50.00 Percent of Staff's Estimate of Gross Domestic Product**

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| Company Name | Annualized Quarterly Dividend | Growth Years 1-5 | Growth Years 6 | 7 | 8 | 9 | 10 | Growth in Perpetuity | Cost of Equity |
| Alliant Energy | $1.18 | 7.15% | 6.33% | 5.50% | 4.68% | 3.85% | 3.03% | 2.20% | 6.64% |
| Ameren Corp. | $1.70 | 6.95% | 6.16% | 5.37% | 4.58% | 3.78% | 2.99% | 2.20% | 6.96% |
| American Electric Power | $2.24 | 3.91% | 3.63% | 3.34% | 3.06% | 2.77% | 2.49% | 2.20% | 6.10% |
| Black Hills Corporation | $1.68 | 6.48% | 5.77% | 5.05% | 4.34% | 3.63% | 2.91% | 2.20% | 5.95% |
| CMS Energy Corp. | $1.24 | 6.27% | 5.59% | 4.91% | 4.24% | 3.56% | 2.88% | 2.20% | 6.12% |
| DTE Energy Company | $2.92 | 5.22% | 4.72% | 4.21% | 3.71% | 3.21% | 2.70% | 2.20% | 6.19% |
| Entergy Corporation | $3.40 | 0.47% | 0.76% | 1.05% | 1.34% | 1.62% | 1.91% | 2.20% | 6.25% |
| NorthWestern Corporation | $2.00 | 5.00% | 4.53% | 4.07% | 3.60% | 3.13% | 2.67% | 2.20% | 6.33% |
| OGE Energy Corp. | $1.10 | 4.00% | 3.70% | 3.40% | 3.10% | 2.80% | 2.50% | 2.20% | 6.41% |
| Pinnacle West Capital | $2.50 | 4.20% | 3.87% | 3.53% | 3.20% | 2.87% | 2.53% | 2.20% | 6.10% |
| PNM Resources, Inc. | $0.88 | 6.95% | 6.16% | 5.37% | 4.58% | 3.78% | 2.99% | 2.20% | 5.91% |
| Portland General Electric | $1.28 | 6.15% | 5.49% | 4.83% | 4.18% | 3.52% | 2.86% | 2.20% | 6.32% |
| Xcel Energy | $1.36 | 5.00% | 4.53% | 4.07% | 3.60% | 3.13% | 2.67% | 2.20% | 6.22% |
| | | | | | | | | **Mean:** | **6.27%** |

Sources: Columns 1 - 7 = Staff Revenue Requirement Cost of Service Report, Schedule 12.
Column 8 = 50.00% of Staff's 4.40% GDP estimate (see Revenue Requirement Cost of Service Report, at 42.)

**Re-creation of Staff Revenue Requirement Cost of Service Report, Schedule 12**
**Multi-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity**
**for the Comparable Electric Utility Companies**
**Long-Term Growth at Staff's 2.00 Percent Estimate of Inflation**

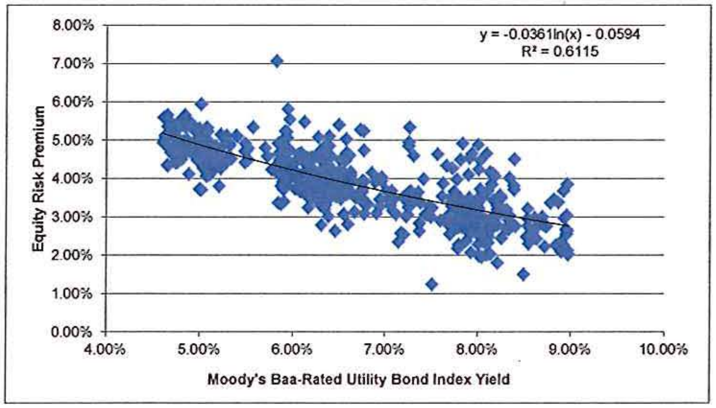
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| Company Name | Annualized Quarterly Dividend | Growth Years 1-5 | Growth Years 6 | 7 | 8 | 9 | 10 | Growth in Perpetuity | Cost of Equity |
| Alliant Energy | $1.18 | 7.15% | 6.29% | 5.43% | 4.58% | 3.72% | 2.86% | 2.00% | 6.49% |
| Ameren Corp. | $1.70 | 6.95% | 6.13% | 5.30% | 4.48% | 3.65% | 2.83% | 2.00% | 6.81% |
| American Electric Power | $2.24 | 3.91% | 3.59% | 3.27% | 2.96% | 2.64% | 2.32% | 2.00% | 5.95% |
| Black Hills Corporation | $1.68 | 6.48% | 5.73% | 4.99% | 4.24% | 3.49% | 2.75% | 2.00% | 5.79% |
| CMS Energy Corp. | $1.24 | 6.27% | 5.56% | 4.85% | 4.14% | 3.42% | 2.71% | 2.00% | 5.96% |
| DTE Energy Company | $2.92 | 5.22% | 4.68% | 4.15% | 3.61% | 3.07% | 2.54% | 2.00% | 6.03% |
| Entergy Corporation | $3.40 | 0.47% | 0.73% | 0.98% | 1.24% | 1.49% | 1.75% | 2.00% | 6.09% |
| NorthWestern Corporation | $2.00 | 5.00% | 4.50% | 4.00% | 3.50% | 3.00% | 2.50% | 2.00% | 6.17% |
| OGE Energy Corp. | $1.10 | 4.00% | 3.67% | 3.33% | 3.00% | 2.67% | 2.33% | 2.00% | 6.26% |
| Pinnacle West Capital | $2.50 | 4.20% | 3.83% | 3.47% | 3.10% | 2.73% | 2.37% | 2.00% | 5.94% |
| PNM Resources, Inc. | $0.88 | 6.95% | 6.13% | 5.30% | 4.48% | 3.65% | 2.83% | 2.00% | 5.75% |
| Portland General Electric | $1.28 | 6.15% | 5.46% | 4.77% | 4.08% | 3.38% | 2.69% | 2.00% | 6.17% |
| Xcel Energy | $1.36 | 5.00% | 4.50% | 4.00% | 3.50% | 3.00% | 2.50% | 2.00% | 6.06% |
| | | | | | | | | **Mean:** | **6.11%** |

Sources: Columns 1 - 7 = Staff Revenue Requirement Cost of Service Report, Schedule 12.
Column 8 = Staff's 2.00% inflation estimate (see Revenue Requirement Cost of Service Report, at 42.)

Moody's Utility Baa Bond Yield Plus Risk Premium

| | [1] | [2] | [3] | [4] | [5] |
|---|---|---|---|---|---|
| | Constant | Slope | Moody's Utility Baa Yield | Risk Premium | Return on Equity |
| Staff's Moody's Utility Baa Yield | -5.94% | -3.61% | 4.61% | 5.17% | 9.78% |

Notes:
[1] Constant of regression equation
[2] Slope of regression equation
[3] Source: Staff Cost of Service Report, at 46
[4] Equals [1] + [2] x ln([3])
[5] Equals [3] + [4]
[6] Source: SNL Financial
[7] Source: SNL Financial
[8] Source: Bloomberg Professional; Note, Moody's Baa Index Yield data is only available back to 1992
Equals 210-trading day average (i.e. lag period) as of June 30, 2016
[9] Equals [7] - [8]




| [6] Date of Electric Rate Case | [7] Return on Equity | [8] Moody's Utility Baa Yield | [9] Risk Premium |
|---|---|---|---|
| 11/2/1993 | 10.80% | 7.93% | 2.87% |
| 11/12/1993 | 12.00% | 7.90% | 4.10% |
| 11/26/1993 | 11.00% | 7.87% | 3.13% |
| 12/14/1993 | 10.55% | 7.82% | 2.73% |
| 12/16/1993 | 10.60% | 7.82% | 2.78% |
| 12/21/1993 | 11.30% | 7.81% | 3.49% |
| 1/4/1994 | 10.07% | 7.80% | 2.27% |
| 1/13/1994 | 11.00% | 7.78% | 3.22% |
| 1/21/1994 | 11.00% | 7.77% | 3.23% |
| 1/28/1994 | 11.35% | 7.76% | 3.59% |
| 2/3/1994 | 11.40% | 7.75% | 3.65% |
| 2/17/1994 | 10.60% | 7.73% | 2.87% |
| 2/25/1994 | 11.25% | 7.73% | 3.52% |
| 2/25/1994 | 12.00% | 7.73% | 4.27% |
| 3/1/1994 | 11.00% | 7.72% | 3.28% |
| 3/4/1994 | 11.00% | 7.72% | 3.28% |
| 4/25/1994 | 11.00% | 7.75% | 3.25% |
| 5/10/1994 | 11.75% | 7.78% | 3.97% |
| 5/13/1994 | 10.50% | 7.79% | 2.71% |
| 6/3/1994 | 11.00% | 7.83% | 3.17% |
| 6/27/1994 | 11.40% | 7.91% | 3.49% |
| 8/5/1994 | 12.75% | 8.10% | 4.65% |
| 10/31/1994 | 10.00% | 8.50% | 1.50% |
| 11/9/1994 | 10.85% | 8.55% | 2.30% |
| 11/9/1994 | 10.85% | 8.55% | 2.30% |
| 11/18/1994 | 11.20% | 8.60% | 2.60% |
| 11/22/1994 | 11.60% | 8.62% | 2.98% |
| 11/28/1994 | 11.06% | 8.64% | 2.42% |
| 12/8/1994 | 11.70% | 8.70% | 3.00% |
| 12/8/1994 | 11.50% | 8.70% | 2.80% |
| 12/14/1994 | 10.95% | 8.73% | 2.22% |
| 12/15/1994 | 11.50% | 8.73% | 2.77% |
| 12/19/1994 | 11.50% | 8.75% | 2.75% |

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] Moody's Utility Baa Yield | [9] Risk Premium |
|---|---|---|---|
| 11/2/1993 | 10.80% | 7.93% | 2.87% |
| 12/28/1994 | 12.15% | 8.79% | 3.36% |
| 1/9/1995 | 12.28% | 8.83% | 3.45% |
| 1/31/1995 | 11.00% | 8.90% | 2.10% |
| 2/10/1995 | 12.60% | 8.93% | 3.67% |
| 2/17/1995 | 11.90% | 8.94% | 2.96% |
| 3/9/1995 | 11.50% | 8.96% | 2.54% |
| 3/20/1995 | 12.00% | 8.96% | 3.04% |
| 3/23/1995 | 12.81% | 8.97% | 3.84% |
| 3/29/1995 | 11.60% | 8.97% | 2.63% |
| 4/6/1995 | 11.10% | 8.97% | 2.13% |
| 4/7/1995 | 11.00% | 8.97% | 2.03% |
| 4/19/1995 | 11.00% | 8.98% | 2.02% |
| 5/12/1995 | 11.63% | 8.96% | 2.67% |
| 5/25/1995 | 11.20% | 8.93% | 2.27% |
| 6/9/1995 | 11.25% | 8.90% | 2.35% |
| 6/21/1995 | 12.25% | 8.87% | 3.38% |
| 6/30/1995 | 11.10% | 8.85% | 2.25% |
| 9/11/1995 | 11.30% | 8.62% | 2.68% |
| 9/27/1995 | 11.50% | 8.54% | 2.96% |
| 9/27/1995 | 11.75% | 8.54% | 3.21% |
| 9/27/1995 | 11.30% | 8.54% | 2.76% |
| 9/29/1995 | 11.00% | 8.53% | 2.47% |
| 11/9/1995 | 12.36% | 8.34% | 4.02% |
| 11/9/1995 | 11.38% | 8.34% | 3.04% |
| 11/17/1995 | 11.00% | 8.30% | 2.70% |
| 12/4/1995 | 11.35% | 8.25% | 3.10% |
| 12/11/1995 | 11.40% | 8.21% | 3.19% |
| 12/20/1995 | 11.60% | 8.17% | 3.43% |
| 12/27/1995 | 12.00% | 8.15% | 3.85% |
| 2/5/1996 | 12.25% | 8.01% | 4.24% |
| 3/29/1996 | 10.67% | 7.92% | 2.75% |
| 4/8/1996 | 11.00% | 7.93% | 3.07% |
| 4/11/1996 | 12.59% | 7.94% | 4.65% |
| 4/11/1996 | 12.59% | 7.94% | 4.65% |
| 4/24/1996 | 11.25% | 7.95% | 3.30% |
| 4/30/1996 | 11.00% | 7.95% | 3.05% |
| 5/13/1996 | 11.00% | 7.98% | 3.02% |
| 5/23/1996 | 11.25% | 7.99% | 3.26% |
| 6/25/1996 | 11.25% | 8.01% | 3.24% |
| 6/27/1996 | 11.20% | 8.01% | 3.19% |
| 8/12/1996 | 10.40% | 8.07% | 2.33% |
| 9/27/1996 | 11.00% | 8.16% | 2.84% |
| 10/16/1996 | 12.25% | 8.19% | 4.06% |
| 11/5/1996 | 11.00% | 8.22% | 2.78% |
| 11/26/1996 | 11.30% | 8.23% | 3.07% |
| 12/18/1996 | 11.75% | 8.25% | 3.50% |
| 12/31/1996 | 11.50% | 8.26% | 3.24% |
| 1/3/1997 | 10.70% | 8.26% | 2.44% |
| 2/13/1997 | 11.80% | 8.25% | 3.55% |
| 2/20/1997 | 11.80% | 8.24% | 3.56% |
| 3/31/1997 | 10.02% | 8.22% | 1.80% |
| 4/2/1997 | 11.65% | 8.22% | 3.43% |
| 4/28/1997 | 11.50% | 8.21% | 3.29% |
| 4/29/1997 | 11.70% | 8.21% | 3.49% |
| 7/17/1997 | 12.00% | 8.15% | 3.85% |
| 12/12/1997 | 11.00% | 7.96% | 3.04% |
| 12/23/1997 | 11.12% | 7.95% | 3.17% |
| 2/2/1998 | 12.75% | 7.84% | 4.91% |
| 3/2/1998 | 11.25% | 7.74% | 3.51% |
| 3/6/1998 | 10.75% | 7.72% | 3.03% |
| 3/20/1998 | 10.50% | 7.68% | 2.82% |
| 4/30/1998 | 12.20% | 7.57% | 4.63% |
| 7/10/1998 | 11.40% | 7.42% | 3.98% |
| 9/15/1998 | 11.90% | 7.31% | 4.59% |
| 11/30/1998 | 12.60% | 7.26% | 5.34% |
| 12/10/1998 | 12.20% | 7.26% | 4.94% |
| 12/17/1998 | 12.10% | 7.26% | 4.84% |
| 2/5/1999 | 10.30% | 7.25% | 3.05% |
| 3/4/1999 | 10.50% | 7.25% | 3.25% |
| 4/6/1999 | 10.94% | 7.28% | 3.66% |
| 7/29/1999 | 10.75% | 7.51% | 3.24% |
| 9/23/1999 | 10.75% | 7.69% | 3.06% |
| 11/17/1999 | 11.10% | 7.87% | 3.23% |

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] Moody's Utility Baa Yield | [9] Risk Premium |
|---|---|---|---|
| 11/2/1993 | 10.80% | 7.93% | 2.87% |
| 1/7/2000 | 11.50% | 8.01% | 3.49% |
| 1/7/2000 | 11.50% | 8.01% | 3.49% |
| 2/17/2000 | 10.60% | 8.12% | 2.48% |
| 3/28/2000 | 11.25% | 8.21% | 3.04% |
| 5/24/2000 | 11.00% | 8.33% | 2.67% |
| 7/18/2000 | 12.20% | 8.39% | 3.81% |
| 9/29/2000 | 11.16% | 8.41% | 2.76% |
| 11/28/2000 | 12.90% | 8.39% | 4.51% |
| 11/30/2000 | 12.10% | 8.39% | 3.71% |
| 1/23/2001 | 11.25% | 8.33% | 2.92% |
| 2/8/2001 | 11.50% | 8.31% | 3.19% |
| 5/8/2001 | 10.75% | 8.13% | 2.62% |
| 6/26/2001 | 11.00% | 8.09% | 2.91% |
| 7/25/2001 | 11.02% | 8.08% | 2.94% |
| 7/25/2001 | 11.02% | 8.08% | 2.94% |
| 7/31/2001 | 11.00% | 8.07% | 2.93% |
| 8/31/2001 | 10.50% | 8.03% | 2.47% |
| 9/7/2001 | 10.75% | 8.02% | 2.73% |
| 9/10/2001 | 11.00% | 8.02% | 2.98% |
| 9/20/2001 | 10.00% | 8.02% | 1.98% |
| 10/24/2001 | 10.30% | 8.01% | 2.29% |
| 11/28/2001 | 10.60% | 8.01% | 2.59% |
| 12/3/2001 | 12.88% | 8.01% | 4.87% |
| 12/20/2001 | 12.50% | 8.03% | 4.47% |
| 1/22/2002 | 10.00% | 8.05% | 1.95% |
| 3/27/2002 | 10.10% | 8.10% | 2.00% |
| 4/22/2002 | 11.80% | 8.11% | 3.69% |
| 5/28/2002 | 10.17% | 8.14% | 2.03% |
| 6/10/2002 | 12.00% | 8.16% | 3.84% |
| 6/18/2002 | 11.16% | 8.16% | 3.00% |
| 6/20/2002 | 11.00% | 8.16% | 2.84% |
| 6/20/2002 | 12.30% | 8.16% | 4.14% |
| 7/15/2002 | 11.00% | 8.18% | 2.82% |
| 9/12/2002 | 12.30% | 8.14% | 4.16% |
| 9/26/2002 | 10.45% | 8.12% | 2.33% |
| 12/4/2002 | 11.55% | 8.05% | 3.50% |
| 12/13/2002 | 11.75% | 8.03% | 3.72% |
| 12/20/2002 | 11.40% | 8.01% | 3.39% |
| 1/8/2003 | 11.10% | 7.98% | 3.12% |
| 1/31/2003 | 12.45% | 7.91% | 4.54% |
| 2/28/2003 | 12.30% | 7.81% | 4.49% |
| 3/6/2003 | 10.75% | 7.79% | 2.96% |
| 3/7/2003 | 9.96% | 7.79% | 2.17% |
| 3/20/2003 | 12.00% | 7.73% | 4.27% |
| 4/3/2003 | 12.00% | 7.67% | 4.33% |
| 4/15/2003 | 11.15% | 7.62% | 3.53% |
| 6/25/2003 | 10.75% | 7.26% | 3.49% |
| 6/26/2003 | 10.75% | 7.25% | 3.50% |
| 7/9/2003 | 9.75% | 7.21% | 2.54% |
| 7/16/2003 | 9.75% | 7.18% | 2.57% |
| 7/25/2003 | 9.50% | 7.15% | 2.35% |
| 8/26/2003 | 10.50% | 7.07% | 3.43% |
| 12/17/2003 | 9.85% | 6.77% | 3.08% |
| 12/17/2003 | 10.70% | 6.77% | 3.93% |
| 12/18/2003 | 11.50% | 6.77% | 4.73% |
| 12/19/2003 | 12.00% | 6.77% | 5.23% |
| 12/19/2003 | 12.00% | 6.77% | 5.23% |
| 12/23/2003 | 10.50% | 6.76% | 3.74% |
| 1/13/2004 | 12.00% | 6.73% | 5.27% |
| 3/2/2004 | 10.75% | 6.62% | 4.13% |
| 3/26/2004 | 10.25% | 6.59% | 3.66% |
| 4/5/2004 | 11.25% | 6.58% | 4.67% |
| 5/18/2004 | 10.50% | 6.62% | 3.88% |
| 5/25/2004 | 10.25% | 6.62% | 3.63% |
| 5/27/2004 | 10.25% | 6.62% | 3.63% |
| 6/2/2004 | 11.22% | 6.62% | 4.60% |
| 6/30/2004 | 10.50% | 6.59% | 3.91% |
| 6/30/2004 | 10.50% | 6.59% | 3.91% |
| 7/16/2004 | 11.60% | 6.58% | 5.02% |
| 8/25/2004 | 10.25% | 6.54% | 3.71% |
| 9/9/2004 | 10.40% | 6.52% | 3.88% |
| 11/9/2004 | 10.50% | 6.43% | 4.07% |
| 11/23/2004 | 11.00% | 6.42% | 4.58% |

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] Moody's Utility Baa Yield | [9] Risk Premium |
|---|---|---|---|
| 11/2/1993 | 10.80% | 7.93% | 2.87% |
| 12/14/2004 | 10.97% | 6.41% | 4.56% |
| 12/21/2004 | 11.25% | 6.40% | 4.85% |
| 12/21/2004 | 11.50% | 6.40% | 5.10% |
| 12/22/2004 | 10.70% | 6.40% | 4.30% |
| 12/22/2004 | 11.50% | 6.40% | 5.10% |
| 12/29/2004 | 9.85% | 6.40% | 3.45% |
| 1/6/2005 | 10.70% | 6.39% | 4.31% |
| 2/18/2005 | 10.30% | 6.34% | 3.96% |
| 2/25/2005 | 10.50% | 6.33% | 4.17% |
| 3/10/2005 | 11.00% | 6.30% | 4.70% |
| 3/24/2005 | 10.30% | 6.26% | 4.04% |
| 4/4/2005 | 10.00% | 6.24% | 3.76% |
| 4/7/2005 | 10.25% | 6.23% | 4.02% |
| 5/18/2005 | 10.25% | 6.11% | 4.14% |
| 5/25/2005 | 10.75% | 6.09% | 4.66% |
| 5/26/2005 | 9.75% | 6.09% | 3.66% |
| 6/1/2005 | 9.75% | 6.07% | 3.68% |
| 7/19/2005 | 11.50% | 5.97% | 5.53% |
| 8/5/2005 | 11.75% | 5.94% | 5.81% |
| 8/15/2005 | 10.13% | 5.93% | 4.20% |
| 9/28/2005 | 10.00% | 5.88% | 4.12% |
| 10/4/2005 | 10.75% | 5.88% | 4.87% |
| 12/12/2005 | 11.00% | 5.92% | 5.08% |
| 12/13/2005 | 10.75% | 5.92% | 4.83% |
| 12/21/2005 | 10.29% | 5.93% | 4.36% |
| 12/21/2005 | 10.40% | 5.93% | 4.47% |
| 12/22/2005 | 11.15% | 5.93% | 5.22% |
| 12/22/2005 | 11.00% | 5.93% | 5.07% |
| 12/28/2005 | 10.00% | 5.94% | 4.06% |
| 12/28/2005 | 10.00% | 5.94% | 4.06% |
| 1/5/2006 | 11.00% | 5.94% | 5.06% |
| 1/27/2006 | 9.75% | 5.94% | 3.81% |
| 3/3/2006 | 10.39% | 5.96% | 4.43% |
| 4/17/2006 | 10.20% | 6.04% | 4.16% |
| 4/26/2006 | 10.60% | 6.06% | 4.54% |
| 5/17/2006 | 11.60% | 6.13% | 5.47% |
| 6/6/2006 | 10.00% | 6.17% | 3.83% |
| 6/27/2006 | 10.75% | 6.23% | 4.52% |
| 7/6/2006 | 10.20% | 6.26% | 3.94% |
| 7/24/2006 | 9.60% | 6.30% | 3.30% |
| 7/26/2006 | 10.50% | 6.31% | 4.19% |
| 7/28/2006 | 10.05% | 6.31% | 3.74% |
| 8/23/2006 | 9.55% | 6.35% | 3.20% |
| 9/1/2006 | 10.54% | 6.36% | 4.18% |
| 9/14/2006 | 10.00% | 6.36% | 3.64% |
| 10/6/2006 | 9.67% | 6.36% | 3.31% |
| 11/21/2006 | 10.08% | 6.38% | 3.70% |
| 11/21/2006 | 10.08% | 6.38% | 3.70% |
| 11/21/2006 | 10.12% | 6.38% | 3.74% |
| 12/1/2006 | 10.50% | 6.37% | 4.13% |
| 12/1/2006 | 10.25% | 6.37% | 3.88% |
| 12/7/2006 | 10.75% | 6.37% | 4.38% |
| 12/21/2006 | 10.90% | 6.36% | 4.54% |
| 12/21/2006 | 11.25% | 6.36% | 4.89% |
| 12/22/2006 | 10.25% | 6.36% | 3.89% |
| 1/5/2007 | 10.00% | 6.36% | 3.64% |
| 1/11/2007 | 10.10% | 6.36% | 3.74% |
| 1/11/2007 | 10.10% | 6.36% | 3.74% |
| 1/11/2007 | 10.90% | 6.36% | 4.54% |
| 1/12/2007 | 10.10% | 6.36% | 3.74% |
| 1/13/2007 | 10.40% | 6.36% | 4.04% |
| 1/19/2007 | 10.80% | 6.36% | 4.44% |
| 3/21/2007 | 11.35% | 6.28% | 5.07% |
| 3/22/2007 | 9.75% | 6.28% | 3.47% |
| 5/15/2007 | 10.00% | 6.20% | 3.80% |
| 5/17/2007 | 10.25% | 6.20% | 4.05% |
| 5/17/2007 | 10.25% | 6.20% | 4.05% |
| 5/22/2007 | 10.20% | 6.20% | 4.00% |
| 5/22/2007 | 10.50% | 6.20% | 4.30% |
| 5/23/2007 | 10.70% | 6.19% | 4.51% |
| 5/25/2007 | 9.67% | 6.19% | 3.48% |
| 6/15/2007 | 9.90% | 6.19% | 3.71% |
| 6/21/2007 | 10.20% | 6.20% | 4.00% |

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] Moody's Utility Baa Yield | [9] Risk Premium |
|---|---|---|---|
| 11/2/1993 | 10.80% | 7.93% | 2.87% |
| 6/22/2007 | 10.50% | 6.20% | 4.30% |
| 6/28/2007 | 10.75% | 6.20% | 4.55% |
| 7/12/2007 | 9.67% | 6.21% | 3.46% |
| 7/19/2007 | 10.00% | 6.21% | 3.79% |
| 7/19/2007 | 10.00% | 6.21% | 3.79% |
| 8/15/2007 | 10.40% | 6.24% | 4.16% |
| 10/9/2007 | 10.00% | 6.30% | 3.70% |
| 10/17/2007 | 9.10% | 6.31% | 2.79% |
| 10/31/2007 | 9.96% | 6.32% | 3.64% |
| 11/29/2007 | 10.90% | 6.33% | 4.57% |
| 12/6/2007 | 10.75% | 6.34% | 4.41% |
| 12/13/2007 | 9.96% | 6.35% | 3.62% |
| 12/14/2007 | 10.70% | 6.35% | 4.35% |
| 12/14/2007 | 10.80% | 6.35% | 4.45% |
| 12/19/2007 | 10.20% | 6.35% | 3.85% |
| 12/20/2007 | 10.20% | 6.36% | 3.84% |
| 12/20/2007 | 11.00% | 6.36% | 4.64% |
| 12/28/2007 | 10.25% | 6.37% | 3.88% |
| 12/31/2007 | 11.25% | 6.37% | 4.88% |
| 1/8/2008 | 10.75% | 6.38% | 4.37% |
| 1/17/2008 | 10.75% | 6.39% | 4.36% |
| 1/28/2008 | 9.40% | 6.39% | 3.01% |
| 1/30/2008 | 10.00% | 6.39% | 3.61% |
| 1/31/2008 | 10.71% | 6.39% | 4.32% |
| 2/29/2008 | 10.25% | 6.43% | 3.82% |
| 3/12/2008 | 10.25% | 6.45% | 3.80% |
| 3/25/2008 | 9.10% | 6.47% | 2.63% |
| 4/22/2008 | 10.25% | 6.50% | 3.75% |
| 4/24/2008 | 10.10% | 6.50% | 3.60% |
| 5/1/2008 | 10.70% | 6.50% | 4.20% |
| 5/19/2008 | 11.00% | 6.52% | 4.48% |
| 5/27/2008 | 10.00% | 6.53% | 3.47% |
| 6/10/2008 | 10.70% | 6.55% | 4.15% |
| 6/27/2008 | 11.04% | 6.57% | 4.47% |
| 6/27/2008 | 10.50% | 6.57% | 3.93% |
| 7/10/2008 | 10.43% | 6.59% | 3.84% |
| 7/16/2008 | 9.40% | 6.60% | 2.80% |
| 7/30/2008 | 10.80% | 6.63% | 4.17% |
| 7/31/2008 | 10.70% | 6.63% | 4.07% |
| 8/11/2008 | 10.25% | 6.65% | 3.60% |
| 8/26/2008 | 10.18% | 6.68% | 3.50% |
| 9/10/2008 | 10.30% | 6.71% | 3.59% |
| 9/24/2008 | 10.65% | 6.75% | 3.90% |
| 9/24/2008 | 10.65% | 6.75% | 3.90% |
| 9/24/2008 | 10.65% | 6.75% | 3.90% |
| 9/30/2008 | 10.20% | 6.78% | 3.42% |
| 10/8/2008 | 10.15% | 6.82% | 3.33% |
| 11/13/2008 | 10.55% | 7.10% | 3.45% |
| 11/17/2008 | 10.20% | 7.13% | 3.07% |
| 12/1/2008 | 10.25% | 7.23% | 3.02% |
| 12/23/2008 | 11.00% | 7.36% | 3.64% |
| 12/29/2008 | 10.00% | 7.37% | 2.63% |
| 12/29/2008 | 10.20% | 7.37% | 2.83% |
| 12/31/2008 | 10.75% | 7.38% | 3.37% |
| 1/14/2009 | 10.50% | 7.44% | 3.06% |
| 1/21/2009 | 10.50% | 7.46% | 3.04% |
| 1/21/2009 | 10.50% | 7.46% | 3.04% |
| 1/21/2009 | 10.50% | 7.46% | 3.04% |
| 1/27/2009 | 10.76% | 7.48% | 3.28% |
| 1/30/2009 | 10.50% | 7.50% | 3.00% |
| 2/4/2009 | 8.75% | 7.51% | 1.24% |
| 3/4/2009 | 10.50% | 7.60% | 2.90% |
| 3/12/2009 | 11.50% | 7.63% | 3.87% |
| 4/2/2009 | 11.10% | 7.72% | 3.38% |
| 4/21/2009 | 10.61% | 7.79% | 2.82% |
| 4/24/2009 | 10.00% | 7.80% | 2.20% |
| 4/30/2009 | 11.25% | 7.82% | 3.43% |
| 5/4/2009 | 10.74% | 7.83% | 2.91% |
| 5/20/2009 | 10.25% | 7.88% | 2.37% |
| 5/28/2009 | 10.50% | 7.90% | 2.60% |
| 6/22/2009 | 10.00% | 7.93% | 2.07% |
| 6/24/2009 | 10.80% | 7.93% | 2.87% |
| 7/8/2009 | 10.63% | 7.93% | 2.70% |

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] Moody's Utility Baa Yield | [9] Risk Premium |
|---|---|---|---|
| 11/2/1993 | 10.80% | 7.93% | 2.87% |
| 7/17/2009 | 10.50% | 7.93% | 2.57% |
| 8/31/2009 | 10.25% | 7.70% | 2.55% |
| 10/14/2009 | 10.70% | 7.31% | 3.39% |
| 10/23/2009 | 10.88% | 7.25% | 3.63% |
| 11/2/2009 | 10.70% | 7.21% | 3.49% |
| 11/3/2009 | 10.70% | 7.20% | 3.50% |
| 11/24/2009 | 10.25% | 7.09% | 3.16% |
| 11/25/2009 | 10.75% | 7.08% | 3.67% |
| 11/30/2009 | 10.35% | 7.06% | 3.29% |
| 12/3/2009 | 10.50% | 7.03% | 3.47% |
| 12/7/2009 | 10.70% | 7.02% | 3.68% |
| 12/16/2009 | 11.00% | 6.97% | 4.03% |
| 12/16/2009 | 10.90% | 6.97% | 3.93% |
| 12/18/2009 | 10.40% | 6.96% | 3.44% |
| 12/18/2009 | 10.40% | 6.96% | 3.44% |
| 12/22/2009 | 10.20% | 6.94% | 3.26% |
| 12/22/2009 | 10.40% | 6.94% | 3.46% |
| 12/22/2009 | 10.40% | 6.94% | 3.46% |
| 12/30/2009 | 10.00% | 6.91% | 3.09% |
| 1/4/2010 | 10.80% | 6.90% | 3.90% |
| 1/11/2010 | 11.00% | 6.86% | 4.14% |
| 1/26/2010 | 10.13% | 6.76% | 3.37% |
| 1/27/2010 | 10.40% | 6.75% | 3.65% |
| 1/27/2010 | 10.40% | 6.75% | 3.65% |
| 1/27/2010 | 10.70% | 6.75% | 3.95% |
| 2/9/2010 | 9.80% | 6.67% | 3.13% |
| 2/18/2010 | 10.60% | 6.62% | 3.98% |
| 2/24/2010 | 10.18% | 6.59% | 3.59% |
| 3/2/2010 | 9.63% | 6.56% | 3.07% |
| 3/4/2010 | 10.50% | 6.54% | 3.96% |
| 3/5/2010 | 10.50% | 6.53% | 3.97% |
| 3/11/2010 | 11.90% | 6.50% | 5.40% |
| 3/17/2010 | 10.00% | 6.47% | 3.53% |
| 3/25/2010 | 10.15% | 6.43% | 3.72% |
| 4/2/2010 | 10.10% | 6.39% | 3.71% |
| 4/27/2010 | 10.00% | 6.29% | 3.71% |
| 4/29/2010 | 9.90% | 6.29% | 3.61% |
| 4/29/2010 | 10.06% | 6.29% | 3.77% |
| 4/29/2010 | 10.26% | 6.29% | 3.97% |
| 5/12/2010 | 10.30% | 6.24% | 4.06% |
| 5/12/2010 | 10.30% | 6.24% | 4.06% |
| 5/28/2010 | 10.20% | 6.19% | 4.01% |
| 5/28/2010 | 10.10% | 6.19% | 3.91% |
| 6/7/2010 | 10.30% | 6.18% | 4.12% |
| 6/16/2010 | 10.00% | 6.17% | 3.83% |
| 6/28/2010 | 10.50% | 6.17% | 4.33% |
| 6/28/2010 | 9.67% | 6.17% | 3.50% |
| 6/30/2010 | 9.40% | 6.17% | 3.23% |
| 7/1/2010 | 10.25% | 6.17% | 4.08% |
| 7/15/2010 | 10.70% | 6.16% | 4.54% |
| 7/15/2010 | 10.53% | 6.16% | 4.37% |
| 7/30/2010 | 10.70% | 6.15% | 4.55% |
| 8/4/2010 | 10.50% | 6.15% | 4.35% |
| 8/6/2010 | 9.83% | 6.15% | 3.68% |
| 8/25/2010 | 9.90% | 6.11% | 3.79% |
| 9/3/2010 | 10.60% | 6.08% | 4.52% |
| 9/14/2010 | 10.70% | 6.06% | 4.64% |
| 9/16/2010 | 10.00% | 6.06% | 3.94% |
| 9/16/2010 | 10.00% | 6.06% | 3.94% |
| 9/30/2010 | 9.75% | 6.03% | 3.72% |
| 10/14/2010 | 10.35% | 6.00% | 4.35% |
| 10/28/2010 | 10.70% | 5.97% | 4.73% |
| 11/2/2010 | 10.38% | 5.96% | 4.42% |
| 11/4/2010 | 10.70% | 5.95% | 4.75% |
| 11/19/2010 | 10.20% | 5.94% | 4.26% |
| 11/22/2010 | 10.00% | 5.94% | 4.06% |
| 12/1/2010 | 10.13% | 5.93% | 4.20% |
| 12/6/2010 | 9.86% | 5.93% | 3.93% |
| 12/9/2010 | 10.25% | 5.93% | 4.32% |
| 12/13/2010 | 10.70% | 5.93% | 4.77% |
| 12/14/2010 | 10.13% | 5.93% | 4.20% |
| 12/15/2010 | 10.44% | 5.92% | 4.52% |
| 12/17/2010 | 10.00% | 5.92% | 4.08% |

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] Moody's Utility Baa Yield | [9] Risk Premium |
|---|---|---|---|
| 11/2/1993 | 10.80% | 7.93% | 2.87% |
| 12/20/2010 | 10.60% | 5.92% | 4.68% |
| 12/21/2010 | 10.30% | 5.92% | 4.38% |
| 12/27/2010 | 9.90% | 5.92% | 3.98% |
| 12/29/2010 | 11.15% | 5.92% | 5.23% |
| 1/5/2011 | 10.15% | 5.91% | 4.24% |
| 1/12/2011 | 10.30% | 5.91% | 4.39% |
| 1/13/2011 | 10.30% | 5.91% | 4.39% |
| 1/18/2011 | 10.00% | 5.90% | 4.10% |
| 1/20/2011 | 9.30% | 5.90% | 3.40% |
| 1/20/2011 | 10.13% | 5.90% | 4.23% |
| 1/31/2011 | 9.60% | 5.90% | 3.70% |
| 2/3/2011 | 10.00% | 5.89% | 4.11% |
| 2/25/2011 | 10.00% | 5.89% | 4.11% |
| 3/25/2011 | 9.80% | 5.89% | 3.91% |
| 3/30/2011 | 10.00% | 5.89% | 4.11% |
| 4/12/2011 | 10.00% | 5.88% | 4.12% |
| 4/25/2011 | 10.74% | 5.87% | 4.87% |
| 4/26/2011 | 9.67% | 5.87% | 3.80% |
| 4/27/2011 | 10.40% | 5.87% | 4.53% |
| 5/4/2011 | 10.00% | 5.86% | 4.14% |
| 5/4/2011 | 10.00% | 5.86% | 4.14% |
| 5/24/2011 | 10.50% | 5.85% | 4.65% |
| 6/8/2011 | 10.75% | 5.84% | 4.91% |
| 6/16/2011 | 9.20% | 5.84% | 3.36% |
| 6/17/2011 | 9.95% | 5.84% | 4.11% |
| 7/13/2011 | 10.20% | 5.86% | 4.34% |
| 8/1/2011 | 9.20% | 5.87% | 3.33% |
| 8/8/2011 | 10.00% | 5.86% | 4.14% |
| 8/11/2011 | 10.00% | 5.86% | 4.14% |
| 8/12/2011 | 10.35% | 5.86% | 4.49% |
| 8/19/2011 | 10.25% | 5.84% | 4.41% |
| 9/2/2011 | 12.88% | 5.82% | 7.06% |
| 9/22/2011 | 10.00% | 5.77% | 4.23% |
| 10/12/2011 | 10.30% | 5.72% | 4.58% |
| 10/20/2011 | 10.50% | 5.70% | 4.80% |
| 11/30/2011 | 10.90% | 5.57% | 5.33% |
| 11/30/2011 | 10.90% | 5.57% | 5.33% |
| 12/14/2011 | 10.00% | 5.52% | 4.48% |
| 12/14/2011 | 10.30% | 5.52% | 4.78% |
| 12/20/2011 | 10.20% | 5.50% | 4.70% |
| 12/21/2011 | 10.20% | 5.49% | 4.71% |
| 12/22/2011 | 9.90% | 5.49% | 4.41% |
| 12/22/2011 | 10.40% | 5.49% | 4.91% |
| 12/23/2011 | 10.19% | 5.48% | 4.71% |
| 1/25/2012 | 10.50% | 5.40% | 5.10% |
| 1/27/2012 | 10.50% | 5.39% | 5.11% |
| 2/15/2012 | 10.20% | 5.33% | 4.87% |
| 2/23/2012 | 9.90% | 5.30% | 4.60% |
| 2/27/2012 | 10.25% | 5.30% | 4.95% |
| 2/29/2012 | 10.40% | 5.29% | 5.11% |
| 3/29/2012 | 10.37% | 5.22% | 5.15% |
| 4/4/2012 | 10.00% | 5.22% | 4.78% |
| 4/26/2012 | 10.00% | 5.17% | 4.83% |
| 5/2/2012 | 10.00% | 5.16% | 4.84% |
| 5/7/2012 | 9.80% | 5.15% | 4.65% |
| 5/15/2012 | 10.00% | 5.13% | 4.87% |
| 5/29/2012 | 10.05% | 5.09% | 4.96% |
| 6/7/2012 | 10.30% | 5.08% | 5.22% |
| 6/14/2012 | 9.40% | 5.07% | 4.33% |
| 6/15/2012 | 10.40% | 5.07% | 5.33% |
| 6/18/2012 | 9.60% | 5.07% | 4.53% |
| 6/19/2012 | 9.25% | 5.07% | 4.18% |
| 6/26/2012 | 10.10% | 5.06% | 5.04% |
| 6/29/2012 | 10.00% | 5.06% | 4.94% |
| 7/9/2012 | 10.20% | 5.05% | 5.15% |
| 7/16/2012 | 9.80% | 5.05% | 4.75% |
| 7/20/2012 | 9.81% | 5.04% | 4.77% |
| 7/20/2012 | 9.31% | 5.04% | 4.27% |
| 9/13/2012 | 9.80% | 4.99% | 4.81% |
| 9/19/2012 | 10.05% | 4.99% | 5.06% |
| 9/19/2012 | 9.80% | 4.99% | 4.81% |
| 9/26/2012 | 9.50% | 4.98% | 4.52% |
| 10/12/2012 | 9.60% | 4.96% | 4.64% |

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] Moody's Utility Baa Yield | [9] Risk Premium |
|---|---|---|---|
| 11/2/1993 | 10.80% | 7.93% | 2.87% |
| 10/23/2012 | 9.75% | 4.94% | 4.81% |
| 10/24/2012 | 10.30% | 4.94% | 5.36% |
| 11/9/2012 | 10.30% | 4.90% | 5.40% |
| 11/28/2012 | 10.40% | 4.87% | 5.53% |
| 11/29/2012 | 9.88% | 4.87% | 5.01% |
| 11/29/2012 | 9.75% | 4.87% | 4.88% |
| 12/5/2012 | 9.71% | 4.86% | 4.85% |
| 12/5/2012 | 10.40% | 4.86% | 5.54% |
| 12/12/2012 | 9.80% | 4.85% | 4.95% |
| 12/13/2012 | 10.50% | 4.84% | 5.66% |
| 12/13/2012 | 9.50% | 4.84% | 4.66% |
| 12/14/2012 | 10.40% | 4.84% | 5.56% |
| 12/19/2012 | 9.71% | 4.84% | 4.87% |
| 12/19/2012 | 10.25% | 4.84% | 5.41% |
| 12/20/2012 | 10.40% | 4.84% | 5.57% |
| 12/20/2012 | 10.30% | 4.84% | 5.47% |
| 12/20/2012 | 10.45% | 4.84% | 5.62% |
| 12/20/2012 | 10.25% | 4.84% | 5.42% |
| 12/20/2012 | 10.25% | 4.84% | 5.42% |
| 12/20/2012 | 9.80% | 4.84% | 4.97% |
| 12/20/2012 | 9.50% | 4.84% | 4.67% |
| 12/21/2012 | 10.20% | 4.83% | 5.37% |
| 12/26/2012 | 9.80% | 4.83% | 4.97% |
| 1/9/2013 | 9.70% | 4.81% | 4.89% |
| 1/9/2013 | 9.70% | 4.81% | 4.89% |
| 1/9/2013 | 9.70% | 4.81% | 4.89% |
| 1/16/2013 | 9.60% | 4.80% | 4.80% |
| 1/16/2013 | 9.60% | 4.80% | 4.80% |
| 2/13/2013 | 10.20% | 4.76% | 5.44% |
| 2/22/2013 | 9.75% | 4.75% | 5.00% |
| 2/27/2013 | 10.00% | 4.74% | 5.26% |
| 3/14/2013 | 9.30% | 4.73% | 4.57% |
| 3/27/2013 | 9.80% | 4.72% | 5.08% |
| 5/1/2013 | 9.84% | 4.67% | 5.17% |
| 5/15/2013 | 10.30% | 4.65% | 5.65% |
| 5/30/2013 | 10.20% | 4.65% | 5.55% |
| 5/31/2013 | 9.00% | 4.65% | 4.35% |
| 6/11/2013 | 10.00% | 4.65% | 5.35% |
| 6/21/2013 | 9.75% | 4.66% | 5.09% |
| 6/25/2013 | 9.80% | 4.66% | 5.14% |
| 7/12/2013 | 9.36% | 4.69% | 4.67% |
| 8/8/2013 | 9.83% | 4.72% | 5.11% |
| 8/14/2013 | 9.15% | 4.73% | 4.42% |
| 9/11/2013 | 10.25% | 4.81% | 5.44% |
| 9/11/2013 | 10.20% | 4.81% | 5.39% |
| 9/24/2013 | 10.20% | 4.85% | 5.35% |
| 10/3/2013 | 9.65% | 4.88% | 4.77% |
| 11/6/2013 | 10.20% | 4.94% | 5.26% |
| 11/21/2013 | 10.00% | 4.97% | 5.03% |
| 11/26/2013 | 10.00% | 4.98% | 5.02% |
| 12/3/2013 | 10.25% | 4.99% | 5.26% |
| 12/4/2013 | 9.50% | 4.99% | 4.51% |
| 12/5/2013 | 10.20% | 5.00% | 5.20% |
| 12/9/2013 | 8.72% | 5.00% | 3.72% |
| 12/9/2013 | 9.75% | 5.00% | 4.75% |
| 12/13/2013 | 9.75% | 5.01% | 4.74% |
| 12/16/2013 | 9.95% | 5.01% | 4.94% |
| 12/16/2013 | 9.95% | 5.01% | 4.94% |
| 12/16/2013 | 10.12% | 5.01% | 5.11% |
| 12/17/2013 | 9.50% | 5.01% | 4.49% |
| 12/17/2013 | 10.95% | 5.01% | 5.94% |
| 12/18/2013 | 8.72% | 5.02% | 3.70% |
| 12/18/2013 | 9.80% | 5.02% | 4.78% |
| 12/19/2013 | 10.15% | 5.02% | 5.13% |
| 12/30/2013 | 9.50% | 5.03% | 4.47% |
| 2/20/2014 | 9.20% | 5.11% | 4.09% |
| 2/26/2014 | 9.75% | 5.12% | 4.63% |
| 3/17/2014 | 9.55% | 5.15% | 4.40% |
| 3/26/2014 | 9.40% | 5.16% | 4.24% |
| 3/26/2014 | 9.96% | 5.16% | 4.80% |
| 4/2/2014 | 9.70% | 5.16% | 4.54% |
| 5/16/2014 | 9.80% | 5.11% | 4.69% |
| 5/30/2014 | 9.70% | 5.09% | 4.61% |

| [6] Date of Electric Rate Case | [7] Return on Equity | [8] Moody's Utility Baa Yield | [9] Risk Premium |
|---|---|---|---|
| 11/2/1993 | 10.80% | 7.93% | 2.87% |
| 6/6/2014 | 10.40% | 5.08% | 5.32% |
| 6/30/2014 | 9.55% | 5.03% | 4.52% |
| 7/2/2014 | 9.62% | 5.03% | 4.59% |
| 7/10/2014 | 9.95% | 5.02% | 4.93% |
| 7/23/2014 | 9.75% | 4.99% | 4.76% |
| 7/29/2014 | 9.45% | 4.97% | 4.48% |
| 7/31/2014 | 9.90% | 4.97% | 4.93% |
| 8/20/2014 | 9.75% | 4.93% | 4.82% |
| 8/25/2014 | 9.60% | 4.92% | 4.68% |
| 8/29/2014 | 9.80% | 4.91% | 4.89% |
| 9/11/2014 | 9.60% | 4.90% | 4.70% |
| 9/15/2014 | 10.25% | 4.89% | 5.36% |
| 10/9/2014 | 9.80% | 4.85% | 4.95% |
| 11/6/2014 | 9.56% | 4.80% | 4.76% |
| 11/6/2014 | 10.20% | 4.80% | 5.40% |
| 11/14/2014 | 10.20% | 4.79% | 5.41% |
| 11/26/2014 | 9.70% | 4.78% | 4.92% |
| 11/26/2014 | 10.20% | 4.78% | 5.42% |
| 12/4/2014 | 9.68% | 4.77% | 4.91% |
| 12/10/2014 | 9.25% | 4.77% | 4.48% |
| 12/10/2014 | 9.25% | 4.77% | 4.48% |
| 12/11/2014 | 10.07% | 4.77% | 5.30% |
| 12/12/2014 | 10.20% | 4.76% | 5.44% |
| 12/17/2014 | 9.17% | 4.76% | 4.41% |
| 12/18/2014 | 9.83% | 4.76% | 5.07% |
| 1/23/2015 | 9.50% | 4.70% | 4.80% |
| 2/24/2015 | 9.83% | 4.66% | 5.17% |
| 3/18/2015 | 9.75% | 4.64% | 5.11% |
| 3/25/2015 | 9.50% | 4.63% | 4.87% |
| 3/26/2015 | 9.72% | 4.63% | 5.09% |
| 4/23/2015 | 10.20% | 4.61% | 5.59% |
| 4/29/2015 | 9.53% | 4.61% | 4.92% |
| 5/1/2015 | 9.60% | 4.61% | 4.99% |
| 5/26/2015 | 9.75% | 4.63% | 5.12% |
| 6/17/2015 | 9.00% | 4.66% | 4.34% |
| 6/17/2015 | 9.00% | 4.66% | 4.34% |
| 9/2/2015 | 9.50% | 4.79% | 4.71% |
| 9/10/2015 | 9.30% | 4.81% | 4.49% |
| 10/15/2015 | 9.00% | 4.89% | 4.11% |
| 11/19/2015 | 10.30% | 5.00% | 5.30% |
| 11/19/2015 | 10.00% | 5.00% | 5.00% |
| 12/3/2015 | 10.00% | 5.05% | 4.95% |
| 12/9/2015 | 9.14% | 5.07% | 4.07% |
| 12/9/2015 | 9.14% | 5.07% | 4.07% |
| 12/11/2015 | 10.30% | 5.08% | 5.22% |
| 12/15/2015 | 9.60% | 5.09% | 4.51% |
| 12/17/2015 | 9.70% | 5.10% | 4.60% |
| 12/18/2015 | 9.50% | 5.11% | 4.39% |
| 12/30/2015 | 9.50% | 5.15% | 4.35% |
| 1/6/2016 | 9.50% | 5.16% | 4.34% |
| 2/23/2016 | 9.75% | 5.30% | 4.45% |
| 3/16/2016 | 9.85% | 5.34% | 4.51% |
| 4/29/2016 | 9.80% | 5.30% | 4.50% |
| 6/3/2016 | 9.75% | 5.23% | 4.52% |
| 6/8/2016 | 9.48% | 5.22% | 4.26% |
| 6/15/2016 | 9.00% | 5.21% | 3.79% |
| 6/15/2016 | 9.00% | 5.21% | 3.79% |
| | | Average: | 4.01% |
| | | Number of Cases: | 601 |

Analysis Using Gorman's Rolling Average Equity Risk Premium Data

| Year | Authorized Electric Returns | Treasury Bond Yield | Indicated Risk Premium | Rolling 5-Year Average Treasury | Rolling 5-Year Average Risk Premium | Slope | Rolling 10-Year Average Treasury | Rolling 10-Year Average Risk Premium | Slope |
|---|---|---|---|---|---|---|---|---|---|
| 1986 | 13.93% | 7.80% | 6.13% | | | | | | |
| 1987 | 12.99% | 8.58% | 4.41% | | | | | | |
| 1988 | 12.79% | 8.96% | 3.83% | | | | | | |
| 1989 | 12.97% | 8.45% | 4.52% | | | | | | |
| 1990 | 12.70% | 8.61% | 4.09% | 8.48% | 4.60% | -46.02% | | | -47.73% |
| 1991 | 12.55% | 8.14% | 4.41% | 8.55% | 4.25% | | | | |
| 1992 | 12.09% | 7.67% | 4.42% | 8.36% | 4.26% | | | | |
| 1993 | 11.41% | 6.60% | 4.81% | 7.89% | 4.45% | | | | |
| 1994 | 11.34% | 7.37% | 3.97% | 7.68% | 4.34% | | | | |
| 1995 | 11.55% | 6.88% | 4.67% | 7.33% | 4.46% | | 7.91% | 4.53% | |
| 1996 | 11.39% | 6.70% | 4.69% | 7.04% | 4.51% | | 7.80% | 4.38% | |
| 1997 | 11.40% | 6.61% | 4.79% | 6.83% | 4.59% | | 7.60% | 4.42% | |
| 1998 | 11.66% | 5.58% | 6.08% | 6.63% | 4.84% | | 7.26% | 4.65% | |
| 1999 | 10.77% | 5.87% | 4.90% | 6.33% | 5.03% | | 7.00% | 4.68% | |
| 2000 | 11.43% | 5.94% | 5.49% | 6.14% | 5.19% | | 6.73% | 4.82% | |
| 2001 | 11.09% | 5.49% | 5.60% | 5.90% | 5.37% | | 6.47% | 4.94% | |
| 2002 | 11.16% | 5.43% | 5.73% | 5.66% | 5.56% | | 6.25% | 5.07% | |
| 2003 | 10.97% | 4.96% | 6.01% | 5.54% | 5.55% | | 6.08% | 5.19% | |
| 2004 | 10.75% | 5.05% | 5.70% | 5.37% | 5.71% | | 5.85% | 5.37% | |
| 2005 | 10.54% | 4.65% | 5.89% | 5.11% | 5.79% | | 5.63% | 5.49% | |
| 2006 | 10.36% | 4.99% | 5.37% | 5.01% | 5.74% | | 5.46% | 5.56% | |
| 2007 | 10.36% | 4.83% | 5.53% | 4.90% | 5.70% | | 5.28% | 5.63% | |
| 2008 | 10.46% | 4.28% | 6.18% | 4.76% | 5.73% | | 5.15% | 5.64% | |
| 2009 | 10.48% | 4.07% | 6.41% | 4.56% | 5.88% | | 4.97% | 5.79% | |
| 2010 | 10.24% | 4.25% | 5.99% | 4.49% | 5.89% | | 4.80% | 5.84% | |
| 2011 | 10.07% | 3.91% | 6.16% | 4.27% | 6.05% | | 4.64% | 5.90% | |
| 2012 | 10.01% | 2.92% | 7.09% | 3.89% | 6.37% | | 4.39% | 6.03% | |
| 2013 | 9.79% | 3.45% | 6.34% | 3.72% | 6.40% | | 4.24% | 6.07% | |
| 2014 | 9.76% | 3.34% | 6.42% | 3.57% | 6.40% | | 4.07% | 6.14% | |
| 2015 | 9.58% | 2.84% | 6.74% | 3.29% | 6.55% | | 3.89% | 6.22% | |
| 2016 | 9.68% | 2.72% | 6.96% | 3.05% | 6.71% | | 3.66% | 6.38% | |
| Average | 11.17% | 5.71% | 5.46% | 5.72% | 5.40% | | 5.69% | 5.40% | |
| Minimum | | | | 3.05% | 4.25% | | 3.66% | 4.38% | |
| Maximum | | | | 8.55% | 6.71% | | 7.91% | 6.38% | |

Source: Schedule MPG-13

Analysis Using Gorman's Rolling Average Equity Risk Premium Data

| Year | Authorized Electric Returns | Utiltiy Bond Yield | Rolling Indicated Risk Premium | Rolling 5-Year Average Utility Bond | 5-Year Average Risk Premium | Rolling Slope | Rolling 10-Year Average Utility Bond | 10-Year Average Risk Premium | Slope |
|---|---|---|---|---|---|---|---|---|---|
| 1986 | 13.93% | 9.58% | 4.35% | | | | | | |
| 1987 | 12.99% | 10.10% | 2.89% | | | | | | |
| 1988 | 12.79% | 10.49% | 2.30% | | | | | | |
| 1989 | 12.97% | 9.77% | 3.20% | | | | | | |
| 1990 | 12.70% | 9.86% | 2.84% | 9.96% | 3.12% | -45.15% | | | -44.87% |
| 1991 | 12.55% | 9.36% | 3.19% | 9.92% | 2.88% | | | | |
| 1992 | 12.09% | 8.69% | 3.40% | 9.63% | 2.99% | | | | |
| 1993 | 11.41% | 7.59% | 3.82% | 9.05% | 3.29% | | | | |
| 1994 | 11.34% | 8.31% | 3.03% | 8.76% | 3.26% | | | | |
| 1995 | 11.55% | 7.89% | 3.66% | 8.37% | 3.42% | | 9.16% | 3.27% | |
| 1996 | 11.39% | 7.75% | 3.64% | 8.05% | 3.51% | | 8.98% | 3.20% | |
| 1997 | 11.40% | 7.60% | 3.80% | 7.83% | 3.59% | | 8.73% | 3.29% | |
| 1998 | 11.66% | 7.04% | 4.62% | 7.72% | 3.75% | | 8.39% | 3.52% | |
| 1999 | 10.77% | 7.62% | 3.15% | 7.58% | 3.77% | | 8.17% | 3.52% | |
| 2000 | 11.43% | 8.24% | 3.19% | 7.65% | 3.68% | | 8.01% | 3.55% | |
| 2001 | 11.09% | 7.76% | 3.33% | 7.65% | 3.62% | | 7.85% | 3.56% | |
| 2002 | 11.16% | 7.37% | 3.79% | 7.61% | 3.61% | | 7.72% | 3.60% | |
| 2003 | 10.97% | 6.58% | 4.39% | 7.52% | 3.57% | | 7.62% | 3.66% | |
| 2004 | 10.75% | 6.16% | 4.59% | 7.22% | 3.86% | | 7.40% | 3.81% | |
| 2005 | 10.54% | 5.65% | 4.89% | 6.71% | 4.20% | | 7.18% | 3.94% | |
| 2006 | 10.36% | 6.07% | 4.29% | 6.37% | 4.39% | | 7.01% | 4.00% | |
| 2007 | 10.36% | 6.07% | 4.29% | 6.11% | 4.49% | | 6.86% | 4.05% | |
| 2008 | 10.46% | 6.53% | 3.93% | 6.10% | 4.40% | | 6.81% | 3.98% | |
| 2009 | 10.48% | 6.04% | 4.44% | 6.07% | 4.37% | | 6.65% | 4.11% | |
| 2010 | 10.24% | 5.46% | 4.78% | 6.03% | 4.35% | | 6.37% | 4.27% | |
| 2011 | 10.07% | 5.04% | 5.03% | 5.83% | 4.49% | | 6.10% | 4.44% | |
| 2012 | 10.01% | 4.13% | 5.88% | 5.44% | 4.81% | | 5.77% | 4.65% | |
| 2013 | 9.79% | 4.48% | 5.31% | 5.03% | 5.09% | | 5.56% | 4.74% | |
| 2014 | 9.76% | 4.28% | 5.48% | 4.68% | 5.30% | | 5.37% | 4.83% | |
| 2015 | 9.58% | 4.12% | 5.46% | 4.41% | 5.43% | | 5.22% | 4.89% | |
| 2016 | 9.68% | 4.18% | 5.50% | 4.24% | 5.53% | | 5.03% | 5.01% | |
| Average | 11.17% | 7.09% | 4.08% | 7.09% | 4.03% | | 7.09% | 4.00% | |
| Minimum | | | | 4.24% | 2.88% | | 5.03% | 3.20% | |
| Maximum | | | | 9.96% | 5.53% | | 9.16% | 5.01% | |

Source: Schedule MPG-14

Analysis Using Gorman's Rolling Average Equity Risk Premium Data

SUMMARY OUTPUT

| Regression Statistics | |
|---|---|
| Multiple R | 0.979694 |
| R Square | 0.959801 |
| Adjusted R Square | 0.958193 |
| Standard Error | 0.001584 |
| Observations | 27 |

ANOVA

| | df | SS | MS | F | Significance F |
|---|---|---|---|---|---|
| Regression | 1 | 0.001497 | 0.001497 | 596.900197 | 0.000000 |
| Residual | 25 | 0.000063 | 0.000003 | | |
| Total | 26 | 0.001560 | | | |

| | Coefficients | Standard Error | t Stat | P-value | Lower 95% | Upper 95% | Lower 95.0% | Upper 95.0% |
|---|---|---|---|---|---|---|---|---|
| Intercept | 0.080351 | 0.001119 | 71.795082 | 0.000000 | 0.078046 | 0.082656 | 0.078046 | 0.082656 |
| X Variable 1 | -0.460208 | 0.018837 | -24.431541 | 0.000000 | -0.499003 | -0.421413 | -0.499003 | -0.421413 |

SUMMARY OUTPUT

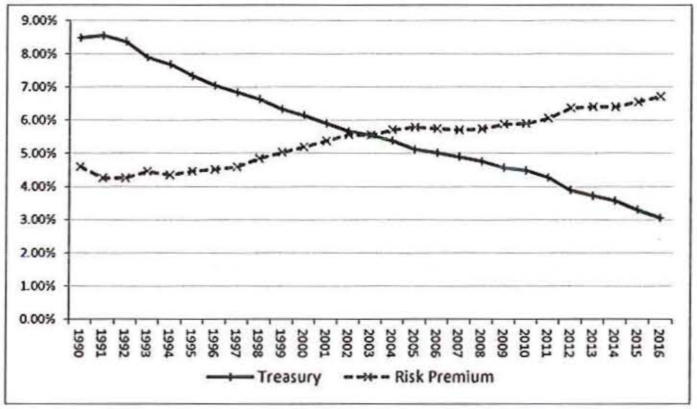
| Regression Statistics | |
|---|---|
| Multiple R | 0.980565 |
| R Square | 0.961508 |
| Adjusted R Square | 0.959968 |
| Standard Error | 0.001497 |
| Observations | 27 |

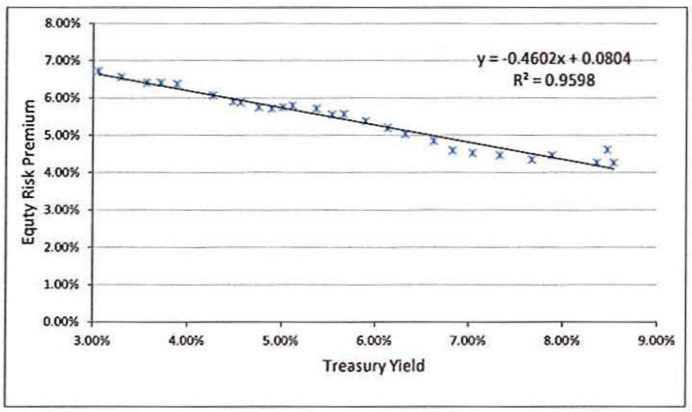
ANOVA

| | df | SS | MS | F | Significance F |
|---|---|---|---|---|---|
| Regression | 1 | 0.001400 | 0.001400 | 624.479845 | 0.000000 |
| Residual | 25 | 0.000056 | 0.000002 | | |
| Total | 26 | 0.001456 | | | |

| | Coefficients | Standard Error | t Stat | P-value | Lower 95% | Upper 95% | Lower 95.0% | Upper 95.0% |
|---|---|---|---|---|---|---|---|---|
| Intercept | 0.072307 | 0.001314 | 55.042967 | 0.000000 | 0.069601 | 0.075012 | 0.069601 | 0.075012 |
| X Variable 1 | -0.451532 | 0.018069 | -24.989595 | 0.000000 | -0.488746 | -0.414319 | -0.488746 | -0.414319 |

Analysis Using Gorman's Rolling Average Equity Risk Premium Data



Analysis Using Mr. Gorman's Annual Equity Risk Premium Data

| Year | ROE | Utility "A" Bond Yield | Treasury Bond Yield | Credit Spread | Treasury Equity Risk Premium | Utility Bond Equity Risk Premium | Treasury Yield | Credit Spread |
|---|---|---|---|---|---|---|---|---|
| 1986 | 13.93% | 9.58% | 7.80% | 1.78% | 6.13% | 4.35% | 7.80% | 1.78% |
| 1987 | 12.99% | 10.10% | 8.58% | 1.52% | 4.41% | 2.89% | 8.58% | 1.52% |
| 1988 | 12.79% | 10.49% | 8.96% | 1.53% | 3.83% | 2.30% | 8.96% | 1.53% |
| 1989 | 12.97% | 9.77% | 8.45% | 1.32% | 4.52% | 3.20% | 8.45% | 1.32% |
| 1990 | 12.70% | 9.86% | 8.61% | 1.25% | 4.09% | 2.84% | 8.61% | 1.25% |
| 1991 | 12.55% | 9.36% | 8.14% | 1.22% | 4.41% | 3.19% | 8.14% | 1.22% |
| 1992 | 12.09% | 8.69% | 7.67% | 1.02% | 4.42% | 3.40% | 7.67% | 1.02% |
| 1993 | 11.41% | 7.59% | 6.60% | 0.99% | 4.81% | 3.82% | 6.60% | 0.99% |
| 1994 | 11.34% | 8.31% | 7.37% | 0.94% | 3.97% | 3.03% | 7.37% | 0.94% |
| 1995 | 11.55% | 7.89% | 6.88% | 1.01% | 4.67% | 3.66% | 6.88% | 1.01% |
| 1996 | 11.39% | 7.75% | 6.70% | 1.05% | 4.69% | 3.64% | 6.70% | 1.05% |
| 1997 | 11.40% | 7.60% | 6.61% | 0.99% | 4.79% | 3.80% | 6.61% | 0.99% |
| 1998 | 11.66% | 7.04% | 5.58% | 1.46% | 6.08% | 4.62% | 5.58% | 1.46% |
| 1999 | 10.77% | 7.62% | 5.87% | 1.75% | 4.90% | 3.15% | 5.87% | 1.75% |
| 2000 | 11.43% | 8.24% | 5.94% | 2.30% | 5.49% | 3.19% | 5.94% | 2.30% |
| 2001 | 11.09% | 7.76% | 5.49% | 2.27% | 5.60% | 3.33% | 5.49% | 2.27% |
| 2002 | 11.16% | 7.37% | 5.43% | 1.94% | 5.73% | 3.79% | 5.43% | 1.94% |
| 2003 | 10.97% | 6.58% | 4.96% | 1.62% | 6.01% | 4.39% | 4.96% | 1.62% |
| 2004 | 10.75% | 6.16% | 5.05% | 1.11% | 5.70% | 4.59% | 5.05% | 1.11% |
| 2005 | 10.54% | 5.65% | 4.65% | 1.00% | 5.89% | 4.89% | 4.65% | 1.00% |
| 2006 | 10.36% | 6.07% | 4.99% | 1.08% | 5.37% | 4.29% | 4.99% | 1.08% |
| 2007 | 10.36% | 6.07% | 4.83% | 1.24% | 5.53% | 4.29% | 4.83% | 1.24% |
| 2008 | 10.46% | 6.53% | 4.28% | 2.25% | 6.18% | 3.93% | 4.28% | 2.25% |
| 2009 | 10.48% | 6.04% | 4.07% | 1.97% | 6.41% | 4.44% | 4.07% | 1.97% |
| 2010 | 10.24% | 5.46% | 4.25% | 1.21% | 5.99% | 4.78% | 4.25% | 1.21% |
| 2011 | 10.07% | 5.04% | 3.91% | 1.13% | 6.16% | 5.03% | 3.91% | 1.13% |
| 2012 | 10.01% | 4.13% | 2.92% | 1.21% | 7.09% | 5.88% | 2.92% | 1.21% |
| 2013 | 9.79% | 4.48% | 3.45% | 1.03% | 6.34% | 5.31% | 3.45% | 1.03% |
| 2014 | 9.76% | 4.28% | 3.34% | 0.94% | 6.42% | 5.48% | 3.34% | 0.94% |
| 2015 | 9.58% | 4.12% | 2.84% | 1.27% | 6.74% | 5.46% | 2.84% | 1.27% |
| 2016 | 9.68% | 4.18% | 2.72% | 1.46% | 6.96% | 5.50% | 2.72% | 1.46% |

Sources: Schedule MPG-13 and MPG-14

SUMMARY OUTPUT

| Regression Statistics | |
|---|---|
| Multiple R | 0.898826 |
| R Square | 0.807887 |
| Adjusted R Square | 0.801263 |
| Standard Error | 0.004088 |
| Observations | 31 |

ANOVA

| | df | SS | MS | F | Significance F |
|---|---|---|---|---|---|
| Regression | 1 | 0.002038 | 0.002038 | 121.953137 | 0.000000 |
| Residual | 29 | 0.000485 | 0.000017 | | |
| Total | 30 | 0.002522 | | | |

| | Coefficients | Standard Error | t Stat | P-value | Lower 95% | Upper 95% |
|---|---|---|---|---|---|---|
| Intercept | 0.079782 | 0.002393 | 33.337504 | 0.000000 | 0.074887 | 0.084676 |
| Treasury Yield | -0.440736 | 0.039910 | -11.043239 | 0.000000 | -0.522361 | -0.359111 |

RESIDUAL OUTPUT

| Observation | 1 Equity Risk | Residuals | $(e_t - e_{(t-1)})^2$ | $(e_t)^2$ | |
|---|---|---|---|---|---|
| 1 | 0.0454116 | 0.015905067 | | | |
| 2 | 0.04196651 | 0.002133486 | 0.00019 | 0.00000 | |
| 3 | 0.04029539 | -0.001987057 | 0.00002 | 0.00000 | |
| 4 | 0.04254314 | 0.00266519 | 0.00002 | 0.00001 | |
| 5 | 0.04184164 | -0.000924972 | 0.00001 | 0.00000 | |
| 6 | 0.04392412 | 0.000217551 | 0.00000 | 0.00000 | |
| 7 | 0.0459919 | -0.001758569 | 0.00000 | 0.00000 | |
| 8 | 0.05070043 | -0.002583764 | 0.00000 | 0.00001 | |
| 9 | 0.04729942 | -0.007599419 | 0.00003 | 0.00006 | |
| 10 | 0.04944066 | -0.002782328 | 0.00002 | 0.00001 | |
| 11 | 0.05024868 | -0.00335701 | 0.00000 | 0.00001 | |
| 12 | 0.05066738 | -0.002725709 | 0.00000 | 0.00001 | |
| 13 | 0.05519594 | 0.005620729 | 0.00007 | 0.00003 | |
| 14 | 0.05392862 | -0.004887155 | 0.00011 | 0.00002 | |
| 15 | 0.05359092 | 0.001284076 | 0.00004 | 0.00000 | |
| 16 | 0.05557056 | 0.000396103 | 0.00000 | 0.00000 | |
| 17 | 0.0558497 | 0.001450304 | 0.00000 | 0.00000 | |
| 18 | 0.05793217 | 0.002192827 | 0.00000 | 0.00000 | |
| 19 | 0.05753918 | -0.00050585 | 0.00001 | 0.00000 | |
| 20 | 0.0593058 | -0.000364134 | 0.00000 | 0.00000 | |
| 21 | 0.05777792 | -0.004102916 | 0.00001 | 0.00002 | |
| 22 | 0.05847575 | -0.003217414 | 0.00000 | 0.00001 | |
| 23 | 0.06092183 | 0.000886501 | 0.00002 | 0.00000 | |
| 24 | 0.06184738 | 0.002260956 | 0.00000 | 0.00001 | |
| 25 | 0.06104671 | -0.001155041 | 0.00001 | 0.00000 | |
| 26 | 0.06254521 | -0.000953543 | 0.00000 | 0.00000 | |
| 27 | 0.0669085 | 0.003983172 | 0.00002 | 0.00002 | |
| 28 | 0.06458361 | -0.001166946 | 0.00003 | 0.00000 | |
| 29 | 0.06506108 | -0.000861077 | 0.00000 | 0.00000 | |
| 30 | 0.06726108 | 0.000130583 | 0.00000 | 0.00000 | |
| 31 | 0.06779364 | 0.00180636 | 0.00000 | 0.00000 | |
| | | | 0.00062 | 0.00023 | |
| | | Durbin-Watson | 2.69423 | | |
| | | dL | 1.147 | 4-dL | 4-dU |
| | | dU | 1.274 | 2.853 | 2.726 |
| | | DW>2 | TRUE | | |
| | | DW<4-dU? | TRUE | No Autocorrelation | |

SUMMARY OUTPUT

| Regression Statistics | |
|---|---|
| Multiple R | 0.916176 |
| R Square | 0.839379 |
| Adjusted R Square | 0.833841 |
| Standard Error | 0.003777 |
| Observations | 31 |

ANOVA

| | df | SS | MS | F | Significance F |
|---|---|---|---|---|---|
| Regression | 1 | 0.002162 | 0.002162 | 151.549633 | 0.000000 |
| Residual | 29 | 0.000414 | 0.000014 | | |
| Total | 30 | 0.002575 | | | |

| | Coefficients | Standard Error | t Stat | P-value | Lower 95% | Upper 95% |
|---|---|---|---|---|---|---|
| Intercept | 0.072374 | 0.002653 | 27.275585 | 0.000000 | 0.066947 | 0.077801 |
| Utility "A" Bond Yiel | -0.445377 | 0.036178 | -12.310550 | 0.000000 | -0.519370 | -0.371384 |

RESIDUAL OUTPUT

| Observation | l Equity Risk | Residuals | $(e_t - e_{(t-1)})^2$ | $(e_t)^2$ | |
|---|---|---|---|---|---|
| 1 | 0.02970688 | 0.013793119 | | | |
| 2 | 0.02739092 | 0.001509079 | 0.00015 | 0.00000 | |
| 3 | 0.02565395 | -0.00265395 | 0.00002 | 0.00001 | |
| 4 | 0.02886067 | 0.003139335 | 0.00003 | 0.00001 | |
| 5 | 0.02845983 | -5.98258E-05 | 0.00001 | 0.00000 | |
| 6 | 0.03068671 | 0.001213289 | 0.00000 | 0.00000 | |
| 7 | 0.03367074 | 0.000329263 | 0.00000 | 0.00000 | |
| 8 | 0.03856988 | -0.000369884 | 0.00000 | 0.00000 | |
| 9 | 0.03536317 | -0.00506317 | 0.00002 | 0.00003 | |
| 10 | 0.03723375 | -0.000633753 | 0.00002 | 0.00000 | |
| 11 | 0.03785728 | -0.001457281 | 0.00000 | 0.00000 | |
| 12 | 0.03852535 | -0.000525347 | 0.00000 | 0.00000 | |
| 13 | 0.04101946 | 0.005180542 | 0.00003 | 0.00003 | |
| 14 | 0.03843627 | -0.006936271 | 0.00015 | 0.00005 | |
| 15 | 0.03565638 | -0.003798043 | 0.00001 | 0.00001 | |
| 16 | 0.03780161 | -0.004526609 | 0.00000 | 0.00002 | |
| 17 | 0.03953858 | -0.001663579 | 0.00001 | 0.00000 | |
| 18 | 0.04306448 | 0.000827186 | 0.00001 | 0.00000 | |
| 19 | 0.0449384 | 0.000960762 | 0.00000 | 0.00000 | |
| 20 | 0.04721391 | 0.001694423 | 0.00000 | 0.00000 | |
| 21 | 0.04534704 | -0.002430372 | 0.00002 | 0.00001 | |
| 22 | 0.04532477 | -0.002458103 | 0.00000 | 0.00001 | |
| 23 | 0.0432983 | -0.003981637 | 0.00000 | 0.00002 | |
| 24 | 0.04548776 | -0.001055128 | 0.00001 | 0.00000 | |
| 25 | 0.04805082 | -0.00026338 | 0.00000 | 0.00000 | |
| 26 | 0.04992204 | 0.000366821 | 0.00000 | 0.00000 | |
| 27 | 0.05397643 | 0.004815707 | 0.00002 | 0.00002 | |
| 28 | 0.05243845 | 0.000700483 | 0.00002 | 0.00000 | |
| 29 | 0.0533234 | 0.001502504 | 0.00000 | 0.00000 | |
| 30 | 0.05404497 | 0.000601063 | 0.00000 | 0.00000 | |
| 31 | 0.05375724 | 0.001242759 | 0.00000 | 0.00000 | |
| | | | 0.00053 | 0.00022 | |
| | | Durbin-Watson | 2.37384 | | |
| | | dL | 1.085 | 4-dL | 4-dU |
| | | dU | 1.345 | 2.915 | 2.655 |
| | | DW>2 | TRUE | | |
| | | DW<4-dU? | TRUE | No Autocorrelation | |

SUMMARY OUTPUT

| Regression Statistics | |
|---|---|
| Multiple R | 0.917057 |
| R Square | 0.840994 |
| Adjusted R Square | 0.829636 |
| Standard Error | 0.003785 |
| Observations | 31 |

ANOVA

| | df | SS | MS | F | Significance F |
|---|---|---|---|---|---|
| Regression | 2 | 0.002121 | 0.001061 | 74.046865 | 0.000000 |
| Residual | 28 | 0.000401 | 0.000014 | | |
| Total | 30 | 0.002522 | | | |

| | Coefficients | Standard Error | t Stat | P-value | Lower 95% | Upper 95% |
|---|---|---|---|---|---|---|
| Intercept | 0.074097 | 0.003233 | 22.918543 | 0.000000 | 0.067474 | 0.080720 |
| Treasury Yield | -0.438638 | 0.036962 | -11.867392 | 0.000000 | -0.514351 | -0.362926 |
| Credit Spread | 0.402273 | 0.166607 | 2.414503 | 0.022540 | 0.060994 | 0.743552 |

RESIDUAL OUTPUT

| Observation | d Equity Risk I | Residuals | $(e_t - e_{(t-1)})^2$ | $(e_t)^2$ | |
|---|---|---|---|---|---|
| 1 | 0.04705767 | 0.014258992 | | | |
| 2 | 0.04257637 | 0.001523628 | 0.00016 | 0.00000 | |
| 3 | 0.04095678 | -0.002648449 | 0.00002 | 0.00001 | |
| 4 | 0.04234906 | 0.00285927 | 0.00003 | 0.00001 | |
| 5 | 0.04137266 | -0.000455992 | 0.00001 | 0.00000 | |
| 6 | 0.0433346 | 0.000807068 | 0.00000 | 0.00000 | |
| 7 | 0.04458464 | -0.000351311 | 0.00000 | 0.00000 | |
| 8 | 0.04914338 | -0.001026709 | 0.00000 | 0.00000 | |
| 9 | 0.04555071 | -0.00585071 | 0.00002 | 0.00003 | |
| 10 | 0.04794659 | -0.001288257 | 0.00002 | 0.00000 | |
| 11 | 0.04892508 | -0.002033412 | 0.00000 | 0.00000 | |
| 12 | 0.04912053 | -0.001178868 | 0.00000 | 0.00000 | |
| 13 | 0.05550817 | 0.005308499 | 0.00004 | 0.00003 | |
| 14 | 0.05542373 | -0.006382065 | 0.00014 | 0.00004 | |
| 15 | 0.05728989 | -0.002414887 | 0.00002 | 0.00001 | |
| 16 | 0.05912936 | -0.003162698 | 0.00000 | 0.00001 | |
| 17 | 0.05809308 | -0.000793077 | 0.00001 | 0.00000 | |
| 18 | 0.05888172 | 0.001243279 | 0.00000 | 0.00000 | |
| 19 | 0.05643934 | 0.000593988 | 0.00000 | 0.00000 | |
| 20 | 0.05775472 | 0.001186949 | 0.00000 | 0.00000 | |
| 21 | 0.05652575 | -0.002850753 | 0.00002 | 0.00001 | |
| 22 | 0.05787731 | -0.002618976 | 0.00000 | 0.00001 | |
| 23 | 0.06437471 | -0.002566375 | 0.00000 | 0.00001 | |
| 24 | 0.06416306 | -5.47269E-05 | 0.00001 | 0.00000 | |
| 25 | 0.0603204 | -0.000428735 | 0.00000 | 0.00000 | |
| 26 | 0.06148938 | 0.000102283 | 0.00000 | 0.00000 | |
| 27 | 0.0661524 | 0.004739265 | 0.00002 | 0.00002 | |
| 28 | 0.06310572 | 0.000310942 | 0.00002 | 0.00000 | |
| 29 | 0.06321741 | 0.000982594 | 0.00000 | 0.00000 | |
| 30 | 0.06676322 | 0.000628445 | 0.00000 | 0.00000 | |
| 31 | 0.0680392 | 0.001560796 | 0.00000 | 0.00000 | |
| | | | 0.00054 | 0.00020 | |
| | | Durbin-Watson | 2.73514 | | |
| | | dL | 1.147 | 4-dL | 4-dU |
| | | dU | 1.274 | 2.853 | 2.726 |
| | | DW>2 | TRUE | | |
| | | DW<4-dU | FALSE | | |
| | | 4-dU<DW<4-dL | TRUE | Inconclusive | |