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# MISSOURI PUBLIC SERVICE COMMISSION 

FILE NO. ER-2014-0258

## DIRECT TESTIMONY

## OF

## ROBERT B. HEVERT

ON
BEHALF OF

UNION ELECTRIC COMPANY
d/b/a Ameren Missouri

Framingham, Massachusetts July 3, 2014

## TABLE OF CONTENTS

I. INTRODUCTION ..... 1
II. PURPOSE AND OVERVIEW OF TESTIMONY ..... 2
III. SUMMARY OF ISSUES SURROUNDING COST OF EQUITY ESTIMATION IN REGULATORY PROCEEDINGS ..... 4
IV. PROXY GROUP SELECTION ..... 8
V. COST OF EQUITY ESTIMATION ..... 12
A. Constant Growth Discounted Cash Flow Model ..... 14
B. Multi-Stage DCF Model ..... 19
C. CAPM Analysis ..... 24
D. Bond Yield Plus Risk Premium Approach ..... 28
VI. BUSINESS RISKS AND OTHER CONSIDERATIONS ..... 31
A. Regulatory Environment ..... 31
B. Generation Portfolio ..... 35
VII. CAPITAL MARKET ENVIRONMENT ..... 37
VIII. CONCLUSIONS AND RECOMMENDATION ..... 42

| TERM | DESCRIPTION |
| :---: | :---: |
| Beta Coefficient | A component of the CAPM that measures the risk of a given stock relative to the risk of the overall market. |
| Capital Asset Pricing Model ("CAPM") | A risk premium-based model used to estimate the Cost of Equity, assuming the stock is added to a welldiversified portfolio. The CAPM assumes that investors are compensated for the time value of money (represented by the Risk Free Rate), and risk (represented by the combination of the Beta Coefficient and the Market Risk Premium). |
| Constant Growth DCF Model | A form of the DCF model that assumes cash flows will grow at a constant rate, in perpetuity. The model simplifies to a form that expresses the ROE as the sum of the expected dividend yield and the expected growth rate. |
| Cost of Equity | The return required by investors to invest in equity securities. The terms "Return on Equity" and "Cost of Equity" are used interchangeably. |
| Discounted Cash Flow ("DCF") Model | A model used to estimate the Cost of Equity based on expected cash flows. The Cost of Equity equals the discount rate that sets the current market price equal to the present value of expected cash flows. |
| Dividend Yield | For a given stock, the current dividend divided by the current market price. |
| Gross Domestic Product ("GDP") | The value of all finished goods and services produced within a country during a given period of time (usually measured annually). GDP includes public and private consumption, government expenditures, investments, and exports less imports. |
| Market Return | The expected return on the equity market, taken as a portfolio. |
| Market Risk Premium | The additional compensation required by investing in the equity market as a portfolio over the Risk-Free rate. The Market Risk Premium is a component of the CAPM. |
| Multi-Stage DCF Model | A form of the DCF model in which the rate of growth may change over different stages. |
| Proxy Group | A group of publicly traded companies used as the "proxy" for the subject company (in this case, Ameren Missouri). Proxy companies are sometimes referred to as "Comparable Companies". |

Direct Testimony of
Robert B. Hevert

| TERM | DESCRIPTION |
| :--- | :--- |
| Return on Equity ("ROE") | The return required by investors to invest in equity <br> securities. The terms "Return on Equity" and "Cost <br> of Equity" are used interchangeably. |
| Risk Free Rate | The rate of return on an asset with no default risk. |
| Risk Premium | The additional compensation required by investors <br> for taking on additional increments of risk. Risk <br> Premium-based approaches are used in addition to the <br> DCF and CAPM to estimate the Cost of Equity. |
| Terminal Growth | The expected rate of growth in the final, or terminal, <br> stage of the Multi-Stage DCF model. |
| Treasury Inflation Protected Securities <br> ("TIPS") | Treasury securities that are indexed to inflation. The <br> principal value of TIPS increase with inflation and <br> decrease with deflation, as measured by the <br> Consumer Price Index. |
| Treasury Yield | The return on Treasury securities; the yield on long- <br> term Treasury bonds is considered to be a measure of <br> the Risk Free Rate. |

DIRECT TESTIMONY

OF<br>ROBERT B. HEVERT<br>FILE NO. ER-2014-0258<br>\section*{I. INTRODUCTION}

Q. Please state your name, affiliation and business address.
A. My name is Robert B. Hevert. I am Managing Partner of Sussex Economic Advisors, LLC. My business address is 161 Worcester Road, Suite 503, Framingham, Massachusetts 01701.
Q. On whose behalf are you submitting this testimony?
A. I am submitting this direct testimony ("Direct Testimony") before the Missouri Public Service Commission ("Commission") on behalf of Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or the "Company").

## Q. Please describe your educational background.

A. I hold a Bachelor's degree in Business and Economics from the University of Delaware, and an MBA with a concentration in Finance from the University of Massachusetts. I also hold the Chartered Financial Analyst designation.
Q. Please describe your experience in the energy and utility industries.
A. I have worked in regulated industries for over twenty-five years, having served as an executive and manager with consulting firms, a financial officer of a publicly-traded natural
gas utility (at the time, Bay State Gas Company), and an analyst at a telecommunications utility. In my role as a consultant, I have advised numerous energy and utility clients on a wide range of financial and economic issues, including corporate and asset-based transactions, asset and enterprise valuation, transaction due diligence, and strategic matters. As an expert witness, I have provided testimony in approximately 100 proceedings regarding various financial and regulatory matters before numerous state utility regulatory agencies and the Federal Energy Regulatory Commission. A summary of my professional and educational background, including a list of my testimony in prior proceedings, is included in Attachment A to my Direct Testimony.

## II. PURPOSE AND OVERVIEW OF TESTIMONY

## Q. What is the purpose of your Direct Testimony?

A. On behalf of Ameren Missouri, my Direct Testimony presents evidence and provides a recommendation regarding the Company's ROE. ${ }^{1}$ My analyses and conclusions are supported by the data presented in Schedules RBH-1 through RBH-6, which have been prepared by me or under my direction.
Q. What are your conclusions regarding the appropriate Cost of Equity for the

## Company?

A. My analyses indicate that the Company's Cost of Equity currently is in the range of 10.20 percent to 10.60 percent. Based on the quantitative and qualitative analyses discussed throughout my Direct Testimony, I recommend that the Commission authorize the Company the opportunity to earn an ROE of 10.40 percent.

1 Throughout my Direct Testimony, I interchangeably use the terms "ROE" and "Cost of Equity."
Q. Please provide a brief overview of the analyses that led to your ROE recommendation.
A. Because all models are subject to various assumptions and constraints, equity analysts and investors tend use multiple methods to develop their return requirements. I therefore relied on three widely-accepted approaches to develop my ROE recommendation: (1) the Discounted Cash Flow ("DCF") model, including the Constant Growth, and Multi-Stage forms; (2) the Capital Asset Pricing Model ("CAPM"); and (3) the Bond Yield Plus Risk Premium approach.

## Q. How is the remainder of your Direct Testimony organized?

A. The remainder of my Direct Testimony is organized as follows:

Section III - Provides a summary of issues regarding Cost of Equity estimation in regulatory proceedings and discusses the regulatory guidelines pertinent to the development of the cost of capital;

Section IV - Explains my selection of the proxy group used to develop my analytical results;

Section V - Explains my analyses and the analytical bases for my ROE recommendation;

Section VI - Provides a discussion of specific business risks and other considerations that have a direct bearing on the Company's Cost of Equity;

Section VII - Highlights the current capital market conditions and their effect on the Company's Cost of Equity;

Section VIII - Summarizes my conclusions and recommendations.

## III. SUMMARY OF ISSUES SURROUNDING COST OF EQUITY ESTIMATION IN REGULATORY PROCEEDINGS

Q. Before addressing the specific aspects of this proceeding, please provide an overview of the issues surrounding the Cost of Equity in regulatory proceedings, generally.
A. In very general terms, the Cost of Equity is the return that investors require to make an equity investment in a firm. That is, investors will only provide funds to a firm if the return that they expect is equal to, or greater than, the return that they require. From the firm's perspective, that required return, whether it is provided to debt or equity investors, has a cost. Individually, we speak of the "Cost of Debt" and the "Cost of Equity"; together, they are referred to as the "Cost of Capital".

The Cost of Capital (including the costs of both debt and equity) is based on the economic principle of "opportunity costs". Investing in any asset, whether debt or equity securities, implies a forgone opportunity to invest in alternative assets. For any investment to be sensible, its expected return must be at least equal to the return expected on alternative, comparable investment opportunities. Because investments with like risks should offer similar returns, the opportunity cost of an investment should equal the return available on an investment of comparable risk.

Although both debt and equity have required costs, they are different in certain fundamental ways. Most noticeably, the Cost of Debt is contractually defined and can be directly observed as the interest rate, or yield, on debt securities. The Cost of Equity, on the other hand, is neither directly observable nor a contractual obligation. Rather, equity investors
have a claim on the firm's cash flows only after debt holders are paid; the uncertainty (or risk) associated with those residual cash flows determines the Cost of Equity. Because equity investors bear that "residual risk", they take greater risks and require higher returns than debt holders. In that basic sense, equity and debt investors differ: They invest in different securities, face different risks, and require different returns.

Whereas the Cost of Debt can be directly observed, the Cost of Equity must be estimated, or inferred, based on market data and various financial models. As discussed throughout my Direct Testimony, all of those models are subject to certain assumptions, which may be more or less applicable under differing market conditions. In addition, because the Cost of Equity is premised on opportunity costs, those models typically are applied to a group of "comparable" or "proxy" companies. The choice of models (including their inputs), the selection of proxy companies, and the interpretation of the model results all require the application of judgment. That judgment also should consider data and information that is not necessarily included in the models, themselves. In the end, however, the estimated Cost of Equity should reflect the return that investors require in light of the subject company's risks, and the returns available on comparable investments.
Q. Please now provide a brief summary of the regulatory guidelines established for the purpose of determining the ROE.
A. The United States Supreme Court (the "Court") established the guiding principles for establishing a fair return for capital in two cases: (1) Bluefield Water Works and Improvement Co. v. Public Service Comm'n of West Virginia ("Bluefield"); and (2) Federal Power Comm’n v. Hope Natural Gas Co. ("Hope"). In those cases, the Court recognized that the fair rate of return on equity should be: (1) comparable to returns investors expect to earn on other investments of
similar risk; (2) sufficient to assure confidence in the company's financial integrity; and (3) adequate to maintain and support the company's credit and to attract capital.

## Q. Does Missouri precedent provide similar guidance?

A. Yes. In a prior order, the Commission cited the Hope and Bluefield decisions at some length and acknowledged its authority and responsibility to set "just and reasonable" rates for public utility service, stating that:

A "just and reasonable" rate is one that is fair to both the utility and its customers; it is no more than is sufficient to "keep public utility plants in proper repair for effective public service, [and] ...to insure to the investors a reasonable return upon funds invested." ${ }^{2}$

Based on those standards, the authorized ROE should provide the Company with the opportunity to earn a fair and reasonable return and should enable efficient access to external capital under a variety of market conditions.
Q. Why is it important for a utility to be allowed the opportunity to earn a return adequate to attract equity capital at reasonable terms?
A. A return that is adequate to attract capital at reasonable terms enables the utility to provide service while maintaining its financial integrity. As discussed above, and in keeping with the Hope and Bluefield standards, that return should be commensurate with the returns expected elsewhere in the market for investments of equivalent risk. The consequence of the Commission's order in this case, therefore, should be to provide Ameren Missouri with the opportunity to earn a return on equity that is: (1) adequate to attract capital at reasonable terms; (2) sufficient to ensure its financial integrity; and (3) commensurate with returns on investments

[^0]in enterprises having corresponding risks. To the extent Ameren Missouri is provided a reasonable opportunity to earn its market-based Cost of Equity, neither customers nor shareholders should be disadvantaged. In fact, a return that is adequate to attract capital at reasonable terms enables Ameren Missouri to provide safe, reliable electric utility service while maintaining its financial integrity.

## Q. How is the Cost of Equity estimated in regulatory proceedings?

A. As noted earlier (and as discussed in more detail throughout my Direct Testimony), the Cost of Equity is estimated by the use of various financial models. By their very nature, those models produce a range of results from which the ROE must be estimated. That estimate must be based on a comprehensive review of relevant data and information, and does not necessarily lend itself to a strict mathematical solution. The key consideration in determining the ROE is to ensure that the overall analysis reasonably reflects investors' view of the financial markets in general and the subject company (in the context of the proxy companies) in particular. Both practitioners and academics, however, recognize that financial models simply are tools to be used in the ROE estimation process, and that strict adherence to any single approach, or to the specific results of any single approach, can lead to flawed or misleading conclusions. That position is consistent with the Hope and Bluefield principle that it is the analytical result, as opposed to the methodology, that is controlling in arriving at ROE determinations. Thus, a reasonable ROE estimate appropriately considers alternative methodologies and the reasonableness of their individual and collective results in the context of observable, relevant market information.

## IV. PROXY GROUP SELECTION

Q. As a preliminary matter, why is it necessary to select a group of proxy companies to determine the Cost of Equity for the Company?
A. Since the ROE is a market-based concept, and Ameren Missouri is not a publicly traded entity, it is necessary to establish a group of comparable publicly-traded companies to serve as its "proxy". Even if Ameren Missouri were a publicly traded entity, short-term events could bias its market value during a given period of time. A significant benefit of using a proxy group is that it serves to moderate the effects of anomalous, temporary events associated with any one company.
Q. Does the selection of a proxy group suggest that analytical results will be tightly clustered around average (i.e., mean) results?
A. No. For example, the Constant Growth DCF approach, defines the Cost of Equity as the sum of the expected dividend yield and projected long-term growth. Despite the care taken to ensure risk comparability, market expectations with respect to future risks and growth opportunities will vary from company to company. Therefore, even within a group of similarly situated companies, it is common for analytical results to reflect a seemingly wide range. Consequently, at issue is how to estimate a Company's ROE from within that range. That determination necessarily must consider a wide range of both empirical and qualitative information.

## Q. Please provide a summary profile of Ameren Missouri.

A. Ameren Missouri, which is a wholly owned subsidiary of Ameren Corporation, provides electric service to approximately 1.2 million retail customers, and natural gas
distribution service to approximately 127,000 retail customers in Missouri. ${ }^{3}$ Ameren Corporation's current long-term issuer credit rating from S\&P is BBB+ (outlook: Stable), Baa2 (outlook: Stable) from Moody's, and BBB+ (outlook: Stable) from FitchRatings ("Fitch"). Ameren Missouri currently is rated BBB+ (outlook: Stable) by S\&P, Baa1 (outlook: Stable) by Moody's, and BBB+ (outlook: Stable) by Fitch. ${ }^{4}$

## Q. How did you select the companies included in your proxy group?

A. I began with the universe of companies that Value Line classifies as Electric Utilities. More specifically, I applied the following screening criteria to the Value Line Electric Utility universe:

- I excluded companies that do not consistently pay quarterly cash dividends;
- All of the companies in my proxy group have been covered by at least two utility industry equity analysts;
- All of the companies in my proxy group have investment grade senior unsecured bond and/or corporate credit ratings from S\&P;
- I excluded any companies whose regulated operating income over the three most recently reported fiscal years comprised less than 60.00 percent of the respective totals for that company;
- I excluded any companies whose regulated electric operating income over the three most recently reported fiscal years represented less than 90.00 percent of total regulated operating income; and

[^1]- I eliminated companies that are currently known to be party to a merger, or other significant transaction.
Q. Did you include Ameren Corporation in your proxy group?
A. No. In order to avoid the circular logic that would otherwise occur, it has been my consistent practice to exclude the subject company (or its parent) from the proxy group.
Q. What companies met those screening criteria?
A. The criteria discussed above resulted in a proxy group of the following sixteen companies:

Table 1: Proxy Group Screening Results

| Company | Ticker |
| :--- | :---: |
| American Electric Power Company, Inc. | AEP |
| Cleco Corporation | CNL |
| Duke Energy Corporation | DUK |
| Edison International | EIX |
| Empire District Electric Company | EDE |
| Great Plains Energy Inc. | GXP |
| Hawaiian Electric Industries, Inc. | HE |
| IDACORP, Inc. | IDA |
| NextEra Energy, Inc. | NEE |
| Northeast Utilities | NU |
| Otter Tail Corporation | OTTR |
| Pinnacle West Capital Corporation | PNW |
| PNM Resources, Inc. | PNM |
| Portland General Electric Company | POR |
| Southern Company | SO |
| Westar Energy, Inc. | WR |

## Q. Is this your final proxy group?

A. No. I examined the operating profile of each of the sixteen companies that met my initial screens to be certain that none displayed characteristics that were inconsistent with my intent to produce a proxy group that is fundamentally similar to the Company. As a result, I excluded Edison International ("EIX") based on recent financial information. Specifically, EIX recorded a loss of $\$ 1.7$ billion in 2012 as a result of placing Edison Mission Energy, the subsidiary that owns and operates unregulated electric generating assets (including Homer City), into Chapter 11 bankruptcy, and the divestiture of its Homer City assets. ${ }^{5}$ As part of the Chapter 11 bankruptcy proceeding, EIX entered into a purchase agreement on October 18, 2013 with NRG Energy for Edison Mission Energy's assets including the assumption of certain related liabilities. ${ }^{6}$ In addition, EIX recorded a $\$ 1.05$ billion loss resulting from an after-tax earnings charge (recorded in the fourth quarter of 2011) relating to the impairment of its Homer City, Fisk, Crawford, and Waukegan power plants, wind-related charges, and other expenses. ${ }^{7}$ Given the significant nature of those results, it is difficult to assess the degree to which regulated electric utility operations would be expected to contribute to the company's consolidated financial performance in the future. Consequently, I have excluded EIX from my final proxy group.
Q. Based on the criteria and issues discussed above, what is the composition of your proxy group?
A. The final proxy group is presented in Table 2.

[^2]Table 2: Final Proxy Group

| Company | Ticker |
| :--- | :---: |
| American Electric Power Company, Inc. | AEP |
| Cleco Corporation | CNL |
| Duke Energy Corporation | DUK |
| Empire District Electric Company | EDE |
| Great Plains Energy Inc. | GXP |
| Hawaiian Electric Industries, Inc. | HE |
| IDACORP, Inc. | IDA |
| NextEra Energy, Inc. | NEE |
| Northeast Utilities | NU |
| Otter Tail Corporation | OTTR |
| Pinnacle West Capital Corporation | PNW |
| PNM Resources, Inc. | PNM |
| Portland General Electric Company | POR |
| Southern Company | SO |
| Westar Energy, Inc. | WR |

## V. COST OF EQUITY ESTIMATION

## Q. Please briefly discuss the ROE in the context of the regulated rate of return.

A. Regulated utilities primarily use common stock and long-term debt to finance their capital investments. The Weighted Average Cost of Capital weights the costs of the individual sources of capital by their respective book values. While the cost of debt can be directly observed, the Cost of Equity is market-based and, therefore, must be estimated based on observable market information.

## Q. How is the required ROE determined?

A. I estimated the ROE using analyses based on market data to quantify a range of investor expectations of required equity returns. By their very nature, quantitative models produce a range of results from which the market required ROE must be estimated. As discussed throughout my Direct Testimony, that estimation must be based on a comprehensive review of relevant data and information, and does not necessarily lend itself to a strict mathematical solution. Consequently, the key consideration in determining the ROE is to ensure that the overall analysis reasonably reflects investors' view of the financial markets in general, and the subject company (in the context of the proxy companies) in particular.

Because the Cost of Equity is not directly observable, it must be estimated based on both quantitative and qualitative information. Although a number of empirical models have been developed for that purpose, all are subject to limiting assumptions or other constraints. Consequently, many finance texts recommend using multiple approaches to estimate the Cost of Equity. ${ }^{8}$ When faced with the task of estimating the Cost of Equity, analysts and investors are inclined to gather and evaluate as much relevant data as reasonably can be analyzed and, therefore, rely on multiple analytical approaches.

I also note that as a practical matter, no individual model is more reliable than all others under all market conditions. Therefore, it is both prudent and appropriate to use multiple methodologies in order to mitigate the effects of assumptions and inputs associated with any single approach. As such, I have considered the results of the Constant Growth and Multi-Stage

[^3]forms of the DCF model; the Capital Asset Pricing Model,; and the Bond Yield Plus Risk Premium approach.

## A. Constant Growth Discounted Cash Flow Model

## Q. Please more fully describe the Constant Growth DCF approach.

A. The Constant Growth DCF approach is based on the theory that a stock's current price represents the present value of all expected future cash flows. In its simplest form, the Constant Growth DCF model expresses the Cost of Equity as the discount rate that sets the current price equal to expected cash flows:

$$
P=\frac{D_{1}}{(1+k)}+\frac{D_{2}}{(1+k)^{2}}+\cdots+\frac{D_{\infty}}{(1+k)^{\infty}} \quad \text { Equation [1] }
$$

where $P$ represents the current stock price, $D_{1} \ldots D_{\infty}$ represent expected future dividends, and $k$ is the discount rate, or required ROE. Equation [1] is a standard present value calculation that can be simplified and rearranged into the familiar form:

$$
k=\frac{D_{0}(1+g)}{P}+g \quad \text { Equation [2] }
$$

Equation [2] often is referred to as the "Constant Growth DCF" model, in which the first term is the expected dividend yield and the second term is the expected long-term annual growth rate.

## Q. What assumptions are inherent in the Constant Growth DCF model?

A. The Constant Growth DCF model assumes: (1) a constant average annual growth rate for earnings and dividends; (2) a stable dividend payout ratio; (3) a constant price to-earnings multiple; and (4) a discount rate greater than the expected growth rate.
Q. What market data did you use to calculate the dividend yield in your Constant Growth DCF model?
A. The dividend yield is based on the proxy companies' current annualized dividend, and average closing stock prices over the 30, 90, and 180-trading day periods as of May 30, 2014.
Q. Why did you use three averaging periods to calculate an average stock price?
A. I did so to ensure that the model's results are not skewed by anomalous events that may affect stock prices on any given trading day. At the same time, the averaging period should be reasonably representative of expected capital market conditions over the long term. In my view, using 30-, 90 -, and 180-day averaging periods reasonably balances those concerns.
Q. Did you make any adjustments to the dividend yield to account for periodic growth in dividends?
A. Yes, I did. Since utility companies tend to increase their quarterly dividends at different times throughout the year, it is reasonable to assume that dividend increases will be evenly distributed over calendar quarters. Given that assumption, it is appropriate to calculate the expected dividend yield by applying one-half of the long-term growth rate to the current dividend yield. That adjustment ensures that the expected dividend yield is, on average, representative of the coming twelve-month period, and does not overstate the dividends to be paid during that time.
Q. Is it important to select appropriate measures of long-term growth in applying the DCF model?
A. Yes. In its Constant Growth form, the DCF model (i.e., as presented in Equation [2] above) assumes a single growth estimate in perpetuity. Accordingly, in order to reduce the long-term growth rate to a single measure, one must assume a fixed payout ratio, and the same constant growth rate for earnings per share ("EPS"), dividends per share, and book value per share. Since dividend growth can only be sustained by earnings growth, the model should incorporate a variety of measures of long-term earnings growth. That can be accomplished by averaging those measures of long-term growth that tend to be least influenced by capital allocation decisions that companies may make in response to near-term changes in the business environment. Since such decisions may directly affect near-term dividend payout ratios, estimates of earnings growth are more indicative of long-term investor expectations than are dividend growth estimates. Therefore, for the purposes of the Constant Growth DCF model, growth in EPS represents the appropriate measure of long-term growth.
Q. Please summarize the findings of academic research on the appropriate measure for estimating equity returns using the DCF model.
A. The relationship between various growth rates and stock valuation metrics has been the subject of much academic research. ${ }^{9}$ 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

[^4]per share earnings, so that the earnings-price ratio has assumed increased emphasis in rate cases. ${ }^{10}$

Philips' conclusion continues to hold true. 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. ${ }^{11}$ 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." ${ }^{12}$ 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." Citing Cragg and Malkiel, Dr. Harris notes that those authors "found that the evaluations of companies that analysts make are the sorts of ones on which market valuation is based." ${ }^{13}$ 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." ${ }^{14}$

To that point, the research of Carleton and Vander Weide demonstrates that earnings growth projections have a statistically significant relationship to stock valuation levels, while

[^5]dividend growth rates do not. ${ }^{15}$ Those findings suggest that investors form their investment decisions based on expectations of growth in earnings, not dividends. Consequently, earnings growth not dividend growth is the appropriate estimate for the purpose of the Constant Growth DCF model.

## Q. Please summarize your inputs to the Constant Growth DCF model.

A. I applied the DCF model to the proxy group of integrated electric utility companies using the following inputs for the price and dividend terms:

The average daily closing prices for the 30-trading days, 90 -trading days, and 180-trading days ended May 30, 2014, for the term $\mathrm{P}_{0}$; and

The annualized dividend per share as of May 30, 2014, for the term $D_{0}$.
I then calculated my DCF results using each of the following growth terms:

- The Zacks consensus long-term earnings growth estimates;
- The First Call consensus long-term earnings growth estimates; and
- The Value Line long-term earnings growth estimates.


## Q. How did you calculate the mean high and mean low DCF results?

A. For each proxy company, I calculated the high DCF result by combining the maximum EPS growth rate estimate as reported by Value Line, Zacks, and First Call with the subject company's dividend yield. The mean high result simply is the average of those estimates. I used the same approach to calculate the low DCF result, using instead the minimum of the Value Line, Zacks, and First Call estimate for each proxy company, and calculating the average result for those estimates.

15 See Vander Weide and Carleton, Investor Growth Expectations: Analysts vs. History, The Journal of Portfolio Management, Spring 1988.
Q. What are the results of your Constant Growth DCF analysis?
A. My Constant Growth DCF results are summarized in Table 3, below (see also Schedule RBH-1).

Table 3: Constant Growth DCF Results

|  | Mean Low | Mean | Mean High |
| :--- | :---: | :---: | :---: |
| 30-Day Average | $8.44 \%$ | $9.56 \%$ | $10.87 \%$ |
| 90-Day Average | $8.50 \%$ | $9.62 \%$ | $10.93 \%$ |
| 180-Day Average | $8.61 \%$ | $9.73 \%$ | $11.04 \%$ |

## B. Multi-Stage DCF Model

Q. What other forms of the DCF model have you used?
A. In order to address certain limiting assumptions underlying the Constant Growth form of the DCF model, I also considered the Multi-Stage (three-stage) DCF Model. The MultiStage model, which is an extension of the Constant Growth form, enables the analyst to specify growth rates over three distinct stages. As with the Constant Growth form of the DCF model, the Multi-Stage form defines the Cost of Equity as the discount rate that sets the current price equal to the discounted value of future cash flows. Unlike the Constant Growth form, however, the Multi-Stage model must be solved in an iterative fashion.
Q. Please generally describe the structure of your Multi-Stage model.
A. The model sets the subject company's stock price equal to the present value of future cash flows received over three "stages". In the first two stages, "cash flows" are defined as projected dividends. In the third stage, "cash flows" equal both dividends and the expected
price at which the stock will be sold at the end of the period (i.e., the "terminal price"). I calculated the terminal price based on the Gordon model, which defines the price as the expected dividend divided by the difference between the Cost of Equity (i.e., the discount rate) and the long-term expected growth rate. In essence, the terminal price is defined by the present value of the remaining "cash flows" in perpetuity. In each of the three stages, the dividend is the product of the projected earnings per share and the expected dividend payout ratio. A summary description of the model is provided in Table 4 (below).

Table 4: Multi-Stage DCF Structure

| Stage | $\mathbf{0}$ | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ |
| :--- | :--- | :--- | :--- | :--- |
| Cash Flow <br> Component | Initial Stock <br> Price | Expected <br> Dividend | Expected <br> Dividend | Expected <br> Dividend <br> Terminal <br> Value |
| Inputs | Stock Price <br> Earnings Per <br> Share (EPS) <br> Dividends <br> Per Share <br> (DPS) | Expected <br> EPS <br> Expected <br> DPS | Expected <br> EPS <br> Expected <br> DPS | Expected <br> EPS <br> Expected <br> DPS <br> Terminal <br> Value |
| Assumptions | 30-, 90-, and <br> $180-$-day <br> average stock <br> price | EPS Growth <br> Rate <br> Payout Ratio | Growth Rate <br> Change <br> Payout Ratio <br> Change | Long-term <br> Growth Rate <br> Long-term <br> Payout Ratio |

Q. What are the analytical benefits of your three-stage model?
A. The principal benefits relate to the flexibility provided by the model's formulation. Since the model provides the ability to specify near, intermediate and long-term growth rates, for example, it avoids the sometimes limiting assumption that the subject company
will grow at the same, constant rate in perpetuity. In addition, by calculating the dividend as the product of earnings and the payout ratio, the model enables analysts to reflect assumptions regarding the timing and extent of changes in the payout ratio to reflect, for example, increases or decreases in expected capital spending, or transition from current payout levels to long-term expected levels. In that regard, because the model relies on multiple sources of earnings growth rate assumptions, it is not limited to a single source, such as Value Line, for all inputs, and mitigates the potential bias associated with relying on a single source of growth estimates. ${ }^{16}$

The model also enables the analyst to assess the reasonableness of the inputs and results by reference to certain market-based metrics. For example, the stock price estimate can be divided by the expected earnings per share in the final year to calculate an average Price to Earnings ("P/E") ratio. Similarly, the terminal P/E ratio can be divided by the terminal growth rate to develop a Price to Earnings Growth ("PEG") ratio. To the extent that either the projected P/E or PEG ratios are inconsistent with either historical or expected levels, it may indicate incorrect or inconsistent assumptions within the balance of the model.

## Q. Please summarize your inputs to the Multi-Stage DCF model.

A. I applied the Multi-Stage model to the proxy group described earlier in my Direct Testimony. My assumptions with respect to the various model inputs are described in Table 5 (below).

[^6] Financial Management, 21 (Summer 1992).

Table 5: Multi-Stage DCF Model Assumptions

| Stage | Initial | First | Transition | Terminal |
| :--- | :--- | :--- | :--- | :--- |
| Stock Price | 30-, 90-, and <br> 180-day <br> average stock <br> price as of <br> May 30, 2014 |  |  |  |
| Earnings <br> Growth | 2012 actual <br> EPS escalated <br> by Period 1 <br> growth rate | EPS growth <br> as average of <br> (1) Value <br> Line; (2) <br> Zacks; and <br> (3) First Call | Transition to <br> Long-term <br> GDP growth | Long-term <br> GDP growth |
| Payout Ratio | Value Line <br> company- <br> specific | Value Line <br> company- <br> specific | Transition to <br> long-term <br> industry <br> payout ratio | Long-term <br> expected <br> payout ratio |
| Terminal <br> Value |  |  | Expected <br> dividend in <br> final year <br> divided by <br> solved Cost <br> of Equity less <br> long-term <br> growth rate |  |

## Q. How did you calculate the long-term GDP growth rate?

A. The long-term growth rate of 5.71 percent is based on the real GDP growth rate of 3.27 percent from 1929 through 2013, ${ }^{17}$ and an inflation rate of 2.37 percent. ${ }^{18}$ The GDP growth rate is calculated as the compound growth rate in the chain-weighted GDP for the period from 1929 through 2013. The rate of inflation of 2.37 percent is a compound annual forward rate starting in ten years (i.e., 2024, which is the beginning of the terminal period) and is based on the 30-day average projected inflation based on the spread between yields on long-term nominal

[^7]Treasury Securities and long-term Treasury Inflation Protected Securities, known as the "TIPS spread".

In essence, my real GDP growth rate projection is based on the assumption that absent specific knowledge to the contrary, it is reasonable to assume that over time, real GDP growth will revert to its long-term mean. Moreover, since estimating the Cost of Equity is a marketbased exercise, it is important to reflect the sentiments and expectations of investors to the extent possible. In that important respect, the TIPS spread represents the collective views of investors regarding long-term inflation expectations. Equally important, by using forward yields we are able to infer the level of long-term inflation expected by investors as of the terminal period of the Multi-Stage model (that is, ten years in the future).

## Q. What were your specific assumptions with respect to the payout ratio?

A. As noted in Table 5, for the first two periods, I relied on the first year and longterm projected payout ratios reported by Value Line ${ }^{19}$ for each of the proxy companies. I then assumed that by the end of the second period (i.e., the end of year 10), the payout ratio will converge to the historical industry average ratio of 67.05 percent. ${ }^{20}$

## Q. What are the results of your Multi-Stage DCF analysis?

A. Table 6 (below; see also Schedule RBH-2) presents the Multi-Stage DCF analysis results. Using the Gordon model to calculate the terminal stock price, the Multi-Stage DCF analysis produces a range of results from 9.61 percent to 10.58 percent.

[^8]Table 6: Multi-Stage DCF Model Results

|  | Mean Low | Mean | Mean High |
| :---: | :---: | :---: | :---: |
| 30-Day Average | $9.61 \%$ | $9.93 \%$ | $10.36 \%$ |
| 90-Day Average | $9.67 \%$ | $10.00 \%$ | $10.43 \%$ |
| 180-Day Average | $9.80 \%$ | $10.13 \%$ | $10.58 \%$ |

Q. Did you undertake any additional analyses to support your recommendation?
A. Yes. As noted earlier, I also applied the CAPM and Risk Premium approaches.

## C. CAPM Analysis

Q. Please briefly describe the general form of the CAPM analysis.
A. The CAPM analysis is a risk premium method that estimates the Cost of Equity for a given security as a function of a risk-free return plus a risk premium (to compensate investors for the non-diversifiable or "systematic" risk of that security). As shown in Equation [3], the CAPM is defined by four components, each of which theoretically must be a forwardlooking estimate:

$$
k=r_{f}+\beta\left(r_{m}-r_{f}\right) \quad \text { Equation [3] }
$$

where:

$$
\begin{aligned}
& k=\text { the required market ROE for a security; } \\
& \beta=\text { the Beta coefficient of that security; } \\
& r_{f}=\text { the risk-free rate of return; and } \\
& r_{m}=\text { the required return on the market as a whole. }
\end{aligned}
$$

In Equation [4], the term $\left(r_{m}-r_{f}\right)$ represents the Market Risk Premium. ${ }^{21}$ According to the theory underlying the CAPM, since unsystematic risk can be diversified away by adding securities to their investment portfolio, investors should be concerned only with systematic or non-diversifiable risk. Non-diversifiable risk is measured by the Beta coefficient, which is defined as:

$$
\beta_{j}=\frac{\sigma_{j}}{\sigma_{m}} \times \rho_{j, m} \quad \text { Equation [4] }
$$

Where $\sigma_{j}$ is the standard deviation of returns for company " $j$," $\sigma_{m}$ is the standard deviation of returns for the broad market (as measured, for example, by the S\&P 500 Index), and $\rho_{j, m}$ is the correlation of returns in between company $j$ and the broad market. The Beta coefficient therefore represents both relative volatility (i.e., the standard deviation) of returns, and the correlation in returns between the subject company and the overall market.

Intuitively, higher Beta coefficients indicate that the subject company's returns have been relatively volatile, and have moved in tandem with the overall market. Consequently, if a company has a Beta coefficient of 1.00, it is as risky as the market and does not provide any diversification benefit.

## Q. What assumptions did you include in your CAPM analysis?

A. Since utility assets represent long duration investments, I used two different measures of the risk-free rate: (1) the current 30-day average yield on 30-year Treasury bonds (i.e., 3.42 percent); and (2) the projected 30-year Treasury yield (i.e., 4.07 percent).
${ }^{21}$ The Market Risk Premium is defined as the incremental return of the market over the risk-free rate.
Q. Why have you relied upon the 30-year Treasury yield for your CAPM analysis?
A. In determining the security most relevant to the application of the CAPM, it is important to select the term (or maturity) that best matches the life of the underlying investment. Electric utilities typically are long-duration investments and as such, the 30-year Treasury yield is more suitable for the purpose of calculating the Cost of Equity.
Q. Please describe your ex-ante approach to estimating the Market Risk

## Premium.

A. The approach is based on the market required return, less the current 30-year Treasury yield. To estimate the market required return, I calculated the market capitalization weighted average ROE based on the Constant Growth DCF model. To do so, I relied on data from two sources: (1) Bloomberg; and (2) Value Line. With respect to Bloomberg-derived growth estimates, I calculated the expected dividend yield (using the same one-half growth rate assumption described earlier), and combined that amount with the projected earnings growth rate to arrive at the market capitalization weighted average DCF result. I performed that calculation for each of the S\&P 500 companies for which Bloomberg provided consensus growth rates. I then subtracted the current 30-year Treasury yield from that amount to arrive at the market DCFderived ex-ante market risk premium estimate. In the case of Value Line, I performed the same calculation, again using all companies for which five-year earnings growth rates were available. The results of those calculations are provided in Schedule RBH-3.
Q. How did you apply your expected Market Risk Premium and risk-free rate estimates?
A. I relied on the ex-ante Market Risk Premia discussed above, together with the current and near-term projected 30-year Treasury yields as inputs to my CAPM analyses.
Q. What Beta coefficient did you use in your CAPM model?
A. As shown in Schedule RBH-4, I considered the Beta coefficients reported by two sources: Bloomberg and Value Line. For each source, I employed the average of the reported Beta coefficient for each proxy group company. While both of those services adjust their calculated (or "raw") Beta coefficients to reflect the tendency of the Beta coefficient to regress to the market mean of 1.00 , Value Line calculates the Beta coefficient over a five-year period, while Bloomberg's calculation is based on two years of data.
Q. What are the results of your CAPM analysis?
A. As shown in Table 7 the CAPM analyses suggest an ROE range of 10.59 percent to 11.92 percent (see also Schedule RBH-5).

Table 7: Summary of CAPM Results

|  |  |  |
| :--- | :---: | :---: |
| Average Bloomberg Beta Coefficient |  |  |
| Premium |  |  |\(\left.\quad \begin{array}{c}Bloomberg <br>

Derived <br>
Market Risk\end{array} \quad $$
\begin{array}{c}\text { Value Line } \\
\text { Derived } \\
\text { Market Risk } \\
\text { Premium }\end{array}
$$\right]\)

## D. Bond Yield Plus Risk Premium Approach

## Q. Please generally describe the Bond Yield Plus Risk Premium approach.

A. This approach is based on the basic financial tenet that equity investors bear the residual risk associated with ownership and therefore require a premium over the return they would have earned as a bondholder. That is, since returns to equity holders are more risky than returns to bondholders, equity investors must be compensated for bearing that risk. Risk premium approaches, therefore, estimate the Cost of Equity as the sum of the equity risk premium and the yield on a particular class of bonds. As noted in my discussion of the CAPM, since the equity risk premium is not directly observable, it typically is estimated using a variety of approaches, some of which incorporate ex-ante, or forward-looking estimates of the Cost of Equity, and others that consider historical, or ex-post, estimates. An alternative approach is to use actual authorized returns for electric utilities to estimate the Equity Risk Premium.
Q. Please explain how you performed your Bond Yield Plus Risk Premium analysis.
A. As suggested above, I first defined the Risk Premium as the difference between the authorized ROE and the then-prevailing level of long-term (i.e., 30-year) Treasury yield. I then gathered data for over 1,423 electric utility rate proceedings between January, 1980 and May 30, 2014. In addition to the authorized ROE, I also calculated the average period between the filing of the case and the date of the final order (the "lag period"). In order to reflect the prevailing level of interest rates during the pendency of the proceedings, I calculated the average 30-year Treasury yield over the average lag period (approximately 201 days).

Because the data cover a number of economic cycles, the analysis also may be used to assess the stability of the Equity Risk Premium. Prior research, for example, has shown that the Equity Risk Premium is inversely related to the level of interest rates. That analysis is particularly relevant given the relatively low, but increasing level of current Treasury yields.

## Q. How did you model the relationship between interest rates and the Equity

## Risk Premium?

A. The basic method used was regression analysis, in which the observed Equity Risk Premium is the dependent variable, and the average 30 -year Treasury yield is the independent variable. Relative to the long-term historical average, the analytical period includes interest rates and authorized ROEs that are quite high during one period (i.e., the 1980s) and that are quite low during another (i.e., the post-Lehman bankruptcy period). To account for that variability, I used the semi-log regression, in which the Equity Risk Premium is expressed as a function of the natural log of the 30-year Treasury yield:

$$
R P=\alpha+\beta\left(\mathrm{LN}\left(T_{30}\right)\right) \text { Equation [5] }
$$

As shown on Chart 1 (below), the semi-log form is useful when measuring an absolute change in the dependent variable (in this case, the Risk Premium) relative to a proportional change in the independent variable (the 30-year Treasury yield).

Chart 1: Equity Risk Premium


As Chart 1 illustrates, over time there has been a statistically significant, negative relationship between the 30-year Treasury yield and the Equity Risk Premium. Consequently, simply applying the long-term average Equity Risk Premium of 4.43 percent would significantly understate the Cost of Equity and produce results well below any reasonable estimate. Based on the regression coefficients in Chart 1, however, the implied ROE is between 10.16 percent and 10.77 percent (see Schedule RBH-6).

## VI. BUSINESS RISKS AND OTHER CONSIDERATIONS

Q. Do the mean DCF, CAPM, and Risk Premium results for the proxy group provide an appropriate estimate of the Cost of Equity for Ameren Missouri?
A. No, the mean results do not necessarily provide an appropriate estimate of the Company's Cost of Equity. In my view, there are additional factors that must be taken into consideration when determining where the Company's cost of equity falls within the range of results. Those factors include the regulatory environment in which the Company operates, and the Company's generation portfolio. Those risk factors, which are discussed below, should be considered with respect to their overall effect on the Company's risk profile and therefore its cost of equity.

## A. Regulatory Environment

Q. How does the regulatory environment in which a utility operates affect its access to and cost of capital?
A. The regulatory environment can significantly affect both the access to, and cost of capital in several ways. First, the proportion and cost of debt capital available to utility companies are influenced by the rating agencies’ assessment of the regulatory environment. In addition, it is important to recognize that regulatory decisions regarding the authorized ROE and capital structure have direct consequences for the subject utility's internal cash flow generation (sometimes referred to as "Funds from Operations", or FFO). Since credit ratings are intended to reflect the ability to meet financial obligations as they come due, the ability to generate the cash flows required to meet those obligations (and to provide an additional amount for unexpected
events) is of critical importance to debt investors. Two of the most important metrics used to assess that ability are the ratios of FFO to debt, and FFO to interest expense, both of which are directly affected by regulatory decisions regarding the appropriate rate of return, and capital structure.

Investors recognize that a reasonable allowed ROE that is subject to earnings attrition due to unfavorable regulatory or economic factors does not provide any assurance that the utility will actually recover its costs or earn a reasonable return. The authorized ROE affects not only the cash flow-related metrics that measure financial strength, but also provides an indication of the degree of regulatory support, and risk, associated with a given utility and jurisdiction. It is, therefore, an important measure of regulatory support and financial integrity from several perspectives.
Q. Are there specific issues relating to Missouri that are a consideration for equity investors?
A. Yes, I believe so. As noted in an April 2013 report by Regulatory Research Associates, Missouri is one of only five states that legally prohibit utilities from including Construction Work in Progress in the rate base. ${ }^{22}$ As a consequence, the Company's ability to maintain its cash flow is disadvantaged relative to others that either have the ability to include CWIP in rate base during general rate cases (and therefore earn a cash return on that investment), or are provided a more timely cash return through adjustment clauses. When the revenue per dollar of assets decreases, the earned return on common equity also will decrease. Because net

[^9]income is a principal element of cash flow, the dilution in earnings resulting from not receiving a cash return on CWIP diminishes the Company's financial profile and increases its relative risk.

In addition, Missouri utilities set rates based on an historical test year, with limited "known and measurable" changes. ${ }^{23}$ In contrast, other utilities, including utilities in the proxy group, have the ability to recover rate base additions through forecast test years or alternative rate plans. As Regulatory Research Associates has noted, "[s]uch rate changes provide for improved cash flow and possibly earnings through reduced regulatory lag." ${ }^{24}$ As with the inability to include CWIP in its rate base, because it is subject to the regulatory lag otherwise mitigated by forecast test years or alternative rate plans, Ameren Missouri's ability to generate earnings and cash flow is disadvantaged relative to its peers.

The same holds true regarding the Company's inability to implement interim rates. As RRA points out, the Commission "may authorize an interim increase, subject to refund, if a company can demonstrate an emergency, or a near emergency situation." RRA concludes that as a result, "interim increases have rarely been sought or authorized" in Missouri. ${ }^{25}$ Because interim rates are unlikely, the Company's cash flow position is diluted as it invests in its rate base.

The inability to include CWIP in rate base, the use of an historical test year, and the inability to implement interim rates are particularly relevant in light of the Company's plan to invest over $\$ 3$ billion in its regulated operations from 2014 to 2015. In 2014 alone, Ameren

[^10]Missouri expects to invest $\$ 756$ million, which will contribute to the expected negative free cash flow at the parent level. ${ }^{26}$

## Q. What are your conclusions regarding the regulatory and the Company's risk

 profile?A. The regulatory environment is one of the most important issues considered by both debt and equity investors in assessing the risks and prospects of utility companies. From the perspective of debt investors, the authorized return should enable the Company to generate the cash flow needed to meet its near-term financial obligations, make the capital investments needed to maintain and expand its system, and maintain sufficient levels of liquidity to fund unexpected events. This financial liquidity must be derived not only from internally generated funds, but also by efficient access to capital markets. Moreover, because investors have many investment alternatives, even within a given market sector, the Company's financial profile must be adequate on a relative basis to ensure its ability to attract capital under a variety of economic and financial market conditions.

From the perspective of Ameren Corporation, the parent holding company of Ameren Missouri, the authorized return must be sufficient to provide an incentive to allocate equity capital to Ameren Missouri in order to fund capital investments that will assure the Company's ability to continue to provide safe and reliable service. From the perspective of equity investors, the authorized return must be adequate to provide a risk-comparable return on the equity portion of the Company's capital investments. Since equity investors are the residual claimants on the Company's cash flows (which is to say that the equity return is subordinate to interest payments), they are particularly concerned with regulatory uncertainty and its effect on future cash flows.

[^11]Because of the regulatory lag created by the inability to include CWIP in the rate base, the use of historical test periods, and the inability to implement interim rates, Ameren Missouri is at a disadvantage in terms of its ability to earn its authorized return. In light of those risks, I believe that an ROE of 10.40 percent is reasonable and appropriate.

## B. Generation Portfolio

## Q. Please provide an overview of the Company's generation portfolio.

A. Ameren Missouri's operations are heavily dependent on coal-fired generation, representing more than 75.00 percent of its 2013 net generation. The Company's remaining generation portfolio is largely dependent on a single nuclear plant, which represented approximately 20.00 percent of the Ameren Missouri’s 2013 net generation. ${ }^{27}$
Q. Please briefly describe the risks associated with the ownership of coal-fired generating resources.
A. In general, capital-intensive generation assets such as coal-fired plants face risks associated with capital recovery in the event of market structure changes or plant failure, or replacement cost recovery in the event of extended or unplanned outages. Federal environmental regulations creating emissions control requirements have been issued in recent years. Compliance with new regulations can require substantial capital investment, or add operational costs. In fact, a report by Staff of the Missouri Public Service Commission estimated that known Environmental Protection Agency ("EPA") regulations, which primarily affect coal-fired generating plants, would cost state electric utilities and their customers in the range of

[^12]approximately $\$ 2.23$ billion to $\$ 2.47$ billion from 2012 to $2022 .{ }^{28}$ The report also highlighted the level of uncertainty regarding emerging environmental regulations and the potential consequences. The need to respond to environmental regulations makes it particularly important that Ameren Missouri maintains reasonable access to the capital markets.

More recently, the risks and potential costs associated with coal-fired generating plants have been highlighted in the EPA’s proposed carbon dioxide reduction rule. Introduced on June 2, 2014, the rule proposes to reduce carbon dioxide emissions in the year 2030 by 30 percent from their 2005 levels. Under the EPA’s "Clean Power Plan", carbon dioxide reduction targets are proposed on a state-by-state basis, with four "pathways" to meet those goals. While states can choose their own path to compliance, they must submit their plans to the EPA for approval by June 2016. ${ }^{29}$ Regardless of the path chosen, the uncertainty associated with the potential costs, and the recovery of those costs, is a consideration for companies such as Ameren Missouri, for which coal-fired generation represents a large share of its portfolio.
Q. Do you have any other observations regarding the Company's generation portfolio?
A. Yes. As opposed to other owners of nuclear generating facilities, Ameren is the owner of a single nuclear plant. As a single asset owner, the Company does not have the benefit of diverse operations, or the scale economies that could result in lower marginal costs or higher capacity factors. In that regard, Ameren may be exposed to somewhat higher risk than companies that own and operate nuclear fleets, or those that operate no nuclear plants at all.

[^13]
## VII. CAPITAL MARKET ENVIRONMENT

## Q. Do economic conditions influence the required cost of capital and required return on common equity?

A. Yes. As discussed in Section VI, the models used to estimate the Cost of Equity are meant to reflect, and therefore are influenced by, current and expected capital market conditions. Therefore, it is important to assess the reasonableness of any financial model's results in the context of observable market data. To the extent that certain ROE estimates are incompatible with such data or inconsistent with basic financial principles, it is appropriate to consider whether alternative estimation techniques are likely to provide more meaningful and reliable results.

## Q. Do you have any general observations regarding the relationship between current capital market conditions and the Company's Cost of Equity?

A. Yes, I do. Much has been reported about the Federal Reserve's Quantitative Easing policy, and its effect on interest rates. The issue as to how those policies, and the continuing level of interest rates affect utility stock prices is less clear. As discussed below, for example, while Federal policy has affected interest rates, it also correlates to lower levels of market volatility. Generally speaking, when volatility is low investors are willing to take on more risk, and allocate capital to less defensive stocks. In essence, they are more willing to take on additional risk in expectation of realizing higher returns. Recently, however, the market appears to be providing conflicting signals; low volatility and low interest rates have resulted in defensive stocks somewhat outperforming other sectors.

A relevant question, then, is how investors will react when the Federal Reserve completes its market intervention. A viable outcome is that investors will perceive greater chances for economic growth, which will increase the growth rates included in the Constant Growth DCF model. At the same time, higher growth and the absence of Federal market intervention could provide the opportunity for interest rates to increase, thereby increasing the dividend yield portion of the DCF model. In that case, both terms of the Constant Growth DCF model would increase, producing increased ROE estimates.

At this time, however, market data is somewhat disjointed. As a consequence, it is difficult to rely on a single model to estimate the Company's Cost of Equity. A more reasoned approach is to understand the relationships among Federal Reserve policies, interest rates and risk, and assess how those factors may affect different models. For the reasons discussed below, the current market is one in which it is very important to consider a broad range of data and models when determining the Cost of Equity.

## Q. Please summarize the effect of recent Federal Reserve policies on interest rates and the cost of capital.

A. Beginning in 2008, the Federal Reserve proceeded on a steady path of initiatives intended to lower long-term Treasury yields. ${ }^{30}$ The Federal Reserve policy actions "were designed to put downward pressure on longer-term interest rates by having the Federal Reserve take onto its balance sheet some of the duration and prepayment risks that would otherwise have been borne by private investors." ${ }^{31}$ Under that policy, "Securities held outright" on the Federal Reserve's balance sheet increased from approximately $\$ 489$ billion at the beginning of October

[^14]2008 to $\$ 4.07$ trillion by May 30, 2014. ${ }^{32}$ To put that increase in context, the securities held by the Federal Reserve represented approximately 3.29 percent of Gross Domestic Product ("GDP") at the end of September 2008, and had risen to approximately 23.78 percent of GDP in May $2014 .{ }^{33}$

## Q. Is the Federal Reserve expected to maintain these policies?

A. Although the Federal Reserve began "tapering" its asset purchases in December 2013, the future pace of such reductions is not on a "preset course."34 Nonetheless, the overall increase in interest rates since May 2013 suggests that investors have continued to focus on the timing and extent of further reductions in monthly asset purchases by the Federal Reserve. ${ }^{35}$ As such, uncertainties remain in the market today and going forward. The uncertainty surrounding the timing of the Federal Reserve's future policy decisions, including the unwinding of stimulus programs, represents a risk to investors that, in my view, should be reflected in the Company's authorized ROE.

Just as market intervention by the Federal Reserve has reduced interest rates, it also has had the effect of reducing market volatility. As shown in Chart 2 below, each time the Federal Reserve began to purchase bonds (as evidenced by the increase in "Securities Held Outright" on its balance sheet), volatility subsequently declined. In fact, in September 2012, when the Federal Reserve began to purchase long-term securities at a pace of $\$ 85$ billion per month, volatility (as

[^15]measured by the CBOE Volatility Index, known as the "VIX") fell, and has since remained in a relatively narrow range. The reason is quite straight-forward: Investors became confident that the Federal Reserve would intervene if markets were to become unstable.

Chart 2: VIX and Federal Reserve Asset Purchases


The important analytical issue is whether we can infer that risk aversion among investors is at a historically low level, implying a Cost of Equity that is well below recently authorized returns. Given the negative correlation between the expansion of the Federal Reserve's balance sheet and the VIX, it is difficult to conclude that fundamental risk aversion and investor return requirements have fallen. If it were the case that investors believe that volatility will remain at low levels (that is, that market risk and uncertainty will remain low), it is not clear why they would decrease their return requirements for defensive sectors such as utilities.
Q. Does your recommendation also consider the current interest rate environment?
A. Yes, it does. Although it is true that current interest rates (as measured by the 30-year Treasury yield) are low in the context long-term historical levels, they are above the levels that prevailed in December 2012, when the Company received its current 9.80 percent ROE authorization: from July through December 2012 and January through May 2014, the average 30 -year Treasury yield was 2.80 percent and 3.59 percent, respectively. ${ }^{36}$ It is interesting to note that the 79 basis point increase in Treasury yields occurred despite the Federal Reserve's policy of buying long-term Treasury securities (see Chart 2, above). Taken in that context, my 10.40 percent ROE recommendation reflects the general increase in interest rates since 2012, and the uncertainty surrounding the timing and means by which the Federal Reserve may unwind its significant position in long-term Treasury securities.
Q. What conclusions do you draw from your analyses of capital market conditions?
A. From an analytical perspective, it is important that the inputs and assumptions used to arrive at an ROE recommendation, including assessments of capital market conditions, are consistent with the recommendation itself. While I appreciate that all analyses require an element of judgment, the application of that judgment must be made in the context of the quantitative and qualitative information available to the analyst and the capital market environment in which the analyses were undertaken. Because the application of financial models and interpretation of their results often is the subject of differences among analysts in regulatory
proceedings, I believe that 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.

## VIII. CONCLUSIONS AND RECOMMENDATION

Q. What is your conclusion regarding the Company's Cost of Equity?
A. As discussed earlier in Section V, I have performed several analyses to estimate the Cost of Equity. In light of those results, and taking into consideration other relevant and observable market data, I believe that ROE in the range of 10.20 percent to 10.60 percent represents the range of returns required by equity investors under current and expected market conditions. Within that range, it is my view that an ROE of 10.40 percent is reasonable and appropriate. As discussed earlier in my testimony, my recommendation reflects analytical results based on a proxy group of natural gas utilities. My recommendation also takes into consideration the Company's risk profile, including the regulatory environment in which the Company operates and its generation portfolio.

Table 8a: Summary of DCF Results

| Constant Growth DCF | Low | Mean | High |
| :--- | :---: | :---: | :---: |
| 30-Day Average | $8.44 \%$ | $9.56 \%$ | $10.87 \%$ |
| 90-Day Average | $8.50 \%$ | $9.62 \%$ | $10.93 \%$ |
| 180-Day Average | $8.61 \%$ | $9.73 \%$ | $11.04 \%$ |
| Multi-Stage DCF | Low | Mean | High |
| 30-Day Average | $9.61 \%$ | $9.93 \%$ | $10.36 \%$ |
| 90-Day Average | $9.67 \%$ | $10.00 \%$ | $10.43 \%$ |
| 180-Day Average | $9.80 \%$ | $10.13 \%$ | $10.58 \%$ |

Table 8b: Summary of Risk Premium and Other Analytical Results

| CAPM Results |  | Bloomberg <br> Derived Market Risk Premium | Value Line Derived Market Risk Premium |
| :---: | :---: | :---: | :---: |
| Average Bloomberg Beta Coefficient |  |  |  |
| Current 30-Year Treasury (3.42\%) |  | 11.27\% | 10.69\% |
| Near Term Projected 30-Year Trea | (4.07\%) | 11.92\% | 11.34\% |
| Average Value Line Beta Coefficient |  |  |  |
| Current 30-Year Treasury (3.42\%) |  | 11.17\% | 10.59\% |
| Near Term Projected 30-Year Treasur | (4.07\%) | 11.82\% | 11.24\% |
|  |  |  |  |
|  | Low | Mid | High |
| Bond Yield Plus Risk Premium | 10.16\% | 10.31\% | 10.77\% |

Q. Does this conclude your Direct Testimony?
A. Yes, it does.

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 | $\begin{aligned} & \text { Low } \\ & \text { ROE } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Mean } \\ & \text { ROE } \end{aligned}$ | High ROE |
| American Electric Power Company, Inc. | AEP | \$2.00 | \$52.51 | 3.81\% | 3.90\% | 4.40\% | 4.79\% | 4.50\% | 4.56\% | 8.29\% | 8.46\% | 8.69\% |
| Cleco Corporation | CNL | \$1.60 | \$51.44 | 3.11\% | 3.21\% | 8.00\% | 7.00\% | 4.50\% | 6.50\% | 7.68\% | 9.71\% | 11.23\% |
| Duke Energy Corporation | DUK | \$3.12 | \$72.19 | 4.32\% | 4.42\% | 4.20\% | 4.19\% | 5.00\% | 4.46\% | 8.60\% | 8.88\% | 9.43\% |
| Empire District Electric Company | EDE | \$1.02 | \$24.01 | 4.25\% | 4.32\% | 3.00\% | 3.00\% | 4.00\% | 3.33\% | 7.31\% | 7.65\% | 8.33\% |
| Great Plains Energy Inc. | GXP | \$0.92 | \$26.14 | 3.52\% | 3.62\% | 5.10\% | 5.25\% | 6.00\% | 5.45\% | 8.71\% | 9.07\% | 9.63\% |
| Hawaiian Electric Industries, Inc. | HE | \$1.24 | \$24.04 | 5.16\% | 5.27\% | 6.00\% | 3.20\% | 4.00\% | 4.40\% | 8.44\% | 9.67\% | 11.31\% |
| IDACORP, Inc. | IDA | \$1.72 | \$54.88 | 3.13\% | 3.19\% | 4.00\% | 4.00\% | 2.00\% | 3.33\% | 5.17\% | 6.52\% | 7.20\% |
| NextEra Energy, Inc. | NEE | \$2.90 | \$97.12 | 2.99\% | 3.08\% | 6.40\% | 6.23\% | 6.00\% | 6.21\% | 9.08\% | 9.29\% | 9.48\% |
| Northeast Utilities | NU | \$1.57 | \$45.96 | 3.42\% | 3.54\% | 6.90\% | 6.36\% | 8.00\% | 7.09\% | 9.88\% | 10.62\% | 11.55\% |
| Otter Tail Corporation | OTTR | \$1.21 | \$28.68 | 4.22\% | 4.44\% | NA | 6.00\% | 15.00\% | 10.50\% | 10.34\% | 14.94\% | 19.53\% |
| Pinnacle West Capital Corporation | PNW | \$2.27 | \$55.36 | 4.10\% | 4.19\% | 4.10\% | 4.28\% | 4.00\% | 4.13\% | 8.18\% | 8.31\% | 8.47\% |
| PNM Resources, Inc. | PNM | \$0.74 | \$27.74 | 2.67\% | 2.80\% | 8.50\% | 8.39\% | 12.00\% | 9.63\% | 11.17\% | 12.43\% | 14.83\% |
| Portland General Electric Company | POR | \$1.12 | \$32.84 | 3.41\% | 3.54\% | 6.80\% | 11.21\% | 5.00\% | 7.67\% | 8.50\% | 11.21\% | 14.81\% |
| Southern Company | SO | \$2.10 | \$44.28 | 4.74\% | 4.83\% | 3.70\% | 3.64\% | 3.50\% | 3.61\% | 8.33\% | 8.44\% | 8.53\% |
| Westar Energy, Inc. | WR | \$1.40 | \$35.54 | 3.94\% | 4.02\% | 3.70\% | 2.90\% | 6.00\% | 4.20\% | 6.90\% | 8.22\% | 10.06\% |
| PROXY GROUP MEAN |  |  |  | 3.79\% | 3.89\% | 5.34\% | 5.36\% | 5.97\% | 5.67\% | 8.44\% | 9.56\% | 10.87\% |
| PROXY GROUP MEDIAN |  |  |  | 3.81\% | 3.90\% | 4.75\% | 4.79\% | 5.00\% | 4.56\% | 8.44\% | 9.07\% | 9.63\% |

Notes:
[1] Source: Bloomberg Professional Service
[2] Source: Bloomberg Professional Service, equals 30-trading day average as of May 30, 2014
[3] Equals [1] / [2]
[4] Equals [3] $\times(1+0.5 \times$ [8])
[5] Source: Zacks
[6] Source: Yahoo! Finance
[7] Source: Value Line
[8] Equals Average([5], [6], [7])
[9] Equals [3] $\times(1+0.5 \times$ Minimum([5], [6], [7]) $)+$ Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + $0.5 \times$ Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Constant Growth Discounted Cash Flow Model
90 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 | $\begin{aligned} & \text { Low } \\ & \text { ROE } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Mean } \\ & \text { ROE } \end{aligned}$ | High ROE |
| American Electric Power Company, Inc. | AEP | \$2.00 | \$50.54 | 3.96\% | 4.05\% | 4.40\% | 4.79\% | 4.50\% | 4.56\% | 8.44\% | 8.61\% | 8.84\% |
| Cleco Corporation | CNL | \$1.60 | \$49.91 | 3.21\% | 3.31\% | 8.00\% | 7.00\% | 4.50\% | 6.50\% | 7.78\% | 9.81\% | 11.33\% |
| Duke Energy Corporation | DUK | \$3.12 | \$71.04 | 4.39\% | 4.49\% | 4.20\% | 4.19\% | 5.00\% | 4.46\% | 8.67\% | 8.95\% | 9.50\% |
| Empire District Electric Company | EDE | \$1.02 | \$23.73 | 4.30\% | 4.37\% | 3.00\% | 3.00\% | 4.00\% | 3.33\% | 7.36\% | 7.70\% | 8.38\% |
| Great Plains Energy Inc. | GXP | \$0.92 | \$25.93 | 3.55\% | 3.64\% | 5.10\% | 5.25\% | 6.00\% | 5.45\% | 8.74\% | 9.09\% | 9.65\% |
| Hawaiian Electric Industries, Inc. | HE | \$1.24 | \$24.85 | 4.99\% | 5.10\% | 6.00\% | 3.20\% | 4.00\% | 4.40\% | 8.27\% | 9.50\% | 11.14\% |
| IDACORP, Inc. | IDA | \$1.72 | \$54.47 | 3.16\% | 3.21\% | 4.00\% | 4.00\% | 2.00\% | 3.33\% | 5.19\% | 6.54\% | 7.22\% |
| NextEra Energy, Inc. | NEE | \$2.90 | \$94.09 | 3.08\% | 3.18\% | 6.40\% | 6.23\% | 6.00\% | 6.21\% | 9.17\% | 9.39\% | 9.58\% |
| Northeast Utilities | NU | \$1.57 | \$44.89 | 3.50\% | 3.62\% | 6.90\% | 6.36\% | 8.00\% | 7.09\% | 9.97\% | 10.71\% | 11.64\% |
| Otter Tail Corporation | OTTR | \$1.21 | \$29.41 | 4.11\% | 4.33\% | NA | 6.00\% | 15.00\% | 10.50\% | 10.24\% | 14.83\% | 19.42\% |
| Pinnacle West Capital Corporation | PNW | \$2.27 | \$54.53 | 4.16\% | 4.25\% | 4.10\% | 4.28\% | 4.00\% | 4.13\% | 8.25\% | 8.38\% | 8.53\% |
| PNM Resources, Inc. | PNM | \$0.74 | \$26.51 | 2.79\% | 2.93\% | 8.50\% | 8.39\% | 12.00\% | 9.63\% | 11.30\% | 12.56\% | 14.96\% |
| Portland General Electric Company | POR | \$1.12 | \$31.86 | 3.52\% | 3.65\% | 6.80\% | 11.21\% | 5.00\% | 7.67\% | 8.60\% | 11.32\% | 14.92\% |
| Southern Company | SO | \$2.10 | \$43.16 | 4.87\% | 4.95\% | 3.70\% | 3.64\% | 3.50\% | 3.61\% | 8.45\% | 8.57\% | 8.66\% |
| Westar Energy, Inc. | WR | \$1.40 | \$34.62 | 4.04\% | 4.13\% | 3.70\% | 2.90\% | 6.00\% | 4.20\% | 7.00\% | 8.33\% | 10.17\% |
| PROXY GROUP MEAN |  |  |  | 3.84\% | 3.95\% | 5.34\% | 5.36\% | 5.97\% | 5.67\% | 8.50\% | 9.62\% | 10.93\% |
| PROXY GROUP MEDIAN |  |  |  | 3.96\% | 4.05\% | 4.75\% | 4.79\% | 5.00\% | 4.56\% | 8.45\% | 9.09\% | 9.65\% |

Notes:
[1] Source: Bloomberg Professional Service
[2] Source: Bloomberg Professional Service, equals 90-trading day average as of May 30, 2014
[3] Equals [1] / [2]
[4] Equals [3] $\times(1+0.5 \times[8])$
[5] Source: Zacks
[6] Source: Yahoo! Finance
[7] Source: Value Line
[8] Equals Average([5], [6], [7])
[9] Equals [3] $\times(1+0.5 \times$ Minimum([5], [6], [7]) $)+$ Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + $0.5 \times$ Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Constant Growth Discounted Cash Flow Model
180 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 | $\begin{aligned} & \text { Low } \\ & \text { ROE } \end{aligned}$ | $\begin{aligned} & \text { Mean } \\ & \text { ROE } \end{aligned}$ | $\begin{aligned} & \text { High } \\ & \text { ROE } \end{aligned}$ |
| American Electric Power Company, Inc. | AEP | \$2.00 | \$48.18 | 4.15\% | 4.25\% | 4.40\% | 4.79\% | 4.50\% | 4.56\% | 8.64\% | 8.81\% | 9.04\% |
| Cleco Corporation | CNL | \$1.60 | \$47.92 | 3.34\% | 3.45\% | 8.00\% | 7.00\% | 4.50\% | 6.50\% | 7.91\% | 9.95\% | 11.47\% |
| Duke Energy Corporation | DUK | \$3.12 | \$70.14 | 4.45\% | 4.55\% | 4.20\% | 4.19\% | 5.00\% | 4.46\% | 8.73\% | 9.01\% | 9.56\% |
| Empire District Electric Company | EDE | \$1.02 | \$23.04 | 4.43\% | 4.50\% | 3.00\% | 3.00\% | 4.00\% | 3.33\% | 7.49\% | 7.83\% | 8.52\% |
| Great Plains Energy Inc. | GXP | \$0.92 | \$24.72 | 3.72\% | 3.82\% | 5.10\% | 5.25\% | 6.00\% | 5.45\% | 8.92\% | 9.27\% | 9.83\% |
| Hawaiian Electric Industries, Inc. | HE | \$1.24 | \$25.31 | 4.90\% | 5.01\% | 6.00\% | 3.20\% | 4.00\% | 4.40\% | 8.18\% | 9.41\% | 11.05\% |
| IDACORP, Inc. | IDA | \$1.72 | \$52.61 | 3.27\% | 3.32\% | 4.00\% | 4.00\% | 2.00\% | 3.33\% | 5.30\% | 6.66\% | 7.33\% |
| NextEra Energy, Inc. | NEE | \$2.90 | \$89.07 | 3.26\% | 3.36\% | 6.40\% | 6.23\% | 6.00\% | 6.21\% | 9.35\% | 9.57\% | 9.76\% |
| Northeast Utilities | NU | \$1.57 | \$43.38 | 3.62\% | 3.75\% | 6.90\% | 6.36\% | 8.00\% | 7.09\% | 10.09\% | 10.83\% | 11.76\% |
| Otter Tail Corporation | OTTR | \$1.21 | \$29.13 | 4.15\% | 4.37\% | NA | 6.00\% | 15.00\% | 10.50\% | 10.28\% | 14.87\% | 19.46\% |
| Pinnacle West Capital Corporation | PNW | \$2.27 | \$54.50 | 4.17\% | 4.25\% | 4.10\% | 4.28\% | 4.00\% | 4.13\% | 8.25\% | 8.38\% | 8.53\% |
| PNM Resources, Inc. | PNM | \$0.74 | \$24.93 | 2.97\% | 3.11\% | 8.50\% | 8.39\% | 12.00\% | 9.63\% | 11.48\% | 12.74\% | 15.15\% |
| Portland General Electric Company | POR | \$1.12 | \$30.57 | 3.66\% | 3.80\% | 6.80\% | 11.21\% | 5.00\% | 7.67\% | 8.76\% | 11.47\% | 15.08\% |
| Southern Company | SO | \$2.10 | \$42.21 | 4.97\% | 5.06\% | 3.70\% | 3.64\% | 3.50\% | 3.61\% | 8.56\% | 8.68\% | 8.77\% |
| Westar Energy, Inc. | WR | \$1.40 | \$33.10 | 4.23\% | 4.32\% | 3.70\% | 2.90\% | 6.00\% | 4.20\% | 7.19\% | 8.52\% | 10.36\% |
| PROXY GROUP MEAN |  |  |  | 3.95\% | 4.06\% | 5.34\% | 5.36\% | 5.97\% | 5.67\% | 8.61\% | 9.73\% | 11.04\% |
| PROXY GROUP MEDIAN |  |  |  | 4.15\% | 4.25\% | 4.75\% | 4.79\% | 5.00\% | 4.56\% | 8.64\% | 9.27\% | 9.83\% |

Notes:
[1] Source: Bloomberg Professional Service
[2] Source: Bloomberg Professional Service, equals 180-trading day average as of May 30, 2014
[3] Equals [1] / [2]
[4] Equals [3] $\times(1+0.5 \times[8])$
[5] Source: Zacks
[6] Source: Yahoo! Finance
[7] Source: Value Line
[8] Equals Average([5], [6], [7])
[9] Equals [3] $\times(1+0.5 \times$ Minimum ([5], [6], [7]) $)+$ Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + $0.5 \times$ 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


| Projected Annual Cash Flows |  | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | Terminal Value |
| American Electric Power Company, Inc. | AEP | \$1.99 | \$2.08 | \$2.16 | \$2.25 | \$2.35 | \$2.48 | \$2.62 | \$2.77 | \$2.94 | \$3.12 | \$3.33 | \$3.55 | \$3.75 | \$3.96 | \$4.19 | \$4.43 | \$113.35 |
| Cleco Corporation | CNL | \$1.55 | \$1.68 | \$1.81 | \$1.95 | \$2.11 | \$2.30 | \$2.51 | \$2.73 | \$2.96 | \$3.21 | \$3.48 | \$3.76 | \$3.97 | \$4.20 | \$4.44 | \$4.69 | \$115.31 |
| Duke Energy Corporation | DUK | \$3.02 | \$3.02 | \$3.00 | \$2.98 | \$2.95 | \$3.11 | \$3.27 | \$3.46 | \$3.66 | \$3.88 | \$4.12 | \$4.38 | \$4.63 | \$4.89 | \$5.17 | \$5.47 | \$154.02 |
| Empire District Electric Company | EDE | \$0.93 | \$0.94 | \$0.96 | \$0.98 | \$1.00 | \$1.04 | \$1.08 | \$1.13 | \$1.19 | \$1.26 | \$1.34 | \$1.42 | \$1.50 | \$1.59 | \$1.68 | \$1.77 | \$51.18 |
| Great Plains Energy Inc. | GXP | \$0.78 | \$0.87 | \$0.96 | \$1.06 | \$1.16 | \$1.23 | \$1.30 | \$1.37 | \$1.45 | \$1.54 | \$1.63 | \$1.73 | \$1.82 | \$1.93 | \$2.04 | \$2.16 | \$56.75 |
| Hawaiian Electric Industries, Inc. | HE | \$1.06 | \$1.14 | \$1.22 | \$1.30 | \$1.39 | \$1.45 | \$1.52 | \$1.59 | \$1.67 | \$1.76 | \$1.86 | \$1.96 | \$2.07 | \$2.19 | \$2.32 | \$2.45 | \$51.15 |
| IDACORP, Inc. | IDA | \$1.50 | \$1.66 | \$1.82 | \$2.00 | \$2.18 | \$2.33 | \$2.49 | \$2.67 | \$2.87 | \$3.09 | \$3.34 | \$3.63 | \$3.83 | \$4.05 | \$4.29 | \$4.53 | \$121.98 |
| NextEra Energy, Inc. | NEE | \$2.62 | \$2.82 | \$3.03 | \$3.26 | \$3.51 | \$3.82 | \$4.16 | \$4.52 | \$4.90 | \$5.30 | \$5.74 | \$6.20 | \$6.55 | \$6.93 | \$7.32 | \$7.74 | \$216.80 |
| Northeast Utilities | NU | \$1.19 | \$1.27 | \$1.36 | \$1.45 | \$1.54 | \$1.69 | \$1.85 | \$2.01 | \$2.18 | \$2.36 | \$2.56 | \$2.75 | \$2.91 | \$3.08 | \$3.25 | \$3.44 | \$102.47 |
| Otter Tail Corporation | OTTR | \$1.01 | \$1.03 | \$1.03 | \$1.03 | \$1.02 | \$1.15 | \$1.29 | \$1.43 | \$1.57 | \$1.72 | \$1.86 | \$2.00 | \$2.11 | \$2.23 | \$2.36 | \$2.50 | \$64.25 |
| Pinnacle West Capital Corporation | PNW | \$2.11 | \$2.26 | \$2.41 | \$2.57 | \$2.74 | \$2.87 | \$3.02 | \$3.18 | \$3.36 | \$3.56 | \$3.78 | \$4.02 | \$4.25 | \$4.49 | \$4.75 | \$5.02 | \$119.19 |
| PNM Resources, Inc. | PNM | \$0.70 | \$0.78 | \$0.87 | \$0.98 | \$1.09 | \$1.26 | \$1.44 | \$1.64 | \$1.85 | \$2.06 | \$2.28 | \$2.51 | \$2.65 | \$2.81 | \$2.97 | \$3.14 | \$65.82 |
| Portland General Electric Company | POR | \$1.23 | \$1.26 | \$1.30 | \$1.33 | \$1.35 | \$1.53 | \$1.72 | \$1.92 | \$2.13 | \$2.36 | \$2.60 | \$2.85 | \$3.02 | \$3.19 | \$3.37 | \$3.57 | \$75.65 |
| Southern Company | so | \$2.07 | \$2.13 | \$2.18 | \$2.24 | \$2.30 | \$2.36 | \$2.42 | \$2.50 | \$2.59 | \$2.70 | \$2.81 | \$2.94 | \$3.11 | \$3.29 | \$3.47 | \$3.67 | \$91.72 |
| Westar Energy, Inc. | WR | \$1.23 | \$1.31 | \$1.40 | \$1.49 | \$1.58 | \$1.68 | \$1.78 | \$1.90 | \$2.02 | \$2.16 | \$2.31 | \$2.48 | \$2.63 | \$2.78 | \$2.93 | \$3.10 | \$77.67 |


| Projected Annual Data Investor Cash Flows |  | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Initial |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Company | Ticker | Outflow | 5/30/14 | 12/31/14 | 6/30/15 | 6/30/16 | 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 |
| American Electric Power Company, Inc. | AEP | (\$52.51) | \$0.00 | \$1.20 | \$2.16 | \$2.25 | \$2.35 | \$2.48 | \$2.62 | \$2.77 | \$2.94 | \$3.12 | \$3.33 | \$3.55 | \$3.75 | \$3.96 | \$4.19 | \$117.78 |
| Cleco Corporation | CNL | (\$51.44) | \$0.00 | \$0.94 | \$1.81 | \$1.95 | \$2.11 | \$2.30 | \$2.51 | \$2.73 | \$2.96 | \$3.21 | \$3.48 | \$3.76 | \$3.97 | \$4.20 | \$4.44 | \$120.00 |
| Duke Energy Corporation | DUK | (\$72.19) | \$0.00 | \$1.82 | \$3.00 | \$2.98 | \$2.95 | \$3.11 | \$3.27 | \$3.46 | \$3.66 | \$3.88 | \$4.12 | \$4.38 | \$4.63 | \$4.89 | \$5.17 | \$159.49 |
| Empire District Electric Company | EDE | (\$24.01) | \$0.00 | \$0.56 | \$0.96 | \$0.98 | \$1.00 | \$1.04 | \$1.08 | \$1.13 | \$1.19 | \$1.26 | \$1.34 | \$1.42 | \$1.50 | \$1.59 | \$1.68 | \$52.95 |
| Great Plains Energy Inc. | GXP | (\$26.14) | \$0.00 | \$0.47 | \$0.96 | \$1.06 | \$1.16 | \$1.23 | \$1.30 | \$1.37 | \$1.45 | \$1.54 | \$1.63 | \$1.73 | \$1.82 | \$1.93 | \$2.04 | \$58.91 |
| Hawaiian Electric Industries, Inc. | HE | (\$24.04) | \$0.00 | \$0.64 | \$1.22 | \$1.30 | \$1.39 | \$1.45 | \$1.52 | \$1.59 | \$1.67 | \$1.76 | \$1.86 | \$1.96 | \$2.07 | \$2.19 | \$2.32 | \$53.59 |
| IDACORP, Inc. | IDA | (\$54.88) | \$0.00 | \$0.90 | \$1.82 | \$2.00 | \$2.18 | \$2.33 | \$2.49 | \$2.67 | \$2.87 | \$3.09 | \$3.34 | \$3.63 | \$3.83 | \$4.05 | \$4.29 | \$126.51 |
| NextEra Energy, Inc. | NEE | (\$97.12) | \$0.00 | \$1.59 | \$3.03 | \$3.26 | \$3.51 | \$3.82 | \$4.16 | \$4.52 | \$4.90 | \$5.30 | \$5.74 | \$6.20 | \$6.55 | \$6.93 | \$7.32 | \$224.54 |
| Northeast Utilities | NU | (\$45.96) | \$0.00 | \$0.73 | \$1.36 | \$1.45 | \$1.54 | \$1.69 | \$1.85 | \$2.01 | \$2.18 | \$2.36 | \$2.56 | \$2.75 | \$2.91 | \$3.08 | \$3.25 | \$105.91 |
| Otter Tail Corporation | OTTR | (\$28.68) | \$0.00 | \$0.63 | \$1.03 | \$1.03 | \$1.02 | \$1.15 | \$1.29 | \$1.43 | \$1.57 | \$1.72 | \$1.86 | \$2.00 | \$2.11 | \$2.23 | \$2.36 | \$66.74 |
| Pinnacle West Capital Corporation | PNW | (\$55.36) | \$0.00 | \$1.27 | \$2.41 | \$2.57 | \$2.74 | \$2.87 | \$3.02 | \$3.18 | \$3.36 | \$3.56 | \$3.78 | \$4.02 | \$4.25 | \$4.49 | \$4.75 | \$124.21 |
| PNM Resources, Inc. | PNM | (\$27.74) | \$0.00 | \$0.43 | \$0.87 | \$0.98 | \$1.09 | \$1.26 | \$1.44 | \$1.64 | \$1.85 | \$2.06 | \$2.28 | \$2.51 | \$2.65 | \$2.81 | \$2.97 | \$68.96 |
| Portland General Electric Company | POR | (\$32.84) | \$0.00 | \$0.75 | \$1.30 | \$1.33 | \$1.35 | \$1.53 | \$1.72 | \$1.92 | \$2.13 | \$2.36 | \$2.60 | \$2.85 | \$3.02 | \$3.19 | \$3.37 | \$79.22 |
| Southern Company | So | (\$44.28) | \$0.00 | \$1.24 | \$2.18 | \$2.24 | \$2.30 | \$2.36 | \$2.42 | \$2.50 | \$2.59 | \$2.70 | \$2.81 | \$2.94 | \$3.11 | \$3.29 | \$3.47 | \$95.39 |
| Westar Energy, Inc. | WR | (\$35.54) | \$0.00 | \$0.74 | \$1.40 | \$1.49 | \$1.58 | \$1.68 | \$1.78 | \$1.90 | \$2.02 | \$2.16 | \$2.31 | \$2.48 | \$2.63 | \$2.78 | \$2.93 | \$80.77 |

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


| Projected Annual Cash Flows |  | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | Terminal Value |
| American Electric Power Company, Inc. | AEP | \$2.00 | \$2.09 | \$2.18 | \$2.27 | \$2.37 | \$2.51 | \$2.66 | \$2.82 | \$2.99 | \$3.18 | \$3.39 | \$3.61 | \$3.82 | \$4.04 | \$4.27 | \$4.51 | \$113.53 |
| Cleco Corporation | CNL | \$1.57 | \$1.72 | \$1.89 | \$2.07 | \$2.26 | \$2.50 | \$2.76 | \$3.03 | \$3.32 | \$3.61 | \$3.92 | \$4.23 | \$4.47 | \$4.73 | \$5.00 | \$5.28 | \$116.81 |
| Duke Energy Corporation | DUK | \$3.04 | \$3.05 | \$3.05 | \$3.04 | \$3.03 | \$3.20 | \$3.39 | \$3.59 | \$3.81 | \$4.04 | \$4.30 | \$4.57 | \$4.84 | \$5.11 | \$5.40 | \$5.71 | \$154.52 |
| Empire District Electric Company | EDE | \$0.93 | \$0.96 | \$0.98 | \$1.00 | \$1.03 | \$1.08 | \$1.13 | \$1.19 | \$1.26 | \$1.33 | \$1.41 | \$1.50 | \$1.59 | \$1.68 | \$1.77 | \$1.87 | \$51.37 |
| Great Plains Energy Inc. | GXP | \$0.79 | \$0.88 | \$0.97 | \$1.08 | \$1.19 | \$1.27 | \$1.35 | \$1.43 | \$1.51 | \$1.61 | \$1.70 | \$1.80 | \$1.91 | \$2.02 | \$2.13 | \$2.25 | \$56.96 |
| Hawaiian Electric Industries, Inc. | HE | \$1.08 | \$1.17 | \$1.27 | \$1.38 | \$1.50 | \$1.59 | \$1.68 | \$1.78 | \$1.89 | \$2.00 | \$2.11 | \$2.23 | \$2.36 | \$2.49 | \$2.64 | \$2.79 | \$51.81 |
| IDACORP, Inc. | IDA | \$1.51 | \$1.68 | \$1.86 | \$2.05 | \$2.26 | \$2.42 | \$2.60 | \$2.80 | \$3.02 | \$3.26 | \$3.53 | \$3.83 | \$4.05 | \$4.28 | \$4.53 | \$4.78 | \$122.61 |
| NextEra Energy, Inc. | NEE | \$2.62 | \$2.83 | \$3.05 | \$3.29 | \$3.54 | \$3.87 | \$4.21 | \$4.58 | \$4.97 | \$5.38 | \$5.82 | \$6.29 | \$6.65 | \$7.03 | \$7.43 | \$7.86 | \$217.10 |
| Northeast Utilities | NU | \$1.20 | \$1.30 | \$1.39 | \$1.50 | \$1.61 | \$1.78 | \$1.96 | \$2.14 | \$2.34 | \$2.54 | \$2.75 | \$2.96 | \$3.13 | \$3.31 | \$3.50 | \$3.70 | \$103.13 |
| Otter Tail Corporation | OTTR | \$1.05 | \$1.11 | \$1.17 | \$1.21 | \$1.25 | \$1.46 | \$1.69 | \$1.93 | \$2.16 | \$2.40 | \$2.62 | \$2.81 | \$2.98 | \$3.15 | \$3.33 | \$3.52 | \$66.95 |
| Pinnacle West Capital Corporation | PNW | \$2.12 | \$2.26 | \$2.42 | \$2.59 | \$2.76 | \$2.90 | \$3.05 | \$3.22 | \$3.40 | \$3.60 | \$3.83 | \$4.07 | \$4.30 | \$4.55 | \$4.81 | \$5.08 | \$119.32 |
| PNM Resources, Inc. | PNM | \$0.71 | \$0.81 | \$0.93 | \$1.06 | \$1.22 | \$1.44 | \$1.67 | \$1.93 | \$2.19 | \$2.46 | \$2.74 | \$3.01 | \$3.19 | \$3.37 | \$3.56 | \$3.76 | \$67.65 |
| Portland General Electric Company | POR | \$1.27 | \$1.35 | \$1.43 | \$1.51 | \$1.59 | \$1.85 | \$2.14 | \$2.45 | \$2.77 | \$3.10 | \$3.43 | \$3.76 | \$3.98 | \$4.20 | \$4.44 | \$4.70 | \$78.76 |
| Southern Company | so | \$2.08 | \$2.13 | \$2.19 | \$2.25 | \$2.31 | \$2.37 | \$2.44 | \$2.52 | \$2.61 | \$2.71 | \$2.83 | \$2.96 | \$3.13 | \$3.31 | \$3.50 | \$3.70 | \$91.76 |
| Westar Energy, Inc. | WR | \$1.25 | \$1.36 | \$1.47 | \$1.59 | \$1.73 | \$1.86 | \$2.00 | \$2.16 | \$2.32 | \$2.49 | \$2.68 | \$2.87 | \$3.04 | \$3.21 | \$3.39 | \$3.59 | \$78.77 |


| Projected Annual Data Investor Cash Flows |  | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Initial |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Company | Ticker | Outflow | 5/30/14 | 12/31/14 | 6/30/15 | 6/30/16 | 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 |
| American Electric Power Company, Inc. | AEP | (\$52.51) | \$0.00 | \$1.21 | \$2.18 | \$2.27 | \$2.37 | \$2.51 | \$2.66 | \$2.82 | \$2.99 | \$3.18 | \$3.39 | \$3.61 | \$3.82 | \$4.04 | \$4.27 | \$118.04 |
| Cleco Corporation | CNL | (\$51.44) | \$0.00 | \$0.96 | \$1.89 | \$2.07 | \$2.26 | \$2.50 | \$2.76 | \$3.03 | \$3.32 | \$3.61 | \$3.92 | \$4.23 | \$4.47 | \$4.73 | \$5.00 | \$122.10 |
| Duke Energy Corporation | DUK | (\$72.19) | \$0.00 | \$1.83 | \$3.05 | \$3.04 | \$3.03 | \$3.20 | \$3.39 | \$3.59 | \$3.81 | \$4.04 | \$4.30 | \$4.57 | \$4.84 | \$5.11 | \$5.40 | \$160.23 |
| Empire District Electric Company | EDE | (\$24.01) | \$0.00 | \$0.56 | \$0.98 | \$1.00 | \$1.03 | \$1.08 | \$1.13 | \$1.19 | \$1.26 | \$1.33 | \$1.41 | \$1.50 | \$1.59 | \$1.68 | \$1.77 | \$53.25 |
| Great Plains Energy Inc. | GXP | (\$26.14) | \$0.00 | \$0.48 | \$0.97 | \$1.08 | \$1.19 | \$1.27 | \$1.35 | \$1.43 | \$1.51 | \$1.61 | \$1.70 | \$1.80 | \$1.91 | \$2.02 | \$2.13 | \$59.21 |
| Hawaiian Electric Industries, Inc. | HE | (\$24.04) | \$0.00 | \$0.66 | \$1.27 | \$1.38 | \$1.50 | \$1.59 | \$1.68 | \$1.78 | \$1.89 | \$2.00 | \$2.11 | \$2.23 | \$2.36 | \$2.49 | \$2.64 | \$54.60 |
| IDACORP, Inc. | IDA | (\$54.88) | \$0.00 | \$0.91 | \$1.86 | \$2.05 | \$2.26 | \$2.42 | \$2.60 | \$2.80 | \$3.02 | \$3.26 | \$3.53 | \$3.83 | \$4.05 | \$4.28 | \$4.53 | \$127.39 |
| NextEra Energy, Inc. | NEE | (\$97.12) | \$0.00 | \$1.59 | \$3.05 | \$3.29 | \$3.54 | \$3.87 | \$4.21 | \$4.58 | \$4.97 | \$5.38 | \$5.82 | \$6.29 | \$6.65 | \$7.03 | \$7.43 | \$224.96 |
| Northeast Utilities | NU | (\$45.96) | \$0.00 | \$0.74 | \$1.39 | \$1.50 | \$1.61 | \$1.78 | \$1.96 | \$2.14 | \$2.34 | \$2.54 | \$2.75 | \$2.96 | \$3.13 | \$3.31 | \$3.50 | \$106.83 |
| Otter Tail Corporation | OTTR | (\$28.68) | \$0.00 | \$0.67 | \$1.17 | \$1.21 | \$1.25 | \$1.46 | \$1.69 | \$1.93 | \$2.16 | \$2.40 | \$2.62 | \$2.81 | \$2.98 | \$3.15 | \$3.33 | \$70.46 |
| Pinnacle West Capital Corporation | PNW | (\$55.36) | \$0.00 | \$1.27 | \$2.42 | \$2.59 | \$2.76 | \$2.90 | \$3.05 | \$3.22 | \$3.40 | \$3.60 | \$3.83 | \$4.07 | \$4.30 | \$4.55 | \$4.81 | \$124.40 |
| PNM Resources, Inc. | PNM | (\$27.74) | \$0.00 | \$0.44 | \$0.93 | \$1.06 | \$1.22 | \$1.44 | \$1.67 | \$1.93 | \$2.19 | \$2.46 | \$2.74 | \$3.01 | \$3.19 | \$3.37 | \$3.56 | \$71.42 |
| Portland General Electric Company | POR | (\$32.84) | \$0.00 | \$0.79 | \$1.43 | \$1.51 | \$1.59 | \$1.85 | \$2.14 | \$2.45 | \$2.77 | \$3.10 | \$3.43 | \$3.76 | \$3.98 | \$4.20 | \$4.44 | \$83.45 |
| Southern Company | So | (\$44.28) | \$0.00 | \$1.25 | \$2.19 | \$2.25 | \$2.31 | \$2.37 | \$2.44 | \$2.52 | \$2.61 | \$2.71 | \$2.83 | \$2.96 | \$3.13 | \$3.31 | \$3.50 | \$95.46 |
| Westar Energy, Inc. | WR | (\$35.54) | \$0.00 | \$0.76 | \$1.47 | \$1.59 | \$1.73 | \$1.86 | \$2.00 | \$2.16 | \$2.32 | \$2.49 | \$2.68 | \$2.87 | \$3.04 | \$3.21 | \$3.39 | \$82.36 |



| Projected Annual Cash Flows |  | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | Terminal Value |
| American Electric Power Company, Inc. | AEP | \$1.99 | \$2.07 | \$2.15 | \$2.24 | \$2.33 | \$2.45 | \$2.59 | \$2.74 | \$2.90 | \$3.08 | \$3.28 | \$3.50 | \$3.70 | \$3.91 | \$4.13 | \$4.37 | \$113.23 |
| Cleco Corporation | CNL | \$1.52 | \$1.61 | \$1.71 | \$1.81 | \$1.92 | \$2.05 | \$2.20 | \$2.37 | \$2.55 | \$2.74 | \$2.96 | \$3.20 | \$3.38 | \$3.57 | \$3.78 | \$3.99 | \$113.59 |
| Duke Energy Corporation | DUK | \$3.02 | \$3.00 | \$2.98 | \$2.95 | \$2.92 | \$3.06 | \$3.22 | \$3.39 | \$3.58 | \$3.79 | \$4.03 | \$4.28 | \$4.53 | \$4.79 | \$5.06 | \$5.35 | \$153.78 |
| Empire District Electric Company | EDE | \$0.92 | \$0.94 | \$0.95 | \$0.97 | \$0.98 | \$1.02 | \$1.06 | \$1.11 | \$1.16 | \$1.23 | \$1.30 | \$1.38 | \$1.46 | \$1.54 | \$1.63 | \$1.73 | \$51.08 |
| Great Plains Energy Inc. | GXP | \$0.78 | \$0.86 | \$0.95 | \$1.04 | \$1.14 | \$1.20 | \$1.27 | \$1.34 | \$1.41 | \$1.50 | \$1.58 | \$1.68 | \$1.77 | \$1.88 | \$1.98 | \$2.10 | \$56.63 |
| Hawaiian Electric Industries, Inc. | HE | \$1.05 | \$1.11 | \$1.17 | \$1.24 | \$1.31 | \$1.35 | \$1.40 | \$1.46 | \$1.52 | \$1.60 | \$1.68 | \$1.78 | \$1.88 | \$1.99 | \$2.10 | \$2.22 | \$50.71 |
| IDACORP, Inc. | IDA | \$1.48 | \$1.61 | \$1.75 | \$1.90 | \$2.05 | \$2.15 | \$2.28 | \$2.42 | \$2.58 | \$2.77 | \$3.00 | \$3.25 | \$3.44 | \$3.63 | \$3.84 | \$4.06 | \$120.85 |
| NextEra Energy, Inc. | NEE | \$2.61 | \$2.81 | \$3.01 | \$3.24 | \$3.48 | \$3.78 | \$4.10 | \$4.45 | \$4.82 | \$5.22 | \$5.64 | \$6.09 | \$6.44 | \$6.81 | \$7.20 | \$7.61 | \$216.47 |
| Northeast Utilities | NU | \$1.19 | \$1.26 | \$1.33 | \$1.41 | \$1.49 | \$1.62 | \$1.76 | \$1.91 | \$2.07 | \$2.23 | \$2.41 | \$2.60 | \$2.75 | \$2.91 | \$3.07 | \$3.25 | \$101.97 |
| Otter Tail Corporation | OTTR | \$0.97 | \$0.94 | \$0.91 | \$0.87 | \$0.83 | \$0.90 | \$0.97 | \$1.04 | \$1.13 | \$1.21 | \$1.30 | \$1.40 | \$1.48 | \$1.57 | \$1.66 | \$1.75 | \$62.40 |
| Pinnacle West Capital Corporation | PNW | \$2.11 | \$2.25 | \$2.40 | \$2.56 | \$2.73 | \$2.85 | \$3.00 | \$3.15 | \$3.33 | \$3.52 | \$3.74 | \$3.98 | \$4.21 | \$4.45 | \$4.70 | \$4.97 | \$119.08 |
| PNM Resources, Inc. | PNM | \$0.69 | \$0.76 | \$0.84 | \$0.93 | \$1.03 | \$1.18 | \$1.34 | \$1.51 | \$1.68 | \$1.87 | \$2.07 | \$2.28 | \$2.41 | \$2.55 | \$2.69 | \$2.85 | \$64.98 |
| Portland General Electric Company | POR | \$1.20 | \$1.20 | \$1.20 | \$1.20 | \$1.19 | \$1.31 | \$1.45 | \$1.59 | \$1.74 | \$1.92 | \$2.10 | \$2.31 | \$2.44 | \$2.58 | \$2.72 | \$2.88 | \$73.82 |
| Southern Company | So | \$2.07 | \$2.12 | \$2.18 | \$2.23 | \$2.28 | \$2.34 | \$2.41 | \$2.48 | \$2.57 | \$2.67 | \$2.79 | \$2.91 | \$3.08 | \$3.26 | \$3.44 | \$3.64 | \$91.66 |
| Westar Energy, Inc. | WR | \$1.22 | \$1.28 | \$1.35 | \$1.42 | \$1.49 | \$1.56 | \$1.64 | \$1.73 | \$1.83 | \$1.95 | \$2.08 | \$2.23 | \$2.36 | \$2.50 | \$2.64 | \$2.79 | \$76.98 |


| Projected Annual Data Investor Cash Flows |  | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Initial |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Company | Ticker | Outfow | 5/30/14 | 12/31/14 | 6/30/15 | 6/30/16 | 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 |
| American Electric Power Company, Inc. | AEP | (\$52.51) | \$0.00 | \$1.20 | \$2.15 | \$2.24 | \$2.33 | \$2.45 | \$2.59 | \$2.74 | \$2.90 | \$3.08 | \$3.28 | \$3.50 | \$3.70 | \$3.91 | \$4.13 | \$117.60 |
| Cleco Corporation | CNL | (\$51.44) | \$0.00 | \$0.92 | \$1.71 | \$1.81 | \$1.92 | \$2.05 | \$2.20 | \$2.37 | \$2.55 | \$2.74 | \$2.96 | \$3.20 | \$3.38 | \$3.57 | \$3.78 | \$117.59 |
| Duke Energy Corporation | DUK | (\$72.19) | \$0.00 | \$1.81 | \$2.98 | \$2.95 | \$2.92 | \$3.06 | \$3.22 | \$3.39 | \$3.58 | \$3.79 | \$4.03 | \$4.28 | \$4.53 | \$4.79 | \$5.06 | \$159.13 |
| Empire District Electric Company | EDE | (\$24.01) | \$0.00 | \$0.55 | \$0.95 | \$0.97 | \$0.98 | \$1.02 | \$1.06 | \$1.11 | \$1.16 | \$1.23 | \$1.30 | \$1.38 | \$1.46 | \$1.54 | \$1.63 | \$52.81 |
| Great Plains Energy Inc. | GXP | (\$26.14) | \$0.00 | \$0.47 | \$0.95 | \$1.04 | \$1.14 | \$1.20 | \$1.27 | \$1.34 | \$1.41 | \$1.50 | \$1.58 | \$1.68 | \$1.77 | \$1.88 | \$1.98 | \$58.72 |
| Hawaiian Electric Industries, Inc. | HE | (\$24.04) | \$0.00 | \$0.63 | \$1.17 | \$1.24 | \$1.31 | \$1.35 | \$1.40 | \$1.46 | \$1.52 | \$1.60 | \$1.68 | \$1.78 | \$1.88 | \$1.99 | \$2.10 | \$52.94 |
| IDACORP, Inc. | IDA | (\$54.88) | \$0.00 | \$0.88 | \$1.75 | \$1.90 | \$2.05 | \$2.15 | \$2.28 | \$2.42 | \$2.58 | \$2.77 | \$3.00 | \$3.25 | \$3.44 | \$3.63 | \$3.84 | \$124.91 |
| NextEra Energy, Inc. | NEE | (\$97.12) | \$0.00 | \$1.58 | \$3.01 | \$3.24 | \$3.48 | \$3.78 | \$4.10 | \$4.45 | \$4.82 | \$5.22 | \$5.64 | \$6.09 | \$6.44 | \$6.81 | \$7.20 | \$224.08 |
| Northeast Utilities | NU | (\$45.96) | \$0.00 | \$0.72 | \$1.33 | \$1.41 | \$1.49 | \$1.62 | \$1.76 | \$1.91 | \$2.07 | \$2.23 | \$2.41 | \$2.60 | \$2.75 | \$2.91 | \$3.07 | \$105.22 |
| Otter Tail Corporation | OTTR | (\$28.68) | \$0.00 | \$0.59 | \$0.91 | \$0.87 | \$0.83 | \$0.90 | \$0.97 | \$1.04 | \$1.13 | \$1.21 | \$1.30 | \$1.40 | \$1.48 | \$1.57 | \$1.66 | \$64.15 |
| Pinnacle West Capital Corporation | PNW | (\$55.36) | \$0.00 | \$1.27 | \$2.40 | \$2.56 | \$2.73 | \$2.85 | \$3.00 | \$3.15 | \$3.33 | \$3.52 | \$3.74 | \$3.98 | \$4.21 | \$4.45 | \$4.70 | \$124.05 |
| PNM Resources, Inc. | PNM | (\$27.74) | \$0.00 | \$0.42 | \$0.84 | \$0.93 | \$1.03 | \$1.18 | \$1.34 | \$1.51 | \$1.68 | \$1.87 | \$2.07 | \$2.28 | \$2.41 | \$2.55 | \$2.69 | \$67.82 |
| Portland General Electric Company | POR | (\$32.84) | \$0.00 | \$0.72 | \$1.20 | \$1.20 | \$1.19 | \$1.31 | \$1.45 | \$1.59 | \$1.74 | \$1.92 | \$2.10 | \$2.31 | \$2.44 | \$2.58 | \$2.72 | \$76.70 |
| Southern Company | so | (\$44.28) | \$0.00 | \$1.24 | \$2.18 | \$2.23 | \$2.28 | \$2.34 | \$2.41 | \$2.48 | \$2.57 | \$2.67 | \$2.79 | \$2.91 | \$3.08 | \$3.26 | \$3.44 | \$95.30 |
| Westar Energy, Inc. | WR | (\$35.54) | \$0.00 | \$0.73 | \$1.35 | \$1.42 | \$1.49 | \$1.56 | \$1.64 | \$1.73 | \$1.83 | \$1.95 | \$2.08 | \$2.23 | \$2.36 | \$2.50 | \$2.64 | \$79.77 |

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


| Projected Annual Cash Flows |  | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | Terminal Value |
| American Electric Power Company, Inc. | AEP | \$1.99 | \$2.08 | \$2.16 | \$2.25 | \$2.35 | \$2.48 | \$2.62 | \$2.77 | \$2.94 | \$3.12 | \$3.33 | \$3.55 | \$3.75 | \$3.96 | \$4.19 | \$4.43 | \$109.04 |
| Cleco Corporation | CNL | \$1.55 | \$1.68 | \$1.81 | \$1.95 | \$2.11 | \$2.30 | \$2.51 | \$2.73 | \$2.96 | \$3.21 | \$3.48 | \$3.76 | \$3.97 | \$4.20 | \$4.44 | \$4.69 | \$111.94 |
| Duke Energy Corporation | DUK | \$3.02 | \$3.02 | \$3.00 | \$2.98 | \$2.95 | \$3.11 | \$3.27 | \$3.46 | \$3.66 | \$3.88 | \$4.12 | \$4.38 | \$4.63 | \$4.89 | \$5.17 | \$5.47 | \$151.51 |
| Empire District Electric Company | EDE | \$0.93 | \$0.94 | \$0.96 | \$0.98 | \$1.00 | \$1.04 | \$1.08 | \$1.13 | \$1.19 | \$1.26 | \$1.34 | \$1.42 | \$1.50 | \$1.59 | \$1.68 | \$1.77 | \$50.57 |
| Great Plains Energy Inc. | GXP | \$0.78 | \$0.87 | \$0.96 | \$1.06 | \$1.16 | \$1.23 | \$1.30 | \$1.37 | \$1.45 | \$1.54 | \$1.63 | \$1.73 | \$1.82 | \$1.93 | \$2.04 | \$2.16 | \$56.30 |
| Hawaiian Electric Industries, Inc. | HE | \$1.06 | \$1.14 | \$1.22 | \$1.30 | \$1.39 | \$1.45 | \$1.52 | \$1.59 | \$1.67 | \$1.76 | \$1.86 | \$1.96 | \$2.07 | \$2.19 | \$2.32 | \$2.45 | \$52.91 |
| IDACORP, Inc. | IDA | \$1.50 | \$1.66 | \$1.82 | \$2.00 | \$2.18 | \$2.33 | \$2.49 | \$2.67 | \$2.87 | \$3.09 | \$3.34 | \$3.63 | \$3.83 | \$4.05 | \$4.29 | \$4.53 | \$121.07 |
| NextEra Energy, Inc. | NEE | \$2.62 | \$2.82 | \$3.03 | \$3.26 | \$3.51 | \$3.82 | \$4.16 | \$4.52 | \$4.90 | \$5.30 | \$5.74 | \$6.20 | \$6.55 | \$6.93 | \$7.32 | \$7.74 | \$210.15 |
| Northeast Utilities | NU | \$1.19 | \$1.27 | \$1.36 | \$1.45 | \$1.54 | \$1.69 | \$1.85 | \$2.01 | \$2.18 | \$2.36 | \$2.56 | \$2.75 | \$2.91 | \$3.08 | \$3.25 | \$3.44 | \$100.11 |
| Otter Tail Corporation | OTTR | \$1.01 | \$1.03 | \$1.03 | \$1.03 | \$1.02 | \$1.15 | \$1.29 | \$1.43 | \$1.57 | \$1.72 | \$1.86 | \$2.00 | \$2.11 | \$2.23 | \$2.36 | \$2.50 | \$65.85 |
| Pinnacle West Capital Corporation | PNW | \$2.11 | \$2.26 | \$2.41 | \$2.57 | \$2.74 | \$2.87 | \$3.02 | \$3.18 | \$3.36 | \$3.56 | \$3.78 | \$4.02 | \$4.25 | \$4.49 | \$4.75 | \$5.02 | \$117.37 |
| PNM Resources, Inc. | PNM | \$0.70 | \$0.78 | \$0.87 | \$0.98 | \$1.09 | \$1.26 | \$1.44 | \$1.64 | \$1.85 | \$2.06 | \$2.28 | \$2.51 | \$2.65 | \$2.81 | \$2.97 | \$3.14 | \$63.09 |
| Portland General Electric Company | POR | \$1.23 | \$1.26 | \$1.30 | \$1.33 | \$1.35 | \$1.53 | \$1.72 | \$1.92 | \$2.13 | \$2.36 | \$2.60 | \$2.85 | \$3.02 | \$3.19 | \$3.37 | \$3.57 | \$73.47 |
| Southern Company | SO | \$2.07 | \$2.13 | \$2.18 | \$2.24 | \$2.30 | \$2.36 | \$2.42 | \$2.50 | \$2.59 | \$2.70 | \$2.81 | \$2.94 | \$3.11 | \$3.29 | \$3.47 | \$3.67 | \$89.28 |
| Westar Energy, Inc. | WR | \$1.23 | \$1.31 | \$1.40 | \$1.49 | \$1.58 | \$1.68 | \$1.78 | \$1.90 | \$2.02 | \$2.16 | \$2.31 | \$2.48 | \$2.63 | \$2.78 | \$2.93 | \$3.10 | \$75.64 |


| Projected Annual Data Investor Cash Flows |  | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Initial |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Company | Ticker | Outflow | 5/30/14 | 12/31/14 | 6/30/15 | 6/30/16 | 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 |
| American Electric Power Company, Inc. | AEP | (\$50.54) | \$0.00 | \$1.20 | \$2.16 | \$2.25 | \$2.35 | \$2.48 | \$2.62 | \$2.77 | \$2.94 | \$3.12 | \$3.33 | \$3.55 | \$3.75 | \$3.96 | \$4.19 | \$113.46 |
| Cleco Corporation | CNL | (\$49.91) | \$0.00 | \$0.94 | \$1.81 | \$1.95 | \$2.11 | \$2.30 | \$2.51 | \$2.73 | \$2.96 | \$3.21 | \$3.48 | \$3.76 | \$3.97 | \$4.20 | \$4.44 | \$116.63 |
| Duke Energy Corporation | DUK | (\$71.04) | \$0.00 | \$1.82 | \$3.00 | \$2.98 | \$2.95 | \$3.11 | \$3.27 | \$3.46 | \$3.66 | \$3.88 | \$4.12 | \$4.38 | \$4.63 | \$4.89 | \$5.17 | \$156.98 |
| Empire District Electric Company | EDE | (\$23.73) | \$0.00 | \$0.56 | \$0.96 | \$0.98 | \$1.00 | \$1.04 | \$1.08 | \$1.13 | \$1.19 | \$1.26 | \$1.34 | \$1.42 | \$1.50 | \$1.59 | \$1.68 | \$52.35 |
| Great Plains Energy Inc. | GXP | (\$25.93) | \$0.00 | \$0.47 | \$0.96 | \$1.06 | \$1.16 | \$1.23 | \$1.30 | \$1.37 | \$1.45 | \$1.54 | \$1.63 | \$1.73 | \$1.82 | \$1.93 | \$2.04 | \$58.46 |
| Hawaiian Electric Industries, Inc. | HE | (\$24.85) | \$0.00 | \$0.64 | \$1.22 | \$1.30 | \$1.39 | \$1.45 | \$1.52 | \$1.59 | \$1.67 | \$1.76 | \$1.86 | \$1.96 | \$2.07 | \$2.19 | \$2.32 | \$55.36 |
| IDACORP, Inc. | IDA | (\$54.47) | \$0.00 | \$0.90 | \$1.82 | \$2.00 | \$2.18 | \$2.33 | \$2.49 | \$2.67 | \$2.87 | \$3.09 | \$3.34 | \$3.63 | \$3.83 | \$4.05 | \$4.29 | \$125.61 |
| NextEra Energy, Inc. | NEE | (\$94.09) | \$0.00 | \$1.59 | \$3.03 | \$3.26 | \$3.51 | \$3.82 | \$4.16 | \$4.52 | \$4.90 | \$5.30 | \$5.74 | \$6.20 | \$6.55 | \$6.93 | \$7.32 | \$217.89 |
| Northeast Utilities | NU | (\$44.89) | \$0.00 | \$0.73 | \$1.36 | \$1.45 | \$1.54 | \$1.69 | \$1.85 | \$2.01 | \$2.18 | \$2.36 | \$2.56 | \$2.75 | \$2.91 | \$3.08 | \$3.25 | \$103.55 |
| Otter Tail Corporation | OTTR | (\$29.41) | \$0.00 | \$0.63 | \$1.03 | \$1.03 | \$1.02 | \$1.15 | \$1.29 | \$1.43 | \$1.57 | \$1.72 | \$1.86 | \$2.00 | \$2.11 | \$2.23 | \$2.36 | \$68.34 |
| Pinnacle West Capital Corporation | PNW | (\$54.53) | \$0.00 | \$1.27 | \$2.41 | \$2.57 | \$2.74 | \$2.87 | \$3.02 | \$3.18 | \$3.36 | \$3.56 | \$3.78 | \$4.02 | \$4.25 | \$4.49 | \$4.75 | \$122.39 |
| PNM Resources, Inc. | PNM | (\$26.51) | \$0.00 | \$0.43 | \$0.87 | \$0.98 | \$1.09 | \$1.26 | \$1.44 | \$1.64 | \$1.85 | \$2.06 | \$2.28 | \$2.51 | \$2.65 | \$2.81 | \$2.97 | \$66.23 |
| Portland General Electric Company | POR | (\$31.86) | \$0.00 | \$0.75 | \$1.30 | \$1.33 | \$1.35 | \$1.53 | \$1.72 | \$1.92 | \$2.13 | \$2.36 | \$2.60 | \$2.85 | \$3.02 | \$3.19 | \$3.37 | \$77.04 |
| Southern Company | so | (\$43.16) | \$0.00 | \$1.24 | \$2.18 | \$2.24 | \$2.30 | \$2.36 | \$2.42 | \$2.50 | \$2.59 | \$2.70 | \$2.81 | \$2.94 | \$3.11 | \$3.29 | \$3.47 | \$92.95 |
| Westar Energy, Inc. | WR | (\$34.62) | \$0.00 | \$0.74 | \$1.40 | \$1.49 | \$1.58 | \$1.68 | \$1.78 | \$1.90 | \$2.02 | \$2.16 | \$2.31 | \$2.48 | \$2.63 | \$2.78 | \$2.93 | \$78.75 |

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


| Projected Annual Cash Flows |  | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | Terminal Value |
| American Electric Power Company, Inc. | AEP | \$2.00 | \$2.09 | \$2.18 | \$2.27 | \$2.37 | \$2.51 | \$2.66 | \$2.82 | \$2.99 | \$3.18 | \$3.39 | \$3.61 | \$3.82 | \$4.04 | \$4.27 | \$4.51 | \$109.21 |
| Cleco Corporation | CNL | \$1.57 | \$1.72 | \$1.89 | \$2.07 | \$2.26 | \$2.50 | \$2.76 | \$3.03 | \$3.32 | \$3.61 | \$3.92 | \$4.23 | \$4.47 | \$4.73 | \$5.00 | \$5.28 | \$113.44 |
| Duke Energy Corporation | DUK | \$3.04 | \$3.05 | \$3.05 | \$3.04 | \$3.03 | \$3.20 | \$3.39 | \$3.59 | \$3.81 | \$4.04 | \$4.30 | \$4.57 | \$4.84 | \$5.11 | \$5.40 | \$5.71 | \$152.00 |
| Empire District Electric Company | EDE | \$0.93 | \$0.96 | \$0.98 | \$1.00 | \$1.03 | \$1.08 | \$1.13 | \$1.19 | \$1.26 | \$1.33 | \$1.41 | \$1.50 | \$1.59 | \$1.68 | \$1.77 | \$1.87 | \$50.77 |
| Great Plains Energy Inc. | GXP | \$0.79 | \$0.88 | \$0.97 | \$1.08 | \$1.19 | \$1.27 | \$1.35 | \$1.43 | \$1.51 | \$1.61 | \$1.70 | \$1.80 | \$1.91 | \$2.02 | \$2.13 | \$2.25 | \$56.51 |
| Hawaiian Electric Industries, Inc. | HE | \$1.08 | \$1.17 | \$1.27 | \$1.38 | \$1.50 | \$1.59 | \$1.68 | \$1.78 | \$1.89 | \$2.00 | \$2.11 | \$2.23 | \$2.36 | \$2.49 | \$2.64 | \$2.79 | \$53.58 |
| IDACORP, Inc. | IDA | \$1.51 | \$1.68 | \$1.86 | \$2.05 | \$2.26 | \$2.42 | \$2.60 | \$2.80 | \$3.02 | \$3.26 | \$3.53 | \$3.83 | \$4.05 | \$4.28 | \$4.53 | \$4.78 | \$121.70 |
| NextEra Energy, Inc. | NEE | \$2.62 | \$2.83 | \$3.05 | \$3.29 | \$3.54 | \$3.87 | \$4.21 | \$4.58 | \$4.97 | \$5.38 | \$5.82 | \$6.29 | \$6.65 | \$7.03 | \$7.43 | \$7.86 | \$210.45 |
| Northeast Utilities | NU | \$1.20 | \$1.30 | \$1.39 | \$1.50 | \$1.61 | \$1.78 | \$1.96 | \$2.14 | \$2.34 | \$2.54 | \$2.75 | \$2.96 | \$3.13 | \$3.31 | \$3.50 | \$3.70 | \$100.77 |
| Otter Tail Corporation | OTTR | \$1.05 | \$1.11 | \$1.17 | \$1.21 | \$1.25 | \$1.46 | \$1.69 | \$1.93 | \$2.16 | \$2.40 | \$2.62 | \$2.81 | \$2.98 | \$3.15 | \$3.33 | \$3.52 | \$68.56 |
| Pinnacle West Capital Corporation | PNW | \$2.12 | \$2.26 | \$2.42 | \$2.59 | \$2.76 | \$2.90 | \$3.05 | \$3.22 | \$3.40 | \$3.60 | \$3.83 | \$4.07 | \$4.30 | \$4.55 | \$4.81 | \$5.08 | \$117.50 |
| PNM Resources, Inc. | PNM | \$0.71 | \$0.81 | \$0.93 | \$1.06 | \$1.22 | \$1.44 | \$1.67 | \$1.93 | \$2.19 | \$2.46 | \$2.74 | \$3.01 | \$3.19 | \$3.37 | \$3.56 | \$3.76 | \$64.91 |
| Portland General Electric Company | POR | \$1.27 | \$1.35 | \$1.43 | \$1.51 | \$1.59 | \$1.85 | \$2.14 | \$2.45 | \$2.77 | \$3.10 | \$3.43 | \$3.76 | \$3.98 | \$4.20 | \$4.44 | \$4.70 | \$76.55 |
| Southern Company | So | \$2.08 | \$2.13 | \$2.19 | \$2.25 | \$2.31 | \$2.37 | \$2.44 | \$2.52 | \$2.61 | \$2.71 | \$2.83 | \$2.96 | \$3.13 | \$3.31 | \$3.50 | \$3.70 | \$89.32 |
| Westar Energy, Inc. | WR | \$1.25 | \$1.36 | \$1.47 | \$1.59 | \$1.73 | \$1.86 | \$2.00 | \$2.16 | \$2.32 | \$2.49 | \$2.68 | \$2.87 | \$3.04 | \$3.21 | \$3.39 | \$3.59 | \$76.75 |


| Projected Annual Data Investor Cash Flows |  | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Initial |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Company | Ticker | Outflow | 5/30/14 | 12/31/14 | 6/30/15 | 6/30/16 | 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 |
| American Electric Power Company, Inc. | AEP | (\$50.54) | \$0.00 | \$1.21 | \$2.18 | \$2.27 | \$2.37 | \$2.51 | \$2.66 | \$2.82 | \$2.99 | \$3.18 | \$3.39 | \$3.61 | \$3.82 | \$4.04 | \$4.27 | \$113.72 |
| Cleco Corporation | CNL | (\$49.91) | \$0.00 | \$0.96 | \$1.89 | \$2.07 | \$2.26 | \$2.50 | \$2.76 | \$3.03 | \$3.32 | \$3.61 | \$3.92 | \$4.23 | \$4.47 | \$4.73 | \$5.00 | \$118.72 |
| Duke Energy Corporation | DUK | (\$71.04) | \$0.00 | \$1.83 | \$3.05 | \$3.04 | \$3.03 | \$3.20 | \$3.39 | \$3.59 | \$3.81 | \$4.04 | \$4.30 | \$4.57 | \$4.84 | \$5.11 | \$5.40 | \$157.71 |
| Empire District Electric Company | EDE | (\$23.73) | \$0.00 | \$0.56 | \$0.98 | \$1.00 | \$1.03 | \$1.08 | \$1.13 | \$1.19 | \$1.26 | \$1.33 | \$1.41 | \$1.50 | \$1.59 | \$1.68 | \$1.77 | \$52.64 |
| Great Plains Energy Inc. | GXP | (\$25.93) | \$0.00 | \$0.48 | \$0.97 | \$1.08 | \$1.19 | \$1.27 | \$1.35 | \$1.43 | \$1.51 | \$1.61 | \$1.70 | \$1.80 | \$1.91 | \$2.02 | \$2.13 | \$58.76 |
| Hawaiian Electric Industries, Inc. | HE | (\$24.85) | \$0.00 | \$0.66 | \$1.27 | \$1.38 | \$1.50 | \$1.59 | \$1.68 | \$1.78 | \$1.89 | \$2.00 | \$2.11 | \$2.23 | \$2.36 | \$2.49 | \$2.64 | \$56.37 |
| IDACORP, Inc. | IDA | (\$54.47) | \$0.00 | \$0.91 | \$1.86 | \$2.05 | \$2.26 | \$2.42 | \$2.60 | \$2.80 | \$3.02 | \$3.26 | \$3.53 | \$3.83 | \$4.05 | \$4.28 | \$4.53 | \$126.48 |
| NextEra Energy, Inc. | NEE | (\$94.09) | \$0.00 | \$1.59 | \$3.05 | \$3.29 | \$3.54 | \$3.87 | \$4.21 | \$4.58 | \$4.97 | \$5.38 | \$5.82 | \$6.29 | \$6.65 | \$7.03 | \$7.43 | \$218.31 |
| Northeast Utilities | NU | (\$44.89) | \$0.00 | \$0.74 | \$1.39 | \$1.50 | \$1.61 | \$1.78 | \$1.96 | \$2.14 | \$2.34 | \$2.54 | \$2.75 | \$2.96 | \$3.13 | \$3.31 | \$3.50 | \$104.47 |
| Otter Tail Corporation | OTTR | (\$29.41) | \$0.00 | \$0.67 | \$1.17 | \$1.21 | \$1.25 | \$1.46 | \$1.69 | \$1.93 | \$2.16 | \$2.40 | \$2.62 | \$2.81 | \$2.98 | \$3.15 | \$3.33 | \$72.08 |
| Pinnacle West Capital Corporation | PNW | (\$54.53) | \$0.00 | \$1.27 | \$2.42 | \$2.59 | \$2.76 | \$2.90 | \$3.05 | \$3.22 | \$3.40 | \$3.60 | \$3.83 | \$4.07 | \$4.30 | \$4.55 | \$4.81 | \$122.58 |
| PNM Resources, Inc. | PNM | (\$26.51) | \$0.00 | \$0.44 | \$0.93 | \$1.06 | \$1.22 | \$1.44 | \$1.67 | \$1.93 | \$2.19 | \$2.46 | \$2.74 | \$3.01 | \$3.19 | \$3.37 | \$3.56 | \$68.67 |
| Portland General Electric Company | POR | (\$31.86) | \$0.00 | \$0.79 | \$1.43 | \$1.51 | \$1.59 | \$1.85 | \$2.14 | \$2.45 | \$2.77 | \$3.10 | \$3.43 | \$3.76 | \$3.98 | \$4.20 | \$4.44 | \$81.25 |
| Southern Company | So | (\$43.16) | \$0.00 | \$1.25 | \$2.19 | \$2.25 | \$2.31 | \$2.37 | \$2.44 | \$2.52 | \$2.61 | \$2.71 | \$2.83 | \$2.96 | \$3.13 | \$3.31 | \$3.50 | \$93.02 |
| Westar Energy, Inc. | WR | (\$34.62) | \$0.00 | \$0.76 | \$1.47 | \$1.59 | \$1.73 | \$1.86 | \$2.00 | \$2.16 | \$2.32 | \$2.49 | \$2.68 | \$2.87 | \$3.04 | \$3.21 | \$3.39 | \$80.34 |

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


| Projected Annual Cash Flows |  | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | Terminal Value |
| American Electric Power Company, Inc. | AEP | \$1.99 | \$2.07 | \$2.15 | \$2.24 | \$2.33 | \$2.45 | \$2.59 | \$2.74 | \$2.90 | \$3.08 | \$3.28 | \$3.50 | \$3.70 | \$3.91 | \$4.13 | \$4.37 | \$108.91 |
| Cleco Corporation | CNL | \$1.52 | \$1.61 | \$1.71 | \$1.81 | \$1.92 | \$2.05 | \$2.20 | \$2.37 | \$2.55 | \$2.74 | \$2.96 | \$3.20 | \$3.38 | \$3.57 | \$3.78 | \$3.99 | \$110.23 |
| Duke Energy Corporation | DUK | \$3.02 | \$3.00 | \$2.98 | \$2.95 | \$2.92 | \$3.06 | \$3.22 | \$3.39 | \$3.58 | \$3.79 | \$4.03 | \$4.28 | \$4.53 | \$4.79 | \$5.06 | \$5.35 | \$151.27 |
| Empire District Electric Company | EDE | \$0.92 | \$0.94 | \$0.95 | \$0.97 | \$0.98 | \$1.02 | \$1.06 | \$1.11 | \$1.16 | \$1.23 | \$1.30 | \$1.38 | \$1.46 | \$1.54 | \$1.63 | \$1.73 | \$50.48 |
| Great Plains Energy Inc. | GXP | \$0.78 | \$0.86 | \$0.95 | \$1.04 | \$1.14 | \$1.20 | \$1.27 | \$1.34 | \$1.41 | \$1.50 | \$1.58 | \$1.68 | \$1.77 | \$1.88 | \$1.98 | \$2.10 | \$56.17 |
| Hawaiian Electric Industries, Inc. | HE | \$1.05 | \$1.11 | \$1.17 | \$1.24 | \$1.31 | \$1.35 | \$1.40 | \$1.46 | \$1.52 | \$1.60 | \$1.68 | \$1.78 | \$1.88 | \$1.99 | \$2.10 | \$2.22 | \$52.48 |
| IDACORP, Inc. | IDA | \$1.48 | \$1.61 | \$1.75 | \$1.90 | \$2.05 | \$2.15 | \$2.28 | \$2.42 | \$2.58 | \$2.77 | \$3.00 | \$3.25 | \$3.44 | \$3.63 | \$3.84 | \$4.06 | \$119.94 |
| NextEra Energy, Inc. | NEE | \$2.61 | \$2.81 | \$3.01 | \$3.24 | \$3.48 | \$3.78 | \$4.10 | \$4.45 | \$4.82 | \$5.22 | \$5.64 | \$6.09 | \$6.44 | \$6.81 | \$7.20 | \$7.61 | \$209.82 |
| Northeast Utilities | NU | \$1.19 | \$1.26 | \$1.33 | \$1.41 | \$1.49 | \$1.62 | \$1.76 | \$1.91 | \$2.07 | \$2.23 | \$2.41 | \$2.60 | \$2.75 | \$2.91 | \$3.07 | \$3.25 | \$99.62 |
| Otter Tail Corporation | OTTR | \$0.97 | \$0.94 | \$0.91 | \$0.87 | \$0.83 | \$0.90 | \$0.97 | \$1.04 | \$1.13 | \$1.21 | \$1.30 | \$1.40 | \$1.48 | \$1.57 | \$1.66 | \$1.75 | \$63.99 |
| Pinnacle West Capital Corporation | PNW | \$2.11 | \$2.25 | \$2.40 | \$2.56 | \$2.73 | \$2.85 | \$3.00 | \$3.15 | \$3.33 | \$3.52 | \$3.74 | \$3.98 | \$4.21 | \$4.45 | \$4.70 | \$4.97 | \$117.26 |
| PNM Resources, Inc. | PNM | \$0.69 | \$0.76 | \$0.84 | \$0.93 | \$1.03 | \$1.18 | \$1.34 | \$1.51 | \$1.68 | \$1.87 | \$2.07 | \$2.28 | \$2.41 | \$2.55 | \$2.69 | \$2.85 | \$62.26 |
| Portland General Electric Company | POR | \$1.20 | \$1.20 | \$1.20 | \$1.20 | \$1.19 | \$1.31 | \$1.45 | \$1.59 | \$1.74 | \$1.92 | \$2.10 | \$2.31 | \$2.44 | \$2.58 | \$2.72 | \$2.88 | \$71.65 |
| Southern Company | so | \$2.07 | \$2.12 | \$2.18 | \$2.23 | \$2.28 | \$2.34 | \$2.41 | \$2.48 | \$2.57 | \$2.67 | \$2.79 | \$2.91 | \$3.08 | \$3.26 | \$3.44 | \$3.64 | \$89.22 |
| Westar Energy, Inc. | WR | \$1.22 | \$1.28 | \$1.35 | \$1.42 | \$1.49 | \$1.56 | \$1.64 | \$1.73 | \$1.83 | \$1.95 | \$2.08 | \$2.23 | \$2.36 | \$2.50 | \$2.64 | \$2.79 | \$74.96 |


| Projected Annual Data Investor Cash Flows |  | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Initial |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Company | Ticker | Outfow | 5/30/14 | 12/31/14 | 6/30/15 | 6/30/16 | 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 |
| American Electric Power Company, Inc. | AEP | (\$50.54) | \$0.00 | \$1.20 | \$2.15 | \$2.24 | \$2.33 | \$2.45 | \$2.59 | \$2.74 | \$2.90 | \$3.08 | \$3.28 | \$3.50 | \$3.70 | \$3.91 | \$4.13 | \$113.28 |
| Cleco Corporation | CNL | (\$49.91) | \$0.00 | \$0.92 | \$1.71 | \$1.81 | \$1.92 | \$2.05 | \$2.20 | \$2.37 | \$2.55 | \$2.74 | \$2.96 | \$3.20 | \$3.38 | \$3.57 | \$3.78 | \$114.23 |
| Duke Energy Corporation | DUK | (\$71.04) | \$0.00 | \$1.81 | \$2.98 | \$2.95 | \$2.92 | \$3.06 | \$3.22 | \$3.39 | \$3.58 | \$3.79 | \$4.03 | \$4.28 | \$4.53 | \$4.79 | \$5.06 | \$156.62 |
| Empire District Electric Company | EDE | (\$23.73) | \$0.00 | \$0.55 | \$0.95 | \$0.97 | \$0.98 | \$1.02 | \$1.06 | \$1.11 | \$1.16 | \$1.23 | \$1.30 | \$1.38 | \$1.46 | \$1.54 | \$1.63 | \$52.21 |
| Great Plains Energy Inc. | GXP | (\$25.93) | \$0.00 | \$0.47 | \$0.95 | \$1.04 | \$1.14 | \$1.20 | \$1.27 | \$1.34 | \$1.41 | \$1.50 | \$1.58 | \$1.68 | \$1.77 | \$1.88 | \$1.98 | \$58.27 |
| Hawaiian Electric Industries, Inc. | HE | (\$24.85) | \$0.00 | \$0.63 | \$1.17 | \$1.24 | \$1.31 | \$1.35 | \$1.40 | \$1.46 | \$1.52 | \$1.60 | \$1.68 | \$1.78 | \$1.88 | \$1.99 | \$2.10 | \$54.70 |
| IDACORP, Inc. | IDA | (\$54.47) | \$0.00 | \$0.88 | \$1.75 | \$1.90 | \$2.05 | \$2.15 | \$2.28 | \$2.42 | \$2.58 | \$2.77 | \$3.00 | \$3.25 | \$3.44 | \$3.63 | \$3.84 | \$124.00 |
| NextEra Energy, Inc. | NEE | (\$94.09) | \$0.00 | \$1.58 | \$3.01 | \$3.24 | \$3.48 | \$3.78 | \$4.10 | \$4.45 | \$4.82 | \$5.22 | \$5.64 | \$6.09 | \$6.44 | \$6.81 | \$7.20 | \$217.43 |
| Northeast Utilities | NU | (\$44.89) | \$0.00 | \$0.72 | \$1.33 | \$1.41 | \$1.49 | \$1.62 | \$1.76 | \$1.91 | \$2.07 | \$2.23 | \$2.41 | \$2.60 | \$2.75 | \$2.91 | \$3.07 | \$102.86 |
| Otter Tail Corporation | OTTR | (\$29.41) | \$0.00 | \$0.59 | \$0.91 | \$0.87 | \$0.83 | \$0.90 | \$0.97 | \$1.04 | \$1.13 | \$1.21 | \$1.30 | \$1.40 | \$1.48 | \$1.57 | \$1.66 | \$65.74 |
| Pinnacle West Capital Corporation | PNW | (\$54.53) | \$0.00 | \$1.27 | \$2.40 | \$2.56 | \$2.73 | \$2.85 | \$3.00 | \$3.15 | \$3.33 | \$3.52 | \$3.74 | \$3.98 | \$4.21 | \$4.45 | \$4.70 | \$122.23 |
| PNM Resources, Inc. | PNM | (\$26.51) | \$0.00 | \$0.42 | \$0.84 | \$0.93 | \$1.03 | \$1.18 | \$1.34 | \$1.51 | \$1.68 | \$1.87 | \$2.07 | \$2.28 | \$2.41 | \$2.55 | \$2.69 | \$65.10 |
| Portland General Electric Company | POR | (\$31.86) | \$0.00 | \$0.72 | \$1.20 | \$1.20 | \$1.19 | \$1.31 | \$1.45 | \$1.59 | \$1.74 | \$1.92 | \$2.10 | \$2.31 | \$2.44 | \$2.58 | \$2.72 | \$74.53 |
| Southern Company | so | (\$43.16) | \$0.00 | \$1.24 | \$2.18 | \$2.23 | \$2.28 | \$2.34 | \$2.41 | \$2.48 | \$2.57 | \$2.67 | \$2.79 | \$2.91 | \$3.08 | \$3.26 | \$3.44 | \$92.86 |
| Westar Energy, Inc. | WR | (\$34.62) | \$0.00 | \$0.73 | \$1.35 | \$1.42 | \$1.49 | \$1.56 | \$1.64 | \$1.73 | \$1.83 | \$1.95 | \$2.08 | \$2.23 | \$2.36 | \$2.50 | \$2.64 | \$77.75 |

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


| Projected Annual Cash Flows |  | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | Terminal Value |
| American Electric Power Company, Inc. | AEP | \$1.99 | \$2.08 | \$2.16 | \$2.25 | \$2.35 | \$2.48 | \$2.62 | \$2.77 | \$2.94 | \$3.12 | \$3.33 | \$3.55 | \$3.75 | \$3.96 | \$4.19 | \$4.43 | \$103.87 |
| Cleco Corporation | CNL | \$1.55 | \$1.68 | \$1.81 | \$1.95 | \$2.11 | \$2.30 | \$2.51 | \$2.73 | \$2.96 | \$3.21 | \$3.48 | \$3.76 | \$3.97 | \$4.20 | \$4.44 | \$4.69 | \$107.56 |
| Duke Energy Corporation | DUK | \$3.02 | \$3.02 | \$3.00 | \$2.98 | \$2.95 | \$3.11 | \$3.27 | \$3.46 | \$3.66 | \$3.88 | \$4.12 | \$4.38 | \$4.63 | \$4.89 | \$5.17 | \$5.47 | \$149.54 |
| Empire District Electric Company | EDE | \$0.93 | \$0.94 | \$0.96 | \$0.98 | \$1.00 | \$1.04 | \$1.08 | \$1.13 | \$1.19 | \$1.26 | \$1.34 | \$1.42 | \$1.50 | \$1.59 | \$1.68 | \$1.77 | \$49.06 |
| Great Plains Energy Inc. | GXP | \$0.78 | \$0.87 | \$0.96 | \$1.06 | \$1.16 | \$1.23 | \$1.30 | \$1.37 | \$1.45 | \$1.54 | \$1.63 | \$1.73 | \$1.82 | \$1.93 | \$2.04 | \$2.16 | \$53.65 |
| Hawaiian Electric Industries, Inc. | HE | \$1.06 | \$1.14 | \$1.22 | \$1.30 | \$1.39 | \$1.45 | \$1.52 | \$1.59 | \$1.67 | \$1.76 | \$1.86 | \$1.96 | \$2.07 | \$2.19 | \$2.32 | \$2.45 | \$53.92 |
| IDACORP, Inc. | IDA | \$1.50 | \$1.66 | \$1.82 | \$2.00 | \$2.18 | \$2.33 | \$2.49 | \$2.67 | \$2.87 | \$3.09 | \$3.34 | \$3.63 | \$3.83 | \$4.05 | \$4.29 | \$4.53 | \$117.00 |
| NextEra Energy, Inc. | NEE | \$2.62 | \$2.82 | \$3.03 | \$3.26 | \$3.51 | \$3.82 | \$4.16 | \$4.52 | \$4.90 | \$5.30 | \$5.74 | \$6.20 | \$6.55 | \$6.93 | \$7.32 | \$7.74 | \$199.11 |
| Northeast Utilities | NU | \$1.19 | \$1.27 | \$1.36 | \$1.45 | \$1.54 | \$1.69 | \$1.85 | \$2.01 | \$2.18 | \$2.36 | \$2.56 | \$2.75 | \$2.91 | \$3.08 | \$3.25 | \$3.44 | \$96.80 |
| Otter Tail Corporation | OTTR | \$1.01 | \$1.03 | \$1.03 | \$1.03 | \$1.02 | \$1.15 | \$1.29 | \$1.43 | \$1.57 | \$1.72 | \$1.86 | \$2.00 | \$2.11 | \$2.23 | \$2.36 | \$2.50 | \$65.23 |
| Pinnacle West Capital Corporation | PNW | \$2.11 | \$2.26 | \$2.41 | \$2.57 | \$2.74 | \$2.87 | \$3.02 | \$3.18 | \$3.36 | \$3.56 | \$3.78 | \$4.02 | \$4.25 | \$4.49 | \$4.75 | \$5.02 | \$117.30 |
| PNM Resources, Inc. | PNM | \$0.70 | \$0.78 | \$0.87 | \$0.98 | \$1.09 | \$1.26 | \$1.44 | \$1.64 | \$1.85 | \$2.06 | \$2.28 | \$2.51 | \$2.65 | \$2.81 | \$2.97 | \$3.14 | \$59.58 |
| Portland General Electric Company | POR | \$1.23 | \$1.26 | \$1.30 | \$1.33 | \$1.35 | \$1.53 | \$1.72 | \$1.92 | \$2.13 | \$2.36 | \$2.60 | \$2.85 | \$3.02 | \$3.19 | \$3.37 | \$3.57 | \$70.61 |
| Southern Company | so | \$2.07 | \$2.13 | \$2.18 | \$2.24 | \$2.30 | \$2.36 | \$2.42 | \$2.50 | \$2.59 | \$2.70 | \$2.81 | \$2.94 | \$3.11 | \$3.29 | \$3.47 | \$3.67 | \$87.20 |
| Westar Energy, Inc. | WR | \$1.23 | \$1.31 | \$1.40 | \$1.49 | \$1.58 | \$1.68 | \$1.78 | \$1.90 | \$2.02 | \$2.16 | \$2.31 | \$2.48 | \$2.63 | \$2.78 | \$2.93 | \$3.10 | \$72.30 |


| Projected Annual Data Investor Cash Flows |  | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Initial |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Company | Ticker | Outflow | 5/30/14 | 12/31/14 | 6/30/15 | 6/30/16 | 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 |
| American Electric Power Company, Inc. | AEP | (\$48.18) | \$0.00 | \$1.20 | \$2.16 | \$2.25 | \$2.35 | \$2.48 | \$2.62 | \$2.77 | \$2.94 | \$3.12 | \$3.33 | \$3.55 | \$3.75 | \$3.96 | \$4.19 | \$108.30 |
| Cleco Corporation | CNL | (\$47.92) | \$0.00 | \$0.94 | \$1.81 | \$1.95 | \$2.11 | \$2.30 | \$2.51 | \$2.73 | \$2.96 | \$3.21 | \$3.48 | \$3.76 | \$3.97 | \$4.20 | \$4.44 | \$112.25 |
| Duke Energy Corporation | DUK | (\$70.14) | \$0.00 | \$1.82 | \$3.00 | \$2.98 | \$2.95 | \$3.11 | \$3.27 | \$3.46 | \$3.66 | \$3.88 | \$4.12 | \$4.38 | \$4.63 | \$4.89 | \$5.17 | \$155.01 |
| Empire District Electric Company | EDE | (\$23.04) | \$0.00 | \$0.56 | \$0.96 | \$0.98 | \$1.00 | \$1.04 | \$1.08 | \$1.13 | \$1.19 | \$1.26 | \$1.34 | \$1.42 | \$1.50 | \$1.59 | \$1.68 | \$50.83 |
| Great Plains Energy Inc. | GXP | (\$24.72) | \$0.00 | \$0.47 | \$0.96 | \$1.06 | \$1.16 | \$1.23 | \$1.30 | \$1.37 | \$1.45 | \$1.54 | \$1.63 | \$1.73 | \$1.82 | \$1.93 | \$2.04 | \$55.80 |
| Hawaiian Electric Industries, Inc. | HE | (\$25.31) | \$0.00 | \$0.64 | \$1.22 | \$1.30 | \$1.39 | \$1.45 | \$1.52 | \$1.59 | \$1.67 | \$1.76 | \$1.86 | \$1.96 | \$2.07 | \$2.19 | \$2.32 | \$56.37 |
| IDACORP, Inc. | IDA | (\$52.61) | \$0.00 | \$0.90 | \$1.82 | \$2.00 | \$2.18 | \$2.33 | \$2.49 | \$2.67 | \$2.87 | \$3.09 | \$3.34 | \$3.63 | \$3.83 | \$4.05 | \$4.29 | \$121.53 |
| NextEra Energy, Inc. | NEE | (\$89.07) | \$0.00 | \$1.59 | \$3.03 | \$3.26 | \$3.51 | \$3.82 | \$4.16 | \$4.52 | \$4.90 | \$5.30 | \$5.74 | \$6.20 | \$6.55 | \$6.93 | \$7.32 | \$206.85 |
| Northeast Utilities | NU | (\$43.38) | \$0.00 | \$0.73 | \$1.36 | \$1.45 | \$1.54 | \$1.69 | \$1.85 | \$2.01 | \$2.18 | \$2.36 | \$2.56 | \$2.75 | \$2.91 | \$3.08 | \$3.25 | \$100.24 |
| Otter Tail Corporation | OTTR | (\$29.13) | \$0.00 | \$0.63 | \$1.03 | \$1.03 | \$1.02 | \$1.15 | \$1.29 | \$1.43 | \$1.57 | \$1.72 | \$1.86 | \$2.00 | \$2.11 | \$2.23 | \$2.36 | \$67.73 |
| Pinnacle West Capital Corporation | PNW | (\$54.50) | \$0.00 | \$1.27 | \$2.41 | \$2.57 | \$2.74 | \$2.87 | \$3.02 | \$3.18 | \$3.36 | \$3.56 | \$3.78 | \$4.02 | \$4.25 | \$4.49 | \$4.75 | \$122.32 |
| PNM Resources, Inc. | PNM | (\$24.93) | \$0.00 | \$0.43 | \$0.87 | \$0.98 | \$1.09 | \$1.26 | \$1.44 | \$1.64 | \$1.85 | \$2.06 | \$2.28 | \$2.51 | \$2.65 | \$2.81 | \$2.97 | \$62.71 |
| Portland General Electric Company | POR | (\$30.57) | \$0.00 | \$0.75 | \$1.30 | \$1.33 | \$1.35 | \$1.53 | \$1.72 | \$1.92 | \$2.13 | \$2.36 | \$2.60 | \$2.85 | \$3.02 | \$3.19 | \$3.37 | \$74.18 |
| Southern Company | So | (\$42.21) | \$0.00 | \$1.24 | \$2.18 | \$2.24 | \$2.30 | \$2.36 | \$2.42 | \$2.50 | \$2.59 | \$2.70 | \$2.81 | \$2.94 | \$3.11 | \$3.29 | \$3.47 | \$90.88 |
| Westar Energy, Inc. | WR | (\$33.10) | \$0.00 | \$0.74 | \$1.40 | \$1.49 | \$1.58 | \$1.68 | \$1.78 | \$1.90 | \$2.02 | \$2.16 | \$2.31 | \$2.48 | \$2.63 | \$2.78 | \$2.93 | \$75.41 |



| Projected Annual Cash Flows |  | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | Terminal Value |
| American Electric Power Company, Inc. | AEP | \$2.00 | \$2.09 | \$2.18 | \$2.27 | \$2.37 | \$2.51 | \$2.66 | \$2.82 | \$2.99 | \$3.18 | \$3.39 | \$3.61 | \$3.82 | \$4.04 | \$4.27 | \$4.51 | \$104.04 |
| Cleco Corporation | CNL | \$1.57 | \$1.72 | \$1.89 | \$2.07 | \$2.26 | \$2.50 | \$2.76 | \$3.03 | \$3.32 | \$3.61 | \$3.92 | \$4.23 | \$4.47 | \$4.73 | \$5.00 | \$5.28 | \$109.05 |
| Duke Energy Corporation | DUK | \$3.04 | \$3.05 | \$3.05 | \$3.04 | \$3.03 | \$3.20 | \$3.39 | \$3.59 | \$3.81 | \$4.04 | \$4.30 | \$4.57 | \$4.84 | \$5.11 | \$5.40 | \$5.71 | \$150.03 |
| Empire District Electric Company | EDE | \$0.93 | \$0.96 | \$0.98 | \$1.00 | \$1.03 | \$1.08 | \$1.13 | \$1.19 | \$1.26 | \$1.33 | \$1.41 | \$1.50 | \$1.59 | \$1.68 | \$1.77 | \$1.87 | \$49.26 |
| Great Plains Energy Inc. | GXP | \$0.79 | \$0.88 | \$0.97 | \$1.08 | \$1.19 | \$1.27 | \$1.35 | \$1.43 | \$1.51 | \$1.61 | \$1.70 | \$1.80 | \$1.91 | \$2.02 | \$2.13 | \$2.25 | \$53.85 |
| Hawaiian Electric Industries, Inc. | HE | \$1.08 | \$1.17 | \$1.27 | \$1.38 | \$1.50 | \$1.59 | \$1.68 | \$1.78 | \$1.89 | \$2.00 | \$2.11 | \$2.23 | \$2.36 | \$2.49 | \$2.64 | \$2.79 | \$54.59 |
| IDACORP, Inc. | IDA | \$1.51 | \$1.68 | \$1.86 | \$2.05 | \$2.26 | \$2.42 | \$2.60 | \$2.80 | \$3.02 | \$3.26 | \$3.53 | \$3.83 | \$4.05 | \$4.28 | \$4.53 | \$4.78 | \$117.62 |
| NextEra Energy, Inc. | NEE | \$2.62 | \$2.83 | \$3.05 | \$3.29 | \$3.54 | \$3.87 | \$4.21 | \$4.58 | \$4.97 | \$5.38 | \$5.82 | \$6.29 | \$6.65 | \$7.03 | \$7.43 | \$7.86 | \$199.40 |
| Northeast Utilities | NU | \$1.20 | \$1.30 | \$1.39 | \$1.50 | \$1.61 | \$1.78 | \$1.96 | \$2.14 | \$2.34 | \$2.54 | \$2.75 | \$2.96 | \$3.13 | \$3.31 | \$3.50 | \$3.70 | \$97.46 |
| Otter Tail Corporation | OTTR | \$1.05 | \$1.11 | \$1.17 | \$1.21 | \$1.25 | \$1.46 | \$1.69 | \$1.93 | \$2.16 | \$2.40 | \$2.62 | \$2.81 | \$2.98 | \$3.15 | \$3.33 | \$3.52 | \$67.94 |
| Pinnacle West Capital Corporation | PNW | \$2.12 | \$2.26 | \$2.42 | \$2.59 | \$2.76 | \$2.90 | \$3.05 | \$3.22 | \$3.40 | \$3.60 | \$3.83 | \$4.07 | \$4.30 | \$4.55 | \$4.81 | \$5.08 | \$117.43 |
| PNM Resources, Inc. | PNM | \$0.71 | \$0.81 | \$0.93 | \$1.06 | \$1.22 | \$1.44 | \$1.67 | \$1.93 | \$2.19 | \$2.46 | \$2.74 | \$3.01 | \$3.19 | \$3.37 | \$3.56 | \$3.76 | \$61.37 |
| Portland General Electric Company | POR | \$1.27 | \$1.35 | \$1.43 | \$1.51 | \$1.59 | \$1.85 | \$2.14 | \$2.45 | \$2.77 | \$3.10 | \$3.43 | \$3.76 | \$3.98 | \$4.20 | \$4.44 | \$4.70 | \$73.67 |
| Southern Company | so | \$2.08 | \$2.13 | \$2.19 | \$2.25 | \$2.31 | \$2.37 | \$2.44 | \$2.52 | \$2.61 | \$2.71 | \$2.83 | \$2.96 | \$3.13 | \$3.31 | \$3.50 | \$3.70 | \$87.25 |
| Westar Energy, Inc. | WR | \$1.25 | \$1.36 | \$1.47 | \$1.59 | \$1.73 | \$1.86 | \$2.00 | \$2.16 | \$2.32 | \$2.49 | \$2.68 | \$2.87 | \$3.04 | \$3.21 | \$3.39 | \$3.59 | \$73.40 |


| Projected Annual Data Investor Cash Flows |  | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Initial |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Company | Ticker | Outflow | 5/30/14 | 12/31/14 | 6/30/15 | 6/30/16 | 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 |
| American Electric Power Company, Inc. | AEP | (\$48.18) | \$0.00 | \$1.21 | \$2.18 | \$2.27 | \$2.37 | \$2.51 | \$2.66 | \$2.82 | \$2.99 | \$3.18 | \$3.39 | \$3.61 | \$3.82 | \$4.04 | \$4.27 | \$108.55 |
| Cleco Corporation | CNL | (\$47.92) | \$0.00 | \$0.96 | \$1.89 | \$2.07 | \$2.26 | \$2.50 | \$2.76 | \$3.03 | \$3.32 | \$3.61 | \$3.92 | \$4.23 | \$4.47 | \$4.73 | \$5.00 | \$114.33 |
| Duke Energy Corporation | DUK | (\$70.14) | \$0.00 | \$1.83 | \$3.05 | \$3.04 | \$3.03 | \$3.20 | \$3.39 | \$3.59 | \$3.81 | \$4.04 | \$4.30 | \$4.57 | \$4.84 | \$5.11 | \$5.40 | \$155.74 |
| Empire District Electric Company | EDE | (\$23.04) | \$0.00 | \$0.56 | \$0.98 | \$1.00 | \$1.03 | \$1.08 | \$1.13 | \$1.19 | \$1.26 | \$1.33 | \$1.41 | \$1.50 | \$1.59 | \$1.68 | \$1.77 | \$51.13 |
| Great Plains Energy Inc. | GXP | (\$24.72) | \$0.00 | \$0.48 | \$0.97 | \$1.08 | \$1.19 | \$1.27 | \$1.35 | \$1.43 | \$1.51 | \$1.61 | \$1.70 | \$1.80 | \$1.91 | \$2.02 | \$2.13 | \$56.11 |
| Hawaiian Electric Industries, Inc. | HE | (\$25.31) | \$0.00 | \$0.66 | \$1.27 | \$1.38 | \$1.50 | \$1.59 | \$1.68 | \$1.78 | \$1.89 | \$2.00 | \$2.11 | \$2.23 | \$2.36 | \$2.49 | \$2.64 | \$57.37 |
| IDACORP, Inc. | IDA | (\$52.61) | \$0.00 | \$0.91 | \$1.86 | \$2.05 | \$2.26 | \$2.42 | \$2.60 | \$2.80 | \$3.02 | \$3.26 | \$3.53 | \$3.83 | \$4.05 | \$4.28 | \$4.53 | \$122.40 |
| NextEra Energy, Inc. | NEE | (\$89.07) | \$0.00 | \$1.59 | \$3.05 | \$3.29 | \$3.54 | \$3.87 | \$4.21 | \$4.58 | \$4.97 | \$5.38 | \$5.82 | \$6.29 | \$6.65 | \$7.03 | \$7.43 | \$207.26 |
| Northeast Utilities | NU | (\$43.38) | \$0.00 | \$0.74 | \$1.39 | \$1.50 | \$1.61 | \$1.78 | \$1.96 | \$2.14 | \$2.34 | \$2.54 | \$2.75 | \$2.96 | \$3.13 | \$3.31 | \$3.50 | \$101.16 |
| Otter Tail Corporation | OTTR | (\$29.13) | \$0.00 | \$0.67 | \$1.17 | \$1.21 | \$1.25 | \$1.46 | \$1.69 | \$1.93 | \$2.16 | \$2.40 | \$2.62 | \$2.81 | \$2.98 | \$3.15 | \$3.33 | \$71.46 |
| Pinnacle West Capital Corporation | PNW | (\$54.50) | \$0.00 | \$1.27 | \$2.42 | \$2.59 | \$2.76 | \$2.90 | \$3.05 | \$3.22 | \$3.40 | \$3.60 | \$3.83 | \$4.07 | \$4.30 | \$4.55 | \$4.81 | \$122.51 |
| PNM Resources, Inc. | PNM | (\$24.93) | \$0.00 | \$0.44 | \$0.93 | \$1.06 | \$1.22 | \$1.44 | \$1.67 | \$1.93 | \$2.19 | \$2.46 | \$2.74 | \$3.01 | \$3.19 | \$3.37 | \$3.56 | \$65.13 |
| Portland General Electric Company | POR | (\$30.57) | \$0.00 | \$0.79 | \$1.43 | \$1.51 | \$1.59 | \$1.85 | \$2.14 | \$2.45 | \$2.77 | \$3.10 | \$3.43 | \$3.76 | \$3.98 | \$4.20 | \$4.44 | \$78.36 |
| Southern Company | So | (\$42.21) | \$0.00 | \$1.25 | \$2.19 | \$2.25 | \$2.31 | \$2.37 | \$2.44 | \$2.52 | \$2.61 | \$2.71 | \$2.83 | \$2.96 | \$3.13 | \$3.31 | \$3.50 | \$90.95 |
| Westar Energy, Inc. | WR | (\$33.10) | \$0.00 | \$0.76 | \$1.47 | \$1.59 | \$1.73 | \$1.86 | \$2.00 | \$2.16 | \$2.32 | \$2.49 | \$2.68 | \$2.87 | \$3.04 | \$3.21 | \$3.39 | \$76.99 |



| Projected Annual Cash Flows |  | [47] | [48] | [49] | [50] | [51] | [52] | [53] | [54] | [55] | [56] | [57] | [58] | [59] | [60] | [61] | [62] | [63] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | Terminal Value |
| American Electric Power Company, Inc. | AEP | \$1.99 | \$2.07 | \$2.15 | \$2.24 | \$2.33 | \$2.45 | \$2.59 | \$2.74 | \$2.90 | \$3.08 | \$3.28 | \$3.50 | \$3.70 | \$3.91 | \$4.13 | \$4.37 | \$103.75 |
| Cleco Corporation | CNL | \$1.52 | \$1.61 | \$1.71 | \$1.81 | \$1.92 | \$2.05 | \$2.20 | \$2.37 | \$2.55 | \$2.74 | \$2.96 | \$3.20 | \$3.38 | \$3.57 | \$3.78 | \$3.99 | \$105.86 |
| Duke Energy Corporation | DUK | \$3.02 | \$3.00 | \$2.98 | \$2.95 | \$2.92 | \$3.06 | \$3.22 | \$3.39 | \$3.58 | \$3.79 | \$4.03 | \$4.28 | \$4.53 | \$4.79 | \$5.06 | \$5.35 | \$149.30 |
| Empire District Electric Company | EDE | \$0.92 | \$0.94 | \$0.95 | \$0.97 | \$0.98 | \$1.02 | \$1.06 | \$1.11 | \$1.16 | \$1.23 | \$1.30 | \$1.38 | \$1.46 | \$1.54 | \$1.63 | \$1.73 | \$48.97 |
| Great Plains Energy Inc. | GXP | \$0.78 | \$0.86 | \$0.95 | \$1.04 | \$1.14 | \$1.20 | \$1.27 | \$1.34 | \$1.41 | \$1.50 | \$1.58 | \$1.68 | \$1.77 | \$1.88 | \$1.98 | \$2.10 | \$53.52 |
| Hawaiian Electric Industries, Inc. | HE | \$1.05 | \$1.11 | \$1.17 | \$1.24 | \$1.31 | \$1.35 | \$1.40 | \$1.46 | \$1.52 | \$1.60 | \$1.68 | \$1.78 | \$1.88 | \$1.99 | \$2.10 | \$2.22 | \$53.48 |
| IDACORP, Inc. | IDA | \$1.48 | \$1.61 | \$1.75 | \$1.90 | \$2.05 | \$2.15 | \$2.28 | \$2.42 | \$2.58 | \$2.77 | \$3.00 | \$3.25 | \$3.44 | \$3.63 | \$3.84 | \$4.06 | \$115.87 |
| NextEra Energy, Inc. | NEE | \$2.61 | \$2.81 | \$3.01 | \$3.24 | \$3.48 | \$3.78 | \$4.10 | \$4.45 | \$4.82 | \$5.22 | \$5.64 | \$6.09 | \$6.44 | \$6.81 | \$7.20 | \$7.61 | \$198.78 |
| Northeast Utilities | NU | \$1.19 | \$1.26 | \$1.33 | \$1.41 | \$1.49 | \$1.62 | \$1.76 | \$1.91 | \$2.07 | \$2.23 | \$2.41 | \$2.60 | \$2.75 | \$2.91 | \$3.07 | \$3.25 | \$96.32 |
| Otter Tail Corporation | OTTR | \$0.97 | \$0.94 | \$0.91 | \$0.87 | \$0.83 | \$0.90 | \$0.97 | \$1.04 | \$1.13 | \$1.21 | \$1.30 | \$1.40 | \$1.48 | \$1.57 | \$1.66 | \$1.75 | \$63.38 |
| Pinnacle West Capital Corporation | PNW | \$2.11 | \$2.25 | \$2.40 | \$2.56 | \$2.73 | \$2.85 | \$3.00 | \$3.15 | \$3.33 | \$3.52 | \$3.74 | \$3.98 | \$4.21 | \$4.45 | \$4.70 | \$4.97 | \$117.20 |
| PNM Resources, Inc. | PNM | \$0.69 | \$0.76 | \$0.84 | \$0.93 | \$1.03 | \$1.18 | \$1.34 | \$1.51 | \$1.68 | \$1.87 | \$2.07 | \$2.28 | \$2.41 | \$2.55 | \$2.69 | \$2.85 | \$58.75 |
| Portland General Electric Company | POR | \$1.20 | \$1.20 | \$1.20 | \$1.20 | \$1.19 | \$1.31 | \$1.45 | \$1.59 | \$1.74 | \$1.92 | \$2.10 | \$2.31 | \$2.44 | \$2.58 | \$2.72 | \$2.88 | \$68.80 |
| Southern Company | so | \$2.07 | \$2.12 | \$2.18 | \$2.23 | \$2.28 | \$2.34 | \$2.41 | \$2.48 | \$2.57 | \$2.67 | \$2.79 | \$2.91 | \$3.08 | \$3.26 | \$3.44 | \$3.64 | \$87.15 |
| Westar Energy, Inc. | WR | \$1.22 | \$1.28 | \$1.35 | \$1.42 | \$1.49 | \$1.56 | \$1.64 | \$1.73 | \$1.83 | \$1.95 | \$2.08 | \$2.23 | \$2.36 | \$2.50 | \$2.64 | \$2.79 | \$71.62 |


| Projected Annual Data Investor Cash Flows |  | [64] | [65] | [66] | [67] | [68] | [69] | [70] | [71] | [72] | [73] | [74] | [75] | [76] | [77] | [78] | [79] | [80] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Initial |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Company | Ticker | Outfow | 5/30/14 | 12/31/14 | 6/30/15 | 6/30/16 | 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 |
| American Electric Power Company, Inc. | AEP | (\$48.18) | \$0.00 | \$1.20 | \$2.15 | \$2.24 | \$2.33 | \$2.45 | \$2.59 | \$2.74 | \$2.90 | \$3.08 | \$3.28 | \$3.50 | \$3.70 | \$3.91 | \$4.13 | \$108.12 |
| Cleco Corporation | CNL | (\$47.92) | \$0.00 | \$0.92 | \$1.71 | \$1.81 | \$1.92 | \$2.05 | \$2.20 | \$2.37 | \$2.55 | \$2.74 | \$2.96 | \$3.20 | \$3.38 | \$3.57 | \$3.78 | \$109.85 |
| Duke Energy Corporation | DUK | (\$70.14) | \$0.00 | \$1.81 | \$2.98 | \$2.95 | \$2.92 | \$3.06 | \$3.22 | \$3.39 | \$3.58 | \$3.79 | \$4.03 | \$4.28 | \$4.53 | \$4.79 | \$5.06 | \$154.65 |
| Empire District Electric Company | EDE | (\$23.04) | \$0.00 | \$0.55 | \$0.95 | \$0.97 | \$0.98 | \$1.02 | \$1.06 | \$1.11 | \$1.16 | \$1.23 | \$1.30 | \$1.38 | \$1.46 | \$1.54 | \$1.63 | \$50.69 |
| Great Plains Energy Inc. | GXP | (\$24.72) | \$0.00 | \$0.47 | \$0.95 | \$1.04 | \$1.14 | \$1.20 | \$1.27 | \$1.34 | \$1.41 | \$1.50 | \$1.58 | \$1.68 | \$1.77 | \$1.88 | \$1.98 | \$55.62 |
| Hawaiian Electric Industries, Inc. | HE | (\$25.31) | \$0.00 | \$0.63 | \$1.17 | \$1.24 | \$1.31 | \$1.35 | \$1.40 | \$1.46 | \$1.52 | \$1.60 | \$1.68 | \$1.78 | \$1.88 | \$1.99 | \$2.10 | \$55.70 |
| IDACORP, Inc. | IDA | (\$52.61) | \$0.00 | \$0.88 | \$1.75 | \$1.90 | \$2.05 | \$2.15 | \$2.28 | \$2.42 | \$2.58 | \$2.77 | \$3.00 | \$3.25 | \$3.44 | \$3.63 | \$3.84 | \$119.93 |
| NextEra Energy, Inc. | NEE | (\$89.07) | \$0.00 | \$1.58 | \$3.01 | \$3.24 | \$3.48 | \$3.78 | \$4.10 | \$4.45 | \$4.82 | \$5.22 | \$5.64 | \$6.09 | \$6.44 | \$6.81 | \$7.20 | \$206.39 |
| Northeast Utilities | NU | (\$43.38) | \$0.00 | \$0.72 | \$1.33 | \$1.41 | \$1.49 | \$1.62 | \$1.76 | \$1.91 | \$2.07 | \$2.23 | \$2.41 | \$2.60 | \$2.75 | \$2.91 | \$3.07 | \$99.56 |
| Otter Tail Corporation | OTTR | (\$29.13) | \$0.00 | \$0.59 | \$0.91 | \$0.87 | \$0.83 | \$0.90 | \$0.97 | \$1.04 | \$1.13 | \$1.21 | \$1.30 | \$1.40 | \$1.48 | \$1.57 | \$1.66 | \$65.13 |
| Pinnacle West Capital Corporation | PNW | (\$54.50) | \$0.00 | \$1.27 | \$2.40 | \$2.56 | \$2.73 | \$2.85 | \$3.00 | \$3.15 | \$3.33 | \$3.52 | \$3.74 | \$3.98 | \$4.21 | \$4.45 | \$4.70 | \$122.17 |
| PNM Resources, Inc. | PNM | (\$24.93) | \$0.00 | \$0.42 | \$0.84 | \$0.93 | \$1.03 | \$1.18 | \$1.34 | \$1.51 | \$1.68 | \$1.87 | \$2.07 | \$2.28 | \$2.41 | \$2.55 | \$2.69 | \$61.60 |
| Portland General Electric Company | POR | (\$30.57) | \$0.00 | \$0.72 | \$1.20 | \$1.20 | \$1.19 | \$1.31 | \$1.45 | \$1.59 | \$1.74 | \$1.92 | \$2.10 | \$2.31 | \$2.44 | \$2.58 | \$2.72 | \$71.68 |
| Southern Company | SO | (\$42.21) | \$0.00 | \$1.24 | \$2.18 | \$2.23 | \$2.28 | \$2.34 | \$2.41 | \$2.48 | \$2.57 | \$2.67 | \$2.79 | \$2.91 | \$3.08 | \$3.26 | \$3.44 | \$90.79 |
| Westar Energy, Inc. | WR | (\$33.10) | \$0.00 | \$0.73 | \$1.35 | \$1.42 | \$1.49 | \$1.56 | \$1.64 | \$1.73 | \$1.83 | \$1.95 | \$2.08 | \$2.23 | \$2.36 | \$2.50 | \$2.64 | \$74.41 |

Multi-Stage DCF Notes:

```
[1] Source: Bloomberg; based on 30-, 90-, and 180-day historical average
[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 [64]
11] Equals result of Excel Solver function; goal: Column [10] equals $0.00
12] Equals Column [63] / 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] \times(1+Column [5
18] Equals Column [17] \times(1+Column [5
19] Equals Column [18] \times(1 + Column [5)
20] Equals Column [19] x (1 + Column [5])
21] Equals (1 + (Column [5] + (((Column [6] - Column [5]) / (2024-2019 + 1)) x (2019-2018)))) x Column [20]
22] Equals (1 + (Column [5] + (((Column [6] - Column [5]) / (2024-2019 + 1)) x(2020-2018)))) x Column [21]
23] Equals (1 + (Column [5] + (((Column [6] - Column [5]) / (2024-2019 + 1)) x (2021-2018)))) }\times\mathrm{ Column [22]
24] Equals (1 + (Column [5] + (((Column [6] - Column [5])/(2024-2019 + 1)) x (2022-2018))) x Column [23]
25] Equals (1 + (Column [5] + (((Column [6] - Column [5])/ (2024-2019 + 1)) }\times(2023-2018)))) x Column [24]
26] Equals Column [25] x (1 + Column [6])
27] Equals Column [26] x (1 + Column [6)
28] Equals Column [27] \times(1+Column [6)
29] Equals Column [28] \times(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])/7)
37] Equals Column [36] + ((Column [42] - Column [35]) /7)
[38] Equals Column [37] + ((Column [42] - Column [35]) / 7)
39] Equals Column [38] + ((Column [42] - Column [35]) / 7)
40] Equals Column [39] + ((Column [42] - Column [35]) / 7)
44] Equals Column [40] + ((Column [42] - Column [35]) / 7)
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
Equals Column [21] \times Column [37]
Equals Column [22]\timesColumn [38]
Equals Column [23] x Column [39
Equals Column [24] x Column [40
Equals Column [24] \times Column [40
Equals Column [25] x Column [41
*)
Equals Column [28] x Column [44]
Equals Column [29] x Column [45]
Equals Column [29] x Column [45]
Equals (Column [62] \times(1+Colum
Equals negative net present value; discount rate equals Column [11], cash flows equal Column [65] through Column [80]
Equals $0.00
Equals Column [47] x (1 + (0.5 x Column [5])) x (12/31/2014-5/30/2014)/365
Equals Column [49]
Equals Column [50]
Equals Column [51]
Equals Column [52]
[71] Equals Column [53]
72] Equals Column [54
73] Equals Column [55
[74] Equals Column [56]
[75] Equals Column [57]
76] Equals Column [58]
[77] Equals Column [59]
78] Equals Column [60]
79] Equals Column [61]
[80] Equals Column [62] + [63]
```

| $[1]$ | $[2]$ | $[3]$ |
| :---: | :---: | :---: |
| S\&P 500 <br> Est. Required <br> Market Return | Current 30-Year <br> Treasury (30-day <br> average) | Implied Market <br> Risk Premium |
| $13.44 \%$ | $3.42 \%$ | $10.02 \%$ |


|  |  | [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 |
| AGILENT TECHNOLOGIES INC | A | 18,984.96 | 0.10\% | 0.93\% | 10.15\% | 11.12\% | 0.0114\% |
| ALCOA INC | AA | 15,954.78 | 0.09\% | 0.88\% | 10.67\% | 11.60\% | 0.0100\% |
| APPLE INC | AAPL | 545,254.17 | 2.96\% | 2.01\% | 12.29\% | 14.43\% | 0.4264\% |
| ABBVIE INC | ABBV | 86,388.31 | 0.47\% | 3.06\% | 4.10\% | 7.23\% | 0.0338\% |
| AMERISOURCEBERGEN CORP | ABC | 16,526.96 | 0.09\% | 1.29\% | 10.88\% | 12.24\% | 0.0110\% |
| ABBOTT LABORATORIES | ABT | 60,092.56 | 0.33\% | 2.20\% | 11.41\% | 13.74\% | 0.0448\% |
| ACE LTD | ACE | 35,022.89 | 0.19\% | 2.45\% | 10.00\% | 12.58\% | 0.0239\% |
| ACCENTURE PLC-CL A | ACN | 54,829.32 | 0.30\% | 2.27\% | 10.38\% | 12.77\% | 0.0380\% |
| ACTAVIS PLC | ACT | 36,902.44 | 0.20\% | 0.00\% | 11.33\% | 11.33\% | 0.0227\% |
| ADOBE SYSTEMS INC | ADBE | 32,123.52 | 0.17\% | 0.00\% | 15.70\% | 15.70\% | 0.0273\% |
| ANALOG DEVICES INC | ADI | 16,454.94 | 0.09\% | 2.76\% | 10.88\% | 13.79\% | 0.0123\% |
| ARCHER-DANIELS-MIDLAND CO | ADM | 29,411.74 | 0.16\% | 1.98\% | 7.80\% | 9.86\% | 0.0157\% |
| AUTOMATIC DATA PROCESSING | ADP | 38,413.91 | 0.21\% | 2.32\% | 9.84\% | 12.28\% | 0.0256\% |
| ALLIANCE DATA SYSTEMS CORP | ADS | 13,879.95 | 0.08\% | 0.00\% | 14.60\% | 14.60\% | 0.0110\% |
| AUTODESK INC | ADSK | 11,913.07 | 0.06\% | 0.00\% | 12.03\% | 12.03\% | 0.0078\% |
| ADT CORP/THE | ADT | 5,610.71 | 0.03\% | 2.16\% | 6.63\% | 8.87\% | 0.0027\% |
| AMEREN CORPORATION | AEE | 9,547.68 | 0.05\% | 4.14\% | 7.30\% | 11.59\% | 0.0060\% |
| AMERICAN ELECTRIC POWER | AEP | 26,039.23 | 0.14\% | 3.82\% | 5.66\% | 9.59\% | 0.0135\% |
| AES CORP | AES | 10,227.21 | 0.06\% | 1.38\% | 8.00\% | 9.43\% | 0.0052\% |
| AETNA INC | AET | 27,716.37 | 0.15\% | 1.14\% | 11.22\% | 12.42\% | 0.0187\% |
| AFLAC INC | AFL | 27,807.24 | 0.15\% | 2.46\% | 10.24\% | 12.82\% | 0.0193\% |
| ALLERGAN INC | AGN | 49,828.83 | 0.27\% | 0.12\% | 17.24\% | 17.37\% | 0.0469\% |
| AMERICAN INTERNATIONAL GROUP | AIG | 78,220.31 | 0.42\% | 0.94\% | 12.40\% | 13.39\% | 0.0568\% |
| APARTMENT INVT \& MGMT CO -A | AIV | 4,599.22 | 0.02\% | 3.34\% | 7.12\% | 10.57\% | 0.0026\% |
| ASSURANT INC | AIZ | 4,858.08 | 0.03\% | 1.58\% | 3.07\% | 4.67\% | 0.0012\% |
| AKAMAI TECHNOLOGIES INC | AKAM | 9,672.58 | 0.05\% | 0.00\% | 15.83\% | 15.83\% | 0.0083\% |
| ALLSTATE CORP | ALL | 25,284.32 | 0.14\% | 1.87\% | 8.72\% | 10.67\% | 0.0146\% |
| ALLEGION PLC | ALLE | 5,057.17 | 0.03\% | 0.52\% | 17.60\% | 18.17\% | 0.0050\% |
| ALTERA CORP | ALTR | 10,378.18 | 0.06\% | 1.78\% | 11.19\% | 13.06\% | 0.0073\% |
| ALEXION PHARMACEUTICALS INC | ALXN | 32,897.51 | 0.18\% | 0.00\% | 24.58\% | 24.58\% | 0.0438\% |
| APPLIED MATERIALS INC | AMAT | 24,579.33 | 0.13\% | 1.97\% | 24.95\% | 27.16\% | 0.0362\% |
| AMETEK INC | AME | 13,020.65 | 0.07\% | 0.47\% | 15.00\% | 15.51\% | 0.0109\% |
| AMGEN INC | AMGN | 87,806.94 | 0.48\% | 2.10\% | 7.87\% | 10.05\% | 0.0478\% |
| AMERIPRISE FINANCIAL INC | AMP | 21,382.33 | 0.12\% | 2.03\% | 13.00\% | 15.16\% | 0.0176\% |
| AMERICAN TOWER CORP | AMT | 35,470.69 | 0.19\% | 1.49\% | 23.25\% | 24.91\% | 0.0479\% |
| AMAZON.COM INC | AMZN | 143,825.32 | 0.78\% | 0.00\% | 38.38\% | 38.38\% | 0.2992\% |
| AUTONATION INC | AN | 6,825.79 | 0.04\% | 0.00\% | 12.77\% | 12.77\% | 0.0047\% |
| AON PLC | AON | 26,666.75 | 0.14\% | 0.96\% | 12.01\% | 13.02\% | 0.0188\% |
| APACHE CORP | APA | 35,955.46 | 0.19\% | 1.02\% | 6.56\% | 7.62\% | 0.0148\% |
| ANADARKO PETROLEUM CORP | APC | 51,949.87 | 0.28\% | 0.71\% | 18.23\% | 19.00\% | 0.0535\% |
| AIR PRODUCTS \& CHEMICALS INC | APD | 25,466.69 | 0.14\% | 2.47\% | 8.48\% | 11.05\% | 0.0153\% |
| AMPHENOL CORP-CL A | APH | 15,053.84 | 0.08\% | 0.79\% | 9.12\% | 9.94\% | 0.0081\% |
| AIRGAS INC | ARG | 7,898.98 | 0.04\% | 2.09\% | 13.21\% | 15.45\% | 0.0066\% |
| ALLEGHENY TECHNOLOGIES INC | ATI | 4,459.10 | 0.02\% | 1.75\% | 20.65\% | 22.58\% | 0.0055\% |
| AVALONBAY COMMUNITIES INC | AVB | 18,383.76 | 0.10\% | 3.27\% | 8.69\% | 12.10\% | 0.0121\% |
| AVAGO TECHNOLOGIES LTD | AVGO | 17,655.51 | 0.10\% | 1.50\% | 15.33\% | 16.95\% | 0.0162\% |
| AVON PRODUCTS INC | AVP | 6,208.24 | 0.03\% | 1.74\% | 10.32\% | 12.16\% | 0.0041\% |
| AVERY DENNISON CORP | AVY | 4,826.89 | 0.03\% | 2.39\% | 10.80\% | 13.32\% | 0.0035\% |
| AMERICAN EXPRESS CO | AXP | 96,862.38 | 0.53\% | 1.09\% | 10.78\% | 11.93\% | 0.0626\% |
| AUTOZONE INC | AZO | 17,692.87 | 0.10\% | 0.00\% | 12.50\% | 12.50\% | 0.0120\% |
| BOEING CO/THE | BA | 98,627.61 | 0.53\% | 2.16\% | 10.60\% | 12.88\% | 0.0688\% |
| BANK OF AMERICA CORP | BAC | 159,207.09 | 0.86\% | 0.89\% | 8.50\% | 9.42\% | 0.0813\% |
| BAXTER INTERNATIONAL INC | BAX | 40,374.86 | 0.22\% | 2.72\% | 10.00\% | 12.86\% | 0.0281\% |
| BED BATH \& BEYOND INC | BBBY | 12,414.39 | 0.07\% | 0.00\% | 11.27\% | 11.27\% | 0.0076\% |
| BB\&T CORP | BBT | 27,245.39 | 0.15\% | 2.51\% | 10.23\% | 12.87\% | 0.0190\% |
| BEST BUY CO INC | BBY | 9,637.33 | 0.05\% | 2.47\% | 10.90\% | 13.50\% | 0.0071\% |
| CR BARD INC | BCR | 11,279.18 | 0.06\% | 0.60\% | 10.92\% | 11.55\% | 0.0071\% |
| BECTON DICKINSON AND CO | BDX | 22,740.11 | 0.12\% | 1.84\% | 9.60\% | 11.53\% | 0.0142\% |
| FRANKLIN RESOURCES INC | BEN | 34,654.74 | 0.19\% | 0.87\% | 13.84\% | 14.77\% | 0.0277\% |
| BROWN-FORMAN CORP-CLASS B | BF/B | 19,651.99 | 0.11\% | 1.19\% | 9.60\% | 10.84\% | 0.0115\% |
| BAKER HUGHES INC | BHI | 30,745.10 | 0.17\% | 0.87\% | 19.58\% | 20.53\% | 0.0342\% |
| BIOGEN IDEC INC | BIIB | 75,754.50 | 0.41\% | 0.00\% | 20.01\% | 20.01\% | 0.0822\% |
| BANK OF NEW YORK MELLON CORP | BK | 39,411.29 | 0.21\% | 1.91\% | 11.15\% | 13.17\% | 0.0281\% |
| BLACKROCK INC | BLK | 52,095.16 | 0.28\% | 2.54\% | 12.77\% | 15.47\% | 0.0437\% |


|  |  | [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 |
| BALL CORP | BLL | 8,414.89 | 0.05\% | 0.88\% | 9.97\% | 10.90\% | 0.0050\% |
| BEMIS COMPANY | BMS | 4,176.34 | 0.02\% | 2.61\% | 7.20\% | 9.90\% | 0.0022\% |
| BRISTOL-MYERS SQUIBB CO | BMY | 82,427.94 | 0.45\% | 2.89\% | 12.80\% | 15.88\% | 0.0709\% |
| BROADCOM CORP-CL A | BRCM | 18,102.16 | 0.10\% | 1.50\% | 10.59\% | 12.17\% | 0.0119\% |
| BERKSHIRE HATHAWAY INC-CL B | BRK/B | 316,118.88 | 1.71\% | 0.00\% | 3.20\% | 3.20\% | 0.0548\% |
| BOSTON SCIENTIFIC CORP | BSX | 16,969.93 | 0.09\% | 0.00\% | 9.00\% | 9.00\% | 0.0083\% |
| PEABODY ENERGY CORP | BTU | 4,384.52 | 0.02\% | 2.15\% | 12.00\% | 14.28\% | 0.0034\% |
| BORGWARNER INC | BWA | 14,378.06 | 0.08\% | 0.58\% | 12.64\% | 13.26\% | 0.0103\% |
| BOSTON PROPERTIES INC | BXP | 18,468.99 | 0.10\% | 2.93\% | 5.26\% | 8.27\% | 0.0083\% |
| CITIGROUP INC | C | 144,508.15 | 0.78\% | 0.08\% | 11.04\% | 11.12\% | 0.0871\% |
| CA INC | CA | 12,707.97 | 0.07\% | 3.49\% | 5.17\% | 8.74\% | 0.0060\% |
| CONAGRA FOODS INC | CAG | 13,603.23 | 0.07\% | 3.13\% | 10.00\% | 13.29\% | 0.0098\% |
| CARDINAL HEALTH INC | CAH | 24,028.42 | 0.13\% | 1.73\% | 11.00\% | 12.82\% | 0.0167\% |
| CAMERON INTERNATIONAL CORP | CAM | 13,057.83 | 0.07\% | 0.00\% | 17.50\% | 17.50\% | 0.0124\% |
| CATERPILLAR INC | CAT | 63,815.43 | 0.35\% | 2.41\% | 9.48\% | 12.01\% | 0.0415\% |
| CHUBB CORP | CB | 22,654.08 | 0.12\% | 2.15\% | 8.42\% | 10.66\% | 0.0131\% |
| CBRE GROUP INC - A | CBG | 9,907.85 | 0.05\% | 0.00\% | 12.30\% | 12.30\% | 0.0066\% |
| CBS CORP-CLASS B NON VOTING | CBS | 34,306.13 | 0.19\% | 0.86\% | 15.83\% | 16.76\% | 0.0312\% |
| COCA-COLA ENTERPRISES | CCE | 11,475.16 | 0.06\% | 2.15\% | 10.11\% | 12.37\% | 0.0077\% |
| CROWN CASTLE INTL CORP | CCl | 25,612.12 | 0.14\% | 2.13\% | 18.00\% | 20.32\% | 0.0282\% |
| CARNIVAL CORP | CCL | 31,180.39 | 0.17\% | 2.49\% | 16.92\% | 19.63\% | 0.0332\% |
| CELGENE CORP | CELG | 61,275.79 | 0.33\% | 0.00\% | 25.73\% | 25.73\% | 0.0854\% |
| CERNER CORP | CERN | 18,559.25 | 0.10\% | 0.00\% | 17.51\% | 17.51\% | 0.0176\% |
| CF INDUSTRIES HOLDINGS INC | CF | 12,669.98 | 0.07\% | 1.64\% | 5.58\% | 7.26\% | 0.0050\% |
| CAREFUSION CORP | CFN | 8,899.91 | 0.05\% | 0.00\% | 11.50\% | 11.50\% | 0.0055\% |
| CHESAPEAKE ENERGY CORP | CHK | 19,133.60 | 0.10\% | 1.21\% | 19.17\% | 20.49\% | 0.0213\% |
| C.H. ROBINSON WORLDWIDE INC | CHRW | 8,885.02 | 0.05\% | 2.40\% | 12.86\% | 15.41\% | 0.0074\% |
| CIGNA CORP | Cl | 24,119.48 | 0.13\% | 0.04\% | 10.40\% | 10.44\% | 0.0137\% |
| CINCINNATI FINANCIAL CORP | CINF | 8,015.71 | N/A | 3.53\% | NA | N/A | N/A |
| COLGATE-PALMOLIVE CO | CL | 62,612.43 | 0.34\% | 2.12\% | 9.29\% | 11.50\% | 0.0390\% |
| CLOROX COMPANY | CLX | 11,523.99 | 0.06\% | 3.14\% | 7.45\% | 10.70\% | 0.0067\% |
| COMERICA INC | CMA | 8,714.89 | 0.05\% | 1.64\% | 9.13\% | 10.84\% | 0.0051\% |
| COMCAST CORP-CLASS A | CMCSA | 135,548.22 | 0.73\% | 1.72\% | 11.40\% | 13.22\% | 0.0971\% |
| CME GROUP INC | CME | 24,177.18 | 0.13\% | 4.63\% | 13.92\% | 18.87\% | 0.0247\% |
| CHIPOTLE MEXICAN GRILL INC | CMG | 17,005.21 | 0.09\% | 0.00\% | 21.14\% | 21.14\% | 0.0195\% |
| CUMMINS INC | CMI | 28,121.78 | 0.15\% | 1.73\% | 13.29\% | 15.13\% | 0.0231\% |
| CMS ENERGY CORP | CMS | 8,017.33 | 0.04\% | 3.63\% | 5.68\% | 9.41\% | 0.0041\% |
| CENTERPOINT ENERGY INC | CNP | 10,365.53 | 0.06\% | 3.94\% | 4.97\% | 9.00\% | 0.0051\% |
| CONSOL ENERGY INC | CNX | 10,155.02 | 0.06\% | 0.69\% | 11.10\% | 11.82\% | 0.0065\% |
| CAPITAL ONE FINANCIAL CORP | COF | 45,091.95 | 0.24\% | 1.46\% | 6.65\% | 8.16\% | 0.0199\% |
| CABOT OIL \& GAS CORP | COG | 15,122.61 | 0.08\% | 0.22\% | 30.00\% | 30.25\% | 0.0248\% |
| COACH INC | COH | 11,161.56 | 0.06\% | 3.32\% | 9.03\% | 12.50\% | 0.0076\% |
| ROCKWELL COLLINS INC | COL | 10,709.88 | 0.06\% | 1.57\% | 9.20\% | 10.84\% | 0.0063\% |
| CONOCOPHILLIPS | COP | 98,142.77 | 0.53\% | 3.50\% | 7.50\% | 11.13\% | 0.0592\% |
| COSTCO WHOLESALE CORP | COST | 51,034.59 | 0.28\% | 1.13\% | 10.87\% | 12.06\% | 0.0334\% |
| COVIDIEN PLC | COV | 32,963.54 | 0.18\% | 1.75\% | 9.63\% | 11.46\% | 0.0205\% |
| CAMPBELL SOUP CO | CPB | 14,400.97 | 0.08\% | 2.70\% | 4.77\% | 7.53\% | 0.0059\% |
| SALESFORCE.COM INC | CRM | 32,314.82 | 0.18\% | 0.00\% | 27.40\% | 27.40\% | 0.0480\% |
| COMPUTER SCIENCES CORP | CSC | 9,110.88 | 0.05\% | 1.42\% | 11.33\% | 12.83\% | 0.0063\% |
| CISCO SYSTEMS INC | CSCO | 126,120.62 | 0.68\% | 2.92\% | 10.21\% | 13.28\% | 0.0908\% |
| CSX CORP | CSX | 29,528.26 | 0.16\% | 2.15\% | 12.66\% | 14.95\% | 0.0239\% |
| CINTAS CORP | CTAS | 7,466.36 | 0.04\% | 1.22\% | 10.96\% | 12.25\% | 0.0050\% |
| CENTURYLINK INC | CTL | 21,575.38 | 0.12\% | 5.73\% | 1.36\% | 7.13\% | 0.0083\% |
| COGNIZANT TECH SOLUTIONS-A | CTSH | 29,576.95 | 0.16\% | 0.00\% | 16.92\% | 16.92\% | 0.0271\% |
| CITRIX SYSTEMS INC | CTXS | 10,154.61 | 0.06\% | 0.00\% | 12.73\% | 12.73\% | 0.0070\% |
| CABLEVISION SYSTEMS-NY GRP-A | CVC | 4,714.22 | 0.03\% | 3.29\% | 0.24\% | 3.53\% | 0.0009\% |
| CVS CAREMARK CORP | CVS | 91,574.10 | 0.50\% | 1.28\% | 13.93\% | 15.30\% | 0.0759\% |
| CHEVRON CORP | cVX | 233,750.83 | 1.27\% | 3.39\% | 4.59\% | 8.06\% | 0.1021\% |
| DOMINION RESOURCES INC/VA | D | 40,107.70 | 0.22\% | 3.48\% | 6.08\% | 9.66\% | 0.0210\% |
| DELTA AIR LINES INC | DAL | 33,840.76 | 0.18\% | 0.78\% | 9.53\% | 10.34\% | 0.0190\% |
| DU PONT (E.I.) DE NEMOURS | DD | 63,650.70 | 0.35\% | 2.74\% | 7.83\% | 10.68\% | 0.0368\% |
| DEERE \& CO | DE | 33,167.00 | 0.18\% | 2.26\% | 6.58\% | 8.92\% | 0.0160\% |
| DISCOVER FINANCIAL SERVICES | DFS | 27,570.77 | 0.15\% | 1.53\% | 11.67\% | 13.29\% | 0.0199\% |
| DOLLAR GENERAL CORP | DG | 16,670.35 | 0.09\% | 0.00\% | 14.13\% | 14.13\% | 0.0128\% |
| QUEST DIAGNOSTICS INC | DGX | 8,653.22 | 0.05\% | 2.19\% | 10.60\% | 12.90\% | 0.0061\% |
| DR HORTON INC | DHI | 7,702.41 | 0.04\% | 0.57\% | 11.28\% | 11.88\% | 0.0050\% |
| DANAHER CORP | DHR | 54,864.32 | 0.30\% | 0.42\% | 11.03\% | 11.48\% | 0.0341\% |
| WALT DISNEY CO/THE | DIS | 145,492.22 | 0.79\% | 1.02\% | 11.37\% | 12.45\% | 0.0982\% |
| DISCOVERY COMMUNICATIONS-A | DISCA | 26,317.89 | 0.14\% | 0.00\% | 19.03\% | 19.03\% | 0.0272\% |
| DELPHI AUTOMOTIVE PLC | DLPH | 20,971.05 | 0.11\% | 1.44\% | 14.61\% | 16.15\% | 0.0184\% |
| DOLLAR TREE INC | DLTR | 10,967.41 | 0.06\% | 0.00\% | 16.28\% | 16.28\% | 0.0097\% |
| DUN \& BRADSTREET CORP | DNB | 3,821.91 | 0.02\% | 1.69\% | 9.55\% | 11.32\% | 0.0023\% |
| DENBURY RESOURCES INC | DNR | 5,939.96 | 0.03\% | 1.23\% | 10.80\% | 12.10\% | 0.0039\% |
| DIAMOND OFFSHORE DRILLING | DO | 7,002.36 | 0.04\% | 6.86\% | 20.00\% | 27.55\% | 0.0105\% |
| DOVER CORP | DOV | 14,514.51 | 0.08\% | 1.77\% | 13.15\% | 15.04\% | 0.0118\% |


|  |  | [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 |
| DOW CHEMICAL CO/THE | DOW | 62,755.52 | 0.34\% | 2.66\% | 7.30\% | 10.05\% | 0.0342\% |
| DR PEPPER SNAPPLE GROUP INC | DPS | 11,330.96 | 0.06\% | 2.82\% | 6.69\% | 9.60\% | 0.0059\% |
| DARDEN RESTAURANTS INC | DRI | 6,612.32 | 0.04\% | 4.39\% | 7.99\% | 12.55\% | 0.0045\% |
| DTE ENERGY COMPANY | DTE | 13,474.70 | 0.07\% | 3.55\% | 5.49\% | 9.14\% | 0.0067\% |
| DIRECTV | DTV | 41,535.29 | 0.23\% | 0.00\% | 7.47\% | 7.47\% | 0.0168\% |
| DUKE ENERGY CORP | DUK | 50,270.44 | 0.27\% | 4.45\% | 4.58\% | 9.13\% | 0.0249\% |
| DAVITA HEALTHCARE PARTNERS I | DVA | 15,120.38 | 0.08\% | 0.00\% | 12.73\% | 12.73\% | 0.0104\% |
| DEVON ENERGY CORPORATION | DVN | 30,143.81 | 0.16\% | 1.24\% | 1.55\% | 2.80\% | 0.0046\% |
| ELECTRONIC ARTS INC | EA | 11,049.78 | 0.06\% | 3.56\% | 14.50\% | 18.32\% | 0.0110\% |
| EBAY INC | EBAY | 64,292.29 | 0.35\% | 0.00\% | 13.84\% | 13.84\% | 0.0482\% |
| ECOLAB INC | ECL | 32,778.76 | 0.18\% | 1.01\% | 12.68\% | 13.75\% | 0.0244\% |
| CONSOLIDATED EDISON INC | ED | 16,112.11 | 0.09\% | 4.56\% | 3.83\% | 8.48\% | 0.0074\% |
| EQUIFAX INC | EFX | 8,638.48 | 0.05\% | 1.39\% | 11.95\% | 13.43\% | 0.0063\% |
| EDISON INTERNATIONAL | EIX | 17,965.23 | 0.10\% | 2.61\% | 3.68\% | 6.34\% | 0.0062\% |
| ESTEE LAUDER COMPANIES-CL A | EL | 29,330.02 | 0.16\% | 1.01\% | 11.74\% | 12.81\% | 0.0204\% |
| EMC CORP/MA | EMC | 54,376.28 | 0.29\% | 1.62\% | 11.76\% | 13.47\% | 0.0397\% |
| EASTMAN CHEMICAL CO | EMN | 13,260.37 | 0.07\% | 1.59\% | 7.93\% | 9.58\% | 0.0069\% |
| EMERSON ELECTRIC CO | EMR | 46,827.38 | 0.25\% | 2.57\% | 9.26\% | 11.95\% | 0.0303\% |
| EOG RESOURCES INC | EOG | 57,820.32 | 0.31\% | 0.46\% | 12.00\% | 12.49\% | 0.0391\% |
| EQUITY RESIDENTIAL | EQR | 22,322.35 | 0.12\% | 3.24\% | 7.77\% | 11.14\% | 0.0135\% |
| EQT CORP | EQT | 16,219.15 | 0.09\% | 0.12\% | 30.00\% | 30.14\% | 0.0265\% |
| EXPRESS SCRIPTS HOLDING CO | ESRX | 55,287.76 | 0.30\% | 0.00\% | 14.53\% | 14.53\% | 0.0435\% |
| ESSEX PROPERTY TRUST INC | ESS | 11,312.46 | 0.06\% | 2.74\% | 7.54\% | 10.37\% | 0.0064\% |
| ENSCO PLC-CL A | ESV | 12,304.66 | 0.07\% | 5.46\% | 26.34\% | 32.52\% | 0.0217\% |
| E*TRADE FINANCIAL CORP | ETFC | 5,877.41 | 0.03\% | 0.00\% | 40.00\% | 40.00\% | 0.0127\% |
| EATON CORP PLC | ETN | 35,128.02 | 0.19\% | 2.65\% | 11.68\% | 14.49\% | 0.0276\% |
| ENTERGY CORP | ETR | 13,528.97 | 0.07\% | 4.41\% | 0.13\% | 4.54\% | 0.0033\% |
| EDWARDS LIFESCIENCES CORP | EW | 8,566.10 | 0.05\% | 0.00\% | 13.69\% | 13.69\% | 0.0064\% |
| EXELON CORP | EXC | 31,626.71 | 0.17\% | 3.37\% | 5.42\% | 8.88\% | 0.0152\% |
| EXPEDITORS INTL WASH INC | EXPD | 8,982.51 | 0.05\% | 1.49\% | 9.48\% | 11.05\% | 0.0054\% |
| EXPEDIA INC | EXPE | 9,554.87 | 0.05\% | 0.82\% | 19.00\% | 19.90\% | 0.0103\% |
| FORD MOTOR CO | F | 65,008.01 | 0.35\% | 2.88\% | 9.78\% | 12.80\% | 0.0451\% |
| FASTENAL CO | FAST | 14,461.16 | 0.08\% | 2.08\% | 16.50\% | 18.76\% | 0.0147\% |
| FACEBOOK INC-A | FB | 162,449.78 | 0.88\% | 0.00\% | 31.80\% | 31.80\% | 0.2800\% |
| FREEPORT-MCMORAN COPPER | FCX | 35,368.20 | 0.19\% | 3.67\% | 16.34\% | 20.31\% | 0.0389\% |
| FAMILY DOLLAR STORES | FDO | 6,670.16 | 0.04\% | 1.90\% | 7.18\% | 9.15\% | 0.0033\% |
| FEDEX CORP | FDX | 42,601.64 | 0.23\% | 0.42\% | 14.10\% | 14.55\% | 0.0336\% |
| FIRSTENERGY CORP | FE | 14,201.31 | 0.08\% | 4.26\% | 5.00\% | 9.36\% | 0.0072\% |
| F5 NETWORKS INC | FFIV | 8,219.99 | 0.04\% | 0.00\% | 15.41\% | 15.41\% | 0.0069\% |
| FIDELITY NATIONAL INFORMATIO | FIS | 15,584.22 | 0.08\% | 1.74\% | 12.63\% | 14.47\% | 0.0122\% |
| FISERV INC | FISV | 14,981.10 | 0.08\% | 0.00\% | 10.90\% | 10.90\% | 0.0089\% |
| FIFTH THIRD BANCORP | FITB | 17,597.11 | 0.10\% | 2.46\% | 17.47\% | 20.14\% | 0.0192\% |
| FLIR SYSTEMS INC | FLIR | 4,944.05 | 0.03\% | 1.22\% | 15.00\% | 16.31\% | 0.0044\% |
| FLUOR CORP | FLR | 11,948.38 | 0.06\% | 1.03\% | 12.68\% | 13.78\% | 0.0089\% |
| FLOWSERVE CORP | FLS | 10,126.87 | 0.05\% | 0.85\% | 14.71\% | 15.62\% | 0.0086\% |
| FMC CORP | FMC | 10,194.92 | 0.06\% | 0.74\% | 10.00\% | 10.78\% | 0.0060\% |
| FOSSIL GROUP INC | FOSL | 5,606.54 | 0.03\% | 0.00\% | 14.23\% | 14.23\% | 0.0043\% |
| TWENTY-FIRST CENTURY FOX-A | FOXA | 80,040.16 | 0.43\% | 0.71\% | 11.60\% | 12.36\% | 0.0536\% |
| FOREST LABORATORIES INC | FRX | 25,836.49 | 0.14\% | 0.00\% | 44.28\% | 44.28\% | 0.0620\% |
| FIRST SOLAR INC | FSLR | 6,185.70 | 0.03\% | 0.00\% | 1.82\% | 1.82\% | 0.0006\% |
| FMC TECHNOLOGIES INC | FTI | 13,654.83 | 0.07\% | 0.00\% | 18.43\% | 18.43\% | 0.0136\% |
| FRONTIER COMMUNICATIONS CORP | FTR | 5,803.21 | 0.03\% | 6.91\% | 9.45\% | 16.68\% | 0.0052\% |
| AGL RESOURCES INC | GAS | 6,365.99 | 0.03\% | 3.63\% | 5.53\% | 9.27\% | 0.0032\% |
| GANNETT CO | GCI | 6,302.56 | 0.03\% | 3.17\% | 8.33\% | 11.63\% | 0.0040\% |
| GENERAL DYNAMICS CORP | GD | 40,498.71 | 0.22\% | 2.10\% | 7.10\% | 9.27\% | 0.0204\% |
| GENERAL ELECTRIC CO | GE | 268,643.82 | 1.46\% | 3.37\% | 9.30\% | 12.83\% | 0.1868\% |
| GENERAL GROWTH PROPERTIES | GGP | 21,059.34 | 0.11\% | 2.50\% | 8.42\% | 11.02\% | 0.0126\% |
| GRAHAM HOLDINGS CO-CLASS B | GHC | 5,010.71 | N/A | 0.00\% | NA | N/A | N/A |
| GILEAD SCIENCES INC | GILD | 124,712.74 | 0.68\% | 0.00\% | 25.27\% | 25.27\% | 0.1708\% |
| GENERAL MILLS INC | GIS | 33,754.06 | 0.18\% | 2.79\% | 8.02\% | 10.92\% | 0.0200\% |
| CORNING INC | GLW | 27,870.54 | 0.15\% | 1.97\% | 11.86\% | 13.95\% | 0.0211\% |
| GENERAL MOTORS CO | GM | 55,456.58 | 0.30\% | 3.13\% | 16.83\% | 20.22\% | 0.0608\% |
| KEURIG GREEN MOUNTAIN INC | GMCR | 18,353.37 | 0.10\% | 0.89\% | 16.40\% | 17.36\% | 0.0173\% |
| GAMESTOP CORP-CLASS A | GME | 4,337.33 | 0.02\% | 3.49\% | 12.26\% | 15.96\% | 0.0038\% |
| GENWORTH FINANCIAL INC-CL A | GNW | 8,431.81 | 0.05\% | 0.00\% | 5.00\% | 5.00\% | 0.0023\% |
| GOOGLE INC-CL C | GOOG | 381,679.49 | 2.07\% | 0.00\% | 18.59\% | 18.59\% | 0.3846\% |
| GOOGLE INC-CL A | GOOGL | 381,281.60 | 2.07\% | 0.00\% | 18.59\% | 18.59\% | 0.3842\% |
| GENUINE PARTS CO | GPC | 13,260.65 | 0.07\% | 2.63\% | 6.99\% | 9.71\% | 0.0070\% |
| GAP INC/THE | GPS | 18,422.23 | 0.10\% | 2.04\% | 12.47\% | 14.63\% | 0.0146\% |
| GARMIN LTD | GRMN | 12,257.84 | 0.07\% | 3.21\% | 4.50\% | 7.78\% | 0.0052\% |
| GOLDMAN SACHS GROUP INC | GS | 74,170.96 | 0.40\% | 1.42\% | 7.60\% | 9.07\% | 0.0365\% |
| GOODYEAR TIRE \& RUBBER CO | GT | 6,551.67 | 0.04\% | 0.78\% | 9.02\% | 9.84\% | 0.0035\% |
| WW GRAINGER INC | GWW | 17,680.48 | 0.10\% | 1.57\% | 13.06\% | 14.73\% | 0.0141\% |
| HALLIBURTON CO | HAL | 54,589.78 | 0.30\% | 0.89\% | 16.50\% | 17.46\% | 0.0517\% |
| HARMAN INTERNATIONAL | HAR | 7,152.50 | 0.04\% | 1.14\% | 14.90\% | 16.13\% | 0.0063\% |


|  |  | [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 |
| HASBRO INC | HAS | 6,970.88 | 0.04\% | 3.18\% | 10.95\% | 14.31\% | 0.0054\% |
| HUNTINGTON BANCSHARES INC | HBAN | 7,673.44 | 0.04\% | 2.33\% | 6.86\% | 9.26\% | 0.0039\% |
| HUDSON CITY BANCORP INC | HCBK | 5,165.80 | N/A | 1.64\% | NA | N/A | N/A |
| HEALTH CARE REIT INC | HCN | 19,314.11 | 0.10\% | 5.03\% | 5.93\% | 11.11\% | 0.0116\% |
| HCP INC | HCP | 19,129.75 | 0.10\% | 5.22\% | 3.02\% | 8.32\% | 0.0086\% |
| HOME DEPOT INC | HD | 109,723.94 | 0.59\% | 2.35\% | 15.82\% | 18.36\% | 0.1092\% |
| HESS CORP | HES | 28,687.22 | 0.16\% | 1.11\% | 7.71\% | 8.86\% | 0.0138\% |
| HARTFORD FINANCIAL SVCS GRP | HIG | 15,581.84 | 0.08\% | 1.86\% | 9.00\% | 10.95\% | 0.0092\% |
| HARLEY-DAVIDSON INC | HOG | 15,556.36 | 0.08\% | 1.55\% | 11.95\% | 13.59\% | 0.0115\% |
| HONEYWELL INTERNATIONAL INC | HON | 72,947.65 | 0.40\% | 1.95\% | 10.22\% | 12.27\% | 0.0485\% |
| STARWOOD HOTELS \& RESORTS | HOT | 15,331.00 | 0.08\% | 1.74\% | 9.98\% | 11.80\% | 0.0098\% |
| HELMERICH \& PAYNE | HP | 11,890.35 | 0.06\% | 2.10\% | 8.50\% | 10.69\% | 0.0069\% |
| HEWLETT-PACKARD CO | HPQ | 63,486.55 | 0.34\% | 1.82\% | 3.67\% | 5.52\% | 0.0190\% |
| H\&R BLOCK INC | HRB | 8,166.19 | 0.04\% | 2.69\% | 11.00\% | 13.83\% | 0.0061\% |
| HORMEL FOODS CORP | HRL | 12,990.96 | 0.07\% | 1.62\% | 9.80\% | 11.49\% | 0.0081\% |
| HARRIS CORP | HRS | 8,227.08 | 0.04\% | 2.18\% | 3.00\% | 5.21\% | 0.0023\% |
| HOSPIRA INC | HSP | 8,218.48 | 0.04\% | 0.00\% | 11.21\% | 11.21\% | 0.0050\% |
| HOST HOTELS \& RESORTS INC | HST | 16,705.61 | 0.09\% | 2.68\% | 10.72\% | 13.54\% | 0.0123\% |
| HERSHEY CO/THE | HSY | 21,677.55 | 0.12\% | 1.99\% | 9.33\% | 11.42\% | 0.0134\% |
| HUMANA INC | HUM | 19,264.45 | 0.10\% | 0.92\% | 9.67\% | 10.63\% | 0.0111\% |
| INTL BUSINESS MACHINES CORP | IBM | 186,606.14 | 1.01\% | 2.16\% | 9.56\% | 11.82\% | 0.1196\% |
| INTERCONTINENTALEXCHANGE GRO | ICE | 22,616.82 | 0.12\% | 1.33\% | 18.71\% | 20.16\% | 0.0247\% |
| INTL FLAVORS \& FRAGRANCES | IFF | 8,068.84 | 0.04\% | 1.68\% | 8.30\% | 10.05\% | 0.0044\% |
| INTL GAME TECHNOLOGY | IGT | 3,099.85 | 0.02\% | 3.40\% | 13.00\% | 16.62\% | 0.0028\% |
| INTEL CORP | INTC | 135,998.96 | 0.74\% | 3.33\% | 6.00\% | 9.43\% | 0.0695\% |
| INTUIT INC | INTU | 22,509.39 | 0.12\% | 0.94\% | 14.22\% | 15.22\% | 0.0186\% |
| INTERNATIONAL PAPER CO | IP | 20,632.72 | 0.11\% | 3.00\% | 6.20\% | 9.30\% | 0.0104\% |
| INTERPUBLIC GROUP OF COS INC | IPG | 8,100.27 | 0.04\% | 1.52\% | 9.27\% | 10.85\% | 0.0048\% |
| INGERSOLL-RAND PLC | IR | 16,145.58 | 0.09\% | 1.66\% | 13.25\% | 15.02\% | 0.0131\% |
| IRON MOUNTAIN INC | IRM | 5,977.50 | 0.03\% | 3.86\% | 17.47\% | 21.66\% | 0.0070\% |
| INTUITIVE SURGICAL INC | ISRG | 14,199.37 | 0.08\% | 0.00\% | 5.11\% | 5.11\% | 0.0039\% |
| ILLINOIS TOOL WORKS | ITW | 36,772.33 | 0.20\% | 2.01\% | 16.90\% | 19.08\% | 0.0380\% |
| INVESCO LTD | IVZ | 15,879.30 | 0.09\% | 2.71\% | 13.12\% | 16.01\% | 0.0138\% |
| JABIL CIRCUIT INC | JBL | 3,825.56 | 0.02\% | 1.72\% | 11.00\% | 12.82\% | 0.0027\% |
| JOHNSON CONTROLS INC | JCI | 32,118.68 | 0.17\% | 1.80\% | 14.25\% | 16.18\% | 0.0282\% |
| JACOBS ENGINEERING GROUP INC | JEC | 7,283.77 | 0.04\% | 0.00\% | 12.78\% | 12.78\% | 0.0050\% |
| JOHNSON \& JOHNSON | JNJ | 287,040.46 | 1.56\% | 2.76\% | 7.31\% | 10.17\% | 0.1583\% |
| JUNIPER NETWORKS INC | JNPR | 11,588.21 | 0.06\% | 0.30\% | 10.63\% | 10.95\% | 0.0069\% |
| JOY GLOBAL INC | JOY | 5,722.79 | 0.03\% | 1.23\% | 15.00\% | 16.32\% | 0.0051\% |
| JPMORGAN CHASE \& CO | JPM | 210,316.49 | 1.14\% | 2.85\% | 5.14\% | 8.07\% | 0.0919\% |
| NORDSTROM INC | JWN | 12,910.48 | 0.07\% | 1.90\% | 10.78\% | 12.79\% | 0.0089\% |
| KELLOGG CO | K | 24,766.91 | 0.13\% | 2.70\% | 6.87\% | 9.66\% | 0.0130\% |
| KEYCORP | KEY | 12,092.39 | 0.07\% | 1.80\% | 5.20\% | 7.05\% | 0.0046\% |
| KIMCO REALTY CORP | KIM | 9,410.81 | 0.05\% | 3.97\% | 4.51\% | 8.57\% | 0.0044\% |
| KLA-TENCOR CORPORATION | KLAC | 10,864.98 | 0.06\% | 2.74\% | 9.02\% | 11.88\% | 0.0070\% |
| KIMBERLY-CLARK CORP | KMB | 42,332.52 | 0.23\% | 2.96\% | 8.80\% | 11.89\% | 0.0273\% |
| KINDER MORGAN INC | KMI | 34,321.78 | 0.19\% | 5.16\% | 20.95\% | 26.65\% | 0.0496\% |
| CARMAX INC | KMX | 9,783.90 | 0.05\% | 0.00\% | 13.71\% | 13.71\% | 0.0073\% |
| COCA-COLA CO/THE | KO | 179,806.93 | 0.97\% | 2.98\% | 7.09\% | 10.18\% | 0.0992\% |
| MICHAEL KORS HOLDINGS LTD | KORS | 19,281.18 | 0.10\% | 0.00\% | 24.50\% | 24.50\% | 0.0256\% |
| KROGER CO | KR | 24,326.07 | 0.13\% | 1.44\% | 10.16\% | 11.68\% | 0.0154\% |
| KRAFT FOODS GROUP INC | KRFT | 35,396.67 | 0.19\% | 3.61\% | 9.52\% | 13.30\% | 0.0255\% |
| KOHLS CORP | KSS | 11,353.87 | 0.06\% | 2.86\% | 8.15\% | 11.12\% | 0.0068\% |
| KANSAS CITY SOUTHERN | KSU | 11,862.14 | 0.06\% | 0.99\% | 15.77\% | 16.83\% | 0.0108\% |
| LOEWS CORP | L | 16,669.73 | N/A | 0.58\% | NA | N/A | N/A |
| L BRANDS INC | LB | 16,701.30 | 0.09\% | 4.13\% | 11.63\% | 15.99\% | 0.0145\% |
| LEGGETT \& PLATT INC | LEG | 4,703.37 | 0.03\% | 3.54\% | 15.00\% | 18.80\% | 0.0048\% |
| LENNAR CORP-A | LEN | 8,159.42 | 0.04\% | 0.34\% | 7.55\% | 7.91\% | 0.0035\% |
| LABORATORY CRP OF AMER HLDGS | LH | 8,698.78 | 0.05\% | 0.00\% | 9.16\% | 9.16\% | 0.0043\% |
| L-3 COMMUNICATIONS HOLDINGS | LLL | 10,448.76 | 0.06\% | 1.91\% | 3.93\% | 5.87\% | 0.0033\% |
| LINEAR TECHNOLOGY CORP | LLTC | 10,919.36 | 0.06\% | 2.28\% | 10.08\% | 12.47\% | 0.0074\% |
| ELI LILLY \& CO | LLY | 67,010.34 | 0.36\% | 3.27\% | 4.25\% | 7.59\% | 0.0276\% |
| LEGG MASON INC | LM | 5,704.66 | 0.03\% | 1.32\% | 14.91\% | 16.32\% | 0.0050\% |
| LOCKHEED MARTIN CORP | LMT | 51,938.76 | 0.28\% | 3.36\% | 7.52\% | 11.01\% | 0.0310\% |
| LINCOLN NATIONAL CORP | LNC | 12,649.27 | 0.07\% | 1.34\% | 10.60\% | 12.01\% | 0.0082\% |
| LORILLARD INC | LO | 22,539.02 | 0.12\% | 3.95\% | 10.30\% | 14.45\% | 0.0176\% |
| LOWE'S COS INC | LOW | 47,963.99 | 0.26\% | 1.63\% | 15.85\% | 17.61\% | 0.0458\% |
| LAM RESEARCH CORP | LRCX | 10,058.57 | 0.05\% | 0.08\% | 34.45\% | 34.54\% | 0.0188\% |
| LEUCADIA NATIONAL CORP | LUK | 9,453.71 | N/A | 0.00\% | NA | N/A | N/A |
| SOUTHWEST AIRLINES CO | LUV | 18,299.25 | 0.10\% | 0.65\% | 15.06\% | 15.76\% | 0.0156\% |
| LYONDELLBASELL INDU-CL A | LYB | 52,502.79 | 0.28\% | 2.48\% | 6.50\% | 9.06\% | 0.0258\% |
| MACY'S INC | M | 22,100.74 | 0.12\% | 1.98\% | 9.26\% | 11.33\% | 0.0136\% |
| MASTERCARD INC-CLASS A | MA | 90,711.04 | 0.49\% | 0.58\% | 17.40\% | 18.03\% | 0.0886\% |
| MACERICH CO/THE | MAC | 9,291.33 | 0.05\% | 3.81\% | 5.64\% | 9.56\% | 0.0048\% |
| MARRIOTT INTERNATIONAL -CL A | MAR | 18,040.18 | 0.10\% | 1.17\% | 10.50\% | 11.73\% | 0.0115\% |


|  |  | [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 |
| MASCO CORP | MAS | 7,618.67 | 0.04\% | 1.46\% | 11.80\% | 13.34\% | 0.0055\% |
| MATTEL INC | MAT | 13,173.15 | 0.07\% | 3.92\% | 9.27\% | 13.37\% | 0.0095\% |
| MCDONALD'S CORP | MCD | 100,255.16 | 0.54\% | 3.26\% | 8.52\% | 11.92\% | 0.0648\% |
| MICROCHIP TECHNOLOGY INC | MCHP | 9,533.86 | 0.05\% | 2.96\% | 11.15\% | 14.27\% | 0.0074\% |
| MCKESSON CORP | MCK | 43,726.58 | 0.24\% | 0.49\% | 13.72\% | 14.24\% | 0.0338\% |
| MOODY'S CORP | MCO | 18,279.90 | 0.10\% | 1.31\% | 13.50\% | 14.90\% | 0.0148\% |
| MONDELEZ INTERNATIONAL INC-A | MDLZ | 63,632.96 | 0.34\% | 1.54\% | 12.15\% | 13.79\% | 0.0476\% |
| MEDTRONIC INC | MDT | 61,079.73 | 0.33\% | 1.99\% | 7.39\% | 9.45\% | 0.0313\% |
| METLIFE INC | MET | 57,325.66 | 0.31\% | 2.53\% | 12.23\% | 14.91\% | 0.0463\% |
| MCGRAW HILL FINANCIAL INC | MHFI | 22,257.79 | 0.12\% | 1.47\% | 12.50\% | 14.06\% | 0.0170\% |
| MOHAWK INDUSTRIES INC | MHK | 9,879.98 | 0.05\% | 0.00\% | 9.00\% | 9.00\% | 0.0048\% |
| MEAD JOHNSON NUTRITION CO | MJN | 18,081.95 | 0.10\% | 1.68\% | 9.90\% | 11.66\% | 0.0114\% |
| MCCORMICK \& CO-NON VTG SHRS | MKC | 9,540.09 | 0.05\% | 2.03\% | 7.80\% | 9.91\% | 0.0051\% |
| MARSH \& MCLENNAN COS | MMC | 27,628.46 | 0.15\% | 2.13\% | 13.50\% | 15.78\% | 0.0236\% |
| 3M CO | MMM | 93,267.39 | 0.51\% | 2.40\% | 11.67\% | 14.21\% | 0.0718\% |
| MONSTER BEVERAGE CORP | MNST | 11,591.83 | 0.06\% | 0.00\% | 16.33\% | 16.33\% | 0.0103\% |
| ALTRIA GROUP INC | MO | 82,557.32 | 0.45\% | 4.82\% | 6.48\% | 11.46\% | 0.0513\% |
| MONSANTO CO | MON | 63,870.21 | 0.35\% | 1.38\% | 13.50\% | 14.97\% | 0.0518\% |
| MOSAIC CO/THE | MOS | 19,179.19 | 0.10\% | 2.02\% | 10.77\% | 12.89\% | 0.0134\% |
| MARATHON PETROLEUM CORP | MPC | 25,800.86 | 0.14\% | 1.89\% | 11.09\% | 13.08\% | 0.0183\% |
| MERCK \& CO. INC. | MRK | 169,088.69 | 0.92\% | 3.04\% | 4.64\% | 7.75\% | 0.0710\% |
| MARATHON OIL CORP | MRO | 24,785.01 | 0.13\% | 2.10\% | 8.52\% | 10.70\% | 0.0144\% |
| MORGAN STANLEY | MS | 60,834.15 | 0.33\% | 1.06\% | 13.59\% | 14.72\% | 0.0485\% |
| MICROSOFT CORP | MSFT | 338,181.27 | 1.83\% | 2.60\% | 8.46\% | 11.17\% | 0.2048\% |
| MOTOROLA SOLUTIONS INC | MSI | 17,138.69 | 0.09\% | 1.90\% | 5.10\% | 7.05\% | 0.0065\% |
| M \& T BANK CORP | MTB | 15,958.78 | 0.09\% | 2.31\% | 6.42\% | 8.80\% | 0.0076\% |
| MICRON TECHNOLOGY INC | MU | 30,602.15 | 0.17\% | 0.00\% | 11.00\% | 11.00\% | 0.0182\% |
| MURPHY OIL CORP | MUR | 11,066.48 | 0.06\% | 2.08\% | 11.50\% | 13.70\% | 0.0082\% |
| MEADWESTVACO CORP | MWV | 6,811.96 | 0.04\% | 3.56\% | 7.95\% | 11.65\% | 0.0043\% |
| MYLAN INC | MYL | 18,626.77 | 0.10\% | 0.00\% | 10.12\% | 10.12\% | 0.0102\% |
| NAVIENT CORP | NAVI | 6,679.28 | N/A | 3.80\% | NA | N/A | N/A |
| NOBLE ENERGY INC | NBL | 25,998.54 | 0.14\% | 0.89\% | 15.99\% | 16.95\% | 0.0239\% |
| NABORS INDUSTRIES LTD | NBR | 7,801.96 | 0.04\% | 0.54\% | 23.11\% | 23.71\% | 0.0100\% |
| NASDAQ OMX GROUP/THE | NDAQ | 6,468.41 | 0.04\% | 1.53\% | 11.17\% | 12.78\% | 0.0045\% |
| NOBLE CORP PLC | NE | 7,998.16 | 0.04\% | 4.66\% | 12.50\% | 17.45\% | 0.0076\% |
| NEXTERA ENERGY INC | NEE | 42,460.51 | 0.23\% | 2.95\% | 6.45\% | 9.50\% | 0.0219\% |
| NEWMONT MINING CORP | NEM | 11,411.33 | 0.06\% | 1.31\% | -2.53\% | -1.24\% | -0.0008\% |
| NETFLIX INC | NFLX | 25,047.91 | 0.14\% | 0.00\% | 40.06\% | 40.06\% | 0.0544\% |
| NEWFIELD EXPLORATION CO | NFX | 4,973.70 | 0.03\% | 0.00\% | 9.00\% | 9.00\% | 0.0024\% |
| NISOURCE INC | NI | 11,766.95 | 0.06\% | 2.74\% | 5.45\% | 8.26\% | 0.0053\% |
| NIKE INC -CL B | NKE | 67,537.66 | 0.37\% | 1.20\% | 12.73\% | 14.00\% | 0.0512\% |
| NIELSEN NV | NLSN | 18,286.45 | 0.10\% | 1.77\% | 15.00\% | 16.90\% | 0.0168\% |
| NORTHROP GRUMMAN CORP | NOC | 26,028.14 | 0.14\% | 2.10\% | 6.19\% | 8.36\% | 0.0118\% |
| NATIONAL OILWELL VARCO INC | NOV | 35,126.15 | 0.19\% | 1.85\% | 9.16\% | 11.10\% | 0.0211\% |
| NRG ENERGY INC | NRG | 12,019.26 | 0.07\% | 1.50\% | 33.60\% | 35.35\% | 0.0230\% |
| NORFOLK SOUTHERN CORP | NSC | 31,196.84 | 0.17\% | 2.15\% | 12.86\% | 15.15\% | 0.0256\% |
| NETAPP INC | NTAP | 12,260.50 | 0.07\% | 1.78\% | 13.00\% | 14.89\% | 0.0099\% |
| NORTHERN TRUST CORP | NTRS | 14,283.46 | 0.08\% | 2.15\% | 13.22\% | 15.51\% | 0.0120\% |
| NORTHEAST UTILITIES | NU | 14,345.73 | 0.08\% | 3.46\% | 6.70\% | 10.28\% | 0.0080\% |
| NUCOR CORP | NUE | 16,123.90 | 0.09\% | 2.92\% | 13.28\% | 16.39\% | 0.0143\% |
| NVIDIA CORP | NVDA | 10,601.36 | 0.06\% | 1.79\% | 10.15\% | 12.04\% | 0.0069\% |
| NEWELL RUBBERMAID INC | NWL | 8,101.78 | 0.04\% | 2.23\% | 9.66\% | 11.99\% | 0.0053\% |
| NEWS CORP - CLASS A | NWSA | 9,784.31 | 0.05\% | 0.00\% | -1.30\% | -1.30\% | -0.0007\% |
| OWENS-ILLINOIS INC | OI | 5,485.41 | 0.03\% | 0.00\% | 9.10\% | 9.10\% | 0.0027\% |
| ONEOK INC | OKE | 13,405.45 | 0.07\% | 3.54\% | 20.55\% | 24.45\% | 0.0178\% |
| OMNICOM GROUP | OMC | 18,388.06 | 0.10\% | 2.37\% | 8.37\% | 10.84\% | 0.0108\% |
| ORACLE CORP | ORCL | 187,362.39 | 1.02\% | 1.14\% | 9.88\% | 11.07\% | 0.1124\% |
| O'REILLY AUTOMOTIVE INC | ORLY | 15,694.32 | 0.09\% | 0.00\% | 15.50\% | 15.50\% | 0.0132\% |
| OCCIDENTAL PETROLEUM CORP | OXY | 78,317.87 | 0.42\% | 2.82\% | 5.60\% | 8.50\% | 0.0361\% |
| PAYCHEX INC | PAYX | 14,953.31 | 0.08\% | 3.33\% | 9.02\% | 12.51\% | 0.0101\% |
| PEOPLE'S UNITED FINANCIAL | PBCT | 4,457.01 | 0.02\% | 4.58\% | 13.19\% | 18.07\% | 0.0044\% |
| PITNEY BOWES INC | PBI | 5,598.95 | 0.03\% | 2.71\% | 13.00\% | 15.89\% | 0.0048\% |
| PACCAR INC | PCAR | 22,473.63 | 0.12\% | 2.55\% | 11.00\% | 13.69\% | 0.0167\% |
| P G \& E CORP | PCG | 21,318.37 | 0.12\% | 3.99\% | 5.75\% | 9.85\% | 0.0114\% |
| PLUM CREEK TIMBER CO | PCL | 7,987.05 | 0.04\% | 3.92\% | 7.40\% | 11.46\% | 0.0050\% |
| PRICELINE GROUP INC/THE | PCLN | 67,041.63 | 0.36\% | 0.00\% | 21.90\% | 21.90\% | 0.0796\% |
| PRECISION CASTPARTS CORP | PCP | 36,622.15 | 0.20\% | 0.05\% | 12.07\% | 12.12\% | 0.0241\% |
| PATTERSON COS INC | PDCO | 4,069.59 | 0.02\% | 2.15\% | 9.50\% | 11.75\% | 0.0026\% |
| PUBLIC SERVICE ENTERPRISE GP | PEG | 19,710.97 | 0.11\% | 3.80\% | 5.20\% | 9.10\% | 0.0097\% |
| PEPSICO INC | PEP | 133,912.91 | 0.73\% | 2.86\% | 7.25\% | 10.21\% | 0.0741\% |
| PETSMART INC | PETM | 5,701.52 | 0.03\% | 1.44\% | 12.25\% | 13.78\% | 0.0043\% |
| PFIZER INC | PFE | 188,731.90 | 1.02\% | 3.51\% | 1.97\% | 5.51\% | 0.0564\% |
| PRINCIPAL FINANCIAL GROUP | PFG | 13,761.19 | 0.07\% | 2.64\% | 11.50\% | 14.29\% | 0.0107\% |
| PROCTER \& GAMBLE CO/THE | PG | 218,614.53 | 1.18\% | 3.04\% | 8.66\% | 11.83\% | 0.1401\% |
| PROGRESSIVE CORP | PGR | 14,817.91 | 0.08\% | 3.55\% | 8.26\% | 11.95\% | 0.0096\% |


|  |  | [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 |
| PARKER HANNIFIN CORP | PH | 18,651.29 | 0.10\% | 1.46\% | 9.92\% | 11.45\% | 0.0116\% |
| PULTEGROUP INC | PHM | 7,406.43 | 0.04\% | 1.10\% | 7.90\% | 9.05\% | 0.0036\% |
| PERKINELMER INC | PKI | 5,091.50 | 0.03\% | 0.62\% | 12.22\% | 12.88\% | 0.0036\% |
| PROLOGIS INC | PLD | 20,742.05 | 0.11\% | 3.16\% | 5.03\% | 8.26\% | 0.0093\% |
| PALL CORP | PLL | 9,302.40 | 0.05\% | 1.25\% | 10.84\% | 12.16\% | 0.0061\% |
| PHILIP MORRIS INTERNATIONAL | PM | 139,262.56 | 0.75\% | 4.23\% | 8.12\% | 12.53\% | 0.0946\% |
| PNC FINANCIAL SERVICES GROUP | PNC | 45,545.16 | 0.25\% | 2.20\% | 6.08\% | 8.35\% | 0.0206\% |
| PENTAIR LTD-REGISTERED | PNR | 14,532.58 | 0.08\% | 1.46\% | 14.33\% | 15.90\% | 0.0125\% |
| PINNACLE WEST CAPITAL | PNW | 6,116.00 | 0.03\% | 4.16\% | 4.47\% | 8.72\% | 0.0029\% |
| PEPCO HOLDINGS INC | POM | 6,953.39 | 0.04\% | 3.90\% | 5.83\% | 9.84\% | 0.0037\% |
| PPG INDUSTRIES INC | PPG | 27,874.63 | 0.15\% | 1.28\% | 7.33\% | 8.66\% | 0.0131\% |
| PPL CORPORATION | PPL | 22,167.91 | 0.12\% | 4.24\% | 3.93\% | 8.26\% | 0.0099\% |
| PERRIGO CO PLC | PRGO | 18,491.14 | 0.10\% | 0.30\% | 14.38\% | 14.70\% | 0.0147\% |
| PRUDENTIAL FINANCIAL INC | PRU | 37,957.92 | 0.21\% | 2.48\% | 10.67\% | 13.28\% | 0.0273\% |
| PUBLIC STORAGE | PSA | 29,649.47 | 0.16\% | 3.29\% | 4.51\% | 7.87\% | 0.0126\% |
| PHILLIPS 66 | PSX | 47,978.07 | 0.26\% | 1.92\% | 6.53\% | 8.52\% | 0.0222\% |
| PVH CORP | PVH | 10,829.86 | 0.06\% | 0.11\% | 13.16\% | 13.29\% | 0.0078\% |
| QUANTA SERVICES INC | PWR | 7,224.31 | 0.04\% | 0.00\% | 11.75\% | 11.75\% | 0.0046\% |
| PRAXAIR INC | PX | 38,737.69 | 0.21\% | 1.96\% | 9.59\% | 11.64\% | 0.0244\% |
| PIONEER NATURAL RESOURCES CO | PXD | 30,062.75 | 0.16\% | 0.03\% | 32.37\% | 32.40\% | 0.0528\% |
| QUALCOMM INC | QCOM | 135,789.43 | 0.74\% | 1.84\% | 13.46\% | 15.42\% | 0.1135\% |
| QEP RESOURCES INC | QEP | 5,751.45 | 0.03\% | 0.25\% | 15.00\% | 15.27\% | 0.0048\% |
| RYDER SYSTEM INC | R | 4,615.88 | 0.03\% | 1.52\% | 13.20\% | 14.82\% | 0.0037\% |
| REYNOLDS AMERICAN INC | RAI | 31,963.29 | 0.17\% | 4.49\% | 6.70\% | 11.34\% | 0.0196\% |
| ROWAN COMPANIES PLC-A | RDC | 3,850.28 | 0.02\% | 0.84\% | 18.15\% | 19.07\% | 0.0040\% |
| REGENERON PHARMACEUTICALS | REGN | 30,517.54 | 0.17\% | 0.00\% | 28.88\% | 28.88\% | 0.0478\% |
| REGIONS FINANCIAL CORP | RF | 14,052.08 | 0.08\% | 1.78\% | 5.57\% | 7.40\% | 0.0056\% |
| ROBERT HALF INTL INC | RHI | 6,267.96 | 0.03\% | 1.56\% | 16.39\% | 18.08\% | 0.0061\% |
| RED HAT INC | RHT | 9,489.94 | 0.05\% | 0.00\% | 16.48\% | 16.48\% | 0.0085\% |
| TRANSOCEAN LTD | RIG | 15,380.87 | 0.08\% | 6.78\% | 12.50\% | 19.71\% | 0.0164\% |
| RALPH LAUREN CORP | RL | 13,865.45 | 0.08\% | 1.19\% | 11.89\% | 13.15\% | 0.0099\% |
| ROCKWELL AUTOMATION INC | ROK | 16,763.04 | 0.09\% | 1.91\% | 10.97\% | 12.98\% | 0.0118\% |
| ROPER INDUSTRIES INC | ROP | 14,137.86 | 0.08\% | 0.51\% | 12.20\% | 12.74\% | 0.0098\% |
| ROSS STORES INC | ROST | 14,539.77 | 0.08\% | 1.15\% | 11.29\% | 12.50\% | 0.0098\% |
| RANGE RESOURCES CORP | RRC | 15,232.60 | 0.08\% | 0.17\% | 25.50\% | 25.70\% | 0.0212\% |
| REPUBLIC SERVICES INC | RSG | 12,614.97 | 0.07\% | 2.93\% | 6.50\% | 9.53\% | 0.0065\% |
| RAYTHEON COMPANY | RTN | 30,525.46 | 0.17\% | 2.46\% | 8.66\% | 11.22\% | 0.0186\% |
| STARBUCKS CORP | SBUX | 55,135.07 | 0.30\% | 1.46\% | 17.80\% | 19.39\% | 0.0579\% |
| SCANA CORP | SCG | 7,362.76 | 0.04\% | 4.01\% | 5.00\% | 9.11\% | 0.0036\% |
| SCHWAB (CHARLES) CORP | SCHW | 32,801.75 | 0.18\% | 1.04\% | 21.64\% | 22.79\% | 0.0405\% |
| SPECTRA ENERGY CORP | SE | 27,216.41 | 0.15\% | 3.32\% | 5.50\% | 8.92\% | 0.0132\% |
| SEALED AIR CORP | SEE | 7,110.46 | 0.04\% | 1.54\% | 11.48\% | 13.11\% | 0.0051\% |
| SHERWIN-WILLIAMS CO/THE | SHW | 20,389.77 | 0.11\% | 1.07\% | 10.00\% | 11.13\% | 0.0123\% |
| SIGMA-ALDRICH | SIAL | 11,709.46 | 0.06\% | 0.93\% | 7.83\% | 8.80\% | 0.0056\% |
| JM Smucker Colthe | SJM | 10,638.48 | 0.06\% | 2.25\% | 7.03\% | 9.36\% | 0.0054\% |
| SCHLUMBERGER LTD | SLB | 135,308.74 | 0.73\% | 1.48\% | 14.75\% | 16.34\% | 0.1199\% |
| SNAP-ON INC | SNA | 6,829.71 | N/A | 1.45\% | NA | N/A | N/A |
| SANDISK CORP | SNDK | 21,858.80 | 0.12\% | 1.03\% | 13.43\% | 14.52\% | 0.0172\% |
| SCRIPPS NETWORKS INTER-CL A | SNI | 10,927.81 | 0.06\% | 1.04\% | 12.13\% | 13.24\% | 0.0078\% |
| SOUTHERN CO/THE | SO | 39,029.02 | 0.21\% | 4.76\% | 3.94\% | 8.80\% | 0.0186\% |
| SIMON PROPERTY GROUP INC | SPG | 51,712.22 | 0.28\% | 3.11\% | 6.04\% | 9.24\% | 0.0259\% |
| STAPLES INC | SPLS | 7,274.47 | 0.04\% | 4.38\% | 3.06\% | 7.51\% | 0.0030\% |
| STERICYCLE INC | SRCL | 9,686.09 | 0.05\% | 0.00\% | 15.73\% | 15.73\% | 0.0083\% |
| SEMPRA ENERGY | SRE | 24,628.56 | 0.13\% | 2.62\% | 6.89\% | 9.60\% | 0.0128\% |
| SUNTRUST BANKS INC | STI | 20,418.55 | 0.11\% | 1.83\% | 8.77\% | 10.68\% | 0.0118\% |
| ST JUDE MEDICAL INC | STJ | 18,446.21 | 0.10\% | 1.62\% | 9.68\% | 11.38\% | 0.0114\% |
| STATE STREET CORP | STT | 28,093.62 | 0.15\% | 1.78\% | 10.28\% | 12.14\% | 0.0185\% |
| SEAGATE TECHNOLOGY | STX | 17,546.02 | 0.10\% | 3.10\% | 7.40\% | 10.62\% | 0.0101\% |
| CONSTELLATION BRANDS INC-A | STZ | 15,926.16 | 0.09\% | 0.00\% | 18.51\% | 18.51\% | 0.0160\% |
| STANLEY BLACK \& DECKER INC | SWK | 13,639.72 | 0.07\% | 2.34\% | 9.00\% | 11.45\% | 0.0085\% |
| SOUTHWESTERN ENERGY CO | SWN | 16,054.25 | 0.09\% | 0.00\% | 18.30\% | 18.30\% | 0.0159\% |
| SAFEWAY INC | SWY | 7,908.50 | 0.04\% | 2.28\% | 10.50\% | 12.90\% | 0.0055\% |
| STRYKER CORP | SYK | 32,029.65 | 0.17\% | 1.43\% | 11.56\% | 13.07\% | 0.0227\% |
| SYMANTEC CORP | SYMC | 15,210.35 | 0.08\% | 2.88\% | 6.84\% | 9.82\% | 0.0081\% |
| SYSCO CORP | SYY | 21,938.88 | 0.12\% | 3.11\% | 9.37\% | 12.62\% | 0.0150\% |
| AT\&T INC | T | 184,089.30 | 1.00\% | 5.21\% | 5.67\% | 11.02\% | 0.1100\% |
| MOLSON COORS BREWING CO -B | TAP | 12,143.78 | 0.07\% | 2.22\% | 6.63\% | 8.92\% | 0.0059\% |
| TERADATA CORP | TDC | 6,621.82 | 0.04\% | 0.00\% | 9.77\% | 9.77\% | 0.0035\% |
| TECO ENERGY INC | TE | 3,761.50 | N/A | 5.12\% | NA | N/A | N/A |
| INTEGRYS ENERGY GROUP INC | TEG | 4,637.06 | 0.03\% | 4.69\% | 5.00\% | 9.81\% | 0.0025\% |
| TE CONNECTIVITY LTD | TEL | 24,302.83 | 0.13\% | 1.77\% | 9.70\% | 11.56\% | 0.0152\% |
| TARGET CORP | TGT | 35,969.06 | 0.19\% | 3.04\% | 10.27\% | 13.46\% | 0.0262\% |
| TENET HEALTHCARE CORP | THC | 4,589.71 | 0.02\% | 0.00\% | 13.49\% | 13.49\% | 0.0034\% |
| TIFFANY \& CO | TIF | 12,828.30 | 0.07\% | 1.48\% | 13.60\% | 15.19\% | 0.0106\% |
| TJX COMPANIES INC | TJX | 38,131.99 | 0.21\% | 1.22\% | 10.76\% | 12.05\% | 0.0249\% |


|  |  | [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 |
| TORCHMARK CORP | TMK | 7,106.55 | 0.04\% | 0.91\% | 8.67\% | 9.62\% | 0.0037\% |
| THERMO FISHER SCIENTIFIC INC | TMO | 46,639.88 | 0.25\% | 0.51\% | 13.91\% | 14.46\% | 0.0365\% |
| TRIPADVISOR INC | TRIP | 13,861.61 | N/A | 0.00\% | NA | N/A | N/A |
| T ROWE PRICE GROUP INC | TROW | 21,420.68 | 0.12\% | 2.15\% | 13.04\% | 15.33\% | 0.0178\% |
| TRAVELERS COS INC/THE | TRV | 32,471.22 | 0.18\% | 2.30\% | 6.70\% | 9.08\% | 0.0160\% |
| TRACTOR SUPPLY COMPANY | TSCO | 9,004.81 | 0.05\% | 0.88\% | 16.69\% | 17.64\% | 0.0086\% |
| TYSON FOODS INC-CL A | TSN | 14,448.54 | N/A | 0.67\% | NA | N/A | N/A |
| TESORO CORP | TSO | 7,268.01 | 0.04\% | 1.81\% | 86.34\% | 88.93\% | 0.0350\% |
| TOTAL SYSTEM SERVICES INC | TSS | 5,711.23 | 0.03\% | 1.32\% | 10.65\% | 12.04\% | 0.0037\% |
| TIME WARNER CABLE | TWC | 39,328.81 | 0.21\% | 2.14\% | 7.26\% | 9.47\% | 0.0202\% |
| TIME WARNER INC | TWX | 61,596.89 | 0.33\% | 1.82\% | 10.16\% | 12.06\% | 0.0403\% |
| TEXAS INSTRUMENTS INC | TXN | 50,707.92 | 0.27\% | 2.58\% | 10.10\% | 12.81\% | 0.0352\% |
| TEXTRON INC | TXT | 10,947.78 | 0.06\% | 0.20\% | 16.77\% | 16.99\% | 0.0101\% |
| TYCO INTERNATIONAL LTD | TYC | 20,130.11 | 0.11\% | 1.55\% | 12.70\% | 14.35\% | 0.0157\% |
| UNDER ARMOUR INC-CLASS A | UA | 10,816.24 | 0.06\% | 0.00\% | 23.54\% | 23.54\% | 0.0138\% |
| UNITEDHEALTH GROUP INC | UNH | 78,026.31 | 0.42\% | 1.40\% | 9.86\% | 11.34\% | 0.0479\% |
| UNUM GROUP | UNM | 8,728.78 | 0.05\% | 1.83\% | 9.00\% | 10.91\% | 0.0052\% |
| UNION PACIFIC CORP | UNP | 90,251.72 | 0.49\% | 1.81\% | 13.16\% | 15.09\% | 0.0738\% |
| UNITED PARCEL SERVICE-CL B | UPS | 95,501.23 | 0.52\% | 2.54\% | 10.00\% | 12.67\% | 0.0656\% |
| URBAN OUTFITTERS INC | URBN | 4,845.68 | 0.03\% | 0.00\% | 14.58\% | 14.58\% | 0.0038\% |
| US BANCORP | USB | 76,581.17 | 0.42\% | 2.31\% | 7.50\% | 9.90\% | 0.0411\% |
| UNITED TECHNOLOGIES CORP | UTX | 106,542.52 | 0.58\% | 2.06\% | 11.42\% | 13.59\% | 0.0785\% |
| VISA INC-CLASS A SHARES | V | 165,554.02 | 0.90\% | 0.74\% | 17.76\% | 18.57\% | 0.1666\% |
| VARIAN MEDICAL SYSTEMS INC | VAR | 8,570.87 | 0.05\% | 0.00\% | 10.50\% | 10.50\% | 0.0049\% |
| VF CORP | VFC | 27,118.86 | 0.15\% | 1.66\% | 12.61\% | 14.37\% | 0.0211\% |
| VIACOM INC-CLASS B | VIAB | 36,680.22 | 0.20\% | 1.44\% | 11.91\% | 13.43\% | 0.0267\% |
| VALERO ENERGY CORP | VLO | 29,909.63 | 0.16\% | 1.80\% | 10.41\% | 12.30\% | 0.0199\% |
| VULCAN MATERIALS CO | VMC | 7,974.98 | 0.04\% | 0.27\% | 6.67\% | 6.94\% | 0.0030\% |
| VORNADO REALTY TRUST | VNO | 20,068.03 | 0.11\% | 2.75\% | 10.79\% | 13.68\% | 0.0149\% |
| VERISIGN INC | VRSN | 6,583.01 | 0.04\% | 0.00\% | 11.00\% | 11.00\% | 0.0039\% |
| VERTEX PHARMACEUTICALS INC | VRTX | 17,067.40 | 0.09\% | 0.00\% | 20.50\% | 20.50\% | 0.0190\% |
| VENTAS INC | VTR | 19,661.71 | 0.11\% | 4.33\% | 3.99\% | 8.40\% | 0.0090\% |
| VERIZON COMMUNICATIONS INC | VZ | 206,891.80 | 1.12\% | 4.26\% | 6.63\% | 11.02\% | 0.1236\% |
| WALGREEN CO | WAG | 68,625.95 | 0.37\% | 1.71\% | 13.38\% | 15.20\% | 0.0566\% |
| WATERS CORP | WAT | 8,492.32 | 0.05\% | 0.00\% | 10.17\% | 10.17\% | 0.0047\% |
| WESTERN DIGITAL CORP | WDC | 20,650.78 | 0.11\% | 1.30\% | 4.26\% | 5.59\% | 0.0063\% |
| WISCONSIN ENERGY CORP | WEC | 10,265.65 | 0.06\% | 3.43\% | 4.73\% | 8.24\% | 0.0046\% |
| WELLS FARGO \& CO | WFC | 267,461.80 | 1.45\% | 2.61\% | 11.94\% | 14.70\% | 0.2132\% |
| WHOLE FOODS MARKET INC | WFM | 14,055.99 | 0.08\% | 1.25\% | 13.96\% | 15.29\% | 0.0117\% |
| WHIRLPOOL CORP | WHR | 11,159.82 | 0.06\% | 1.99\% | 20.52\% | 22.71\% | 0.0137\% |
| WINDSTREAM HOLDINGS INC | WIN | 5,767.46 | 0.03\% | 10.45\% | -1.00\% | 9.40\% | 0.0029\% |
| WELLPOINT INC | WLP | 30,305.29 | 0.16\% | 1.59\% | 9.28\% | 10.94\% | 0.0180\% |
| WASTE MANAGEMENT INC | WM | 20,792.38 | 0.11\% | 3.34\% | 8.13\% | 11.61\% | 0.0131\% |
| WILLIAMS COS INC | WMB | 32,191.95 | 0.17\% | 3.72\% | 11.50\% | 15.44\% | 0.0269\% |
| WAL-MART STORES INC | WMT | 247,787.44 | 1.34\% | 2.53\% | 8.50\% | 11.14\% | 0.1496\% |
| WESTERN UNION CO | WU | 8,714.40 | 0.05\% | 3.10\% | 8.66\% | 11.90\% | 0.0056\% |
| WEYERHAEUSER CO | WY | 18,380.93 | 0.10\% | 2.82\% | 5.50\% | 8.40\% | 0.0084\% |
| WYNDHAM WORLDWIDE CORP | WYN | 9,411.71 | 0.05\% | 1.81\% | 14.70\% | 16.65\% | 0.0085\% |
| WYNN RESORTS LTD | WYNN | 21,767.26 | 0.12\% | 2.33\% | 11.00\% | 13.46\% | 0.0159\% |
| UNITED STATES STEEL CORP | X | 3,333.93 | 0.02\% | 0.87\% | 6.00\% | 6.89\% | 0.0012\% |
| XCEL ENERGY INC | XEL | 15,440.59 | 0.08\% | 3.84\% | 5.03\% | 8.97\% | 0.0075\% |
| XL GROUP PLC | XL | 8,812.86 | 0.05\% | 1.93\% | 8.90\% | 10.91\% | 0.0052\% |
| XILINXINC | XLNX | 12,622.57 | 0.07\% | 2.45\% | 10.88\% | 13.47\% | 0.0092\% |
| EXXON MOBIL CORP | XOM | 431,713.49 | 2.34\% | 2.66\% | 12.10\% | 14.92\% | 0.3491\% |
| DENTSPLY INTERNATIONAL INC | XRAY | 6,705.35 | 0.04\% | 0.57\% | 10.53\% | 11.13\% | 0.0040\% |
| XEROX CORP | XRX | 14,416.42 | 0.08\% | 2.02\% | 8.65\% | 10.76\% | 0.0084\% |
| XYLEM INC | XYL | 6,854.91 | 0.04\% | 1.36\% | 10.35\% | 11.78\% | 0.0044\% |
| YAHOO! INC | YHOO | 34,885.90 | 0.19\% | 0.00\% | 15.42\% | 15.42\% | 0.0292\% |
| YUM! BRANDS INC | YUM | 34,123.12 | 0.18\% | 1.97\% | 13.36\% | 15.46\% | 0.0286\% |
| ZIONS BANCORPORATION | ZION | 5,286.15 | 0.03\% | 0.58\% | 9.00\% | 9.60\% | 0.0028\% |
| ZIMMER HOLDINGS INC | ZMH | 17,511.95 | 0.09\% | 0.79\% | 10.64\% | 11.47\% | 0.0109\% |
| ZOETIS INC | ZTS | 15,381.27 | 0.08\% | 0.94\% | 10.88\% | 11.88\% | 0.0099\% |
| Notes: $\quad$ Total Market Capitalization: $18,448,604.27$ |  |  |  |  |  |  | 13.44\% |
|  |  |  |  |  |  |  |  |
| [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] $\times(1+(0.5 \times[7]))$ + [7] |  |  |  |  |  |  |  |
| [9] Equals Col. [5] x Col. [8] |  |  |  |  |  |  |  |

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

| $[1]$ | $[2]$ | $[3]$ |
| :---: | :---: | :---: |
| S\&P 500 | Current 30-Year |  |
| Est. Required | Treasury (30-day | Implied Market |
| Market Return | average) | Risk Premium |
| $12.70 \%$ | $3.42 \%$ | $9.28 \%$ |


|  |  | [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 |
| AGILENT TECHNOLOGIES INC | A | 18,518.15 | 0.11\% | 1.01\% | 6.50\% | 7.54\% | 0.0081\% |
| ALCOA INC | AA | 15,493.64 | 0.09\% | 0.91\% | 17.00\% | 17.99\% | 0.0161\% |
| APPLE INC | AAPL | 541,956.30 | 3.14\% | 2.17\% | 12.50\% | 14.81\% | 0.4642\% |
| ABBVIE INC | ABBV | 85,275.23 | 0.49\% | 3.13\% | 0.00\% | 3.13\% | 0.0154\% |
| AMERISOURCEBERGEN CORP | ABC | 16,233.48 | 0.09\% | 1.32\% | 14.00\% | 15.41\% | 0.0145\% |
| ABBOTT LABORATORIES | ABT | 59,551.84 | 0.34\% | 2.22\% | -4.00\% | -1.82\% | -0.0063\% |
| ACE LTD | ACE | 35,006.70 | 0.20\% | 2.53\% | 9.00\% | 11.64\% | 0.0236\% |
| ACCENTURE PLC-CL A | ACN | 50,310.28 | 0.29\% | 2.44\% | 7.50\% | 10.03\% | 0.0292\% |
| ACTAVIS PLC | ACT | 28,392.67 | 0.16\% | 0.00\% | 24.50\% | 24.50\% | 0.0402\% |
| ADOBE SYSTEMS INC | ADBE | 31,480.34 | 0.18\% | 0.00\% | 15.00\% | 15.00\% | 0.0273\% |
| ANALOG DEVICES INC | ADI | 16,170.15 | 0.09\% | 2.86\% | 11.00\% | 14.02\% | 0.0131\% |
| ARCHER-DANIELS-MIDLAND CO | ADM | 28,590.75 | 0.17\% | 2.20\% | 9.00\% | 11.30\% | 0.0187\% |
| AUTOMATIC DATA PROCESSING | ADP | 37,626.75 | 0.22\% | 2.61\% | 9.00\% | 11.73\% | 0.0255\% |
| ALLIANCE DATA SYSTEMS CORP | ADS | 13,323.76 | 0.08\% | 0.00\% | 14.50\% | 14.50\% | 0.0112\% |
| AUTODESK INC | ADSK | 11,677.32 | 0.07\% | 0.00\% | 7.50\% | 7.50\% | 0.0051\% |
| ADT CORP/THE | ADT | 5,772.01 | 0.03\% | 2.46\% | 0.00\% | 2.46\% | 0.0008\% |
| AMEREN CORPORATION | AEE | 9,395.90 | 0.05\% | 4.16\% | 2.50\% | 6.71\% | 0.0036\% |
| AMERICAN ELECTRIC POWER | AEP | 25,130.21 | 0.15\% | 3.96\% | 4.50\% | 8.55\% | 0.0124\% |
| AES CORP | AES | 9,847.84 | 0.06\% | 1.46\% | 10.50\% | 12.04\% | 0.0069\% |
| AETNA INC | AET | 27,346.10 | 0.16\% | 1.19\% | 10.50\% | 11.75\% | 0.0186\% |
| AFLAC INC | AFL | 28,419.29 | 0.16\% | 2.46\% | 7.50\% | 10.05\% | 0.0165\% |
| ALLERGAN INC | AGN | 48,842.53 | 0.28\% | 0.12\% | 13.50\% | 13.63\% | 0.0385\% |
| AMERICAN INTERNATIONAL GROUP | AIG | 78,829.24 | 0.46\% | 0.93\% | 0.00\% | 0.93\% | 0.0042\% |
| APARTMENT INVT \& MGMT CO -A | AIV | - | 0.00\% | 3.35\% | 0.00\% | 3.35\% | 0.0000\% |
| ASSURANT INC | AIZ | 4,779.44 | 0.03\% | 1.62\% | 4.00\% | 5.65\% | 0.0016\% |
| AKAMAI TECHNOLOGIES INC | AKAM | 9,547.09 | 0.06\% | 0.00\% | 13.50\% | 13.50\% | 0.0075\% |
| ALLSTATE CORP | ALL | 26,199.15 | 0.15\% | 1.92\% | 16.00\% | 18.07\% | 0.0274\% |
| ALLEGION PLC | ALLE | N/A | N/A | N/A | N/A | N/A | N/A |
| ALTERA CORP | ALTR | 10,393.00 | 0.06\% | 1.81\% | 0.00\% | 1.81\% | 0.0011\% |
| ALEXION PHARMACEUTICALS INC | ALXN | 31,806.66 | 0.18\% | 0.00\% | 31.50\% | 31.50\% | 0.0580\% |
| APPLIED MATERIALS INC | AMAT | 24,086.79 | 0.14\% | 2.01\% | 17.00\% | 19.18\% | 0.0267\% |
| AMETEK INC | AME | 12,844.01 | 0.07\% | 0.69\% | 10.50\% | 11.23\% | 0.0083\% |
| AMGEN INC | AMGN | 86,937.53 | 0.50\% | 2.16\% | 8.50\% | 10.75\% | 0.0541\% |
| AMERIPRISE FINANCIAL INC | AMP | 22,465.79 | 0.13\% | 2.10\% | 14.50\% | 16.75\% | 0.0218\% |
| AMERICAN TOWER CORP | AMT | 35,000.09 | 0.20\% | 1.54\% | 16.50\% | 18.17\% | 0.0368\% |
| AMAZON.COM INC | AMZN | 140,258.60 | 0.81\% | 0.00\% | 71.50\% | 71.50\% | 0.5802\% |
| AUTONATION INC | AN | 6,727.00 | 0.04\% | 0.00\% | 12.50\% | 12.50\% | 0.0049\% |
| AON PLC | AON | 26,096.44 | 0.15\% | 1.14\% | 16.00\% | 17.23\% | 0.0260\% |
| APACHE CORP | APA | 35,238.56 | 0.20\% | 1.11\% | 10.00\% | 11.17\% | 0.0228\% |
| ANADARKO PETROLEUM CORP | APC | 51,277.59 | 0.30\% | 1.06\% | 75.00\% | 76.46\% | 0.2268\% |
| AIR PRODUCTS \& CHEMICALS INC | APD | 25,088.78 | 0.15\% | 2.61\% | 9.00\% | 11.73\% | 0.0170\% |
| AMPHENOL CORP-CL A | APH | 14,982.51 | 0.09\% | 0.84\% | 8.00\% | 8.87\% | 0.0077\% |
| AIRGAS INC | ARG | 7,752.78 | 0.04\% | 2.10\% | 13.50\% | 15.74\% | 0.0071\% |
| ALLEGHENY TECHNOLOGIES INC | ATI | 4,308.23 | 0.02\% | 1.78\% | 17.50\% | 19.44\% | 0.0048\% |
| AVALONBAY COMMUNITIES INC | AVB | - | 0.00\% | 3.40\% | 0.00\% | 3.40\% | 0.0000\% |
| AVAGO TECHNOLOGIES LTD | AVGO | N/A | N/A | N/A | N/A | N/A | N/A |
| AVON PRODUCTS INC | AVP | 6,008.39 | 0.03\% | 1.74\% | 36.50\% | 38.56\% | 0.0134\% |
| AVERY DENNISON CORP | AVY | 4,618.21 | 0.03\% | 2.90\% | 10.00\% | 13.05\% | 0.0035\% |
| AMERICAN EXPRESS CO | AXP | 93,791.59 | 0.54\% | 1.18\% | 10.00\% | 11.24\% | 0.0610\% |
| AUTOZONE INC | AZO | 18,067.07 | 0.10\% | 0.00\% | 14.00\% | 14.00\% | 0.0146\% |
| BOEING CO/THE | BA | 96,342.08 | 0.56\% | 2.27\% | 11.00\% | 13.39\% | 0.0747\% |
| BANK OF AMERICA CORP | BAC | 155,805.50 | 0.90\% | 0.54\% | 30.00\% | 30.62\% | 0.2760\% |
| BAXTER INTERNATIONAL INC | BAX | 40,433.25 | 0.23\% | 2.79\% | 8.50\% | 11.41\% | 0.0267\% |
| BED BATH \& BEYOND INC | BBBY | 12,843.54 | 0.07\% | 0.00\% | 8.50\% | 8.50\% | 0.0063\% |
| BB\&T CORP | BBT | 26,455.86 | 0.15\% | 2.56\% | 7.50\% | 10.16\% | 0.0155\% |
| BEST BUY CO INC | BBY | 9,091.81 | 0.05\% | 2.75\% | 5.50\% | 8.33\% | 0.0044\% |
| CR BARD INC | BCR | 11,151.82 | 0.06\% | 0.60\% | 10.00\% | 10.63\% | 0.0069\% |
| BECTON DICKINSON AND CO | BDX | 22,322.79 | 0.13\% | 1.89\% | 8.50\% | 10.47\% | 0.0135\% |
| FRANKLIN RESOURCES INC | BEN | 34,403.61 | 0.20\% | 0.97\% | 9.00\% | 10.01\% | 0.0199\% |
| BROWN-FORMAN CORP-CLASS B | BF/B | 19,595.16 | 0.11\% | 1.28\% | 10.00\% | 11.34\% | 0.0129\% |
| BAKER HUGHES INC | BHI | 30,387.60 | 0.18\% | 0.98\% | 13.50\% | 14.55\% | 0.0256\% |
| BIOGEN IDEC INC | BIIB | 71,086.17 | 0.41\% | 0.00\% | 14.50\% | 14.50\% | 0.0596\% |
| BANK OF NEW YORK MELLON CORP | BK | 39,422.66 | 0.23\% | 1.97\% | 11.50\% | 13.58\% | 0.0310\% |
| BLACKROCK INC | BLK | 50,837.81 | 0.29\% | 2.57\% | 7.00\% | 9.66\% | 0.0284\% |
| BALL CORP | BLL | 8,348.43 | 0.05\% | 0.87\% | 12.00\% | 12.92\% | 0.0062\% |
| BEMIS COMPANY | BMS | 4,097.55 | 0.02\% | 2.68\% | 8.00\% | 10.79\% | 0.0026\% |


|  |  | [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 |
| BRISTOL-MYERS SQUIBB CO | BMY | 80,870.20 | 0.47\% | 2.95\% | 8.50\% | 11.58\% | 0.0542\% |
| BROADCOM CORP-CL A | BRCM | 17,637.75 | 0.10\% | 1.59\% | 2.50\% | 4.11\% | 0.0042\% |
| BERKSHIRE HATHAWAY INC-CL B | BRK/B | - | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.0000\% |
| BOSTON SCIENTIFIC CORP | BSX | 16,768.88 | 0.10\% | 0.00\% | 13.00\% | 13.00\% | 0.0126\% |
| PEABODY ENERGY CORP | BTU | 4,747.75 | 0.03\% | 1.94\% | 4.00\% | 5.98\% | 0.0016\% |
| BORGWARNER INC | BWA | 13,959.66 | 0.08\% | 0.82\% | 14.00\% | 14.88\% | 0.0120\% |
| BOSTON PROPERTIES INC | BXP | - | 0.00\% | 2.24\% | 0.00\% | 2.24\% | 0.0000\% |
| CITIGROUP INC | C | 143,201.20 | 0.83\% | 0.09\% | 9.50\% | 9.59\% | 0.0795\% |
| CA INC | CA | 12,847.50 | 0.07\% | 3.45\% | 4.50\% | 8.03\% | 0.0060\% |
| CONAGRA FOODS INC | CAG | 13,304.19 | 0.08\% | 3.17\% | 10.00\% | 13.33\% | 0.0103\% |
| CARDINAL HEALTH INC | CAH | 23,112.98 | 0.13\% | 2.07\% | 12.00\% | 14.19\% | 0.0190\% |
| CAMERON INTERNATIONAL CORP | CAM | 13,156.98 | 0.08\% | 0.00\% | 14.00\% | 14.00\% | 0.0107\% |
| CATERPILLAR INC | CAT | 64,345.94 | 0.37\% | 2.33\% | 5.00\% | 7.39\% | 0.0275\% |
| CHUBB CORP | CB | 22,906.23 | 0.13\% | 2.17\% | 8.50\% | 10.76\% | 0.0143\% |
| CBRE GROUP INC - A | CBG | 9,577.62 | 0.06\% | 0.00\% | 11.50\% | 11.50\% | 0.0064\% |
| CBS CORP-CLASS B NON VOTING | CBS | 35,181.38 | 0.20\% | 0.81\% | 8.50\% | 9.34\% | 0.0190\% |
| COCA-COLA ENTERPRISES | CCE | 11,520.38 | 0.07\% | 2.23\% | 10.00\% | 12.34\% | 0.0082\% |
| CROWN CASTLE INTL CORP | CCI | 25,364.08 | 0.15\% | 1.83\% | 27.00\% | 29.08\% | 0.0427\% |
| CARNIVAL CORP | CCL | 30,862.44 | 0.18\% | 2.52\% | 8.00\% | 10.62\% | 0.0190\% |
| CELGENE CORP | CELG | 60,244.18 | 0.35\% | 0.00\% | 14.00\% | 14.00\% | 0.0488\% |
| CERNER CORP | CERN | 17,967.09 | 0.10\% | 0.00\% | 15.00\% | 15.00\% | 0.0156\% |
| CF INDUSTRIES HOLDINGS INC | CF | 12,903.18 | 0.07\% | 1.74\% | 4.50\% | 6.28\% | 0.0047\% |
| CAREFUSION CORP | CFN | 8,748.63 | 0.05\% | 0.00\% | 13.00\% | 13.00\% | 0.0066\% |
| CHESAPEAKE ENERGY CORP | CHK | 18,136.00 | 0.10\% | 1.25\% | 7.00\% | 8.29\% | 0.0087\% |
| C.H. ROBINSON WORLDWIDE INC | CHRW | 8,844.07 | 0.05\% | 2.35\% | 6.50\% | 8.93\% | 0.0046\% |
| CIGNA CORP | Cl | 24,793.11 | 0.14\% | 0.05\% | 9.00\% | 9.05\% | 0.0130\% |
| CINCINNATI FINANCIAL CORP | CINF | 7,976.96 | 0.05\% | 3.62\% | 12.50\% | 16.35\% | 0.0075\% |
| COLGATE-PALMOLIVE CO | CL | 60,973.86 | 0.35\% | 2.22\% | 10.50\% | 12.84\% | 0.0453\% |
| CLOROX COMPANY | CLX | 11,315.45 | 0.07\% | 3.36\% | 10.50\% | 14.04\% | 0.0092\% |
| COMERICA INC | CMA | 8,489.02 | 0.05\% | 1.71\% | 11.00\% | 12.80\% | 0.0063\% |
| COMCAST CORP-CLASS A | CMCSA | 134,409.90 | 0.78\% | 1.74\% | 12.00\% | 13.84\% | 0.1077\% |
| CME GROUP INC | CME | 23,828.27 | 0.14\% | 2.64\% | 8.50\% | 11.25\% | 0.0155\% |
| CHIPOTLE MEXICAN GRILL INC | CMG | 16,180.68 | 0.09\% | 0.00\% | 17.00\% | 17.00\% | 0.0159\% |
| CUMMINS INC | CMI | 27,129.12 | 0.16\% | 1.68\% | 8.00\% | 9.75\% | 0.0153\% |
| CMS ENERGY CORP | CMS | 7,842.65 | 0.05\% | 3.77\% | 6.50\% | 10.39\% | 0.0047\% |
| CENTERPOINT ENERGY INC | CNP | 10,308.87 | 0.06\% | 4.00\% | 2.50\% | 6.55\% | 0.0039\% |
| CONSOL ENERGY INC | CNX | 10,160.74 | 0.06\% | 0.57\% | 4.00\% | 4.58\% | 0.0027\% |
| CAPITAL ONE FINANCIAL CORP | COF | 43,895.54 | 0.25\% | 1.57\% | 4.00\% | 5.60\% | 0.0142\% |
| CABOT OIL \& GAS CORP | COG | 15,051.58 | 0.09\% | 0.28\% | 33.00\% | 33.33\% | 0.0290\% |
| COACH INC | COH | 113,334.40 | 0.66\% | 3.27\% | 5.00\% | 8.35\% | 0.0548\% |
| ROCKWELL COLLINS INC | COL | 10,376.59 | 0.06\% | 1.57\% | 7.00\% | 8.62\% | 0.0052\% |
| CONOCOPHILLIPS | COP | 96,325.74 | 0.56\% | 3.52\% | 3.00\% | 6.57\% | 0.0366\% |
| COSTCO WHOLESALE CORP | COST | 50,468.35 | 0.29\% | 1.24\% | 10.50\% | 11.81\% | 0.0345\% |
| COVIDIEN PLC | cov | 32,003.96 | 0.19\% | 1.80\% | 8.00\% | 9.87\% | 0.0183\% |
| CAMPBELL SOUP CO | CPB | 13,806.00 | 0.08\% | 2.83\% | 6.00\% | 8.91\% | 0.0071\% |
| SALESFORCE.COM INC | CRM | 32,121.81 | 0.19\% | 0.00\% | 0.00\% | 0.00\% | 0.0000\% |
| COMPUTER SCIENCES CORP | CSC | 8,914.18 | 0.05\% | 1.51\% | 7.50\% | 9.07\% | 0.0047\% |
| CISCO SYSTEMS INC | csco | 126,556.60 | 0.73\% | 3.12\% | 5.50\% | 8.71\% | 0.0637\% |
| CSX CORP | Csx | 29,578.46 | 0.17\% | 2.17\% | 8.50\% | 10.76\% | 0.0184\% |
| CINTAS CORP | CTAS | 7,388.06 | 0.04\% | 1.25\% | 11.50\% | 12.82\% | 0.0055\% |
| CENTURYLINK INC | CTL | 21,365.45 | 0.12\% | 5.81\% | 6.50\% | 12.50\% | 0.0155\% |
| COGNIZANT TECH SOLUTIONS-A | CTSH | 28,815.77 | 0.17\% | 0.00\% | 21.00\% | 21.00\% | 0.0350\% |
| CITRIX SYSTEMS INC | CTXS | 11,499.61 | 0.07\% | 0.00\% | 12.50\% | 12.50\% | 0.0083\% |
| CABLEVISION SYSTEMS-NY GRP-A | CVC | 4,647.21 | 0.03\% | 3.49\% | 19.00\% | 22.82\% | 0.0061\% |
| CVS CAREMARK CORP | cVs | 90,567.34 | 0.52\% | 1.43\% | 11.00\% | 12.51\% | 0.0655\% |
| CHEVRON CORP | CVX | 235,348.30 | 1.36\% | 3.46\% | 4.50\% | 8.04\% | 0.1094\% |
| DOMINION RESOURCES INC/VA | D | 40,607.88 | 0.23\% | 3.51\% | 5.50\% | 9.11\% | 0.0214\% |
| DELTA AIR LINES INC | DAL | 32,603.72 | 0.19\% | 0.62\% | 16.00\% | 16.67\% | 0.0314\% |
| DU PONT (E.I.) DE NEMOURS | DD | 61,953.72 | 0.36\% | 2.79\% | 8.50\% | 11.41\% | 0.0409\% |
| DEERE \& CO | DE | 33,269.39 | 0.19\% | 2.27\% | 3.00\% | 5.30\% | 0.0102\% |
| DISCOVER FINANCIAL SERVICES | DFS | 27,315.14 | 0.16\% | 1.68\% | 8.50\% | 10.25\% | 0.0162\% |
| DOLLAR GENERAL CORP | DG | 17,571.35 | 0.10\% | 0.00\% | 14.50\% | 14.50\% | 0.0147\% |
| QUEST DIAGNOSTICS INC | DGX | 8,256.96 | 0.05\% | 2.30\% | 6.50\% | 8.87\% | 0.0042\% |
| DR HORTON INC | DHI | 7,362.59 | 0.04\% | 0.66\% | 25.50\% | 26.24\% | 0.0112\% |
| DANAHER CORP | DHR | 54,584.48 | 0.32\% | 0.51\% | 12.00\% | 12.54\% | 0.0396\% |
| WALT DISNEY CO/THE | DIS | 139,995.00 | 0.81\% | 1.04\% | 11.50\% | 12.60\% | 0.1021\% |
| DISCOVERY COMMUNICATIONS-A | DISCA | 23,361.80 | 0.14\% | 0.00\% | 14.50\% | 14.50\% | 0.0196\% |
| DELPHI AUTOMOTIVE PLC | DLPH | 20,649.18 | 0.12\% | 1.47\% | 12.00\% | 13.56\% | 0.0162\% |
| DOLLAR TREE INC | DLTR | 11,095.46 | 0.06\% | 0.00\% | 14.50\% | 14.50\% | 0.0093\% |
| DUN \& BRADSTREET CORP | DNB | 3,890.38 | 0.02\% | 1.68\% | 3.50\% | 5.21\% | 0.0012\% |
| DENBURY RESOURCES INC | DNR | 5,917.10 | 0.03\% | 1.84\% | 9.00\% | 10.92\% | 0.0037\% |
| DIAMOND OFFSHORE DRILLING | DO | 7,061.51 | 0.04\% | 6.80\% | 9.00\% | 16.11\% | 0.0066\% |
| DOVER CORP | DOV | 14,319.63 | 0.08\% | 1.74\% | 6.00\% | 7.79\% | 0.0065\% |
| DOW CHEMICAL CO/THE | DOW | 59,268.07 | 0.34\% | 2.97\% | 14.50\% | 17.69\% | 0.0606\% |
| DR PEPPER SNAPPLE GROUP INC | DPS | 11,329.55 | 0.07\% | 2.90\% | 6.50\% | 9.49\% | 0.0062\% |
| DARDEN RESTAURANTS INC | DRI | 6,531.81 | 0.04\% | 4.44\% | 6.50\% | 11.08\% | 0.0042\% |
| DTE ENERGY COMPANY | DTE | 13,302.75 | 0.08\% | 3.67\% | 5.00\% | 8.76\% | 0.0067\% |


|  |  | [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 |
| DIRECTV | DTV | 42,678.93 | 0.25\% | 0.00\% | 14.50\% | 14.50\% | 0.0358\% |
| DUKE ENERGY CORP | DUK | 49,808.30 | 0.29\% | 4.49\% | 5.00\% | 9.60\% | 0.0277\% |
| DAVITA HEALTHCARE PARTNERS I | DVA | 14,589.31 | 0.08\% | 0.00\% | 11.00\% | 11.00\% | 0.0093\% |
| DEVON ENERGY CORPORATION | DVN | 29,665.68 | 0.17\% | 1.32\% | 6.50\% | 7.86\% | 0.0135\% |
| ELECTRONIC ARTS INC | EA | 10,682.13 | 0.06\% | 0.00\% | 15.00\% | 15.00\% | 0.0093\% |
| EBAY INC | EBAY | 66,641.00 | 0.39\% | 0.00\% | 13.00\% | 13.00\% | 0.0501\% |
| ECOLAB INC | ECL | 32,302.37 | 0.19\% | 1.05\% | 11.50\% | 12.61\% | 0.0236\% |
| CONSOLIDATED EDISON INC | ED | 15,864.88 | 0.09\% | 4.71\% | 1.00\% | 5.73\% | 0.0053\% |
| EQUIFAX INC | EFX | 8,472.90 | 0.05\% | 1.44\% | 10.00\% | 11.51\% | 0.0056\% |
| EDISON INTERNATIONAL | EIX | 17,711.09 | 0.10\% | 2.70\% | 2.50\% | 5.23\% | 0.0054\% |
| ESTEE LAUDER COMPANIES-CL A | EL | 28,685.14 | 0.17\% | 1.07\% | 11.50\% | 12.63\% | 0.0210\% |
| EMC CORP/MA | EMC | 54,130.58 | 0.31\% | 1.74\% | 9.00\% | 10.82\% | 0.0339\% |
| EASTMAN CHEMICAL CO | EMN | 12,778.25 | 0.07\% | 1.65\% | 10.00\% | 11.73\% | 0.0087\% |
| EMERSON ELECTRIC CO | EMR | 46,394.89 | 0.27\% | 2.60\% | 6.50\% | 9.18\% | 0.0247\% |
| EOG RESOURCES INC | EOG | 56,660.60 | 0.33\% | 0.48\% | 21.50\% | 22.03\% | 0.0722\% |
| EQUITY RESIDENTIAL | EQR | - | 0.00\% | 3.30\% | 0.00\% | 3.30\% | 0.0000\% |
| EQT CORP | EQT | 15,628.84 | 0.09\% | 0.12\% | 15.50\% | 15.63\% | 0.0141\% |
| EXPRESS SCRIPTS HOLDING CO | ESRX | 54,344.00 | 0.31\% | 0.00\% | 12.50\% | 12.50\% | 0.0393\% |
| ESSEX PROPERTY TRUST INC | ESS | N/A | N/A | N/A | N/A | N/A | N/A |
| ENSCO PLC-CL A | ESV | 12,037.65 | 0.07\% | 5.82\% | 10.50\% | 16.63\% | 0.0116\% |
| E*TRADE FINANCIAL CORP | ETFC | 5,887.76 | 0.03\% | 0.00\% | 0.00\% | 0.00\% | 0.0000\% |
| EATON CORP PLC | ETN | 34,942.11 | 0.20\% | 2.67\% | 9.00\% | 11.79\% | 0.0238\% |
| ENTERGY CORP | ETR | 13,263.82 | 0.08\% | 4.48\% | -2.50\% | 1.92\% | 0.0015\% |
| EDWARDS LIFESCIENCES CORP | EW | 8,571.42 | 0.05\% | 0.00\% | 12.50\% | 12.50\% | 0.0062\% |
| EXELON CORP | EXC | 29,309.40 | 0.17\% | 3.63\% | 0.50\% | 4.14\% | 0.0070\% |
| EXPEDITORS INTL WASH INC | EXPD | 9,004.57 | 0.05\% | 1.40\% | 10.00\% | 11.47\% | 0.0060\% |
| EXPEDIA INC | EXPE | 9,216.55 | 0.05\% | 0.85\% | 15.00\% | 15.91\% | 0.0085\% |
| FORD MOTOR CO | F | 62,912.24 | 0.36\% | 3.14\% | 9.50\% | 12.79\% | 0.0466\% |
| FASTENAL CO | FAST | 14,273.55 | 0.08\% | 2.08\% | 12.00\% | 14.20\% | 0.0117\% |
| FACEBOOK INC-A | FB | 154,507.50 | 0.89\% | 0.00\% | 0.00\% | 0.00\% | 0.0000\% |
| FREEPORT-MCMORAN COPPER | FCX | 35,627.86 | 0.21\% | 3.73\% | 6.00\% | 9.84\% | 0.0203\% |
| FAMILY DOLLAR STORES | FDO | 6,451.49 | 0.04\% | 2.19\% | 5.50\% | 7.75\% | 0.0029\% |
| FEDEX CORP | FDX | 41,174.24 | 0.24\% | 0.43\% | 9.00\% | 9.45\% | 0.0225\% |
| FIRSTENERGY CORP | FE | 13,207.71 | 0.08\% | 4.56\% | 4.50\% | 9.16\% | 0.0070\% |
| F5 NETWORKS INC | FFIV | 8,184.19 | 0.05\% | 0.00\% | 12.00\% | 12.00\% | 0.0057\% |
| FIDELITY NATIONAL INFORMATIO | FIS | 15,290.81 | 0.09\% | 1.81\% | 10.00\% | 11.90\% | 0.0105\% |
| FISERV INC | FISV | 15,219.74 | 0.09\% | 0.00\% | 9.50\% | 9.50\% | 0.0084\% |
| FIFTH THIRD BANCORP | FITB | 17,298.86 | 0.10\% | 2.55\% | 10.00\% | 12.68\% | 0.0127\% |
| FLIR SYSTEMS INC | FLIR | 4,822.77 | 0.03\% | 1.20\% | 11.00\% | 12.27\% | 0.0034\% |
| FLUOR CORP | FLR | 11,758.15 | 0.07\% | 1.14\% | 7.00\% | 8.18\% | 0.0056\% |
| FLOWSERVE CORP | FLS | 10,069.74 | 0.06\% | 0.87\% | 12.00\% | 12.92\% | 0.0075\% |
| FMC CORP | FMC | 10,091.02 | 0.06\% | 0.79\% | 12.00\% | 12.84\% | 0.0075\% |
| FOSSIL GROUP INC | FOSL | 5,438.98 | 0.03\% | 0.00\% | 13.00\% | 13.00\% | 0.0041\% |
| TWENTY-FIRST CENTURY FOX-A | FOXA | 78,317.21 | 0.45\% | 0.75\% | 9.50\% | 10.29\% | 0.0466\% |
| FOREST LABORATORIES INC | FRX | 25,675.04 | 0.15\% | 0.00\% | 10.00\% | 10.00\% | 0.0149\% |
| FIRST SOLAR INC | FSLR | 6,068.70 | 0.04\% | 0.00\% | -2.00\% | -2.00\% | -0.0007\% |
| FMC TECHNOLOGIES INC | FTI | 13,203.58 | 0.08\% | 0.00\% | 17.50\% | 17.50\% | 0.0134\% |
| FRONTIER COMMUNICATIONS CORP | FTR | 5,753.09 | 0.03\% | 6.97\% | 13.50\% | 20.94\% | 0.0070\% |
| AGL RESOURCES INC | GAS | 6,347.52 | 0.04\% | 3.68\% | 9.00\% | 12.85\% | 0.0047\% |
| GANNETT CO | GCI | 6,288.94 | 0.04\% | 2.89\% | 8.50\% | 11.51\% | 0.0042\% |
| GENERAL DYNAMICS CORP | GD | 39,349.84 | 0.23\% | 2.16\% | 3.00\% | 5.19\% | 0.0118\% |
| GENERAL ELECTRIC CO | GE | 265,836.00 | 1.54\% | 3.32\% | 10.50\% | 13.99\% | 0.2152\% |
| GENERAL GROWTH PROPERTIES | GGP | - | 0.00\% | 2.56\% | 0.00\% | 2.56\% | 0.0000\% |
| GRAHAM HOLDINGS CO-CLASS B | GHC | 4,948.83 | 0.03\% | 1.53\% | 10.50\% | 12.11\% | 0.0035\% |
| GILEAD SCIENCES INC | GILD | 127,470.50 | 0.74\% | 0.00\% | 13.00\% | 13.00\% | 0.0959\% |
| GENERAL MILLS INC | GIS | 33,114.59 | 0.19\% | 3.05\% | 6.50\% | 9.65\% | 0.0185\% |
| CORNING INC | GLW | 27,713.32 | 0.16\% | 1.89\% | 6.50\% | 8.45\% | 0.0136\% |
| GENERAL MOTORS CO | GM | 53,472.00 | 0.31\% | 3.59\% | 10.00\% | 13.77\% | 0.0426\% |
| KEURIG GREEN MOUNTAIN INC | GMCR | 18,358.34 | 0.11\% | 0.88\% | 19.00\% | 19.96\% | 0.0212\% |
| GAMESTOP CORP-CLASS A | GME | 4,285.46 | 0.02\% | 3.72\% | 12.00\% | 15.94\% | 0.0040\% |
| GENWORTH FINANCIAL INC-CL A | GNW | 8,528.85 | 0.05\% | 0.00\% | 20.00\% | 20.00\% | 0.0099\% |
| GOOGLE INC-CL C | GOOG | 367,622.30 | 2.13\% | 0.00\% | 15.50\% | 15.50\% | 0.3297\% |
| GOOGLE INC-CL A | GOOGL | N/A | N/A | N/A | N/A | N/A | N/A |
| GENUINE PARTS CO | GPC | 13,062.48 | 0.08\% | 2.71\% | 9.00\% | 11.83\% | 0.0089\% |
| GAP INC/THE | GPS | 18,346.14 | 0.11\% | 2.20\% | 12.50\% | 14.84\% | 0.0157\% |
| GARMIN LTD | GRMN | 10,874.18 | 0.06\% | 3.44\% | 1.50\% | 4.97\% | 0.0031\% |
| GOLDMAN SACHS GROUP INC | GS | 74,298.28 | 0.43\% | 1.38\% | 13.00\% | 14.47\% | 0.0622\% |
| GOODYEAR TIRE \& RUBBER CO | GT | 6,136.74 | 0.04\% | 0.81\% | 11.50\% | 12.36\% | 0.0044\% |
| WW GRAINGER INC | GWW | 17,254.62 | 0.10\% | 1.71\% | 12.50\% | 14.32\% | 0.0143\% |
| HALLIBURTON CO | HAL | 53,454.63 | 0.31\% | 0.95\% | 14.50\% | 15.52\% | 0.0480\% |
| HARMAN INTERNATIONAL | HAR | 7,200.62 | 0.04\% | 1.14\% | 19.50\% | 20.75\% | 0.0086\% |
| HASBRO INC | HAS | 6,993.24 | 0.04\% | 3.20\% | 7.00\% | 10.31\% | 0.0042\% |
| HUNTINGTON BANCSHARES INC | HBAN | 7,499.61 | 0.04\% | 2.21\% | 6.00\% | 8.28\% | 0.0036\% |
| HUDSON CITY BANCORP INC | HCBK | 5,130.95 | 0.03\% | 1.65\% | 0.00\% | 1.65\% | 0.0005\% |
| HEALTH CARE REIT INC | HCN |  | 0.00\% | 5.09\% | 0.00\% | 5.09\% | 0.0000\% |
| HCP INC | HCP | - | 0.00\% | 5.28\% | 0.00\% | 5.28\% | 0.0000\% |
| HOME DEPOT INC | HD | 110,922.20 | 0.64\% | 2.39\% | 14.50\% | 17.06\% | 0.1095\% |


|  |  | [4] | [5] | [6] | [7] | [8] | [9] |
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| Company | Ticker | Market Capitalization | Weight in Index | Estimated Dividend Yield | Long-Term Growth Est. | DCF Result | Weighted DCF Result |
| HESS CORP | HES | 28,721.25 | 0.17\% | 1.11\% | -1.00\% | 0.10\% | 0.0002\% |
| HARTFORD FINANCIAL SVCS GRP | HIG | 15,522.34 | 0.09\% | 1.73\% | 11.00\% | 12.83\% | 0.0115\% |
| HARLEY-DAVIDSON INC | HOG | 15,757.86 | 0.09\% | 1.54\% | 13.50\% | 15.14\% | 0.0138\% |
| HONEYWELL INTERNATIONAL INC | HON | 71,616.32 | 0.41\% | 1.97\% | 9.50\% | 11.56\% | 0.0479\% |
| STARWOOD HOTELS \& RESORTS | HOT | 15,109.07 | 0.09\% | 1.79\% | 11.00\% | 12.89\% | 0.0113\% |
| HELMERICH \& PAYNE | HP | 11,495.96 | 0.07\% | 2.35\% | 9.50\% | 11.96\% | 0.0080\% |
| HEWLETT-PACKARD CO | HPQ | 60,350.22 | 0.35\% | 2.01\% | 0.00\% | 2.01\% | 0.0070\% |
| H\&R BLOCK INC | HRB | 8,020.85 | 0.05\% | 2.74\% | 10.00\% | 12.88\% | 0.0060\% |
| HORMEL FOODS CORP | HRL | 12,222.46 | 0.07\% | 1.81\% | 11.00\% | 12.91\% | 0.0091\% |
| HARRIS CORP | HRS | 8,111.87 | 0.05\% | 2.33\% | 1.50\% | 3.85\% | 0.0018\% |
| HOSPIRA INC | HSP | 8,016.00 | 0.05\% | 0.00\% | 7.00\% | 7.00\% | 0.0032\% |
| HOST HOTELS \& RESORTS INC | HST | - | 0.00\% | 2.88\% | 0.00\% | 2.88\% | 0.0000\% |
| HERSHEY CO/THE | HSY | 21,791.89 | 0.13\% | 2.05\% | 11.50\% | 13.67\% | 0.0172\% |
| HUMANA INC | HUM | 18,993.93 | 0.11\% | 0.91\% | 7.50\% | 8.44\% | 0.0093\% |
| INTL BUSINESS MACHINES CORP | IBM | 187,942.10 | 1.09\% | 2.37\% | 7.50\% | 9.96\% | 0.1083\% |
| INTERCONTINENTALEXCHANGE GRO | ICE | 22,486.60 | 0.13\% | 1.34\% | 18.50\% | 19.96\% | 0.0260\% |
| INTL FLAVORS \& FRAGRANCES | IFF | 7,980.52 | 0.05\% | 1.65\% | 7.00\% | 8.71\% | 0.0040\% |
| INTL GAME TECHNOLOGY | IGT | 3,072.68 | 0.02\% | 3.54\% | 10.50\% | 14.23\% | 0.0025\% |
| INTEL CORP | INTC | 130,017.80 | 0.75\% | 3.44\% | 6.00\% | 9.54\% | 0.0718\% |
| INTUIT INC | INTU | 22,204.74 | 0.13\% | 0.97\% | 10.00\% | 11.02\% | 0.0142\% |
| INTERNATIONAL PAPER CO | IP | 20,175.29 | 0.12\% | 3.01\% | 12.00\% | 15.19\% | 0.0177\% |
| INTERPUBLIC GROUP OF COS INC | IPG | 7,858.78 | 0.05\% | 2.05\% | 12.00\% | 14.17\% | 0.0064\% |
| INGERSOLL-RAND PLC | IR | 15,499.08 | 0.09\% | 1.75\% | 12.50\% | 14.36\% | 0.0129\% |
| IRON MOUNTAIN INC | IRM | 5,723.05 | 0.03\% | 3.62\% | 6.50\% | 10.24\% | 0.0034\% |
| INTUITIVE SURGICAL INC | ISRG | 14,002.18 | 0.08\% | 0.00\% | 6.50\% | 6.50\% | 0.0053\% |
| ILLINOIS TOOL WORKS | ITW | 35,424.63 | 0.20\% | 1.96\% | 10.50\% | 12.56\% | 0.0257\% |
| INVESCO LTD | IVZ | 15,325.45 | 0.09\% | 2.82\% | 14.00\% | 17.02\% | 0.0151\% |
| JABIL CIRCUIT INC | JBL | 3,682.74 | 0.02\% | 1.77\% | 3.00\% | 4.80\% | 0.0010\% |
| JOHNSON CONTROLS INC | JCI | 31,733.42 | 0.18\% | 1.84\% | 12.00\% | 13.95\% | 0.0256\% |
| JACOBS ENGINEERING GROUP INC | JEC | 7,011.10 | 0.04\% | 0.00\% | 12.00\% | 12.00\% | 0.0049\% |
| JOHNSON \& JOHNSON | JNJ | 285,478.70 | 1.65\% | 2.77\% | 6.50\% | 9.36\% | 0.1546\% |
| JUNIPER NETWORKS INC | JNPR | 12,231.44 | 0.07\% | 1.22\% | 16.50\% | 17.82\% | 0.0126\% |
| JOY GLOBAL INC | JOY | 5,793.87 | 0.03\% | 1.21\% | 2.00\% | 3.22\% | 0.0011\% |
| JPMORGAN CHASE \& CO | JPM | 204,895.70 | 1.19\% | 2.93\% | 7.50\% | 10.54\% | 0.1249\% |
| NORDSTROM INC | JWN | 13,046.80 | 0.08\% | 2.00\% | 8.50\% | 10.59\% | 0.0080\% |
| KELLOGG CO | K | 24,543.48 | 0.14\% | 2.75\% | 6.50\% | 9.34\% | 0.0133\% |
| KEYCORP | KEY | 11,759.91 | 0.07\% | 1.96\% | 6.00\% | 8.02\% | 0.0055\% |
| KIMCO REALTY CORP | KIM | - | 0.00\% | 4.08\% | 0.00\% | 4.08\% | 0.0000\% |
| KLA-TENCOR CORPORATION | KLAC | 10,553.17 | 0.06\% | 2.83\% | 6.00\% | 8.91\% | 0.0054\% |
| KIMBERLY-CLARK CORP | KMB | 41,541.04 | 0.24\% | 3.05\% | 8.50\% | 11.68\% | 0.0281\% |
| KINDER MORGAN INC | KMI | 34,805.96 | 0.20\% | 4.98\% | 15.00\% | 20.35\% | 0.0410\% |
| CARMAXINC | KMX | 9,940.34 | 0.06\% | 0.00\% | 10.50\% | 10.50\% | 0.0060\% |
| COCA-COLA CO/THE | KO | 178,227.40 | 1.03\% | 3.08\% | 6.50\% | 9.68\% | 0.0998\% |
| MICHAEL KORS HOLDINGS LTD | KORS | N/A | N/A | N/A | N/A | N/A | N/A |
| KROGER CO | KR | 23,525.48 | 0.14\% | 1.53\% | 9.50\% | 11.10\% | 0.0151\% |
| KRAFT FOODS GROUP INC | KRFT | 34,435.28 | 0.20\% | 3.63\% | 0.00\% | 3.63\% | 0.0072\% |
| KOHLS CORP | KSS | 11,157.68 | 0.06\% | 3.03\% | 7.50\% | 10.64\% | 0.0069\% |
| KANSAS CITY SOUTHERN | KSU | 11,704.38 | 0.07\% | 1.06\% | 14.00\% | 15.13\% | 0.0102\% |
| LOEWS CORP | L | 16,688.20 | 0.10\% | 0.58\% | 16.00\% | 16.63\% | 0.0161\% |
| L BRANDS INC | LB | 16,496.79 | 0.10\% | 2.40\% | 8.50\% | 11.00\% | 0.0105\% |
| LEGGETT \& PLATT INC | LEG | 4,618.76 | 0.03\% | 3.60\% | 12.50\% | 16.33\% | 0.0044\% |
| LENNAR CORP-A | LEN | 7,970.22 | 0.05\% | 0.41\% | 27.00\% | 27.47\% | 0.0127\% |
| LABORATORY CRP OF AMER HLDGS | LH | 8,504.59 | 0.05\% | 0.00\% | 5.00\% | 5.00\% | 0.0025\% |
| L-3 COMMUNICATIONS HOLDINGS | LLL | 10,041.49 | 0.06\% | 2.07\% | 4.00\% | 6.11\% | 0.0036\% |
| LINEAR TECHNOLOGY CORP | LLTC | 10,768.55 | 0.06\% | 2.37\% | 6.50\% | 8.95\% | 0.0056\% |
| ELI LILLY \& CO | LLY | 64,061.64 | 0.37\% | 3.28\% | -2.50\% | 0.74\% | 0.0027\% |
| LEGG MASON INC | LM | 5,826.32 | 0.03\% | 1.31\% | 14.00\% | 15.40\% | 0.0052\% |
| LOCKHEED MARTIN CORP | LMT | 51,636.77 | 0.30\% | 3.44\% | 7.50\% | 11.07\% | 0.0331\% |
| LINCOLN NATIONAL CORP | LNC | 12,742.57 | 0.07\% | 1.40\% | 8.00\% | 9.46\% | 0.0070\% |
| LORILLARD INC | LO | 21,602.13 | 0.12\% | 4.13\% | 11.00\% | 15.36\% | 0.0192\% |
| LOWE'S COS INC | LOW | 49,234.50 | 0.28\% | 1.54\% | 15.00\% | 16.66\% | 0.0474\% |
| LAM RESEARCH CORP | LRCX | 9,600.40 | 0.06\% | 1.22\% | 13.50\% | 14.80\% | 0.0082\% |
| LEUCADIA NATIONAL CORP | LUK | N/A | N/A | N/A | N/A | N/A | N/A |
| SOUTHWEST AIRLINES CO | LUV | 17,482.87 | 0.10\% | 0.95\% | 16.50\% | 17.53\% | 0.0177\% |
| LYONDELLBASELL INDU-CL A | LYB | N/A | N/A | N/A | N/A | N/A | N/A |
| MACY'S INC | M | 21,228.19 | 0.12\% | 2.17\% | 14.00\% | 16.32\% | 0.0200\% |
| MASTERCARD INC-CLASS A | MA | 91,733.25 | 0.53\% | 0.58\% | 14.00\% | 14.62\% | 0.0776\% |
| MACERICH CO/THE | MAC | - | 0.00\% | 3.81\% | 0.00\% | 3.81\% | 0.0000\% |
| MARRIOTT INTERNATIONAL -CL A | MAR | 17,298.95 | 0.10\% | 1.36\% | 12.50\% | 13.95\% | 0.0140\% |
| MASCO CORP | MAS | 7,311.54 | 0.04\% | 1.72\% | 33.50\% | 35.51\% | 0.0150\% |
| MATTEL INC | MAT | 13,132.80 | 0.08\% | 3.93\% | 7.00\% | 11.07\% | 0.0084\% |
| MCDONALD'S CORP | MCD | 101,466.50 | 0.59\% | 3.16\% | 7.00\% | 10.27\% | 0.0603\% |
| MICROCHIP TECHNOLOGY INC | MCHP | 9,246.99 | 0.05\% | 3.06\% | 9.00\% | 12.20\% | 0.0065\% |
| MCKESSON CORP | MCK | 42,248.83 | 0.24\% | 0.52\% | 14.00\% | 14.56\% | 0.0356\% |
| MOODY'S CORP | MCO | 17,499.89 | 0.10\% | 1.37\% | 11.50\% | 12.95\% | 0.0131\% |
| MONDELEZ INTERNATIONAL INC-A | MDLZ | 63,233.96 | 0.37\% | 1.50\% | 7.50\% | 9.06\% | 0.0331\% |
| MEDTRONIC INC | MDT | 59,678.37 | 0.35\% | 2.01\% | 7.50\% | 9.59\% | 0.0331\% |


|  |  | [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 |
| METLIFE INC | MET | 56,752.28 | 0.33\% | 2.77\% | 7.50\% | 10.37\% | 0.0341\% |
| MCGRAW HILL FINANCIAL INC | MHFI | 21,678.01 | 0.13\% | 1.51\% | 0.00\% | 1.51\% | 0.0019\% |
| MOHAWK INDUSTRIES INC | MHK | 9,742.10 | 0.06\% | 0.00\% | 15.50\% | 15.50\% | 0.0087\% |
| MEAD JOHNSON NUTRITION CO | MJN | 17,334.12 | 0.10\% | 1.75\% | 11.00\% | 12.85\% | 0.0129\% |
| MCCORMICK \& CO-NON VTG SHRS | MKC | 9,227.66 | 0.05\% | 2.18\% | 7.50\% | 9.76\% | 0.0052\% |
| MARSH \& MCLENNAN COS | MMC | 27,169.49 | 0.16\% | 2.26\% | 12.50\% | 14.90\% | 0.0234\% |
| 3M CO | MMM | 91,801.74 | 0.53\% | 2.44\% | 9.00\% | 11.55\% | 0.0613\% |
| MONSTER BEVERAGE CORP | MNST | 11,588.25 | 0.07\% | 0.00\% | 14.50\% | 14.50\% | 0.0097\% |
| ALTRIA GROUP INC | MO | 80,790.48 | 0.47\% | 4.72\% | 10.50\% | 15.47\% | 0.0723\% |
| MONSANTO CO | MON | 62,567.96 | 0.36\% | 1.44\% | 11.50\% | 13.02\% | 0.0471\% |
| MOSAIC CO/THE | MOS | 21,076.80 | 0.12\% | 2.43\% | 6.00\% | 8.50\% | 0.0104\% |
| MARATHON PETROLEUM CORP | MPC | 25,203.90 | 0.15\% | 2.00\% | 0.00\% | 2.00\% | 0.0029\% |
| MERCK \& CO. INC. | MRK | 165,324.40 | 0.96\% | 3.12\% | 2.00\% | 5.15\% | 0.0493\% |
| MARATHON OIL CORP | MRO | 24,638.58 | 0.14\% | 2.27\% | 9.00\% | 11.37\% | 0.0162\% |
| MORGAN STANLEY | MS | 59,919.54 | 0.35\% | 1.32\% | 30.00\% | 31.52\% | 0.1093\% |
| MICROSOFT CORP | MSFT | 331,226.00 | 1.92\% | 2.99\% | 7.00\% | 10.09\% | 0.1935\% |
| MOTOROLA SOLUTIONS INC | MSI | 16,937.81 | 0.10\% | 2.00\% | 8.00\% | 10.08\% | 0.0099\% |
| M \& T BANK CORP | MTB | 15,872.80 | 0.09\% | 2.32\% | 5.00\% | 7.38\% | 0.0068\% |
| MICRON TECHNOLOGY INC | MU | 29,071.90 | 0.17\% | 0.00\% | 80.50\% | 80.50\% | 0.1354\% |
| MURPHY OIL CORP | MUR | 10,973.12 | 0.06\% | 2.04\% | 9.00\% | 11.13\% | 0.0071\% |
| MEADWESTVACO CORP | MWV | 6,979.47 | 0.04\% | 2.50\% | 11.00\% | 13.64\% | 0.0055\% |
| MYLAN INC | MYL | 17,705.98 | 0.10\% | 0.00\% | 14.00\% | 14.00\% | 0.0143\% |
| NAVIENT CORP | NAVI | N/A | N/A | N/A | N/A | N/A | N/A |
| NOBLE ENERGY INC | NBL | 25,268.40 | 0.15\% | 1.03\% | 15.00\% | 16.11\% | 0.0235\% |
| NABORS INDUSTRIES LTD | NBR | 7,677.72 | 0.04\% | 0.62\% | 22.50\% | 23.19\% | 0.0103\% |
| NASDAQ OMX GROUP/THE | NDAQ | 6,157.82 | 0.04\% | 1.65\% | 8.50\% | 10.22\% | 0.0036\% |
| NOBLE CORP PLC | NE | 7,768.17 | 0.04\% | 4.91\% | 23.50\% | 28.99\% | 0.0130\% |
| NEXTERA ENERGY INC | NEE | 42,146.44 | 0.24\% | 3.07\% | 6.00\% | 9.16\% | 0.0223\% |
| NEWMONT MINING CORP | NEM | 11,645.64 | 0.07\% | 0.43\% | -17.50\% | -17.11\% | -0.0115\% |
| NETFLIX INC | NFLX | 23,484.49 | 0.14\% | 0.00\% | 29.00\% | 29.00\% | 0.0394\% |
| NEWFIELD EXPLORATION CO | NFX | 4,738.65 | 0.03\% | 0.00\% | -1.00\% | -1.00\% | -0.0003\% |
| NISOURCE INC | NI | 11,707.41 | 0.07\% | 2.80\% | 10.50\% | 13.45\% | 0.0091\% |
| NIKE INC -CL B | NKE | 65,969.28 | 0.38\% | 1.28\% | 12.50\% | 13.86\% | 0.0529\% |
| NIELSEN NV | NLSN | 18,104.56 | 0.10\% | 2.09\% | 12.50\% | 14.72\% | 0.0154\% |
| NORTHROP GRUMMAN CORP | NOC | 25,478.33 | 0.15\% | 2.36\% | 5.00\% | 7.42\% | 0.0109\% |
| NATIONAL OILWELL VARCO INC | NOV | 35,302.88 | 0.20\% | 2.23\% | 10.50\% | 12.85\% | 0.0262\% |
| NRG ENERGY INC | NRG | 10,849.84 | 0.06\% | 1.66\% | 7.00\% | 8.72\% | 0.0055\% |
| NORFOLK SOUTHERN CORP | NSC | 30,667.34 | 0.18\% | 2.18\% | 8.50\% | 10.77\% | 0.0191\% |
| NETAPP INC | NTAP | 12,048.51 | 0.07\% | 1.83\% | 9.50\% | 11.42\% | 0.0080\% |
| NORTHERN TRUST CORP | NTRS | 14,266.90 | 0.08\% | 2.19\% | 9.50\% | 11.79\% | 0.0097\% |
| NORTHEAST UTILITIES | NU | 14,366.51 | 0.08\% | 3.58\% | 8.00\% | 11.72\% | 0.0097\% |
| NUCOR CORP | NUE | 16,222.61 | 0.09\% | 2.91\% | 22.00\% | 25.23\% | 0.0237\% |
| NVIDIA CORP | NVDA | 10,415.56 | 0.06\% | 1.86\% | 6.50\% | 8.42\% | 0.0051\% |
| NEWELL RUBBERMAID INC | NWL | 8,060.27 | 0.05\% | 2.33\% | 12.50\% | 14.98\% | 0.0070\% |
| NEWS CORP - CLASS A | NWSA | 9,940.12 | 0.06\% | 0.00\% | 0.00\% | 0.00\% | 0.0000\% |
| OWENS-ILLINOIS INC | OI | 5,376.27 | 0.03\% | 0.00\% | 8.50\% | 8.50\% | 0.0026\% |
| ONEOK INC | OKE | 13,376.11 | 0.08\% | 3.64\% | 10.00\% | 13.82\% | 0.0107\% |
| OMNICOM GROUP | OMC | 17,899.55 | 0.10\% | 2.89\% | 10.50\% | 13.54\% | 0.0140\% |
| ORACLE CORP | ORCL | 186,134.10 | 1.08\% | 1.35\% | 9.50\% | 10.91\% | 0.1175\% |
| O'REILLY AUTOMOTIVE INC | ORLY | 15,745.60 | 0.09\% | 0.00\% | 12.00\% | 12.00\% | 0.0109\% |
| OCCIDENTAL PETROLEUM CORP | OXY | 76,385.24 | 0.44\% | 2.99\% | 3.50\% | 6.54\% | 0.0289\% |
| PAYCHEXINC | PAYX | 14,698.69 | 0.09\% | 3.76\% | 8.00\% | 11.91\% | 0.0101\% |
| PEOPLE'S UNITED FINANCIAL | PBCT | 4,318.65 | 0.02\% | 4.58\% | 14.00\% | 18.90\% | 0.0047\% |
| PITNEY BOWES INC | PBI | 5,369.32 | 0.03\% | 2.82\% | 2.00\% | 4.85\% | 0.0015\% |
| PACCAR INC | PCAR | 22,108.45 | 0.13\% | 2.89\% | 12.50\% | 15.57\% | 0.0199\% |
| P G \& E CORP | PCG | 20,710.77 | 0.12\% | 4.08\% | 5.00\% | 9.18\% | 0.0110\% |
| PLUM CREEK TIMBER CO | PCL | 7,523.21 | 0.04\% | 4.14\% | 12.50\% | 16.90\% | 0.0074\% |
| PRICELINE GROUP INC/THE | PCLN | 61,594.87 | 0.36\% | 0.00\% | 22.00\% | 22.00\% | 0.0784\% |
| PRECISION CASTPARTS CORP | PCP | 35,805.71 | 0.21\% | 0.05\% | 13.00\% | 13.05\% | 0.0270\% |
| PATTERSON COS INC | PDCO | 3,966.35 | 0.02\% | 2.14\% | 10.00\% | 12.25\% | 0.0028\% |
| PUBLIC SERVICE ENTERPRISE GP | PEG | 19,031.02 | 0.11\% | 3.96\% | 2.00\% | 6.00\% | 0.0066\% |
| PEPSICO INC | PEP | 130,851.80 | 0.76\% | 3.06\% | 8.50\% | 11.69\% | 0.0885\% |
| PETSMART INC | PETM | 5,610.68 | 0.03\% | 1.45\% | 11.50\% | 13.03\% | 0.0042\% |
| PFIZER INC | PFE | 192,228.50 | 1.11\% | 3.51\% | 10.50\% | 14.19\% | 0.1579\% |
| PRINCIPAL FINANCIAL GROUP | PFG | 13,639.90 | 0.08\% | 2.76\% | 10.00\% | 12.90\% | 0.0102\% |
| PROCTER \& GAMBLE CO/THE | PG | 218,235.70 | 1.26\% | 3.19\% | 7.50\% | 10.81\% | 0.1365\% |
| PROGRESSIVE CORP | PGR | 14,990.33 | 0.09\% | 1.95\% | 14.00\% | 16.09\% | 0.0140\% |
| PARKER HANNIFIN CORP | PH | 18,152.32 | 0.11\% | 1.58\% | 6.50\% | 8.13\% | 0.0085\% |
| PULTEGROUP INC | PHM | 7,287.82 | 0.04\% | 1.04\% | 31.50\% | 32.70\% | 0.0138\% |
| PERKINELMER INC | PKI | 4,984.49 | 0.03\% | 0.64\% | 7.50\% | 8.16\% | 0.0024\% |
| PROLOGIS INC | PLD | - | 0.00\% | 3.31\% | 0.00\% | 3.31\% | 0.0000\% |
| PALL CORP | PLL | 9,328.68 | 0.05\% | 1.29\% | 9.50\% | 10.85\% | 0.0059\% |
| PHILIP MORRIS INTERNATIONAL | PM | 136,011.80 | 0.79\% | 4.36\% | 7.50\% | 12.02\% | 0.0946\% |
| PNC FINANCIAL SERVICES GROUP | PNC | 44,819.97 | 0.26\% | 2.28\% | 5.50\% | 7.84\% | 0.0203\% |
| PENTAIR LTD-REGISTERED | PNR | 14,427.42 | 0.08\% | 1.35\% | 16.50\% | 17.96\% | 0.0150\% |
| PINNACLE WEST CAPITAL | PNW | 6,062.85 | 0.04\% | 4.22\% | 4.00\% | 8.30\% | 0.0029\% |
| PEPCO HOLDINGS INC | POM | 6,943.99 | 0.04\% | 3.89\% | 7.00\% | 11.03\% | 0.0044\% |


|  |  | [4] | [5] | [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | Market Capitalization | Weight in Index | $\begin{gathered} \text { Estimated } \\ \text { Dividend Yield } \\ \hline \end{gathered}$ | Long-Term Growth Est. | DCF Result | Weighted DCF Result |
| PPG INDUSTRIES INC | PPG | 27,147.35 | 0.16\% | 1.37\% | 11.50\% | 12.95\% | 0.0203\% |
| PPL CORPORATION | PPL | 21,196.67 | 0.12\% | 4.47\% | 0.00\% | 4.47\% | 0.0055\% |
| PERRIGO CO PLC | PRGO | 18,307.85 | 0.11\% | 0.31\% | 13.50\% | 13.83\% | 0.0147\% |
| PRUDENTIAL FINANCIAL INC | PRU | 37,557.54 | 0.22\% | 2.64\% | 10.00\% | 12.77\% | 0.0278\% |
| PUBLIC Storage | PSA |  | 0.00\% | 3.35\% | 0.00\% | 3.35\% | 0.0000\% |
| PHILLIPS 66 | PSX | 46,614.31 | 0.27\% | 2.43\% | 0.00\% | 2.43\% | 0.0066\% |
| PVH CORP | PVH | 10,777.71 | 0.06\% | 0.11\% | 10.50\% | 10.62\% | 0.0066\% |
| QUANTA SERVICES INC | PWR | 7,142.59 | 0.04\% | 0.00\% | 19.50\% | 19.50\% | 0.0081\% |
| PRAXAIR INC | PX | 38,166.37 | 0.22\% | 2.06\% | 10.50\% | 12.67\% | 0.0280\% |
| PIONEER NATURAL RESOURCES CO | PXD | 29,001.83 | 0.17\% | 0.04\% | 19.50\% | 19.54\% | 0.0328\% |
| QUALCOMm InC | QCOM | 134,138.20 | 0.78\% | 2.11\% | 9.50\% | 11.71\% | 0.0909\% |
| QEP RESOURCES INC | QEP | 5,511.94 | 0.03\% | 0.36\% | 11.50\% | 11.88\% | 0.0038\% |
| RYDER SYSTEM INC | R | 4,395.66 | 0.03\% | 1.65\% | 13.00\% | 14.76\% | 0.0038\% |
| REYNOLDS AMERICAN INC | RAI | 31,373.66 | 0.18\% | 4.58\% | 9.50\% | 14.30\% | 0.0260\% |
| ROWAN COMPANIES PLC-A | RDC | 3,754.31 | 0.02\% | 1.33\% | 28.50\% | 30.02\% | 0.0065\% |
| REGENERON PHARMACEUTICALS | REGN | 29,442.92 | 0.17\% | 0.00\% | 35.50\% | 35.50\% | 0.0605\% |
| REGIONS FINANCIAL CORP | RF | 13,901.20 | 0.08\% | 2.08\% | 13.00\% | 15.22\% | 0.0122\% |
| ROBERT HALF INTL INC | RHI | 6,103.52 | 0.04\% | 1.62\% | 12.00\% | 13.72\% | 0.0048\% |
| RED HAT INC | RHT | 9,572.87 | 0.06\% | 0.00\% | 12.00\% | 12.00\% | 0.0066\% |
| TRANSOCEAN LTD | RIG | 15,424.14 | 0.09\% | 5.26\% | 13.00\% | 18.60\% | 0.0166\% |
| RALPH LAUREN CORP | RL | 13,610.24 | 0.08\% | 1.19\% | 9.00\% | 10.24\% | 0.0081\% |
| ROCKWELL AUTOMATION INC | ROK | 16,596.79 | 0.10\% | 1.94\% | 8.50\% | 10.52\% | 0.0101\% |
| ROPER INDUSTRIES INC | ROP | 14,039.03 | 0.08\% | 0.57\% | 11.00\% | 11.60\% | 0.0094\% |
| ROSS STORES INC | ROST | 14,533.90 | 0.08\% | 1.22\% | 9.00\% | 10.27\% | 0.0086\% |
| RANGE RESOURCES CORP | RRC | 14,268.28 | 0.08\% | 0.18\% | 32.50\% | 32.71\% | 0.0270\% |
| REPUBLIC SERVICES INC | RSG | 12,451.99 | 0.07\% | 3.16\% | 9.00\% | 12.30\% | 0.0089\% |
| RAYTHEON COMPANY | RTN | 30,085.10 | 0.17\% | 2.52\% | 9.50\% | 12.14\% | 0.0211\% |
| STARBUCKS CORP | SBUX | 53,842.73 | 0.31\% | 1.63\% | 18.50\% | 20.28\% | 0.0632\% |
| SCANA CORP | SCG | 7,243.17 | 0.04\% | 4.13\% | 5.00\% | 9.23\% | 0.0039\% |
| SCHWAB (CHARLES) CORP | SCHW | 33,302.88 | 0.19\% | 0.94\% | 10.50\% | 11.49\% | 0.0221\% |
| SPECTRA ENERGY CORP | SE | 27,168.50 | 0.16\% | 3.35\% | 3.00\% | 6.40\% | 0.0101\% |
| SEALED AIR CORP | SEE | 7,016.78 | 0.04\% | 1.60\% | 19.50\% | 21.26\% | 0.0086\% |
| SHERWIN-WILLIAMS COITHE | SHW | 19,810.09 | 0.11\% | 1.15\% | 15.50\% | 16.74\% | 0.0192\% |
| SIGMA-ALDRICH | SIAL | 11,535.90 | 0.07\% | 0.95\% | 7.50\% | 8.49\% | 0.0057\% |
| JM Smucker Coithe | SJM | 10,323.72 | 0.06\% | 2.41\% | 7.50\% | 10.00\% | 0.0060\% |
| SCHLUMBERGER LTD | SLB | 132,302.70 | 0.77\% | 1.58\% | 13.50\% | 15.19\% | 0.1162\% |
| SNAP-ON INC | SNA | 6,688.41 | 0.04\% | 1.53\% | 9.00\% | 10.60\% | 0.0041\% |
| SANDISK CORP | SNDK | 21,017.25 | 0.12\% | 1.29\% | 11.50\% | 12.86\% | 0.0156\% |
| SCRIPPS NETWORKS INTER-CL A | SNI | 10,893.61 | 0.06\% | 1.06\% | 8.00\% | 9.10\% | 0.0057\% |
| SOUTHERN CO/THE | so | 38,313.25 | 0.22\% | 4.91\% | 3.50\% | 8.50\% | 0.0188\% |
| SIMON PROPERTY GROUP INC | SPG | - | 0.00\% | 2.99\% | 0.00\% | 2.99\% | 0.0000\% |
| STAPLES INC | SPLS | 7,570.02 | 0.04\% | 4.10\% | -1.50\% | 2.57\% | 0.0011\% |
| STERICYCLE INC | SRCL | 9,587.97 | 0.06\% | 0.00\% | 12.00\% | 12.00\% | 0.0067\% |
| SEMPRA ENERGY | SRE | 24,159.79 | 0.14\% | 2.72\% | 6.00\% | 8.80\% | 0.0123\% |
| SUNTRUST BANKS INC | STI | 20,430.66 | 0.12\% | 2.10\% | 15.00\% | 17.26\% | 0.0204\% |
| ST JUDE MEDICAL INC | STJ | 18,379.17 | 0.11\% | 1.70\% | 8.50\% | 10.27\% | 0.0109\% |
| STATE STREET CORP | STT | 27,845.16 | 0.16\% | 1.86\% | 9.50\% | 11.45\% | 0.0184\% |
| SEAGATE TECHNOLOGY | STX | 16,952.54 | 0.10\% | 3.33\% | 6.50\% | 9.94\% | 0.0097\% |
| CONSTELLATION BRANDS INC-A | STZ | 15,742.75 | 0.09\% | 0.00\% | 16.50\% | 16.50\% | 0.0150\% |
| STANLEY BLACK \& DECKER INC | swk | 13,441.45 | 0.08\% | 2.32\% | 10.00\% | 12.44\% | 0.0097\% |
| SOUTHWESTERN ENERGY CO | swn | 15,648.91 | 0.09\% | 0.00\% | 11.00\% | 11.00\% | 0.0100\% |
| SAFEWAY INC | sWY | 7,892.43 | 0.05\% | 2.68\% | 8.50\% | 11.29\% | 0.0052\% |
| STRYKER CORP | SYK | 30,551.10 | 0.18\% | 1.51\% | 13.50\% | 15.11\% | 0.0267\% |
| SYMANTEC CORP | SYMC | 15,366.33 | 0.09\% | 2.70\% | 9.50\% | 12.33\% | 0.0110\% |
| SYSCO CORP | SYY | 21,314.72 | 0.12\% | 3.18\% | 8.50\% | 11.82\% | 0.0146\% |
| AT\&T INC | T | 183,784.70 | 1.06\% | 5.23\% | 7.00\% | 12.41\% | 0.1320\% |
| MOLSON COORS BREWING CO-B | TAP | 12,374.24 | 0.07\% | 2.29\% | 8.50\% | 10.89\% | 0.0078\% |
| TERADATA CORP | TDC | 6,468.85 | 0.04\% | 0.00\% | 7.00\% | 7.00\% | 0.0026\% |
| TECO ENERGY INC | TE | 3,735.58 | 0.02\% | 5.14\% | 4.50\% | 9.76\% | 0.0021\% |
| INTEGRYS ENERGY GROUP INC | TEG | 4,614.96 | 0.03\% | 4.68\% | 3.50\% | 8.26\% | 0.0022\% |
| TE CONNECTIVITY LTD | TEL | 23,454.00 | 0.14\% | 2.02\% | 8.50\% | 10.61\% | 0.0144\% |
| TARGET CORP | TGT | 35,372.18 | 0.20\% | 3.36\% | 5.50\% | 8.95\% | 0.0183\% |
| TENET HEALTHCARE CORP | тнс | 4,581.43 | 0.03\% | 0.00\% | 28.00\% | 28.00\% | 0.0074\% |
| TIFFANY \& CO | TIF | 12,388.52 | 0.07\% | 1.57\% | 12.50\% | 14.17\% | 0.0102\% |
| TJX COMPANIES INC | TJX | 39,450.15 | 0.23\% | 1.26\% | 12.50\% | 13.84\% | 0.0316\% |
| TORCHMARK CORP | TMK | 7,272.52 | 0.04\% | 0.94\% | 5.50\% | 6.47\% | 0.0027\% |
| THERMO FISHER SCIENTIFIC INC | тмо | 46,248.88 | 0.27\% | 0.52\% | 13.00\% | 13.55\% | 0.0363\% |
| TRIPADVISOR INC | TRIP | 12,982.67 | 0.08\% | 0.00\% | 23.50\% | 23.50\% | 0.0177\% |
| T ROWE PRICE GROUP INC | TROW | 21,247.90 | 0.12\% | 2.21\% | 12.00\% | 14.34\% | 0.0176\% |
| travelers cos inc/the | TRV | 32,879.03 | 0.19\% | 2.37\% | 9.50\% | 11.98\% | 0.0228\% |
| TRACTOR SUPPLY COMPANY | TSCO | 8,819.36 | 0.05\% | 1.01\% | 16.00\% | 17.09\% | 0.0087\% |
| TYSON FOODS INC-CL A | TSN | 13,633.52 | 0.08\% | 0.77\% | 12.00\% | 12.82\% | 0.0101\% |
| TESORO CORP | TSO | 7,145.35 | 0.04\% | 1.84\% | 15.50\% | 17.48\% | 0.0072\% |
| TOTAL SYSTEM SERVICES INC | TSS | 5,747.89 | 0.03\% | 1.31\% | 9.50\% | 10.87\% | 0.0036\% |
| time warner cable | TwC | 39,151.66 | 0.23\% | 2.14\% | 10.00\% | 12.25\% | 0.0277\% |
| TIME WARNER INC | TWX | 61,993.42 | 0.36\% | 1.82\% | 11.00\% | 12.92\% | 0.0463\% |
| TEXAS INSTRUMENTS INC | TXN | 49,801.25 | 0.29\% | 2.60\% | 8.00\% | 10.70\% | 0.0308\% |


|  |  | [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 |
| TEXTRON INC | TXT | 10,620.06 | 0.06\% | 0.29\% | 17.00\% | 17.31\% | 0.0106\% |
| TYCO INTERNATIONAL LTD | TYC | 19,716.97 | 0.11\% | 1.68\% | 15.00\% | 16.81\% | 0.0192\% |
| UNDER ARMOUR INC-CLASS A | UA | 10,205.60 | 0.06\% | 0.00\% | 23.00\% | 23.00\% | 0.0136\% |
| UNITEDHEALTH GROUP INC | UNH | 77,399.91 | 0.45\% | 1.43\% | 10.00\% | 11.50\% | 0.0515\% |
| UNUM GROUP | UNM | 8,631.80 | 0.05\% | 1.74\% | 7.50\% | 9.31\% | 0.0046\% |
| UNION PACIFIC CORP | UNP | 88,472.06 | 0.51\% | 1.86\% | 11.00\% | 12.96\% | 0.0664\% |
| UNITED PARCEL SERVICE-CL B | UPS | 94,543.80 | 0.55\% | 2.64\% | 7.50\% | 10.24\% | 0.0560\% |
| URBAN OUTFITTERS INC | URBN | 4,790.92 | 0.03\% | 0.00\% | 14.50\% | 14.50\% | 0.0040\% |
| US BANCORP | USB | 75,334.77 | 0.44\% | 2.27\% | 5.50\% | 7.83\% | 0.0341\% |
| UNITED TECHNOLOGIES CORP | UTX | 105,460.70 | 0.61\% | 2.05\% | 9.50\% | 11.65\% | 0.0711\% |
| VISA INC-CLASS A SHARES | V | 161,424.30 | 0.93\% | 0.84\% | 16.50\% | 17.41\% | 0.1626\% |
| VARIAN MEDICAL SYSTEMS INC | VAR | 8,462.99 | 0.05\% | 0.00\% | 6.00\% | 6.00\% | 0.0029\% |
| VF CORP | VFC | 27,038.22 | 0.16\% | 1.68\% | 11.50\% | 13.28\% | 0.0208\% |
| VIACOM INC-CLASS B | VIAB | 37,212.46 | 0.22\% | 1.56\% | 13.00\% | 14.66\% | 0.0316\% |
| VALERO ENERGY CORP | VLO | 29,279.56 | 0.17\% | 1.83\% | 15.00\% | 16.97\% | 0.0287\% |
| VULCAN MATERIALS CO | VMC | 7,836.29 | 0.05\% | 0.33\% | 0.00\% | 0.33\% | 0.0001\% |
| VORNADO REALTY TRUST | VNO | 19,518.46 | 0.11\% | 2.82\% | 6.50\% | 9.41\% | 0.0106\% |
| VERISIGN INC | VRSN | 6,502.03 | 0.04\% | 0.00\% | 16.00\% | 16.00\% | 0.0060\% |
| VERTEX PHARMACEUTICALS INC | VRTX | 16,641.03 | 0.10\% | 0.00\% | 0.00\% | 0.00\% | 0.0000\% |
| VENTAS INC | VTR | - | 0.00\% | 4.39\% | 0.00\% | 4.39\% | 0.0000\% |
| VERIZON COMMUNICATIONS INC | VZ | 204,779.80 | 1.18\% | 4.29\% | 10.50\% | 15.02\% | 0.1779\% |
| WALGREEN CO | WAG | 66,640.94 | 0.39\% | 1.80\% | 10.50\% | 12.39\% | 0.0478\% |
| WATERS CORP | WAT | 8,508.32 | 0.05\% | 0.00\% | 7.50\% | 7.50\% | 0.0037\% |
| WESTERN DIGITAL CORP | WDC | 19,655.40 | 0.11\% | 1.91\% | 6.00\% | 7.97\% | 0.0091\% |
| WISCONSIN ENERGY CORP | WEC | 10,173.16 | 0.06\% | 3.53\% | 6.00\% | 9.64\% | 0.0057\% |
| WELLS FARGO \& CO | WFC | 263,233.60 | 1.52\% | 2.80\% | 8.50\% | 11.42\% | 0.1739\% |
| WHOLE FOODS MARKET INC | WFM | 13,927.50 | 0.08\% | 1.44\% | 15.50\% | 17.05\% | 0.0137\% |
| WHIRLPOOL CORP | WHR | 11,233.53 | 0.06\% | 2.06\% | 10.50\% | 12.67\% | 0.0082\% |
| WINDSTREAM HOLDINGS INC | WIN | 5,665.38 | 0.03\% | 10.64\% | 4.00\% | 14.85\% | 0.0049\% |
| WELLPOINT INC | WLP | 30,319.15 | 0.18\% | 1.63\% | 6.50\% | 8.18\% | 0.0144\% |
| WASTE MANAGEMENT INC | WM | 20,231.25 | 0.12\% | 3.47\% | 7.50\% | 11.10\% | 0.0130\% |
| WILLIAMS COS INC | WMB | 31,968.95 | 0.18\% | 3.75\% | 8.00\% | 11.90\% | 0.0220\% |
| WAL-MART STORES INC | WMT | 243,735.90 | 1.41\% | 2.55\% | 7.50\% | 10.15\% | 0.1431\% |
| WESTERN UNION CO | WU | 8,691.63 | 0.05\% | 3.18\% | 6.00\% | 9.28\% | 0.0047\% |
| WEYERHAEUSER CO | WY | 17,753.56 | 0.10\% | 2.90\% | 17.00\% | 20.15\% | 0.0207\% |
| WYNDHAM WORLDWIDE CORP | WYN | 9,072.88 | 0.05\% | 1.96\% | 10.00\% | 12.06\% | 0.0063\% |
| WYNN RESORTS LTD | WYNN | 21,006.26 | 0.12\% | 2.40\% | 9.00\% | 11.51\% | 0.0140\% |
| UNITED STATES STEEL CORP | X | 3,450.93 | 0.02\% | 0.84\% | 0.00\% | 0.84\% | 0.0002\% |
| XCEL ENERGY INC | XEL | 15,184.88 | 0.09\% | 4.03\% | 5.50\% | 9.64\% | 0.0085\% |
| XL GROUP PLC | XL | 9,692.23 | 0.06\% | 1.97\% | 16.00\% | 18.13\% | 0.0102\% |
| XILINXINC | XLNX | 12,203.04 | 0.07\% | 2.53\% | 8.50\% | 11.14\% | 0.0079\% |
| EXXON MOBIL CORP | XOM | 435,879.00 | 2.52\% | 2.72\% | 6.00\% | 8.80\% | 0.2220\% |
| DENTSPLY INTERNATIONAL INC | XRAY | 6,649.00 | 0.04\% | 0.58\% | 8.50\% | 9.10\% | 0.0035\% |
| XEROX CORP | XRX | 14,045.94 | 0.08\% | 2.12\% | 6.00\% | 8.18\% | 0.0067\% |
| XYLEM INC | XYL | 6,975.21 | 0.04\% | 1.34\% | 10.50\% | 11.91\% | 0.0048\% |
| YAHOO! INC | YHOO | 35,236.11 | 0.20\% | 0.00\% | 8.50\% | 8.50\% | 0.0173\% |
| YUM! BRANDS INC | YUM | 33,092.54 | 0.19\% | 2.10\% | 10.50\% | 12.71\% | 0.0243\% |
| ZIONS BANCORPORATION | ZION | 5,256.57 | 0.03\% | 0.56\% | 12.00\% | 12.59\% | 0.0038\% |
| ZIMMER HOLDINGS INC | ZMH | 17,280.55 | 0.10\% | 0.88\% | 9.50\% | 10.42\% | 0.0104\% |
| ZOETIS INC | ZTS | 15,195.33 | 0.09\% | 0.96\% | 0.00\% | 0.96\% | 0.0008\% |
| Total Market Capitalization: |  | 17,283,941.97 |  |  |  |  | 12.70\% |
| Notes: |  |  |  |  |  |  |  |
| [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] $\times(1+(0.5 \times[7]))$ + [7] |  |  |  |  |  |  |  |
| [9] Equals Col. [5] x Col. [8] |  |  |  |  |  |  |  |

Bloomberg and Value Line Beta Coefficients

|  |  | [1] | [2] |
| :---: | :---: | :---: | :---: |
| Company | Ticker | Bloomberg | Value Line |
| American Electric Power Company, Inc. | AEP | 0.787 | 0.70 |
| Cleco Corporation | CNL | 0.758 | 0.70 |
| Duke Energy Corporation | DUK | 0.687 | 0.60 |
| Empire District Electric Company | EDE | 0.695 | 0.75 |
| Great Plains Energy Inc. | GXP | 0.865 | 0.90 |
| Hawaiian Electric Industries, Inc. | HE | 0.806 | 0.85 |
| IDACORP, Inc. | IDA | 0.873 | 0.80 |
| NextEra Energy, Inc. | NEE | 0.758 | 0.70 |
| Northeast Utilities | NU | 0.701 | 0.75 |
| Otter Tail Corporation | OTTR | 0.954 | 0.95 |
| Pinnacle West Capital Corporation | PNW | 0.865 | 0.75 |
| PNM Resources, Inc. | PNM | 0.789 | 0.95 |
| Portland General Electric Company | POR | 0.817 | 0.80 |
| Southern Company | SO | 0.653 | 0.60 |
| Westar Energy, Inc. | WR | 0.751 | 0.80 |
| Mean |  | 0.784 | 0.77 |

Notes:
[1] Source: Bloomberg Professional Service
[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  <br> Bloomberg Value Line <br> Market DCF Market DCF <br> Derived Derived |  | CAPM Result |  |
|  | Risk-Free Rate | Average Beta Coefficient |  |  | Bloomberg Market DCF Derived | Value Line Market DCF Derived |
| PROXY GROUP BLOOMBERG AVERAGE BETA COEFFICIENT |  |  |  |  |  |  |
| Current 30-Year Treasury (30-day average) [7] | 3.42\% | 0.784 | 10.02\% | 9.28\% | 11.27\% | 10.69\% |
| Near-Term Projected 30-Year Treasury [8] | 4.07\% | 0.784 | 10.02\% | 9.28\% | 11.92\% | 11.34\% |
| Mean |  |  |  |  | 11.60\% | 11.02\% |
|  |  |  | Ex-Ante Market Risk Premium  <br> Bloomberg Value Line <br> Market DCF Market DCF <br> Derived Derived |  | CAPM Result |  |
|  | Risk-Free Rate | Average Beta Coefficient |  |  | Bloomberg Market DCF Derived | Value Line Market DCF Derived |
| PROXY GROUP VALUE LINE AVERAGE BETA COEFFICIENT |  |  |  |  |  |  |
| Current 30-Year Treasury (30-day average) [7] | 3.42\% | 0.773 | 10.02\% | 9.28\% | 11.17\% | 10.59\% |
| Near-Term Projected 30-Year Treasury [8] | 4.07\% | 0.773 | 10.02\% | 9.28\% | 11.82\% | 11.24\% |
| Mean |  |  |  |  | 11.49\% | 10.92\% |

Notes:
[1] See Notes [7] and [8]
[2] Source: Schedule RBH-4
[3] Source: Schedule RBH-3
[4] Source: Schedule 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. 33, No. 5, May 1, 2014, at 2


Notes:
[1] Constant of regression equation
[2] Slope of regression equation
[3] Source: Current = Bloomberg Professional,
Near Term Projected = Blue Chip Financial Forecasts, Vol. 33, No. 5, May 1, 2014, at 2,
Long Term Projected = Blue Chip Financial Forecasts, Vol. 32, No. 12, December 1, 2013, at 14
[4] Equals [1] $+\ln ([3]) \times[2]$
[5] Equals [3] + [4]
[6] Source: SNL Financial
[7] Source: SNL Financial (excludes Virginia Generation Riders)
[8] Source: Bloomberg Professional, equals 201-trading day average (i.e. lag period) as of May 30, 2014
[9] Equals [7] - [8]

| $[6]$ | $[7]$ | $[8]$ <br> Average <br> 30-Year | $[9]$ |
| :---: | :---: | :---: | :---: |
| Date of <br> Electric Rate <br> Case | Return on <br> Equity | Treasury <br> Yield | Risk <br> Premium |
| $01 / 01 / 1980$ | $14.50 \%$ | $9.36 \%$ | $5.14 \%$ |
| 01/07/1980 | $14.39 \%$ | $9.38 \%$ | $5.01 \%$ |
| $01 / 09 / 1980$ | $15.00 \%$ | $9.40 \%$ | $5.60 \%$ |
| $01 / 14 / 1980$ | $15.17 \%$ | $9.42 \%$ | $5.75 \%$ |
| $01 / 17 / 1980$ | $13.93 \%$ | $9.44 \%$ | $4.49 \%$ |
| $01 / 23 / 1980$ | $15.50 \%$ | $9.47 \%$ | $6.03 \%$ |
| $01 / 30 / 1980$ | $13.86 \%$ | $9.52 \%$ | $4.34 \%$ |
| $01 / 31 / 1980$ | $12.61 \%$ | $9.53 \%$ | $3.08 \%$ |
| $02 / 06 / 1980$ | $13.71 \%$ | $9.58 \%$ | $4.13 \%$ |
| $02 / 13 / 1980$ | $12.80 \%$ | $9.63 \%$ | $3.17 \%$ |
| $02 / 14 / 1980$ | $13.00 \%$ | $9.65 \%$ | $3.35 \%$ |
| $02 / 19 / 1980$ | $13.50 \%$ | $9.68 \%$ | $3.82 \%$ |
| $02 / 27 / 1980$ | $13.75 \%$ | $9.78 \%$ | $3.97 \%$ |
| $02 / 29 / 1980$ | $13.75 \%$ | $9.81 \%$ | $3.94 \%$ |
| $02 / 29 / 1980$ | $14.00 \%$ | $9.81 \%$ | $4.19 \%$ |
| $02 / 29 / 1980$ | $14.77 \%$ | $9.81 \%$ | $4.96 \%$ |
| $03 / 07 / 1980$ | $12.70 \%$ | $9.89 \%$ | $2.81 \%$ |
| $03 / 14 / 1980$ | $13.50 \%$ | $9.97 \%$ | $3.53 \%$ |
| $03 / 26 / 1980$ | $14.16 \%$ | $10.10 \%$ | $4.06 \%$ |
| $03 / 27 / 1980$ | $14.24 \%$ | $10.12 \%$ | $4.12 \%$ |
| $03 / 28 / 1980$ | $14.50 \%$ | $10.13 \%$ | $4.37 \%$ |
| $04 / 11 / 1980$ | $12.75 \%$ | $10.27 \%$ | $2.48 \%$ |


| [6] | [7] |  | [9] |
| :---: | :---: | :---: | :---: |
|  |  | Average $30-Y e a r$ |  |
| Date of Electric Rate | Ret | 30-Year Treasury | Risk |
| Case | Equity | Yield | Premium |
| 04/14/1980 | 13.85\% | 10.29\% | 3.56\% |
| 04/16/1980 | 15.50\% | 10.31\% | 5.19\% |
| 04/22/1980 | 13.25\% | 10.35\% | 2.90\% |
| 04/22/1980 | 13.90\% | 10.35\% | 3.55\% |
| 04/24/1980 | 16.80\% | 10.38\% | . 43 |
| 04/29/1980 | 15.50\% | 10.41\% | .09\% |
| 05/06/1980 | 13.70\% | 10.45\% | .25\% |
| 05/07/1980 | 15.00\% | 10.45\% | .55 |
| 05/08/1980 | 13.75\% | 10.46\% | 3.29\% |
| 05/09/1980 | 14.35\% | 10.47\% | .88 |
| 05/13/1980 | 13.60\% | 10.48\% | 3.12\% |
| 05/15/1980 | 13.25\% | 10.49\% | 2.76\% |
| 05/19/1980 | 13.75\% | 10.51\% | .24 |
| 05/27/1980 | 13.62\% | 10.54\% | 3.08\% |
| 05/27/1980 | 14.60\% | 10.54\% | 4.06\% |
| 05/29/1980 | 16.00\% | 10.56\% | .44 |
| 05/30/1980 | 13.80\% | 10.56\% | 3.24\% |
| 06/02/1980 | 15.63\% | 10.57\% | 5.06\% |
| 06/09/1980 | 15.90\% | 10.60\% | 5.30\% |
| 06/10/1980 | 13.78\% | 10.60\% | .18\% |
| 06/12/1980 | 14.25\% | 10.61\% | 3.64 |
| 06/19/1980 | 13.40\% | 10.62\% | 2.78\% |
| 06/30/1980 | 13.00\% | 10.65\% | 2.35\% |
| 06/30/1980 | 13.40\% | 10.65\% | 2.75\% |
| 07/09/1980 | 14.75\% | 10.67\% | .08\% |
| 07/10/1980 | 15.00\% | 10.68\% | 4.32\% |
| 07/15/1980 | 15.80\% | 10.70\% | 5.10\% |
| 07/18/1980 | 13.80\% | 10.71\% | .09\% |
| 07/22/1980 | 14.10\% | 10.72\% | 3.38\% |
| 07/24/1980 | 15.00\% | 10.73\% | 4.27\% |
| 07/25/1980 | 13.48\% | 10.73\% | 2.75\% |
| 07/31/1980 | 14.58\% | 10.75\% | 3.83\% |
| 08/08/1980 | 13.50\% | 10.78\% | 2.72\% |
| 08/08/1980 | 14.00\% | 10.78\% | 3.22\% |
| 08/08/1980 | 15.45\% | 10.78\% | .67\% |
| 08/11/1980 | 14.85\% | 10.78\% | 4.07\% |
| 08/14/1980 | 14.00\% | 10.79\% | 3.21\% |
| 08/14/1980 | 16.25\% | 10.79\% | .46\% |
| 08/25/1980 | 13.75\% | 10.82\% | 2.93\% |
| 08/27/1980 | 13.80\% | 10.83\% | 2.97\% |
| 08/29/1980 | 12.50\% | 10.84\% | 1.66\% |
| 09/15/1980 | 13.50\% | 10.88\% | 2.62\% |
| 09/15/1980 | 13.93\% | 10.88\% | .05 |
| 09/15/1980 | 15.80\% | 10.88\% | 4.92\% |
| 09/24/1980 | 12.50\% | 10.93\% | 1.57\% |
| 09/24/1980 | 15.00\% | 10.93\% | . $7 \%$ |
| 09/26/1980 | 13.75\% | 10.94\% | 2.81\% |
| 09/30/1980 | 14.10\% | 10.96\% | .14\% |
| 09/30/1980 | 14.20\% | 10.96\% | 3.24\% |
| 10/01/1980 | 13.90\% | 10.97\% | 2.93\% |
| 10/03/1980 | 15.50\% | 10.98\% | .52\% |
| 10/07/1980 | 12.50\% | 10.99\% | 1.51\% |
| 10/09/1980 | 13.25\% | 11.00\% | 2.25\% |
| 10/09/1980 | 14.50\% | 11.00\% | 3.50\% |
| 10/09/1980 | 14.50\% | 11.00\% | 3.50\% |
| 10/16/1980 | 16.10\% | 11.02\% | 5.08\% |
| 10/17/1980 | 14.50\% | 11.03\% | 3.47\% |
| 10/31/1980 | 13.75\% | 11.11\% | 2.64\% |
| 10/31/1980 | 14.25\% | 11.11\% | 3.14\% |
| 11/04/1980 | 15.00\% | 11.12\% | 3.88\% |
| 11/05/1980 | 13.75\% | 11.12\% | 2.63\% |
| 11/05/1980 | 14.00\% | 11.12\% | 2.88\% |
| 11/08/1980 | 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\% |
| 12/08/1980 | 14.15\% | 11.22\% | 2.93\% |
| 12/08/1980 | 15.10\% | 11.22\% | 3.88\% |
| 12/09/1980 | 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\% |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
| Date of |  | ar |  |
| Electric Rate | Return on | Treasury | Risk |
| Case | Equity | Yield | Premium |
| 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\% |
| 01/02/1981 | 15.25\% | 11.22\% | 4.03\% |
| 01/07/1981 | 14.30\% | 11.21\% | 3.09\% |
| 01/19/1981 | 15.25\% | 11.20\% | 4.05\% |
| 01/23/1981 | 13.10\% | 11.20\% | 1.90\% |
| 01/23/1981 | 14.40\% | 11.20\% | 3.20\% |
| 01/26/1981 | 15.25\% | 11.20\% | 4.05\% |
| 01/27/1981 | 15.00\% | 11.21\% | 3.79\% |
| 01/31/1981 | 13.47\% | 11.22\% | 2.25\% |
| 02/03/1981 | 15.25\% | 11.23\% | 4.02\% |
| 02/05/1981 | 15.75\% | 11.25\% | 4.50\% |
| 02/11/1981 | 15.60\% | 11.28\% | 4.32\% |
| 02/20/1981 | 15.25\% | 11.33\% | 3.92\% |
| 03/11/1981 | 15.40\% | 11.49\% | 3.91\% |
| 03/12/1981 | 14.51\% | 11.50\% | 3.01\% |
| 03/12/1981 | 16.00\% | 11.50\% | 4.50\% |
| 03/13/1981 | 13.02\% | 11.52\% | 1.50\% |
| 03/18/1981 | 16.19\% | 11.55\% | 4.64\% |
| 03/19/1981 | 13.75\% | 11.56\% | 2.19\% |
| 03/23/1981 | 14.30\% | 11.58\% | 2.72\% |
| 03/25/1981 | 15.30\% | 11.60\% | 3.70\% |
| 04/01/1981 | 14.53\% | 11.68\% | 2.85\% |
| 04/03/1981 | 19.10\% | 11.71\% | 7.39\% |
| 04/09/1981 | 15.00\% | 11.78\% | 3.22\% |
| 04/09/1981 | 15.30\% | 11.78\% | 3.52\% |
| 04/09/1981 | 16.50\% | 11.78\% | 4.72\% |
| 04/09/1981 | 17.00\% | 11.78\% | 5.22\% |
| 04/10/1981 | 13.75\% | 11.80\% | 1.95\% |
| 04/13/1981 | 13.57\% | 11.82\% | 1.75\% |
| 04/15/1981 | 15.30\% | 11.85\% | 3.45\% |
| 04/16/1981 | 13.50\% | 11.87\% | 1.63\% |
| 04/17/1981 | 14.10\% | 11.87\% | 2.23\% |
| 04/21/1981 | 14.00\% | 11.90\% | 2.10\% |
| 04/21/1981 | 16.80\% | 11.90\% | 4.90\% |
| 04/24/1981 | 16.00\% | 11.95\% | 4.05\% |
| 04/27/1981 | 12.50\% | 11.97\% | 0.53\% |
| 04/27/1981 | 13.61\% | 11.97\% | 1.64\% |
| 04/29/1981 | 13.65\% | 12.00\% | 1.65\% |
| 04/30/1981 | 13.50\% | 12.02\% | 1.48\% |
| 05/04/1981 | 16.22\% | 12.05\% | 4.17\% |
| 05/05/1981 | 14.40\% | 12.07\% | 2.33\% |
| 05/07/1981 | 16.25\% | 12.11\% | 4.14\% |
| 05/07/1981 | 16.27\% | 12.11\% | 4.16\% |
| 05/08/1981 | 13.00\% | 12.13\% | 0.87\% |
| 05/08/1981 | 16.00\% | 12.13\% | 3.87\% |
| 05/12/1981 | 13.50\% | 12.16\% | 1.34\% |
| 05/15/1981 | 15.75\% | 12.22\% | 3.53\% |
| 05/18/1981 | 14.88\% | 12.23\% | 2.65\% |
| 05/20/1981 | 16.00\% | 12.26\% | 3.74\% |
| 05/21/1981 | 14.00\% | 12.27\% | 1.73\% |
| 05/26/1981 | 14.90\% | 12.30\% | 2.60\% |
| 05/27/1981 | 15.00\% | 12.31\% | 2.69\% |
| 05/29/1981 | 15.50\% | 12.34\% | 3.16\% |
| 06/01/1981 | 16.50\% | 12.35\% | 4.15\% |
| 06/03/1981 | 14.67\% | 12.37\% | 2.30\% |
| 06/05/1981 | 13.00\% | 12.39\% | 0.61\% |
| 06/10/1981 | 16.75\% | 12.42\% | 4.33\% |
| 06/17/1981 | 14.40\% | 12.46\% | 1.94\% |
| 06/18/1981 | 16.33\% | 12.47\% | 3.86\% |
| 06/25/1981 | 14.75\% | 12.51\% | 2.24\% |
| 06/26/1981 | 16.00\% | 12.52\% | 3.48\% |
| 06/30/1981 | 15.25\% | 12.54\% | 2.71\% |
| 07/01/1981 | 15.50\% | 12.56\% | 2.94\% |
| 07/01/1981 | 17.50\% | 12.56\% | 4.94\% |
| 07/10/1981 | 16.00\% | 12.62\% | 3.38\% |
| 07/14/1981 | 16.90\% | 12.64\% | 4.26\% |
| 07/15/1981 | 16.00\% | 12.65\% | 3.35\% |
| 07/17/1981 | 15.00\% | 12.67\% | 2.33\% |
| 07/20/1981 | 15.00\% | 12.68\% | 2.32\% |
| 07/21/1981 | 14.00\% | 12.69\% | 1.31\% |
| 07/28/1981 | 13.48\% | 12.74\% | 0.74\% |
| 07/31/1981 | 13.50\% | 12.78\% | 0.72\% |
| 07/31/1981 | 15.00\% | 12.78\% | 2.22\% |
| 07/31/1981 | 16.00\% | 12.78\% | 3.22\% |
| 08/05/1981 | 15.71\% | 12.83\% | 2.88\% |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
|  | Average |  |  |
| Date of |  | 30-Year |  |
| Electric Rate | Return on | Treasury | Risk |
| Case | Equity | Yield | Premium |
| 08/10/1981 | 14.50\% | 12.87\% | 1.63\% |
| 08/11/1981 | 15.00\% | 12.88\% | 2.12\% |
| 08/20/1981 | 13.50\% | 12.95\% | 0.55\% |
| 08/20/1981 | 16.50\% | 12.95\% | 3.55\% |
| 08/24/1981 | 15.00\% | 12.97\% | 2.03\% |
| 08/28/1981 | 15.00\% | 13.01\% | 1.99\% |
| 09/03/1981 | 14.50\% | 13.05\% | 1.45\% |
| 09/10/1981 | 14.50\% | 13.11\% | 1.39\% |
| 09/11/1981 | 16.00\% | 13.12\% | 2.88\% |
| 09/16/1981 | 16.00\% | 13.15\% | 2.85\% |
| 09/17/1981 | 16.50\% | 13.16\% | 3.34\% |
| 09/23/1981 | 15.85\% | 13.20\% | 2.65\% |
| 09/28/1981 | 15.50\% | 13.23\% | 2.27\% |
| 10/09/1981 | 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\% |
| 11/03/1981 | 15.17\% | 13.53\% | 1.64\% |
| 11/05/1981 | 16.60\% | 13.55\% | 3.05\% |
| 11/06/1981 | 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\% |
| 12/01/1981 | 15.70\% | 13.61\% | 2.09\% |
| 12/01/1981 | 16.00\% | 13.61\% | 2.39\% |
| 12/01/1981 | 16.49\% | 13.61\% | 2.88\% |
| 12/01/1981 | 16.50\% | 13.61\% | 2.89\% |
| 12/04/1981 | 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\% |
| 01/04/1982 | 15.50\% | 13.67\% | 1.83\% |
| 01/11/1982 | 14.50\% | 13.72\% | 0.78\% |
| 01/11/1982 | 17.00\% | 13.72\% | 3.28\% |
| 01/13/1982 | 14.75\% | 13.74\% | 1.01\% |
| 01/14/1982 | 15.75\% | 13.75\% | 2.00\% |
| 01/15/1982 | 15.00\% | 13.76\% | 1.24\% |
| 01/15/1982 | 16.50\% | 13.76\% | 2.74\% |
| 01/22/1982 | 16.25\% | 13.79\% | 2.46\% |
| 01/27/1982 | 16.84\% | 13.81\% | 3.03\% |
| 01/28/1982 | 13.00\% | 13.81\% | -0.81\% |
| 01/29/1982 | 15.50\% | 13.82\% | 1.68\% |
| 02/01/1982 | 15.85\% | 13.82\% | 2.03\% |
| 02/03/1982 | 16.44\% | 13.84\% | 2.60\% |
| 02/08/1982 | 15.50\% | 13.86\% | 1.64\% |
| 02/11/1982 | 16.00\% | 13.88\% | 2.12\% |
| 02/11/1982 | 16.20\% | 13.88\% | 2.32\% |
| 02/17/1982 | 15.00\% | 13.89\% | 1.11\% |
| 02/19/1982 | 15.17\% | 13.89\% | 1.28\% |
| 02/26/1982 | 15.25\% | 13.89\% | 1.36\% |
| 03/01/1982 | 15.03\% | 13.89\% | 1.14\% |
| 03/01/1982 | 16.00\% | 13.89\% | 2.11\% |
| 03/03/1982 | 15.00\% | 13.88\% | 1.12\% |
| 03/03/1982 | 15.00\% | 13.88\% | 1.12\% |
| 03/08/1982 | 17.10\% | 13.88\% | 3.22\% |
| 03/12/1982 | 16.25\% | 13.88\% | 2.37\% |
| 03/17/1982 | 17.30\% | 13.88\% | 3.42\% |
| 03/22/1982 | 15.10\% | 13.89\% | 1.21\% |
| 03/27/1982 | 15.40\% | 13.89\% | 1.51\% |
| 03/30/1982 | 15.50\% | 13.90\% | 1.60\% |
| 03/31/1982 | 17.00\% | 13.91\% | 3.09\% |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
|  |  | Average |  |
| Date of |  | 30-Year |  |
| Electric Rate |  | Treasury |  |
| Case | Equity | Yield | Premium |
| 04/01/1982 | 14.70\% | 13.91\% | 0.79\% |
| 04/01/1982 | 16.50\% | 13.91\% | 2.59\% |
| 04/02/1982 | 15.50\% | 13.91\% | 1.59\% |
| 04/05/1982 | 15.50\% | 13.92\% | 1.58\% |
| 04/08/1982 | 16.40\% | 13.93\% | 2.47\% |
| 04/13/1982 | 14.50\% | 13.94\% | 0.56\% |
| 04/23/1982 | 15.75\% | 13.94\% | 1.81\% |
| 04/27/1982 | 15.00\% | 13.94\% | 1.06\% |
| 04/28/1982 | 15.75\% | 13.94\% | 1.81\% |
| 04/30/1982 | 14.70\% | 13.94\% | 0.76\% |
| 04/30/1982 | 15.50\% | 13.94\% | 1.56\% |
| 05/03/1982 | 16.60\% | 13.94\% | 2.66\% |
| 05/04/1982 | 16.00\% | 13.94\% | 2.06\% |
| 05/14/1982 | 15.50\% | 13.92\% | 1.58\% |
| 05/18/1982 | 15.42\% | 13.92\% | 1.50\% |
| 05/19/1982 | 14.69\% | 13.92\% | 0.77\% |
| 05/20/1982 | 15.00\% | 13.91\% | 1.09\% |
| 05/20/1982 | 15.10\% | 13.91\% | 1.19\% |
| 05/20/1982 | 15.50\% | 13.91\% | 1.59\% |
| 05/20/1982 | 16.30\% | 13.91\% | 2.39\% |
| 05/21/1982 | 17.75\% | 13.91\% | 3.84\% |
| 05/27/1982 | 15.00\% | 13.89\% | 1.11\% |
| 05/28/1982 | 15.50\% | 13.89\% | 1.61\% |
| 05/28/1982 | 17.00\% | 13.89\% | 3.11\% |
| 06/01/1982 | 13.75\% | 13.89\% | -0.14\% |
| 06/01/1982 | 16.60\% | 13.89\% | 2.71\% |
| 06/09/1982 | 17.86\% | 13.88\% | 3.98\% |
| 06/14/1982 | 15.75\% | 13.88\% | 1.87\% |
| 06/15/1982 | 14.85\% | 13.88\% | 0.97\% |
| 06/18/1982 | 15.50\% | 13.87\% | 1.63\% |
| 06/21/1982 | 14.90\% | 13.87\% | 1.03\% |
| 06/23/1982 | 16.00\% | 13.86\% | 2.14\% |
| 06/23/1982 | 16.17\% | 13.86\% | 2.31\% |
| 06/24/1982 | 14.85\% | 13.86\% | 0.99\% |
| 06/25/1982 | 14.70\% | 13.86\% | 0.84\% |
| 07/01/1982 | 16.00\% | 13.84\% | 2.16\% |
| 07/02/1982 | 15.62\% | 13.84\% | 1.78\% |
| 07/02/1982 | 17.00\% | 13.84\% | 3.16\% |
| 07/13/1982 | 14.00\% | 13.82\% | 0.18\% |
| 07/13/1982 | 16.80\% | 13.82\% | 2.98\% |
| 07/14/1982 | 15.76\% | 13.82\% | 1.94\% |
| 07/14/1982 | 16.02\% | 13.82\% | 2.20\% |
| 07/19/1982 | 16.50\% | 13.80\% | 2.70\% |
| 07/22/1982 | 14.50\% | 13.77\% | 0.73\% |
| 07/22/1982 | 17.00\% | 13.77\% | 3.23\% |
| 07/27/1982 | 16.75\% | 13.75\% | 3.00\% |
| 07/29/1982 | 16.50\% | 13.74\% | 2.76\% |
| 08/11/1982 | 17.50\% | 13.68\% | 3.82\% |
| 08/18/1982 | 17.07\% | 13.63\% | 3.44\% |
| 08/20/1982 | 15.73\% | 13.60\% | 2.13\% |
| 08/25/1982 | 16.00\% | 13.57\% | 2.43\% |
| 08/26/1982 | 15.50\% | 13.56\% | 1.94\% |
| 08/30/1982 | 15.00\% | 13.55\% | 1.45\% |
| 09/03/1982 | 16.20\% | 13.53\% | 2.67\% |
| 09/08/1982 | 15.00\% | 13.52\% | 1.48\% |
| 09/15/1982 | 13.08\% | 13.50\% | -0.42\% |
| 09/15/1982 | 16.25\% | 13.50\% | 2.75\% |
| 09/16/1982 | 16.00\% | 13.50\% | 2.50\% |
| 09/17/1982 | 15.25\% | 13.50\% | 1.75\% |
| 09/23/1982 | 17.17\% | 13.47\% | 3.70\% |
| 09/24/1982 | 14.50\% | 13.46\% | 1.04\% |
| 09/27/1982 | 15.25\% | 13.46\% | 1.79\% |
| 10/01/1982 | 15.50\% | 13.42\% | 2.08\% |
| 10/15/1982 | 15.90\% | 13.32\% | 2.58\% |
| 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\% |
| 11/01/1982 | 15.50\% | 13.15\% | 2.35\% |
| 11/03/1982 | 17.20\% | 13.13\% | 4.07\% |
| 11/04/1982 | 16.25\% | 13.11\% | 3.14\% |
| 11/05/1982 | 16.20\% | 13.09\% | 3.11\% |
| 11/09/1982 | 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\% |
| 12/01/1982 | 17.04\% | 12.79\% | 4.25\% |
| 12/06/1982 | 15.00\% | 12.73\% | 2.27\% |
| 12/06/1982 | 16.35\% | 12.73\% | 3.62\% |



| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
| Date of |  | 30-Year |  |
| Electric Rate | Return on | Treasury | Risk |
| Case | Equity | Yield | Premium |
| 09/20/1983 | 16.50\% | 10.91\% | 5.59\% |
| 09/28/1983 | 14.50\% | 10.94\% | 3.56\% |
| 09/29/1983 | 15.50\% | 10.95\% | 4.55\% |
| 09/30/1983 | 15.25\% | 10.95\% | 4.30\% |
| 09/30/1983 | 16.15\% | 10.95\% | 5.20\% |
| 10/04/1983 | 14.80\% | 10.96\% | 3.84\% |
| 10/07/1983 | 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\% |
| 11/01/1983 | 16.00\% | 11.06\% | 4.94\% |
| 11/09/1983 | 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\% |
| 12/05/1983 | 15.25\% | 11.15\% | 4.10\% |
| 12/06/1983 | 15.07\% | 11.15\% | 3.92\% |
| 12/08/1983 | 15.90\% | 11.16\% | 4.74\% |
| 12/09/1983 | 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\% |
| 01/03/1984 | 14.75\% | 11.27\% | 3.48\% |
| 01/10/1984 | 15.90\% | 11.30\% | 4.60\% |
| 01/12/1984 | 15.60\% | 11.31\% | 4.29\% |
| 01/18/1984 | 13.75\% | 11.33\% | 2.42\% |
| 01/19/1984 | 15.90\% | 11.33\% | 4.57\% |
| 01/30/1984 | 16.10\% | 11.37\% | 4.73\% |
| 01/31/1984 | 15.25\% | 11.37\% | 3.88\% |
| 02/01/1984 | 14.80\% | 11.38\% | 3.42\% |
| 02/06/1984 | 13.75\% | 11.40\% | 2.35\% |
| 02/06/1984 | 14.75\% | 11.40\% | 3.35\% |
| 02/09/1984 | 15.25\% | 11.42\% | 3.83\% |
| 02/15/1984 | 15.70\% | 11.44\% | 4.26\% |
| 02/20/1984 | 15.00\% | 11.46\% | 3.54\% |
| 02/20/1984 | 15.00\% | 11.46\% | 3.54\% |
| 02/22/1984 | 14.75\% | 11.47\% | 3.28\% |
| 02/28/1984 | 14.50\% | 11.51\% | 2.99\% |
| 03/02/1984 | 14.25\% | 11.54\% | 2.71\% |
| 03/20/1984 | 16.00\% | 11.64\% | 4.36\% |
| 03/23/1984 | 15.50\% | 11.67\% | 3.83\% |
| 03/26/1984 | 14.71\% | 11.68\% | 3.03\% |
| 04/02/1984 | 15.50\% | 11.71\% | 3.79\% |
| 04/06/1984 | 14.74\% | 11.75\% | 2.99\% |
| 04/11/1984 | 15.72\% | 11.78\% | 3.94\% |
| 04/17/1984 | 15.00\% | 11.81\% | 3.19\% |
| 04/18/1984 | 16.20\% | 11.82\% | 4.38\% |
| 04/25/1984 | 14.64\% | 11.85\% | 2.79\% |
| 04/30/1984 | 14.40\% | 11.87\% | 2.53\% |
| 05/16/1984 | 14.69\% | 11.98\% | 2.71\% |
| 05/16/1984 | 15.00\% | 11.98\% | 3.02\% |
| 05/22/1984 | 14.40\% | 12.02\% | 2.38\% |
| 05/29/1984 | 15.10\% | 12.06\% | 3.04\% |
| 06/13/1984 | 15.25\% | 12.15\% | 3.10\% |
| 06/15/1984 | 15.60\% | 12.17\% | 3.43\% |
| 06/22/1984 | 16.25\% | 12.21\% | 4.04\% |
| 06/29/1984 | 15.25\% | 12.26\% | 2.99\% |
| 07/02/1984 | 13.35\% | 12.27\% | 1.08\% |
| 07/10/1984 | 16.00\% | 12.31\% | 3.69\% |
| 07/12/1984 | 16.50\% | 12.32\% | 4.18\% |
| 07/13/1984 | 16.25\% | 12.33\% | 3.92\% |
| 07/17/1984 | 14.14\% | 12.35\% | 1.79\% |
| 07/18/1984 | 15.30\% | 12.36\% | 2.94\% |
| 07/18/1984 | 15.50\% | 12.36\% | 3.14\% |
| 07/19/1984 | 14.30\% | 12.37\% | 1.93\% |
| 07/24/1984 | 16.79\% | 12.39\% | 4.40\% |
| 07/31/1984 | 16.00\% | 12.43\% | 3.57\% |
| 08/03/1984 | 14.25\% | 12.44\% | 1.81\% |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
| Date of |  | Average 30-Year |  |
| Electric Rate | Return on |  | Risk |
| Case | Equity | Yield | Premium |
| 08/17/1984 | 14.30\% | 12.49\% | 1.81\% |
| 08/20/1984 | 15.00\% | 12.49\% | 2.51\% |
| 08/27/1984 | 16.30\% | 12.51\% | 3.79\% |
| 08/31/1984 | 15.55\% | 12.52\% | 3.03\% |
| 09/06/1984 | 16.00\% | 12.53\% | 3.47\% |
| 09/10/1984 | 14.75\% | 12.54\% | 2.21\% |
| 09/13/1984 | 15.00\% | 12.55\% | 2.45\% |
| 09/17/1984 | 17.38\% | 12.56\% | 4.82\% |
| 09/26/1984 | 14.50\% | 12.57\% | 1.93\% |
| 09/28/1984 | 15.00\% | 12.57\% | 2.43\% |
| 09/28/1984 | 16.25\% | 12.57\% | 3.68\% |
| 10/09/1984 | 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\% |
| 11/07/1984 | 15.60\% | 12.58\% | 3.02\% |
| 11/09/1984 | 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\% |
| 12/03/1984 | 15.80\% | 12.56\% | 3.24\% |
| 12/04/1984 | 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\% |
| 01/03/1985 | 14.75\% | 12.49\% | 2.26\% |
| 01/10/1985 | 15.75\% | 12.47\% | 3.28\% |
| 01/11/1985 | 16.30\% | 12.46\% | 3.84\% |
| 01/23/1985 | 15.80\% | 12.43\% | 3.37\% |
| 01/24/1985 | 15.82\% | 12.43\% | 3.39\% |
| 01/25/1985 | 16.75\% | 12.42\% | 4.33\% |
| 01/30/1985 | 14.90\% | 12.40\% | 2.50\% |
| 01/31/1985 | 14.75\% | 12.39\% | 2.36\% |
| 02/08/1985 | 14.47\% | 12.35\% | 2.12\% |
| 03/01/1985 | 13.84\% | 12.31\% | 1.53\% |
| 03/08/1985 | 16.85\% | 12.28\% | 4.57\% |
| 03/14/1985 | 15.50\% | 12.25\% | 3.25\% |
| 03/15/1985 | 15.62\% | 12.25\% | 3.37\% |
| 03/29/1985 | 15.62\% | 12.17\% | 3.45\% |
| 04/03/1985 | 14.60\% | 12.14\% | 2.46\% |
| 04/09/1985 | 15.50\% | 12.11\% | 3.39\% |
| 04/16/1985 | 15.70\% | 12.06\% | 3.64\% |
| 04/22/1985 | 14.00\% | 12.02\% | 1.98\% |
| 04/26/1985 | 15.50\% | 11.98\% | 3.52\% |
| 04/29/1985 | 15.00\% | 11.97\% | 3.03\% |
| 05/02/1985 | 14.68\% | 11.94\% | 2.74\% |
| 05/08/1985 | 15.62\% | 11.89\% | 3.73\% |
| 05/10/1985 | 16.50\% | 11.87\% | 4.63\% |
| 05/29/1985 | 14.61\% | 11.73\% | 2.88\% |
| 05/31/1985 | 16.00\% | 11.71\% | 4.29\% |
| 06/14/1985 | 15.50\% | 11.61\% | 3.89\% |
| 07/09/1985 | 15.00\% | 11.45\% | 3.55\% |
| 07/16/1985 | 14.50\% | 11.39\% | 3.11\% |
| 07/26/1985 | 14.50\% | 11.33\% | 3.17\% |
| 08/02/1985 | 14.80\% | 11.29\% | 3.51\% |
| 08/07/1985 | 15.00\% | 11.27\% | 3.73\% |
| 08/28/1985 | 14.25\% | 11.15\% | 3.10\% |
| 08/28/1985 | 15.50\% | 11.15\% | 4.35\% |
| 08/29/1985 | 14.50\% | 11.15\% | 3.35\% |
| 09/09/1985 | 14.60\% | 11.11\% | 3.49\% |
| 09/09/1985 | 14.90\% | 11.11\% | 3.79\% |
| 09/17/1985 | 14.90\% | 11.08\% | 3.82\% |
| 09/23/1985 | 15.00\% | 11.06\% | 3.94\% |
| 09/27/1985 | 15.50\% | 11.05\% | 4.45\% |
| 09/27/1985 | 15.80\% | 11.05\% | 4.75\% |
| 10/02/1985 | 14.00\% | 11.03\% | 2.97\% |
| 10/02/1985 | 14.75\% | 11.03\% | 3.72\% |
| 10/03/1985 | 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 | 16.65\% | 10.94 | 5.71\% |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
| Date of |  | 30-Year |  |
| Electric Rate | Return on | Treasury | Risk |
| Case | Equity | Yield | Premium |
| 10/31/1985 | 15.06\% | 10.93\% | 4.13\% |
| 11/04/1985 | 14.50\% | 10.92\% | 3.58\% |
| 11/07/1985 | 15.50\% | 10.90\% | 4.60\% |
| 11/08/1985 | 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\% |
| 01/24/1986 | 15.40\% | 10.41\% | 4.99\% |
| 01/31/1986 | 15.00\% | 10.35\% | 4.65\% |
| 02/05/1986 | 15.00\% | 10.32\% | 4.68\% |
| 02/05/1986 | 15.75\% | 10.32\% | 5.43\% |
| 02/10/1986 | 13.30\% | 10.29\% | 3.01\% |
| 02/11/1986 | 12.50\% | 10.28\% | 2.22\% |
| 02/14/1986 | 14.40\% | 10.24\% | 4.16\% |
| 02/18/1986 | 16.00\% | 10.23\% | 5.77\% |
| 02/24/1986 | 14.50\% | 10.18\% | 4.32\% |
| 02/26/1986 | 14.00\% | 10.15\% | 3.85\% |
| 03/05/1986 | 14.90\% | 10.08\% | 4.82\% |
| 03/11/1986 | 14.50\% | 10.02\% | 4.48\% |
| 03/12/1986 | 13.50\% | 10.00\% | 3.50\% |
| 03/27/1986 | 14.10\% | 9.86\% | 4.24\% |
| 03/31/1986 | 13.50\% | 9.84\% | 3.66\% |
| 04/01/1986 | 14.00\% | 9.83\% | 4.17\% |
| 04/02/1986 | 15.50\% | 9.81\% | 5.69\% |
| 04/04/1986 | 15.00\% | 9.78\% | 5.22\% |
| 04/14/1986 | 13.40\% | 9.69\% | 3.71\% |
| 04/23/1986 | 15.00\% | 9.57\% | 5.43\% |
| 05/16/1986 | 14.50\% | 9.32\% | 5.18\% |
| 05/16/1986 | 14.50\% | 9.32\% | 5.18\% |
| 05/29/1986 | 13.90\% | 9.19\% | 4.71\% |
| 05/30/1986 | 15.10\% | 9.18\% | 5.92\% |
| 06/02/1986 | 12.81\% | 9.17\% | 3.64\% |
| 06/11/1986 | 14.00\% | 9.07\% | 4.93\% |
| 06/24/1986 | 16.63\% | 8.94\% | 7.69\% |
| 06/26/1986 | 12.00\% | 8.91\% | 3.09\% |
| 06/26/1986 | 14.75\% | 8.91\% | 5.84\% |
| 06/30/1986 | 13.00\% | 8.87\% | 4.13\% |
| 07/10/1986 | 14.34\% | 8.75\% | 5.59\% |
| 07/11/1986 | 12.75\% | 8.73\% | 4.02\% |
| 07/14/1986 | 12.60\% | 8.71\% | 3.89\% |
| 07/17/1986 | 12.40\% | 8.66\% | 3.74\% |
| 07/25/1986 | 14.25\% | 8.57\% | 5.68\% |
| 08/06/1986 | 13.50\% | 8.44\% | 5.06\% |
| 08/14/1986 | 13.50\% | 8.35\% | 5.15\% |
| 09/16/1986 | 12.75\% | 8.06\% | 4.69\% |
| 09/19/1986 | 13.25\% | 8.03\% | 5.22\% |
| 10/01/1986 | 14.00\% | 7.95\% | 6.05\% |
| 10/03/1986 | 13.40\% | 7.93\% | 5.47\% |
| 10/31/1986 | 13.50\% | 7.77\% | 5.73\% |
| 11/05/1986 | 13.00\% | 7.75\% | 5.25\% |
| 12/03/1986 | 12.90\% | 7.58\% | 5.32\% |
| 12/04/1986 | 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\% |
| 01/02/1987 | 13.00\% | 7.49\% | 5.51\% |
| 01/12/1987 | 12.40\% | 7.47\% | 4.93\% |
| 01/27/1987 | 12.71\% | 7.46\% | 5.25\% |
| 03/02/1987 | 12.47\% | 7.47\% | 5.00\% |
| 03/03/1987 | 13.60\% | 7.47\% | 6.13\% |
| 03/04/1987 | 12.38\% | 7.47\% | 4.91\% |
| 03/10/1987 | 13.50\% | 7.47\% | 6.03\% |
| 03/13/1987 | 13.00\% | 7.47\% | 5.53\% |
| 03/31/1987 | 13.00\% | 7.46\% | 5.54\% |
| 04/06/1987 | 13.00\% | 7.47\% | 5.53\% |
| 04/14/1987 | 12.50\% | 7.49\% | 5.01\% |
| 04/16/1987 | 14.50\% | 7.50\% | 7.00\% |
| 04/27/1987 | 12.00\% | 7.54\% | 4.46\% |
| 05/05/1987 | 12.85\% | 7.58\% | 5.27\% |
| 05/12/1987 | 12.65\% | 7.62\% | 5.03\% |
| 05/28/1987 | 13.50\% | 7.70\% | 5.80\% |
| 06/15/1987 | 13.20\% | 7.78\% | 5.42\% |
| 06/29/1987 | 15.00\% | 7.83\% | 7.17\% |
| 06/30/1987 | 12.50\% | 7.84\% | 4.66\% |
| 07/08/1987 | 12.00\% | 7.86\% | 4.14\% |
| 07/10/1987 | 12.90\% | 7.86\% | 5.04\% |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
|  |  | Average |  |
| Date of |  | 30-Year |  |
| Electric Rate |  | Treasury |  |
| Case | Equity | Yield | Premium |
| 07/15/1987 | 13.50\% | 7.88\% | 5.62\% |
| 07/16/1987 | 13.50\% | 7.88\% | 5.62\% |
| 07/16/1987 | 15.00\% | 7.88\% | 7.12\% |
| 07/27/1987 | 13.00\% | 7.92\% | 5.08\% |
| 07/27/1987 | 13.40\% | 7.92\% | 5.48\% |
| 07/27/1987 | 13.50\% | 7.92\% | 5.5 |
| 07/31/1987 | 12.98\% | 7.95\% | 5.03\% |
| 08/26/1987 | 12.63\% | 8.06\% | 4.57\% |
| 08/26/1987 | 12.75\% | 8.06\% | 4.69 |
| 08/27/1987 | 13.25\% | 8.06\% | 5.19\% |
| 09/09/1987 | 13.00\% | 8.14\% | 4.86\% |
| 09/30/1987 | 12.75\% | 8.31\% | 4.44 |
| 09/30/1987 | 13.00\% | 8.31\% | 4.69\% |
| 10/02/1987 | 11.50\% | 8.33\% | 3.17 |
| 10/15/1987 | 13.00\% | 8.43\% | 4.57\% |
| 11/02/1987 | 13.00\% | 8.55\% | 4.45\% |
| 11/19/1987 | 13.00\% | 8.64\% | 4.36\% |
| 11/30/1987 | 12.00\% | 8.68\% | 3.32\% |
| 12/03/1987 | 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\% |
| 01/20/1988 | 13.80\% | 8.94\% | 4.86\% |
| 01/26/1988 | 13.90\% | 8.95\% | 95\% |
| 01/29/1988 | 13.20\% | 8.96\% | 4.24\% |
| 02/04/1988 | 12.60\% | 8.96\% | 3.64\% |
| 03/01/1988 | 11.56\% | 8.94\% | 2.62\% |
| 03/23/1988 | 12.87\% | 8.92\% | 3.95\% |
| 03/24/1988 | 11.24\% | 8.92\% | 2.32\% |
| 03/30/1988 | 12.72\% | 8.92\% | 3.80\% |
| 04/01/1988 | 12.50\% | 8.92\% | 3.58\% |
| 04/07/1988 | 13.25\% | 8.93\% | 32\% |
| 04/25/1988 | 10.96\% | 8.96\% | 2.00\% |
| 05/03/1988 | 12.91\% | 8.97\% | 3.94\% |
| 05/11/1988 | 13.50\% | 8.99\% | .51\% |
| 05/16/1988 | 13.00\% | 8.99\% | 4.01\% |
| 06/30/1988 | 12.75\% | 9.00\% | 3.75\% |
| 07/01/1988 | 12.75\% | 8.99\% | 3.76\% |
| 07/20/1988 | 13.40\% | 8.96\% | 4.44\% |
| 08/05/1988 | 12.75\% | 8.92\% | 3.83\% |
| 08/23/1988 | 11.70\% | 8.93\% | 2.77\% |
| 08/29/1988 | 12.75\% | 8.94\% | 3.81\% |
| 08/30/1988 | 13.50\% | 8.94\% | 4.56\% |
| 09/08/1988 | 12.60\% | 8.95\% | 3.65\% |
| 10/13/1988 | 13.10\% | 8.93\% | .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\% |
| 01/27/1989 | 13.00\% | 9.05\% | 3.95\% |
| 01/31/1989 | 13.00\% | 9.05\% | 3.95\% |
| 02/17/1989 | 13.00\% | 9.05\% | 3.95\% |
| 02/20/1989 | 12.40\% | 9.05\% | 3.35\% |
| 03/01/1989 | 12.76\% | 9.05\% | 3.71\% |
| 03/08/1989 | 13.00\% | 9.05\% | 3.95\% |
| 03/30/1989 | 14.00\% | 9.05\% | 4.95\% |
| 04/05/1989 | 14.20\% | 9.05\% | 5.15\% |
| 04/18/1989 | 13.00\% | 9.05\% | 3.95\% |
| 05/05/1989 | 12.40\% | 9.05\% | 3.35\% |
| 06/02/1989 | 13.20\% | 9.00\% | 4.20\% |
| 06/08/1989 | 13.50\% | 8.98\% | 4.52\% |
| 06/27/1989 | 13.25\% | 8.91\% | 4.34\% |
| 06/30/1989 | 13.00\% | 8.90\% | 4.10\% |
| 08/14/1989 | 12.50\% | 8.77\% | 3.73\% |
| 09/28/1989 | 12.25\% | 8.63\% | 3.62\% |
| 10/24/1989 | 12.50\% | 8.54\% | 3.96\% |
| 11/09/1989 | 13.00\% | 8.49\% | 4.51\% |
| 12/15/1989 | 13.00\% | 8.34\% | 4.66 |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
|  |  | Average |  |
| Date of |  | 30-Year |  |
| Electric Rate | Return on | Treasury | Risk |
| Case | Equity | Yield | Premium |
| 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\% |
| 01/10/1990 | 12.80\% | 8.24\% | 4.56\% |
| 01/11/1990 | 12.90\% | 8.24\% | 4.66\% |
| 01/17/1990 | 12.80\% | 8.22\% | 4.58\% |
| 01/26/1990 | 12.00\% | 8.20\% | 3.80\% |
| 02/09/1990 | 12.10\% | 8.17\% | 3.93\% |
| 02/24/1990 | 12.86\% | 8.15\% | 4.71\% |
| 03/30/1990 | 12.90\% | 8.16\% | 4.74\% |
| 04/04/1990 | 15.76\% | 8.17\% | 7.59\% |
| 04/12/1990 | 12.52\% | 8.18\% | 4.34\% |
| 04/19/1990 | 12.75\% | 8.20\% | 4.55\% |
| 05/21/1990 | 12.10\% | 8.28\% | 3.82\% |
| 05/29/1990 | 12.40\% | 8.30\% | 4.10\% |
| 05/31/1990 | 12.00\% | 8.30\% | 3.70\% |
| 06/04/1990 | 12.90\% | 8.30\% | 4.60\% |
| 06/06/1990 | 12.25\% | 8.31\% | 3.94\% |
| 06/15/1990 | 13.20\% | 8.32\% | 4.88\% |
| 06/20/1990 | 12.92\% | 8.32\% | 4.60\% |
| 06/27/1990 | 12.90\% | 8.33\% | 4.57\% |
| 06/29/1990 | 12.50\% | 8.33\% | 4.17\% |
| 07/06/1990 | 12.10\% | 8.34\% | 3.76\% |
| 07/06/1990 | 12.35\% | 8.34\% | 4.01\% |
| 08/10/1990 | 12.55\% | 8.41\% | 4.14\% |
| 08/16/1990 | 13.21\% | 8.43\% | 4.78\% |
| 08/22/1990 | 13.10\% | 8.45\% | 4.65\% |
| 08/24/1990 | 13.00\% | 8.46\% | 4.54\% |
| 09/26/1990 | 11.45\% | 8.59\% | 2.86\% |
| 10/02/1990 | 13.00\% | 8.61\% | 4.39\% |
| 10/05/1990 | 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\% |
| 01/02/1991 | 13.10\% | 8.65\% | 4.45\% |
| 01/04/1991 | 12.50\% | 8.65\% | 3.85\% |
| 01/15/1991 | 12.75\% | 8.64\% | 4.11\% |
| 01/25/1991 | 11.70\% | 8.63\% | 3.07\% |
| 02/04/1991 | 12.50\% | 8.60\% | 3.90\% |
| 02/07/1991 | 12.50\% | 8.59\% | 3.91\% |
| 02/12/1991 | 13.00\% | 8.58\% | 4.43\% |
| 02/14/1991 | 12.72\% | 8.57\% | 4.15\% |
| 02/22/1991 | 12.80\% | 8.55\% | 4.25\% |
| 03/06/1991 | 13.10\% | 8.53\% | 4.57\% |
| 03/08/1991 | 12.30\% | 8.52\% | 3.78\% |
| 03/08/1991 | 13.00\% | 8.52\% | 4.48\% |
| 04/22/1991 | 13.00\% | 8.49\% | 4.51\% |
| 05/07/1991 | 13.50\% | 8.47\% | 5.03\% |
| 05/13/1991 | 13.25\% | 8.47\% | 4.78\% |
| 05/30/1991 | 12.75\% | 8.44\% | 4.31\% |
| 06/12/1991 | 12.00\% | 8.41\% | 3.59\% |
| 06/25/1991 | 11.70\% | 8.39\% | 3.31\% |
| 06/28/1991 | 12.50\% | 8.38\% | 4.12\% |
| 07/01/1991 | 12.00\% | 8.38\% | 3.62\% |
| 07/03/1991 | 12.50\% | 8.37\% | 4.13\% |
| 07/19/1991 | 12.10\% | 8.34\% | 3.76\% |
| 08/01/1991 | 12.90\% | 8.32\% | 4.58\% |
| 08/16/1991 | 13.20\% | 8.29\% | 4.91\% |
| 09/27/1991 | 12.50\% | 8.23\% | 4.27\% |
| 09/30/1991 | 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\% |
| 11/01/1991 | 12.00\% | 8.19\% | 3.81\% |
| 11/05/1991 | 12.25\% | 8.19\% | 4.06\% |
| 11/12/1991 | 12.50\% | 8.18\% | 4.32\% |
| 11/12/1991 | 13.25\% | 8.18\% | 5.07\% |
| 11/25/1991 | 12.40\% | 8.18\% | 4.22\% |
| 11/26/1991 | 11.60\% | 8.18\% | 3.42\% |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
|  |  | Average |  |
| Date of |  | 30-Year |  |
| Electric Rate |  |  |  |
| Case | Equity | Yield | Premium |
| 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\% |
| 01/09/1992 | 12.80\% | 8.09\% | 4.71 |
| 01/16/1992 | 12.75\% | 8.07\% | 4.68 |
| 01/21/1992 | 12.00\% | 8.06\% | 3.94\% |
| 01/22/1992 | 13.00\% | 8.06\% | $4.94 \%$ |
| 01/27/1992 | 12.65\% | 8.05\% | 4.60\% |
| 01/31/1992 | 12.00\% | 8.04\% | 3.96 |
| 02/11/1992 | 12.40\% | 8.03\% | 4.37\% |
| 02/25/1992 | 12.50\% | 8.01\% | .49 |
| 03/16/1992 | 11.43\% | 7.98\% | $3.45 \%$ |
| 03/18/1992 | 12.28\% | 7.98\% | 4.30\% |
| 04/02/1992 | 12.10\% | 7.95\% | .15 |
| 04/09/1992 | 11.45\% | 7.94\% | 3.51\% |
| 04/10/1992 | 11.50\% | 7.93\% | 3.57 |
| 04/14/1992 | 11.50\% | 7.93\% | 3.57 |
| 05/05/1992 | 11.50\% | 7.89\% | $3.61 \%$ |
| 05/12/1992 | 11.87\% | 7.88\% | 3.99 |
| 05/12/1992 | 12.46\% | 7.88\% | $4.58 \%$ |
| 06/01/1992 | 12.30\% | 7.87\% | $4.43 \%$ |
| 06/12/1992 | 10.90\% | 7.86\% | 3.04\% |
| 06/26/1992 | 12.35\% | 7.85\% | 4.50\% |
| 06/29/1992 | 11.00\% | 7.85\% | 3.15 |
| 06/30/1992 | 13.00\% | 7.85\% | 5.15 |
| 07/13/1992 | 11.90\% | 7.84\% | 4.06\% |
| 07/13/1992 | 13.50\% | 7.84\% | 5.66\% |
| 07/22/1992 | 11.20\% | 7.83\% | $3.37 \%$ |
| 08/03/1992 | 12.00\% | 7.81\% | $4.19 \%$ |
| 08/06/1992 | 12.50\% | 7.80\% | 4.70\% |
| 09/22/1992 | 12.00\% | 7.71\% | $4.29 \%$ |
| 09/28/1992 | 11.40\% | 7.71\% | 3.69\% |
| 09/30/1992 | 11.75\% | 7.70\% | $4.05 \%$ |
| 10/02/1992 | 13.00\% | 7.70\% | 5.30\% |
| 10/12/1992 | 12.20\% | 7.70\% | 4.50\% |
| 10/16/1992 | 13.16\% | 7.70\% | .46\% |
| 10/30/1992 | 11.75\% | 7.71\% | $4.04 \%$ |
| 11/03/1992 | 12.00\% | 7.71\% | 4.29\% |
| 12/03/1992 | 11.85\% | 7.68\% | .17\% |
| 12/15/1992 | 11.00\% | 7.66\% | $3.34 \%$ |
| 12/16/1992 | 11.90\% | 7.66\% | .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\% | .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\% | $4.27 \%$ |
| 01/12/1993 | 12.00\% | 7.61\% | .39\% |
| 01/21/1993 | 11.25\% | 7.59\% | $3.66 \%$ |
| 02/02/1993 | 11.40\% | 7.56\% | 3.84 |
| 02/15/1993 | 12.30\% | 7.52\% | 4.78\% |
| 02/24/1993 | 11.90\% | 7.49\% | $4.41 \%$ |
| 02/26/1993 | 11.80\% | 7.48\% | 4.32\% |
| 02/26/1993 | 12.20\% | 7.48\% | 4.72\% |
| 04/23/1993 | 11.75\% | 7.29\% | $4.46 \%$ |
| 05/11/1993 | 11.75\% | 7.25\% | 4.50\% |
| 05/14/1993 | 11.50\% | 7.24\% | $4.26 \%$ |
| 05/25/1993 | 11.50\% | 7.23\% | $4.27 \%$ |
| 05/28/1993 | 11.00\% | 7.22\% | 3.78\% |
| 06/03/1993 | 12.00\% | 7.21\% | $4.79 \%$ |
| 06/16/1993 | 11.50\% | 7.19\% | 4.31\% |
| 06/18/1993 | 12.10\% | 7.18\% | 4.92\% |
| 06/25/1993 | 11.67\% | 7.17\% | 4.50\% |
| 07/21/1993 | 11.38\% | 7.10\% | 4.28\% |
| 07/23/1993 | 10.46\% | 7.09\% | $3.37 \%$ |
| 08/24/1993 | 11.50\% | 6.96\% | $4.54 \%$ |
| 09/21/1993 | 10.50\% | 6.81\% | 3.69\% |
| 09/29/1993 | 11.47\% | 6.77\% | 4.70\% |
| 09/30/1993 | 11.60\% | 6.76\% | 4.84\% |
| 11/02/1993 | 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 |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
| Date of |  | 30-Year |  |
| Electric Rate | Return on | Treasury | Risk |
| Case | Equity | Yield | Premium |
| 12/21/1993 | 11.30\% | 6.47\% | 4.83\% |
| 01/04/1994 | 10.07\% | 6.44\% | 3.63\% |
| 01/13/1994 | 11.00\% | 6.42\% | 4.58\% |
| 01/21/1994 | 11.00\% | 6.40\% | 4.60\% |
| 01/28/1994 | 11.35\% | 6.39\% | 4.96\% |
| 02/03/1994 | 11.40\% | 6.38\% | 5.02\% |
| 02/17/1994 | 10.60\% | 6.36\% | 4.24\% |
| 02/25/1994 | 11.25\% | 6.35\% | 4.90\% |
| 02/25/1994 | 12.00\% | 6.35\% | 5.65\% |
| 03/01/1994 | 11.00\% | 6.35\% | 4.65\% |
| 03/04/1994 | 11.00\% | 6.35\% | 4.65\% |
| 04/25/1994 | 11.00\% | 6.41\% | 4.59\% |
| 05/10/1994 | 11.75\% | 6.45\% | 5.30\% |
| 05/13/1994 | 10.50\% | 6.46\% | 4.04\% |
| 06/03/1994 | 11.00\% | 6.54\% | 4.46\% |
| 06/27/1994 | 11.40\% | 6.65\% | 4.75\% |
| 08/05/1994 | 12.75\% | 6.88\% | 5.87\% |
| 10/31/1994 | 10.00\% | 7.33\% | 2.67\% |
| 11/09/1994 | 10.85\% | 7.39\% | 3.46\% |
| 11/09/1994 | 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\% |
| 12/08/1994 | 11.50\% | 7.54\% | 3.96\% |
| 12/08/1994 | 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\% |
| 01/09/1995 | 12.28\% | 7.64\% | 4.64\% |
| 01/31/1995 | 11.00\% | 7.69\% | 3.31\% |
| 02/10/1995 | 12.60\% | 7.70\% | 4.90\% |
| 02/17/1995 | 11.90\% | 7.70\% | 4.20\% |
| 03/09/1995 | 11.50\% | 7.71\% | 3.79\% |
| 03/20/1995 | 12.00\% | 7.72\% | 4.28\% |
| 03/23/1995 | 12.81\% | 7.72\% | 5.09\% |
| 03/29/1995 | 11.60\% | 7.72\% | 3.88\% |
| 04/06/1995 | 11.10\% | 7.71\% | 3.39\% |
| 04/07/1995 | 11.00\% | 7.71\% | 3.29\% |
| 04/19/1995 | 11.00\% | 7.70\% | 3.30\% |
| 05/12/1995 | 11.63\% | 7.68\% | 3.95\% |
| 05/25/1995 | 11.20\% | 7.65\% | 3.55\% |
| 06/09/1995 | 11.25\% | 7.60\% | 3.65\% |
| 06/21/1995 | 12.25\% | 7.56\% | 4.69\% |
| 06/30/1995 | 11.10\% | 7.52\% | 3.58\% |
| 09/11/1995 | 11.30\% | 7.20\% | 4.10\% |
| 09/27/1995 | 11.30\% | 7.12\% | 4.18\% |
| 09/27/1995 | 11.50\% | 7.12\% | 4.38\% |
| 09/27/1995 | 11.75\% | 7.12\% | 4.63\% |
| 09/29/1995 | 11.00\% | 7.11\% | 3.89\% |
| 11/09/1995 | 11.38\% | 6.90\% | 4.48\% |
| 11/09/1995 | 12.36\% | 6.90\% | 5.46\% |
| 11/17/1995 | 11.00\% | 6.86\% | 4.14\% |
| 12/04/1995 | 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\% |
| 02/05/1996 | 12.25\% | 6.48\% | 5.77\% |
| 03/29/1996 | 10.67\% | 6.42\% | 4.25\% |
| 04/08/1996 | 11.00\% | 6.42\% | 4.58\% |
| 04/11/1996 | 12.59\% | 6.43\% | 6.16\% |
| 04/11/1996 | 12.59\% | 6.43\% | 6.16\% |
| 04/24/1996 | 11.25\% | 6.43\% | 4.82\% |
| 04/30/1996 | 11.00\% | 6.43\% | 4.57\% |
| 05/13/1996 | 11.00\% | 6.44\% | 4.56\% |
| 05/23/1996 | 11.25\% | 6.43\% | 4.82\% |
| 06/25/1996 | 11.25\% | 6.48\% | 4.77\% |
| 06/27/1996 | 11.20\% | 6.48\% | 4.72\% |
| 08/12/1996 | 10.40\% | 6.57\% | 3.83\% |
| 09/27/1996 | 11.00\% | 6.71\% | 4.29\% |
| 10/16/1996 | 12.25\% | 6.76\% | 5.49\% |
| 11/05/1996 | 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\% |
| 01/03/1997 | 10.70\% | 6.83\% | 3.87\% |
| 02/13/1997 | 11.80\% | 6.82\% | 4.98\% |
| 02/20/1997 | 11.80\% | 6.82\% | 4.98\% |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
| Date of |  | Average <br> 30-Year |  |
| Electric Rate | Return on | ry | Risk |
| Case | Equity | Yield | Premium |
| 03/31/1997 | 10.02\% | 6.80\% | 3.22\% |
| 04/02/1997 | 11.65\% | 6.80\% | 4.85\% |
| 04/28/1997 | 11.50\% | 6.81\% | 4.69\% |
| 04/29/1997 | 11.70\% | 6.81\% | 4.89\% |
| 07/17/1997 | 12.00\% | 6.77\% | 5.23\% |
| 12/12/1997 | 11.00\% | 6.60\% | 4.40\% |
| 12/23/1997 | 11.12\% | 6.57\% | .55\% |
| 02/02/1998 | 12.75\% | 6.39\% | 6.36 |
| 03/02/1998 | 11.25\% | 6.29\% | 4.96\% |
| 03/06/1998 | 10.75\% | 6.27\% | .48\% |
| 03/20/1998 | 10.50\% | 6.22\% | 4.28\% |
| 04/30/1998 | 12.20\% | 6.12\% | 6.08\% |
| 07/10/1998 | 11.40\% | 5.94\% | 5.46\% |
| 09/15/1998 | 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\% |
| 02/05/1999 | 10.30\% | 5.38\% | 4.92\% |
| 03/04/1999 | 10.50\% | 5.34\% | 5.16\% |
| 04/06/1999 | 10.94\% | 5.32\% | 5.62\% |
| 07/29/1999 | 10.75\% | 5.52\% | 5.23\% |
| 09/23/1999 | 10.75\% | 5.70\% | 5.05\% |
| 11/17/1999 | 11.10\% | 5.90\% | 5.20\% |
| 01/07/2000 | 11.50\% | 6.05\% | 5.45\% |
| 01/07/2000 | 11.50\% | 6.05\% | .45\% |
| 02/17/2000 | 10.60\% | 6.17\% | 4.43\% |
| 03/28/2000 | 11.25\% | 6.20\% | 5.05\% |
| 05/24/2000 | 11.00\% | 6.18\% | 4.82\% |
| 07/18/2000 | 12.20\% | 6.16\% | 6.04\% |
| 09/29/2000 | 11.16\% | 6.03\% | 5.13\% |
| 11/28/2000 | 12.90\% | 5.89\% | 7.01\% |
| 11/30/2000 | 12.10\% | 5.88\% | 6.22\% |
| 01/23/2001 | 11.25\% | 5.79\% | 5.46\% |
| 02/08/2001 | 11.50\% | 5.77\% | 5.73\% |
| 05/08/2001 | 10.75\% | 5.62\% | 5.13\% |
| 06/26/2001 | 11.00\% | 5.62\% | 5.38\% |
| 07/25/2001 | 11.02\% | 5.60\% | 5.42\% |
| 07/25/2001 | 11.02\% | 5.60\% | 5.42\% |
| 07/31/2001 | 11.00\% | 5.59\% | 5.41\% |
| 08/31/2001 | 10.50\% | 5.56\% | 4.94\% |
| 09/07/2001 | 10.75\% | 5.55\% | 5.20\% |
| 09/10/2001 | 11.00\% | 5.55\% | 5.45\% |
| 09/20/2001 | 10.00\% | 5.55\% | .45\% |
| 10/24/2001 | 10.30\% | 5.54\% | 4.76\% |
| 11/28/2001 | 10.60\% | 5.49\% | 5.11\% |
| 12/03/2001 | 12.88\% | 5.49\% | .39\% |
| 12/20/2001 | 12.50\% | 5.50\% | 7.00\% |
| 01/22/2002 | 10.00\% | 5.50\% | .50\% |
| 03/27/2002 | 10.10\% | 5.45\% | 4.65\% |
| 04/22/2002 | 11.80\% | 5.45\% | 6.35\% |
| 05/28/2002 | 10.17\% | 5.46\% | .71\% |
| 06/10/2002 | 12.00\% | 5.47\% | 6.53\% |
| 06/18/2002 | 11.16\% | 5.48\% | 5.68\% |
| 06/20/2002 | 11.00\% | 5.48\% | 5.52\% |
| 06/20/2002 | 12.30\% | 5.48\% | 6.82\% |
| 07/15/2002 | 11.00\% | 5.48\% | 5.52\% |
| 09/12/2002 | 12.30\% | 5.45\% | 6.85\% |
| 09/26/2002 | 10.45\% | 5.41\% | 5.04\% |
| 12/04/2002 | 11.55\% | 5.29\% | 6.26\% |
| 12/13/2002 | 11.75\% | 5.27\% | 6.48\% |
| 12/20/2002 | 11.40\% | 5.25\% | 6.15\% |
| 01/08/2003 | 11.10\% | 5.19\% | 5.91\% |
| 01/31/2003 | 12.45\% | 5.13\% | 7.32\% |
| 02/28/2003 | 12.30\% | 5.05\% | 7.25\% |
| 03/06/2003 | 10.75\% | 5.03\% | 5.72\% |
| 03/07/2003 | 9.96\% | 5.02\% | 4.94\% |
| 03/20/2003 | 12.00\% | 4.98\% | 7.02\% |
| 04/03/2003 | 12.00\% | 4.96\% | 7.04\% |
| 04/15/2003 | 11.15\% | 4.94\% | 6.21\% |
| 06/25/2003 | 10.75\% | 4.79\% | 5.96\% |
| 06/26/2003 | 10.75\% | 4.79\% | 5.96\% |
| 07/09/2003 | 9.75\% | 4.79\% | 4.96\% |
| 07/16/2003 | 9.75\% | 4.79\% | 4.96\% |
| 07/25/2003 | 9.50\% | 4.80\% | 4.70\% |
| 08/26/2003 | 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\% |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
|  |  | Average |  |
| Date of |  | 30-Year |  |
| Electric Rate | Return on | Treasury | Ri |
| Case | Equity | Yield | Premium |
| 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\% |
| 01/13/2004 | 12.00\% | 4.95\% | 7.05\% |
| 03/02/2004 | 10.75\% | 4.99\% | 5.76\% |
| 03/26/2004 | 10.25\% | 5.02\% | 5.23\% |
| 04/05/2004 | 11.25\% | 5.03\% | 6.22\% |
| 05/18/2004 | 10.50\% | 5.07\% | 5.43\% |
| 05/25/2004 | 10.25\% | 5.08\% | 5.17\% |
| 05/27/2004 | 10.25\% | 5.08\% | 5.17\% |
| 06/02/2004 | 11.22\% | 5.08\% | 6.14\% |
| 06/30/2004 | 10.50\% | 5.10\% | 5.40\% |
| 06/30/2004 | 10.50\% | 5.10\% | 5.40\% |
| 07/16/2004 | 11.60\% | 5.11\% | 6.49\% |
| 08/25/2004 | 10.25\% | 5.10\% | 5.15\% |
| 09/09/2004 | 10.40\% | 5.10\% | 5.30\% |
| 11/09/2004 | 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\% |
| 01/06/2005 | 10.70\% | 5.08\% | 5.62\% |
| 02/18/2005 | 10.30\% | 4.98\% | 5.32\% |
| 02/25/2005 | 10.50\% | 4.96\% | 5.54\% |
| 03/10/2005 | 11.00\% | 4.93\% | 6.07\% |
| 03/24/2005 | 10.30\% | 4.90\% | 5.40\% |
| 04/04/2005 | 10.00\% | 4.88\% | 5.12\% |
| 04/07/2005 | 10.25\% | 4.87\% | 5.38\% |
| 05/18/2005 | 10.25\% | 4.78\% | 5.47\% |
| 05/25/2005 | 10.75\% | 4.76\% | 5.99\% |
| 05/26/2005 | 9.75\% | 4.76\% | 4.99\% |
| 06/01/2005 | 9.75\% | 4.75\% | 5.00\% |
| 07/19/2005 | 11.50\% | 4.64\% | 6.86\% |
| 08/05/2005 | 11.75\% | 4.62\% | 7.13\% |
| 08/15/2005 | 10.13\% | 4.61\% | 5.52\% |
| 09/28/2005 | 10.00\% | 4.54\% | 5.46\% |
| 10/04/2005 | 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\% |
| 01/05/2006 | 11.00\% | 4.53\% | 6.47\% |
| 01/27/2006 | 9.75\% | 4.52\% | 5.23\% |
| 03/03/2006 | 10.39\% | 4.53\% | 5.86\% |
| 04/17/2006 | 10.20\% | 4.61\% | 5.59\% |
| 04/26/2006 | 10.60\% | 4.64\% | 5.96\% |
| 05/17/2006 | 11.60\% | 4.69\% | 6.91\% |
| 06/06/2006 | 10.00\% | 4.74\% | 5.26\% |
| 06/27/2006 | 10.75\% | 4.80\% | 5.95\% |
| 07/06/2006 | 10.20\% | 4.83\% | 5.37\% |
| 07/24/2006 | 9.60\% | 4.86\% | 4.74\% |
| 07/26/2006 | 10.50\% | 4.86\% | 5.64\% |
| 07/28/2006 | 10.05\% | 4.86\% | 5.19\% |
| 08/23/2006 | 9.55\% | 4.89\% | 4.66\% |
| 09/01/2006 | 10.54\% | 4.90\% | 5.64\% |
| 09/14/2006 | 10.00\% | 4.91\% | 5.09\% |
| 10/06/2006 | 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\% |
| 12/01/2006 | 10.25\% | 4.95\% | 5.30\% |
| 12/01/2006 | 10.50\% | 4.95\% | 5.55\% |
| 12/07/2006 | 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\% |
| 01/05/2007 | 10.00\% | 4.95\% | 5.05\% |
| 01/11/2007 | 10.10\% | 4.95\% | 5.15\% |
| 01/11/2007 | 10.10\% | 4.95\% | 5.15\% |
| 01/11/2007 | 10.90\% | 4.95\% | 5.95\% |
| 01/12/2007 | 10.10\% | 4.95\% | 5.15\% |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
|  |  | Average |  |
| Date of <br> Flectric Rate | Return on | 30-Year | Risk |
| Case | Equity | Yield | Premium |
| 01/13/2007 | 10.40\% | 4.95\% | 5.45\% |
| 01/19/2007 | 10.80\% | 4.94\% | 5.86\% |
| 03/21/2007 | 11.35\% | 4.87\% | 6.48\% |
| 03/22/2007 | 9.75\% | 4.86\% | 4.89\% |
| 05/15/2007 | 10.00\% | 4.81\% | 5.19\% |
| 05/17/2007 | 10.25\% | 4.81\% | 5.44\% |
| 05/17/2007 | 10.25\% | 4.81\% | 5.44\% |
| 05/22/2007 | 10.20\% | 4.80\% | 5.40\% |
| 05/22/2007 | 10.50\% | 4.80\% | 5.70\% |
| 05/23/2007 | 10.70\% | 4.80\% | 5.90\% |
| 05/25/2007 | 9.67\% | 4.80\% | 4.87\% |
| 06/15/2007 | 9.90\% | 4.82\% | 5.08\% |
| 06/21/2007 | 10.20\% | 4.83\% | 5.37\% |
| 06/22/2007 | 10.50\% | 4.83\% | 5.67\% |
| 06/28/2007 | 10.75\% | 4.84\% | 5.91\% |
| 07/12/2007 | 9.67\% | 4.86\% | 4.81\% |
| 07/19/2007 | 10.00\% | 4.87\% | 5.13\% |
| 07/19/2007 | 10.00\% | 4.87\% | 5.13\% |
| 08/15/2007 | 10.40\% | 4.88\% | 5.52\% |
| 10/09/2007 | 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\% |
| 12/06/2007 | 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\% |
| 01/08/2008 | 10.75\% | 4.83\% | 5.92\% |
| 01/17/2008 | 10.75\% | 4.81\% | 5.94\% |
| 01/28/2008 | 9.40\% | 4.80\% | 4.60\% |
| 01/30/2008 | 10.00\% | 4.79\% | 5.21\% |
| 01/31/2008 | 10.71\% | 4.79\% | 5.92\% |
| 02/29/2008 | 10.25\% | 4.75\% | 5.50\% |
| 03/12/2008 | 10.25\% | 4.73\% | 5.52\% |
| 03/25/2008 | 9.10\% | 4.68\% | 4.42\% |
| 04/22/2008 | 10.25\% | 4.60\% | 5.65\% |
| 04/24/2008 | 10.10\% | 4.60\% | 5.50\% |
| 05/01/2008 | 10.70\% | 4.59\% | 6.11\% |
| 05/19/2008 | 11.00\% | 4.56\% | 6.44\% |
| 05/27/2008 | 10.00\% | 4.55\% | 5.45\% |
| 06/10/2008 | 10.70\% | 4.54\% | 6.16\% |
| 06/27/2008 | 10.50\% | 4.54\% | 5.96\% |
| 06/27/2008 | 11.04\% | 4.54\% | 6.50\% |
| 07/10/2008 | 10.43\% | 4.52\% | 5.91\% |
| 07/16/2008 | 9.40\% | 4.52\% | 4.88\% |
| 07/30/2008 | 10.80\% | 4.51\% | 6.29\% |
| 07/31/2008 | 10.70\% | 4.51\% | 6.19\% |
| 08/11/2008 | 10.25\% | 4.51\% | 5.74\% |
| 08/26/2008 | 10.18\% | 4.50\% | 5.68\% |
| 09/10/2008 | 10.30\% | 4.50\% | 5.80\% |
| 09/24/2008 | 10.65\% | 4.48\% | 6.17\% |
| 09/24/2008 | 10.65\% | 4.48\% | 6.17\% |
| 09/24/2008 | 10.65\% | 4.48\% | 6.17\% |
| 09/30/2008 | 10.20\% | 4.48\% | 5.72\% |
| 10/08/2008 | 10.15\% | 4.46\% | 5.69\% |
| 11/13/2008 | 10.55\% | 4.45\% | 6.10\% |
| 11/17/2008 | 10.20\% | 4.44\% | 5.76\% |
| 12/01/2008 | 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\% |
| 01/14/2009 | 10.50\% | 4.15\% | 6.35\% |
| 01/21/2009 | 10.50\% | 4.12\% | 6.38\% |
| 01/21/2009 | 10.50\% | 4.12\% | 6.38\% |
| 01/21/2009 | 10.50\% | 4.12\% | 6.38\% |
| 01/27/2009 | 10.76\% | 4.09\% | 6.67\% |
| 01/30/2009 | 10.50\% | 4.08\% | 6.42\% |
| 02/04/2009 | 8.75\% | 4.06\% | 4.69\% |
| 03/04/2009 | 10.50\% | 3.96\% | 6.54\% |
| 03/12/2009 | 11.50\% | 3.93\% | 7.57\% |
| 04/02/2009 | 11.10\% | 3.85\% | 7.25\% |
| 04/21/2009 | 10.61\% | 3.80\% | 6.81\% |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
|  |  | Average |  |
| Date of Electric Rate | Return on | 30-Year Treasury | Risk |
| Case | Equity | Yield | Premium |
| 04/24/2009 | 10.00\% | 3.79\% | 6.21\% |
| 04/30/2009 | 11.25\% | 3.78\% | 7.47\% |
| 05/04/2009 | 10.74\% | 3.77\% | 6.97\% |
| 05/20/2009 | 10.25\% | 3.74\% | 6.51\% |
| 05/28/2009 | 10.50\% | 3.74\% | .76\% |
| 05/29/2009 | 10.50\% | 3.74\% | 6.76\% |
| 06/22/2009 | 10.00\% | 3.76\% | .24\% |
| 06/24/2009 | 10.80\% | 3.77\% | 7.03\% |
| 07/08/2009 | 10.63\% | 3.77\% | 6.86\% |
| 07/17/2009 | 10.50\% | 3.78\% | .72 |
| 08/31/2009 | 10.25\% | 3.82\% | 6.43\% |
| 10/14/2009 | 10.70\% | 4.01\% | 6.69\% |
| 10/23/2009 | 10.88\% | 4.06\% | 6.82 |
| 11/02/2009 | 10.70\% | 4.09\% | 6.61\% |
| 11/03/2009 | 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 |
| 12/03/2009 | 10.50\% | 4.18\% | 6.32\% |
| 12/07/2009 | 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\% | .74\% |
| 01/04/2010 | 10.80\% | 4.28\% | 6.52\% |
| 01/11/2010 | 11.00\% | 4.30\% | 6.70\% |
| 01/26/2010 | 10.13\% | 4.35\% | 5.78\% |
| 01/27/2010 | 10.40\% | 4.35\% | 6.05\% |
| 01/27/2010 | 10.40\% | 4.35\% | 6.05\% |
| 01/27/2010 | 10.70\% | 4.35\% | 6.35\% |
| 02/09/2010 | 9.80\% | 4.38\% | 5.42\% |
| 02/18/2010 | 10.60\% | 4.40\% | 6.20\% |
| 02/24/2010 | 10.18\% | 4.41\% | 5.77\% |
| 03/02/2010 | 9.63\% | 4.41\% | 5.22\% |
| 03/04/2010 | 10.50\% | 4.41\% | 6.09\% |
| 03/05/2010 | 10.50\% | 4.41\% | 6.09\% |
| 03/11/2010 | 11.90\% | 4.42\% | 7.48\% |
| 03/17/2010 | 10.00\% | 4.41\% | 5.59\% |
| 03/25/2010 | 10.15\% | 4.42\% | .73\% |
| 04/02/2010 | 10.10\% | 4.43\% | 5.67\% |
| 04/27/2010 | 10.00\% | 4.46\% | 5.54\% |
| 04/29/2010 | 9.90\% | 4.46\% | .44\% |
| 04/29/2010 | 10.06\% | 4.46\% | 5.60\% |
| 04/29/2010 | 10.26\% | 4.46\% | 5.80\% |
| 05/12/2010 | 10.30\% | 4.45\% | 5.85\% |
| 05/12/2010 | 10.30\% | 4.45\% | 5.85\% |
| 05/28/2010 | 10.10\% | 4.44\% | .66\% |
| 05/28/2010 | 10.20\% | 4.44\% | 5.76\% |
| 06/07/2010 | 10.30\% | 4.44\% | 5.86\% |
| 06/16/2010 | 10.00\% | 4.44\% | 5.56\% |
| 06/28/2010 | 9.67\% | 4.43\% | 5.24\% |
| 06/28/2010 | 10.50\% | 4.43\% | 6.07\% |
| 06/30/2010 | 9.40\% | 4.43\% | 4.97\% |
| 07/01/2010 | 10.25\% | 4.43\% | 5.82\% |
| 07/15/2010 | 10.53\% | 4.43\% | 6.10\% |
| 07/15/2010 | 10.70\% | 4.43\% | 6.27\% |
| 07/30/2010 | 10.70\% | 4.41\% | 6.29\% |
| 08/04/2010 | 10.50\% | 4.41\% | 6.09\% |
| 08/06/2010 | 9.83\% | 4.41\% | 5.42\% |
| 08/25/2010 | 9.90\% | 4.37\% | 5.53\% |
| 09/03/2010 | 10.60\% | 4.35\% | 6.25\% |
| 09/14/2010 | 10.70\% | 4.33\% | 6.37\% |
| 09/16/2010 | 10.00\% | 4.33\% | 5.67\% |
| 09/16/2010 | 10.00\% | 4.33\% | 5.67\% |
| 09/30/2010 | 9.75\% | 4.29\% | 5.46\% |
| 09/30/2010 | 11.00\% | 4.29\% | 6.71\% |
| 10/14/2010 | 10.35\% | 4.24\% | 6.11\% |
| 10/28/2010 | 10.70\% | 4.21\% | 6.49\% |
| 11/02/2010 | 10.38\% | 4.20\% | 6.18\% |
| 11/04/2010 | 10.70\% | 4.20\% | 6.50\% |
| 11/19/2010 | 10.20\% | 4.18\% | 6.02\% |
| 11/22/2010 | 10.00\% | 4.18\% | 5.82\% |
| 12/01/2010 | 10.13\% | 4.16\% | 5.97\% |
| 12/06/2010 | 9.86\% | 4.15\% | 5.71\% |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
|  |  | Average |  |
| Date of |  | 30-Year |  |
| Electric Rate | Return on | Treasury | Ri |
| Case | Equity | Yield | Premium |
| 12/09/2010 | 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\% |
| 01/05/2011 | 10.15\% | 4.13\% | 6.02\% |
| 01/12/2011 | 10.30\% | 4.12\% | 6.18\% |
| 01/13/2011 | 10.30\% | 4.12\% | 6.18\% |
| 01/18/2011 | 10.00\% | 4.12\% | 5.88\% |
| 01/20/2011 | 9.30\% | 4.12\% | 5.18\% |
| 01/20/2011 | 10.13\% | 4.12\% | 6.01\% |
| 01/31/2011 | 9.60\% | 4.12\% | 5.48\% |
| 02/03/2011 | 10.00\% | 4.12\% | 5.88\% |
| 02/25/2011 | 10.00\% | 4.14\% | 5.86\% |
| 03/25/2011 | 9.80\% | 4.18\% | 5.62\% |
| 03/30/2011 | 10.00\% | 4.18\% | 5.82\% |
| 04/12/2011 | 10.00\% | 4.21\% | 5.79\% |
| 04/25/2011 | 10.74\% | 4.23\% | 6.51\% |
| 04/26/2011 | 9.67\% | 4.23\% | 5.44\% |
| 04/27/2011 | 10.40\% | 4.24\% | 6.16\% |
| 05/04/2011 | 10.00\% | 4.24\% | 5.76\% |
| 05/04/2011 | 10.00\% | 4.24\% | 5.76\% |
| 05/24/2011 | 10.50\% | 4.27\% | 6.23\% |
| 06/08/2011 | 10.75\% | 4.30\% | 6.45\% |
| 06/16/2011 | 9.20\% | 4.32\% | 4.88\% |
| 06/17/2011 | 9.95\% | 4.32\% | 5.63\% |
| 07/13/2011 | 10.20\% | 4.36\% | 5.84\% |
| 08/01/2011 | 9.20\% | 4.39\% | 4.81\% |
| 08/08/2011 | 10.00\% | 4.38\% | 5.62\% |
| 08/11/2011 | 10.00\% | 4.38\% | 5.62\% |
| 08/12/2011 | 10.35\% | 4.37\% | 5.98\% |
| 08/19/2011 | 10.25\% | 4.36\% | 5.89\% |
| 09/02/2011 | 12.88\% | 4.32\% | 8.56\% |
| 09/22/2011 | 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\% |
| 01/25/2012 | 10.50\% | 3.57\% | 6.93\% |
| 01/27/2012 | 10.50\% | 3.56\% | 6.94\% |
| 02/15/2012 | 10.20\% | 3.47\% | 6.73\% |
| 02/23/2012 | 9.90\% | 3.44\% | 6.46\% |
| 02/27/2012 | 10.25\% | 3.43\% | 6.82\% |
| 02/29/2012 | 10.40\% | 3.41\% | 6.99\% |
| 03/29/2012 | 10.37\% | 3.32\% | 7.05\% |
| 04/04/2012 | 10.00\% | 3.30\% | 6.70\% |
| 04/26/2012 | 10.00\% | 3.21\% | 6.79\% |
| 05/02/2012 | 10.00\% | 3.18\% | 6.82\% |
| 05/07/2012 | 9.80\% | 3.17\% | 6.63\% |
| 05/15/2012 | 10.00\% | 3.14\% | 6.86\% |
| 05/29/2012 | 10.05\% | 3.11\% | 6.94\% |
| 06/07/2012 | 10.30\% | 3.08\% | 7.22\% |
| 06/14/2012 | 9.40\% | 3.06\% | 6.34\% |
| 06/15/2012 | 10.40\% | 3.06\% | 7.34\% |
| 06/18/2012 | 9.60\% | 3.06\% | 6.54\% |
| 06/19/2012 | 9.25\% | 3.05\% | 6.20\% |
| 06/26/2012 | 10.10\% | 3.04\% | 7.06\% |
| 06/29/2012 | 10.00\% | 3.04\% | 6.96\% |
| 07/09/2012 | 10.20\% | 3.03\% | 7.17\% |
| 07/16/2012 | 9.80\% | 3.02\% | 6.78\% |
| 07/20/2012 | 9.31\% | 3.01\% | 6.30\% |
| 07/20/2012 | 9.81\% | 3.01\% | 6.80\% |
| 09/13/2012 | 9.80\% | 2.94\% | 6.86\% |
| 09/19/2012 | 9.80\% | 2.94\% | 6.86\% |
| 09/19/2012 | 10.05\% | 2.94\% | 7.11\% |
| 09/26/2012 | 9.50\% | 2.94\% | 6.56\% |
| 10/12/2012 | 9.60\% | 2.93\% | 6.67\% |


| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
| Date of |  | ar |  |
| Electric Rate | Return on | Treasury | Risk |
| Case | Equity | Yield | Premium |
| 10/23/2012 | 9.75\% | 2.93\% | 6.82\% |
| 10/24/2012 | 10.30\% | 2.93\% | 7.37\% |
| 11/09/2012 | 10.30\% | 2.92\% | 7.38\% |
| 11/28/2012 | 10.40\% | 2.90\% | 7.50\% |
| 11/29/2012 | 9.75\% | 2.90\% | 6.85\% |
| 11/29/2012 | 9.88\% | 2.90\% | 6.98\% |
| 12/05/2012 | 9.71\% | 2.89\% | 6.82\% |
| 12/05/2012 | 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\% | 2.88\% | 6.83\% |
| 12/19/2012 | 10.25\% | 2.88\% | 7.37\% |
| 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\% |
| 01/09/2013 | 9.70\% | 2.85\% | 6.85\% |
| 01/09/2013 | 9.70\% | 2.85\% | 6.85\% |
| 01/09/2013 | 9.70\% | 2.85\% | 6.85\% |
| 01/16/2013 | 9.60\% | 2.84\% | 6.76\% |
| 01/16/2013 | 9.60\% | 2.84\% | 6.76\% |
| 02/13/2013 | 10.20\% | 2.84\% | 7.36\% |
| 02/22/2013 | 9.75\% | 2.85\% | 6.90\% |
| 02/27/2013 | 10.00\% | 2.86\% | 7.14\% |
| 03/05/2013 | 9.70\% | 2.86\% | 6.84\% |
| 03/14/2013 | 9.30\% | 2.88\% | 6.42\% |
| 03/27/2013 | 9.80\% | 2.90\% | 6.90\% |
| 05/01/2013 | 9.84\% | 2.94\% | 6.90\% |
| 05/15/2013 | 10.30\% | 2.96\% | 7.34\% |
| 05/30/2013 | 10.20\% | 2.98\% | 7.22\% |
| 05/31/2013 | 9.00\% | 2.98\% | 6.02\% |
| 06/11/2013 | 10.00\% | 3.00\% | 7.00\% |
| 06/21/2013 | 9.75\% | 3.02\% | 6.73\% |
| 06/25/2013 | 9.80\% | 3.03\% | 6.77\% |
| 07/12/2013 | 9.36\% | 3.08\% | 6.28\% |
| 08/08/2013 | 9.83\% | 3.14\% | 6.69\% |
| 08/14/2013 | 9.15\% | 3.16\% | 5.99\% |
| 09/11/2013 | 10.20\% | 3.26\% | 6.94\% |
| 09/11/2013 | 10.25\% | 3.26\% | 6.99\% |
| 09/24/2013 | 10.20\% | 3.31\% | 6.89\% |
| 10/03/2013 | 9.65\% | 3.33\% | 6.32\% |
| 10/07/2013 | 10.00\% | 3.34\% | 6.66\% |
| 11/06/2013 | 10.20\% | 3.41\% | 6.79\% |
| 11/21/2013 | 10.00\% | 3.44\% | 6.56\% |
| 11/26/2013 | 10.00\% | 3.45\% | 6.55\% |
| 12/03/2013 | 10.25\% | 3.47\% | 6.78\% |
| 12/04/2013 | 9.50\% | 3.47\% | 6.03\% |
| 12/05/2013 | 10.20\% | 3.48\% | 6.72\% |
| 12/09/2013 | 8.72\% | 3.48\% | 5.24\% |
| 12/09/2013 | 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 | 9.30\% | 3.54\% | 5.76\% |
| 02/20/2014 | 9.20\% | 3.68\% | 5.52\% |
| 02/26/2014 | 9.75\% | 3.69\% | 6.06\% |
| 03/17/2014 | 9.55\% | 3.72\% | 5.83\% |
| 03/26/2014 | 9.40\% | 3.73\% | 5.67\% |
| 03/26/2014 | 9.96\% | 3.73\% | 6.23\% |
| 04/02/2014 | 9.70\% | 3.73\% | 5.97\% |
| 05/16/2014 | 9.80\% | 3.70\% | 6.10\% |
| 05/30/2014 | 9.70\% | 3.68\% | 6.02\% |
|  |  | Average Count | $\begin{array}{r} 4.43 \% \\ 1,423 \end{array}$ |

# BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI 

In the Matter of Union Electric Company $\mathrm{d} / \mathrm{b} / \mathrm{a} \quad$ ) Ameren Missouri's Tariffs to Increase Its Revenues ) for Electric Service.

Case No. ER-2014-0258

## AFFIDAVIT OF ROBERT B. HEVERT

## COMMONWEALTH OF MASSACHUSETTS ) COUNTY OF MIDDLESEX

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

1. My name is Robert B. Hevert and my office is located in Framingham, Massachusetts and I am Managing Partner of Sussex Economic Advisors, LLC.
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Union Electric Company d/b/a Ameren Missouri consisting of
$\qquad$ 43 pages and Schedules) RBH-1 through RBH-6 , all of which have been prepared in written form for introduction into evidence in the above-referenced docket.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.


Robert B. Hevert
Subscribed and sworn to before me this and day $\qquad$ , 2014.

My commission expires:

HMBEREY H. DAD
Notary Public
Commence -lat of Massachusetts
Ny Commission Expires
April lo 2015


[^0]:    2 In the Matter of Missouri Gas Energy and its Tariff Filing to Implement a General Rate Increase for Natural Gas Service, Report and Order, Missouri Public Service Commission, Case No. GR-2009-0355, February 10, 2010, at 7.

[^1]:    3 See, Ameren Missouri, Facts About Ameren Missouri.
    4 Source: SNL Financial

[^2]:    5 See, Edison International, SEC Form 10-K for the fiscal year ended December 31, 2012, at 35.
    See, NRG Energy, Inc., SEC Form 8-K, October 18, 2013, at 2.
    See, Edison International, SEC Form 10-K for the fiscal year ended December 31, 2012, at 35-36.

[^3]:    8 See, for example, Eugene Brigham, Louis Gapenski, Financial Management: Theory and Practice, 7th Ed., 1994, at 341, and Tom Copeland, Tim Koller and Jack Murrin, Valuation: Measuring and Managing the Value of Companies, 3rd ed., 2000, at 214.

[^4]:    9 See, for example, Harris, Robert, Using Analysts’ Growth Forecasts to Estimate Shareholder Required Rate of Return, Financial Management, Spring 1986.

[^5]:    10 Charles F. Phillips, Jr., The Economics of Regulation, Revised Edition, 1969, Richard D. Irwin, Inc., at 285.
    11 See, for example, 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.
    12 Vander Weide and Carleton, Investor Growth Expectations: Analysts vs. History, The Journal of Portfolio Management, Spring 1988.
    13 Robert S. Harris, Using Analysts' Growth Forecasts to Estimate Shareholder Required Rate of Return, Financial Management, Spring 1986.
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[^6]:    16 See, for example, Harris and Marston, Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts,

[^7]:    ${ }^{17}$ See Bureau of Economic Analysis, March 27, 2014 update.
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[^8]:    19 As reported in the Value Line Investment Survey as "All Div'ds to Net Prof." Source: Bloomberg Professional.

[^9]:    22 Regulatory Research Associates, Construction Work in Progress; Getting acquainted with an old issue, April 22, 2013, at 2

[^10]:    23 Source: Regulatory Research Associates, Missouri Public Service Commission Profile.
    24 Regulatory Research Associates, Alternative Regulation/Incentive Plans, A State-by-State Review, November 2013, at 1.
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[^11]:    26 Ameren, Barclays Power and Utility Credit Conference, June 2014 at 20 - 21.

[^12]:    27 Source: SNL Financial.

[^13]:    28 See, Missouri Public Service Commission, Updated Staff Report on The Cost of Compliance with Federal Environmental Regulations, December 19, 2013 at 23. The report includes cost estimates for Ameren Missouri, Great Plains and Kansas City Power \& Light, and Empire District Electric Company.
    29 Regulatory Research Associates, UPDATE: EPA proposes 30\% reduction in greenhouse gas emissions from power sector, June 2, 2014.

[^14]:    ${ }^{30}$ See Federal Reserve Press Release dated June 19, 2013.
    31 Federal Reserve Bank of New York, Domestic Open Market Operations During 2012, April 2013, page 29.

[^15]:    ${ }^{32}$ Source: Federal Reserve Schedule H.4.1. "Securities held outright" include U.S. Treasury securities, Federal agency debt securities, and mortgage-backed securities.
    ${ }^{33}$ Sources: Federal Reserve Schedule H.4.1; Bureau of Economic Analysis, GDP data as of the fourth calendar quarter of 2013.
    ${ }^{34}$ Minutes of the Federal Open Market Committee December 17-18, 2013, page 10; Minutes of the Federal Open Market Committee April 29-30, 2014, page 8.
    ${ }^{35}$ For example, the average 30-year Treasury Yield in May 2013 was 3.11 percent. The monthly average in May 2014 (through May $30^{\text {th }}$ ) was 3.39 percent. In the intervening period the 30 -year Treasury Yield ranged from 3.23 percent to 3.96 percent.

