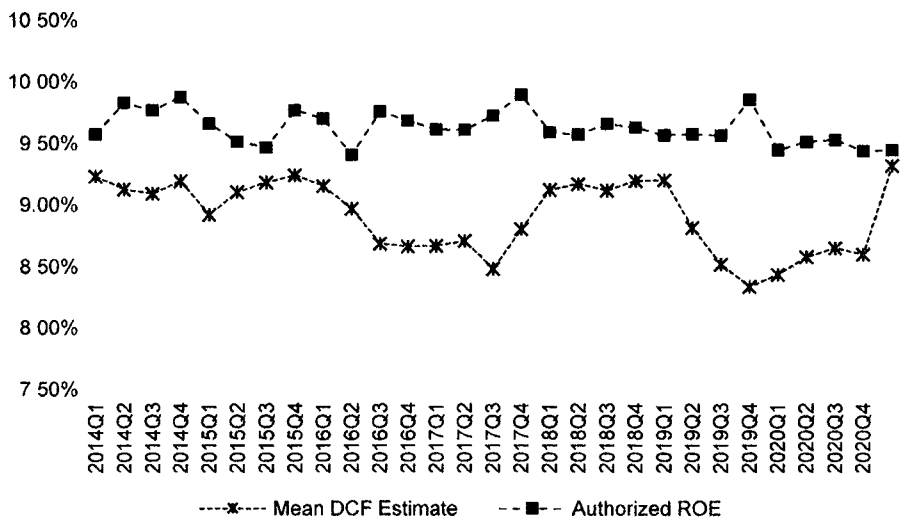
Chart 1: Mean DCF Results vs. Authorized ROE Over Time[5]



Q. HAVE OTHER STATE REGULATORY COMMISSIONS DECLINED TO RELY ON THE DCF MODEL RESULTS?

A. Yes. For example, in its June 2018 *Order Accepting Stipulation* in which it authorized a 9.90 percent ROE for Duke Energy Carolinas, the North Carolina Utilities Commission noted it "carefully evaluated the DCF analysis recommendations" of the ROE witnesses (which ranged from 8.45 percent to 8.80 percent) and determined that "all of these DCF analyses in the current market produce unrealistically low results."[6]

Q. ARE THERE ASPECTS OF THE DCF MODEL THAT MAY EXPLAIN WHY REGULATORY COMMISSIONS MAY NOT HAVE RELIED MECHANICALLY ON IT WHEN DETERMINING THE COST OF EQUITY?

A. Yes, the model's underlying structure and assumptions are not compatible with the recent capital market and economic environment. In particular, the dividend yield component and the expected growth rate component of the DCF model are theoretically and fundamentally linked. In one sense, relatively low dividend yields should be associated

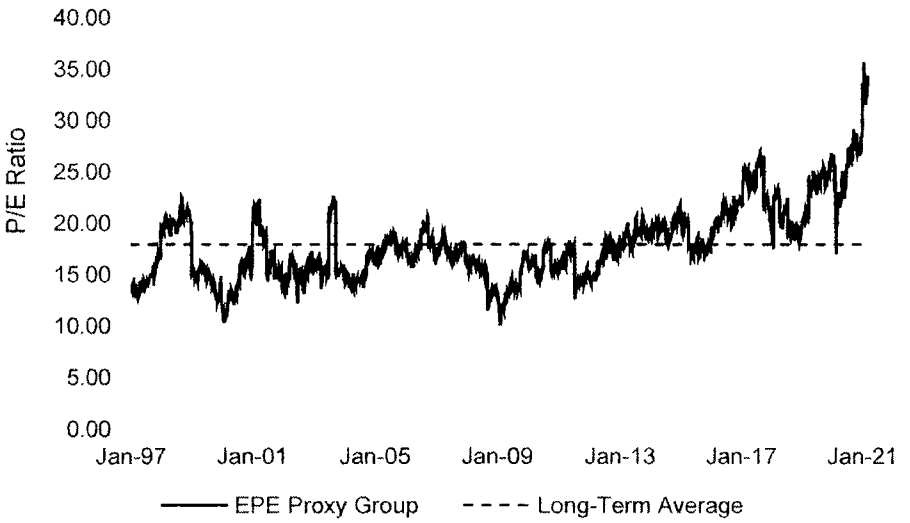
[5] Mean DCF results based on quarterly average stock prices and the average projected Earnings Per Share growth rate from *Value Line*, Zacks, and Yahoo! First Call for all companies classified by *Value Line* as electric utilities. Authorized ROEs are quarterly averages. Source: S&P Global Market Intelligence.

[6] State of North Carolina Utilities Commission, Docket No. E-7, Sub 1146, In the Matter of Application of Duke Energy Carolinas, LLC, for Adjustment of Rates and Charges Applicable to Electric Utility Service in North Carolina, Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction, June 22, 2018, at 62.

with relatively high growth rates. That is, relatively low dividend yields are the result of relatively high stock prices which, in turn, should be associated with relatively high growth rates. If those relationships do not hold, the model's results should be viewed with some caution.

In recent years, the Price/Earnings ratio for the proxy group has been above its long-term average (*see*, Chart 2 below), indicating higher valuations that produce lower dividend yields (*see*, Chart 3 below).

Chart 2: Proxy Group Price/Earnings Ratio (1997-2021)[7]



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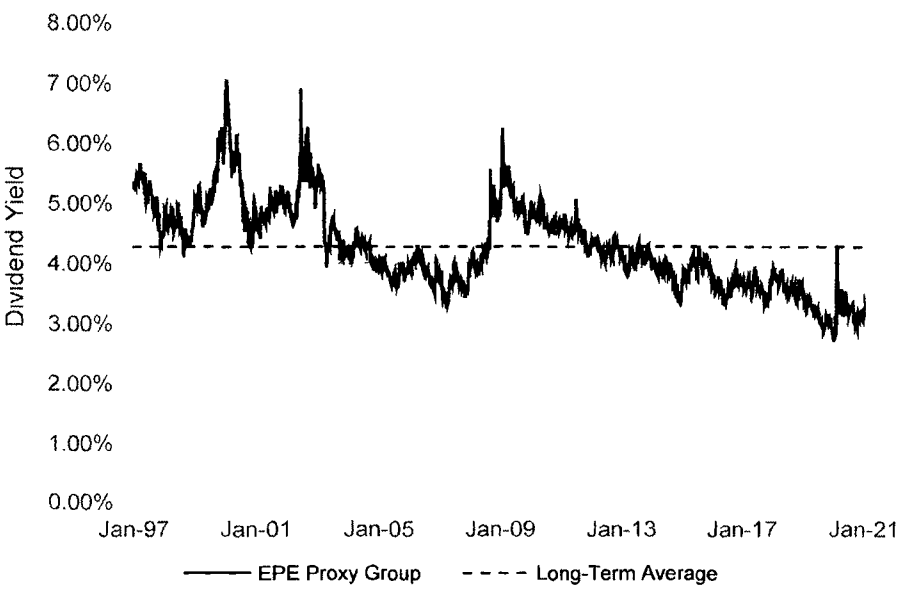
[7] Source: S&P Global Market Intelligence. Proxy group calculated as an index.

Chart 3: Proxy Group Dividend Yield (1997-2021)[8]



However, the average proxy group growth rate applied in my DCF analyses (5.75 percent[9]) is below the arithmetic average capital appreciation[10] rate (6.12 percent) for the proxy group between the end of 1996 and the end of 2020. From that perspective, the fundamental relationship between the dividend yield and growth rates under the DCF model may not currently hold for the proxy group. Stated differently, relatively high stock prices (and therefore relatively low dividend yields) and below average low growth rates have combined to produce DCF results that are inconsistent with the fundamental theory underlying the model.

Moreover, the DCF model assumes investors use its fundamental structure to find the "intrinsic" value of stock, that is, the price they are willing to pay.[11] In practice, investors also consider relative valuation multiples – Price/Earnings, Market/Book, Enterprise Value/EBITDA[12] – in their buying and selling decisions. They do so because no single financial model produces the most accurate measure of fundamental value, or the most reliable estimate of the Cost of Equity, at all times.

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[8] Source: S&P Global Market Intelligence. Proxy group calculated as an index.

[9] *See*, Exhibit JEN-2 and Exhibit JEN-3.

[10] Under the Constant Growth DCF model's assumptions, the growth rate equals the rate of capital appreciation.

[11] *See*, Equations [1] and [2].

[12] Earnings Before Interest, Taxes, Depreciation, and Amortization.

Whereas the Constant Growth and Quarterly Growth DCF models assume existing capital market conditions will remain constant, Risk Premium based methods more directly reflect the volatile capital market environment described in Section III below. Because the DCF model's underlying fundamental relationship may not currently hold for the proxy group, I conclude it should be given less weight than other methods in determining the Company's ROE.

Q. IS IT YOUR VIEW THAT THE DCF MODEL SHOULD BE GIVEN NO WEIGHT IN DETERMINING THE COMPANY'S COST OF EQUITY?

A. No, it is not. It is my view, however, that we should carefully consider the range of results the model produces in arriving at ROE recommendations. Considering the disconnect in the fundamental relationship between the current proxy group dividend yield and growth rates, my recommendation gives more weight to the upper end of the DCF results.

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, discusses the current capital market conditions and their effect on EPE's Cost of Equity, describes the regulatory guidelines pertinent to the development of the cost of capital, explains my selection of the proxy group used to develop my analytical results, and describes my analyses on which my ROE determination is based;
- Section IV – Discusses the specific business risks that have a direct bearing on the Company's Cost of Equity;
- Section V – Assesses the Company's requested capital structure; and
- Section VI – Summarizes my conclusions and recommendations.

III. Cost of Equity Estimation

A. Regulatory Guidelines and Financial Considerations

Q. BEFORE ADDRESSING THE SPECIFIC ASPECTS OF THIS PROCEEDING, PLEASE PROVIDE A GENERAL OVERVIEW OF THE ISSUES SURROUNDING THE COST

OF EQUITY IN REGULATORY PROCEEDINGS.

A. In general terms, the Cost of Equity is the return that investors require to make an equity investment in a firm. Investors will provide funds to a firm only if the return that they expect is equal to, or greater than, the return that they require to accept the risk of providing funds to the firm. 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" as measures of those costs; 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, represents 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 risk investment opportunities. Because investments with similar risks should offer similar returns, the opportunity cost of an investment should equal the return available on an investment of comparable risk. In that important respect, the returns required by debt and equity investors represent a cost to the Company.

Although both debt and equity have required costs, they differ in 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 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 the "residual risk," they take greater risks and require higher returns than debt holders. In essence, 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 based on market data and various financial models. As discussed throughout my Direct Testimony, each of those models is subject to certain assumptions, which may be more or less applicable under differing market conditions. Further, because the Cost of Equity is premised on opportunity costs, the models are typically 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 reasoned judgment. That judgment should consider data and information that is not necessarily included in the models themselves.

In the end, 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. A given utility stock may require a higher return based on the risks to which it is exposed, or its expected growth, relative to other utilities. That is, although utilities may be viewed as a "sector," not all require the same return.

Q. PLEASE BRIEFLY SUMMARIZE THE GUIDELINES ESTABLISHED BY THE UNITED STATES SUPREME COURT (THE "SUPREME COURT") FOR THE PURPOSE OF DETERMINING THE RETURN ON EQUITY.

A. The Supreme 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.* ("*Bluefield*");[13] and (2) *Federal Power Comm'n v. Hope Natural Gas Co.* ("*Hope*").[14] In *Bluefield*, the Court stated:

> A public utility is entitled to such rates as will permit it to earn a return upon the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit, and enable it to raise the money necessary for the proper discharge of its public duties.[15]

The Supreme Court therefore recognized that (1) a regulated public utility cannot remain

[13] See, Bluefield Water Works and Improvement Co. v. Public Service Comm'n., 262 U.S. 679, 692 (1923).

[14] See, Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944).

[15] Bluefield Water Works and Improvement Co. v. Public Service Comm'n., 262 U.S. 679, 692 (1923).

financially sound unless the return it is allowed to earn on its invested capital is at least equal to the Cost of Capital (the principle relating to the demand for capital); and (2) a regulated public utility will not be able to attract capital if it does not offer investors an opportunity to earn a return on their investment equal to the return they expect to earn on other investments of similar risk (the principle relating to the supply of capital).

In *Hope*, the Supreme Court reiterates the financial integrity and capital attraction principles of the *Bluefield* case:

> From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock... By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.[16]

In summary, the Supreme Court clearly has 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. Intuitively, a fair rate of return satisfies all three standards.

Q. DOES COMMISSION PRECEDENT PROVIDE SIMILAR GUIDANCE?

A. Yes. The Commission upholds the precedents of the *Hope* and *Bluefield* cases and regularly acknowledges that a utility is entitled to a fair and reasonable return.[17] The Public Utility Regulatory Act[18] describes the Commission's obligation with regard to establishing a reasonable return:

> In establishing an electric utility's rates, the regulatory authority shall

[16] Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944).

[17] *See for example, Application of Southwest Public Service Company for Authority to Change Rates*, Docket No. 43695, Proposal for Decision at 53-54 (October 12, 2015). Affirmed by the Commission's Final Order (December 18, 2015) and Order on Rehearing (February 23, 2016).

[18] Tex. Util. Code Ann. §§ 11.001-66.016 (West 2007 & Supp. 2014).

> establish the utility's overall revenues at an amount that will permit the utility a reasonable opportunity to earn a reasonable return on the utility's invested capital used and useful in providing service to the public in excess of the utility's reasonable and necessary operating expenses. [19]

This position was affirmatively stated in *Gulf States Utilities Company v. Public Utility Commission of Texas*, where the Texas Supreme Court stated:

> The Commission's rate fixing power operates exclusively within a range of reasonableness, bounded on the one hand by the utility's constitutional right to a fair and reasonable return, and on the other hand by its customers' statutory right to rates that are not unreasonable or exorbitant.[20]

Based on those standards, the authorized ROE should provide EPE with the *opportunity* to earn (which is not a guarantee) 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 CAPITAL AT REASONABLE TERMS?

A. A return that is adequate to attract capital at reasonable terms enables the utility to provide safe and reliable 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 for investments of equivalent risk.

The ratemaking process is based on the principle that, for investors and companies to commit the capital needed to provide safe and reliable utility services, the utility must have the opportunity to recover the return of, and the market-required return on, invested capital. The allowed ROE should enable the subject utility to maintain its financial integrity in a variety of economic and capital market conditions. In order to preserve and enhance service reliability, EPE must generate adequate cash flow from operations and have efficient access to external capital needed to undertake its capital investment plan

[19] Tex. Util. Code Ann. § 36.051 (West 2007 & Supp. 2014).

[20] *Gulf States Utilities Company v. Pub. Util. Comm'n*, 784 S.W.2d 519, 520 (Tex. App.—Austin 1990), aff'd, 809 S.W.2d 201 (1991).

regardless of the economic and capital market conditions at the time. A return that is adequate to attract capital at reasonable terms enables the utility to provide safe, reliable service while maintaining its financial soundness.

Further, the financial community carefully monitors utility companies' current and expected financial conditions, as well as the regulatory environment in which those companies operate. In that respect, the regulatory environment is one of the most important factors considered in both debt and equity investors' assessments of risk.[21] That consideration is especially important during uncertain economic and financial conditions in which the utility may require access to capital markets.

The outcome of the Commission's order in this case, therefore, should provide EPE with the opportunity to earn an ROE that is (1) adequate to attract capital at reasonable terms, (2) sufficient to ensure its financial integrity, and (3) commensurate with returns on investments in enterprises having corresponding risks. To the extent EPE is provided a reasonable opportunity to earn its market-based Cost of Equity, neither customers nor shareholders are disadvantaged. In fact, a return that is adequate to attract capital at reasonable terms enables EPE to provide safe, reliable service while maintaining its financial integrity.

Q. DOES THE REGULATORY ENVIRONMENT INFLUENCE UTILITIES' EFFICIENT ACCESS TO CAPITAL?

A. Yes, it does. The regulatory environment is a key driver of investors' risk assessment of utilities. Investors and rating agencies understand that a constructive regulatory environment is critical to support utilities' credit ratings and financial integrity, especially during adverse market conditions.

Moody's considers the regulatory structure to be so important that 50.00 percent of the factors that weigh in a ratings determination are related to the nature of regulation.[22] Among the factors considered by Moody's in assessing the regulatory framework are the predictability and consistency of regulatory actions:

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[21] See, e.g., Moody's Investors Service, Rating Methodology: Regulated Gas and Electric Utilities, at 4 (June 23, 2017).

[22] See, Moody's Investors Service, Rating Methodology: Regulated Gas and Electric Utilities, at 4 (June 23, 2017).

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

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In situations where the regulatory framework is less supportive, or is more contentious, a utility's credit quality can deteriorate rapidly.[23]

Similarly, as S&P notes, "Regulatory advantage is the most heavily weighted factor when S&P Global Ratings analyzes a regulated utility's business risk profile."[24]

Q. HOW IS THE COST OF EQUITY ESTIMATED IN REGULATORY PROCEEDINGS?

A. Regulated utilities primarily use common stock and long-term debt to finance their permanent property, plant, and equipment. The rate of return for a regulated utility is based on its weighted average Cost of Capital, in which the costs of the individual sources of capital are weighted by their respective book values.

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

[24] S&P Global Ratings, Assessing U.S. Investor-Owned Utility Regulatory Environments, (August 10, 2016).

As noted earlier, the ROE is market-based and, therefore, is estimated by applying observable market data to various financial models. By their nature, those models produce a range of results from which the ROE is determined. Although quantitative models are used to estimate the ROE, it cannot be precisely quantified through a strict mathematical solution. Other regulatory commissions have found no individual model is more reliable than all others under all market conditions.[25] Consistent with investor practice, it is both prudent and appropriate to use multiple methods to mitigate the effects of assumptions and inputs associated with any single approach. The key consideration in determining the ROE is to ensure the overall analysis reasonably reflects investors' view of financial markets in general, and the subject company (in the context of the proxy companies), in particular.

In summary, practitioners, academics, and regulatory commissions recognize that financial models are not precise quantifications of investor behavior but are tools to be used in the ROE estimation process. They appreciate that the strict adherence to any single approach, or to the specific results of any single approach, can lead to flawed or misleading conclusions.[26] A reasonable ROE estimate therefore considers multiple methods and the reasonableness of their individual and collective results in the context of observable, relevant market information.

B. Capital Market Environment

Q. DO ECONOMIC CONDITIONS INFLUENCE THE REQUIRED COST OF CAPITAL AND REQUIRED RETURN ON COMMON EQUITY?

A. Yes. The required Cost of Capital, including the ROE, is a function of prevailing and expected economic and capital market conditions. As discussed below, the models used to estimate the cost of equity are meant to reflect, and therefore are influenced by, current and

[25] See, for example: (1) Public Utilities Commission of the State of Hawaii, Docket No. 7700, Order No. 13704 in Docket No. 7700, In the Matter of the Application of Hawaiian Electric Company, Inc. For Approval of Rate Increases and Revised Rate Schedules and Rules, December 28, 1994 at 92; (2) The Commonwealth of Massachusetts Department of Public Utilities, Investigation by the Department of Public Utilities, Docket D.P.U. 15-155, September 30, 2016, at 376-378; and (3) State of North Carolina Utilities Commission, In the Matter of Application of Public Service Company of North Carolina, Inc. for a General Increase in its Rates and Charges, Docket No. G-5, Sub 565, Order Approving Rate Increase and Integrity Management Tracker, October 28, 2016, at 35-36; State of Illinois Commerce Commission Decision, Docket No. 16-0093, Illinois-American Water Company, 2016 WL 7325212 (2016), at 55.

[26] This is consistent with the *Hope* and *Bluefield* principle establishing it is the analytical result, as opposed to the method employed, that controls in determining just and reasonable rates.

expected capital market conditions. In addition, all analytical models used to estimate the required ROE are based on simplifying assumptions that may not hold true under specific market circumstances. 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 methods are likely to provide more meaningful and reliable results.

Q. PLEASE DESCRIBE THE RECENT CAPITAL MARKET DISLOCATION AND ITS IMPLICATIONS FOR ESTIMATING THE COMPANY'S COST OF EQUITY.

A. It is well recognized that there have been dramatic shifts in the capital markets brought about by the COVID-19 pandemic. The speed and severity of the increase in risk and the loss in value cut across all market sectors, including utilities. Notably:

- From February 12 to March 23, 2020, the Standard & Poor's ("S&P") 500 Index lost approximately 34.00 percent of its value, as did the utility sector.[27]
- At the same time, the Chicago Board Options Exchange ("CBOE") Volatility Index ("VIX", a measure of expected market volatility), increased six-fold (from 13.68 on February 14, 2020 to 82.69 on March 16, 2020).[28]
- On March 9, 2020, the 30-year Treasury yield fell below 1.00 percent for the first time.[29]

Although government and central bank actions have stabilized the capital markets somewhat, as explained in more detail below, volatility (and, therefore, risk) remain elevated for the utility sector, which has important implications on ROE analyses.

Q. IS THERE A RELATIONSHIP BETWEEN EQUITY MARKET VOLATILITY AND INTEREST RATES?

A. Yes, there is. Significant and abrupt increases in volatility tend to be associated with declines in Treasury yields. That relationship makes intuitive sense; as investors see

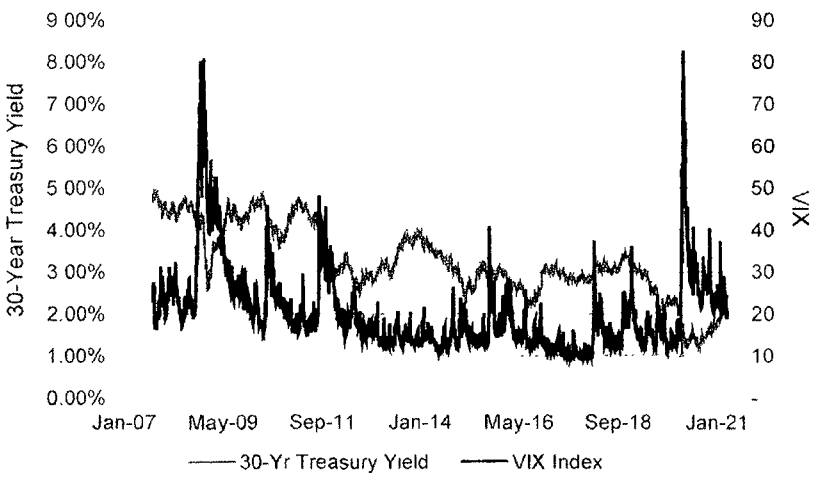
[27] Source: Yahoo! Finance. Utility sector measured by the XLU and Dow Jones Utility Average.

[28] Source: Bloomberg Professional Service.

[29] Source: Bloomberg Professional Service.

increasing risk, their objectives may shift principally to avoid capital losses (that is, capital preservation). A means of doing so is to allocate capital to the relative safety of Treasury securities, in a "flight to safety." Because Treasury yields tend to be inversely related to Treasury bond prices, as investors bid up the prices of bonds, they bid down the yields. As Chart 4 below demonstrates, decreases in the 30-year Treasury yield are coincident with significant increases in the VIX. In those instances, the decline in yields does not reflect a reduction in required returns, it reflects an increase in risk aversion and, therefore, an increase in required equity returns as investors favor the relative security of bonds during volatile markets. Simply put, in volatile markets, investors require higher returns to move from safe Treasury bond investments to riskier equity investments.

Chart 4: 30-Year Treasury Yields vs. VIX[30]



Q. HAS VOLATILITY REMAINED ELEVATED RELATIVE TO HISTORICAL LEVELS IN RECENT MONTHS?

A. Yes. A visible and widely reported measure of expected volatility is the VIX. As CBOE explains, the VIX calculation is designed to produce a measure of constant, 30-day expected volatility of the U.S. stock market, derived from real-time, mid-quote prices of S&P 500 Index call and put options.[31] The VIX is, therefore, a market-based measure of expected volatility. Because volatility is a measure of risk, increases in the VIX, or in its volatility, are a broad indicator of expected increases in market risk. That is, if the level of

[30] Source: Bloomberg Professional Service.

[31] Source: www.cboe.com/vix.

the VIX stood at 15.00, it would be interpreted as an expected standard deviation in annual market returns of 15.00 percent over the coming 30 days. Since 1990, the VIX has averaged about 19.48, which is consistent with the long-term standard deviation on annual market returns as reported by Duff & Phelps.[32] From February 12, 2020 to March 31, 2021, the VIX averaged 29.27, or more than 50.00 percent above its long-term average.[33] In other words, since the onset of the COVID-19 pandemic, market volatility has been approximately 50.00 percent higher on average than the market's long-term average volatility.

A further measure of market uncertainty is the volatility of the VIX itself. That is, we can look to the expected volatility of volatility, as measured by Chicago Board Options Exchange VVIX Index ("VVIX"), which is a traded index of the expected volatility of the VIX. Over the long-term, the VVIX has averaged approximately 91.00. As Table 2 below shows, the average VVIX in 2020 and so far in 2021 was at its highest level since the index's inception in 2006.

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[32] Source: Duff & Phelps, 2021 SBBI Yearbook, at 6-17.

[33] Source: Bloomberg Professional Service.

Table 2: Annual Average VVIX (2006-2021)[34]

Calendar Year	Average VVIX
2006	78.75
2007	87.68
2008	81.85
2009	79.78
2010	88.36
2011	92.94
2012	94.84
2013	80.64
2014	83.01
2015	94.82
2016	92.80
2017	90.01
2018	102.26
2019	91.00
2020	118.47
2021	116.25
Average 2006 - 2019	88.93
Average 2020 - 2021	118.04
Average 2006 - 2021	91.39

From a different perspective, the VVIX averaged 88.93 between 2006 and 2019; in 2020 and 2021, the average VVIX was approximately 33.00 percent higher (118.04), indicating that expected volatility is currently well above the long-term average. Stated

[34] Source: Bloomberg Professional Service.

differently, a relatively high VVIX suggests the VIX might be more volatile in the future, which in turn suggests expectations for higher market volatility in the future.

The important analytical question is whether we can infer that historically low Treasury yields imply a Cost of Equity that is well below recently authorized returns. Given the inverse relationship between Treasury bond yields and the VIX, it is difficult to conclude that fundamental risk aversion and investor return requirements have fallen. Rather, the recent decline in Treasury yields associated with the COVID-19 pandemic indicates an increase in investor-required equity returns, not a decrease, as equity investors require higher returns to compensate them for greater market risk.

Q. IS MARKET VOLATILITY EXPECTED TO REMAIN ELEVATED IN THE NEAR TERM?

A. Yes. One means of assessing market expectations regarding the future level of volatility is to review CBOE's "Term Structure of Volatility", which is described by CBOE as:

> The implied volatility term structure observed in SPX options markets is analogous to the term structure of interest rates observed in fixed income markets. Similar to the calculation of forward rates of interest, it is possible to observe the option market's expectation of future market volatility through use of the SPX implied volatility term structure.[35]

As shown in Table 3 below, the implied volatility is expected to remain generally above historical levels of volatility[36] until at least January 2022.

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[35] Source: www.cboe.com/trading-tools/strategy-planning-tools/term-structure-data.

[36] The long-term average price of VIX is approximately 19.00, which, as discussed above, is similar to the long-term standard deviation of annual market returns.

Table 3: CBOE Term Structure of Volatility[37]

Date	Projected VIX
April 2021	16.93
May 2021	19.88
June 2021	21.50
July 2021	22.42
August 2021	23.49
September 2021	23.94
October 2021	24.39
November 2021	24.62
December 2021	25.17
January 2022	24.12

In short, investors reacted to the increase in market uncertainty associated with the COVID-19 pandemic by moving away from equity securities (including utilities) to Treasury securities, thereby pushing down long-term Treasury yields. Consequently, recently observed low levels of interest rates resulted from a volatility-driven "flight to safety" on the part of investors, indicating increased risk aversion, and therefore a corresponding increase in investors' required equity returns. As shown in Chart 4 above, although volatility has declined somewhat from their March 2020 highs (as Treasury yields have begun to increase), it remains – and is expected to remain – above historical levels in the near term.

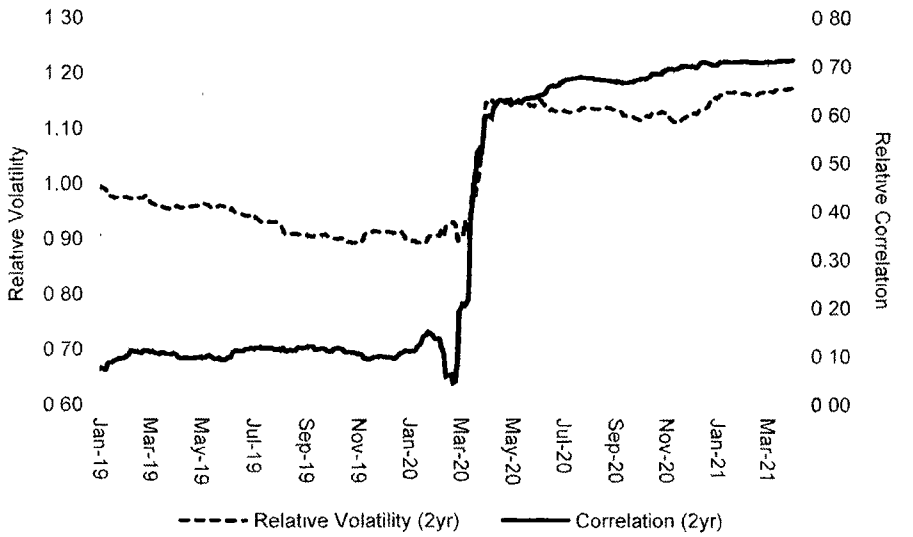
Q. ARE THERE ADDITIONAL MEASURES THAT INDICATE THE COST OF EQUITY HAS INCREASED FOR UTILITIES?

A. Yes. As discussed later in this section, Beta coefficients are a measure of relative risk and are a function of two parameters: (1) relative volatility (the standard deviation of the subject company's returns relative to the standard deviation of the market return); and

[37] Source: http://www.cboe.com/trading-tools/strategy-planning-tools/term-structure-data, as of March 31, 2021.

(2) the correlation between the subject company's returns and the market return.[38] Under the CAPM, higher Beta coefficients indicate an increase in the Cost of Equity, all else equal. As Chart 5 below demonstrates, both the relative correlation and relative volatility between the proxy group and the overall market (as measured by the S&P 500) increased substantially since mid-February 2020.

Chart 5: Components of Proxy Group (Two-Year) Beta Coefficients[39]



This increase in correlation between price changes for the proxy group and those for the S&P 500 is not surprising. As Morningstar recently explained, during volatile markets there often is little distinction in returns across assets or portfolios. That is, "correlations go to 1."[40] When that happens, utility stocks lose their "defensive" quality. Not surprisingly, the increased correlation and relative volatility combine to produce significantly increased (adjusted) Beta coefficients. As shown in Table 4, below, the average Beta coefficients for the proxy group reported by *Value Line* and Bloomberg increased by approximately 1.55x and 2.20x, respectively between February 2020 and March 2021.

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[38] *See* Equation [5].

[39] Source: S&P Global Market Intelligence. Weekly returns calculated over 24 months.

[40] Morningstar, "Correlations Going to 1: Amid Market Collapse, U.S. Stock Fund Factors Show Little Differentiation," March 6, 2020.

Table 4: Average *Value Line* and Bloomberg Proxy Group Beta Coefficients[41]

Date	February 2020	March 2021
Value Line Average	0.563	0.874
Bloomberg Average	0.474	1.044

Q. DOES YOUR RECOMMENDATION ALSO CONSIDER THE INTEREST RATE ENVIRONMENT?

A. Yes, it does. As discussed below, prevailing interest rates for long-term government bonds (e.g., the 30-year Treasury bond) have begun to increase. That increase is consistent with expectations for increases in U.S. economic growth and inflation.[42] 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. Because the Cost of Equity is forward-looking, the salient issue is whether investors see the likelihood of increased interest rates during the period in which the rates set in this proceeding will be in effect. With respect to long-term interest rates, the 50 economists surveyed by *Blue Chip Financial Forecast* ("*Blue Chip*") expect the 30-year Treasury yield to increase from the current 30-day average of 2.31 percent[43] to 2.80 percent on average over the five-year period 2022-2026.[44]

Q. ARE THERE OTHER INDICATIONS THAT INVESTORS EXPECT LONG-TERM INTEREST RATES TO RISE IN THE FUTURE?

A. Yes. Treasury bond prices, and therefore yields, are influenced by inflation expectations. As such, we can look to market data regarding investors' expectations for inflation as an indicator of future Treasury yields. As a recent article in *Barron's* explains, "While all Treasury yields reflect future interest rate expectations and inflation risk, longer-term

[41] Sources: *Value Line* and Bloomberg Professional Services as of February 28, 2020 and March 31, 2021.

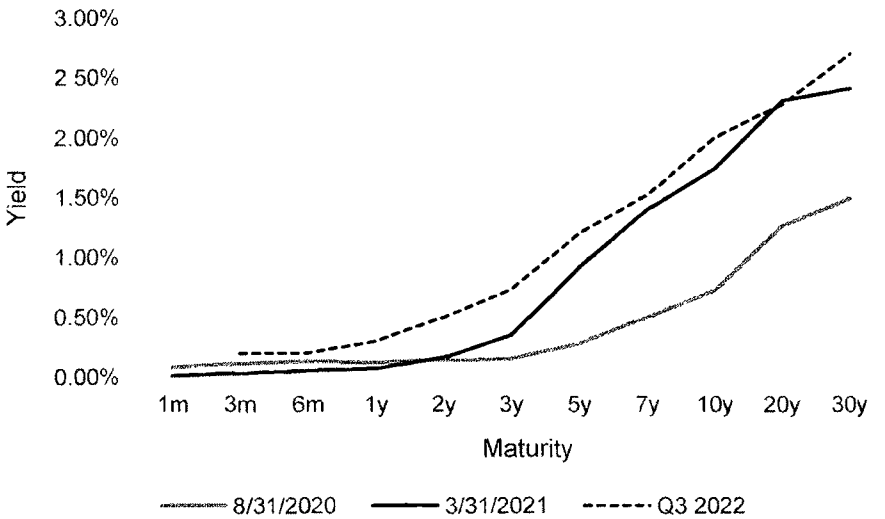
[42] *See, e.g.*, Blue Chip Financial Forecasts, Vol. 40, No. 4, April 1, 2021, at 1.

[43] Source: Bloomberg Professional Service. *See*, Exhibit JEN-5.

[44] *See*, Blue Chip Financial Forecasts, Vol. 39 No. 12, December 1, 2020, at 14.

securities' performance is more sensitive to rising interest rates and yields and their value is eroded by more inflation."[45] As such, when long-term Treasury yields increase faster than short-term yields (i.e., the yield curve steepens), it is an indication that investors expect stronger economic growth and inflation.[46] As Chart 6 shows, the yield curve has steepened since August 2020, and is expected to widen further by the third quarter of 2022.

Chart 6: Treasury Yield Curve[47]



Q. HAS THE FEDERAL RESERVE CHANGED ITS INFLATION POLICY RECENTLY?

A. Yes, it has. On August 27, 2020, Federal Reserve Chair Jerome H. Powell released a statement noting that Federal Open Market Committee will take an approach towards inflation that "could be viewed as a flexible form of average inflation targeting", meaning that following periods in which inflation has run below 2.00 percent, "appropriate monetary policy will likely aim to achieve inflation moderately above 2 percent for some time."[48]

[45] Alexandra Scaggs, "The Yield Curve is the Steepest It Has Been in Years. Here's What That Means for Investors", Barron's, February 4, 2021.

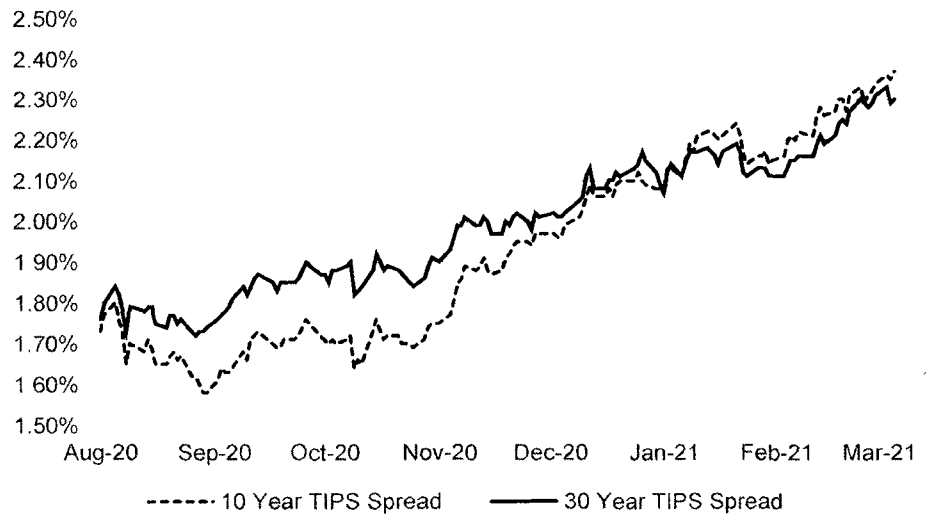
[46] Alexandra Scaggs, "The Yield Curve is the Steepest It Has Been in Years. Here's What That Means for Investors", Barron's, February 4, 2021.

[47] Source: Federal Reserve Board of Governors H.15 interest rate data. Q3 2022 projections from Blue Chip Financial Forecast, Vol. 40, No. 4, April 1, 2021, at 2. 3-year, 7-year, and 20-year projected yields are interpolated.

[48] "New Economic Challenges and the Fed's Monetary Policy Review," Remarks by Jerome H. Powell, Chair Board of Governors of the Federal Reserve System, August 27, 2020.

Since Chairman Powell's remarks, the breakeven inflation rate of ten-year and thirty-year Treasury securities,[49] represented as the spread between constant maturity Treasury securities and Treasury Inflation-Protected Securities ("TIPS"), has increased from 1.73 percent and 1.76 percent, respectively, to 2.37 percent and 2.30 percent respectively, as of March 31, 2021. Further, as shown in Chart 7 below, breakeven inflation has trended upward since the Federal Reserve's target inflation policy change at a relatively consistent pace.

Chart 7: Breakeven Inflation Rate[50]



Given these market-based indications of higher inflation expectations in the future, it is reasonable to expect long-term Treasury yields to also increase.

Q. WHAT CONCLUSIONS DO YOU DRAW FROM YOUR REVIEW OF THE CURRENT CAPITAL MARKET ENVIRONMENT AND ITS IMPLICATIONS ON THE COMPANY'S COST OF EQUITY?

A. In short, during a period of heightened and possibly prolonged market uncertainty,

[49] The ten-year breakeven inflation rate represents a measure of expected inflation derived from 10-Year Treasury Constant Maturity Securities and 10-Year Treasury Inflation-Indexed Constant Maturity Securities. The latest value implies what market participants expect inflation to be in the next 10 years, on average. The thirty-year breakeven inflation rate represents a measure of expected inflation derived from 30-Year Treasury Constant Maturity Securities and 30-Year Treasury Inflation-Indexed Constant Maturity Securities. The latest value implies what market participants expect inflation to be in the next 30 years, on average. Source: Federal Reserve Bank of St. Louis.

[50] Source: Federal Reserve Board of Governors H.15 interest rate data.

observable market information makes clear that utility equity investors now face greater risks and therefore require higher returns. When markets become uncertain and disrupted, investors increase their equity return requirements. Estimating that additional return becomes increasingly complex. However, when utility investors are faced with such extraordinary market uncertainty, regulatory supportiveness becomes critically important.

I appreciate that the Commission has the difficult task of balancing the interests of customers and investors. I also appreciate that doing so becomes increasingly difficult under stressed economic and financial conditions. However, one should not lose sight of the common interest customers and investors have in a financially strong utility, particularly during uncertain market environments. On balance, it is my opinion that the Company's Cost of Equity falls in the range of 9.75 percent to 10.75 percent. Although the uncertainty surrounding the scope and duration of the current market dislocation supports an ROE toward the upper end of my recommended range, an ROE of 10.30 percent is a reasonable, if not conservative, estimate of the Company's Cost of Equity, and balances the interests of utility customers and investors.

C. 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 EPE?

A. First, it is important to bear in mind that the Cost of Equity for a given enterprise depends on the risks attendant to the business in which the company is engaged. According to financial theory, the value of a given company is equal to the aggregate market value of its constituent business units. The value of the individual business units reflects the risks and opportunities inherent in the business sectors in which those units operate. In this proceeding, we are focused on estimating the Cost of Equity for EPE's Texas-jurisdictional operations. EPE is a wholly owned subsidiary of Sun Jupiter Holdings LLC. Because the ROE is a market-based concept, and EPE is not a separate entity with its own stock price, it is necessary to establish a group of companies that are both publicly traded and comparable to the Company in certain fundamental respects to serve as its "proxy" in the ROE estimation process. Even if the Company were a publicly traded entity, short-term events could bias its market value during a given time period. A significant benefit of

using a proxy group is that it moderates the effects of anomalous, temporary events associated with any one company.

Q. DOES THE FACT THAT EPE IS A SUBSIDIARY OF A PRIVATELY HELD COMPANY AFFECT ITS COST OF EQUITY?

A. No. The Company's corporate structure, including whether it (or its parent) is privately held or publicly traded, does not affect my analysis. The Company's ROE is determined on a standalone basis; its parent company does not affect the Company's Cost of Equity, largely because the return is estimated by reference to proxy companies that are principally regulated utilities. That is, the ROE is not determined by reference to EPE's parent company.

Q. DOES THE SELECTION OF A PROXY GROUP SUGGEST THAT ANALYTICAL RESULTS WILL BE TIGHTLY CLUSTERED AROUND AVERAGE RESULTS?

A. Not necessarily. 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 the Cost of Equity from within that range. Such a determination necessarily must consider both quantitative and qualitative information.

Q. PLEASE PROVIDE A SUMMARY PROFILE OF EPE.

A. EPE is a 100.00 percent rate regulated, vertically integrated electric company that provides electric services to approximately 437,500 retail customers in Texas and New Mexico.[51] The Company's current long-term issuer credit ratings are as follows:

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[51] Source: S&P Global Market Intelligence. As of December 31, 2020.

Table 5: EPE's Current Long-term Issuer Credit Ratings[52]

Rating Agency	Current Credit Rating	Outlook
Moody's Investors Service ("Moody's")	Baa2	Stable
Fitch Ratings	BBB	Stable

On September 17, 2019, Moody's downgraded the Company on account of increasing and partly debt-funded capital expenditures, as well as ongoing pressure on cash flow from tax reform resulting from the loss of bonus depreciation as a result of the 2017 Tax Cuts and Jobs Act. The Company's Texas operations, which are the subject of this proceeding, provide electric service to approximately 335,000 retail customers.[53]

Q. HOW DID YOU SELECT THE COMPANIES INCLUDED IN YOUR PROXY GROUP?

A. Because estimating the Cost of Equity is a comparative exercise, it is necessary to develop a proxy group of companies with risk profiles that are reasonably comparable to the subject company. As each company is unique, no two companies will have the exact business and financial risk profiles. In selecting a proxy group, my objective was to balance the competing interests of selecting companies that are representative of the risks and prospects faced by EPE, while at the same time ensuring that there is a sufficient number of companies in the proxy group. Consequently, the proxy group consists of companies with similar, but not identical, risk profiles. Based on those considerations, I began with the universe of companies that *Value Line* classifies as Electric Utilities, and applied the following screening criteria:

- Because certain of the models used in my analyses assume that earnings and dividends grow over time, I excluded companies that do not consistently pay quarterly cash dividends, or have cut their dividend in the last five years;
- To ensure that the growth rates used in my analyses are not biased by a single analyst, all the companies in my proxy group are consistently covered by at least two utility industry equity analysts;

[52] Source: Bloomberg Professional Services.

[53] Source: S&P Global Market Intelligence. As of December 31, 2020.

- Because EPE is a vertically integrated electric utility (*i.e.*, utilities that own and operate regulated generation, transmission, and distribution assets), I excluded companies that were not vertically integrated;
- All the companies in my proxy group have investment grade senior unsecured bond and/or corporate credit ratings from S&P and/or Moody's;
- To incorporate companies that are primarily regulated electric utilities, I excluded companies with less than 60.00 percent of net operating income from regulated operations and 60.00 percent of regulated electric operating income, on average, over the last three years; and
- I eliminated companies that have recent merger activity (or other significant transaction) or have had a recent financial event that could affect its market data or financial condition.

Q. WHAT COMPANIES MET YOUR SCREENING CRITERIA?

A. The criteria discussed above resulted in a proxy group of the following 21 companies:

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Table 6: Proxy Group Screening Results

Company	Ticker
ALLETE, Inc.	ALE
Alliant Energy Corporation	LNT
Ameren Corporation	AEE
American Electric Power Company, Inc.	AEP
Avista Corporation	AVA
CMS Energy Corporation	CMS
DTE Energy Company	DTE
Duke Energy Corporation	DUK
Entergy Corporation	ETR
Evergy, Inc.	EVRG
Hawaiian Electric Industries, Inc.	HE
IDACORP, Inc.	IDA
NextEra Energy, Inc.	NEE
NorthWestern Corporation	NWE
OGE Energy Corp.	OGE
Otter Tail Corporation	OTTR
Pinnacle West Capital Corporation	PNW
Portland General Electric Company	POR
Southern Company	SO
WEC Energy Group, Inc.	WEC
Xcel Energy Inc.	XEL

Q. HOW DOES EPE COMPARE TO THE PROXY GROUP?

A. As shown below in Chart 7, EPE (on a total company basis) is considerably smaller in terms of both market capitalization, net utility plant, and customers. Additionally, EPE has significantly more nuclear generation than the proxy group. Lastly, the Company's Baa2 credit rating by Moody's is below the average credit rating for the proxy group (Baa1).

Table 7: Proxy Group Summary (as of Dec. 31, 2020)[54]

Company	Market Capitalization ($million)	Net Utility Plant ($million)[55]	Electric Customers	Regulated Nuclear Generation Capacity (% of Total)	Moody's Long-Term Rating[56]
ALLETE, Inc.	$3,227	$3,275	160,000	-	Baa1
Alliant Energy Corp.	$12,876	$13,528	974,144	-	Baa2
Ameren Corporation	$19,773	$24,680	2,400,000	10.32%	Baa1
American Electric Power Co.	$41,352	$59,353	5,500,000	9.58%	Baa2
Avista Corporation	$2,779	$4,591	413,421	-	Baa2
CMS Energy Corp.	$17,627	$18,414	1,866,000	-	Baa1
DTE Energy Company	$23,526	$19,245	2,200,000	9.73%	Baa2
Duke Energy Corp.	$70,410	$88,360	7,965,934	16.24%	Baa2
Entergy Corp.	$19,992	$38,668	2,953,564	14.70%	Baa2
Evergy, Inc.	$12,592	$20,199[57]	1,620,400	9.32%	NR[58]
Hawaiian Electric Industries	$3,864	$5,419[57]	468,039	-	NR[59]
IDACORP, Inc.	$4,846	$4,509	587,358	-	Baa1
NextEra Energy, Inc.	$151,142	$51,870	5,571,717	10.76%	Baa1
NorthWestern Corp.	$2,950	$4,437	447,394	-	Baa2
OGE Energy Corp.	$6,372	$9,051	867,389	-	Baa1
Otter Tail Corp.	$1,767	$1,862	133,032	-	Baa2
Pinnacle West Capital Corp.	$9,009	$15,372	1,300,466	16.77%	A3
Portland General Electric Co.	$3,830	$6,574	908,000	-	A3
The Southern Company	$64,899	$62,223	4,322,000	11.55%	Baa2
WEC Energy Group, Inc.	$29,029	$14,006	1,638,900	-	Baa1
Xcel Energy Inc.	$35,802	$42,645	3,700,000	8.14%	Baa1
Average	**$25,603**	**$24,204**	**2,190,369**	**11.71%**	**Baa1**
El Paso Electric (Total)	$2,471[60]	$3,267	437,543	25.60%	Baa2

D. Cost of Equity Models

Q. WHAT ANALYTICAL APPROACHES DID YOU USE TO DETERMINE THE COMPANY'S ROE?

[54] Sources: S&P Global Market Intelligence and Bloomberg Professional Services.

[55] Excluding nuclear fuel.

[56] As of March 31, 2020. Reflects Moody's Long-Term Issuer rating, or long-term debt rating if not rated at the Issuer level.

[57] Net Property, Plant, and Equipment.

[58] Evergy, Inc. does not have a long-term issuer rating from Moody's. It is rated A- by S&P (equivalent to a Moody's rating of A3).

[59] Hawaiian Electric Industries does not have a long-term issuer rating from Moody's. It is rated BBB- by S&P (equivalent to a Moody's rating of Baa3) and BBB by Fitch Ratings (equivalent to a Moody's rating of Baa2).

[60] EPE is not publicly traded. Implied Market Capitalization = EPE Total Company Rate Base x Requested Equity Ratio x Median Proxy Group Market-to-Book Ratio of 1.86. *See* Exhibit JEN-7, page 2.

A. As discussed earlier, I have relied on the constant growth and quarterly growth forms of the DCF model, the traditional and empirical forms of the CAPM, and the Bond Yield Plus Risk Premium approach.

I rely on these models for two reasons. First, the purpose of an ROE analysis is to estimate the return that investors require; therefore, it is important to use the models on which investors rely. The models that I apply are commonly used in practice. Second, the models focus on different aspects of return requirements, and provide different insights to investors' views of risk and return. As explained earlier, using multiple methods provides a broader and, therefore, more reliable perspective on investors' return requirements.

1. Constant Growth DCF Model

Q. PLEASE 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. DCF theory assumes that an investor buys a stock for an expected total return rate, which is derived from cash flows received in the form of dividends plus appreciation in market price (the expected growth rate). 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:

$$P = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \ldots + \frac{D_\infty}{(1+k)^\infty} \quad [1]$$

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:

$$k = \frac{D_0\,(1+g)}{P} + g \quad [2]$$

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 in perpetuity.

Q. WHAT ASSUMPTIONS UNDERLIE 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/Earnings

multiple; and (4) a discount rate greater than the expected growth rate. The model also assumes that the current Cost of Equity will remain constant in perpetuity.

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 quarterly dividend multiplied by four, and the average closing stock prices over the 30-, 90-, and 180-trading day periods as of March 31, 2021.

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. Using 30-, 90-, and 180-trading 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. Because utility companies tend to increase their quarterly dividends at different times throughout the year, it is reasonable to assume 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 12-month period, and does not overstate the dividends to be paid during that time.

Q. WHAT MEASURES OF LONG-TERM GROWTH DID YOU APPLY IN THE CONSTANT GROWTH DCF MODEL?

A. I have applied analysts' consensus projected earnings per share ("EPS") growth rates. In its Constant Growth form, the DCF model (*i.e.*, as presented in Equation [2] above) assumes a single expected 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 in 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. For the purposes of the Constant Growth DCF model, therefore, 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 CONSTANT GROWTH DCF MODEL.

A. The relationship between various growth rates and stock valuation metrics has been the subject of much academic research.[61] As noted over 40 years ago by Charles Phillips in The Economics of Regulation:

> For many years, it was thought that investors bought utility stocks largely on the basis of dividends. More recently, however, studies indicate that the market is valuing utility stocks with reference to total per share earnings, so that the earnings-price ratio has assumed increased emphasis in rate cases.[62]

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.[63] 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."[64] Other research specifically notes the importance of analysts' growth estimates in determining the Cost of Equity, and in the valuation of

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

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

[63] *See, e.g.*, Andreas C. Christofi, Petros C. Christofi, Marcus Lori and Donald M. 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 James H. Vander Weide and Willard T. Carleton, *Investor Growth Expectations: Analysts vs. History*, The Journal of Portfolio Management (Spring 1988).

[64] James H. Vander Weide and Willard T. Carleton, *Investor Growth Expectations: Analysts vs. History*, The Journal of Portfolio Management (Spring 1988).

equity securities. Dr. Robert Harris noted that "a growing body of knowledge shows that analysts' earnings forecasts 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."[65] 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."[66]

To that point, the research of Vander Weide and Carleton demonstrates that earnings growth projections have a statistically significant relationship to stock valuation levels, while dividend growth rates do not.[67] 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 Constant Growth DCF model to the proxy group of electric utility companies using the following inputs for the price and dividend terms:

- The average daily closing prices for the 30-, 90-, and 180-trading days ended March 31, 2021, for the term P0; and
- The annualized dividend per share as of March 31, 2021, for the term D0.
- I then calculated my Constant Growth DCF results using each of the following growth terms:
- *Value Line*'s long-term earnings growth estimates;
- Zacks' consensus long-term earnings growth estimates; and
- Yahoo! First Call's consensus long-term earnings growth estimates;

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

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

[67] *See*, James H. Vander Weide and Willard T. Carleton, *Investor Growth Expectations: Analysts vs. History*, The Journal of Portfolio Management (Spring 1988).

Q. HOW DID YOU CALCULATE THE DCF RESULTS?

A. For each proxy company, I calculated the low, mean, and high DCF results. For the mean result, I combined the average of the three EPS growth rate estimates listed above with the subject company's expected dividend yield for each proxy company and then calculated the average and median result for those estimates. I calculated the high DCF result by combining the maximum EPS growth rate estimate with the subject company's expected dividend yield. I used the same approach to calculate the low DCF result, using instead the minimum EPS growth estimate for each proxy company. Finally, I calculated the average of the mean and median low, mean, and high DCF results for the proxy group to develop the Constant Growth DCF results summarized in Table 8 below (*see also*, Exhibit JEN-2). In doing so, I consider the DCF results of each proxy company without giving undue weight to outliers on either the high or the low side.

Table 8: Constant Growth DCF Results[68]

	Low	Mean	High
30-Day Average	8.67%	9.43%	10.01%
90-Day Average	8.68%	9.43%	10.01%
180-Day Average	8.67%	9.52%	10.07%

2. Quarterly Growth DCF Model

Q. PLEASE DESCRIBE THE QUARTERLY GROWTH DCF MODEL.

A. As noted earlier, the Constant Growth DCF model is based on several limiting assumptions, one of which is that dividends are paid annually. However, most dividend-paying companies, including utilities, pay dividends on a quarterly (as opposed to an annual) basis. Although the adjusted dividend yield discussed earlier is meant to address that assumption (by increasing the observed dividend yield by one-half of the expected growth rate), it does not fully reflect the quarterly receipt and reinvestment of dividends. As a consequence, the Constant Growth DCF model likely understates the Cost of Equity. The Quarterly Growth DCF model specifically incorporates investors' expectations of the quarterly payment of

[68] *See*, Exhibit JEN-2. Average of the proxy group mean and median results.

dividends, and the associated quarterly compounding of those dividends as they are reinvested at the required ROE. As noted by Dr. Roger Morin:

> Clearly, given that dividends are paid quarterly and that the observed stock price reflects the quarterly nature of dividend payments, the market-required return must recognize quarterly compounding, for the investor receives dividend checks and reinvests the proceeds on a quarterly schedule... The annual DCF model inherently understates the investors' true return because it assumes all cash flows received by investors are paid annually.[69]

Q. HOW IS THE DIVIDEND YIELD PORTION OF THE QUARTERLY DCF MODEL CALCULATED?

A. To more accurately reflect the timing and compounding of quarterly dividends, the model replaces the "D" component of the Constant Growth DCF model with the following equation:

$$D = d_1 (1 + k)^{0.75} + d_2 (1 + k)^{0.50} + d_3 (1 + k)^{0.25} + d_4 (1 + k)^0 \quad [3]$$

where:

d_1, d_2, d_3, d_4 = expected quarterly dividends over the coming year; and

k = the required Return on Equity.

Because the required ROE (k) is a variable in the dividend calculation, the Quarterly Growth DCF model is solved in an iterative fashion.

To calculate the expected dividends over the coming year for the proxy companies (*i.e.*, d_1, d_2, d_3, and d_4), I obtained the last four paid quarterly dividends for each company and multiplied them by one plus the growth rate (*i.e.*, $1 + g$). For the P_0 component of the dividend yield, I used the same average stock prices applied in the Constant Growth DCF analysis (*i.e.*, 30-, 90-, and 180-trading day averages ended March 31, 2021) for each proxy company.

Q. WHAT ARE THE RESULTS OF YOUR QUARTERLY GROWTH DCF ANALYSES?

[69] Roger A. Morin, New Regulatory Finance, at 344 (2006).

A. My Quarterly Growth DCF results are summarized in Table 9 below (*see also*, Exhibit JEN-3).

Table 9: Quarterly Growth DCF Results[70]

	Low	Mean	High
30-Day Average	8.76%	9.57%	10.17%
90-Day Average	8.74%	9.62%	10.17%
180-Day Average	8.71%	9.69%	10.23%

3. Capital Asset Pricing Model and Empirical Capital Asset Pricing Model

Q. PLEASE DESCRIBE THE GENERAL FORM OF THE CAPM.

A. The CAPM 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). The CAPM describes the relationship between a security's investment risk and the market rate of return. The CAPM assumes that all non-market or unsystematic risk can be eliminated through diversification. The risk that cannot be eliminated through diversification is called market, or systematic, risk. In addition, the CAPM presumes that investors require compensation only for systematic risk that is the result of macroeconomic and other events that affect the returns on all assets.

As shown in Equation [4], the CAPM is defined by four components, each of which theoretically must be a forward-looking estimate:

$$K_e = r_f + \beta(r_m - r_f) \qquad [4]$$

where:

K_e = the required market ROE for a security;

β = the Beta coefficient of that security;

r_f = the risk-free rate of return; and

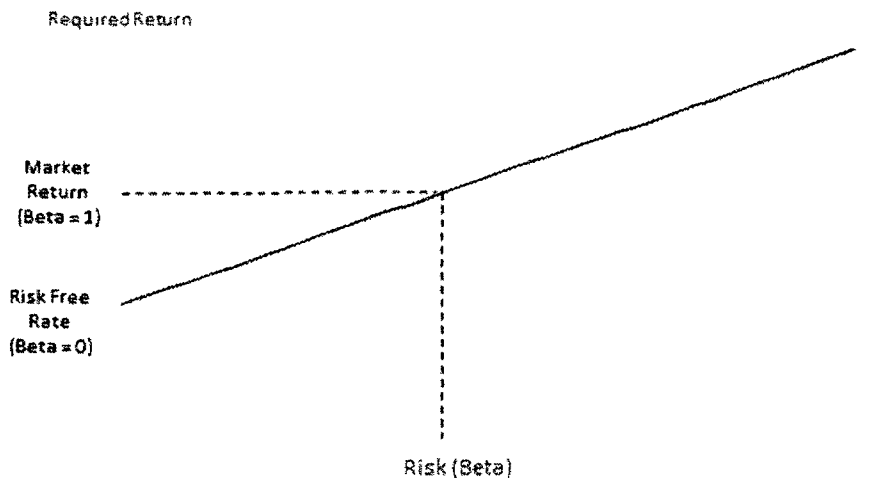
r_m = the required return on the market as a whole.

Equation [4] describes the Security Market Line ("SML"), or the CAPM risk-return

[70] *See*, Exhibit JEN-3. Average of the proxy group mean and median results.

relationship, which is graphically depicted in Chart 8 below. The intercept is the risk-free rate (r_f) which has a Beta coefficient of zero, and the slope is the expected market risk premium ($r_m - r_f$). By definition, r_m, the return on the market, has a Beta coefficient of 1.00. CAPM states that in well-behaving capital markets, the expected equity risk premium on a given security is proportional to its Beta coefficient.

Chart 8: Security Market Line



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.

In Equation [4], the term ($r_m - r_f$) represents the Market Risk Premium ("MRP").[71] According to the theory underlying the CAPM, since unsystematic risk can be diversified away by adding securities to investment portfolios, the market will not compensate investors for bearing that risk. Therefore, investors should be concerned only with systematic or non-diversifiable risk. Non-diversifiable risk is measured by the Beta coefficient, which is defined as:

$$\beta_j = \frac{\sigma_j}{\sigma_m} x \rho_{j,m} \qquad [5]$$

where σ_j is the standard deviation of returns for company "j," σ_m is the standard deviation

[71] The MRP is defined as the incremental return of the market portfolio over the risk-free rate.

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 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.

Q. WHAT RISK-FREE RATE ASSUMPTIONS DID YOU INCLUDE IN YOUR CAPM ANALYSIS?

A. I used two different estimates of the risk-free rate: (1) the current 30-day average yield on 30-year Treasury bonds (*i.e.*, 2.31 percent);[72] (2) a projected 30-year Treasury yield (*i.e.*, 2.88 percent).[73]

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-term investments and, as such, the 30-year Treasury yield is more suitable for the purpose of calculating the Cost of Equity.

Q. WHAT BETA COEFFICIENTS DID YOU USE IN YOUR CAPM MODEL?

A. It is my usual practice to consider the Beta coefficients reported by two sources: Bloomberg and *Value Line*. 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. The proxy group average and median Beta coefficients from *Value Line* and Bloomberg are shown in Table 10 below.

[72] Source: Bloomberg Professional Services.

[73] The average of (1) the average projected 30-year Treasury yield for the six quarters ended Q3 2022; and (2) the average long-term projected 30-year Treasury yield for the years 2022-2026 and 2027-2031 reported by Blue Chip Financial Forecast. *See*, Blue Chip Financial Forecast, Vol. 40, No. 4, April 1, 2021, at 2 and Blue Chip Financial Forecast, Vol. 39, No. 12, December 1, 2020, at 14.

Table 10: Proxy Group Beta Coefficients[74]

	Value Line	Bloomberg
Proxy Group Average	0.874	1.044
Proxy Group Median	0.850	1.040

To be conservative, I have relied on the *Value Line* Beta coefficients in my CAPM and Empirical CAPM ("ECAPM") analyses presented in my Direct Testimony.

Q. PLEASE DESCRIBE YOUR FORWARD-LOOKING (*I.E., EX-ANTE*) APPROACH TO ESTIMATING THE MARKET-REQUIRED RETURN.

A. It is my usual practice to develop two estimates of the market-required return by calculating the market capitalization-weighted average ROE based on the Constant Growth DCF model for the S&P 500 companies using data from Bloomberg and *Value Line (see* Exhibit JEN-4*)*. 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, which produces an expected market-required return of 15.92 percent. In the case of *Value Line*, I performed the same calculation, again using all companies for which five-year earnings growth rates were available, which produces an expected market-required return of 14.21 percent.

While my usual practice is to apply the average of the Bloomberg-derived and *Value Line*-derived expected market return estimates, in order to be conservative, my CAPM and ECAPM analyses presented in my Direct Testimony rely on the *Value Line*-derived expected market return estimate.

Q. WITH THE RISK-FREE RATES AND *EX-ANTE* MARKET-REQUIRED RETURN ESTIMATES DESCRIBED ABOVE, HOW DID YOU CALCULATE THE MRP?

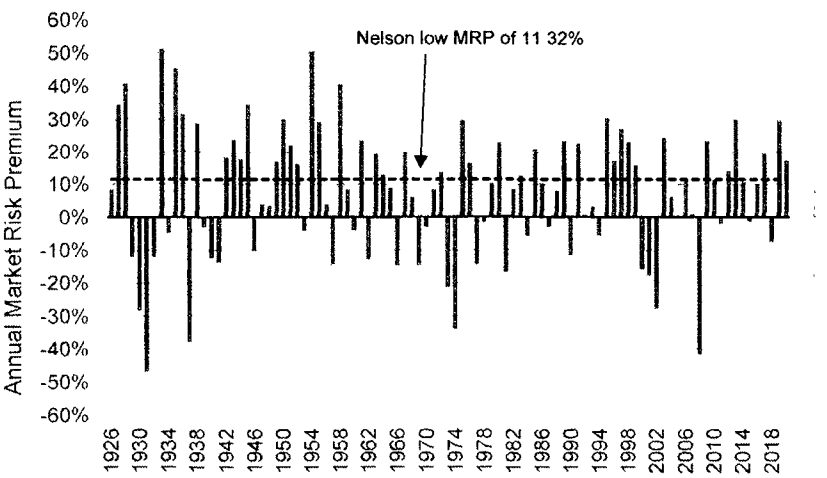
[74] Sources: *Value Line* and Bloomberg Professional Services as of March 31, 2021.

A. Because I apply two estimates of the risk-free rate, I calculate two estimates of the MRP. My first MRP estimate takes the *Value Line ex-ante* market-required return described above (14.21 percent) and subtracts the current 30-day average 30-year Treasury yield (2.31 percent). My second MRP estimate subtracts the projected 30-year Treasury yield (2.88 percent) from the average market required return (14.21 percent). These calculations result in *ex-ante* MRP estimates of 11.90 percent and 11.32 percent, respectively.

Q. HAVE YOU UNDERTAKEN ANY ANALYSES TO DETERMINE THE REASONABLENESS OF YOUR *EX-ANTE* MRP ESTIMATES?

A. Yes. To do so, I gathered the annual Market Risk Premia reported by Duff & Phelps over the 1926 to 2020 period and graphed each of the 95 observations. The results of that analysis, which are presented in Chart 9 below, demonstrate that MRPs of 11.32 percent (the lowest of my MRP estimates) and higher occurred approximately 43.00 percent of the time (*i.e.*, 41 out of 95 years). Because MRPs in the range of my forward-looking MRP estimates have occurred quite frequently, I conclude they are reasonable.

Chart 9: Historical Observed MRP (1926-2020)[75]



Q. WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?

A. As shown in Table 11 below, the proxy group average and median CAPM results suggest an ROE range of 12.42 percent to 12.78 percent (*see also*, Exhibit JEN-5).

[75] Source: Duff & Phelps, 2021 SBBI Yearbook, Appendix A-1, A-7.

Table 11: Summary of CAPM Results[76]

	Current 30-Year Treasury Yield (2.31%)	Projected 30-Year Treasury Yield (2.88%)
Proxy Group Average	12.71%	12.78%
Proxy Group Median	12.42%	12.51%

Q. DID YOU CONSIDER ANOTHER FORM OF THE CAPM IN YOUR ANALYSIS?

A. Yes. I also included the Empirical CAPM ("ECAPM") approach, which calculates the product of the adjusted Beta coefficient and the Market Risk Premium and applies a weight of 75.00 percent to that result. The model then applies a 25.00 percent weight to the Market Risk Premium, without any effect from the Beta coefficient.[77] The results of the two calculations are summed, along with the risk-free rate, to produce the ECAPM result, as noted in Equation [6] below:

$$k_e = r_f + 0.75\beta(r_m - r_f) + 0.25(r_m - r_f) \quad [6]$$

where:

k_e = the required market ROE;

β = Adjusted Beta coefficient of an individual security;

r_f = the risk-free rate of return; and

r_m = the required return on the market as a whole.

Q. WHAT IS THE BENEFIT OF THE ECAPM APPROACH?

A. The ECAPM addresses the tendency of the CAPM to under-estimate the Cost of Equity for companies, such as regulated utilities, with low Beta coefficients. As discussed below, the ECAPM recognizes the results of academic research indicating that the risk-return relationship is different (in essence, flatter) than estimated by the CAPM, and that the CAPM underestimates the alpha, or the constant-return term.[78]

[76] *See*, Exhibit JEN-5.

[77] *See, e.g.*, Roger A. Morin, New Regulatory Finance, at 189-190 (2006).

[78] *Id.*, at 191 ("The ECAPM and the use of adjusted betas comprised two separate features of asset pricing. Even if a company's beta is estimated accurately, the CAPM still understates the return for low-beta stocks.").

Numerous tests of the CAPM have measured the extent to which security returns and Beta coefficients are related as predicted by the CAPM. The ECAPM method reflects the finding that the actual SML described by the CAPM formula is not as steeply sloped as the predicted SML.[79] Fama and French state that "[t]he returns on the low beta portfolios are too high, and the returns on the high beta portfolios are too low."[80] Similarly, Dr. Morin states:

> With few exceptions, the empirical studies agree that . . . low-beta securities earn returns somewhat higher than the CAPM would predict, and high-beta securities earn less than predicted. . . .
>
> Therefore, the empirical evidence suggests that the expected return on a security is related to its risk by the following approximation:
>
> $$K = R_F + x\,(R_M - R_F) + (1-x)\beta(R_M - R_F)$$
>
> where x is a fraction to be determined empirically. The value of x that best explains the observed relationship Return = 0.0829 + 0.0520 β is between 0.25 and 0.30. If x = 0.25, the equation becomes:
>
> $$K = R_F + 0.25(R_M - R_F) + 0.75\,\beta(R_M - R_F)$$[81]

Q. DOES THE APPLICATION OF ADJUSTED BETA COEFFICIENTS IN THE ECAPM ADDRESS THE EMPIRICAL ISSUES WITH THE CAPM?

A. No, it does not. Beta coefficients are adjusted because of their general regression tendency to converge toward 1.00 over time, i.e., over successive calculations. As also noted earlier, numerous studies have determined that at any given point in time, the SML described by the CAPM formula is not as steeply sloped as the predicted SML. To that point, Dr. Morin states:

> Some have argued that the use of the ECAPM is inconsistent with the use of adjusted betas, such as those supplied by Value Line and Bloomberg. This is because the reason for using the ECAPM is to allow for the tendency

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[79] *Id.*, at 175. The Security Market Line plots the CAPM estimate on the Y-axis, and Beta coefficients on the X-axis.

[80] Eugene F. Fama & Kenneth R. French, *The Capital Asset Pricing Model: Theory and Evidence*, Journal of Economic Perspectives, Vol. 18, No. 3, Summer 2004, at 33.

[81] Roger A. Morin, New Regulatory Finance, at 175, 190 (2006).

of betas to regress toward the mean value of 1.00 over time, and, since Value Line betas are already adjusted for such trend, an ECAPM analysis results in double-counting. This argument is erroneous. Fundamentally, the ECAPM is not an adjustment, increase or decrease, in beta. This is obvious from the fact that the expected return on high beta securities is actually lower than that produced by the CAPM estimate. The ECAPM is a formal recognition that the observed risk-return tradeoff is flatter than predicted by the CAPM based on myriad empirical evidence. The ECAPM and the use of adjusted betas comprised two separate features of asset pricing. Even if a company's beta is estimated accurately, the CAPM still understates the return for low-beta stocks. Even if the ECAPM is used, the return for low-beta securities is understated if the betas are understated. Referring back to Figure 6-1, the ECAPM is a return (vertical axis) adjustment and not a beta (horizontal axis) adjustment. Both adjustments are necessary.[82]

Therefore, it is appropriate to rely on adjusted Beta coefficients in both the CAPM and ECAPM. As with the CAPM, my application of the ECAPM uses the Market DCF-derived ex-ante Market Risk Premium estimate, the current yield on 30-year Treasury securities as the risk-free rate, and two estimates of the Beta coefficient. The results of my ECAPM analyses are shown on Exhibit JEN-5 and summarized in Table 12 below.

Table 12: Summary of Empirical CAPM Results[83]

	Current 30-Year Treasury Yield (2.31%)	**Projected 30-Year Treasury Yield (2.88%)**
Proxy Group Average	13.08%	13.14%
Proxy Group Median	12.87%	12.93%

4. Bond Yield Plus Risk Premium Approach

Q. PLEASE DESCRIBE THE BOND YIELD PLUS RISK PREMIUM APPROACH.

[82] *Id.*, at 191.

[83] *See*, Exhibit JEN-5.

A. The Bond Yield Plus Risk Premium approach is based on the basic financial principle of risk and return; that is, equity investors require a premium over the return they would have earned as a bondholder to account for the residual risk associated with equity ownership. In other words, since returns to equity holders are riskier than returns to bondholders, equity investors must be compensated for bearing that additional 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.

Q. PLEASE EXPLAIN HOW YOU PERFORMED YOUR BOND YIELD PLUS RISK PREMIUM ANALYSIS.

A. I first defined the Equity Risk Premium as the difference between the authorized ROE and the 30-year Treasury yield. I then gathered data for 1,658 electric utility rate proceedings between January 1, 1980 and March 31, 2021. 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 period between the filing of the case and the date of the final order (approximately 200 days).

Because the data cover a number of economic cycles, the analysis also may be used to assess the change in the Equity Risk Premium over time. Prior research, for example, has shown that the Equity Risk Premium is inversely related to the level of interest rates.[84] In other words, the Equity Risk Premium rises as interest rates fall. That analysis is particularly relevant given the relatively low level of current Treasury yields.

Q. HOW DID YOU ANALYZE 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. To account for the variability in interest rates and authorized ROEs

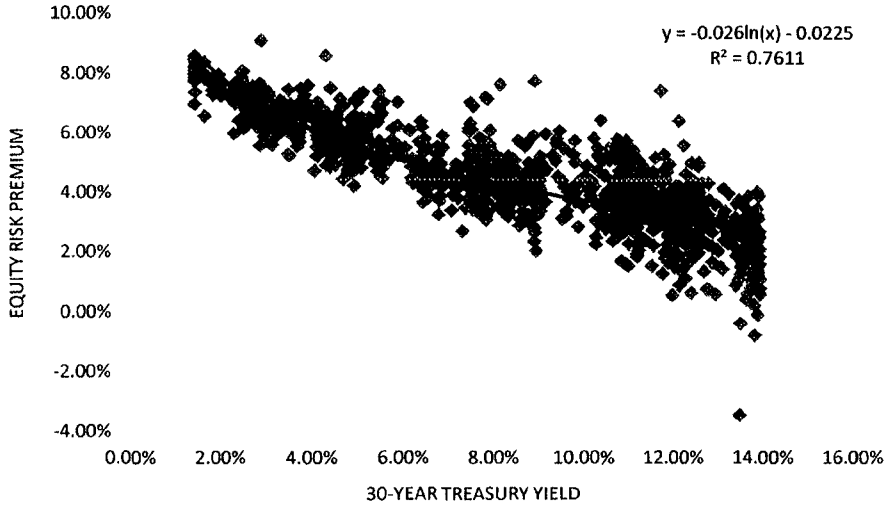
[84] In other words, declines in the 30-year Treasury yield are related to an increase in the Equity Risk Premium and vice versa. *See, for example,* Robert S. Harris and Felicia C. Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts*, Financial Management, (Summer 1992), at 63-70; Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *The Risk Premium Approach to Measuring a Utility's Cost of Equity*, Financial Management, (Spring 1985), at 33-45; and Farris M. Maddox, Donna T. Pippert, and Rodney N. Sullivan, *An Empirical Study of Ex Ante Risk Premiums for the Electric Utility Industry*, Financial Management, (Autumn 1995), at 89-95.

over several decades, 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:

$$RP = \alpha + \beta\,(\mathrm{LN}(T_{30})) \quad [7]$$

As shown on Chart 10 (below), the semi-log form is useful when measuring an absolute change in the dependent variable (in this case, the Equity Risk Premium) relative to a proportional change in the independent variable (the 30-year Treasury yield).

Chart 10: Equity Risk Premium[85]



As Chart 10 illustrates, over time there has been a statistically significant, negative (i.e., inverse) relationship between the 30-year Treasury yield and the Equity Risk Premium. That is, as the 30-year Treasury yield declines, the Equity Risk Premium increases. Applying the regression coefficients in Chart 10 with the current and projected 30-year Treasury yields produce an indicated ROE of approximately 9.81 percent (*see* Table 13 below and Exhibit JEN-6).

Table 13: Summary of Bond Yield Plus Risk Premium Results[86]

	Return on Equity
Current 30-Year Treasury Yield (2.31%)	9.81%
Projected 30-Year Treasury Yield (2.88%)	9.81%

[85] *See*, Exhibit JEN-6.

[86] *See*, Exhibit JEN-6.

Q. IS YOUR BOND YIELD PLUS RISK PREMIUM ANALYSIS FORWARD-LOOKING?

A. Yes, it is. As explained earlier, because the Cost of Equity is forward-looking, it is important to apply forward-looking inputs to the models used to estimate the Cost of Equity. Although the analysis relies on historical authorized ROEs and 30-year Treasury yields to model the long-term relationship between the Equity Risk Premium and Treasury yields through a regression analysis, the analysis applies current and projected interest rates to the regression coefficients to produce forward-looking ROE estimates.

IV. Business Risks and Other Considerations

Q. DO THE MEAN MODEL RESULTS FOR THE PROXY GROUP PROVIDE AN APPROPRIATE ESTIMATE FOR THE COST OF EQUITY FOR EPE?

A. No, the mean model results do not necessarily provide an appropriate estimate of EPE's Cost of Equity. In my opinion, there are additional factors that must be taken into consideration when determining where EPE's Cost of Equity falls within the range of results. These factors include (1) the regulatory environment and the Company's need to access the capital necessary to execute its capital expenditure plan; (2) the Company's nuclear generation operations; and (3) the Company's small size relative to the proxy group. Those factors, which are discussed below, should be considered in terms of their overall effect on EPE's business risk and, therefore, its Cost of Equity.

A. Planned Capital Expenditures, Regulatory Environment, and Capital Access

Q. DO YOU HAVE ANY PRELIMINARY THOUGHTS ON THE IMPORTANCE OF ACCESS TO CAPITAL FOR ELECTRIC UTILITIES SUCH AS EPE?

A. Yes, I do. As noted earlier, the allowed ROE should enable the subject utility to finance capital expenditures and working capital requirements at reasonable rates and to maintain its financial integrity in a variety of economic and capital market conditions. As discussed throughout my Direct Testimony, a return that is adequate to attract capital at reasonable terms enables the utility to provide safe, reliable service while maintaining its financial soundness.

Electric utilities are one of the most capital-intensive sectors of the S&P 500. On

average, electric utilities generate less than one-third as much revenue per dollar of assets as the non-utility U.S. companies covered by *Value Line*.[87] To fund the significant capital expenditures needed to maintain, expand, and modernize existing infrastructure, electric utilities require sufficient internally generated cash flow and ongoing access to investor supplied capital. Therefore, it is critically important that regulation provide predictable, adequate, and achievable allowed returns that support the financial integrity of the utility.

Q. PLEASE BRIEFLY SUMMARIZE THE COMPANY'S CAPITAL INVESTMENT PLANS.

A. As discussed in the direct testimony of Lisa Budtke, the Company projects approximately $1.64 billion in planned capital expenditures over the 2021 to 2025 timeframe, which is approximately 50.00 percent of EPE's total company net utility plant as of December 31, 2020. Because the Company will continue to make substantial investments in its utility operations, it will require efficient access to capital markets during the period that rates established in this proceeding will be in effect.

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 the 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. 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"; or "Cash from Operations," or "CFO"). Because 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

[87] Source: *Value Line*.

regarding the appropriate rate of return and capital structure.

In short, supportive regulation supports credit profiles. Investors recognize that an authorized ROE that is reasonable, but subject to earnings attrition due to unfavorable regulatory or economic factors, does not provide assurance that the utility will have a reasonable opportunity to recover its costs, or to earn a reasonable return. The authorized ROE affects not only the cash flow-related metrics that measure financial strength, but it 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.

Ratings agencies also recognize the importance of the regulatory environment when assessing a utility's business risk profile. S&P, for example, states that "[o]ne significant aspect of regulatory risk that influences credit quality is the regulatory environment in the jurisdictions where a utility operates."[88] S&P explains that "[w]hen we evaluate U.S utility regulatory environments, we consider financial stability to be of substantial importance. Cash takes precedence in credit analysis. A regulatory jurisdiction that recognizes the significance of cash flow in its decision-making is one that will appeal to creditors."[89]

Similarly, Moody's notes that regulators' "actions have a significant impact on the environment in which a utility operates."[90] Moody's considers the regulatory structure to be so important that 50.00 percent of the factors that weigh in a ratings determination are related to the nature of regulation.[91] As noted above, among the factors considered by Moody's in assessing the regulatory framework are the predictability and consistency of regulatory actions:

> As the revenues set by the regulator are a primary component of a utility's cash flow, the utility's ability to obtain predictable and supportive treatment within its regulatory framework is one of the most significant factors in assessing a utility's credit quality. The regulatory framework generally

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[88] S&P Global Ratings, RatingsDirect, Assessing U.S. *Investor-Owned Utility Regulatory Environments*, August 10, 2016, at 2.

[89] *Id.*, at 6.

[90] Moody's Investors Service, Consistency and Predictability of Regulatory Decisions Drive Differences in US Utility Credit Profiles, July 21, 2014, at 2.

[91] See, Moody's Investors Service, Rating Methodology: Regulated Gas and Electric Utilities, at 6 (Dec. 23, 2013).

provides more certainty around a utility's cash flow and typically allows the company to operate with significantly less cushion in its cash flow metrics than comparably rated companies in other industrial sectors.

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In situations where the regulatory framework is less supportive, or is more contentious, a utility's credit quality can deteriorate rapidly.[92]

Q. DO CREDIT RATING AGENCIES RECOGNIZE RISK ASSOCIATED WITH INCREASED CAPITAL EXPENDITURES?

A. Yes, they do. From the perspective of debt investors, the additional pressure on cash flows associated with high levels of capital expenditures exerts corresponding pressure on credit metrics and, therefore, credit ratings. S&P has noted that:

> The real challenge for the industry is the combination of slow growth and huge investment needs. We believe that for the remainder of 2012 and beyond, state regulation will continue to be the single most influential factor for the sector's credit quality. Cost increases, construction projects, environmental compliance, and other public policy directives, together with lackluster growth, will necessitate continued reliance on rate relief requests.[93]

The rating agency views noted above also are consistent with certain observations discussed earlier in my testimony: (1) the benefits of maintaining a strong financial profile are significant when capital access is required and become particularly acute during periods of market instability; and (2) the Commission's decision in this proceeding will have a direct bearing on the Company's credit profile, and its ability to access the capital needed to fund its investments.

Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE COMPANY'S CAPITAL EXPENDITURE PLANS, ITS NEED TO MAINTAIN ACCESS TO CAPITAL, AND THE REGULATORY ENVIRONMENT ON THE COMPANY'S RISK PROFILE?

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

[93] S&P Ratings Direct, Industry Economic and Ratings Outlook: U.S. Regulated Utilities Will Likely Stay On A Stable Trajectory For The Rest Of 2012 And Into 2013, at 6 (July 17, 2012).

A. The Company's capital expenditure program is significant and places pressure on its cash flows, making regulatory support critical to EPE's ability to finance and earn a reasonable return on its planned utility investments. The Company's capital expenditure plan emphasizes the importance of the Commission's decision in this proceeding, which will have a direct bearing on the Company's ability to maintain its financial profile and its access to the capital market at reasonable costs and terms.

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.

The authorized return must be sufficient to provide an incentive to allocate equity capital to EPE's Texas jurisdiction 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 (in other words, the equity return is subordinate to interest payments), they are particularly concerned with regulatory uncertainty and its effect on future cash flows.

B. Nuclear Generation Operations

Q. PLEASE BRIEFLY DESCRIBE THE RISKS ASSOCIATED WITH THE OWNERSHIP OF NUCLEAR GENERATING RESOURCES.

A. Nuclear generating resources are regulated by the U.S. Nuclear Regulatory Commission ("NRC"). As such, EPE is subject to NRC mandates to meet licensing and safety-related standards that may require increased capital spending and incremental operating costs.

Q. DOES THE COMPANY'S GENERATION PORTFOLIO INCLUDE NUCLEAR GENERATING ASSETS?

A. Yes. EPE's generation portfolio includes 665 megawatts ("MW") of owned nuclear generating capacity in its Palo Verde facility.[94] On a net generation basis, output from Palo Verde represented approximately 49.00 percent of EPE's total generation in 2019.[95] As shown earlier in Table 7 above, compared to the Proxy Group, EPE had the highest percentage of nuclear operating capacity (in MW) in 2020, more than double the proxy group average.[96]

Q. ARE THERE EXAMPLES OF THE INCREASED RISK OF NEW REGULATORY REQUIREMENTS THAT NUCLEAR GENERATION PLANT OPERATORS FACE?

A. Yes. One example is the increased oversight and regulatory requirements put in place following a March 11, 2011 earthquake and tsunami, which caused significant damage to the Fukushima Daiichi nuclear complex and threatened the public health. After the Fukushima accident, the NRC assembled a task force to assess current regulation and determine if new measures were required to ensure safety. The task force issued a report in July 2011 that included a set of recommendations for NRC consideration. Those recommendations continue to be modified and expanded by the NRC staff, and the first related regulatory requirements were issued in March 2012 with implementation guidance issued on August 30, 2012.[97] The evolving nature of these requirements from the NRC put nuclear operators at risk of incurring costly future capital expenditures.

Another example of nuclear risk is the ongoing and long-term uncertainty with regard to nuclear waste disposal. On June 8, 2012, the U.S. Court of Appeals vacated the NRC's rulemaking regarding storage and permanent disposal of nuclear waste. The Court of Appeals found the NRC rulemaking was deficient in that (1) it "did not calculate the

[94] Source: S&P Global Market Intelligence. Nameplate capacity.

[95] Source: S&P Global Market Intelligence. In terms of net generation in megawatt-hours ("MWh"), the proxy group average percentage of nuclear generation in 2019 was 25.39 percent, compared to EPE's 49.22 percent. Proxy group net generation data for 2020 was not available at the time of writing my Direct Testimony.

[96] Source: S&P Global Market Intelligence. EPE's regulated nuclear operating capacity (MW) in 2020 was 25.60 percent of total regulated capacity; the proxy group average was 11.71 percent for the companies with nuclear generation.

[97] *See*, www.nrc.gov/reactors/operating/ops-experience/japan-info.html.

environmental effects of failing to secure permanent storage," and (2) "in determining that spent fuel can safely be stored on site at nuclear plants for sixty years after the expiration of a plant's license, the [NRC] failed to properly examine future dangers and key consequences."[98] Nuclear operators therefore face future capital expenditures related to expansion of nuclear waste storage, and may face additional costs to meet safety standards that may be required when the NRC addresses the Court of Appeal's ruling.

To the extent further mandates are promulgated by the NRC, additional spending may be required. Absent full and timely recovery, increases in the Company's capital investment requirements will place additional pressure on its free cash flow and credit metrics.

C. Small Size Effect

Q. PLEASE EXPLAIN THE RISK ASSOCIATED WITH SMALL SIZE.

A. Both the financial and academic communities have long accepted the proposition that the Cost of Equity for small firms is subject to a "size effect."[99] Although empirical evidence of the size effect often is based on studies of industries beyond regulated utilities, utility analysts also have noted the risks associated with small market capitalizations. Specifically, a senior consultant with Ibbotson Associates noted:

> For small utilities, investors face additional obstacles, such as a smaller customer base, limited financial resources, and a lack of diversification across customers, energy sources, and geography. These obstacles imply a higher investor return.[100]

Small size, therefore, leads to two categories of increased risk for investors: (1) liquidity risk (i.e., the risk of not being able to sell one's shares in a timely manner due to the relatively thin market for the securities); and (2) fundamental business risks. As discussed below, relative to the proxy group, EPE's operations are both smaller in size and less diversified.

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[98] U.S. Court of Appeals For the District of Columbia Circuit, *On Petitions for Review of Orders of the Nuclear Regulatory Commission*, Case No. 11-1045, Decided June 8, 2012, at 3.

[99] *See*, Mario Levis, *The Record on Small Companies: A Review of the Evidence*, Journal of Asset Management at 368-397 (Mar. 2002) for a review of literature relating to the size effect.

[100] Michael Annin, *Equity and the Small-Stock Effect*, Public Utilities Fortnightly (Oct. 15, 1995).

Q. HOW DOES THE SMALLER SIZE OF EPE AFFECT ITS BUSINESS RISKS RELATIVE TO THE PROXY GROUP?

A. It is important to bear in mind that my ROE recommendation for EPE is developed based on market data applied to a risk-comparable proxy group. Consequently, an evaluation of the Company's risk associated with its small size is necessarily based on a comparison of its size relative to the proxy group. The Company's smaller size relative to the proxy group companies indicates greater relative business risk for the Company because, all else equal, size has a material bearing on risk.

In general, smaller companies are less able to withstand adverse events that affect their revenues and expenses. The effect of weather variability, the loss of large customers to bypass opportunities, or the destruction of demand as a result of general macroeconomic conditions, will have a proportionately greater effect on the earnings and cash flow volatility of smaller utilities. Similarly, capital expenditures for non-revenue producing investments such as system maintenance and replacement will put proportionately greater pressure on customer costs, potentially leading to customer attrition or demand reduction. Taken together, these risks affect the return required by investors for smaller companies.

Q. IS THERE SUPPORT IN THE FINANCIAL COMMUNITY FOR THE USE OF A SMALL SIZE PREMIUM?

A. Yes, there have been several studies conducted that demonstrate the size premium. One of the earliest works in this area found that over a period of 40 years "the common stock of small firms had, on average, higher risk-adjusted returns than the common stock of large firms."[101] The author, who referred to that finding as the "size effect," suggested that the CAPM was mis-specified in that on average, smaller firms had significantly larger risk-adjusted returns than larger firms. The author also concluded that the size effect was "most pronounced for the smallest firms in the sample."[102] Since then, additional empirical research has focused on explaining the size effect as a function of lower trading volume and other factors, but the proposition that Beta coefficients fail to reflect the risks of smaller

[101] R. W. Banz, The Relationship Between Return and Market Value of Common Stocks, Journal of Financial Economics, 9, 1981 at 3-4.

[102] *Id.* at 16.

firms persists.[103]

In 1994, Fama and French also focused on the issue of whether the CAPM adequately explained security returns and proposed a "three factor" model for expected security returns. Those factors include: (1) the covariance with the market; (2) size; and (3) financial risk as determined by the book/market ratio. As explained by Morningstar, Fama and French "found that the returns on stocks are better explained as a function of size and book-to-market value in addition to the single market factor of the CAPM, with the company's size capturing the size effect and its book-to-market ratio capturing the financial distress of a firm."[104]

Q. ARE YOU AWARE OF OTHER STUDIES REGARDING THE EXISTENCE OF SIZE PREMIUM FOR REGULATED UTILITIES?

A. Yes. A 2002 study by Thomas M. Zepp[105] concludes that size premia do exist for smaller utilities. Developed in response to a 1993 study by Annie Wong, the Zepp study focuses specifically on the utility industry and the effect of the size premium in a regulated environment. For example, one study reviewed by Zepp found that smaller water utilities had a cost of equity that, on average, was 99 basis points higher than the average cost of equity for the larger water utilities, and the result was statistically significant at the 90.00 percent level.[106] Zepp concludes that "to the extent water utilities are representative of all utilities, there is support for smaller utilities being more risky than larger ones."[107]

Additionally, a 2011 study by Stéphane Chrétien and Frank Coggins in the article "Cost of Equity for Energy Utilities: Beyond the CAPM",[108] considered the Fama-French three-factor model and a model similar to the Empirical CAPM I described earlier. In the

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[103] *See*, for example, Mario Levis, *The record on small companies: A review of the evidence*, Journal of Asset Management, March 2002.

[104] Morningstar, Ibbotson SBBI 2013 Valuation Yearbook, at 109.

[105] Thomas M. Zepp, *Utility stocks and the size effect – revisited*, Quarterly Review of Economics and Finance, 43 (2003) 578-582.

[106] Thomas M. Zepp, *Utility stocks and the size effect – revisited*, The Quarterly Review of Economics and Finance, 43 (2003), at 580-581.

[107] Thomas M. Zepp, *Utility stocks and the size effect – revisited*, The Quarterly Review of Economics and Finance, 43 (2003), at 582.

[108] Chrétien, Stéphane, and Frank Coggins. *Cost Of Equity For Energy Utilities: Beyond The CAPM.* Energy Studies Review, vol. 18, no. 2, at 31.

article, the Fama-French three-factor model explicitly included an adjustment to the CAPM for risk associated with size. As Chrétien and Coggins show, the Beta coefficient on the size variable for a group of U.S. natural gas utilities was positive and statistically significant supporting the position that small size risk is relevant for regulated utilities.[109]

Q. DOES THE RISK ASSOCIATED WITH EPE'S SMALL SIZE DEPEND ON ITS SOURCE OF CAPITAL?

A. No, it does not. The widely accepted "stand-alone" regulatory principle treats each utility subsidiary as its own company. Parent entities (whether publicly or privately owned) like other investors, have capital constraints and must look at the attractiveness of the expected risk-adjusted return of each investment alternative in their capital budgeting process. The opportunity cost concept applies regardless of the source of the funding. When funding is provided by a parent entity, the return still must be sufficient to provide an incentive to allocate equity capital to the subsidiary or business unit rather than other internal or external investment opportunities. That is, the regulated subsidiary must compete for capital with all the parent company's affiliates, and with other, similarly situated utility companies. In that regard, investors value corporate entities on a sum-of-the-parts basis and expect each division within the parent company to provide an appropriate risk-adjusted return. It therefore is important that the authorized ROE reflects the risks and prospects of the utility's operations and supports the utility's financial integrity from a stand-alone perspective. From that perspective, the fact that EPE is no longer publicly traded and is now a subsidiary of Sun Jupiter LLC is not relevant to the consideration of the risk associated with EPE's small size.

Q. HOW DOES EPE COMPARE IN SIZE TO THE PROXY COMPANIES?

A. As discussed earlier and shown in Table 7 above, EPE is substantially smaller than the average of the proxy companies in terms of market capitalization, net utility plant, and number of electric customers. As Exhibit JEN-7 shows, EPE's Texas jurisdictional-implied market capitalization is $1,934.41 million (or 15.01 percent of the

[109] Chrétien, Stéphane, and Frank Coggins. *Cost Of Equity For Energy Utilities: Beyond The CAPM.* Energy Studies Review, vol. 18, no. 2, at 31.

proxy group median market capitalization).[110] On a total company basis, EPE's implied market capitalization is $2,471.15 million, or 19.17 percent of the proxy group median.[111]

Q. HOW DID YOU ESTIMATE THE SIZE PREMIUM FOR EPE?

A. In its *Cost of Capital Navigator*, Duff & Phelps presents its calculation of the size premium for deciles of market capitalizations relative to the S&P 500 Index. An estimate of the additional size premium associated with EPE, therefore, is the difference in the Ibbotson size risk premia for the proxy group median market capitalization relative to the implied market capitalization for EPE.

As shown in Exhibit JEN-7, based on recent market data, the median market capitalization of the proxy group is $12.90 billion, which corresponds to the third decile of Duff & Phelps' market capitalization data and has a size premium of 0.71 percent (or 71 basis points). The implied market capitalization for EPE's Texas operations is approximately $1,934.41 million, which falls within the sixth decile and corresponds to a size premium of 1.37 percent (or 137 basis points). The difference between those size premia is 66 basis points (1.37 percent – 0.71 percent).[112]

I also performed the same analysis for EPE on a total company basis. The implied market capitalization for EPE's total company operations is approximately $2,471.15 million, which falls within the fifth decile and corresponds to a size premium of 1.09 percent (or 109 basis points). The difference between the third and fifth decile size premia is 38 basis points (1.09 percent – 0.71 percent).[113]

Q. HAVE YOU CONSIDERED THE COMPARATIVELY SMALL SIZE OF EPE IN YOUR ESTIMATED RETURN ON COMMON EQUITY?

A. Yes. Although I have quantified the small size effect, rather than proposing a specific premium, I have considered the relatively small size of EPE in my assessment of business

[110] The implied market capitalization is calculated by applying the median Market/Book ratio for the proxy group of 1.86 to EPE's Texas-jurisdictional implied total common equity of $1,042.39 million. EPE's Texas-jurisdictional implied common equity is estimated from the approximate value of its Texas-jurisdictional rate base and requested equity ratio. *See* Exhibit JEN-7, page 1.

[111] *See* Exhibit JEN-7, page 2.

[112] Exhibit JEN-7, page 1.

[113] Exhibit JEN-7, page 2.

risks in order to determine where, within a reasonable range of returns, EPE's required ROE appropriately falls.

D. Summary of Business Risks and Other Considerations

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS REGARDING THE BUSINESS RISKS FACING EPE.

A. In my opinion, there are additional factors that must be taken into consideration when determining where EPE's Cost of Equity falls within the range of results. These factors include (1) the relationship between the regulatory environment and the Company's need to access the capital necessary to execute its capital expenditure plan; (2) the Company's nuclear generation operations; and (3) the Company's small size. In light of those risks, and considering the current capital market environment described earlier, I believe that an ROE of 10.30 percent, within a range of 9.75 percent to 10.75 percent, is reasonable, if not conservative.

V. Capital Structure

Q. WHAT IS EPE'S REQUESTED CAPITAL STRUCTURE?

A. As explained in the direct testimony of Lisa Budtke, EPE's requested capital structure consists of 51.00 percent common equity and 49.00 percent long-term debt.

Q. HOW DOES THE CAPITAL STRUCTURE AFFECT THE COST OF EQUITY?

A. It is well understood that from a financial perspective, there are two general categories of risk: business risk and financial risk. Business risk includes operating, market, regulatory, and competitive uncertainties, whereas financial risk is associated with additional levels of debt. The capital structure relates to financial risk, which represents the risk that a company may not have adequate cash flows to meet its financial obligations, and is a function of the percentage of debt (or financial leverage) and cost of debt in its capital structure. In that regard, as the percentage of debt or cost of debt in the capital structure increases, so do the fixed obligations for the repayment of that debt. Consequently, as the degree of financial leverage increases, the risk of financial distress (i.e., financial risk) also increases. In essence, even if two firms face the same business risks, a company with meaningfully

higher levels of debt in its capital structure is likely to have a higher cost of both debt and equity.

It is important to recognize that business and financial risk are related in that additional financial leverage has the effect of further concentrating business risk on equity investors. By way of example, if a firm were capitalized with 100.00 percent common equity, there would be no financial risk, and individual equity holders would hold pro rata shares of business risk. If the firm were capitalized with 50.00 percent equity and 50.00 percent debt, the equity investors would continue to bear residual business risk, even though they represent only one-half of the capital structure. As Brigham and Gapenski point out, "...the use of debt, or financial leverage, concentrates the firm's business risk on its stockholders."[114] Because the capital structure can affect the subject company's overall level of risk, it is an important consideration in establishing a just and reasonable rate of return.

Q. IS THERE SUPPORT FOR THE PROPOSITION THAT CAPITAL STRUCTURE IS A KEY CONSIDERATION IN ESTABLISHING AN APPROPRIATE ROE?

A. Yes. The Supreme Court and various utility commissions have long recognized the role of capital structure in the development of a just and reasonable rate of return for a regulated utility. In particular, a utility's leverage, or debt ratio, has been explicitly recognized as an important element in determining a just and reasonable rate of return:

> Although the determination of whether bonds or stocks should be issued is for management, the matter of debt ratio is not exclusively within its province. Debt ratio substantially affects the manner and cost of obtaining new capital. It is therefore an important factor in the rate of return and must necessarily be considered by and come within the authority of the body charged by law with the duty of fixing a just and reasonable rate of return.[115]

Perhaps ultimate authority for balancing the issues of cost and financial integrity is found

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[114] Eugene F. Brigham, Louis C. Gapenski, Financial Management, Theory and Practice, 1994, The Dryden Press, at 528.

[115] New England Telephone & Telegraph Co. v. State, 98 N.H. 211, 220, 97 AM213, 220 (1953), citing New England Tel. & Tel. Co. v. Department of Pub. Util., (Mass.), 97 N.E. 2d 509, 514 (1951); Petitions of New England Tel. & Tel. Co., 80 A2d 671, at 6 (1951).

in the Supreme Court's statement in *Hope*:

> The rate-making process under the Act, *i.e.*, the fixing of 'just and reasonable rates,' involves a balancing of the investor and the consumer interests.[116]

As the U.S. Court of Appeals, District of Columbia Circuit found in *Communications Satellite Corp. et. al. v. FCC*:

> The equity investor's stake is made less secure as the Company's debt rises, but the consumer rate-payer's burden is alleviated.[117]

Consequently, the principles of fairness and reasonableness with respect to the allowed Return on Equity and capital structure are considered at both the federal and state levels. Additionally, Dr. Morin states:

> [t]he mix of debt and equity employed in computing the weighted average cost of capital influences the return required by debt and equity capital suppliers. For example, increasing the proportion of low-cost debt financing lowers the overall cost of capital but increases the financial risk of the company to the detriment of shareholders who require a higher return in compensation for the increased risk. As the utility employs relatively more debt capital, the low-cost advantage of debt may be more than offset by the increased cost of equity.[118]

Because the capital structure can affect the subject company's overall level of risk, it is an important consideration in establishing a fair rate of return: the higher the proportion of senior capital in the capital structure, the higher the financial risk that must be factored into the Cost of Equity.

Q. HOW DID YOU ASSESS THE REASONABLENESS OF EPE'S RECOMMENDED CAPITAL STRUCTURE WITH RESPECT TO THE PROXY GROUP?

A. The proxy group has been selected to reflect comparable companies in terms of financial

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[116] Federal Power Commission v. Hope Natural Gas Co., 320 U.S., at 603 (1944).

[117] Communications Satellite Corp. v. Federal Communications Commission and United States of America, 611 F.2d 883, at 19 (1977).

[118] Roger A. Morin, New Regulatory Finance, Public Utilities Report, Inc., 2006, at 25.

and business risks. Therefore, it is appropriate to compare the capital structures of the utility operating companies held by the proxy group companies to that of the subject company in order to assess whether the proposed capital structure is consistent with industry standards for companies with commensurate risk profiles. To the extent that EPE's actual capital structure differs from industry practice, or that its authorized capital structure differs from its actual capital structure, the difference in financial risk should be considered when estimating the Company's ROE and overall Rate of Return.

That said, it is important to recognize both the complexity and the dynamic nature of the relationship between capital structure, financial integrity, the cost of capital, and the ability to maintain ongoing access to capital at reasonable costs. Financing costs go beyond coupon rates, and any measure of an "optimal" capital structure must consider the numerous objectives and constraints associated with financing decisions. Although the capital structures in place at peer companies provide a practical and observable measure of industry practice, without considering differences in situations, constraints, or objectives we cannot fully determine whether a given level of debt or equity is optimal. Nonetheless, we can generally observe industry practice by reviewing the capital structures in place at similarly situated electric utilities.

Q. PLEASE DESCRIBE YOUR ANALYSIS OF EPE'S CAPITAL STRUCTURE RELATIVE TO INDUSTRY PRACTICE.

A. As a measure of industry practice, I calculated the average capital structure for each of the regulated utility operating companies held by the proxy companies over the last eight fiscal quarters. As shown in Exhibit JEN-8, the proxy group average capital structure over that period includes 53.56 percent common equity and 46.44 percent long-term debt; the average common equity ratios (on a company-specific basis) range from 48.09 percent to 60.41 percent. Based on that review, it is apparent that EPE's capital structure is consistent with, although somewhat more leveraged than those in place at the proxy companies.

Q. WHAT IS THE BASIS FOR USING AVERAGE CAPITAL COMPONENTS RATHER THAN A POINT-IN-TIME MEASUREMENT?

A. Measuring the capital components at a particular point in time can skew the capital structure

by the specific circumstances of a particular period. Therefore, it is more appropriate to normalize the relative relationship between the components over a period of time.

Q. WHAT IS YOUR CONCLUSION REGARDING EPE'S PROPOSED CAPITAL STRUCTURE?

A. The question of whether a given capital structure is "optimal" is extremely complex and depends on many company-specific issues. We can, however, view EPE's proposed capital structure in the context of those in place at similarly situated utility operating companies, and relative to rating agency criteria. Because the Company's proposal is consistent with both, it is consistent with industry practice. It is my view, therefore, that the Company's proposed capital structure is reasonable and appropriate for the purposes of determining its overall Rate of Return.

VI. Conclusion

Q. WHAT IS YOUR CONCLUSION REGARDING THE COMPANY'S COST OF EQUITY AND CAPITAL STRUCTURE?

A. As discussed throughout my Direct Testimony, it is important to consider a variety of quantitative and qualitative information in reviewing analytical results and arriving at ROE determinations. Based on my review of the results from three commonly used analytical approaches, I conclude an ROE in the range of 9.75 percent to 10.75 percent represents the range of equity investors' required return for investment in electric utilities similar to EPE in today's volatile capital market environment. Within that range, I conclude that an ROE of 10.30 percent represents the Cost of Equity for EPE. That conclusion is a conservative estimate, particularly when EPE's small size, nuclear generation, and ongoing need to access capital is considered.

As to the capital structure, I believe that the Company's requested capital structure of 51.00 percent common equity and 49.00 percent long-term debt is consistent with the proxy group and, therefore, is reasonable and appropriate.

Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

A. Yes, it does.

JENNIFER E. NELSON
Assistant Vice President

Ms. Nelson has thirteen years of experience in the energy industry, spanning the oil, natural gas, electric, and renewable energy segments. She has provided expert witness testimony for electric, natural gas, and water utilities regarding the cost of capital and alternative ratemaking proposals. In her time as a consultant, Ms. Nelson has provided research and analysis on a variety of utility regulatory matters including ratemaking and regulatory policy, integrated resource planning, renewable power contracts, natural gas pipeline development, and natural gas utility supply planning issues. Ms. Nelson has extensive experience performing statistical analyses, developing economic and financial models, and providing policy analyses and recommendations.

Prior to joining Concentric, Ms. Nelson was a Director at ScottMadden, Inc, and previously a managing consultant at Sussex Economic Advisors, LLC. Prior to that, she was formerly a staff economist at the Massachusetts Department of Public Utilities and a petroleum economist for the State of Alaska. Ms. Nelson holds a Master of Science degree in Resource and Applied Economics from the University of Alaska and a Bachelor of Science degree in Business Economics from Bentley College.

PROFESSIONAL HISTORY

Concentric Energy Advisors, Inc. (2021 – present)
Assistant Vice President

ScottMadden, Inc. (2016 – 2021)
Director

Sussex Economic Advisors, LLC (2013 – 2016)
Managing Consultant

Massachusetts Department of Public Utilities (2011 – 2013)
Economist

State of Alaska, Department of Revenue (2007 – 2010)
Petroleum Economist

EDUCATION

University of Alaska
Master of Science, Resource and Applied Economics

Bentley College
Bachelor of Science, Business Economics
Graduated *magna cum laude*

REPRESENTATIVE PROJECT EXPERIENCE

- Submitted expert testimony on behalf of an electric utility before regulatory commissions in Arkansas, New Hampshire, New Mexico, and Texas regarding the cost of capital.
- Submitted expert testimony on behalf of a natural gas utility before regulatory commissions in North Carolina and West Virginia regarding the cost of capital.
- Submitted expert testimony on behalf of a water utility before the Kentucky Public Service Commission regarding the appropriate capital structure and cost of debt.
- Submitted expert testimony on behalf of a water utility before the Arkansas Public Service Commission regarding the utility's proposed Formula Rate Plan.
- Co-sponsored expert testimony on behalf of a natural gas utility before the Maine Public Utilities Commission regarding the utility's proposed capital investment cost recovery mechanism.
- Supported expert testimony regarding the cost of capital before numerous state utility regulatory commissions and the FERC on behalf of electric and natural gas utilities through state and company-specific research and analysis, financial analysis and modeling, and testimony development.
- Supported expert testimony on the appropriate level of remuneration associated with electric utilities' long-term contract for wind power through financial analysis and modeling and testimony development.
- Supported expert testimony and performed research and analysis on alternative ratemaking frameworks.
- Supported expert testimony on the reasonableness of utility resource supply portfolio decisions.
- Assisted in a benchmarking analysis on behalf of a Northeast natural gas utility regarding its supply planning standards and design day demand forecast process.
- Developed a dynamic natural gas demand forecast model for in-state use for the State of Alaska, which included forecasting demand from both existing and anticipated natural gas utilities, power consumption, and large commercial operations.
- Conducted research and prepared analyses for a natural gas pipeline Open Season.
- Performed research and financial analysis to evaluate the benefits, costs, and policy options associated with natural gas expansion by Massachusetts natural gas utilities as part of a prepared report for the Massachusetts Department of Energy Resources.

- Supported the development of a New Hampshire electric utility's Integrated Resource Plan filed with the New Hampshire Public Utility Commission.
- Performed buy-side benchmarking and regulatory analysis for a utility acquisition.
- Provided research and analytical support estimating financial damages incurred as a result of construction delays for an electric transmission company.
- Prepared a Feasibility Study for an electric cooperative utility supporting a utility-owned solar project.

DESIGNATIONS AND PROFESSIONAL AFFILIATIONS

Member, Society of Utility and Regulatory Financial Analysts

AVAILABLE UPON REQUEST

Extensive client and project listings, and specific references.

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Arkansas Public Service Commission				
Liberty Utilities (Pine Bluff Water)	10/18	Liberty Utilities (Pine Bluff Water)	18-027-U	Sponsored testimony supporting Liberty Utility's proposed Formula Rate Plan and tariff
Entergy Arkansas, LLC	11/20	Entergy Arkansas, LLC	16-036-FR	Sponsored testimony evaluating the Return on Equity included in Rider FRP
Kentucky Public Service Commission				
Bluegrass Water Utility Operating Company, LLC	09/20	Bluegrass Water Utility Operating Company, LLC	2020-290	Capital Structure and Cost of Long-Term Debt
Maine Public Utilities Commission				
Unitil Corporation	06/19	Northern Utilities, Inc.	19-00092	Co-sponsored testimony supporting Northern Utilities proposed CIRA capital tracking mechanism
New Hampshire Public Utilities Commission				
Unitil Corporation	4/21	Unitil Energy Systems, Inc.	DE 21-030	Return on Equity
New Mexico Public Regulation Commission				
El Paso Electric Company	07/20	El Paso Electric Company	20-00104-UT	Cost of Capital
North Carolina Utilities Commission				
Public Service Company of North Carolina	4/21	Public Service Company of North Carolina	G-5, Sub 632	Return on Equity
Public Utilities Commission of Texas				
Sharyland Utilities L.L.C.	12/20	Sharyland Utilities L.L.C.	51611	Cost of Capital
Public Service Commission of West Virginia				
Hope Gas, Inc. d/b/a Dominion Energy West Virginia	11/20	Hope Gas, Inc. d/b/a Dominion Energy West Virginia	20-0746-G-42T	Cost of Capital

Constant Growth Discounted Cash Flow Model with Half Year Growth Adjustment
30 Day Average Stock Price

Company	Ticker	[1] Annualized Dividend	[2] Average Stock Price	[3] Dividend Yield	[4] Expected Dividend Yield	[5] Zacks Earnings Growth	[6] Yahoo! Earnings Growth	[7] Value Line Earnings Growth	[8] Average Earnings Growth	[9] Low ROE	[10] Mean ROE	[11] High ROE
ALLETE, Inc.	ALE	$2 52	$66 04	3 82%	3 94%	NA	7 00%	6.00%	6 50%	9.93%	10 44%	10.95%
Alliant Energy Corporation	LNT	$1.61	$50.32	3 20%	3.29%	5.80%	5 70%	5.50%	5 67%	8 79%	8 96%	9 09%
Ameren Corporation	AEE	$2.20	$75 98	2.90%	3 00%	7.30%	7.50%	6.00%	6 93%	8.98%	9 93%	10 50%
American Electric Power Company, Inc	AEP	$2.96	$80 80	3 66%	3 78%	5.70%	6.15%	6 50%	6 12%	9.47%	9.89%	10 28%
Avista Corporation	AVA	$1.69	$43 43	3.89%	3.99%	6 90%	6.90%	1.00%	4.93%	4.91%	8 92%	10.93%
CMS Energy Corporation	CMS	$1.74	$57 37	3 03%	3.14%	6 90%	7 19%	7 50%	7 20%	10.04%	10 34%	10.65%
DTE Energy Company	DTE	$4 34	$126 06	3 44%	3 54%	5 70%	6.05%	6 00%	5 92%	9 24%	9 46%	9.60%
Duke Energy Corporation	DUK	$3 86	$91 05	4.24%	4 35%	5 20%	4 99%	5 00%	5.06%	9 34%	9 41%	9 55%
Entergy Corporation	ETR	$3.80	$93.90	4 05%	4.14%	5 10%	5.50%	3 00%	4 53%	7 11%	8.67%	9.66%
Evergy, Inc	EVRG	$2 14	$56.79	3 77%	3.89%	5.90%	5.65%	8.00%	6 52%	9 52%	10 41%	11 92%
Hawaiian Electric Industries, Inc	HE	$1 36	$39 21	3.47%	3 50%	2 50%	1 30%	1 50%	1.77%	4.79%	5.27%	6 01%
IDACORP, Inc	IDA	$2 84	$94 14	3 02%	3 07%	2 60%	2.60%	4 50%	3 23%	5 66%	6 30%	7 58%
NextEra Energy, Inc.	NEE	$1 54	$74 08	2 08%	2 17%	7 80%	8.59%	10.50%	8 96%	9 96%	11 14%	12 69%
NorthWestern Corporation	NWE	$2 48	$61.81	4 01%	4.09%	4 40%	4.57%	2.50%	3.82%	6.56%	7 91%	8.67%
OGE Energy Corp	OGE	$1.61	$31.63	5 09%	5.19%	4.40%	3.80%	4.00%	4 07%	8.99%	9 26%	9 60%
Otter Tail Corporation	OTTR	$1.56	$43.91	3.55%	3.69%	NA	9 00%	7.00%	8 00%	10.68%	11 69%	12 71%
Pinnacle West Capital Corporation	PNW	$3 32	$77 39	4 29%	4.37%	3 40%	3.50%	4 50%	3.80%	7.76%	8 17%	8 89%
Portland General Electric Company	POR	$1 63	$45 11	3 61%	3.80%	13 40%	13.40%	4.00%	10.27%	7.69%	14 07%	17 26%
The Southern Company	SO	$2.56	$59 67	4 29%	4 40%	5 00%	6 49%	3 50%	5.00%	7.87%	9.39%	10.92%
WEC Energy Group, Inc	WEC	$2 71	$87 03	3.11%	3.21%	6 10%	6 10%	6 50%	6.23%	9 31%	9.44%	9 72%
Xcel Energy Inc.	XEL	$1 83	$62 44	2 93%	3.02%	6 20%	6 30%	6 00%	6.17%	9.02%	9 19%	9.32%
Proxy Group Mean				3.59%	3.69%	5 81%	6 11%	5 19%	5 75%	8 36%	9 44%	10.31%
Proxy Group Median				3.61%	3 78%	5 70%	6 10%	5 50%	5.92%	8 99%	9 41%	9 72%
Average of the Proxy Group Mean and Median										8.67%	9 43%	10.01%

Notes.
[1] Source Bloomberg Professional Service
[2] Source Bloomberg Professional Service, equals indicated number of trading day average as of 03/31/2021
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0.5 x [8])
[5] Source Zacks
[6] Source: Yahoo! Finance
[7] Source. Value Line
[8] Equals Average ([5], [6], [7])
[9] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7])) + Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Exhibit JEN-2
Page 1 of 3

Constant Growth Discounted Cash Flow Model with Half Year Growth Adjustment
90 Day Average Stock Price

Company	Ticker	[1] Annualized Dividend	[2] Average Stock Price	[3] Dividend Yield	[4] Expected Dividend Yield	[5] Zacks Earnings Growth	[6] Yahoo! Earnings Growth	[7] Value Line Earnings Growth	[8] Average Earnings Growth	[9] Low ROE	[10] Mean ROE	[11] High ROE
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Alliant Energy Corporation	LNT	$1.61	$50 46	3 19%	3 28%	5.80%	5 70%	5 50%	5 67%	8 78%	8 95%	9 08%
Ameren Corporation	AEE	$2.20	$75 87	2 90%	3 00%	7.30%	7 50%	6 00%	6 93%	8 99%	9 93%	10 51%
American Electric Power Company, Inc	AEP	$2 96	$81 45	3.63%	3 75%	5.70%	6 15%	6 50%	6 12%	9 44%	9 86%	10.25%
Avista Corporation	AVA	$1.69	$40 40	4 18%	4 29%	6 90%	6.90%	1 00%	4 93%	5 20%	9 22%	11.23%
CMS Energy Corporation	CMS	$1 74	$58 32	2 98%	3 09%	6.90%	7 19%	7.50%	7.20%	9.99%	10 29%	10.60%
DTE Energy Company	DTE	$4.34	$123.75	3 51%	3.61%	5 70%	6.05%	6 00%	5.92%	9.31%	9.53%	9 66%
Duke Energy Corporation	DUK	$3 86	$91.43	4 22%	4 33%	5 20%	4.99%	5 00%	5.06%	9.32%	9 39%	9.53%
Entergy Corporation	ETR	$3 80	$97.41	3 90%	3.99%	5 10%	5.50%	3 00%	4 53%	6.96%	8 52%	9 51%
Evergy, Inc	EVRG	$2 14	$55 11	3 88%	4 01%	5 90%	5 65%	8 00%	6.52%	9 64%	10 53%	12 04%
Hawaiian Electric Industries, Inc	HE	$1 36	$36.49	3 73%	3 76%	2 50%	1 30%	1 50%	1 77%	5.05%	5 53%	6 27%
IDACORP, Inc.	IDA	$2.84	$92.05	3 09%	3 14%	2 60%	2 60%	4 50%	3 23%	5 73%	6.37%	7 65%
NextEra Energy, Inc.	NEE	$1 54	$76 92	2 00%	2.09%	7 80%	8.59%	10.50%	8 96%	9 88%	11.06%	12 61%
NorthWestern Corporation	NWE	$2.48	$58 62	4 23%	4.31%	4 40%	4 57%	2 50%	3.82%	6.78%	8.13%	8.90%
OGE Energy Corp	OGE	$1.61	$31 79	5 06%	5 17%	4 40%	3 80%	4 00%	4 07%	8 96%	9.23%	9.58%
Otter Tail Corporation	OTTR	$1 56	$42 51	3 67%	3 82%	NA	9 00%	7 00%	8 00%	10 80%	11 82%	12 83%
Pinnacle West Capital Corporation	PNW	$3 32	$78 49	4 23%	4.31%	3 40%	3.50%	4.50%	3 80%	7 70%	8 11%	8 82%
Portland General Electric Company	POR	$1 63	$43 11	3 78%	3.97%	13 40%	13 40%	4 00%	10.27%	7 86%	14.24%	17.43%
The Southern Company	SO	$2 56	$60 12	4 26%	4 36%	5 00%	6 49%	3 50%	5.00%	7 83%	9 36%	10.89%
WEC Energy Group, Inc	WEC	$2.71	$89.03	3 04%	3 14%	6.10%	6 10%	6.50%	6 23%	9 24%	9.37%	9 64%
Xcel Energy Inc	XEL	$1.83	$64 27	2.85%	2 93%	6.20%	6 30%	6 00%	6 17%	8 93%	9.10%	9 24%
Proxy Group Mean				3 63%	3 74%	5 81%	6 11%	5 19%	5 75%	8 40%	9 48%	10.35%
Proxy Group Median				3 73%	3.82%	5 70%	6 10%	5 50%	5.92%	8 96%	9.37%	9 66%
Average of the Proxy Group Mean and Median										8 68%	9 43%	10.01%

Notes:
[1] Source Bloomberg Professional Service
[2] Source Bloomberg Professional Service, equals indicated number of trading day average as of 03/31/2021
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0.5 x [8])
[5] Source Zacks
[6] Source Yahoo! Finance
[7] Source Value Line
[8] Equals Average ([5], [6], [7])
[9] Equals [3] x (1 + 0 5 x Minimum([5], [6], [7])) + Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + 0 5 x Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Exhibit JEN-2
Page 2 of 3

Constant Growth Discounted Cash Flow Model with Half Year Growth Adjustment
180 Day Average Stock Price

Company	Ticker	[1] Annualized Dividend	[2] Average Stock Price	[3] Dividend Yield	[4] Expected Dividend Yield	[5] Zacks Earnings Growth	[6] Yahoo! Earnings Growth	[7] Value Line Earnings Growth	[8] Average Earnings Growth	[9] Low ROE	[10] Mean ROE	[11] High ROE
ALLETE, Inc	ALE	$2 52	$59 32	4 25%	4 39%	NA	7 00%	6.00%	6.50%	10.38%	10 89%	11.40%
Alliant Energy Corporation	LNT	$1.61	$52 11	3 09%	3.18%	5.80%	5.70%	5.50%	5 67%	8.67%	8 84%	8 98%
Ameren Corporation	AEE	$2 20	$78 07	2 82%	2 92%	7 30%	7 50%	6 00%	6 93%	8 90%	9 85%	10 42%
American Electric Power Company, Inc	AEP	$2 96	$83.31	3 55%	3 66%	5 70%	6.15%	6 50%	6 12%	9 35%	9 78%	10 17%
Avista Corporation	AVA	$1 69	$38 09	4 44%	4 55%	6.90%	6 90%	1.00%	4 93%	5 46%	9.48%	11 49%
CMS Energy Corporation	CMS	$1 74	$60 48	2 88%	2 98%	6.90%	7 19%	7.50%	7.20%	9.88%	10.18%	10.48%
DTE Energy Company	DTE	$4.34	$121 25	3.58%	3 69%	5.70%	6.05%	6.00%	5 92%	9 38%	9.60%	9 74%
Duke Energy Corporation	DUK	$3 86	$89 07	4.33%	4.44%	5.20%	4 99%	5 00%	5.06%	9.43%	9 51%	9 65%
Entergy Corporation	ETR	$3.80	$99.81	3 81%	3 89%	5.10%	5.50%	3 00%	4.53%	6.86%	8 43%	9 41%
Evergy, Inc	EVRG	$2 14	$55 07	3 89%	4 01%	5.90%	5.65%	8 00%	6 52%	9 65%	10 53%	12 04%
Hawaiian Electric Industries, Inc	HE	$1 36	$35.66	3.81%	3 85%	2 50%	1 30%	1.50%	1.77%	5 14%	5.61%	6 36%
IDACORP, Inc.	IDA	$2 84	$90 21	3 15%	3.20%	2 60%	2 60%	4 50%	3.23%	5.79%	6 43%	7 72%
NextEra Energy, Inc	NEE	$1 54	$74.44	2 07%	2.16%	7 80%	8 59%	10.50%	8.96%	9.95%	11.12%	12 68%
NorthWestern Corporation	NWE	$2 48	$56 00	4 43%	4.51%	4 40%	4 57%	2.50%	3 82%	6 98%	8 34%	9 10%
OGE Energy Corp.	OGE	$1.61	$31.82	5.06%	5.16%	4 40%	3.80%	4 00%	4.07%	8.96%	9.23%	9.57%
Otter Tail Corporation	OTTR	$1 56	$40 75	3 83%	3 98%	NA	9.00%	7 00%	8 00%	10.96%	11 98%	13 00%
Pinnacle West Capital Corporation	PNW	$3 32	$78 89	4 21%	4 29%	3 40%	3.50%	4 50%	3 80%	7 68%	8 09%	8 80%
Portland General Electric Company	POR	$1 63	$41 40	3.94%	4 14%	13 40%	13 40%	4.00%	10 27%	8 02%	14.41%	17 60%
The Southern Company	SO	$2 56	$58 02	4 41%	4.52%	5 00%	6.49%	3.50%	5 00%	7.99%	9 52%	11.05%
WEC Energy Group, Inc	WEC	$2 71	$92 83	2 92%	3 01%	6.10%	6.10%	6 50%	6 23%	9.11%	9.24%	9 51%
Xcel Energy Inc.	XEL	$1.83	$67.26	2.72%	2 80%	6.20%	6.30%	6 00%	6.17%	8 80%	8.97%	9 11%
Proxy Group Mean				3 68%	3 78%	5.81%	6 11%	5.19%	5 75%	8 44%	9.53%	10 39%
Proxy Group Median				3 81%	3.89%	5 70%	6.10%	5 50%	5.92%	8 90%	9.51%	9 74%
Average of the Proxy Group Mean and Median										8.67%	9.52%	10.07%

Notes.
[1] Source. Bloomberg Professional Service
[2] Source: Bloomberg Professional Service, equals indicated number of trading day average as of 03/31/2021
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0 5 x [8])
[5] Source Zacks
[6] Source Yahoo! Finance
[7] Source: Value Line
[8] Equals Average ([5], [6], [7])
[9] Equals [3] x (1 + 0 5 x Minimum([5], [6], [7])) + Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Exhibit JEN-2
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Quarterly Discounted Cash Flow Model
30 Day Average Stock Price

Company	Ticker	[1] Dividend 1	[2] Dividend 2	[3] Dividend 3	[4] Dividend 4	[5] Expected Dividend 1	[6] Expected Dividend 2	[7] Expected Dividend 3	[8] Expected Dividend 4	[9] Stock Price	[10] Zacks Earnings Growth	[11] Yahoo! Earnings Growth	[12] Value Line Earnings Growth	[13] Average Earnings Growth	[14] Low ROE	[15] Mean ROE	[16] High ROE
ALLETE, Inc	ALE	$0 63	$0 62	$0 62	$0 62	$0 67	$0 66	$0 66	$0 66	$66 04	NA	7 00%	6 00%	6 50%	10 13%	10 66%	11 19%
Alliant Energy Corporation	LNT	$0 40	$0 38	$0 38	$0 38	$0 43	$0 40	$0 40	$0 40	$50 32	5 80%	5 70%	5 50%	5 67%	8 84%	9 01%	9 15%
Ameren Corporation	AEE	$0 55	$0 52	$0 50	$0 50	$0 59	$0 55	$0 53	$0 53	$75 98	7 30%	7 50%	6 00%	6 93%	8 96%	9 93%	10 52%
American Electric Power Company, Inc	AEP	$0 74	$0 74	$0 70	$0 70	$0 79	$0 79	$0 74	$0 74	$80 80	5 70%	6 15%	6 50%	6 12%	9 60%	10 04%	10 44%
Avista Corporation	AVA	$0 42	$0 41	$0 41	$0 41	$0 44	$0 42	$0 42	$0 42	$43 43	6 90%	6 90%	1 00%	4 93%	4 88%	9 02%	11 10%
CMS Energy Corporation	CMS	$0 44	$0 41	$0 41	$0 41	$0 47	$0 44	$0 44	$0 44	$57 37	6 90%	7 19%	7 50%	7.20%	10 11%	10 41%	10 73%
DTE Energy Company	DTE	$1 09	$1 09	$1 01	$1 01	$1 15	$1 15	$1 07	$1.07	$126 06	5 70%	6 05%	6 00%	5 92%	9 34%	9 57%	9 71%
Duke Energy Corporation	DUK	$0 97	$0 97	$0 97	$0 95	$1 01	$1 01	$1 01	$0 99	$91 05	5 20%	4 99%	5 00%	5 06%	9 57%	9 65%	9 80%
Entergy Corporation	ETR	$0 95	$0 95	$0 93	$0 93	$0 99	$0 99	$0 97	$0 97	$93 90	5 10%	5 50%	3 00%	4 53%	7 24%	8 86%	9 88%
Evergy, Inc	EVRG	$0 54	$0 54	$0 51	$0 51	$0 57	$0 57	$0 54	$0 54	$56 79	5 90%	5 65%	8 00%	6 52%	9 66%	10 57%	12 13%
Hawaiian Electric Industries, Inc	HE	$0 34	$0 33	$0 33	$0 33	$0 35	$0 34	$0 34	$0 34	$39 21	2 50%	1 30%	1 50%	1 77%	4 80%	5 29%	6 06%
IDACORP, Inc	IDA	$0 71	$0.71	$0 67	$0 67	$0 73	$0 73	$0 69	$0 69	$94 14	2 60%	2 60%	4 50%	3 23%	5 67%	6 33%	7 65%
NextEra Energy, Inc	NEE	$0 39	$0.35	$0 35	$0 35	$0 42	$0 38	$0 38	$0 38	$74 08	7 80%	8 59%	10 50%	8 96%	9 97%	11 16%	12 74%
NorthWestern Corporation	NWE	$0 62	$0 60	$0 60	$0 60	$0 64	$0 62	$0 62	$0 62	$61 81	4 40%	4 57%	2 50%	3 82%	6 61%	8 01%	8 80%
OGE Energy Corp	OGE	$0 40	$0 40	$0.40	$0 39	$0 42	$0 42	$0 42	$0 40	$31 63	4 40%	3 80%	4 00%	4 07%	9 21%	9 50%	9 86%
Otter Tail Corporation	OTTR	$0 39	$0 37	$0 37	$0 37	$0 42	$0 40	$0 40	$0 40	$43 91	NA	9 00%	7 00%	8 00%	10 80%	11 85%	12 90%
Pinnacle West Capital Corporation	PNW	$0 83	$0 83	$0 78	$0.78	$0 86	$0 86	$0 81	$0 81	$77.39	3 40%	3 50%	4 50%	3 80%	7 84%	8 26%	9 00%
Portland General Electric Company	POR	$0 41	$0 41	$0 41	$0 39	$0 45	$0 45	$0 45	$0 42	$45 11	13 40%	13 40%	4 00%	10 27%	7 81%	14 41%	17 70%
The Southern Company	SO	$0 64	$0 64	$0 64	$0 64	$0 67	$0 67	$0 67	$0 67	$59 67	5 00%	6 49%	3 50%	5 00%	8 07%	9 66%	11 25%
WEC Energy Group, Inc	WEC	$0 68	$0 63	$0 63	$0 63	$0 72	$0 67	$0 67	$0 67	$87 03	6 10%	6 10%	6 50%	6.23%	9 35%	9 49%	9 77%
Xcel Energy Inc	XEL	$0 46	$0 43	$0 43	$0 43	$0 49	$0 46	$0 46	$0 46	$62 44	6 20%	6 30%	6 00%	6 17%	9 07%	9 24%	9 38%
Proxy Group Mean											5 81%	6 11%	5 19%	5 75%	8 45%	9 57%	10 46%
Proxy Group Median											5 70%	6 10%	5 50%	5 92%	9 07%	9 57%	9 88%
Average of the Proxy Group Mean and Median															8 76%	9 57%	10 17%

Notes
[1] Source Bloomberg Professional Service
[2] Source Bloomberg Professional Service
[3] Source Bloomberg Professional Service
[4] Source Bloomberg Professional Service
[5] Equals Col [1] x (1 + Col [13])
[6] Equals Col [2] x (1 + Col. [13])
[7] Equals Col. [3] x (1 + Col [13])
[8] Equals Col [4] x (1 + Col [13])
[9] Source Bloomberg Professional Service, equals indicated number of trading day average as of 03/31/2021
[10] Source Zacks
[11] Source Yahoo! Finance
[12] Source Value Line
[13] Equals Average (Cols [10], [11], [12])
[14] Implied Low DCF
[15] Implied Mean DCF
[16] Implied High DCF

Exhibit JEN-3
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Quarterly Discounted Cash Flow Model
90 Day Average Stock Price

Company	Ticker	[1] Dividend 1	[2] Dividend 2	[3] Dividend 3	[4] Dividend 4	[5] Expected Dividend 1	[6] Expected Dividend 2	[7] Expected Dividend 3	[8] Expected Dividend 4	[9] Stock Price	[10] Zacks Earnings Growth	[11] Yahoo! Earnings Growth	[12] Value Line Earnings Growth	[13] Average Earnings Growth	[14] Low ROE	[15] Mean ROE	[16] High ROE
ALLETE, Inc	ALE	$0 63	$0 62	$0 62	$0 62	$0 67	$0 66	$0 66	$0 66	$63 45	NA	7 00%	6 00%	6 50%	10 31%	10 83%	11 36%
Alliant Energy Corporation	LNT	$0 40	$0 38	$0 38	$0 38	$0 43	$0 40	$0 40	$0 40	$50 46	5 80%	5 70%	5 50%	5 67%	8 83%	9 01%	9 14%
Ameren Corporation	AEE	$0.55	$0 52	$0 50	$0 50	$0 59	$0 55	$0 53	$0 53	$75 87	7 30%	7 50%	6 00%	6 93%	8 97%	9 94%	10 53%
American Electnc Power Company, Inc	AEP	$0 74	$0 74	$0 70	$0 70	$0 79	$0 79	$0 74	$0 74	$81 45	5 70%	6 15%	6 50%	6 12%	9 57%	10 01%	10 41%
Avista Corporation	AVA	$0 42	$0 41	$0 41	$0 41	$0 44	$0 42	$0 42	$0 42	$40 40	6 90%	6 90%	1 00%	4 93%	5 17%	9 33%	11 42%
CMS Energy Corporation	CMS	$0 44	$0 41	$0 41	$0 41	$0 47	$0 44	$0.44	$0 44	$58.32	6 90%	7 19%	7 50%	7 20%	10 05%	10 36%	10 68%
DTE Energy Company	DTE	$1 09	$1 09	$1 01	$1 01	$1 15	$1 15	$1 07	$1 07	$123.75	5 70%	6 05%	6 00%	5 92%	9 41%	9 64%	9 78%
Duke Energy Corporation	DUK	$0 97	$0 97	$0 97	$0 95	$1 01	$1 01	$1 01	$0 99	$91 43	5 20%	4 99%	5 00%	5 06%	9 56%	9 63%	9 78%
Entergy Corporation	ETR	$0 95	$0 95	$0 93	$0 93	$0 99	$0 99	$0 97	$0 97	$97 41	5 10%	5 50%	3 00%	4 53%	7 08%	8 70%	9 72%
Evergy, Inc	EVRG	$0 54	$0 54	$0 51	$0 51	$0 57	$0 57	$0 54	$0 54	$55 11	5 90%	5 65%	8 00%	6 52%	9 78%	10.70%	12 26%
Hawaiian Electnc Industries, Inc	HE	$0 34	$0 33	$0 33	$0 33	$0 35	$0 34	$0 34	$0 34	$36 49	2 50%	1 30%	1 50%	1 77%	5 06%	5 55%	6 32%
IDACORP, Inc	IDA	$0 71	$0 71	$0 67	$0 67	$0 73	$0 73	$0 69	$0 69	$92 05	2 60%	2 60%	4 50%	3 23%	5 74%	6 40%	7 72%
NextEra Energy, Inc	NEE	$0 39	$0.35	$0 35	$0 35	$0 42	$0 38	$0 38	$0 38	$76 92	7 80%	8 59%	10 50%	8.96%	9 89%	11 08%	12 66%
NorthWestern Corporation	NWE	$0 62	$0 60	$0 60	$0 60	$0 64	$0 62	$0 62	$0 62	$58.62	4 40%	4 57%	2 50%	3 82%	6 84%	8 24%	9 03%
OGE Energy Corp	OGE	$0 40	$0.40	$0 40	$0 39	$0 42	$0 42	$0 42	$0 40	$31 79	4 40%	3 80%	4 00%	4.07%	9 19%	9 47%	9 83%
Otter Tail Corporation	OTTR	$0 39	$0 37	$0 37	$0 37	$0 42	$0 40	$0 40	$0 40	$42 51	NA	9 00%	7 00%	8 00%	10 93%	11 98%	13 03%
Pinnacle West Capital Corporation	PNW	$0 83	$0 83	$0.78	$0 78	$0 86	$0 86	$0.81	$0 81	$78 49	3 40%	3 50%	4 50%	3 80%	7 77%	8 20%	8 94%
Portland General Electnc Company	POR	$0 41	$0 41	$0 41	$0 39	$0 45	$0 45	$0 45	$0 42	$43 11	13 40%	13 40%	4 00%	10 27%	7 99%	14 60%	17 91%
The Southern Company	SO	$0 64	$0 64	$0 64	$0 64	$0 67	$0 67	$0 67	$0 67	$60 12	5 00%	6 49%	3 50%	5 00%	8 04%	9 63%	11 21%
WEC Energy Group, Inc	WEC	$0 68	$0 63	$0 63	$0 63	$0 72	$0 67	$0 67	$0 67	$89 03	6 10%	6 10%	6 50%	6 23%	9 28%	9 41%	9 69%
Xcel Energy Inc	XEL	$0 46	$0 43	$0 43	$0 43	$0 49	$0 46	$0 46	$0 46	$64 27	6 20%	6 30%	6 00%	6 17%	8 98%	9 15%	9 29%
Proxy Group Mean											5 81%	6 11%	5 19%	5 75%	8 50%	9 61%	10 51%
Proxy Group Median											5 70%	6 10%	5 50%	5 92%	8 98%	9 63%	9 83%
Average of the Proxy Group Mean and Median															8 74%	9 62%	10 17%

Notes
[1] Source Bloomberg Professional Service
[2] Source Bloomberg Professional Service
[3] Source Bloomberg Professional Service
[4] Source Bloomberg Professional Service
[5] Equals Col [1] x (1 + Col [13])
[6] Equals Col [2] x (1 + Col [13])
[7] Equals Col [3] x (1 + Col [13])
[8] Equals Col [4] x (1 + Col [13])
[9] Source Bloomberg Professional Service, equals indicated number of trading day average as of 03/31/2021
[10] Source Zacks
[11] Source Yahoo! Finance
[12] Source Value Line
[13] Equals Average (Cols. [10], [11], [12])
[14] Implied Low DCF
[15] Implied Mean DCF
[16] Implied High DCF

Exhibit JEN-3
Page 2 of 3

Quarterly Discounted Cash Flow Model
180 Day Average Stock Price

Company	Ticker	[1] Dividend 1	[2] Dividend 2	[3] Dividend 3	[4] Dividend 4	[5] Expected Dividend 1	[6] Expected Dividend 2	[7] Expected Dividend 3	[8] Expected Dividend 4	[9] Stock Price	[10] Zacks Earnings Growth	[11] Yahoo! Earnings Growth	[12] Value Line Earnings Growth	[13] Average Earnings Growth	[14] Low ROE	[15] Mean ROE	[16] High ROE
ALLETE, Inc	ALE	$0 63	$0 62	$0 62	$0 62	$0 67	$0 66	$0 66	$0 66	$59 32	NA	7 00%	6 00%	6 50%	10 61%	11 14%	11 67%
Alliant Energy Corporation	LNT	$0 40	$0 38	$0 38	$0 38	$0 43	$0 40	$0 40	$0 40	$52 11	5 80%	5 70%	5 50%	5 67%	8 72%	8 90%	9 04%
Ameren Corporation	AEE	$0 55	$0 52	$0.50	$0 50	$0 59	$0 55	$0 53	$0 53	$78 07	7 30%	7 50%	6 00%	6 93%	8 88%	9 85%	10 44%
American Electric Power Company, Inc	AEP	$0 74	$0 74	$0 70	$0 70	$0 79	$0 79	$0 74	$0 74	$83 31	5 70%	6 15%	6 50%	6 12%	9 48%	9 92%	10 32%
Avista Corporation	AVA	$0 42	$0 41	$0 41	$0 41	$0 44	$0 42	$0 42	$0 42	$38 09	6 90%	6 90%	1 00%	4 93%	5 43%	9 61%	11 70%
CMS Energy Corporation	CMS	$0 44	$0 41	$0 41	$0 41	$0 47	$0 44	$0 44	$0 44	$60 48	6 90%	7 19%	7 50%	7 20%	9 94%	10 25%	10 56%
DTE Energy Company	DTE	$1 09	$1 09	$1 01	$1 01	$1 15	$1 15	$1 07	$1 07	$121 25	5 70%	6 05%	6 00%	5 92%	9 49%	9 72%	9 86%
Duke Energy Corporation	DUK	$0 97	$0 97	$0 97	$0 95	$1 01	$1 01	$1 01	$0 99	$89 07	5 20%	4 99%	5 00%	5 06%	9 68%	9 76%	9 90%
Entergy Corporation	ETR	$0 95	$0 95	$0 93	$0 93	$0 99	$0 99	$0 97	$0 97	$99 81	5 10%	5 50%	3 00%	4 53%	6 98%	8.60%	9 62%
Evergy, Inc	EVRG	$0 54	$0 54	$0 51	$0 51	$0 57	$0 57	$0 54	$0 54	$55.07	5 90%	5 65%	8 00%	6 52%	9.79%	10.70%	12 27%
Hawaiian Electric Industries, Inc	HE	$0 34	$0 33	$0 33	$0 33	$0 35	$0 34	$0 34	$0 34	$35 66	2 50%	1 30%	1 50%	1 77%	5 15%	5 64%	6 41%
IDACORP, Inc	IDA	$0 71	$0 71	$0 67	$0 67	$0 73	$0 73	$0 69	$0 69	$90 21	2 60%	2 60%	4 50%	3 23%	5 81%	6 47%	7 79%
NextEra Energy, Inc	NEE	$0 39	$0 35	$0 35	$0 35	$0 42	$0 38	$0 38	$0 38	$74 44	7 80%	8 59%	10 50%	8 96%	9 96%	11 15%	12 73%
NorthWestern Corporation	NWE	$0 62	$0 60	$0 60	$0 60	$0 64	$0 62	$0 62	$0 62	$56 00	4 40%	4 57%	2 50%	3 82%	7 05%	8 45%	9 24%
OGE Energy Corp	OGE	$0 40	$0 40	$0 40	$0 39	$0 42	$0 42	$0 42	$0 40	$31 82	4 40%	3 80%	4 00%	4 07%	9 18%	9 47%	9 82%
Otter Tail Corporation	OTTR	$0 39	$0 37	$0 37	$0 37	$0 42	$0 40	$0 40	$0 40	$40 75	NA	9 00%	7 00%	8 00%	11 10%	12 15%	13 21%
Pinnacle West Capital Corporation	PNW	$0 83	$0 83	$0 78	$0 78	$0 86	$0 86	$0 81	$0 81	$78 89	3 40%	3 50%	4 50%	3 80%	7.75%	8 17%	8 91%
Portland General Electric Company	POR	$0 41	$0 41	$0.41	$0.39	$0 45	$0 45	$0 45	$0 42	$41 40	13 40%	13 40%	4 00%	10 27%	8 16%	14 78%	18 10%
The Southern Company	SO	$0 64	$0 64	$0 64	$0 64	$0 67	$0 67	$0 67	$0 67	$58 02	5 00%	6 49%	3.50%	5 00%	8 20%	9 80%	11 38%
WEC Energy Group, Inc	WEC	$0 68	$0 63	$0 63	$0 63	$0 72	$0 67	$0 67	$0 67	$92 83	6 10%	6 10%	6 50%	6 23%	9 14%	9 28%	9 56%
Xcel Energy Inc	XEL	$0 46	$0 43	$0 43	$0 43	$0 49	$0 46	$0 46	$0 46	$67 26	6 20%	6 30%	6 00%	6 17%	8 85%	9 02%	9 16%
Proxy Group Mean											5 81%	6 11%	5 19%	5 75%	8 54%	9 66%	10 56%
Proxy Group Median											5 70%	6 10%	5 50%	5 92%	8 88%	9 72%	9 90%
Average of the Proxy Group Mean and Median															8 71%	9 69%	10 23%

Notes
[1] Source Bloomberg Professional Service
[2] Source Bloomberg Professional Service
[3] Source Bloomberg Professional Service
[4] Source Bloomberg Professional Service
[5] Equals Col [1] x (1 + Col [13])
[6] Equals Col [2] x (1 + Col [13])
[7] Equals Col [3] x (1 + Col [13])
[8] Equals Col [4] x (1 + Col [13])
[9] Source Bloomberg Professional Service, equals indicated number of trading day average as of 03/31/2021
[10] Source Zacks
[11] Source Yahoo! Finance
[12] Source Value Line
[13] Equals Average (Cols [10], [11], [12])
[14] Implied Low DCF
[15] Implied Mean DCF
[16] Implied High DCF

Exhibit JEN-3
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Expected Market Return
Market DCF Method Based - Bloomberg

[1] S&P 500 Est Required Market Return
15 92%

Company	Ticker	[2] Market Capitalization	[3] Weight in Index	[4] Estimated Dividend Yield	[5] Long-Term Growth Est	[6] DCF Result	[7] Weighted DCF Result
Agilent Technologies Inc	A	38,739 30	0 12%	0.61%	13 00%	13 65%	0 0158%
American Airlines Group Inc	AAL	15,328 84	0 05%	0 00%	95 00%	95 00%	0 0435%
Advance Auto Parts Inc	AAP	12,023 00	0 04%	0.54%	14 18%	14 76%	0 0053%
Apple Inc	AAPL	2,050,665 93	6 12%	0 67%	9 50%	10 20%	0 6245%
AbbVie Inc	ABBV	191,103 75	0 57%	4 81%	1 01%	5 84%	0 0333%
AmerisourceBergen Corp	ABC	24,169 64	0 07%	1 49%	10 18%	11 74%	0 0085%
ABIOMED Inc	ABMD	14,416 48	0 04%	0 00%	16 00%	16 00%	0 0069%
Abbott Laboratories	ABT	212,300 04	0 63%	1 50%	14 20%	15.80%	0 1001%
Accenture PLC	ACN	175,597 48	0 52%	1 27%	10 98%	12 32%	0 0646%
Adobe Inc	ADBE	227,857 20	0 68%	0 00%	17 27%	17 27%	0 1174%
Analog Devices Inc	ADI	57,208 08	0 17%	1 78%	11 60%	13 48%	0 0230%
Archer-Daniels-Midland Co	ADM	31,834 56	0 10%	2 60%	2 10%	4 72%	0 0045%
Automatic Data Processing Inc	ADP	80,653 85	0 24%	1 97%	11 53%	13 62%	0 0328%
Autodesk Inc	ADSK	60,859 92	0 18%	0 00%	20 90%	20 90%	0 0380%
Ameren Corp	AEE	20,780 16	0 06%	2 70%	7 64%	10.45%	0 0065%
American Electric Power Co Inc	AEP	42,067 27	0 13%	3 49%	6 35%	9 96%	0 0125%
AES Corp/The	AES	18,180 18	0 05%	2.25%	8 33%	10 66%	0 0058%
Aflac Inc	AFL	35,191 37	N/A	2 58%	N/A	N/A	N/A
American International Group Inc	AIG	39,848 96	0 12%	2 77%	20 10%	23 15%	0 0275%
Assurant Inc	AIZ	8,208 91	N/A	1 86%	N/A	N/A	N/A
Arthur J Gallagher & Co	AJG	24,353 36	0 07%	1 54%	12 14%	13 77%	0 0100%
Akamai Technologies Inc	AKAM	16,632 12	0 05%	0 00%	11 25%	11.25%	0 0056%
Albemarle Corp	ALB	17,053 67	0 05%	1 07%	17 72%	18 89%	0 0096%
Align Technology Inc	ALGN	42,854 52	0 13%	0 00%	4 86%	4 86%	0 0062%
Alaska Air Group Inc	ALK	8,608 96	0 03%	0 00%	191 70%	191 70%	0 0493%
Allstate Corp/The	ALL	34,800 11	0 10%	2 82%	2 77%	5 63%	0 0058%
Allegion plc	ALLE	11,397 75	0 03%	1 15%	5 39%	6 57%	0 0022%
Alexion Pharmaceuticals Inc	ALXN	33,596 16	0 10%	0 00%	18 00%	18 00%	0 0180%
Applied Materials Inc	AMAT	122,599 51	0 37%	0 72%	13 38%	14 14%	0 0518%
Amcor PLC	AMCR	18,243 90	0 05%	4 02%	8 66%	12.85%	0 0070%
Advanced Micro Devices Inc	AMD	95,126 54	0 28%	0 00%	27 07%	27 07%	0 0769%
AMETEK Inc	AME	29,480 08	0.09%	0 63%	9 69%	10 35%	0 0091%
Amgen Inc	AMGN	143,704 20	0 43%	2 83%	7 85%	10 79%	0 0463%
Ameriprise Financial Inc	AMP	27,103 44	0 08%	1 79%	5 20%	7 04%	0 0057%
American Tower Corp	AMT	106,234 44	0.32%	2 07%	14 23%	16 45%	0 0522%
Amazon com Inc	AMZN	1,558,070 40	4.65%	0 00%	20 95%	20 95%	0 9740%
Ansta Networks Inc	ANET	23,043 87	0 07%	0 00%	11 30%	11 30%	0 0078%
ANSYS Inc	ANSS	29,587 56	0 09%	0 00%	12 05%	12 05%	0 0106%
Anthem Inc	ANTM	87,909 01	0 26%	1 26%	11 57%	12 90%	0 0338%
Aon PLC	AON	52,001 18	0 16%	0 80%	13 15%	14 00%	0 0217%
A O Smith Corp	AOS	9,163 72	0 03%	1 54%	10 00%	11 62%	0 0032%
APA Corp	APA	6,763 71	0 02%	0 56%	37 19%	37 85%	0 0076%
Air Products and Chemicals Inc	APD	62,254 07	0 19%	2 13%	11 43%	13 68%	0 0254%
Amphenol Corp	APH	39,526 12	0 12%	0 88%	11 19%	12 12%	0 0143%
Aptiv PLC	APTV	37,296 85	0 11%	0 00%	21 03%	21.03%	0.0234%
Alexandria Real Estate Equities Inc	ARE	22,458 66	0 07%	2 65%	5 74%	8 47%	0 0057%
Atmos Energy Corp	ATO	12,668 71	0 04%	2 53%	7 10%	9 72%	0 0037%
Activision Blizzard Inc	ATVI	72,052 12	0 22%	0 51%	14 15%	14 69%	0 0316%
AvalonBay Communities Inc	AVB	25,744 13	0 08%	3 45%	3 86%	7.38%	0 0057%
Broadcom Inc	AVGO	189,313 31	0 57%	3 11%	17 04%	20 41%	0 1153%
Avery Dennison Corp	AVY	15,246 44	0.05%	1 35%	6 03%	7 42%	0 0034%
American Water Works Co Inc	AWK	27,205 53	0.08%	1.47%	8 54%	10.07%	0 0082%
American Express Co	AXP	113,635 87	0 34%	1 22%	36 73%	38 17%	0 1295%
AutoZone Inc	AZO	30,946.56	0 09%	0 00%	10 65%	10 65%	0 0098%
Boeing Co/The	BA	148,664 78	N/A	0 00%	N/A	N/A	N/A
Bank of America Corp	BAC	333,788 42	1 00%	1 86%	12 95%	14 93%	0 1488%
Baxter International Inc	BAX	42,656 81	0 13%	1.16%	9 66%	10 88%	0 0139%
Best Buy Co Inc	BBY	28,707 67	0 09%	2 44%	11 70%	14 28%	0 0122%
Becton Dickinson and Co	BDX	70,649 66	0 21%	1 37%	9 54%	10 97%	0 0231%
Franklin Resources Inc	BEN	14,959.96	0 04%	3.78%	11.00%	14 99%	0 0067%
Brown-Forman Corp	BF/B	21,352 08	0 06%	1 04%	5 39%	6 46%	0.0041%
Biogen Inc	BIIB	42,616 00	N/A	0 00%	N/A	N/A	N/A
Bio-Rad Laboratories Inc	BIO	14,147 31	0 04%	0 00%	28 75%	28 75%	0 0121%
Bank of New York Mellon Corp/The	BK	41,471.01	0 12%	2 62%	8 65%	11 39%	0 0141%
Booking Holdings Inc	BKNG	95,434 91	0 28%	0 00%	31 88%	31 88%	0 0908%
Baker Hughes Co	BKR	16,560 56	0 05%	3 33%	118 50%	123 80%	0 0612%
BlackRock Inc	BLK	115,079 93	0 34%	2.19%	10 85%	13 16%	0 0452%
Ball Corp	BLL	27,800 48	0 08%	0 71%	5 00%	5 73%	0 0048%
Bristol-Myers Squibb Co	BMY	141,027 87	0 42%	3 10%	5 62%	8 81%	0.0371%
Broadridge Financial Solutions Inc	BR	17,728 83	0 05%	1 50%	10 70%	12 28%	0 0065%
Berkshire Hathaway Inc	BRK/B	341,071 35	1 02%	0 00%	-0 70%	-0 70%	-0 0071%
Boston Scientific Corp	BSX	54,902 98	0 16%	0 00%	13 84%	13 84%	0 0227%
BorgWarner Inc	BWA	11,081 01	0 03%	1 47%	19 71%	21 32%	0.0071%
Boston Properties Inc	BXP	15,776 92	0 05%	3 87%	0 92%	4 81%	0 0023%
Citigroup Inc	C	151,807 43	0.45%	2 80%	29 51%	32 72%	0 1483%
Conagra Brands Inc	CAG	18,370.57	0 05%	2 93%	8 07%	11 11%	0 0061%

Company	Ticker	[2] Market Capitalization	[3] Weight in Index	[4] Estimated Dividend Yield	[5] Long-Term Growth Est	[6] DCF Result	[7] Weighted DCF Result
Cardinal Health Inc	CAH	17,840 33	0 05%	3 20%	4 86%	8 14%	0 0043%
Carrier Global Corp	CARR	36,701 17	N/A	1.14%	N/A	N/A	N/A
Caterpillar Inc	CAT	126,439 64	0 38%	1 78%	14.75%	16 66%	0.0629%
Chubb Ltd	CB	71,103 09	0 21%	1 98%	11 40%	13 49%	0 0286%
Cboe Global Markets Inc	CBOE	10,580.55	0 03%	1 70%	1 23%	2 94%	0 0009%
CBRE Group Inc	CBRE	26,549 08	0 08%	0 00%	14 85%	14 85%	0 0118%
Crown Castle International Corp	CCI	74,392 35	0 22%	3 09%	20 65%	24.06%	0 0534%
Carnival Corp	CCL	24,672 43	0 07%	0 00%	-52 51%	-52 51%	-0 0387%
Cadence Design Systems Inc	CDNS	38,229 94	0 11%	0 00%	11 90%	11 90%	0 0136%
CDW Corp/DE	CDW	23,386 50	0 07%	0 97%	13 10%	14 13%	0 0099%
Celanese Corp	CE	17,104 56	0 05%	1 82%	10 81%	12 72%	0 0065%
Cerner Corp	CERN	22,016 41	0 07%	1 22%	8 61%	9 89%	0 0065%
CF Industries Holdings Inc	CF	9,732 10	0 03%	2 64%	14 35%	17 18%	0 0050%
Citizens Financial Group Inc	CFG	18,768 43	0 06%	3 53%	31 68%	35 77%	0 0200%
Church & Dwight Co Inc	CHD	21,408 44	0 06%	1 16%	7 20%	8 40%	0 0054%
CH Robinson Worldwide Inc	CHRW	12,514 88	0 04%	2 14%	10 03%	12 27%	0 0046%
Charter Communications Inc	CHTR	119,532 20	0 36%	0 00%	34 65%	34 65%	0 1236%
Cigna Corp	CI	83,976 12	0 25%	1 65%	11 42%	13 17%	0 0330%
Cincinnati Financial Corp	CINF	16,601 61	N/A	2 44%	N/A	N/A	N/A
Colgate-Palmolive Co	CL	66,810 24	0 20%	2 28%	6 10%	8 45%	0 0169%
Clorox Co/The	CLX	24,262 57	0 07%	2 30%	6 45%	8 83%	0 0064%
Comerica Inc	CMA	10,007 08	0 03%	3 79%	19 97%	24 14%	0 0072%
Comcast Corp	CMCSA	247,348 28	0 74%	1 85%	12 61%	14 57%	0 1076%
CME Group Inc	CME	73,329 39	0 22%	1 76%	4 14%	5 93%	0 0130%
Chipotle Mexican Grill Inc	CMG	39,987 56	0 12%	0 00%	22 35%	22 35%	0 0267%
Cummins Inc	CMI	37,971 02	0 11%	2 08%	8 79%	10 97%	0 0124%
CMS Energy Corp	CMS	17,718 66	0 05%	2 84%	7.03%	9 97%	0 0053%
Centene Corp	CNC	37,169 61	0 11%	0 00%	8 68%	8 68%	0 0096%
CenterPoint Energy Inc	CNP	12,493 31	0 04%	2 83%	3 50%	6 38%	0 0024%
Capital One Financial Corp	COF	58,097 03	0 17%	1 26%	20 25%	21 63%	0 0375%
Cabot Oil & Gas Corp	COG	7,501 11	0 02%	2 13%	27 20%	29 62%	0 0066%
Cooper Cos Inc/The	COO	18,878 41	0 06%	0 02%	10 50%	10 52%	0 0059%
ConocoPhillips	COP	71,623 44	0 21%	3 25%	-54 00%	-51 63%	-0 1104%
Costco Wholesale Corp	COST	155,984 38	0 47%	0 79%	10 28%	11 12%	0 0518%
Campbell Soup Co	CPB	15,232 26	0 05%	2 94%	8.97%	12 04%	0 0055%
Copart Inc	CPRT	25,666.39	N/A	0 00%	N/A	N/A	N/A
salesforce com Inc	CRM	195,132 27	0 58%	0 00%	14.87%	14 87%	0 0866%
Cisco Systems Inc/Delaware	CSCO	218,308 55	0 65%	2 86%	5 53%	8.47%	0 0552%
CSX Corp	CSX	73,230 60	0 22%	1 16%	9 39%	10 61%	0 0232%
Cintas Corp	CTAS	35,850 86	0 11%	0 88%	10 35%	11 28%	0 0121%
Catalent Inc	CTLT	17,926 61	0 05%	0.00%	15 82%	15.82%	0 0085%
Cognizant Technology Solutions Corp	CTSH	41,451 57	0 12%	1 23%	10 93%	12 23%	0 0151%
Corteva Inc	CTVA	34,528 54	0 10%	1 12%	15 58%	16.78%	0 0173%
Citrix Systems Inc	CTXS	17,259 23	0 05%	1 05%	9 60%	10 71%	0 0055%
CVS Health Corp	CVS	98,653 24	0 29%	2 66%	6 89%	9 64%	0 0284%
Chevron Corp	CVX	201,865 05	0 60%	4 92%	22.11%	27 58%	0 1662%
Caesars Entertainment Inc	CZR	18,213 82	0 05%	0 00%	37 29%	37 29%	0 0203%
Dominion Energy Inc	D	61,223 99	0 18%	3 32%	7 02%	10 45%	0 0191%
Delta Air Lines Inc	DAL	30,809 74	0 09%	0 00%	388.45%	388 45%	0 3572%
DuPont de Nemours Inc	DD	41,308 09	0 12%	1 55%	9 28%	10 90%	0 0134%
Deere & Co	DE	117,270 07	0 35%	0 96%	33 61%	34 73%	0 1216%
Discover Financial Services	DFS	29,132 67	0 09%	1 85%	54 69%	57 05%	0 0496%
Dollar General Corp	DG	48,479 67	0 14%	0 83%	10 57%	11 45%	0 0166%
Quest Diagnostics Inc	DGX	17,127 61	0 05%	1 93%	-6 93%	-5 07%	-0 0026%
DR Horton Inc	DHI	32,413 12	0 10%	0 90%	15 54%	16 51%	0 0160%
Danaher Corp	DHR	160,497 12	0 48%	0 37%	12 83%	13 22%	0 0634%
Walt Disney Co/The	DIS	334,952 51	1 00%	0 00%	26 89%	26 89%	0 2688%
Discovery Inc	DISCA	7,061 86	0 02%	0 00%	4 67%	4 67%	0 0010%
DISH Network Corp	DISH	10,416 84	0 03%	0 00%	3 99%	3 99%	0 0012%
Digital Realty Trust Inc	DLR	39,593 08	0 12%	3 29%	21 60%	25 25%	0 0298%
Dollar Tree Inc	DLTR	26,717 37	0 08%	0.00%	10 35%	10 35%	0 0083%
Dover Corp	DOV	19,727 11	0 06%	1 44%	11 63%	13 16%	0 0077%
Dow Inc	DOW	47,649 69	0 14%	4 38%	19 31%	24 11%	0 0343%
Domino's Pizza Inc	DPZ	14,270 25	0 04%	1 02%	12 65%	13 74%	0 0059%
Duke Realty Corp	DRE	15,672 01	0 05%	2 43%	6 54%	9 05%	0 0042%
Darden Restaurants Inc	DRI	18,506 58	0 06%	2.48%	13 03%	15 67%	0 0087%
DTE Energy Co	DTE	25,792 81	0 08%	3 26%	4 03%	7 36%	0 0057%
Duke Energy Corp	DUK	74,252 52	0 22%	4 00%	5 00%	9 10%	0 0202%
DaVita Inc	DVA	11,790 04	0 04%	0 00%	13 38%	13 38%	0 0047%
Devon Energy Corp	DVN	14,707 24	0.04%	2 01%	6 11%	8 18%	0 0036%
DXC Technology Co	DXC	7,958 61	0 02%	0 00%	-1.60%	-1 60%	-0 0004%
Dexcom Inc	DXCM	34,755 17	0 10%	0 00%	17 84%	17 84%	0 0185%
Electronic Arts Inc	EA	38,935 93	0 12%	0 50%	6 29%	6 81%	0 0079%
eBay Inc	EBAY	41,670 51	0 12%	1.18%	23 79%	25 10%	0 0312%
Ecolab Inc	ECL	61,240 72	0 18%	0 90%	15 40%	16 37%	0 0299%
Consolidated Edison Inc	ED	25,612 94	0 08%	4 14%	3 53%	7 75%	0 0059%
Equifax Inc	EFX	22,174 48	0 07%	0 86%	12 59%	13 51%	0 0089%
Edison International	EIX	22,229 32	0 07%	4 52%	4 55%	9 17%	0 0061%
Estee Lauder Cos Inc/The	EL	66,818 72	0 20%	0 73%	17 23%	18 02%	0 0359%
Eastman Chemical Co	EMN	15,033 14	0 04%	2 51%	9 17%	11 79%	0 0053%
Emerson Electric Co	EMR	54,134 71	0 16%	2 24%	9 88%	12 23%	0 0198%
Enphase Energy Inc	ENPH	21,988 25	N/A	0 00%	N/A	N/A	N/A
EOG Resources Inc	EOG	42,331 92	0 13%	2 27%	15 04%	17 48%	0 0221%
Equinix Inc	EQIX	60,679 23	0 18%	1 69%	25 93%	27 84%	0 0504%
Equity Residential	EQR	26,693 85	0 08%	3 36%	3 27%	6 69%	0 0053%
Eversource Energy	ES	29,728 17	0 09%	2.78%	7 32%	10 20%	0 0091%
Essex Property Trust Inc	ESS	17,668 24	0 05%	3 08%	3 99%	7 13%	0 0038%
Eaton Corp PLC	ETN	55,085 64	0 16%	2 20%	13 20%	15 54%	0 0256%

Company	Ticker	[2] Market Capitalization	[3] Weight in Index	[4] Estimated Dividend Yield	[5] Long-Term Growth Est.	[6] DCF Result	[7] Weighted DCF Result
Entergy Corp	ETR	20,000 23	0 06%	3 82%	3 09%	6 97%	0 0042%
Etsy Inc	ETSY	25,420 30	0 08%	0 00%	31 00%	31 00%	0 0235%
Evergy Inc	EVRG	13,512 89	0 04%	3 59%	7 27%	10 99%	0 0044%
Edwards Lifesciences Corp	EW	52,027 09	0 16%	0 00%	14 33%	14 33%	0.0223%
Exelon Corp	EXC	42,723 48	0 13%	3 50%	3 53%	7 09%	0 0090%
Expeditors International of Washington Inc	EXPD	18,166 66	0 05%	0 97%	3 95%	4 93%	0 0027%
Expedia Group Inc	EXPE	23,811 25	0 07%	0 00%	6 97%	6 97%	0 0050%
Extra Space Storage Inc	EXR	17,623 58	0 05%	3 02%	4 98%	8 07%	0 0042%
Ford Motor Co	F	47,871 08	0 14%	0 00%	31 75%	31 75%	0 0454%
Diamondback Energy Inc	FANG	13,288 76	0 04%	2 18%	20 70%	23 10%	0 0092%
Fastenal Co	FAST	28,877 87	0 09%	2 23%	10 15%	12 49%	0 0108%
Facebook Inc	FB	708,476 60	2 11%	0 00%	23 20%	23 20%	0 4906%
Fortune Brands Home & Security Inc	FBHS	13,264 17	0 04%	1 09%	10 56%	11 70%	0 0046%
Freeport-McMoRan Inc	FCX	48,027 75	0 14%	0 91%	26 62%	27 65%	0 0396%
FedEx Corp	FDX	75,367 74	0 22%	0 92%	18 60%	19 60%	0 0441%
FirstEnergy Corp	FE	18,871 60	0 06%	4 50%	5 60%	10 22%	0 0058%
F5 Networks Inc	FFIV	12,861 63	0 04%	0 00%	14 82%	14 82%	0 0057%
Fidelity National Information Services Inc	FIS	87,336 95	0 26%	1 11%	14 00%	15 19%	0 0396%
Fiserv Inc	FISV	79,692 52	0 24%	0 00%	17 66%	17 66%	0 0420%
Fifth Third Bancorp	FITB	26,628 56	0 08%	2 88%	17 75%	20 89%	0 0166%
FLIR Systems Inc	FLIR	7,411 01	N/A	1 20%	N/A	N/A	N/A
FleetCor Technologies Inc	FLT	22,408 04	0 07%	0 00%	14 51%	14 51%	0 0097%
FMC Corp	FMC	14,324 99	0 04%	1 74%	9 77%	11 59%	0 0050%
Fox Corp	FOX	8,948 79	0 03%	1 32%	2 18%	3 51%	0 0009%
Fox Corp	FOXA	12,073 41	0 04%	1 27%	2 18%	3 46%	0 0012%
First Republic Bank/CA	FRC	29,390 02	0 09%	0 48%	13 21%	13 72%	0 0120%
Federal Realty Investment Trust	FRT	7,883 27	0 02%	4 18%	5 22%	9 51%	0 0022%
Fortinet Inc	FTNT	30,095 68	0 09%	0 00%	14 15%	14 15%	0.0127%
Fortive Corp	FTV	23,881 48	0 07%	0 40%	5 92%	6 32%	0 0045%
General Dynamics Corp	GD	51,481 88	0 15%	2 62%	6 65%	9 35%	0 0144%
General Electric Co	GE	115,342 47	0 34%	0 30%	52 30%	52.68%	0 1814%
Gilead Sciences Inc	GILD	81,214 32	N/A	4 39%	N/A	N/A	N/A
General Mills Inc	GIS	37,403 42	0 11%	3 33%	6 10%	9 53%	0 0106%
Globe Life Inc	GL	11,203 57	N/A	0 82%	N/A	N/A	N/A
Corning Inc	GLW	33,466 33	0 10%	2 21%	15 34%	17 72%	0 0177%
General Motors Co	GM	82,794 86	0 25%	0 00%	13 01%	13 01%	0 0321%
Generac Holdings Inc	GNRC	20,583 83	0 06%	0 00%	6.50%	6 50%	0 0040%
Alphabet Inc	GOOG	677,592 17	2 02%	0 00%	18 28%	18 28%	0.3697%
Genuine Parts Co	GPC	16,691 77	0 05%	2 82%	7 43%	10 35%	0 0052%
Global Payments Inc	GPN	59,484 44	0 18%	0 39%	7 33%	7 73%	0 0137%
Gap Inc/The	GPS	11,163 09	0 03%	3 26%	20 13%	23 72%	0 0079%
Garmin Ltd	GRMN	25,258 64	0 08%	2 03%	6 70%	8 80%	0.0066%
Goldman Sachs Group Inc/The	GS	112,128 30	0 33%	1 53%	10 45%	12 06%	0 0403%
WW Grainger Inc	GWW	20,985 08	0 06%	1 53%	18 33%	20 00%	0 0125%
Halliburton Co	HAL	19,070 06	0 06%	0 84%	41 67%	42 68%	0 0243%
Hasbro Inc	HAS	13,202 27	0 04%	2 83%	13 68%	16 70%	0 0066%
Huntington Bancshares Inc/OH	HBAN	16,071 91	0.05%	3 82%	30 71%	35 11%	0 0168%
Hanesbrands Inc	HBI	6,865 01	0 02%	3 05%	7 85%	11 02%	0 0023%
HCA Healthcare Inc	HCA	63,458 71	0 19%	1 02%	11 44%	12 51%	0 0237%
Home Depot Inc/The	HD	328,775 31	0 98%	2 16%	8 53%	10 78%	0 1058%
Hess Corp	HES	21,722 40	0 06%	1 41%	35 91%	37 58%	0 0244%
HollyFrontier Corp	HFC	5,811 21	0 02%	3 91%	-8 82%	-5 08%	-0 0009%
Hartford Financial Services Group Inc/The	HIG	23,863 27	0 07%	2 10%	7 00%	9 17%	0 0065%
Huntington Ingalls Industries Inc	HII	8,295 76	0 02%	2 22%	27 25%	29 77%	0 0074%
Hilton Worldwide Holdings Inc	HLT	33,568 36	0 10%	0 00%	19 94%	19 94%	0 0200%
Hologic Inc	HOLX	19,164 90	0.06%	0 00%	13 64%	13 64%	0 0078%
Honeywell International Inc	HON	150,972 40	0 45%	1 71%	11 40%	13 21%	0 0595%
Hewlett Packard Enterprise Co	HPE	20,480 02	0 06%	3 05%	9 67%	12 86%	0 0079%
HP Inc	HPQ	39,579 49	0 12%	2 44%	10 81%	13 38%	0 0158%
Hormel Foods Corp	HRL	25,808 27	0 08%	2 05%	5 10%	7 20%	0 0055%
Henry Schein Inc	HSIC	9,850 64	0 03%	0 00%	4 58%	4 58%	0 0013%
Host Hotels & Resorts Inc	HST	11,885 40	N/A	0 00%	N/A	N/A	N/A
Hershey Co/The	HSY	23,178 66	0 07%	2 03%	4 70%	6 78%	0 0047%
Humana Inc	HUM	54,087 86	0 16%	0 67%	12 69%	13 40%	0.0216%
Howmet Aerospace Inc	HWM	13,932 05	N/A	0 00%	N/A	N/A	N/A
International Business Machines Corp	IBM	119,080 34	0 36%	4 89%	9 72%	14.85%	0 0528%
Intercontinental Exchange Inc	ICE	62,843 68	0 19%	1 18%	10 51%	11 75%	0 0220%
IDEXX Laboratories Inc	IDXX	41,799 80	0 12%	0 00%	13 26%	13 26%	0 0165%
IDEX Corp	IEX	15,891 57	0 05%	0 96%	13.80%	14 82%	0 0070%
International Flavors & Fragrances Inc	IFF	34,741 53	0 10%	2 21%	21 05%	23 49%	0 0244%
Illumina Inc	ILMN	56,034 35	0 17%	0 00%	28 36%	28 36%	0 0474%
Incyte Corp	INCY	17,866 64	0 05%	0 00%	49 32%	49 32%	0 0263%
IHS Markit Ltd	INFO	41,009 94	0 12%	0 83%	11 60%	12 47%	0 0153%
Intel Corp	INTC	260,630 14	0 78%	2 17%	5 24%	7 47%	0 0581%
Intuit Inc	INTU	104,897.15	0 31%	0 62%	15 80%	16 46%	0 0516%
International Paper Co	IP	21,240.59	0 06%	3 79%	3 10%	6 95%	0 0044%
Interpublic Group of Cos Inc/The	IPG	11,407 80	0 03%	3 70%	5 74%	9 54%	0 0032%
IPG Photonics Corp	IPGP	11,292 46	0 03%	0 00%	45 56%	45 56%	0 0154%
IQVIA Holdings Inc	IQV	37,034 40	0.11%	0 00%	18 04%	18 04%	0 0199%
Ingersoll Rand Inc	IR	20,607 43	0 06%	0 00%	15 10%	15 10%	0 0093%
Iron Mountain Inc	IRM	10,674 46	0 03%	6 68%	4 00%	10 82%	0 0034%
Intuitive Surgical Inc	ISRG	87,474.24	0 26%	0 00%	12 67%	12 67%	0 0331%
Gartner Inc	IT	16,196 20	0 05%	0 00%	13 50%	13 50%	0 0065%
Illinois Tool Works Inc	ITW	70,106 65	0 21%	2 06%	12 77%	14 96%	0 0313%
Invesco Ltd	IVZ	11,576 08	0 03%	2 46%	2 00%	4 48%	0 0015%
Jacobs Engineering Group Inc	J	16,816 22	0 05%	0 65%	12 19%	12 87%	0 0065%
JB Hunt Transport Services Inc	JBHT	17,765.84	0 05%	0 67%	17 23%	17 96%	0 0095%
Johnson Controls International plc	JCI	42,978 63	0 13%	1 81%	13 90%	15 84%	0 0203%

Company	Ticker	[2] Market Capitalization	[3] Weight in Index	[4] Estimated Dividend Yield	[5] Long-Term Growth Est.	[6] DCF Result	[7] Weighted DCF Result
Jack Henry & Associates Inc	JKHY	11,542 40	0 03%	1 21%	12 47%	13 76%	0 0047%
Johnson & Johnson	JNJ	432,685 40	1 29%	2 46%	8 75%	11 32%	0 1462%
Juniper Networks Inc	JNPR	8,312 60	0 02%	3 16%	9 22%	12 52%	0 0031%
JPMorgan Chase & Co	JPM	464,530 76	1 39%	2 36%	7 30%	9 75%	0 1352%
Kellogg Co	K	21,544 47	0 06%	3 60%	3 46%	7 12%	0 0046%
KeyCorp	KEY	19,181 98	0.06%	3 70%	9 75%	13 63%	0 0078%
Keysight Technologies Inc	KEYS	26,684 59	0 08%	0 00%	10 41%	10 41%	0 0083%
Kraft Heinz Co/The	KHC	48,924 64	0 15%	4 00%	1 74%	5 77%	0 0084%
Kimco Realty Corp	KIM	8,127 02	0 02%	3 63%	4 91%	8 62%	0 0021%
KLA Corp	KLAC	50,906 38	0 15%	1 09%	8 85%	9 99%	0 0152%
Kimberly-Clark Corp	KMB	46,999 87	0 14%	3 28%	4 73%	8 09%	0 0113%
Kinder Morgan Inc	KMI	37,703 09	0 11%	6 31%	4.00%	10 43%	0 0117%
CarMax Inc	KMX	21,562 69	0 06%	0 00%	7 16%	7 16%	0 0046%
Coca-Cola Co/The	KO	227,143 84	0 68%	3 19%	6 21%	9 49%	0 0643%
Kroger Co/The	KR	27,064 26	0 08%	2.00%	7 16%	9 23%	0 0075%
Kansas City Southern	KSU	24,000 09	0 07%	0 82%	13 35%	14 22%	0 0102%
Loews Corp	L	13,698 27	N/A	0 49%	N/A	N/A	N/A
L Brands Inc	LB	17,247 43	0 05%	0 00%	15 50%	15 50%	0 0080%
Leidos Holdings Inc	LDOS	13,608 79	0 04%	1 41%	10 97%	12 46%	0 0051%
Leggett & Platt Inc	LEG	6,070 86	N/A	3.50%	N/A	N/A	N/A
Lennar Corp	LEN	27,787 23	0 08%	0 99%	12 27%	13 32%	0 0110%
Laboratory Corp of America Holdings	LH	24,890 93	0 07%	0 00%	-1 75%	-1 75%	-0 0013%
L3Harris Technologies Inc	LHX	41,664 12	0 12%	2 01%	8 70%	10 80%	0 0134%
Linde PLC	LIN	146,195 26	0 44%	1.51%	9 87%	11.46%	0 0500%
LKQ Corp	LKQ	12,801.23	0 04%	0 00%	9 40%	9 40%	0 0036%
Eli Lilly and Co	LLY	179,158 89	N/A	1 82%	N/A	N/A	N/A
Lockheed Martin Corp	LMT	102,984 08	0 31%	2 81%	5 20%	8 09%	0 0249%
Lincoln National Corp	LNC	11,953 22	0 04%	2 70%	28 56%	31 64%	0 0113%
Alliant Energy Corp	LNT	13,533 55	0 04%	2 97%	6 12%	9 18%	0 0037%
Lowe's Cos Inc	LOW	136,407 94	0 41%	1 26%	16 95%	18 32%	0 0746%
Lam Research Corp	LRCX	85,064 56	0 25%	0 87%	19 27%	20 23%	0 0514%
Lumen Technologies Inc	LUMN	14,642 93	0 04%	7 49%	-4 52%	2 80%	0.0012%
Southwest Airlines Co	LUV	36,066 74	N/A	0 00%	N/A	N/A	N/A
Las Vegas Sands Corp	LVS	46,412 44	0.14%	0 00%	9 35%	9 35%	0 0130%
Lamb Weston Holdings Inc	LW	11,339.59	0 03%	1 21%	12 87%	14 16%	0 0048%
LyondellBasell Industries NV	LYB	34,766 54	0 10%	4 04%	5 50%	9 65%	0 0100%
Live Nation Entertainment Inc	LYV	18,457 68	N/A	0 00%	N/A	N/A	N/A
Mastercard Inc	MA	350,761 59	1 05%	0 49%	21 86%	22 40%	0 2346%
Mid-America Apartment Communities Inc	MAA	16,513 20	N/A	2 84%	N/A	N/A	N/A
Marriott International Inc/MD	MAR	48,220.17	0 14%	0 00%	54 18%	54 18%	0 0780%
Masco Corp	MAS	15,402 81	0 05%	0 93%	8 30%	9 27%	0 0043%
McDonald's Corp	MCD	167,112 51	N/A	2 30%	N/A	N/A	N/A
Microchip Technology Inc	MCHP	41,794 85	0 12%	1 01%	12.20%	13 27%	0.0165%
McKesson Corp	MCK	31,043 93	0 09%	0 86%	4 92%	5 80%	0 0054%
Moody's Corp	MCO	55,884 86	0 17%	0 83%	9 90%	10 77%	0 0180%
Mondelez International Inc	MDLZ	82,651 09	0 25%	2 15%	8 32%	10 56%	0 0260%
Medtronic PLC	MDT	159,247.86	0 48%	1,96%	9.02%	11 07%	0 0526%
MetLife Inc	MET	53,762 62	0 16%	3 03%	4 75%	7 85%	0 0126%
MGM Resorts International	MGM	18,805 20	0 06%	0 03%	25 15%	25 18%	0 0141%
Mohawk Industries Inc	MHK	13,505 16	0 04%	0 00%	17 71%	17 71%	0 0071%
McCormick & Co Inc/MD	MKC	22,201 11	0 07%	1 53%	5 82%	7 39%	0 0049%
MarketAxess Holdings Inc	MKTX	18,918 97	N/A	0 53%	N/A	N/A	N/A
Martin Marietta Materials Inc	MLM	20,917.22	0 06%	0 68%	11 59%	12 31%	0 0077%
Marsh & McLennan Cos Inc	MMC	62,054 91	0 19%	1 53%	7 99%	9 58%	0 0177%
3M Co	MMM	111,642 07	0 33%	3 07%	9 80%	13 02%	0 0434%
Monster Beverage Corp	MNST	48,108 00	0 14%	0 00%	10 34%	10 34%	0.0149%
Altria Group Inc	MO	95,090 58	0 28%	6 72%	2 70%	9 51%	0 0270%
Mosaic Co/The	MOS	11,983 13	0 04%	0 63%	18 05%	18 74%	0 0067%
Marathon Petroleum Corp	MPC	34,836 70	0 10%	4 34%	17 88%	22 60%	0 0235%
Monolithic Power Systems Inc	MPWR	16,113 79	0 05%	0 68%	18 55%	19 29%	0 0093%
Merck & Co Inc	MRK	195,062 06	0 58%	3 37%	7 41%	10 91%	0 0635%
Marathon Oil Corp	MRO	8,427 33	0 03%	1 12%	-3 20%	-2 09%	-0 0005%
Morgan Stanley	MS	146,161.94	0 44%	1.80%	22 90%	24.91%	0 1087%
MSCI Inc	MSCI	34,695.84	0 10%	0 74%	12.20%	12 99%	0 0135%
Microsoft Corp	MSFT	1,778,228 27	5.31%	0 95%	12 54%	13 55%	0.7190%
Motorola Solutions Inc	MSI	31,785 72	0 09%	1 51%	11 30%	12 90%	0 0122%
M&T Bank Corp	MTB	19,502 20	0 06%	2 90%	11 57%	14 64%	0 0085%
Mettler-Toledo International Inc	MTD	26,951.85	0 08%	0 00%	13 45%	13 45%	0 0108%
Micron Technology Inc	MU	98,677 97	0 29%	0 00%	16 00%	16 00%	0 0471%
Maxim Integrated Products Inc	MXIM	24,490 91	0 07%	0 00%	11 30%	11 30%	0 0083%
Norwegian Cruise Line Holdings Ltd	NCLH	10,205 51	0 03%	0 00%	27 64%	27 64%	0 0084%
Nasdaq Inc	NDAQ	24,300 82	0 07%	1 33%	6 85%	8 22%	0 0060%
NextEra Energy Inc	NEE	148,186 15	0 44%	2 04%	8 47%	10 60%	0.0469%
Newmont Corp	NEM	48,282 72	0 14%	3 65%	-6 75%	-3 22%	-0 0046%
Netflix Inc	NFLX	231,040 61	0 69%	0 00%	26 20%	26 20%	0.1807%
NiSource Inc	NI	9,447 74	0 03%	3 65%	6 35%	10 11%	0 0029%
NIKE Inc	NKE	168,966 84	0 50%	0 83%	22 84%	23 77%	0 1199%
NortonLifeLock Inc	NLOK	12,371 22	0 04%	2 35%	19 30%	21 88%	0.0081%
Nielsen Holdings PLC	NLSN	8,998 47	N/A	0 95%	N/A	N/A	N/A
Northrop Grumman Corp	NOC	53,956 61	0 16%	1 79%	4 96%	6 79%	0 0109%
NOV Inc	NOV	5,326 25	0 02%	0 00%	2 80%	2 80%	0 0004%
ServiceNow Inc	NOW	98,071 57	0 29%	0 00%	31 05%	31 05%	0 0909%
NRG Energy Inc	NRG	9,232 08	0 03%	3 45%	26 40%	30 30%	0.0083%
Norfolk Southern Corp	NSC	67,418 12	0.20%	1 47%	12 24%	13 81%	0 0278%
NetApp Inc	NTAP	16,176 41	0 05%	2 64%	7 80%	10 54%	0 0051%
Northern Trust Corp	NTRS	21,854 16	0 07%	2 66%	6 42%	9 17%	0.0060%
Nucor Corp	NUE	23,951 20	0 07%	2 02%	12 00%	14 14%	0 0101%
NVIDIA Corp	NVDA	331,036 60	0 99%	0 12%	19 88%	20 01%	0 1977%

Company	Ticker	[2] Market Capitalization	[3] Weight in Index	[4] Estimated Dividend Yield	[5] Long-Term Growth Est	[6] DCF Result	[7] Weighted DCF Result
NVR Inc	NVR	17,317.36	0 05%	0.00%	16 91%	16 91%	0 0087%
Newell Brands Inc	NWL	11,390 36	0 03%	3 44%	2 00%	5 47%	0 0019%
News Corp	NWS	4,683 32	0 01%	0 85%	30 80%	31 78%	0 0044%
News Corp	NWSA	9,945 49	0 03%	0 79%	30 80%	31.71%	0 0094%
NXP Semiconductors NV	NXPI	55,518 90	0 17%	1 12%	18 48%	19 70%	0 0326%
Realty Income Corp	O	23,710 33	0 07%	4 44%	4 84%	9 38%	0 0066%
Old Dominion Freight Line Inc	ODFL	28,112 82	0 08%	0 33%	16 18%	16 54%	0 0139%
ONEOK Inc	OKE	22,542 89	0 07%	7 38%	13 10%	20 97%	0 0141%
Omnicom Group Inc	OMC	15,946 18	0 05%	3 78%	12 07%	16 07%	0 0076%
Oracle Corp	ORCL	202,337 65	0 60%	1 82%	8 73%	10 63%	0 0642%
O'Reilly Automotive Inc	ORLY	35,460 83	0 11%	0 00%	10 50%	10 50%	0 0111%
Otis Worldwide Corp	OTIS	29,418 44	0 09%	1 17%	2 20%	3 38%	0 0030%
Occidental Petroleum Corp	OXY	24,848 73	0 07%	0 15%	-38 15%	-38 03%	-0 0282%
Paycom Software Inc	PAYC	22,273 54	0 07%	0 00%	26 25%	26 25%	0 0175%
Paychex Inc	PAYX	35,349 05	0 11%	2 53%	7 70%	10 33%	0 0109%
People's United Financial Inc	PBCT	7,616 90	N/A	4 02%	N/A	N/A	N/A
PACCAR Inc	PCAR	32,255 78	0 10%	1 38%	11 65%	13 11%	0 0126%
Healthpeak Properties Inc	PEAK	17,103 83	0 05%	3 78%	1 22%	5 02%	0 0026%
Public Service Enterprise Group Inc	PEG	30,411 65	0 09%	3 39%	5 04%	8 52%	0 0077%
Penn National Gaming Inc	PENN	16,405 99	0 05%	0 00%	86 45%	86 45%	0.0423%
PepsiCo Inc	PEP	195,207 79	0 58%	2.89%	7 39%	10 39%	0 0605%
Pfizer Inc	PFE	202,096 88	0 60%	4 31%	6 37%	10 81%	0 0652%
Principal Financial Group Inc	PFG	16,345 94	0 05%	3 74%	15 19%	19 21%	0 0094%
Procter & Gamble Co/The	PG	333,493 12	1 00%	2 34%	7 15%	9 57%	0 0952%
Progressive Corp/The	PGR	55,946 48	0 17%	0 42%	-1 64%	-1 23%	-0 0020%
Parker-Hannifin Corp	PH	40,716 02	0 12%	1 12%	12 83%	14 02%	0 0170%
PulteGroup Inc	PHM	13,869 12	0 04%	1 07%	9 50%	10 62%	0 0044%
Packaging Corp of America	PKG	12,774 93	0 04%	2.97%	1 63%	4 63%	0 0018%
PerkinElmer Inc	PKI	14,376 43	0 04%	0 22%	-6 87%	-6 66%	-0 0029%
Prologis Inc	PLD	78,412 97	0 23%	2 38%	6 90%	9 36%	0 0219%
Philip Morris International Inc	PM	138,302 44	0 41%	5 41%	10 39%	16 07%	0 0664%
PNC Financial Services Group Inc/The	PNC	74,377 35	0 22%	2 62%	29 21%	32 22%	0 0715%
Pentair PLC	PNR	10,355 84	0 03%	1 28%	9 74%	11 08%	0 0034%
Pinnacle West Capital Corp	PNW	9,167 49	0 03%	4 08%	3 66%	7 81%	0 0021%
Pool Corp	POOL	13,863 46	0 04%	0 67%	17 00%	17 73%	0 0073%
PPG Industries Inc	PPG	35,603 51	0 11%	1 44%	6 93%	8 42%	0 0089%
PPL Corp	PPL	22,177 53	0 07%	5 76%	-2 65%	3 03%	0 0020%
Perrigo Co PLC	PRGO	5,405 46	0 02%	2 37%	3 00%	5 41%	0 0009%
Prudential Financial Inc	PRU	36,022 40	0 11%	5 05%	5 73%	10 93%	0 0117%
Public Storage	PSA	43,131 18	0 13%	3 24%	5 29%	8 62%	0 0111%
Phillips 66	PSX	35,626 95	0 11%	4 42%	1 35%	5.79%	0 0062%
PVH Corp	PVH	7,522 67	0 02%	0 00%	-3 24%	-3 24%	-0 0007%
Quanta Services Inc	PWR	12,173 35	N/A	0.27%	N/A	N/A	N/A
Pioneer Natural Resources Co	PXD	34,397 24	0 10%	1 41%	17 20%	18 73%	0 0192%
PayPal Holdings Inc	PYPL	284,408 38	0 85%	0 00%	23 13%	23 13%	0 1964%
QUALCOMM Inc	QCOM	150,622 24	0 45%	1 96%	24 73%	26 93%	0 1211%
Qorvo Inc	QRVO	20,693 15	0 06%	0 00%	18 00%	18 00%	0 0111%
Royal Caribbean Cruises Ltd	RCL	21,792 80	0 07%	0 00%	28 24%	28 24%	0 0184%
Everest Re Group Ltd	RE	9,910 42	0 03%	2 50%	59 46%	62 71%	0 0185%
Regency Centers Corp	REG	9,631 00	0 03%	4 20%	7 01%	11 35%	0 0033%
Regeneron Pharmaceuticals Inc	REGN	49,813 60	0 15%	0 00%	3 54%	3 54%	0 0053%
Regions Financial Corp	RF	19,847 52	0 06%	3 00%	24 57%	27 94%	0 0165%
Robert Half International Inc	RHI	8,831 67	0 03%	1 95%	10 28%	12 33%	0 0032%
Raymond James Financial Inc	RJF	16,877 86	0 05%	1 27%	13 50%	14 86%	0 0075%
Ralph Lauren Corp	RL	5,940 87	0.02%	0 00%	0 66%	0.66%	0 0001%
ResMed Inc	RMD	28,231.66	0 08%	0 80%	12 73%	13 59%	0 0114%
Rockwell Automation Inc	ROK	30,832 18	0 09%	1 61%	11 04%	12 74%	0.0117%
Rollins Inc	ROL	16,939 08	N/A	0 93%	N/A	N/A	N/A
Roper Technologies Inc	ROP	42,326 50	0 13%	0 56%	13 70%	14 30%	0 0181%
Ross Stores Inc	ROST	42,750 67	0 13%	0 24%	8 85%	9 10%	0 0116%
Republic Services Inc	RSG	31,682 52	0 09%	1 71%	7 94%	9 72%	0 0092%
Raytheon Technologies Corp	RTX	117,143 87	0.35%	2 46%	13 86%	16.49%	0 0577%
SBA Communications Corp	SBAC	30,342 88	0 09%	0 84%	47 40%	48 43%	0 0439%
Starbucks Corp	SBUX	128,643 57	0 38%	1 65%	25 20%	27 05%	0 1039%
Charles Schwab Corp/The	SCHW	117,522 80	0 35%	1 10%	12 05%	13 22%	0 0464%
Sealed Air Corp	SEE	7,098 39	0 02%	1 40%	7 19%	8 64%	0 0018%
Sherwin-Williams Co/The	SHW	65,837 04	0 20%	0 89%	0 62%	1 52%	0 0030%
SVB Financial Group	SIVB	26,602 35	0 08%	0 00%	8 00%	8 00%	0 0064%
J M Smucker Co/The	SJM	13,865 92	0 04%	2 85%	1 65%	4 52%	0 0019%
Schlumberger NV	SLB	38,018 93	0 11%	1 84%	28 68%	30 78%	0 0349%
Snap-on Inc	SNA	12,561 02	0 04%	2 13%	7 09%	9 30%	0 0035%
Synopsys Inc	SNPS	37,754 98	0 11%	0 00%	14 64%	14 64%	0 0165%
Southern Co/The	SO	65,669 86	0 20%	4 12%	5 20%	9 43%	0 0185%
Simon Property Group Inc	SPG	37,337 15	0.11%	4 57%	6 37%	11 09%	0 0124%
S&P Global Inc	SPGI	85,001 44	0 25%	0.87%	8 00%	8 91%	0 0226%
Sempra Energy	SRE	40,132 76	0 12%	3 32%	6 75%	10 18%	0 0122%
STERIS PLC	STE	16,258 04	0 05%	0 84%	11 80%	12 69%	0 0062%
State Street Corp	STT	29,553 54	0.09%	2 48%	7 55%	10 11%	0 0089%
Seagate Technology PLC	STX	17,720 19	0 05%	3 49%	4 60%	8.17%	0 0043%
Constellation Brands Inc	STZ	38,766 61	0 12%	1.32%	7 91%	9 27%	0 0107%
Stanley Black & Decker Inc	SWK	32,152.46	0 10%	1 40%	9 56%	11 03%	0 0106%
Skyworks Solutions Inc	SWKS	30,290 35	0 09%	1 09%	17.55%	18 73%	0 0169%
Synchrony Financial	SYF	23,740 64	0 07%	2 16%	31 25%	33 75%	0 0239%
Stryker Corp	SYK	91,665 24	0 27%	1 03%	10 13%	11 21%	0.0307%
Sysco Corp	SYY	40,189 84	0 12%	2 29%	6 50%	8 86%	0 0106%
AT&T Inc	T	215,878 47	0 64%	6 87%	0 91%	7 81%	0 0503%
Molson Coors Beverage Co	TAP	10,250 26	0 03%	0 00%	4 81%	4 81%	0 0015%
TransDigm Group Inc	TDG	32,152 76	0 10%	0 00%	18 39%	18 39%	0 0176%

Company	Ticker	[2] Market Capitalization	[3] Weight in Index	[4] Estimated Dividend Yield	[5] Long-Term Growth Est.	[6] DCF Result	[7] Weighted DCF Result
Teledyne Technologies Inc	TDY	15,314 15	N/A	0.00%	N/A	N/A	N/A
TE Connectivity Ltd	TEL	42,718 88	0.13%	1.55%	12 38%	14 02%	0 0179%
Teradyne Inc	TER	20,267 63	0 06%	0 33%	15 00%	15 35%	0 0093%
Truist Financial Corp	TFC	78,408 50	0 23%	3 09%	11 09%	14 35%	0 0336%
Teleflex Inc	TFX	19,421 92	0 06%	0.33%	13 75%	14 10%	0 0082%
Target Corp	TGT	98,760 87	0 29%	1 37%	12 61%	14 07%	0 0415%
TJX Cos Inc/The	TJX	79,421 74	0 24%	1 57%	8 70%	10.34%	0 0245%
Thermo Fisher Scientific Inc	TMO	179,719 25	0 54%	0 23%	3 60%	3 83%	0 0206%
T-Mobile US Inc	TMUS	155,710 91	0 46%	0 00%	29 80%	29 80%	0 1385%
Tapestry Inc	TPR	11,449 70	0 03%	0 00%	14 18%	14 18%	0 0048%
Trimble Inc	TRMB	19,551 97	0 06%	0 00%	8 25%	8 25%	0 0048%
T Rowe Price Group Inc	TROW	39,030 93	0 12%	2 52%	13 15%	15 84%	0 0184%
Travelers Cos Inc/The	TRV	37,932 99	0 11%	2 26%	7 23%	9 57%	0 0108%
Tractor Supply Co	TSCO	20,576 87	0 06%	1 17%	7 37%	8 59%	0 0053%
Tesla Inc	TSLA	641,115 28	1 91%	0.00%	40.70%	40 70%	0 7788%
Tyson Foods Inc	TSN	21,897 84	0 07%	2 40%	5 66%	8 12%	0 0053%
Trane Technologies PLC	TT	39,474 31	0 12%	1 43%	12 37%	13 88%	0 0164%
Take-Two Interactive Software Inc	TTWO	20,351 95	0 06%	0 00%	6 38%	6.38%	0 0039%
Twitter Inc	TWTR	50,786 41	0 15%	0 00%	80 00%	80 00%	0 1213%
Texas Instruments Inc	TXN	174,439 28	0 52%	2 16%	10 03%	12 30%	0 0640%
Textron Inc	TXT	12,725 95	0 04%	0 14%	26 22%	26 38%	0 0100%
Tyler Technologies Inc	TYL	17,226 15	0 05%	0 00%	20 15%	20 15%	0 0104%
Under Armour Inc	UA	4,282 42	0 01%	0 00%	40 90%	40 90%	0 0052%
United Airlines Holdings Inc	UAL	18,325 11	0 05%	0 00%	124 80%	124 80%	0 0683%
UDR Inc	UDR	13,325 33	0 04%	3 31%	1 47%	4 80%	0 0019%
Universal Health Services Inc	UHS	10,382 68	0 03%	0 60%	5 00%	5 61%	0 0017%
Ulta Beauty Inc	ULTA	17,377 21	0 05%	0 00%	8 80%	8 80%	0 0046%
UnitedHealth Group Inc	UNH	351,724 84	1 05%	1 34%	12.67%	14 10%	0 1480%
Unum Group	UNM	5,669 83	0 02%	4 10%	3 33%	7 49%	0 0013%
Union Pacific Corp	UNP	147,637 01	0 44%	1 76%	10 60%	12 45%	0 0549%
United Parcel Service Inc	UPS	122,636 91	0 37%	2 40%	8 04%	10 54%	0 0386%
United Rentals Inc	URI	23,818 99	0 07%	0 00%	9 21%	9 21%	0 0065%
US Bancorp	USB	83,107 37	0 25%	3 04%	10 80%	14 00%	0 0347%
Visa Inc	V	359,118 22	1 07%	0 60%	18 45%	19 11%	0 2048%
Varian Medical Systems Inc	VAR	16,212 34	0 05%	0 00%	8 80%	8 80%	0 0043%
VF Corp	VFC	31,305.78	0 09%	2 45%	7 83%	10 37%	0 0097%
ViacomCBS Inc	VIAC	26,397 26	0 08%	2 13%	-2 26%	-0 15%	-0 0001%
Valero Energy Corp	VLO	29,267 14	0 09%	5 47%	3 62%	9 20%	0 0080%
Vulcan Materials Co	VMC	22,387 05	0 07%	0 88%	13 82%	14 76%	0 0099%
Vornado Realty Trust	VNO	8,685 60	0 03%	4 67%	-1 41%	3 23%	0 0008%
Verisk Analytics Inc	VRSK	28,763.72	0 09%	0 66%	9 53%	10 22%	0 0088%
VeriSign Inc	VRSN	22,478 76	0 07%	0 00%	4 30%	4 30%	0 0029%
Vertex Pharmaceuticals Inc	VRTX	55,862 80	0 17%	0 00%	37 76%	37 76%	0 0630%
Ventas Inc	VTR	19,984 31	0 06%	3 37%	3 34%	6.77%	0 0040%
Viatris Inc	VTRS	16,862 95	0 05%	0 00%	-6 27%	-6.27%	-0 0032%
Verizon Communications Inc	VZ	240,741.00	0 72%	4 32%	2 35%	6 72%	0 0483%
Westinghouse Air Brake Technologies Corp	WAB	14,953 01	0 04%	0 61%	8 75%	9 38%	0 0042%
Waters Corp	WAT	17,671 40	0 05%	0 00%	9 03%	9 03%	0 0048%
Walgreens Boots Alliance Inc	WBA	47,435 91	0 14%	3 41%	4 74%	8 23%	0 0116%
Western Digital Corp	WDC	20,431 97	0 06%	0 00%	5 35%	5 35%	0 0033%
WEC Energy Group Inc	WEC	29,521 56	0.09%	2 90%	6 56%	9 55%	0 0084%
Welltower Inc	WELL	29,897 14	0 09%	3 41%	9 81%	13.38%	0 0119%
Wells Fargo & Co	WFC	161,521 01	0 48%	1 02%	35 36%	36.56%	0 1763%
Whirlpool Corp	WHR	13,831 81	0 04%	2 27%	2 98%	5 28%	0 0022%
Willis Towers Watson PLC	WLTW	29,519 11	0 09%	1 24%	10 00%	11 30%	0 0100%
Waste Management Inc	WM	54,451 73	0 16%	1 78%	10 42%	12 29%	0 0200%
Williams Cos Inc/The	WMB	28,777 59	0 09%	6 92%	5 27%	12 37%	0 0106%
Walmart Inc	WMT	382,642 89	1 14%	1 62%	5 90%	7 57%	0 0864%
W R Berkley Corp	WRB	13,364 23	0 04%	0 64%	14 65%	15 33%	0 0061%
Westrock Co	WRK	13,716 06	0 04%	1 54%	9 99%	11 60%	0 0047%
West Pharmaceutical Services Inc	WST	20,809 45	0 06%	0 24%	17 21%	17 47%	0 0109%
Western Union Co/The	WU	10,133 34	0 03%	3 81%	4 57%	8 47%	0 0026%
Weyerhaeuser Co	WY	26,620 54	0 08%	1 91%	3 80%	5 75%	0 0046%
Wynn Resorts Ltd	WYNN	14,497 79	N/A	0 00%	N/A	N/A	N/A
Xcel Energy Inc	XEL	35,759 03	0 11%	2 75%	6 24%	9 08%	0 0097%
Xilinx Inc	XLNX	30,450 53	0 09%	0 00%	9 90%	9 90%	0 0090%
Exxon Mobil Corp	XOM	236,357 59	0 71%	6 23%	11.66%	18 25%	0 1288%
DENTSPLY SIRONA Inc	XRAY	13,977 45	0 04%	0 63%	19 99%	20 68%	0 0086%
Xylem Inc/NY	XYL	18,932 61	0 06%	1 06%	15 90%	17 05%	0 0096%
Yum! Brands Inc	YUM	32,459 95	0 10%	1 85%	11 83%	13.78%	0 0134%
Zimmer Biomet Holdings Inc	ZBH	33,335 22	0 10%	0 60%	8 71%	9 33%	0 0093%
Zebra Technologies Corp	ZBRA	25,941 12	0 08%	0 00%	13 10%	13 10%	0 0101%
Zions Bancorp NA	ZION	8,993.32	0 03%	2 47%	8 58%	11 16%	0 0030%
Zoetis Inc	ZTS	74,829 14	0 22%	0 64%	13 43%	14 11%	0 0315%
Total Market Capitalization		33,503,217 09					15 92%

Notes
[1] Equals sum of Col [7]
[2] Source Bloomberg Professional Service
[3] Equals weight in S&P 500 based on market capitalization
[4] Source Bloomberg Professional Service
[5] Source Bloomberg Professional Service
[6] Equals ([4] x (1 + (0 5 x [5]))) + [5]
[7] Equals Col [3] x Col [6]

Expected Market Return
Market DCF Method Based - Value Line

[1] S&P 500 Est Required Market Return
14 21%

Company	Ticker	[2] Market Capitalization	[3] Weight in Index	[4] Estimated Dividend Yield	[5] Long-Term Growth Est	[6] DCF Result	[7] Weighted DCF Result
Agilent Technologies Inc	A	36,858 20	0 12%	0 65%	10 50%	11 18%	0 0131%
American Airlines Group Inc	AAL	13,554 48	0 04%	0 00%	-3 50%	-3 50%	-0 0015%
Advance Auto Parts Inc	AAP	12,438 51	0 04%	0 55%	11 00%	11 58%	0 0046%
Apple Inc	AAPL	2,020,306 00	6.44%	0 73%	14 50%	15 28%	0 9835%
AbbVie Inc	ABBV	181,914 60	0 58%	5 05%	6 50%	11 71%	0 0679%
AmerisourceBergen Corp	ABC	23,561 55	0.08%	1 53%	7 00%	8 58%	0 0064%
ABIOMED Inc	ABMD	13,305 65	0.04%	0 00%	10 00%	10 00%	0 0042%
Abbott Laboratories	ABT	209,174 20	0 67%	1 53%	12 00%	13 62%	0 0908%
Accenture PLC	ACN	170,206 70	0 54%	1 38%	8 00%	9 44%	0 0512%
Adobe Inc	ADBE	216,273 30	0 69%	0 00%	14 00%	14 00%	0 0964%
Analog Devices Inc	ADI	55,496 41	0 18%	1 84%	8 50%	10 42%	0 0184%
Archer-Daniels-Midland Co	ADM	31,091 52	0 10%	2 72%	9 00%	11 84%	0 0117%
Automatic Data Processing Inc	ADP	79,314 08	0 25%	2 08%	9 00%	11 17%	0 0282%
Autodesk Inc	ADSK	57,820 64	N/A	0 00%	N/A	N/A	N/A
Ameren Corp	AEE	20,514 77	0 07%	2 77%	6 00%	8 85%	0.0058%
American Electric Power Co Inc	AEP	42,206 38	0 13%	3 58%	6 50%	10 20%	0 0137%
AES Corp/The	AES	17,060 61	0 05%	2 34%	21 50%	24 09%	0 0131%
Aflac Inc	AFL	34,553 46	0 11%	2 73%	7 00%	9 83%	0 0108%
American International Group Inc	AIG	38,761 49	0 12%	2 85%	28 50%	31 76%	0 0392%
Assurant Inc	AIZ	8,231 46	0 03%	1 86%	11 50%	13 47%	0 0035%
Arthur J Gallagher & Co	AJG	24,061 41	0 08%	1 55%	13 00%	14 65%	0 0112%
Akamai Technologies Inc	AKAM	16,009 04	0 05%	0 00%	15.00%	15 00%	0 0076%
Albemarle Corp	ALB	15,666 24	0 05%	1 06%	6 50%	7 58%	0.0038%
Align Technology Inc	ALGN	39,911 00	0 13%	0 00%	19.00%	19 00%	0 0242%
Alaska Air Group Inc	ALK	8,126 34	0 03%	0 00%	1 50%	1.50%	0 0004%
Allstate Corp/The	ALL	34,306 40	0 11%	2 87%	8 50%	11 49%	0 0126%
Allegion plc	ALLE	11,096 06	0 04%	1 18%	8 50%	9 73%	0 0034%
Alexion Pharmaceuticals Inc	ALXN	33,263 03	0 11%	0 00%	19 50%	19 50%	0 0207%
Applied Materials Inc	AMAT	111,128 80	0 35%	0 79%	11 50%	12 34%	0 0437%
Amcor PLC	AMCR	18,310 89	N/A	4 16%	N/A	N/A	N/A
Advanced Micro Devices Inc	AMD	92,617 27	0 30%	0 00%	24 00%	24 00%	0.0708%
AMETEK Inc	AME	28,310 04	0 09%	0 65%	12 50%	13.19%	0 0119%
Amgen Inc	AMGN	141,955 30	0 45%	2 95%	5 50%	8 53%	0 0386%
Ameriprise Financial Inc	AMP	25,973 82	0 08%	1 87%	12 00%	13 98%	0 0116%
American Tower Corp	AMT	100,831 10	0 32%	2 38%	10 00%	12 50%	0.0401%
Amazon com Inc	AMZN	1,552,796 00	4 95%	0 00%	35 50%	35 50%	1 7559%
Arista Networks Inc	ANET	21,668 46	0 07%	0 00%	5 50%	5 50%	0.0038%
ANSYS Inc	ANSS	28,363 59	0 09%	0 00%	10 00%	10 00%	0.0090%
Anthem Inc	ANTM	88,557 86	0 28%	1 25%	10 00%	11 31%	0.0319%
Aon PLC	AON	51,618 13	0 16%	0 82%	7 50%	8 35%	0 0137%
A O Smith Corp	AOS	10,557 11	0 03%	1 59%	5.00%	6 63%	0 0022%
APA Corp	APA	7,013 21	0.02%	0 54%	8 50%	9 06%	0 0020%
Air Products and Chemicals Inc	APD	61,517 22	0.20%	2 16%	12 50%	14 80%	0 0290%
Amphenol Corp	APH	38,100 89	0 12%	0.91%	9 00%	9 95%	0 0121%
Aptiv PLC	APTV	37,763 00	0 12%	0 00%	15 50%	15 50%	0 0186%
Alexandria Real Estate Equities Inc	ARE	18,483 50	0 06%	2 62%	13 00%	15 79%	0 0093%
Atmos Energy Corp	ATO	12,283 47	0 04%	2 71%	7 00%	9 80%	0 0038%
Activision Blizzard Inc	ATVI	70,075 46	0 22%	0 52%	14 50%	15 06%	0 0336%
AvalonBay Communities Inc	AVB	25,791 57	0 08%	3 50%	1 00%	4 52%	0 0037%
Broadcom Inc	AVGO	186,586 20	0 59%	3 15%	27 00%	30 58%	0 1817%
Avery Dennison Corp	AVY	14,779 17	0 05%	1 40%	9.50%	10 97%	0 0052%
American Water Works Co Inc	AWK	26,271 89	0 08%	1 62%	8 50%	10 19%	0 0085%
American Express Co	AXP	111,428 10	0 35%	1 30%	6 00%	7 34%	0 0260%
AutoZone Inc	AZO	30,024 47	0 10%	0 00%	12 00%	12 00%	0 0115%
Boeing Co/The	BA	139,314 20	N/A	0 00%	N/A	N/A	N/A
Bank of America Corp	BAC	319,215 00	1 02%	1 95%	4 00%	5.99%	0.0609%
Baxter International Inc	BAX	41,925 56	0 13%	1,19%	8 50%	9 74%	0 0130%
Best Buy Co Inc	BBY	29,494 56	0 09%	2 45%	9 00%	11 56%	0 0109%
Becton Dickinson and Co	BDX	70,248 69	0 22%	1 39%	9 00%	10 45%	0 0234%
Franklin Resources Inc	BEN	14,451 47	0 05%	3 92%	18 00%	22 27%	0 0103%
Brown-Forman Corp	BF/B	33,060 50	0 11%	1.04%	12 00%	13 10%	0 0138%
Biogen Inc	BIIB	40,889 69	0 13%	0 00%	1.00%	1 00%	0 0013%
Bio-Rad Laboratories Inc	BIO	16,694 14	0 05%	0 00%	14 50%	14 50%	0 0077%
Bank of New York Mellon Corp/The	BK	40,126 07	0 13%	2 74%	3 00%	5 78%	0 0074%
Booking Holdings Inc	BKNG	90,210 60	0 29%	0 00%	7 00%	7 00%	0 0201%
Baker Hughes Co	BKR	15,117 95	0 05%	3 26%	34 50%	38 32%	0 0185%
BlackRock Inc	BLK	110,216 50	0 35%	2 29%	9 50%	11 90%	0 0418%
Ball Corp	BLL	27,959 47	0 09%	0 70%	20 00%	20 77%	0 0185%
Bristol-Myers Squibb Co	BMY	139,601 20	0 45%	3 15%	56 50%	60 54%	0 2696%
Broadridge Financial Solutions Inc	BR	17,239 14	0 05%	1 55%	8 50%	10 12%	0 0056%
Berkshire Hathaway Inc	BRK/B	-	N/A	0 00%	N/A	N/A	N/A
Boston Scientific Corp	BSX	53,809 38	0 17%	0 00%	12 00%	12 00%	0 0206%
BorgWarner Inc	BWA	10,636 58	0 03%	1 56%	5 50%	7 10%	0 0024%
Boston Properties Inc	BXP	15,904 67	0 05%	3.88%	1 50%	5 41%	0 0027%
Citigroup Inc	C	145,903 80	0 46%	2 91%	3 50%	6 46%	0 0300%
Conagra Brands Inc	CAG	18,028 57	0 06%	3 06%	5 50%	8 64%	0 0050%
Cardinal Health Inc	CAH	17,378 34	0 06%	3 32%	11 50%	15 01%	0 0083%
Carrier Global Corp	CARR	34,834 66	N/A	1 20%	N/A	N/A	N/A
Caterpillar Inc	CAT	120,185 00	0 38%	1 86%	7 00%	8 93%	0 0342%
Chubb Ltd	CB	70,694 51	0 23%	1 99%	10 00%	12 09%	0 0272%
Cboe Global Markets Inc	CBOE	11,058 24	0 04%	1 63%	12 50%	14 23%	0 0050%
CBRE Group Inc	CBRE	24,885 21	0 08%	0 00%	6 50%	6 50%	0 0052%
Crown Castle International Corp	CCI	72,270 08	0 23%	3 33%	11 50%	15 02%	0 0346%

Company	Ticker	[2] Market Capitalization	[3] Weight in Index	[4] Estimated Dividend Yield	[5] Long-Term Growth Est	[6] DCF Result	[7] Weighted DCF Result
Carnival Corp	CCL	20,625.50	0 07%	0 00%	-10 00%	-10 00%	-0 0066%
Cadence Design Systems Inc	CDNS	35,415 87	0 11%	0 00%	13 00%	13 00%	0 0147%
CDW Corp/DE	CDW	22,194 58	0 07%	1 02%	11 00%	12 08%	0 0085%
Celanese Corp	CE	16,754 51	0 05%	1 90%	5 50%	7 45%	0 0040%
Cerner Corp	CERN	22,005 41	0 07%	1 23%	8 00%	9 28%	0 0065%
CF Industries Holdings Inc	CF	9,579 05	0 03%	2 73%	14 50%	17 43%	0 0053%
Citizens Financial Group Inc	CFG	18,039 56	0 06%	3 69%	1.50%	5 22%	0 0030%
Church & Dwight Co Inc	CHD	20,750 10	0 07%	1 19%	8 00%	9 24%	0 0061%
CH Robinson Worldwide Inc	CHRW	12,920 01	0 04%	2 19%	7 00%	9 27%	0 0038%
Charter Communications Inc	CHTR	126,226 70	0 40%	0 00%	26 50%	26 50%	0 1065%
Cigna Corp	CI	88,323 88	0 28%	1 66%	11 00%	12 75%	0 0359%
Cincinnati Financial Corp	CINF	16,822 89	0 05%	2 41%	10 50%	13 04%	0 0070%
Colgate-Palmolive Co	CL	66,096 18	0 21%	2 32%	4 50%	6 87%	0 0145%
Clorox Co/The	CLX	23,789 49	0 08%	2 35%	6 50%	8 93%	0 0068%
Comerica Inc	CMA	9,281 47	0 03%	4,08%	1 00%	5 10%	0,0015%
Comcast Corp	CMCSA	256,150 30	0 82%	1 79%	11 50%	13 39%	0 1093%
CME Group Inc	CME	73,334 38	0 23%	1,76%	2 50%	4.28%	0 0100%
Chipotle Mexican Grill Inc	CMG	39,813 00	0 13%	0,00%	18 00%	18 00%	0 0228%
Cummins Inc	CMI	38,165 37	0 12%	2 10%	5.50%	7 66%	0 0093%
CMS Energy Corp	CMS	17,590 67	0 06%	2 91%	7 50%	10 52%	0 0059%
Centene Corp	CNC	37,761 25	0 12%	0 00%	9 50%	9 50%	0 0114%
CenterPoint Energy Inc	CNP	11,991.97	0 04%	2 99%	8 00%	11 11%	0 0042%
Capital One Financial Corp	COF	56,676 06	0 18%	1 29%	2 00%	3 30%	0 0060%
Cabot Oil & Gas Corp	COG	7,271 42	0 02%	2 63%	13 50%	16 31%	0 0038%
Cooper Cos Inc/The	COO	18,673 22	0 06%	0 02%	13 50%	13 52%	0 0080%
ConocoPhillips	COP	57,080 60	0 18%	3 23%	3 50%	6 79%	0 0123%
Costco Wholesale Corp	COST	149,634 80	0 48%	0 87%	11 00%	11 92%	0 0568%
Campbell Soup Co	CPB	14,777 75	0 05%	3 04%	4 00%	7 10%	0 0033%
Copart Inc	CPRT	25,024 91	0 08%	0 00%	12 00%	12 00%	0 0096%
salesforce com Inc	CRM	191,510 40	0 61%	0 00%	46 50%	46 50%	0 2837%
Cisco Systems Inc/Delaware	CSCO	209,572 70	0 67%	2 98%	6 00%	9 07%	0 0605%
CSX Corp	CSX	71,807 35	0 23%	1 19%	8 50%	9 74%	0 0223%
Cintas Corp	CTAS	35,270 05	0 11%	0 89%	13 00%	13 95%	0 0157%
Catalent Inc	CTLT	17,520 30	0 06%	0 00%	29 50%	29 50%	0 0165%
Cognizant Technology Solutions Corp	CTSH	41,470 66	0 13%	1 25%	5 00%	6 28%	0,0083%
Corteva Inc	CTVA	34,340 33	N/A	1 23%	N/A	N/A	N/A
Citrix Systems Inc	CTXS	16,607 21	0 05%	1 10%	9 00%	10 15%	0 0054%
CVS Health Corp	CVS	95,831 90	0 31%	2 73%	6 00%	8 81%	0 0269%
Chevron Corp	CVX	201,567 00	0 64%	4 93%	8 00%	13 13%	0 0843%
Caesars Entertainment Inc	CZR	N/A	N/A	0 00%	N/A	N/A	N/A
Dominion Energy Inc	D	59,772 96	0 19%	3 40%	7 00%	10 52%	0,0200%
Delta Air Lines Inc	DAL	29,107 48	0.09%	0 00%	4 50%	4.50%	0 0042%
DuPont de Nemours Inc	DD	56,298 76	N/A	1 59%	N/A	N/A	N/A
Deere & Co	DE	113,123 30	0 36%	1 00%	13 50%	14 57%	0 0525%
Discover Financial Services	DFS	28,492 06	0 09%	1 89%	5.50%	7 44%	0 0068%
Dollar General Corp	DG	48,284 60	0 15%	0 85%	13 00%	13 91%	0 0214%
Quest Diagnostics Inc	DGX	16,876 37	0 05%	1 95%	7 00%	9 02%	0 0048%
DR Horton Inc	DHI	30,386 43	0 10%	0 97%	10 50%	11 52%	0 0112%
Danaher Corp	DHR	156,043 20	0 50%	0 38%	16 50%	16 91%	0 0841%
Walt Disney Co/The	DIS	328,986 30	1 05%	0,00%	17 00%	17 00%	0 1781%
Discovery Inc	DISCA	30,722 24	0 10%	0 00%	15 50%	15 50%	0 0152%
DISH Network Corp	DISH	18,689.06	N/A	0 00%	N/A	N/A	N/A
Digital Realty Trust Inc	DLR	39,265 82	0 13%	3 36%	7 00%	10 48%	0 0131%
Dollar Tree Inc	DLTR	25,989 60	0 08%	0 00%	8 50%	8 50%	0 0070%
Dover Corp	DOV	19,550 46	0 06%	1 46%	6 50%	8 01%	0 0050%
Dow Inc	DOW	46,107 45	N/A	4 59%	N/A	N/A	N/A
Domino's Pizza Inc	DPZ	14,234.24	0 05%	1 03%	15 00%	16 11%	0 0073%
Duke Realty Corp	DRE	15,450 22	0 05%	2 52%	-2 50%	-0 01%	0 0000%
Darden Restaurants Inc	DRI	17,454 83	0 06%	1 11%	9 50%	10 66%	0 0059%
DTE Energy Co	DTE	25,292 80	0 08%	3 43%	6 00%	9 53%	0 0077%
Duke Energy Corp	DUK	72,585 91	0 23%	4 13%	5 00%	9 23%	0 0213%
DaVita Inc	DVA	11,986 00	0 04%	0 00%	14 50%	14 50%	0 0055%
Devon Energy Corp	DVN	8,556 22	0 03%	1 97%	5 50%	7 52%	0 0021%
DXC Technology Co	DXC	6,703 18	0 02%	0 00%	2 50%	2 50%	0 0005%
Dexcom Inc	DXCM	34,150 08	0 11%	0 00%	52 50%	52 50%	0 0571%
Electronic Arts Inc	EA	37,439 90	0 12%	0 52%	9 50%	10 04%	0 0120%
eBay Inc	EBAY	39,425 76	0 13%	1 25%	18 50%	19 87%	0 0249%
Ecolab Inc	ECL	59,557 02	0 19%	0,92%	6 00%	6 95%	0 0132%
Consolidated Edison Inc	ED	25,134 87	0 08%	4 22%	2 50%	6 77%	0 0054%
Equifax Inc	EFX	21,208 26	0 07%	0 69%	5 50%	6 41%	0 0043%
Edison International	EIX	22,707 90	0 07%	4 47%	12 00%	16 74%	0 0121%
Estee Lauder Cos Inc/The	EL	103,343 10	0 33%	0 78%	11 00%	11 82%	0 0389%
Eastman Chemical Co	EMN	14,727 95	0 05%	2 54%	5 00%	7 60%	0 0036%
Emerson Electric Co	EMR	52,818 39	0 17%	2 31%	9 00%	11 41%	0 0192%
Enphase Energy Inc	ENPH	18,685 44	0 06%	0 00%	48 50%	48 50%	0 0289%
EOG Resources Inc	EOG	42,332 16	0 13%	2 28%	7,00%	9 36%	0 0126%
Equinix Inc	EQIX	59,037 01	0 19%	1 77%	17 00%	18.92%	0 0358%
Equity Residential	EQR	26,585 63	0 08%	3 37%	2 00%	5 40%	0 0046%
Eversource Energy	ES	29,367 15	0 09%	2 81%	6 50%	9 40%	0.0088%
Essex Property Trust Inc	ESS	18,260 56	0 06%	3 03%	1 00%	4 05%	0.0024%
Eaton Corp PLC	ETN	53,591 77	0 17%	2 26%	5 50%	7 82%	0.0134%
Entergy Corp	ETR	19,509 77	0 06%	4 02%	3 00%	7 08%	0 0044%
Etsy Inc	ETSY	25,063 81	0 08%	0 00%	32 00%	32 00%	0 0255%
Evergy Inc	EVRG	13,392 40	0 04%	3 73%	8 00%	11 88%	0 0051%
Edwards Lifesciences Corp	EW	50,075 11	0 16%	0 00%	13 00%	13 00%	0 0207%
Exelon Corp	EXC	41,899 68	0 13%	3 56%	4 00%	7 63%	0 0102%
Expeditors International of Washington I	EXPD	17,300 48	0 06%	1 02%	5 50%	6 55%	0 0036%
Expedia Group Inc	EXPE	23,497 02	0 07%	0 00%	12 00%	12 00%	0 0090%
Extra Space Storage Inc	EXR	16,965 07	0 05%	3 05%	3 50%	6 60%	0 0036%
Ford Motor Co	F	47,437 97	0 15%	0 00%	9 50%	9 50%	0 0144%
Diamondback Energy Inc	FANG	11,742 46	0,04%	2 15%	-3 00%	-0 88%	-0 0003%
Fastenal Co	FAST	27,691 74	0 09%	2 32%	9 50%	11 93%	0 0105%
Facebook Inc	FB	803,816 90	2 56%	0 00%	15 50%	15 50%	0 3969%
Fortune Brands Home & Security Inc	FBHS	12,253 38	0 04%	1 18%	10 00%	11 24%	0 0044%
Freeport-McMoRan Inc	FCX	46,087 38	0 15%	1 01%	32 50%	33 67%	0 0494%

Company	Ticker	[2] Market Capitalization	[3] Weight in Index	[4] Estimated Dividend Yield	[5] Long-Term Growth Est	[6] DCF Result	[7] Weighted DCF Result
FedEx Corp	FDX	71,188 60	0 23%	0 97%	8 50%	9 51%	0 0216%
FirstEnergy Corp	FE	18,645 21	0 06%	4 54%	8 50%	13 23%	0 0079%
F5 Networks Inc	FFIV	12,185 26	0 04%	0 00%	9 00%	9 00%	0 0035%
Fidelity National Information Services I	FIS	88,907 99	0 28%	1 09%	28 00%	29 24%	0 0828%
Fiserv Inc	FISV	82,614 48	0 26%	0 00%	14 00%	14 00%	0 0368%
Fifth Third Bancorp	FITB	25,858 93	0 08%	2 98%	4 00%	7 04%	0 0058%
FLIR Systems Inc	FLIR	7,181 94	0 02%	1 24%	6 50%	7 78%	0.0018%
FleetCor Technologies Inc	FLT	22,839 10	0 07%	0 00%	14 00%	14 00%	0 0102%
FMC Corp	FMC	14,165 45	0.05%	1 77%	8 50%	10 35%	0.0047%
Fox Corp	FOXA	23,732 19	N/A	1 15%	N/A	N/A	N/A
First Republic Bank/CA	FRC	28,491 95	0 09%	0.51%	10 50%	11 04%	0 0100%
Federal Realty Investment Trust	FRT	7,698 02	0 02%	4 27%	-2 00%	2 23%	0 0005%
Fortinet Inc	FTNT	27,801 99	0 09%	0 00%	21 00%	21 00%	0 0186%
Fortive Corp	FTV	23,354 47	0 07%	0 40%	7 00%	7 41%	0 0055%
General Dynamics Corp	GD	50,502 70	0 16%	2 70%	5 00%	7 77%	0 0125%
General Electric Co	GE	109,568 70	0 35%	0 32%	4 00%	4 33%	0 0151%
Gilead Sciences Inc	GILD	80,694 91	0 26%	4 41%	15 50%	20 25%	0 0521%
General Mills Inc	GIS	35,863 72	0 11%	3 55%	4 00%	7 62%	0 0087%
Globe Life Inc	GL	10,153 86	0 03%	0 78%	8 00%	8 81%	0 0028%
Corning Inc	GLW	30,791 25	0 10%	2 39%	20 00%	22 63%	0 0222%
General Motors Co	GM	79,881 30	0 25%	0 00%	7 00%	7 00%	0 0178%
Generac Holdings Inc	GNRC	21,378 92	0 07%	0 00%	21 00%	21 00%	0 0143%
Alphabet Inc	GOOGL	N/A	N/A	0 00%	N/A	N/A	N/A
Genuine Parts Co	GPC	16,565 94	0 05%	2 84%	7 00%	9 94%	0 0052%
Global Payments Inc	GPN	60,357 21	0 19%	0 39%	11 50%	11 91%	0 0229%
Gap Inc/The	GPS	10,232 64	0 03%	0 00%	2 50%	2 50%	0 0008%
Garmin Ltd	GRMN	24,175 17	0 08%	2 11%	9.00%	11 20%	0 0086%
Goldman Sachs Group Inc/The	GS	113,084 50	0 36%	1 52%	6 50%	8 07%	0 0291%
WW Grainger Inc	GWW	20,767 46	0 07%	1 57%	4 50%	6 11%	0 0040%
Halliburton Co	HAL	18,850 50	0 06%	0 85%	1 50%	2 36%	0 0014%
Hasbro Inc	HAS	13,104 18	0 04%	2 84%	9 00%	11 97%	0 0050%
Huntington Bancshares Inc/OH	HBAN	15,583 44	0 05%	3 92%	4 50%	8 51%	0 0042%
Hanesbrands Inc	HBI	6,701 06	0 02%	3 12%	3 50%	6 67%	0 0014%
HCA Healthcare Inc	HCA	62,459 72	0 20%	1 04%	10 50%	11 59%	0 0231%
Home Depot Inc/The	HD	314,999 00	1 00%	2 25%	8 00%	10 34%	0 1037%
Hess Corp	HES	21,212 88	N/A	1 45%	N/A	N/A	N/A
HollyFrontier Corp	HFC	5,788 83	0 02%	4 14%	-2 00%	2 10%	0 0004%
Hartford Financial Services Group Inc/Th	HIG	24,019 59	0 08%	2 09%	8 50%	10.68%	0 0082%
Huntington Ingalls Industries Inc	HII	7,861 86	0 03%	2 35%	3 50%	5 89%	0 0015%
Hilton Worldwide Holdings Inc	HLT	32,675 45	0 10%	0 00%	11 00%	11 00%	0 0115%
Hologic Inc	HOLX	18,531 61	0 06%	0 00%	25 50%	25 50%	0 0151%
Honeywell International Inc	HON	147,874 90	0 47%	1.75%	8 00%	9 82%	0 0463%
Hewlett Packard Enterprise Co	HPE	19,195 32	0 06%	3 25%	6 50%	9.86%	0 0060%
HP Inc	HPQ	36,800 61	0 12%	2 66%	11 50%	14 31%	0 0168%
Hormel Foods Corp	HRL	25,959 51	0 08%	2 04%	10 00%	12 14%	0 0100%
Henry Schein Inc	HSIC	9,353 66	0.03%	0 00%	4 50%	4 50%	0 0013%
Host Hotels & Resorts Inc	HST	12,041 18	0 04%	0 00%	8 00%	8 00%	0 0031%
Hershey Co/The	HSY	32,745 78	0.10%	2.05%	5 00%	7 10%	0 0074%
Humana Inc	HUM	54,786 12	0 17%	0 68%	11 00%	11 72%	0 0204%
Howmet Aerospace Inc	HWM	13,159 88	0 04%	0 00%	6 00%	6 00%	0 0025%
International Business Machines Corp	IBM	116,598 30	0 37%	4 99%	1.50%	6 53%	0 0242%
Intercontinental Exchange Inc	ICE	63,174 21	0 20%	1 17%	9.50%	10 73%	0 0216%
IDEXX Laboratories Inc	IDXX	40,344.34	0 13%	0 00%	14 00%	14 00%	0 0180%
IDEX Corp	IEX	15,233 38	0.05%	0,99%	7 50%	8 53%	0 0041%
International Flavors & Fragrances Inc	IFF	14,588 87	0.05%	2 29%	6 00%	8 36%	0 0039%
Illumina Inc	ILMN	59,392 80	0 19%	0 00%	8 50%	8 50%	0 0161%
Incyte Corp	INCY	17,253 28	0 05%	0 00%	66 50%	66 50%	0 0365%
IHS Markit Ltd	INFO	38,148 09	0 12%	0 83%	10 50%	11 37%	0 0138%
Intel Corp	INTC	252,006 50	0 80%	2 24%	7 00%	9 32%	0 0748%
Intuit Inc	INTU	98,796 02	0 31%	0 66%	15 50%	16 21%	0 0510%
International Paper Co	IP	20,519 82	0 07%	3 93%	11 00%	15 15%	0.0099%
Interpublic Group of Cos Inc/The	IPG	10,845 35	0 03%	3 88%	10 00%	14 07%	0 0049%
IPG Photonics Corp	IPGP	10,836.60	0 03%	0 00%	18 50%	18 50%	0 0064%
IQVIA Holdings Inc	IQV	35,677 29	0 11%	0 00%	13 50%	13 50%	0 0153%
Ingersoll Rand Inc	IR	20,236 48	N/A	0 00%	N/A	N/A	N/A
Iron Mountain Inc	IRM	10,506 42	0 03%	6 80%	7 50%	14 56%	0 0049%
Intuitive Surgical Inc	ISRG	83,550 72	0 27%	0 00%	13.00%	13 00%	0 0346%
Gartner Inc	IT	16,191 79	0.05%	0 00%	10 50%	10 50%	0 0054%
Illinois Tool Works Inc	ITW	69,743 94	0 22%	2 07%	9 00%	11 16%	0 0248%
Invesco Ltd	IVZ	10,679 54	0 03%	2 67%	2 50%	5 20%	0 0018%
Jacobs Engineering Group Inc	J	16,033 32	0 05%	0 68%	12.50%	13 22%	0 0066%
JB Hunt Transport Services Inc	JBHT	16,858 97	0 05%	0 72%	7 50%	8 25%	0 0044%
Johnson Controls International plc	JCI	42,200 73	0.13%	1,84%	8 00%	9 91%	0 0133%
Jack Henry & Associates Inc	JKHY	11,708.54	0.04%	1 20%	10 50%	11 76%	0 0044%
Johnson & Johnson	JNJ	426,174 20	1 36%	2 50%	9 50%	12 12%	0 1645%
Juniper Networks Inc	JNPR	8,028 65	0 03%	3 35%	7 00%	10 47%	0 0027%
JPMorgan Chase & Co	JPM	459,305 70	1 46%	2 39%	5 50%	7 96%	0 1164%
Kellogg Co	K	21,152 68	0 07%	3 74%	2 50%	6 29%	0 0042%
KeyCorp	KEY	18,793 39	0 06%	3 84%	4 50%	8 43%	0 0050%
Keysight Technologies Inc	KEYS	25,198 94	0 08%	0 00%	16 50%	16 50%	0 0132%
Kraft Heinz Co/The	KHC	46,755.29	0 15%	4 19%	-0 50%	3 68%	0 0055%
Kimco Realty Corp	KIM	7,897 80	0 03%	4 38%	-2 00%	2 34%	0 0006%
KLA Corp	KLAC	45,923 02	0 15%	1 21%	13 00%	14 29%	0 0209%
Kimberly-Clark Corp	KMB	45,958 07	0 15%	3 36%	5 50%	8 95%	0 0131%
Kinder Morgan Inc	KMI	36,658 32	0 12%	6 49%	19 00%	26 11%	0 0305%
CarMax Inc	KMX	20,925 41	0 07%	0 00%	8 50%	8 50%	0 0057%
Coca-Cola Co/The	KO	221,639 00	0 71%	3 26%	6 50%	9 87%	0 0697%
Kroger Co/The	KR	27,353 86	0 09%	2 02%	7 50%	9 60%	0 0084%
Kansas City Southern	KSU	23,135 95	0 07%	0 85%	13 00%	13 91%	0 0102%
Loews Corp	L	13,710 42	0 04%	0 49%	13 00%	13 52%	0 0059%
L Brands Inc	LB	15,926 62	0 05%	1 05%	16 00%	17 13%	0 0087%
Leidos Holdings Inc	LDOS	13,472 96	0 04%	1 43%	10 50%	12 01%	0 0052%
Leggett & Platt Inc	LEG	5,841 03	0 02%	3 63%	10 00%	13 81%	0 0026%
Lennar Corp	LEN	29,596 96	0 09%	1 08%	7 00%	8 12%	0 0077%
Laboratory Corp of America Holdings	LH	24,390 91	0 08%	0 00%	9 50%	9 50%	0 0074%

Company	Ticker	[2] Market Capitalization	[3] Weight in Index	[4] Estimated Dividend Yield	[5] Long-Term Growth Est	[6] DCF Result	[7] Weighted DCF Result
L3Harris Technologies Inc	LHX	42,502 94	N/A	2 08%	N/A	N/A	N/A
Linde PLC	LIN	141,590 70	N/A	1 61%	N/A	N/A	N/A
LKQ Corp	LKQ	12,486 82	0.04%	0 00%	10 50%	10 50%	0 0042%
Eli Lilly and Co	LLY	172,348 80	0 55%	1 89%	9 00%	10 98%	0 0603%
Lockheed Martin Corp	LMT	99,357 48	0 32%	2 98%	7 50%	10 59%	0 0335%
Lincoln National Corp	LNC	11,253 17	0 04%	2 97%	9 00%	12 10%	0 0043%
Alliant Energy Corp	LNT	13,322 96	0 04%	3 02%	5 50%	8 60%	0 0037%
Lowe's Cos Inc	LOW	135,871 40	0 43%	1 38%	15 50%	16.99%	0 0735%
Lam Research Corp	LRCX	79,113 59	0 25%	1 00%	13 00%	14 07%	0 0354%
Lumen Technologies Inc	LUMN	14,501 29	0 05%	7 56%	2 50%	10 15%	0 0047%
Southwest Airlines Co	LUV	34,070 35	0 11%	0 00%	1 50%	1 50%	0 0016%
Las Vegas Sands Corp	LVS	45,188 95	0 14%	0 00%	5 50%	5 50%	0 0079%
Lamb Weston Holdings Inc	LW	11,414 23	0 04%	1 22%	4 00%	5 24%	0 0019%
LyondellBasell Industries NV	LYB	34,103 05	N/A	4 11%	N/A	N/A	N/A
Live Nation Entertainment Inc	LYV	17,705 89	N/A	0 00%	N/A	N/A	N/A
Mastercard Inc	MA	357,851 80	1 14%	0 49%	12 00%	12 52%	0 1427%
Mid-America Apartment Communities Inc	MAA	16,489 12	0 05%	2 84%	0 50%	3 35%	0 0018%
Marriott International Inc/MD	MAR	46,480 03	0 15%	0 00%	4 00%	4 00%	0 0059%
Masco Corp	MAS	14,794 86	0.05%	1 64%	7 50%	9 20%	0 0043%
McDonald's Corp	MCD	167,006 90	0 53%	2 33%	8 00%	10 42%	0 0554%
Microchip Technology Inc	MCHP	39,516 31	0.13%	1 07%	9 00%	10 12%	0 0127%
McKesson Corp	MCK	29,891 56	0 10%	0 90%	9 00%	9 94%	0.0095%
Moody's Corp	MCO	55,647 01	0 18%	0 84%	9 00%	9 88%	0 0175%
Mondelez International Inc	MDLZ	83,016 68	0 26%	2 27%	8 00%	10 36%	0 0274%
Medtronic PLC	MDT	156,252 60	0 50%	2 07%	7 00%	9 14%	0.0455%
MetLife Inc	MET	53,012 19	0 17%	3 14%	6 50%	9 74%	0 0165%
MGM Resorts International	MGM	18,203 03	0 06%	0 03%	30 00%	30 03%	0 0174%
Mohawk Industries Inc	MHK	13,029.54	0 04%	0 00%	6 50%	6 50%	0 0027%
McCormick & Co Inc/MD	MKC	23,361 76	0 07%	1 55%	6 50%	8 10%	0 0060%
MarketAxess Holdings Inc	MKTX	19,037 84	0 06%	0 53%	17 00%	17 58%	0 0107%
Martin Marietta Materials Inc	MLM	20,076 18	0 06%	0 72%	6 00%	6 74%	0 0043%
Marsh & McLennan Cos Inc	MMC	59,428 11	0 19%	1 61%	9 00%	10 68%	0 0202%
3M Co	MMM	109,994 00	0 35%	3 11%	5 00%	8 19%	0 0267%
Monster Beverage Corp	MNST	46,852 77	0 15%	0 00%	12 50%	12 50%	0 0187%
Altria Group Inc	MO	92,010 33	0 29%	6 95%	6 50%	13 68%	0 0401%
Mosaic Co/The	MOS	11,452 34	0 04%	0 99%	30 00%	31 14%	0 0114%
Marathon Petroleum Corp	MPC	34,613 67	0 11%	4 36%	3 50%	7 94%	0 0088%
Monolithic Power Systems Inc	MPWR	14,982 92	0.05%	0 73%	17 50%	18 29%	0 0087%
Merck & Co Inc	MRK	192,904 40	0 61%	3 41%	8 00%	11 55%	0 0709%
Marathon Oil Corp	MRO	8,247 60	0 03%	1 15%	13 00%	14 22%	0 0037%
Morgan Stanley	MS	143,557 50	0 46%	1 77%	7 50%	9 34%	0 0427%
MSCI Inc	MSCI	35,212 30	0 11%	0 81%	18 00%	18 88%	0 0212%
Microsoft Corp	MSFT	1,776,781 00	5 66%	0 95%	14 50%	15 52%	0 8783%
Motorola Solutions Inc	MSI	30,668 18	0 10%	1 57%	7 00%	8 62%	0 0084%
M&T Bank Corp	MTB	18,963 77	0 06%	2 98%	4 00%	7 04%	0 0043%
Mettler-Toledo International Inc	MTD	26,051 10	0 08%	0 00%	12 00%	12 00%	0 0100%
Micron Technology Inc	MU	92,711 00	0 30%	0 00%	12 50%	12 50%	0 0369%
Maxim Integrated Products Inc	MXIM	23,959 38	0 08%	0 00%	8 00%	8 00%	0 0061%
Norwegian Cruise Line Holdings Ltd	NCLH	6,975 92	0 02%	0 00%	-4 50%	-4 50%	-0 0010%
Nasdaq Inc	NDAQ	24,299 58	0 08%	1 33%	7 00%	8 38%	0 0065%
NextEra Energy Inc	NEE	142,746.80	0 45%	2 12%	10 50%	12 73%	0 0579%
Newmont Corp	NEM	48,296 00	0 15%	3 64%	14 50%	18 40%	0 0283%
Netflix Inc	NFLX	230,664.20	0 73%	0.00%	24 00%	24 00%	0 1763%
NiSource Inc	NI	9,148 76	0.03%	3 69%	12 50%	16 42%	0 0048%
NIKE Inc	NKE	209,727 00	0 67%	0 83%	26 50%	27 44%	0 1833%
NortonLifeLock Inc	NLOK	12,362 22	0 04%	2 37%	6 50%	8 95%	0 0035%
Nielsen Holdings PLC	NLSN	8,924 98	N/A	0 96%	N/A	N/A	N/A
Northrop Grumman Corp	NOC	52,687 58	0 17%	1 84%	7 00%	8 90%	0 0149%
NOV Inc	NOV	5,240 35	N/A	0 00%	N/A	N/A	N/A
ServiceNow Inc	NOW	92,126 02	0 29%	0 00%	54 50%	54 50%	0 1599%
NRG Energy Inc	NRG	8,772 20	N/A	3 62%	N/A	N/A	N/A
Norfolk Southern Corp	NSC	66,631 23	0 21%	1 50%	9 50%	11 07%	0 0235%
NetApp Inc	NTAP	15,304 49	0 05%	3 03%	5 50%	8 61%	0 0042%
Northern Trust Corp	NTRS	20,676 82	0 07%	2 82%	5 00%	7 89%	0 0052%
Nucor Corp	NUE	20,974.94	0 07%	2 33%	2 50%	4 86%	0 0032%
NVIDIA Corp	NVDA	313,546 40	1 00%	0.13%	14 50%	14 64%	0 1462%
NVR Inc	NVR	16,778 55	0 05%	0 00%	8 00%	8 00%	0 0043%
Newell Brands Inc	NWL	10,571 80	N/A	3 69%	N/A	N/A	N/A
News Corp	NWSA	15,033 65	N/A	0 79%	N/A	N/A	N/A
NXP Semiconductors NV	NXPI	52,527 35	0 17%	1 20%	11 00%	12 27%	0 0205%
Realty Income Corp	O	21,094 73	0.07%	4 56%	6 00%	10.70%	0 0072%
Old Dominion Freight Line Inc	ODFL	27,468 36	0.09%	0 35%	10.00%	10 37%	0 0091%
ONEOK Inc	OKE	21,683 06	0 07%	7 90%	9 50%	17 78%	0 0123%
Omnicom Group Inc	OMC	16,101 35	0 05%	3 74%	5 50%	9 34%	0 0048%
Oracle Corp	ORCL	193,472 90	0 62%	1 92%	10 50%	12 52%	0 0772%
O'Reilly Automotive Inc	ORLY	35,819 75	0 11%	0.00%	14 00%	14 00%	0 0160%
Otis Worldwide Corp	OTIS	29,111 48	N/A	1.19%	N/A	N/A	N/A
Occidental Petroleum Corp	OXY	25,203 28	0 08%	0 30%	12 00%	12 32%	0 0099%
Paycom Software Inc	PAYC	20,989 53	0 07%	0 00%	23 00%	23 00%	0 0154%
Paychex Inc	PAYX	34,966 79	0 11%	2 72%	6 50%	9 31%	0 0104%
People's United Financial Inc	PBCT	7,338 47	0 02%	4 23%	2 50%	6 78%	0 0016%
PACCAR Inc	PCAR	31,433 15	0 10%	3 64%	3 50%	7 20%	0 0072%
Healthpeak Properties Inc	PEAK	15,833 66	0 05%	3 83%	-13 00%	-9 42%	-0 0048%
Public Service Enterprise Group Inc	PEG	29,589 84	0 09%	3.48%	5 00%	8 57%	0 0081%
Penn National Gaming Inc	PENN	16,155.73	0 05%	0 00%	15.00%	15 00%	0 0077%
PepsiCo Inc	PEP	191,557 80	0 61%	2 95%	6 00%	9.04%	0 0552%
Pfizer Inc	PFE	198,240 90	0 63%	4 38%	9 50%	14 09%	0 0890%
Principal Financial Group Inc	PFG	15,907 27	0.05%	3 87%	4 50%	8 46%	0 0043%
Procter & Gamble Co/The	PG	326,425 80	1.04%	2 38%	7 00%	9 46%	0 0984%
Progressive Corp/The	PGR	54,162 15	0 17%	0 43%	9 00%	9.45%	0 0163%
Parker-Hannifin Corp	PH	39,799 55	0 13%	1 14%	11 50%	12.71%	0 0161%
PulteGroup Inc	PHM	12,846 23	0 04%	1 18%	7 00%	8 22%	0 0034%
Packaging Corp of America	PKG	12,317 47	0 04%	3 08%	5 00%	8 16%	0 0032%
PerkinElmer Inc	PKI	14,007 13	0 04%	0 22%	17 50%	17 74%	0 0079%
Prologis Inc	PLD	76,762 54	0 24%	2 48%	8 50%	11 09%	0 0271%

Company	Ticker	[2] Market Capitalization	[3] Weight in Index	[4] Estimated Dividend Yield	[5] Long-Term Growth Est.	[6] DCF Result	[7] Weighted DCF Result
Philip Morris International Inc	PM	137,905 50	0 44%	5 42%	5 00%	10 56%	0 0464%
PNC Financial Services Group Inc/The	PNC	72,186 00	0 23%	2 70%	3 00%	5 74%	0 0132%
Pentair PLC	PNR	9,940 59	0 03%	1 34%	5 50%	6 88%	0 0022%
Pinnacle West Capital Corp	PNW	8,975 70	0 03%	4 30%	4 50%	8 90%	0 0025%
Pool Corp	POOL	13,656 03	0 04%	0 68%	17 50%	18 24%	0 0079%
PPG Industries Inc	PPG	35,067 40	0 11%	1 46%	6 00%	7.50%	0 0084%
PPL Corp	PPL	21,852 34	0.07%	5 88%	2 50%	8 45%	0 0059%
Perrigo Co PLC	PRGO	5,643 44	0 02%	2 29%	-2 00%	0 27%	0 0000%
Prudential Financial Inc	PRU	35,114 36	0 11%	5 18%	4 50%	9 80%	0 0110%
Public Storage	PSA	42,059 40	0 13%	3 34%	2 50%	5 88%	0 0079%
Phillips 66	PSX	35,830.70	0 11%	4 51%	3 00%	7 58%	0 0086%
PVH Corp	PVH	6,803 46	0 02%	0 00%	3 50%	3 50%	0 0008%
Quanta Services Inc	PWR	11,379 32	0 04%	0 29%	13 50%	13 81%	0 0050%
Pioneer Natural Resources Co	PXD	26,530 14	0 08%	1 40%	10 50%	11 97%	0 0101%
PayPal Holdings Inc	PYPL	274,564 40	0 87%	0 00%	19 00%	19.00%	0 1662%
QUALCOMM Inc	QCOM	144,476 50	0 46%	2 14%	16 50%	18 82%	0 0866%
Qorvo Inc	QRVO	19,463 64	0 06%	0 00%	32 00%	32 00%	0 0198%
Royal Caribbean Cruises Ltd	RCL	17,515 47	0 06%	0 00%	-0 50%	-0 50%	-0 0003%
Everest Re Group Ltd	RE	9,709 98	0 03%	2 55%	10 50%	13 18%	0 0041%
Regency Centers Corp	REG	9,283 43	0 03%	4 30%	10 00%	14 52%	0 0043%
Regeneron Pharmaceuticals Inc	REGN	48,380 09	0 15%	0 00%	12 50%	12 50%	0 0193%
Regions Financial Corp	RF	19,132 64	0 06%	3 11%	8 50%	11 74%	0 0072%
Robert Half International Inc	RHI	8,336 33	0.03%	2 10%	7 50%	9 68%	0 0026%
Raymond James Financial Inc	RJF	16,287 65	0 05%	1 32%	6 00%	7 36%	0 0038%
Ralph Lauren Corp	RL	8,330 48	0 03%	0 00%	6 50%	6 50%	0 0017%
ResMed Inc	RMD	27,962 96	0 09%	0 81%	13 00%	13 86%	0 0123%
Rockwell Automation Inc	ROK	30,560.31	0 10%	1 65%	6 50%	8 20%	0 0080%
Rollins Inc	ROL	16,621 77	0 05%	0 95%	11 50%	12.50%	0 0066%
Roper Technologies Inc	ROP	42,618 77	0 14%	0 55%	10 00%	10 58%	0 0144%
Ross Stores Inc	ROST	41,162 73	0 13%	0 00%	7 50%	7 50%	0.0098%
Republic Services Inc	RSG	34,809 17	0 11%	1 78%	8 50%	10 36%	0 0115%
Raytheon Technologies Corp	RTX	114,793 50	0 37%	2 54%	1 50%	4 06%	0,0148%
SBA Communications Corp	SBAC	30,363 76	0 10%	0 85%	30 50%	31 48%	0 0304%
Starbucks Corp	SBUX	123,570 70	0 39%	1 81%	16 00%	17 95%	0 0707%
Charles Schwab Corp/The	SCHW	115,500 50	0 37%	1 17%	7 50%	8 71%	0 0321%
Sealed Air Corp	SEE	7,004 08	0 02%	1 42%	13 50%	15 02%	0 0034%
Sherwin-Williams Co/The	SHW	64,853 43	0 21%	0 95%	10 00%	11 00%	0 0227%
SVB Financial Group	SIVB	25,242 51	0 08%	0 00%	7 50%	7 50%	0 0060%
J M Smucker Co/The	SJM	13,519 42	0 04%	2 97%	2 50%	5 51%	0 0024%
Schlumberger NV	SLB	38,177 57	N/A	1 82%	N/A	N/A	N/A
Snap-on Inc	SNA	11,658 44	0 04%	2 28%	5 00%	7 34%	0 0027%
Synopsys Inc	SNPS	35,508 43	0 11%	0 00%	13 50%	13 50%	0 0153%
Southern Co/The	SO	64,116 80	0 20%	4 32%	3 50%	7 90%	0 0161%
Simon Property Group Inc	SPG	33,570.59	0 11%	4 75%	-0 50%	4 24%	0 0045%
S&P Global Inc	SPGI	84,781 38	0 27%	0 88%	10 00%	10 92%	0 0295%
Sempra Energy	SRE	37,203 98	0.12%	3 49%	11 00%	14 68%	0 0174%
STERIS PLC	STE	16,022 02	0.05%	0 85%	10 00%	10 89%	0 0056%
State Street Corp	STT	28,203 04	0 09%	2 61%	5 00%	7 68%	0 0069%
Seagate Technology PLC	STX	17,101 37	0 05%	3 76%	5 50%	9 36%	0 0051%
Constellation Brands Inc	STZ	44,392 09	0 14%	1 39%	7 50%	8 94%	0 0126%
Stanley Black & Decker Inc	SWK	34,386 41	0 11%	1 46%	6 00%	7 50%	0 0082%
Skyworks Solutions Inc	SWKS	28,229 23	0 09%	1 17%	13 00%	14 25%	0 0126%
Synchrony Financial	SYF	23,052 92	0 07%	2 23%	4 50%	6 78%	0 0050%
Stryker Corp	SYK	87,865 80	0 28%	1 08%	9 50%	10 63%	0 0298%
Sysco Corp	SYY	39,601 34	0.13%	2 32%	11 50%	13 95%	0 0176%
AT&T Inc	T	213,680 10	0 68%	6 94%	2 50%	9 53%	0 0648%
Molson Coors Beverage Co	TAP	10,479 61	0 03%	0 00%	5 50%	5 50%	0 0018%
TransDigm Group Inc	TDG	32,400 57	0 10%	0 00%	9.50%	9 50%	0 0098%
Teledyne Technologies Inc	TDY	14,310 02	0 05%	0 00%	9 00%	9 00%	0 0041%
TE Connectivity Ltd	TEL	41,353 20	0 13%	1 60%	8 00%	9 66%	0 0127%
Teradyne Inc	TER	18,596 82	0 06%	0 36%	13 00%	13 38%	0 0079%
Truist Financial Corp	TFC	75,251 95	0 24%	3 23%	7 00%	10 34%	0 0248%
Teleflex Inc	TFX	18,797 23	0 06%	0 34%	13 50%	13 86%	0 0083%
Target Corp	TGT	94,282 15	0 30%	1 45%	12 50%	14 04%	0 0422%
TJX Cos Inc/The	TJX	77,236 59	0 25%	1 62%	11 50%	13 21%	0 0325%
Thermo Fisher Scientific Inc	TMO	176,515 70	0 56%	0 23%	17 50%	17 75%	0 0998%
T-Mobile US Inc	TMUS	151,947 40	0 48%	0 00%	8 50%	8 50%	0 0411%
Tapestry Inc	TPR	11,289 79	0 04%	0 00%	4 00%	4 00%	0 0014%
Trimble Inc	TRMB	17,789.24	0 06%	0 00%	12 50%	12 50%	0 0071%
T Rowe Price Group Inc	TROW	38,553.93	0 12%	2 54%	8.00%	10 64%	0 0131%
Travelers Cos Inc/The	TRV	37,678 27	0 12%	2 28%	9 00%	11 38%	0.0137%
Tractor Supply Co	TSCO	19,652 55	0 06%	1 23%	9 50%	10 79%	0 0068%
Tesla Inc	TSLA	597,496 00	N/A	0.00%	N/A	N/A	N/A
Tyson Foods Inc	TSN	26,853 05	0 09%	2 42%	6 50%	9.00%	0 0077%
Trane Technologies PLC	TT	38,498 23	N/A	1 46%	N/A	N/A	N/A
Take-Two Interactive Software Inc	TTWO	19,594 03	0 06%	0 00%	16 50%	16 50%	0 0103%
Twitter Inc	TWTR	49,303 38	0 16%	0 00%	29 00%	29 00%	0 0455%
Texas Instruments Inc	TXN	164,472 40	0 52%	2 28%	5 50%	7 84%	0 0411%
Textron Inc	TXT	11,904 16	0 04%	0 15%	8 50%	8 66%	0 0033%
Tyler Technologies Inc	TYL	19,804 31	0.06%	0 00%	10 50%	10 50%	0 0066%
Under Armour Inc	UAA	10,025 45	0 03%	0 00%	11 00%	11 00%	0 0035%
United Airlines Holdings Inc	UAL	15,663 99	0 05%	0 00%	1 50%	1 50%	0 0007%
UDR Inc	UDR	12,902 62	0 04%	3 38%	6 00%	9 48%	0 0039%
Universal Health Services Inc	UHS	11,343 40	0 04%	0 60%	10 00%	10 63%	0 0038%
Ulta Beauty Inc	ULTA	16,955 93	0 05%	0 00%	7 00%	7 00%	0 0038%
UnitedHealth Group Inc	UNH	351,699 40	1 12%	1 35%	12 00%	13 43%	0 1505%
Unum Group	UNM	5,309 60	0 02%	4 37%	3 00%	7 44%	0 0013%
Union Pacific Corp	UNP	142,930 60	0 46%	1 82%	10 00%	11 91%	0 0542%
United Parcel Service Inc	UPS	138,098 30	0 44%	2 62%	8 00%	10 72%	0 0472%
United Rentals Inc	URI	22,049 68	0 07%	0 00%	7 00%	7 00%	0 0049%
US Bancorp	USB	80,585 07	0 26%	3 14%	3 00%	6 19%	0 0159%
Visa Inc	V	406,152 70	1 29%	0 63%	15 50%	16 18%	0 2093%
Varian Medical Systems Inc	VAR	16,020 75	0 05%	0 00%	14 50%	14 50%	0 0074%
VF Corp	VFC	29,972 99	0 10%	2 56%	6 00%	8 64%	0.0082%
ViacomCBS Inc	VIAC	43,181 61	0 14%	1 37%	8 00%	9 42%	0 0130%

Company	Ticker	[2] Market Capitalization	[3] Weight in Index	[4] Estimated Dividend Yield	[5] Long-Term Growth Est	[6] DCF Result	[7] Weighted DCF Result
Valero Energy Corp	VLO	29,315 31	0 09%	5 46%	2 00%	7.51%	0 0070%
Vulcan Materials Co	VMC	21,275 44	0 07%	0 92%	10 00%	10.97%	0 0074%
Vornado Realty Trust	VNO	8,643 09	0 03%	4 69%	-18 50%	-14 24%	-0 0039%
Verisk Analytics Inc	VRSK	28,795 53	0 09%	0 66%	11 50%	12.20%	0 0112%
VeriSign Inc	VRSN	22,130 05	0 07%	0 00%	9 50%	9.50%	0 0067%
Vertex Pharmaceuticals Inc	VRTX	55,037 21	0 18%	0 00%	28.50%	28 50%	0 0500%
Ventas Inc	VTR	20,086 54	0 06%	3 45%	4.50%	8 03%	0 0051%
Viatris Inc	VTRS	N/A	N/A	0 00%	N/A	N/A	N/A
Verizon Communications Inc	VZ	235,912 80	0 75%	4 46%	3 50%	8 04%	0 0604%
Westinghouse Air Brake Technologies Corp	WAB	14,362 97	0 05%	0 63%	8 50%	9 16%	0 0042%
Waters Corp	WAT	16,687 56	0 05%	0 00%	11 50%	11 50%	0 0061%
Walgreens Boots Alliance Inc	WBA	44,732 84	0 14%	3 61%	5 00%	8 70%	0 0124%
Western Digital Corp	WDC	19,479 96	0 06%	0 00%	5 00%	5 00%	0 0031%
WEC Energy Group Inc	WEC	29,004 15	0 09%	3 00%	6 50%	9 60%	0 0089%
Welltower Inc	WELL	29,710 60	N/A	3 48%	N/A	N/A	N/A
Wells Fargo & Co	WFC	157,531 60	N/A	1 05%	N/A	N/A	N/A
Whirlpool Corp	WHR	13,085 72	0 04%	2 37%	6 50%	8 95%	0 0037%
Willis Towers Watson PLC	WLTW	28,854 63	0 09%	1 27%	11 50%	12 84%	0 0118%
Waste Management Inc	WM	52,747 31	0.17%	1 84%	6 00%	7 90%	0 0133%
Williams Cos Inc/The	WMB	28,493 37	0.09%	6 98%	12 00%	19 40%	0 0176%
Walmart Inc	WMT	376,834 40	1 20%	1 65%	8 00%	9 72%	0 1166%
W R Berkley Corp	WRB	13,284 37	0 04%	0 64%	13 50%	14 18%	0 0060%
Westrock Co	WRK	13,012 29	0 04%	1 62%	6 50%	8 17%	0 0034%
West Pharmaceutical Services Inc	WST	20,550 11	0 07%	0 25%	15 50%	15 77%	0 0103%
Western Union Co/The	WU	9,962 64	0 03%	3 71%	6 00%	9.82%	0 0031%
Weyerhaeuser Co	WY	25,269 09	0 08%	2 01%	20 50%	22 72%	0 0183%
Wynn Resorts Ltd	WYNN	13,503 42	0 04%	0 00%	10 00%	10 00%	0 0043%
Xcel Energy Inc	XEL	35,245 18	0 11%	2 79%	6 00%	8 87%	0 0100%
Xilinx Inc	XLNX	29,414 31	0 09%	0 00%	7 50%	7 50%	0 0070%
Exxon Mobil Corp	XOM	238,487 20	0 76%	6 18%	2 50%	8 76%	0 0665%
DENTSPLY SIRONA Inc	XRAY	13,186 47	0 04%	0 66%	5 50%	6 18%	0 0026%
Xylem Inc/NY	XYL	18,209 91	0 06%	1 11%	8 50%	9 66%	0 0056%
Yum! Brands Inc	YUM	32,124 00	0 10%	1 87%	9 50%	11 46%	0 0117%
Zimmer Biomet Holdings Inc	ZBH	32,639 39	0 10%	0 64%	5 50%	6 16%	0 0064%
Zebra Technologies Corp	ZBRA	24,796 21	0 08%	0 00%	10 00%	10 00%	0 0079%
Zions Bancorp NA	ZION	8,698 41	0 03%	2 57%	6 50%	9 15%	0 0025%
Zoetis Inc	ZTS	73,878 67	0 24%	0 64%	10 00%	10 67%	0 0251%
Total Market Capitalization		31,394,131 77					14 21%

[2] Source Value Line
[3] Equals weight in S&P 500 based on market capitalization
[4] Source Value Line
[5] Source Value Line
[6] Equals ([4] x (1 + (0 5 x [5]))) + [5]
[7] Equals Col [3] x Col [6]

Ex Ante Capital Asset Pricing Model and Empirical Capital Asset Pricing Model Results
Using *Value Line*-derived Expected Market Required Return and Beta Coefficients

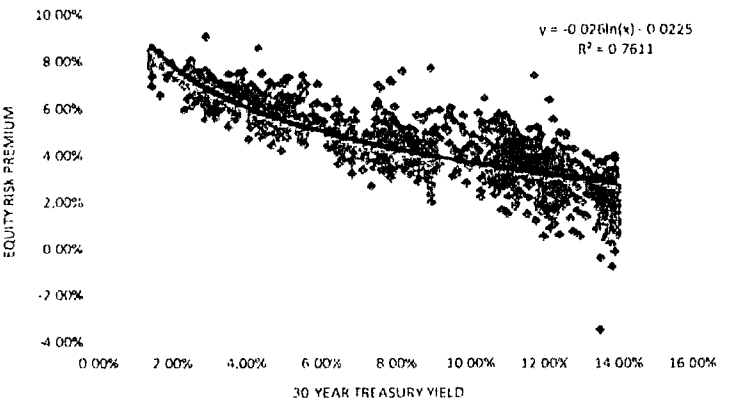
Company	Ticker	[1] Current 30-Year Treasury Yield	[2] Value Line Beta Coefficient	[3] Value Line Proj. Market Required Return	[4] Traditional CAPM	[5] Empirical CAPM
ALLETE, Inc.	ALE	2 31%	0.90	14 21%	13 02%	13 31%
Alliant Energy Corporation	LNT	2 31%	0.85	14.21%	12 42%	12 87%
Ameren Corporation	AEE	2 31%	0.80	14 21%	11 83%	12 42%
American Electric Power Company, Inc	AEP	2 31%	0.75	14.21%	11 23%	11 98%
Avista Corporation	AVA	2 31%	0 95	14.21%	13 61%	13 76%
CMS Energy Corporation	CMS	2.31%	0.75	14 21%	11 23%	11.98%
DTE Energy Company	DTE	2.31%	0 95	14.21%	13.61%	13 76%
Duke Energy Corporation	DUK	2.31%	0 85	14.21%	12.42%	12 87%
Entergy Corporation	ETR	2.31%	0.95	14 21%	13 61%	13.76%
Evergy, Inc	EVRG	2.31%	0.95	14 21%	13 61%	13.76%
Hawaiian Electric Industries, Inc	HE	2 31%	0.80	14.21%	11 83%	12.42%
IDACORP, Inc	IDA	2 31%	0 80	14.21%	11 83%	12 42%
NextEra Energy, Inc.	NEE	2 31%	0.90	14 21%	13 02%	13 31%
NorthWestern Corporation	NWE	2 31%	0 95	14.21%	13 61%	13 76%
OGE Energy Corp.	OGE	2.31%	1.05	14 21%	14.80%	14.65%
Otter Tail Corporation	OTTR	2 31%	0 85	14 21%	12 42%	12 87%
Pinnacle West Capital Corporation	PNW	2 31%	0 90	14.21%	13 02%	13 31%
Portland General Electric Company	POR	2.31%	0 85	14.21%	12 42%	12 87%
The Southern Company	SO	2.31%	0.95	14.21%	13 61%	13.76%
WEC Energy Group, Inc	WEC	2.31%	0 80	14.21%	11 83%	12 42%
Xcel Energy Inc.	XEL	2 31%	0 80	14 21%	11.83%	12.42%
				Mean	12.71%	13.08%
				Median.	12 42%	12.87%

Company	Ticker	[6] Projected 30-Year Treasury Yield	[7] Value Line Beta Coefficient	[8] Value Line Proj. Market Required Return	[9] Traditional CAPM	[10] Empirical CAPM
ALLETE, Inc	ALE	2 88%	0.90	14.21%	13.08%	13 36%
Alliant Energy Corporation	LNT	2.88%	0 85	14.21%	12 51%	12.93%
Ameren Corporation	AEE	2 88%	0 80	14.21%	11 94%	12.51%
American Electric Power Company, Inc	AEP	2.88%	0 75	14.21%	11.38%	12 08%
Avista Corporation	AVA	2 88%	0 95	14 21%	13 64%	13 78%
CMS Energy Corporation	CMS	2.88%	0 75	14.21%	11.38%	12.08%
DTE Energy Company	DTE	2 88%	0 95	14.21%	13 64%	13 78%
Duke Energy Corporation	DUK	2.88%	0.85	14.21%	12 51%	12 93%
Entergy Corporation	ETR	2 88%	0 95	14.21%	13 64%	13.78%
Evergy, Inc	EVRG	2 88%	0 95	14.21%	13 64%	13.78%
Hawaiian Electric Industries, Inc	HE	2 88%	0 80	14 21%	11.94%	12.51%
IDACORP, Inc.	IDA	2.88%	0 80	14 21%	11 94%	12.51%
NextEra Energy, Inc.	NEE	2 88%	0 90	14.21%	13 08%	13.36%
NorthWestern Corporation	NWE	2.88%	0 95	14.21%	13.64%	13 78%
OGE Energy Corp.	OGE	2 88%	1 05	14.21%	14.77%	14.63%
Otter Tail Corporation	OTTR	2.88%	0 85	14 21%	12.51%	12 93%
Pinnacle West Capital Corporation	PNW	2 88%	0 90	14.21%	13 08%	13.36%
Portland General Electric Company	POR	2 88%	0 85	14 21%	12 51%	12 93%
The Southern Company	SO	2 88%	0 95	14 21%	13.64%	13.78%
WEC Energy Group, Inc	WEC	2 88%	0 80	14 21%	11.94%	12 51%
Xcel Energy Inc	XEL	2 88%	0.80	14.21%	11.94%	12.51%
				Mean	12 78%	13.14%
				Median·	12.51%	12 93%

Notes:
[1] Source Bloomberg Professional Service, 30-day average
[2] Source· Value Line
[3] Exhibit JEN-4.2, pages 7-12
[4] Equals Col [1] + ((Col [2] x (Col. [3] - Col. [1]))
[5] Equals Col [1] + ((0 75 x (Col [2] x (Col [3] - Col [1])) + 0 25 x (Col [3] - Col. [1]))
[6] Source. Blue Chip Financial Forecasts, Vol 39, No. 12, December 1, 2020, at 14; Vol 40, No. 4, April 1, 2021, at 2
[7] See Note [2]
[8] See Note [3]
[9] See Note [4]
[10] See Note [5]

Bond Yield Plus Risk Premium

[1]	[2]	[3]	[4]	[5]
Constant	Slope	30-Year Treasury Yield	Risk Premium	Return on Equity
-2.25%	-2 59%			
Current 30-Year Treasury		2 31%	7 51%	9 81%
Projected 30-Year Treasury		2.88%	6 93%	9.81%



Notes
[1] Constant of regression equation
[2] Slope of regression equation
[3] Sources Current = Bloomberg Professional Service,
Projected = Average of near-term and long-term projected 30-year Treasury yield
Source Blue Chip Financial Forecasts, Vol 39, No 12, December 1, 2020, at 14, Vol. 40, No 4, April 1, 2021, at 2
[4] Equals [1] + ln([3]) x [2]
[5] Equals [3] + [4]
[6] Source: SNL Financial
[7] Source SNL Financial
[8] Source Bloomberg Professional Service, equals 200-trading day average (i e lag period)
[9] Equals [7] - [8]

Bond Yield Plus Risk Premium

[6] Date of Electric Rate Case	[7] Return on Equity	[8] 30-Year Treasury Yield	[9] Risk Premium
1/1/1980	14.50%	9.36%	5.14%
1/7/1980	14.39%	9.39%	5.00%
1/9/1980	15.00%	9.40%	5.60%
1/14/1980	15.17%	9.42%	5.75%
1/17/1980	13.93%	9.44%	4.49%
1/23/1980	15.50%	9.47%	6 03%
1/30/1980	13.86%	9.52%	4.34%
1/31/1980	12.61%	9.53%	3.08%
2/6/1980	13.71%	9.58%	4.13%
2/13/1980	12.80%	9.64%	3.16%
2/14/1980	13 00%	9.65%	3.35%
2/19/1980	13 50%	9 68%	3.82%
2/27/1980	13.75%	9.78%	3.97%
2/29/1980	13.75%	9.81%	3.94%
2/29/1980	14.00%	9.81%	4.19%
2/29/1980	14.77%	9.81%	4.96%
3/7/1980	12.70%	9.90%	2.80%
3/14/1980	13.50%	9.97%	3.53%
3/26/1980	14.16%	10.11%	4.05%
3/27/1980	14.24%	10.12%	4.12%
3/28/1980	14.50%	10.14%	4.36%
4/11/1980	12.75%	10.28%	2.47%
4/14/1980	13.85%	10.29%	3.56%
4/16/1980	15.50%	10.32%	5 18%
4/22/1980	13.25%	10.36%	2.89%
4/22/1980	13.90%	10.36%	3.54%
4/24/1980	16.80%	10.38%	6.42%
4/29/1980	15 50%	10.41%	5.09%
5/6/1980	13.70%	10.45%	3.25%
5/7/1980	15.00%	10 46%	4.54%
5/8/1980	13.75%	10.47%	3.28%
5/9/1980	14 35%	10.47%	3.88%
5/13/1980	13.60%	10.49%	3.11%
5/15/1980	13.25%	10.50%	2.75%
5/19/1980	13.75%	10.52%	3.23%
5/27/1980	13.62%	10.55%	3.07%
5/27/1980	14.60%	10.55%	4.05%
5/29/1980	16.00%	10.56%	5.44%
5/30/1980	13.80%	10.57%	3.23%
6/2/1980	15.63%	10.58%	5.05%
6/9/1980	15.90%	10.61%	5.29%
6/10/1980	13.78%	10.61%	3.17%
6/12/1980	14.25%	10.62%	3.63%
6/19/1980	13.40%	10.63%	2.77%
6/30/1980	13.00%	10.65%	2.35%
6/30/1980	13.40%	10.65%	2 75%
7/9/1980	14.75%	10.68%	4.07%
7/10/1980	15.00%	10.69%	4.31%
7/15/1980	15.80%	10.70%	5.10%
7/18/1980	13.80%	10.72%	3.08%
7/22/1980	14.10%	10.73%	3.37%
7/24/1980	15.00%	10.73%	4.27%
7/25/1980	13.48%	10.74%	2.74%
7/31/1980	14.58%	10.76%	3 82%
8/8/1980	13.50%	10.78%	2.72%
8/8/1980	14.00%	10.78%	3.22%
8/8/1980	15.45%	10.78%	4.67%
8/11/1980	14.85%	10.78%	4.07%
8/14/1980	14.00%	10 79%	3.21%
8/14/1980	16.25%	10.79%	5 46%
8/25/1980	13.75%	10.82%	2.93%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
8/27/1980	13.80%	10.83%	2.97%
8/29/1980	12.50%	10.84%	1.66%
9/15/1980	13 50%	10.88%	2 62%
9/15/1980	13.93%	10.88%	3.05%
9/15/1980	15.80%	10.88%	4.92%
9/24/1980	12.50%	10.93%	1.57%
9/24/1980	15.00%	10.93%	4.07%
9/26/1980	13.75%	10.95%	2 80%
9/30/1980	14.10%	10.96%	3.14%
9/30/1980	14.20%	10.96%	3.24%
10/1/1980	13.90%	10.97%	2.93%
10/3/1980	15 50%	10.99%	4 51%
10/7/1980	12.50%	11.00%	1.50%
10/9/1980	13.25%	11.01%	2.24%
10/9/1980	14.50%	11.01%	3.49%
10/9/1980	14.50%	11.01%	3.49%
10/16/1980	16 10%	11.03%	5.07%
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%
11/4/1980	15.00%	11.12%	3.88%
11/5/1980	13 75%	11.13%	2.62%
11/5/1980	14.00%	11 13%	2.87%
11/8/1980	13.75%	11.15%	2.60%
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 20%	2.80%
11/26/1980	14.00%	11.21%	2.79%
12/8/1980	14.15%	11.22%	2 93%
12/8/1980	15.10%	11 22%	3.88%
12/9/1980	15.35%	11 22%	4 13%
12/12/1980	15.45%	11 22%	4 23%
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 22%	2.23%
12/22/1980	15.00%	11.22%	3.78%
12/30/1980	14.50%	11.21%	3.29%
12/30/1980	14.95%	11.21%	3.74%
12/31/1980	13.39%	11.21%	2.18%
1/2/1981	15.25%	11.21%	4.04%
1/7/1981	14.30%	11.21%	3.09%
1/19/1981	15.25%	11.19%	4.06%
1/23/1981	13.10%	11.20%	1.90%
1/23/1981	14.40%	11.20%	3.20%
1/26/1981	15.25%	11.20%	4 05%
1/27/1981	15.00%	11 20%	3 80%
1/31/1981	13.47%	11.21%	2.26%
2/3/1981	15.25%	11.23%	4.02%
2/5/1981	15.75%	11 25%	4.50%
2/11/1981	15.60%	11 28%	4.32%
2/20/1981	15.25%	11.34%	3 91%
3/11/1981	15.40%	11.50%	3 90%
3/12/1981	14.51%	11.51%	3.00%
3/12/1981	16.00%	11 51%	4.49%
3/13/1981	13.02%	11 52%	1 50%
3/18/1981	16.19%	11.55%	4 64%
3/19/1981	13.75%	11.56%	2.19%
3/23/1981	14.30%	11.58%	2 72%
3/25/1981	15.30%	11.61%	3.69%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
4/1/1981	14.53%	11.69%	2.84%
4/3/1981	19.10%	11.72%	7.38%
4/9/1981	15.00%	11.79%	3.21%
4/9/1981	15.30%	11.79%	3.51%
4/9/1981	16.50%	11 79%	4.71%
4/9/1981	17.00%	11 79%	5.21%
4/10/1981	13.75%	11.81%	1.94%
4/13/1981	13.57%	11.83%	1.74%
4/15/1981	15.30%	11.86%	3.44%
4/16/1981	13.50%	11.88%	1.62%
4/17/1981	14 10%	11.88%	2.22%
4/21/1981	14.00%	11 91%	2.09%
4/21/1981	16 80%	11.91%	4.89%
4/24/1981	16.00%	11.96%	4.04%
4/27/1981	12.50%	11.98%	0.52%
4/27/1981	13 61%	11.98%	1.63%
4/29/1981	13.65%	12.01%	1.64%
4/30/1981	13.50%	12.02%	1.48%
5/4/1981	16.22%	12.06%	4.16%
5/5/1981	14.40%	12.08%	2.32%
5/7/1981	16.25%	12.12%	4 13%
5/7/1981	16.27%	12.12%	4 15%
5/8/1981	13.00%	12.14%	0.86%
5/8/1981	16.00%	12.14%	3.86%
5/12/1981	13.50%	12.17%	1.33%
5/15/1981	15.75%	12.23%	3.52%
5/18/1981	14 88%	12.24%	2.64%
5/20/1981	16.00%	12.27%	3.73%
5/21/1981	14.00%	12.28%	1.72%
5/26/1981	14.90%	12.31%	2.59%
5/27/1981	15.00%	12.32%	2.68%
5/29/1981	15.50%	12.34%	3.16%
6/1/1981	16.50%	12.35%	4.15%
6/3/1981	14.67%	12.38%	2.29%
6/5/1981	13.00%	12.40%	0.60%
6/10/1981	16.75%	12.42%	4.33%
6/17/1981	14.40%	12.46%	1.94%
6/18/1981	16.33%	12.47%	3.86%
6/25/1981	14.75%	12.52%	2.23%
6/26/1981	16.00%	12.53%	3.47%
6/30/1981	15.25%	12.55%	2.70%
7/1/1981	15.50%	12.56%	2.94%
7/1/1981	17.50%	12.56%	4.94%
7/10/1981	16.00%	12.62%	3.38%
7/14/1981	16.90%	12.64%	4.26%
7/15/1981	16.00%	12.65%	3.35%
7/17/1981	15.00%	12.67%	2.33%
7/20/1981	15.00%	12.68%	2.32%
7/21/1981	14.00%	12.69%	1.31%
7/28/1981	13.48%	12.75%	0 73%
7/31/1981	13.50%	12.79%	0.71%
7/31/1981	15.00%	12.79%	2.21%
7/31/1981	16.00%	12.79%	3.21%
8/5/1981	15.71%	12.83%	2.88%
8/10/1981	14.50%	12.87%	1.63%
8/11/1981	15.00%	12.88%	2.12%
8/20/1981	13 50%	12.95%	0.55%
8/20/1981	16.50%	12 95%	3.55%
8/24/1981	15.00%	12.97%	2.03%
8/28/1981	15.00%	13.01%	1.99%
9/3/1981	14.50%	13.06%	1.44%
9/10/1981	14.50%	13.11%	1.39%
9/11/1981	16.00%	13.12%	2.88%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
9/16/1981	16.00%	13.15%	2.85%
9/17/1981	16.50%	13.16%	3.34%
9/23/1981	15.85%	13.20%	2.65%
9/28/1981	15.50%	13.23%	2.27%
10/9/1981	15.75%	13.34%	2 41%
10/15/1981	16.25%	13.37%	2 88%
10/16/1981	15.50%	13.39%	2.11%
10/16/1981	16.50%	13.39%	3.11%
10/19/1981	14.25%	13.40%	0.85%
10/20/1981	15.25%	13.41%	1.84%
10/20/1981	17.00%	13.41%	3.59%
10/23/1981	16.00%	13.46%	2 54%
10/27/1981	10.00%	13.49%	-3.49%
10/29/1981	14 75%	13.52%	1.23%
10/29/1981	16 50%	13.52%	2.98%
11/3/1981	15.17%	13.54%	1.63%
11/5/1981	16.60%	13.56%	3.04%
11/6/1981	15.17%	13.57%	1.60%
11/24/1981	15.50%	13.61%	1.89%
11/25/1981	15.25%	13.61%	1.64%
11/25/1981	15.35%	13.61%	1.74%
11/25/1981	16.10%	13.61%	2.49%
11/25/1981	16.10%	13.61%	2.49%
12/1/1981	15.70%	13 61%	2.09%
12/1/1981	16 00%	13.61%	2 39%
12/1/1981	16.49%	13.61%	2.88%
12/1/1981	16.50%	13.61%	2.89%
12/4/1981	16.00%	13.61%	2.39%
12/11/1981	16 25%	13.63%	2 62%
12/14/1981	14.00%	13.63%	0.37%
12/15/1981	15.81%	13.63%	2.18%
12/15/1981	16.00%	13.63%	2.37%
12/16/1981	15.25%	13.63%	1.62%
12/17/1981	16.50%	13 64%	2 86%
12/18/1981	15.45%	13.64%	1.81%
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%	13.68%	2.47%
1/4/1982	15.50%	13.68%	1.82%
1/11/1982	14.50%	13.73%	0.77%
1/11/1982	17.00%	13.73%	3.27%
1/13/1982	14.75%	13 74%	1.01%
1/14/1982	15 75%	13.75%	2.00%
1/15/1982	15.00%	13.76%	1.24%
1/15/1982	16.50%	13.76%	2.74%
1/22/1982	16.25%	13.80%	2.45%
1/27/1982	16 84%	13.81%	3.03%
1/28/1982	13.00%	13.82%	-0.82%
1/29/1982	15.50%	13.82%	1.68%
2/1/1982	15 85%	13.83%	2.02%
2/3/1982	16 44%	13.84%	2.60%
2/8/1982	15.50%	13.86%	1.64%
2/11/1982	16.00%	13.88%	2.12%
2/11/1982	16.20%	13.88%	2.32%
2/17/1982	15.00%	13.89%	1.11%
2/19/1982	15.17%	13 89%	1.28%
2/26/1982	15.25%	13.89%	1.36%
3/1/1982	15.03%	13.89%	1.14%
3/1/1982	16.00%	13.89%	2.11%
3/3/1982	15.00%	13.88%	1.12%
3/8/1982	17.10%	13 88%	3.22%
3/12/1982	16.25%	13.88%	2 37%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3/17/1982	17.30%	13.88%	3.42%
3/22/1982	15.10%	13.89%	1 21%
3/27/1982	15.40%	13.90%	1.50%
3/30/1982	15.50%	13.91%	1.59%
3/31/1982	17.00%	13 91%	3 09%
4/1/1982	14.70%	13.92%	0 78%
4/1/1982	16.50%	13.92%	2.58%
4/2/1982	15.50%	13.92%	1.58%
4/5/1982	15.50%	13 93%	1 57%
4/8/1982	16.40%	13.94%	2.46%
4/13/1982	14.50%	13.94%	0.56%
4/23/1982	15.75%	13.94%	1.81%
4/27/1982	15.00%	13.94%	1.06%
4/28/1982	15.75%	13.94%	1.81%
4/30/1982	14.70%	13.94%	0.76%
4/30/1982	15.50%	13 94%	1.56%
5/3/1982	16.60%	13.94%	2 66%
5/4/1982	16.00%	13 94%	2.06%
5/14/1982	15.50%	13 92%	1.58%
5/18/1982	15.42%	13 92%	1.50%
5/19/1982	14 69%	13.92%	0.77%
5/20/1982	15 00%	13.91%	1.09%
5/20/1982	15.10%	13.91%	1.19%
5/20/1982	15.50%	13.91%	1.59%
5/20/1982	16.30%	13 91%	2.39%
5/21/1982	17.75%	13 91%	3.84%
5/27/1982	15.00%	13.89%	1.11%
5/28/1982	15.50%	13.89%	1.61%
5/28/1982	17.00%	13 89%	3.11%
6/1/1982	13.75%	13.89%	-0.14%
6/1/1982	16.60%	13.89%	2.71%
6/9/1982	17.86%	13.88%	3.98%
6/14/1982	15.75%	13.88%	1.87%
6/15/1982	14.85%	13.87%	0.98%
6/18/1982	15.50%	13.86%	1.64%
6/21/1982	14.90%	13.86%	1.04%
6/23/1982	16.00%	13 86%	2 14%
6/23/1982	16.17%	13 86%	2.31%
6/24/1982	14.85%	13.86%	0.99%
6/25/1982	14.70%	13.85%	0.85%
7/1/1982	16.00%	13.84%	2.16%
7/2/1982	15.62%	13.83%	1 79%
7/2/1982	17.00%	13.83%	3.17%
7/13/1982	14 00%	13.82%	0.18%
7/13/1982	16.80%	13.82%	2.98%
7/14/1982	15.76%	13 81%	1.95%
7/14/1982	16.02%	13 81%	2.21%
7/19/1982	16.50%	13.79%	2.71%
7/22/1982	14.50%	13.76%	0.74%
7/22/1982	17.00%	13.76%	3.24%
7/27/1982	16.75%	13.74%	3.01%
7/29/1982	16.50%	13.73%	2.77%
8/11/1982	17.50%	13.68%	3.82%
8/18/1982	17.07%	13.62%	3.45%
8/20/1982	15.73%	13.60%	2.13%
8/25/1982	16.00%	13.57%	2.43%
8/26/1982	15.50%	13.56%	1.94%
8/30/1982	15.00%	13.55%	1.45%
9/3/1982	16.20%	13.53%	2.67%
9/8/1982	15 00%	13.52%	1.48%
9/15/1982	13.08%	13 51%	-0.43%
9/15/1982	16.25%	13.51%	2.74%
9/16/1982	16.00%	13.50%	2.50%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
9/17/1982	15.25%	13.50%	1.75%
9/23/1982	17.17%	13.47%	3.70%
9/24/1982	14.50%	13.47%	1.03%
9/27/1982	15.25%	13.46%	1.79%
10/1/1982	15.50%	13.42%	2.08%
10/15/1982	15.90%	13.32%	2.58%
10/22/1982	15.75%	13.24%	2.51%
10/22/1982	17.15%	13.24%	3.91%
10/29/1982	15.54%	13.16%	2.38%
11/1/1982	15.50%	13.14%	2.36%
11/3/1982	17.20%	13.12%	4.08%
11/4/1982	16.25%	13.10%	3.15%
11/5/1982	16.20%	13.09%	3.11%
11/9/1982	16.00%	13.05%	2.95%
11/23/1982	15.50%	12.88%	2.62%
11/23/1982	15.85%	12.88%	2.97%
11/30/1982	16.50%	12.80%	3.70%
12/1/1982	17.04%	12.78%	4.26%
12/6/1982	15.00%	12.72%	2.28%
12/6/1982	16.35%	12.72%	3.63%
12/10/1982	15.50%	12.66%	2.84%
12/13/1982	16.00%	12.64%	3.36%
12/14/1982	15.30%	12.62%	2.68%
12/14/1982	16.40%	12.62%	3.78%
12/20/1982	16.00%	12.57%	3.43%
12/21/1982	14.75%	12.55%	2.20%
12/21/1982	15.85%	12.55%	3.30%
12/22/1982	16.25%	12 54%	3.71%
12/22/1982	16.58%	12.54%	4.04%
12/22/1982	16.75%	12.54%	4.21%
12/29/1982	14.90%	12.48%	2.42%
12/29/1982	16.25%	12.48%	3.77%
12/30/1982	16.00%	12.46%	3.54%
12/30/1982	16.35%	12.46%	3.89%
12/30/1982	16.77%	12.46%	4.31%
1/5/1983	17.33%	12.40%	4.93%
1/11/1983	15.90%	12.34%	3.56%
1/12/1983	14.63%	12.32%	2.31%
1/12/1983	15.50%	12.32%	3.18%
1/20/1983	17.75%	12 23%	5.52%
1/21/1983	15.00%	12.21%	2.79%
1/24/1983	14.50%	12.20%	2.30%
1/24/1983	15.50%	12.20%	3.30%
1/25/1983	15.85%	12.19%	3.66%
1/27/1983	16.14%	12.16%	3.98%
2/1/1983	18.50%	12.13%	6.37%
2/4/1983	14.00%	12.09%	1.91%
2/10/1983	15.00%	12.05%	2.95%
2/21/1983	15.50%	11.98%	3.52%
2/22/1983	15.50%	11.96%	3.54%
2/23/1983	15.10%	11.95%	3 15%
2/23/1983	16.00%	11.95%	4.05%
3/2/1983	15.25%	11.89%	3.36%
3/9/1983	15.20%	11.82%	3.38%
3/15/1983	13.00%	11.76%	1.24%
3/18/1983	15.25%	11.72%	3 53%
3/23/1983	15.40%	11.68%	3.72%
3/24/1983	15.00%	11.66%	3.34%
3/29/1983	15.50%	11.62%	3.88%
3/30/1983	16.71%	11.60%	5.11%
3/31/1983	15.00%	11.58%	3.42%
4/4/1983	15.20%	11.57%	3.63%
4/8/1983	15.50%	11.49%	4.01%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
4/11/1983	14.81%	11.48%	3.33%
4/19/1983	14.50%	11.36%	3.14%
4/20/1983	16.00%	11.35%	4.65%
4/29/1983	16.00%	11.23%	4.77%
5/1/1983	14.50%	11.23%	3.27%
5/9/1983	15.50%	11.14%	4.36%
5/11/1983	16.46%	11.11%	5.35%
5/12/1983	14 14%	11.10%	3 04%
5/18/1983	15.00%	11.04%	3.96%
5/23/1983	14.90%	11.00%	3.90%
5/23/1983	15.50%	11.00%	4 50%
5/25/1983	15.50%	10.97%	4.53%
5/27/1983	15.00%	10.95%	4.05%
5/31/1983	14.00%	10.94%	3.06%
5/31/1983	15.50%	10.94%	4.56%
6/2/1983	14.50%	10.92%	3.58%
6/17/1983	15.03%	10.83%	4.20%
7/1/1983	14.80%	10.77%	4.03%
7/1/1983	14.90%	10 77%	4.13%
7/8/1983	16 25%	10.75%	5.50%
7/13/1983	13 20%	10.75%	2.45%
7/19/1983	15.00%	10 74%	4.26%
7/19/1983	15.10%	10.74%	4 36%
7/25/1983	16.25%	10 73%	5.52%
7/28/1983	15.90%	10.74%	5.16%
8/3/1983	16.34%	10 75%	5.59%
8/3/1983	16.50%	10 75%	5.75%
8/19/1983	15.00%	10 80%	4.20%
8/22/1983	15.50%	10 80%	4.70%
8/22/1983	16.40%	10.80%	5.60%
8/31/1983	14.75%	10.85%	3.90%
9/7/1983	15 00%	10.87%	4 13%
9/14/1983	15 78%	10.89%	4 89%
9/16/1983	15.00%	10.90%	4 10%
9/19/1983	14.50%	10.91%	3.59%
9/20/1983	16.50%	10.91%	5.59%
9/28/1983	14.50%	10.94%	3 56%
9/29/1983	15 50%	10 95%	4 55%
9/30/1983	15.25%	10 95%	4.30%
9/30/1983	16.15%	10.95%	5 20%
10/4/1983	14 80%	10.96%	3.84%
10/7/1983	16.00%	10.97%	5.03%
10/13/1983	15.52%	10.99%	4.53%
10/17/1983	15.50%	11 00%	4.50%
10/18/1983	14.50%	11.00%	3 50%
10/19/1983	16.25%	11.01%	5.24%
10/19/1983	16.50%	11.01%	5.49%
10/26/1983	15.00%	11.04%	3.96%
10/27/1983	15.20%	11 04%	4 16%
11/1/1983	16 00%	11 06%	4.94%
11/9/1983	14.90%	11.09%	3.81%
11/10/1983	14.35%	11.10%	3.25%
11/23/1983	16.00%	11.13%	4 87%
11/23/1983	16.15%	11.13%	5.02%
11/30/1983	15.00%	11.14%	3.86%
12/5/1983	15.25%	11 15%	4.10%
12/6/1983	15.07%	11.16%	3.91%
12/8/1983	15.90%	11.16%	4.74%
12/9/1983	14.75%	11.17%	3.58%
12/12/1983	14.50%	11.18%	3.32%
12/15/1983	15 56%	11.20%	4.36%
12/19/1983	14.80%	11.21%	3.59%
12/20/1983	14.69%	11.22%	3.47%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
12/20/1983	16.00%	11.22%	4.78%
12/20/1983	16.25%	11.22%	5.03%
12/22/1983	14.75%	11.23%	3.52%
12/22/1983	15.75%	11.23%	4.52%
1/3/1984	14.75%	11.27%	3 48%
1/10/1984	15.90%	11.30%	4 60%
1/12/1984	15.60%	11 31%	4 29%
1/18/1984	13.75%	11.33%	2.42%
1/19/1984	15.90%	11.33%	4.57%
1/30/1984	16.10%	11.37%	4.73%
1/31/1984	15.25%	11.38%	3 87%
2/1/1984	14.80%	11 39%	3.41%
2/6/1984	13.75%	11.41%	2.34%
2/6/1984	14.75%	11.41%	3 34%
2/9/1984	15.25%	11 43%	3.82%
2/15/1984	15 70%	11 45%	4.25%
2/20/1984	15.00%	11 46%	3.54%
2/20/1984	15.00%	11.46%	3.54%
2/22/1984	14.75%	11.48%	3.27%
2/28/1984	14.50%	11.52%	2.98%
3/2/1984	14.25%	11.54%	2.71%
3/20/1984	16.00%	11.65%	4.35%
3/23/1984	15.50%	11 67%	3.83%
3/26/1984	14.71%	11 68%	3.03%
4/2/1984	15.50%	11.72%	3.78%
4/6/1984	14.74%	11.76%	2.98%
4/11/1984	15.72%	11.78%	3 94%
4/17/1984	15.00%	11 81%	3.19%
4/18/1984	16.20%	11 82%	4.38%
4/25/1984	14.64%	11 85%	2.79%
4/30/1984	14.40%	11 88%	2.52%
5/16/1984	14.69%	11.99%	2.70%
5/16/1984	15.00%	11.99%	3.01%
5/22/1984	14.40%	12 02%	2.38%
5/29/1984	15.10%	12.06%	3.04%
6/13/1984	15.25%	12.16%	3.09%
6/15/1984	15.60%	12 17%	3.43%
6/22/1984	16.25%	12.21%	4.04%
6/29/1984	15.25%	12.26%	2 99%
7/2/1984	13.35%	12.27%	1 08%
7/10/1984	16.00%	12.31%	3.69%
7/12/1984	16.50%	12 33%	4.17%
7/13/1984	16.25%	12 34%	3.91%
7/17/1984	14 14%	12 35%	1.79%
7/18/1984	15.30%	12 36%	2.94%
7/18/1984	15.50%	12.36%	3.14%
7/19/1984	14.30%	12.37%	1.93%
7/24/1984	16.79%	12 40%	4.39%
7/31/1984	16.00%	12.43%	3.57%
8/3/1984	14.25%	12.45%	1.80%
8/17/1984	14 30%	12.49%	1.81%
8/20/1984	15.00%	12.49%	2.51%
8/27/1984	16.30%	12.51%	3 79%
8/31/1984	15.55%	12.53%	3 02%
9/6/1984	16.00%	12 54%	3.46%
9/10/1984	14.75%	12 55%	2.20%
9/13/1984	15.00%	12.55%	2.45%
9/17/1984	17.38%	12.56%	4 82%
9/26/1984	14.50%	12.57%	1.93%
9/28/1984	15.00%	12 57%	2.43%
9/28/1984	16.25%	12.57%	3.68%
10/9/1984	14.75%	12 58%	2.17%
10/12/1984	15.60%	12 59%	3.01%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
10/22/1984	15.00%	12.59%	2.41%
10/26/1984	16.40%	12.59%	3.81%
10/31/1984	16 25%	12.59%	3.66%
11/7/1984	15.60%	12.58%	3.02%
11/9/1984	16.00%	12.58%	3.42%
11/14/1984	15.75%	12.59%	3.16%
11/20/1984	15.25%	12.58%	2.67%
11/20/1984	15 92%	12.58%	3.34%
11/23/1984	15.00%	12.58%	2.42%
11/28/1984	16.15%	12.57%	3.58%
12/3/1984	15.80%	12.57%	3.23%
12/4/1984	16.50%	12.56%	3.94%
12/18/1984	16.40%	12.54%	3.86%
12/19/1984	14.75%	12.53%	2.22%
12/19/1984	15.00%	12.53%	2.47%
12/20/1984	16.00%	12.53%	3.47%
12/28/1984	16.00%	12.50%	3.50%
1/3/1985	14.75%	12.49%	2.26%
1/10/1985	15.75%	12 47%	3.28%
1/11/1985	16.30%	12.46%	3.84%
1/23/1985	15.80%	12.43%	3.37%
1/24/1985	15.82%	12.43%	3.39%
1/25/1985	16.75%	12.42%	4.33%
1/30/1985	14.90%	12.40%	2 50%
1/31/1985	14.75%	12.39%	2.36%
2/8/1985	14.47%	12.35%	2.12%
3/1/1985	13.84%	12.30%	1.54%
3/8/1985	16.85%	12.28%	4.57%
3/14/1985	15.50%	12.25%	3.25%
3/15/1985	15.62%	12.25%	3.37%
3/29/1985	15.62%	12.16%	3.46%
4/3/1985	14.60%	12.13%	2.47%
4/9/1985	15.50%	12.10%	3.40%
4/16/1985	15 70%	12.05%	3.65%
4/22/1985	14.00%	12.01%	1.99%
4/26/1985	15.50%	11.97%	3.53%
4/29/1985	15.00%	11.96%	3.04%
5/2/1985	14.68%	11.93%	2.75%
5/8/1985	15.62%	11.88%	3.74%
5/10/1985	16.50%	11.86%	4.64%
5/29/1985	14.61%	11.73%	2.88%
5/31/1985	16.00%	11.71%	4.29%
6/14/1985	15.50%	11.60%	3.90%
7/9/1985	15.00%	11.44%	3 56%
7/16/1985	14 50%	11.39%	3.11%
7/26/1985	14 50%	11.32%	3.18%
8/2/1985	14.80%	11.29%	3.51%
8/7/1985	15.00%	11.26%	3.74%
8/28/1985	14.25%	11.15%	3.10%
8/28/1985	15.50%	11.15%	4.35%
8/29/1985	14.50%	11.14%	3.36%
9/9/1985	14.60%	11.11%	3.49%
9/9/1985	14.90%	11 11%	3.79%
9/17/1985	14.90%	11.08%	3.82%
9/23/1985	15.00%	11.06%	3.94%
9/27/1985	15.50%	11.04%	4.46%
9/27/1985	15.80%	11.04%	4.76%
10/2/1985	14.00%	11.03%	2.97%
10/2/1985	14.75%	11.03%	3.72%
10/3/1985	15.25%	11.03%	4.22%
10/24/1985	15.40%	10.96%	4.44%
10/24/1985	15.82%	10.96%	4.86%
10/24/1985	15.85%	10.96%	4.89%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
10/28/1985	16.00%	10.95%	5.05%
10/29/1985	16.65%	10.94%	5.71%
10/31/1985	15.06%	10.93%	4.13%
11/4/1985	14 50%	10.91%	3.59%
11/7/1985	15.50%	10.89%	4 61%
11/8/1985	14.30%	10.89%	3.41%
12/12/1985	14.75%	10.73%	4.02%
12/18/1985	15.00%	10.69%	4.31%
12/20/1985	14.50%	10.66%	3.84%
12/20/1985	14.50%	10.66%	3.84%
12/20/1985	15 00%	10.66%	4.34%
1/24/1986	15 40%	10.40%	5.00%
1/31/1986	15.00%	10.35%	4.65%
2/5/1986	15.00%	10.32%	4.68%
2/5/1986	15.75%	10.32%	5.43%
2/10/1986	13.30%	10.29%	3.01%
2/11/1986	12.50%	10.27%	2.23%
2/14/1986	14.40%	10.24%	4.16%
2/18/1986	16.00%	10.22%	5.78%
2/24/1986	14.50%	10.17%	4.33%
2/26/1986	14.00%	10.15%	3.85%
3/5/1986	14.90%	10.07%	4.83%
3/11/1986	14 50%	10.01%	4.49%
3/12/1986	13 50%	10.00%	3.50%
3/27/1986	14.10%	9.85%	4.25%
3/31/1986	13.50%	9.84%	3.66%
4/1/1986	14.00%	9.82%	4.18%
4/2/1986	15.50%	9 81%	5.69%
4/4/1986	15.00%	9 78%	5.22%
4/14/1986	13.40%	9.68%	3.72%
4/23/1986	15.00%	9.57%	5.43%
5/16/1986	14.50%	9.31%	5.19%
5/16/1986	14.50%	9.31%	5.19%
5/29/1986	13 90%	9.19%	4.71%
5/30/1986	15.10%	9.17%	5.93%
6/2/1986	12.81%	9.16%	3.65%
6/11/1986	14.00%	9.06%	4.94%
6/24/1986	16.63%	8.93%	7.70%
6/26/1986	12.00%	8.90%	3.10%
6/26/1986	14.75%	8.90%	5.85%
6/30/1986	13.00%	8 86%	4.14%
7/10/1986	14 34%	8 74%	5.60%
7/11/1986	12 75%	8.72%	4.03%
7/14/1986	12.60%	8.71%	3.89%
7/17/1986	12.40%	8 65%	3.75%
7/25/1986	14.25%	8.56%	5.69%
8/6/1986	13.50%	8.43%	5.07%
8/14/1986	13.50%	8.34%	5.16%
9/16/1986	12.75%	8.06%	4.69%
9/19/1986	13.25%	8.02%	5.23%
10/1/1986	14.00%	7.94%	6.06%
10/3/1986	13.40%	7.92%	5.48%
10/31/1986	13.50%	7.77%	5.73%
11/5/1986	13 00%	7.74%	5.26%
12/3/1986	12.90%	7.58%	5 32%
12/4/1986	14.44%	7.57%	6.87%
12/16/1986	13.60%	7.52%	6.08%
12/22/1986	13.80%	7.50%	6.30%
12/30/1986	13 00%	7.49%	5 51%
1/2/1987	13.00%	7.48%	5.52%
1/12/1987	12.40%	7.46%	4.94%
1/27/1987	12.71%	7.46%	5.25%
3/2/1987	12.47%	7.47%	5.00%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
3/3/1987	13.60%	7.47%	6.13%
3/4/1987	12.38%	7.47%	4.91%
3/10/1987	13.50%	7.47%	6.03%
3/13/1987	13.00%	7.47%	5.53%
3/31/1987	13.00%	7.46%	5.54%
4/6/1987	13.00%	7.47%	5 53%
4/14/1987	12.50%	7.49%	5 01%
4/16/1987	14.50%	7.50%	7.00%
4/27/1987	12.00%	7.54%	4.46%
5/5/1987	12.85%	7.58%	5 27%
5/12/1987	12.65%	7.62%	5.03%
5/28/1987	13 50%	7.70%	5.80%
6/15/1987	13.20%	7.78%	5.42%
6/29/1987	15.00%	7.84%	7 16%
6/30/1987	12.50%	7.84%	4.66%
7/8/1987	12.00%	7.86%	4.14%
7/10/1987	12 90%	7.87%	5.03%
7/15/1987	13.50%	7.88%	5 62%
7/16/1987	13.50%	7.88%	5 62%
7/16/1987	15.00%	7.88%	7.12%
7/27/1987	13 00%	7.92%	5.08%
7/27/1987	13.40%	7.92%	5.48%
7/27/1987	13.50%	7.92%	5.58%
7/31/1987	12.98%	7.95%	5 03%
8/26/1987	12.63%	8.06%	4 57%
8/26/1987	12 75%	8.06%	4.69%
8/27/1987	13.25%	8.07%	5.18%
9/9/1987	13 00%	8.14%	4.86%
9/30/1987	12.75%	8.31%	4.44%
9/30/1987	13.00%	8.31%	4.69%
10/2/1987	11.50%	8.33%	3.17%
10/15/1987	13.00%	8.44%	4.56%
11/2/1987	13 00%	8.55%	4.45%
11/19/1987	13.00%	8.64%	4.36%
11/30/1987	12 00%	8.69%	3.31%
12/3/1987	14.20%	8.71%	5.49%
12/15/1987	13.25%	8.78%	4.47%
12/16/1987	13.50%	8.79%	4.71%
12/16/1987	13.72%	8 79%	4.93%
12/17/1987	11.75%	8.80%	2.95%
12/18/1987	13.50%	8.80%	4.70%
12/21/1987	12.01%	8.81%	3.20%
12/22/1987	12.00%	8.82%	3 18%
12/22/1987	12.00%	8.82%	3.18%
12/22/1987	12.75%	8.82%	3.93%
12/22/1987	13.00%	8.82%	4.18%
1/20/1988	13.80%	8.94%	4.86%
1/26/1988	13.90%	8.96%	4.94%
1/29/1988	13.20%	8.96%	4.24%
2/4/1988	12.60%	8 96%	3 64%
3/1/1988	11.56%	8.94%	2.62%
3/23/1988	12.87%	8.92%	3.95%
3/24/1988	11.24%	8.92%	2.32%
3/30/1988	12 72%	8.92%	3.80%
4/1/1988	12.50%	8.92%	3.58%
4/7/1988	13.25%	8.93%	4.32%
4/25/1988	10.96%	8 96%	2.00%
5/3/1988	12.91%	8.98%	3.93%
5/11/1988	13.50%	8.99%	4.51%
5/16/1988	13.00%	8.99%	4.01%
6/30/1988	12.75%	8.99%	3.76%
7/1/1988	12.75%	8.99%	3.76%
7/20/1988	13.40%	8.96%	4.44%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
8/5/1988	12.75%	8.91%	3.84%
8/23/1988	11.70%	8.93%	2.77%
8/29/1988	12.75%	8.94%	3.81%
8/30/1988	13.50%	8.94%	4.56%
9/8/1988	12.60%	8 95%	3.65%
10/13/1988	13.10%	8 93%	4.17%
12/19/1988	13.00%	9.02%	3.98%
12/20/1988	12.25%	9.02%	3.23%
12/20/1988	13.00%	9.02%	3.98%
12/21/1988	12.90%	9 02%	3.88%
12/27/1988	13.00%	9.03%	3.97%
12/28/1988	13.10%	9.03%	4.07%
12/30/1988	13 40%	9.04%	4.36%
1/27/1989	13.00%	9.06%	3.94%
1/31/1989	13.00%	9.06%	3.94%
2/17/1989	13.00%	9.05%	3.95%
2/20/1989	12.40%	9.05%	3.35%
3/1/1989	12.76%	9 05%	3.71%
3/8/1989	13.00%	9.05%	3.95%
3/30/1989	14.00%	9.05%	4.95%
4/5/1989	14.20%	9.05%	5 15%
4/18/1989	13 00%	9.05%	3.95%
5/5/1989	12.40%	9 05%	3.35%
6/2/1989	13.20%	9.00%	4.20%
6/8/1989	13.50%	8.98%	4.52%
6/27/1989	13.25%	8.91%	4.34%
6/30/1989	13.00%	8.90%	4.10%
8/14/1989	12.50%	8.77%	3.73%
9/28/1989	12.25%	8 63%	3.62%
10/24/1989	12.50%	8 54%	3.96%
11/9/1989	13.00%	8.48%	4.52%
12/15/1989	13.00%	8.33%	4.67%
12/20/1989	12.90%	8.31%	4.59%
12/21/1989	12.90%	8.31%	4.59%
12/27/1989	12.50%	8.29%	4.21%
12/27/1989	13.00%	8.29%	4.71%
1/10/1990	12.80%	8 24%	4 56%
1/11/1990	12.90%	8 23%	4.67%
1/17/1990	12.80%	8.22%	4.58%
1/26/1990	12.00%	8.19%	3 81%
2/9/1990	12 10%	8.17%	3.93%
2/24/1990	12.86%	8.15%	4.71%
3/30/1990	12.90%	8.16%	4.74%
4/4/1990	15.76%	8.17%	7.59%
4/12/1990	12.52%	8.18%	4.34%
4/19/1990	12.75%	8.20%	4.55%
5/21/1990	12.10%	8 28%	3.82%
5/29/1990	12.40%	8.30%	4.10%
5/31/1990	12 00%	8.30%	3.70%
6/4/1990	12.90%	8.30%	4.60%
6/6/1990	12.25%	8.31%	3.94%
6/15/1990	13.20%	8.32%	4.88%
6/20/1990	12.92%	8.32%	4.60%
6/27/1990	12.90%	8.33%	4.57%
6/29/1990	12.50%	8 34%	4.16%
7/6/1990	12.10%	8.34%	3.76%
7/6/1990	12.35%	8 34%	4.01%
8/10/1990	12.55%	8.41%	4.14%
8/16/1990	13.21%	8.43%	4.78%
8/22/1990	13.10%	8.45%	4.65%
8/24/1990	13.00%	8.46%	4.54%
9/26/1990	11.45%	8.59%	2.86%
10/2/1990	13.00%	8.61%	4.39%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
10/5/1990	12.84%	8.63%	4 21%
10/19/1990	13.00%	8.67%	4.33%
10/25/1990	12.30%	8.68%	3.62%
11/21/1990	12.70%	8.69%	4.01%
12/13/1990	12.30%	8.67%	3.63%
12/17/1990	12.87%	8.67%	4 20%
12/18/1990	13.10%	8.67%	4.43%
12/19/1990	12.00%	8.66%	3.34%
12/20/1990	12.75%	8 66%	4.09%
12/21/1990	12.50%	8.66%	3.84%
12/27/1990	12.79%	8.66%	4 13%
1/2/1991	13.10%	8.66%	4 44%
1/4/1991	12.50%	8.65%	3.85%
1/15/1991	12.75%	8.65%	4.10%
1/25/1991	11 70%	8.63%	3.07%
2/4/1991	12.50%	8.60%	3.90%
2/7/1991	12.50%	8.59%	3.91%
2/12/1991	13.00%	8.57%	4 43%
2/14/1991	12.72%	8.56%	4.16%
2/22/1991	12.80%	8 55%	4 25%
3/6/1991	13.10%	8.53%	4 57%
3/8/1991	12.30%	8.52%	3.78%
3/8/1991	13 00%	8.52%	4.48%
4/22/1991	13 00%	8.49%	4.51%
5/7/1991	13.50%	8.47%	5.03%
5/13/1991	13.25%	8.47%	4 78%
5/30/1991	12.75%	8.43%	4 32%
6/12/1991	12.00%	8.41%	3.59%
6/25/1991	11.70%	8.38%	3.32%
6/28/1991	12.50%	8.38%	4.12%
7/1/1991	12.00%	8.37%	3.63%
7/3/1991	12.50%	8.36%	4.14%
7/19/1991	12.10%	8 34%	3 76%
8/1/1991	12.90%	8 32%	4 58%
8/16/1991	13.20%	8.29%	4.91%
9/27/1991	12.50%	8.23%	4.27%
9/30/1991	12.25%	8.23%	4.02%
10/17/1991	13.00%	8.20%	4.80%
10/23/1991	12.50%	8 20%	4 30%
10/23/1991	12.55%	8.20%	4 35%
10/31/1991	11.80%	8 19%	3 61%
11/1/1991	12.00%	8.19%	3.81%
11/5/1991	12 25%	8.19%	4.06%
11/12/1991	12.50%	8.18%	4.32%
11/12/1991	13.25%	8.18%	5.07%
11/25/1991	12.40%	8.18%	4.22%
11/26/1991	11.60%	8.18%	3.42%
11/26/1991	12.50%	8.18%	4.32%
11/27/1991	12.10%	8.18%	3.92%
12/18/1991	12.25%	8.15%	4.10%
12/19/1991	12.60%	8.15%	4 45%
12/19/1991	12.80%	8.15%	4.65%
12/20/1991	12.65%	8.14%	4 51%
1/9/1992	12.80%	8.09%	4.71%
1/16/1992	12.75%	8.07%	4.68%
1/21/1992	12.00%	8.06%	3.94%
1/22/1992	13.00%	8.06%	4.94%
1/27/1992	12.65%	8.05%	4.60%
1/31/1992	12.00%	8.04%	3.96%
2/11/1992	12.40%	8.03%	4.37%
2/25/1992	12.50%	8.01%	4.49%
3/16/1992	11.43%	7.98%	3 45%
3/18/1992	12.28%	7.98%	4.30%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
4/2/1992	12.10%	7.95%	4.15%
4/9/1992	11.45%	7.93%	3.52%
4/10/1992	11.50%	7.93%	3.57%
4/14/1992	11.50%	7.92%	3.58%
5/5/1992	11 50%	7.89%	3.61%
5/12/1992	11.87%	7.88%	3.99%
5/12/1992	12 46%	7.88%	4.58%
6/1/1992	12.30%	7.86%	4.44%
6/12/1992	10.90%	7.85%	3.05%
6/26/1992	12 35%	7.85%	4.50%
6/29/1992	11.00%	7.85%	3.15%
6/30/1992	13.00%	7.85%	5.15%
7/13/1992	11.90%	7.84%	4.06%
7/13/1992	13.50%	7.84%	5.66%
7/22/1992	11.20%	7.83%	3.37%
8/3/1992	12 00%	7.81%	4.19%
8/6/1992	12.50%	7.80%	4.70%
9/22/1992	12 00%	7.71%	4.29%
9/28/1992	11 40%	7.71%	3.69%
9/30/1992	11.75%	7 71%	4.04%
10/2/1992	13.00%	7.70%	5.30%
10/12/1992	12.20%	7.70%	4.50%
10/16/1992	13.16%	7.71%	5.45%
10/30/1992	11 75%	7.71%	4.04%
11/3/1992	12 00%	7.71%	4.29%
12/3/1992	11.85%	7.68%	4.17%
12/15/1992	11.00%	7.66%	3.34%
12/16/1992	11.90%	7.66%	4.24%
12/16/1992	12 40%	7.66%	4 74%
12/17/1992	12 00%	7.66%	4.34%
12/22/1992	12.30%	7.65%	4.65%
12/22/1992	12 40%	7.65%	4.75%
12/29/1992	12 25%	7 63%	4 62%
12/30/1992	12.00%	7.63%	4.37%
12/31/1992	11.90%	7.62%	4.28%
1/12/1993	12 00%	7.61%	4 39%
1/21/1993	11 25%	7.59%	3.66%
2/2/1993	11 40%	7.56%	3 84%
2/15/1993	12.30%	7.52%	4.78%
2/24/1993	11.90%	7.49%	4.41%
2/26/1993	11.80%	7.48%	4.32%
2/26/1993	12.20%	7.48%	4.72%
4/23/1993	11 75%	7.29%	4.46%
5/11/1993	11.75%	7.24%	4.51%
5/14/1993	11.50%	7.24%	4.26%
5/25/1993	11 50%	7.22%	4.28%
5/28/1993	11 00%	7.22%	3.78%
6/3/1993	12.00%	7 21%	4.79%
6/16/1993	11.50%	7.19%	4.31%
6/18/1993	12.10%	7.18%	4.92%
6/25/1993	11.67%	7 17%	4.50%
7/21/1993	11.38%	7.10%	4.28%
7/23/1993	10.46%	7.09%	3 37%
8/24/1993	11.50%	6 95%	4.55%
9/21/1993	10.50%	6.80%	3.70%
9/29/1993	11.47%	6.76%	4.71%
9/30/1993	11 60%	6.76%	4.84%
11/2/1993	10.80%	6.60%	4.20%
11/12/1993	12 00%	6 56%	5 44%
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%
12/21/1993	11.30%	6 47%	4.83%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
1/4/1994	10.07%	6.44%	3.63%
1/13/1994	11.00%	6.42%	4.58%
1/21/1994	11.00%	6.40%	4.60%
1/28/1994	11 35%	6.39%	4.96%
2/3/1994	11.40%	6.38%	5.02%
2/17/1994	10.60%	6.36%	4.24%
2/25/1994	11.25%	6.35%	4.90%
2/25/1994	12.00%	6.35%	5.65%
3/1/1994	11.00%	6.35%	4.65%
3/4/1994	11.00%	6.34%	4.66%
4/25/1994	11 00%	6.40%	4.60%
5/10/1994	11 75%	6.44%	5.31%
5/13/1994	10.50%	6.46%	4.04%
6/3/1994	11.00%	6.54%	4.46%
6/27/1994	11.40%	6.65%	4 75%
8/5/1994	12.75%	6.88%	5.87%
10/31/1994	10.00%	7.33%	2.67%
11/9/1994	10.85%	7.40%	3.45%
11/9/1994	10.85%	7.40%	3.45%
11/18/1994	11.20%	7.46%	3.74%
11/22/1994	11.60%	7.47%	4 13%
11/28/1994	11.06%	7.50%	3.56%
12/8/1994	11.50%	7.55%	3.95%
12/8/1994	11.70%	7.55%	4 15%
12/14/1994	10.95%	7.57%	3.38%
12/15/1994	11.50%	7.57%	3.93%
12/19/1994	11.50%	7.58%	3.92%
12/28/1994	12.15%	7.61%	4.54%
1/9/1995	12.28%	7.64%	4.64%
1/31/1995	11.00%	7.69%	3.31%
2/10/1995	12.60%	7.70%	4.90%
2/17/1995	11.90%	7.70%	4.20%
3/9/1995	11.50%	7.72%	3.78%
3/20/1995	12.00%	7.72%	4.28%
3/23/1995	12.81%	7.72%	5.09%
3/29/1995	11.60%	7.72%	3.88%
4/6/1995	11.10%	7.72%	3.38%
4/7/1995	11.00%	7.71%	3.29%
4/19/1995	11.00%	7.70%	3.30%
5/12/1995	11.63%	7.68%	3.95%
5/25/1995	11.20%	7.65%	3.55%
6/9/1995	11.25%	7.60%	3.65%
6/21/1995	12.25%	7.56%	4.69%
6/30/1995	11.10%	7.51%	3.59%
9/11/1995	11 30%	7.20%	4.10%
9/27/1995	11 30%	7.12%	4.18%
9/27/1995	11.50%	7.12%	4.38%
9/27/1995	11.75%	7 12%	4.63%
9/29/1995	11 00%	7.11%	3.89%
11/9/1995	11 38%	6.89%	4.49%
11/9/1995	12 36%	6.89%	5.47%
11/17/1995	11.00%	6.85%	4.15%
12/4/1995	11.35%	6.78%	4.57%
12/11/1995	11 40%	6.74%	4.66%
12/20/1995	11.60%	6.69%	4.91%
12/27/1995	12.00%	6.66%	5.34%
2/5/1996	12.25%	6.48%	5.77%
3/29/1996	10.67%	6.42%	4.25%
4/8/1996	11.00%	6.42%	4.58%
4/11/1996	12.59%	6.43%	6.16%
4/11/1996	12.59%	6.43%	6.16%
4/24/1996	11.25%	6.43%	4.82%
4/30/1996	11.00%	6.43%	4.57%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
5/13/1996	11.00%	6.44%	4.56%
5/23/1996	11.25%	6.43%	4 82%
6/25/1996	11.25%	6.48%	4.77%
6/27/1996	11.20%	6.48%	4.72%
8/12/1996	10.40%	6.57%	3.83%
9/27/1996	11.00%	6.71%	4.29%
10/16/1996	12.25%	6.76%	5.49%
11/5/1996	11.00%	6.81%	4.19%
11/26/1996	11.30%	6.83%	4.47%
12/18/1996	11.75%	6.84%	4.91%
12/31/1996	11.50%	6.83%	4.67%
1/3/1997	10.70%	6.83%	3.87%
2/13/1997	11.80%	6.82%	4.98%
2/20/1997	11.80%	6.82%	4.98%
3/31/1997	10.02%	6.80%	3.22%
4/2/1997	11.65%	6.80%	4.85%
4/28/1997	11.50%	6.81%	4.69%
4/29/1997	11.70%	6.81%	4.89%
7/17/1997	12.00%	6.77%	5.23%
12/12/1997	11.00%	6.60%	4.40%
12/23/1997	11.12%	6.57%	4.55%
2/2/1998	12.75%	6.39%	6.36%
3/2/1998	11.25%	6.28%	4.97%
3/6/1998	10.75%	6.27%	4 48%
3/20/1998	10.50%	6.22%	4.28%
4/30/1998	12.20%	6.12%	6.08%
7/10/1998	11.40%	5.94%	5.46%
9/15/1998	11.90%	5.78%	6.12%
11/30/1998	12.60%	5.58%	7.02%
12/10/1998	12.20%	5.54%	6.66%
12/17/1998	12.10%	5.52%	6.58%
2/5/1999	10 30%	5.38%	4.92%
3/4/1999	10 50%	5.34%	5.16%
4/6/1999	10.94%	5.32%	5.62%
7/29/1999	10.75%	5.52%	5.23%
9/23/1999	10.75%	5.70%	5 05%
11/17/1999	11.10%	5.90%	5.20%
1/7/2000	11.50%	6.05%	5.45%
1/7/2000	11 50%	6.05%	5.45%
2/17/2000	10.60%	6.17%	4.43%
3/28/2000	11 25%	6.20%	5.05%
5/24/2000	11.00%	6.18%	4.82%
7/18/2000	12.20%	6.16%	6.04%
9/29/2000	11 16%	6 03%	5.13%
11/28/2000	12.90%	5.89%	7.01%
11/30/2000	12.10%	5.88%	6.22%
1/23/2001	11.25%	5.79%	5.46%
2/8/2001	11.50%	5.77%	5.73%
5/8/2001	10.75%	5.62%	5.13%
6/26/2001	11.00%	5.62%	5.38%
7/25/2001	11.02%	5.60%	5.42%
7/25/2001	11.02%	5.60%	5.42%
7/31/2001	11.00%	5.59%	5.41%
8/31/2001	10.50%	5.56%	4.94%
9/7/2001	10.75%	5.55%	5.20%
9/10/2001	11.00%	5.55%	5.45%
9/20/2001	10.00%	5.55%	4.45%
10/24/2001	10.30%	5.54%	4.76%
11/28/2001	10 60%	5.49%	5.11%
12/3/2001	12 88%	5.49%	7.39%
12/20/2001	12.50%	5.50%	7.00%
1/22/2002	10.00%	5.50%	4.50%
3/27/2002	10.10%	5.45%	4.65%

Date of Electric Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
4/22/2002	11.80%	5.45%	6.35%
5/28/2002	10.17%	5.46%	4.71%
6/10/2002	12.00%	5.47%	6.53%
6/18/2002	11.16%	5 48%	5.68%
6/20/2002	11.00%	5 48%	5.52%
6/20/2002	12.30%	5.48%	6.82%
7/15/2002	11.00%	5.48%	5.52%
9/12/2002	12.30%	5.45%	6.85%
9/26/2002	10.45%	5.41%	5.04%
12/4/2002	11.55%	5.29%	6.26%
12/13/2002	11.75%	5.27%	6.48%
12/20/2002	11.40%	5.25%	6.15%
1/8/2003	11.10%	5.19%	5.91%
1/31/2003	12.45%	5.13%	7.32%
2/28/2003	12.30%	5.04%	7.26%
3/6/2003	10.75%	5.02%	5.73%
3/7/2003	9.96%	5.02%	4.94%
3/20/2003	12.00%	4.98%	7.02%
4/3/2003	12.00%	4.95%	7.05%
4/15/2003	11.15%	4.93%	6.22%
6/25/2003	10.75%	4.79%	5.96%
6/26/2003	10.75%	4.79%	5.96%
7/9/2003	9.75%	4.79%	4.96%
7/16/2003	9.75%	4.79%	4.96%
7/25/2003	9.50%	4.79%	4.71%
8/26/2003	10.50%	4.83%	5 67%
12/17/2003	9.85%	4.94%	4.91%
12/17/2003	10.70%	4.94%	5.76%
12/18/2003	11.50%	4.94%	6.56%
12/19/2003	12.00%	4.94%	7.06%
12/19/2003	12.00%	4 94%	7.06%
12/23/2003	10.50%	4.94%	5.56%
1/13/2004	12.00%	4.95%	7.05%
3/2/2004	10.75%	4.99%	5.76%
3/26/2004	10.25%	5.02%	5.23%
4/5/2004	11.25%	5.03%	6.22%
5/18/2004	10.50%	5.07%	5.43%
5/25/2004	10.25%	5.07%	5.18%
5/27/2004	10.25%	5.08%	5.17%
6/2/2004	11.22%	5.08%	6.14%
6/30/2004	10.50%	5.10%	5.40%
6/30/2004	10.50%	5.10%	5 40%
7/16/2004	11.60%	5.11%	6.49%
8/25/2004	10.25%	5.10%	5.15%
9/9/2004	10.40%	5.10%	5.30%
11/9/2004	10.50%	5.07%	5.43%
11/23/2004	11.00%	5.06%	5.94%
12/14/2004	10.97%	5.07%	5.90%
12/21/2004	11.25%	5.07%	6.18%
12/21/2004	11.50%	5.07%	6.43%
12/22/2004	10.70%	5.07%	5 63%
12/22/2004	11.50%	5.07%	6.43%
12/29/2004	9.85%	5.08%	4.77%
1/6/2005	10.70%	5.08%	5.62%
2/18/2005	10.30%	4 98%	5 32%
2/25/2005	10.50%	4.96%	5 54%
3/10/2005	11.00%	4.93%	6.07%
3/24/2005	10.30%	4 89%	5.41%
4/4/2005	10.00%	4.87%	5.13%
4/7/2005	10.25%	4 87%	5.38%
5/18/2005	10.25%	4.78%	5.47%
5/25/2005	10.75%	4.76%	5.99%
5/26/2005	9.75%	4.76%	4.99%