

Before the North Dakota Public Service Commission

State of North Dakota

In the Matter of the Application of

Otter Tail Power Company

For Authority to Increase Electric Rates

In North Dakota

Case No. PU-23-342

DIRECT TESTIMONY OF MARLON F. GRIFFING, PH.D.

May 13, 2024

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I. Introduction

Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

A. My name is Dr. Marlon F. Griffing. I am a Senior Consultant with the economic consulting firm of PCMG & Associates Inc. ("PCMG"). My business address is 22 Brookes Drive, Gaithersburg, MD 20785.

Q. PLEASE DESCRIBE PCMG.

A. PCMG was founded in 2015 to conduct research on a consulting basis into the rates, revenues, costs, and economic performance of regulated firms and industries. The firm has a professional staff of four with expertise in economics, accounting, and cost analysis. Most of its work involves the development, preparation, and presentation of expert witness testimony before federal and state regulatory agencies.

Q. HAVE YOU PREPARED A SUMMARY OF YOUR QUALIFICATIONS AND EXPERIENCE, INCLUDING COST-OF-CAPITAL TESTIMONY IN REGULATORY PROCEEDINGS?

A. Yes. Exhibit MFG-1 is a summary of my qualifications, experience, and testimony given before state and federal regulatory agencies regarding cost of capital.

Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A. I am appearing on behalf of the Advocacy Staff of the North Dakota Public Service Commission (NDPSC).

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is to determine a fair rate of return on common equity capital and a fair overall rate of return for the electric utility company Otter Tail Power Company ("OTP" or "Company"). OTP is a wholly owned subsidiary of Otter Tail Corporation

(“OTTR”). OTP witness Ann E. Bulkley testifies regarding return of equity, while OTP witness Todd R. Wahlund testifies about financial soundness, capital structure, and cost of capital. I respond to the testimonies of these Company witnesses.

Q. HOW DO YOU ADDRESS RECOMMENDED RATES FOR THE COMPANY?

A. To arrive at recommended rates for common equity capital and overall cost of capital, I analyze the Company’s capital structure and the costs for each component of that structure, including the return on equity and cost of debt.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. My testimony is organized as follows:

- 1) First, I discuss economic considerations and legal precedents underlying the cost of equity in regulatory proceedings.
- 2) Second, I provide an overview of return on equity (“ROE”) analysis.
- 3) Third, I explain how I selected the members of the Comparison Group of companies used in my analysis.
- 4) Fourth, I provide an overview of the Discounted Cash Flow (“DCF”) analysis.
- 5) Fifth, I perform a CAPM analysis for the Comparison Group.
- 6) Sixth, I recommend a return on equity (“ROE”) for the Company and check it for reasonableness.
- 7) Seventh, I perform a capital structure analysis.
- 8) Eighth, I recommend a capital structure and ROR for the Company.
- 9) Ninth, I review the Company’s cost of capital analysis.
- 10) Tenth, I summarize my testimony and recommendations.

Q. PLEASE STATE YOUR CONCLUSIONS REGARDING THE COMPANY'S ROE AND ROR.

A. I recommend an ROE of 10.25 percent for OTP. For OTP's capital structure, my analysis shows ratios of 45.00 percent long-term debt, 5.00 percent short-term debt, and 50.00 percent common equity are appropriate. When the ROE of 10.25 percent is included in the recommended capital structure with the Company's 4.65 percent cost of long-term debt and 5.25 percent cost of short-term debt,¹ the result is an ROR of 7.48 percent.²

II. The Cost of Equity in the Regulatory Environment

A. The Role of Economic Theory

Q. WHAT IS THE BASIS IN ECONOMIC THEORY FOR REGULATING CERTAIN INDUSTRIES?

A. According to economic theory, the forces of supply and demand interacting in a competitive environment produce an allocation of resources that yields an optimal mix of goods and services. Firms and individuals maximize profits and satisfaction given the prices and incomes that the interplay of market forces generates. This outcome is described as economically efficient. Put simply, there is no better output of goods and services that can be produced with the available resources.

¹ Direct Testimony of Todd R. Wahlund, Volume 2B, page 2 [hereinafter "Wahlund Direct"].

² Exhibit MFG-20, Schedule 3.

Q. DOES THE ECONOMICALLY EFFICIENT OUTCOME OCCUR IN ALL INDUSTRIES?

A. No, several conditions must be present, including many buyers and sellers, identical products, perfect information about prices, and so forth. If these conditions exist, then price is the only way for providers of goods and services to compete in markets. If the conditions for competition do not exist, however, then letting supply and demand work unfettered will not produce the socially desired efficient outcome.

Q. ARE THERE LEGAL OBSTACLES TO COMPETITION IN PUBLIC UTILITY MARKETS?

A. Yes. Even if a firm is willing and able to raise the capital needed to be a viable electric distribution company, state and local governments typically have permitting processes that govern where and when utilities can build facilities. Thus, high start-up costs are not the only barrier that must be overcome.

Q. ARE THERE OTHER ASPECTS OF AN ELECTRIC DISTRIBUTION UTILITY'S COSTS THAT RESULT IN FEW SELLERS?

A. Yes. The electric utility industry is what is typically known as a declining-cost industry.

Q. WHAT IS A DECLINING-COST INDUSTRY?

A. A declining-cost industry is one where the average cost of service declines over the range of effective demand.

Q. IS A DECLINING AVERAGE COST OF SERVICE SUFFICIENT FOR AN INDUSTRY TO BE TERMED "DECLINING COST?"

A. No. In fact, average costs decline in most industries as production and sales increase. However, in these industries, average cost eventually rises and does so at a sales level that

is smaller than the total demand for the product in a given industry. Consequently, a few too many firms share the market because, beyond the sales volume at which average costs rise, firms lose cost advantage.

Q. ARE PUBLIC UTILITIES DECLINING-COST INDUSTRIES?

A. Yes. With their high fixed costs, public utilities have high initial average costs, but as their sales increase, the average cost drops. What qualifies public utilities as a declining-cost industry is that their average costs continue to decline over very high volumes of sales, up to and beyond total, or effective, market demand for the product. This condition creates market failure (*i.e.*, when the market produces an outcome that is inefficient). As an electric distribution firm increases its sales and market share, its average costs decline, and continue to do so. Thus, the firm with the largest market share has an increasing cost advantage over competitors. In effect, there is not enough room in the market for another distributor. The logical result is a market with one distributor—often referred to as a natural monopoly.

Q. HOW HAS SOCIETY RESPONDED TO THE ABSENCE OF COMPETITION IN PUBLIC UTILITY MARKETS?

A. Since sufficient competition does not exist in the markets for public utilities to ensure competitive prices and adequate service, society has typically turned to regulation to achieve these goals. Firms are granted exclusive franchises to serve areas in return for accepting government regulation of their prices. The government regulators generally are charged with pursuing an outcome that approximates the efficient outcome of the competitive model. Regulation is viewed as a way to decrease prices and increase services provided by a natural monopoly. A challenge for regulators is to set policies that ensure the regulated firm provides an appropriate supply of services at reasonable rates. A

reasonable rate enables a public utility not only to recover its operating expenses, depreciation, and taxes, but also to compete for funds in capital markets.

B. Standards for Finding a Fair Rate of Return

Q. DO STANDARDS EXIST FOR DETERMINING A FAIR RATE OF RETURN?

A. Yes. Two United States Supreme Court (“Court”) cases are the basis for rate of return regulation in the United States. They are the *Bluefield Water Works*³ and the *Hope Natural Gas*⁴ cases. In *Hope*, the Court established the following standards for the return on equity that must be allowed a regulated public utility to provide for a “reasonable return”:

[T]he return to the equity owner should be commensurate with the 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.⁵

It can be seen from this excerpt that there are essentially three standards for determining an appropriate return on equity from the standpoint of the equity owners of a regulated utility. The first is the “comparable earnings” standard—the earnings must be “commensurate with the returns on investments in other enterprises having corresponding risks.” The second is that earnings must be sufficient to assure “confidence in the financial integrity of the enterprise.” The third is that earnings must allow the utility to “attract capital.”

³ *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923).

⁴ *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

⁵ *Id.* at 603.

Q. CAN THE COMPARABLE EARNINGS STANDARD BE APPLIED IN ESTIMATING THE RATE OF RETURN ON EQUITY CAPITAL?

A. No. There is circularity to the comparable earnings standard because the competitive nature of the capital markets virtually ensures that the returns to all enterprises are comparable with each other. Investors establish the price of each traded stock in capital markets based on prospective earnings and perceived risk. The prices for common equity for companies with high earnings are bid up, while the prices for companies with low earnings are bid down. If earnings were the only concern, the ratio of earnings to share prices, the return for investors, would become equal for all companies. However, investors recognize relative risk as they buy and sell common equity shares. For companies with high risk, share prices will be lower; for companies with low risk, share prices will be higher. Thus, the comparable earnings test becomes a nullity: All returns, because they are adjusted for risk, are comparable with all other returns.

Q. HOW IS THIS CIRCULARITY TYPICALLY RESOLVED IN PUBLIC UTILITY REGULATION?

A. In public utility regulation, the conventional procedure for resolving this circularity is to identify the required equity return based on the market value of a utility's stock. That return is combined with the cost of debt, and the blended return to total capital is then applied to a rate base reflective of the book value of the utility's investment. The book value is the accountant's quantification of the depreciated original cost of the utility's assets adjusted for ratepayer contributions such as deposits and deferred taxes. Under this procedure, the market price of a stock is used only to determine the return that investors expect from that stock. That expectation is then applied to the book value of the utility's investment to

identify the level of earnings that regulation will allow the utility's common shareholders to recover.

Q. HOW CAN THE FINANCIAL INTEGRITY AND CAPITAL ATTRACTION STANDARDS ENUNCIATED IN *HOPE* BE APPLIED IN ESTIMATING THE RATE OF RETURN ON EQUITY CAPITAL?

A. If a utility can earn a return on its investment comparable to that required by enterprises of comparable risk, then it should have no difficulty in attracting capital and maintaining credit. Investors would have no reason to pass on purchasing the common equity of such a utility in favor of other investment opportunities. Thus, if the comparable earnings test is met, then the financial integrity and capital attraction standards are met as well.

Q. WHAT IS RISK?

A. Risk is the chance that an investment will lose value. A business, for example, may introduce a new product, supporting it with investment in plant and equipment. There is, of course, no guarantee that consumers will purchase the product, putting the investment in the plant and equipment at risk. The risk investors attach to the company varies inversely with their view as to the probability of the product doing well. In general, the greater the risk of an investment, the greater the return required to attract investors, and vice versa.

Q. DOES SETTING AN ALLOWED RATE OF RETURN MEAN THAT THE UTILITY WILL EARN THAT RETURN?

A. No. There is no guarantee that the utility will earn the allowed rate of return. The utility has the reasonable *opportunity* to earn the allowed rate of return; in practice, the utility may earn more or less than this return, depending on whether and how its management responds to technological and market developments, among other matters.

Q. WHAT SHOULD THE COMMISSION CONSIDER IN SETTING AN APPROPRIATE RATE OF RETURN?

- A. The Commission should look to current market conditions as it balances investor and consumer interests. In this case, the rate of return should reflect the condition of the capital markets in which OTP will have to compete with other firms for funding. Historically allowed rates and historical performances are not appropriate inputs in this forward-looking approach. This statement, however, does not mean that historical rates and performance are irrelevant. They are factors because they affect investors' views of a company's prospects and, therefore, the investors' willingness to purchase its common equity shares.

Q. PLEASE EXPLAIN HOW THE METHODS YOU USED TO DETERMINE THE COST OF COMMON EQUITY CAPITAL FOR THE COMPANY REFLECT CURRENT MARKET CONDITIONS.

- A. I used a market-oriented approach to determine the common equity cost for the Company. I analyzed the equity return that investors currently expect to receive from investing in companies with risk like the risk of the Company. Many factors influence these investor expectations, among them: past performance of the companies, estimates of how the companies will perform in the future, possible technological change, tax rates, and predicted general economic conditions. As investors decide where to place their funds among the investment options available to them, they weigh the information they have. Then they decide how much to pay to acquire common equity shares, or to turn to the other side of the question, what price will lead them to sell the shares. Either way, the factors are reflected in current prices in capital markets. Thus, my analysis is forward-looking because it relies on investors' current assessment of what is likely to happen with their investments.

Q. WHAT IS THE ROLE OF OPPORTUNITY COSTS IN YOUR ANALYSIS?

- A. An opportunity cost is the value of the next best choice forgone as the result of making a decision. Opportunity costs are central to my analysis. As investors decide where to place their assets, they have many opportunities from which to choose in the financial markets. Economic theory says they will choose the opportunity they think will provide them the best return, accounting for the level of risk with which they are comfortable. Thus, for a company to attract capital, its forward-looking fair rate of return must at least equal the expected rate of return for the best alternative opportunity with similar risk.

III. Overview of the Return on Equity Analysis

Q. HOW DO YOU KNOW WHAT EQUITY RATE OF RETURN THE COMPANY MUST OFFER TO INVESTORS TO BE AN ATTRACTIVE OPPORTUNITY?

- A. No one knows with certainty what specific rate of return the Company must offer to investors that is sufficient to make the Company an attractive opportunity. However, various methods based on finance theory have been derived for reliably estimating what investors currently think that rate is.

Q. PLEASE IDENTIFY THE METHODS YOU HAVE ADOPTED IN YOUR ROE ANALYSIS.

- A. I use the Discounted Cash Flow ("DCF") method, which is widely used in utility general rate cases, and is a method relied on by the Commission in determining rate of return. I also include the results of the Capital Asset Pricing Model ("CAPM"), combining them with the DCF results for my recommended ROE. I use recently authorized returns for electric utility operating companies in U.S. jurisdictions as a check on the reasonableness of the ROE outcome.

Q. PLEASE SUMMARIZE THE DCF METHOD.

- A. The DCF model uses the current dividend yield and the expected growth rate of this yield to determine a required rate of return on an investment opportunity. The required rate of return from a DCF analysis is derived from a formula for determining the net present value, or price, of a share of stock. There are several variations of the DCF, but the constant-growth form I have selected assumes that dividends (D) are received at the end of each year, the annual growth rate of dividends (g) is constant forever, and the discount rate for dividends (k) is constant forever. The equation form of this constant-growth DCF model is the following:

$$k = \frac{D_1}{P_0} + g$$

Where:

k is the discount rate, which also is the fair rate of return for equity;

D₁ is the annual dividend one year from the present;

P₀ is the current price of a stock share; and

g is the expected growth rate of the dividend.

Q. HOW IS THE ANNUAL DIVIDEND ONE YEAR FROM THE PRESENT CALCULATED?

- A. The annual dividend one year from now is derived by applying the growth-rate estimate (g) to the actual current annual dividend (D₀). The equation form is:

$$D_1 = D_0 * (1 + g)$$

Q. PLEASE DESCRIBE THE ELEMENTS OF THE DCF MODEL.

- A. The first element of the DCF model is the dividend-yield component, while the second element is the dividend growth-rate component. The sum of these two components produces the required ROE for a company.

Q. PLEASE DISCUSS THE CAPM METHOD.

- A. The premise of the CAPM method is that any risk which is company-specific can be diversified away by investors. Therefore, the only risk that matters is the systematic risk of the stock. This systematic risk is measured by beta (β). Expressed simply, the CAPM assumes the following form:

$$k = r + \beta (k_m - r)$$

Where:

k is the required rate of return for the subject stock;

β is beta, the measure of systematic risk;

r is the rate of return on a riskless asset; and

k_m is the required rate of return on the broad market.

$(k_m - r)$ is known as the "market risk premium"

Q. PLEASE CHARACTERIZE THE CAPM METHOD.

- A. In the CAPM method, the required ROE for a company also is the sum of two components. The first of these is the return on a riskless asset. To this base value, a return is added that reflects the additional rate of return earned by other companies in the broad equity market adjusted for the risk of the subject company relative to the risk of an average company in the market. The subsequent amount thus reflects the risk of the subject company.

Q. DOES YOUR EQUITY RATE OF RETURN ANALYSIS USE FINANCIAL INFORMATION FOR OTP?

A. No. As noted, OTP is an operating subsidiary of OTTR. OTP is not publicly traded, so common equity share price information is unavailable. Therefore, a direct DCF analysis cannot be performed on the Company.

Q. DOES YOUR EQUITY RATE OF RETURN ANALYSIS USE OTTR INFORMATION?

A. Yes. OTTR has a Standard & Poor's ("S&P") credit rating of BBB.⁶ This credit rating reflects S&P's evaluation of the risk for the parent company. Meanwhile, OTP has a separate S&P credit rating of BBB+.⁷ A credit rating is one criterion that I applied in selecting electric utilities that are similar in risk to OTP.

Q. HOW DO YOU USE THE ROE ANALYSIS TO ESTIMATE THE COMPANY'S REQUIRED RATE OF RETURN?

A. I performed an ROE analysis on a group of electric utilities comparable to OTP that are publicly traded and have similar investment risk, as discussed below. The estimated rates of return for members of this group form the basis for my estimate of a fair rate of return for the Company.

⁶ Exhibit MFG-2.

⁷ Exhibit MFG-3.

IV. Selecting the Comparison Group

Q. PLEASE DISCUSS YOUR PROCEDURE FOR SELECTING THE COMPARISON GROUP.

A. I set out to find a group of companies that are, from the perspective of investors, like OTP. Thus, I wanted firms that are electric utility companies that represent approximately the same investment risk as the Company.

Q. PLEASE DESCRIBE HOW YOU FOUND SUITABLE CANDIDATE COMPANIES FOR THE COMPARISON GROUP.

A. I looked at Value Line, a widely used investor service, for companies that Value Line classifies as members of the Electric Utility Industry. The set of companies in this industry downloaded from the Value Line website on April 22, 2024, included 40 companies.⁸

Q. WAS OTTR ONE OF THE 40 COMPANIES IN THE VALUE LINE ELECTRIC INDUSTRY?

A. Yes. I removed OTTR from consideration for the Comparison Group. I prefer not to include a subject company or its parent or subsidiary in the Comparison Group because doing so creates circularity in calculating a return. On the other hand, a concern in selecting a proxy group is that there be enough members, so that no one company's results strongly affect the ROE analysis outcome. There are enough electric utilities available that the Comparison Group can be formed without including OTTR.⁹

⁸ Exhibit MFG-4.

⁹ Exhibit MFG-5.

Q. WHAT WAS THE NEXT STEP IN YOUR SELECTION PROCESS?

A. I applied screens to the initial set of Value Line Electric Utility companies to ensure that the companies included in my Comparison Group were similar in risk to the risk of the Company.¹⁰

Q. PLEASE LIST THE CRITERIA YOU APPLIED IN THE SELECTION OF THE COMPARISON GROUP.

A. I applied the following screens to the initial set of Electric Utility companies:

- 1) firm with significant U.S.-based operations;
- 2) shares publicly traded on a stock exchange;
- 3) a stable record of paying dividends;
- 4) not be expected to sell, merge into or be acquired by another company, or be engaged in an unusual regulatory proceeding;
- 5) have a Standard & Poor's invest-grade credit rating (BBB- or better);
- 6) have positive growth-rate projections from expert analysts; and
- 7) have 75 percent or more of the three-year average of net operating income, net income, or operating revenue be derived from regulated electric operations.

Q. WHAT IS THE PURPOSE OF APPLYING THE CRITERION THAT THE COMPANIES BE BASED IN THE CONTINENTAL UNITED STATES?

A. I sought companies that face a business environment like that in which OTP operates. The Company's operations are in North Dakota, South Dakota, and Minnesota, and it is subject to state regulation, statutes, and rules that are like those found in the rest of the United

¹⁰ Exhibit MFG-5.

States. No companies were excluded for not being U.S.-based. There were two Canada-based utilities with U.S. operations in the initial set, Emera Incorporated and Fortis Inc., that have U.S. operations. I continued to consider them, applying the other screens to the operations of these two utilities.

Q. WHAT PURPOSE IS SERVED BY REQUIRING THAT THE COMPANIES BE PUBLICLY TRADED?

A. One analytical tool that I used for finding a company's ROE, the DCF model,¹¹ requires information about common equity share prices, dividends, and growth-rate projections. The requirement that companies be publicly traded ensures that their common equity share prices are available. All the Value Line Electric Utility companies are publicly traded.¹²

Q. WHAT PURPOSE IS SERVED BY REQUIRING THAT THE COMPANIES HAVE A STABLE RECORD OF PAYING DIVIDENDS?

A. The DCF model requires dividends as an input. If a company is not paying dividends or has a record of cutting dividends, then its DCF analysis is not reliable. PG&E Corporation has been in bankruptcy and only resumed paying dividends (1 cent a share) in the first quarter of 2024.¹³ The dividend record of another electric utility, Summer Energy Holdings, is not available from S&P.¹⁴ These electric utilities were excluded.¹⁵

¹¹ As will be seen in a later section, the forward-looking CAPM as I have applied it incorporates a DCF analysis and, thus, also relies on publicly traded companies.

¹² Exhibit MFG-4.

¹³ Exhibit MFG-5.

¹⁴ Exhibit MFG-5.

¹⁵ Exhibit MFG-5.

Q. WHY IS IT IMPORTANT THAT COMPANIES INVOLVED IN SALES, MERGERS, OR ACQUISITIONS, BE EXCLUDED FROM YOUR ANALYSIS?

A. The share prices of companies involved in sales, mergers or acquisitions can be volatile. Extreme increases in the share prices of companies that are part of sales, mergers, or acquisitions drive down the ROE results in DCF analysis, while extreme decreases in the share prices drive up the ROE results. Neither outcome yields meaningful DCF results. Therefore, it is usually appropriate to exclude such companies from the analysis.

Q. WERE ANY COMPANIES IN THE INITIAL SET INVOLVED IN SALES, MERGERS, OR ACQUISITIONS?

A. Yes. CenterPoint Energy announced on February 27, 2024, that it will sell its Louisiana and Mississippi natural gas operations with a target completion date of the first quarter of 2025.¹⁶ In addition, Avangrid, Inc. (“Avangrid”) announced on March 7, 2024, that it received an offer from Iberdrola, S.A. (“Iberdrola”) to acquire the 18.4 percent of Avangrid that Iberdrola does not already own. Prior to the Iberdrola offer to Avangrid, Avangrid had tried to acquire PNM Resources. The New Mexico Public Regulatory Commission had rejected the acquisition once. Iberdrola has withdrawn the Avangrid pursuit of PNM Resources. Therefore, PNM Resources’ future remains uncertain.¹⁷ Finally, Reuters reported on December 5, 2023, that ALLETE, Inc. was exploring a sale. ALLETE shares increased 8.02 percent that day.¹⁸ CenterPoint, Avangrid, PNM Resources, and ALLETE were excluded because of these activities.

¹⁶ Exhibit MFG-6.

¹⁷ Exhibit MFG-7.

¹⁸ Exhibit MFG-8.

Q. IS THERE ANOTHER COMPANY INVOLVED IN AN UNUSUAL SITUATION?

A. Yes. FirstEnergy Corp. (“FirstEnergy”) was implicated in a bribery scheme in Ohio in 2020. The company has replaced the management that undertook the bribery. However, FirstEnergy subsidiaries in at least New Jersey and Pennsylvania face regulatory dockets in which the prior FirstEnergy behavior could negatively affect the subsidiaries, and by extension, the parent company.¹⁹ Therefore, I excluded FirstEnergy.

Q. WHAT IS THE PURPOSE OF USING THE S&P CREDIT RATING AS A SCREEN?

A. S&P’s experts incorporate financial risk and business risk into a firm’s credit rating. Within these risk categories, S&P assesses such factors for public utilities as competitive advantage, operating efficiency, operating assets, and scale, scope, and diversity. This last set of factors includes the effects of a utility’s markets, service territories, and customer diversity on the company’s cash-flow stability, and in turn on its risk level. After considering all the factors, S&P assigns a credit rating to a company. If companies have identical or similar credit ratings as determined by expert analysts, then their relative risks are similar. As S&P states:

Creditworthiness is a multi-faceted phenomenon. Although there is no “formula” for combining the various facets, our credit ratings attempt to condense their combined effects into rating symbols along a simple, one-

¹⁹ BPU Docket. No EF02030185 JCP&L for Authorization Pursuant to N.J.S.A. 48:3-7.2 for Approval to Participate in the FirstEnergy Corp. Intra System Money Pool; Pennsylvania Public Utility Commission et al. v. FirstEnergy Pennsylvania Electric Company Docket Nos. R-2024-3047068 (Exhibit MFG-9).

dimensional scale. Indeed, as discussed below, the relative importance of the various factors may change in different situations.²⁰

Q. PLEASE DESCRIBE YOUR APPLICATION OF THE S&P CREDIT RATING SCREEN.

A. Recall from above that the OTTR S&P credit rating was BBB and the OTP credit rating was BBB+. Both these ratings are investment grade. Please note that the credit rating screen does not require that companies have the exact same credit rating as the subject company. The credit rating need only be like that of the subject company. The narrower the range of the credit rating, the more like the subject company's risk are the risk profiles of the companies within the range. However, the goal of having companies with risk like that of the operating company must be balanced with the goal of having a reasonable number of companies in the Comparison Group, so that no one company's result strongly influences the outcome.

Q. WHAT WAS THE RESULT OF YOUR APPLICATION OF THE CREDIT RATING SCREEN IN THIS DOCKET?

A. There were 32 companies remaining from the original group of 40 after the previous screens were applied. Of these utilities, MGE Energy, Inc. does not have an S&P credit rating and was excluded.²¹ Hawaiian Electric Industries has a B- S&P credit rating, below investment grade.²² The 30 remaining companies had investment-grade credit ratings,

²⁰ Exhibit MFG-10.

²¹ Summer Energy Holdings, eliminated for not having a record of paying dividends, also does not have an S&P credit rating.

²² PG&E has a credit ratings of BB, but it was already eliminated by other screens.

ranging from BBB to A-.²³ These credit ratings also are like the OTTR credit rating of BBB and the OTP credit rating of BBB+.

Q. YOU REQUIRED THAT ELECTRIC UTILITIES HAVE POSITIVE EARNINGS PER SHARE (“EPS”) GROWTH-RATE FORECASTS TO BE INCLUDED IN THE COMPARISON GROUP. WHAT PURPOSE DOES THIS SCREEN SERVE?

A. If the growth-rate projections are negative or missing, then any DCF analysis performed on them is not meaningful. Of the 30 companies still under consideration for the Comparison Group, Exelon Corporation does not have meaningful earnings per share (“EPS”) growth-rate forecasts. The company recently spun off its unregulated generation units, meaning it is operating from a new baseline.²⁴

Q. FINALLY, YOU REQUIRED THAT MORE THAN 75 PERCENT OF A COMPANY’S THREE-YEAR AVERAGE OF AN INCOME OR REVENUE INDICATOR BE DERIVED FROM REGULATED ELECTRIC UTILITY OPERATIONS IN ORDER TO BE INCLUDED IN THE COMPARISON GROUP. PLEASE EXPLAIN THE PURPOSE OF THIS CRITERION.

A. For the firms to have similar risks, they must operate in similar business environments. The Company is predominantly a regulated electric utility operation, so the firms considered for the Comparison Group also must have predominantly regulated operations. This criterion ensures that most of the Comparison Group firms’ operations are in the same environment as that of the Company.

²³ Exhibit MFG-11.

²⁴ Exhibit MFG-12.

Q. WHAT WAS THE OUTCOME OF YOUR APPLICATION OF THIS SCREEN?

A. I included 17 of the remaining 29 companies in the Comparison Group after applying the operating income/net income/operating revenue screen.²⁵

Q. PLEASE DESCRIBE THE COMPARISON GROUP AFTER YOUR SCREENING.

A. The Comparison Group is composed of Alliant Energy Corporation, Ameren Corporation, American Electric Power Co., CMS Energy Corporation, Duke Energy, Edison International, Entergy Corporation, Evergy, Inc., Eversource Energy, Fortis Inc., IDACORP, Inc., NorthWestern Corporation, OGE Energy Corp., Pinnacle West Capital Corp., Portland General Electric Co., WEC Energy Group, Inc., and Xcel Energy, Inc. Three of the 17 companies were rated BBB, ten were rated BBB+, and four were rated A.²⁶ Thus, all of the electric utilities were rated investment grade, with ratings like the BBB for OTTR and the BBB+ for OTP.

Q. PLEASE COMPARE THE MEMBERSHIP OF OTP WITNESS MS. BULKLEY'S PROXY GROUP WITH THE MEMBERSHIP OF YOUR COMPARISON GROUP.

A. OTP Witness Ms. Bulkley's Proxy Group also was composed of 17 electric utilities.²⁷ Thirteen of those companies were members of the Comparison Group. The four electric utilities that were not are ALLETE, Inc.,²⁸ Avista Corporation, NextEra Energy, Inc., and Southern Company. The four electric utilities I included that are not in Ms. Bulkley's Proxy Group are Edison International, Eversource Energy, Fortis Inc., and WEC Energy Group.

²⁵ Exhibit MFG-13.

²⁶ Exhibit MFG-14.

²⁷ Direct Test. of Ann E. Bulkley on behalf of Otter Tail Power Company, Exhibit AEB-1 (November 2, 2023) [hereinafter "Bulkley Direct"].

²⁸ ALLETE's announcement that it was seeking a buyer occurred about month after Ms. Bulkley filed Bulkley Direct. Therefore, she could not factor the sale into her analysis,

V. DCF Model Overview

Q. WHAT IS THE PURPOSE OF A DCF ANALYSIS?

A. The goal of this analysis was to estimate an appropriate, forward-looking rate of return on equity. A DCF analysis requires a determination of expected growth rates and dividend yields to estimate this return.

Q. PLEASE DISCUSS EXPECTED GROWTH RATES.

A. Because a DCF analysis is forward-looking, I want to estimate the expected growth rate of dividends. Historical growth rates would be good indicators of the expected growth rate if both of the following are true:

- 1) the dividend payout ratio and the realized rate of return on equity capital were constant in the past and could be assumed to remain constant in the future; and
- 2) any growth in book equity was attributable solely to retained earnings.

If, in practice, these conditions held, then earnings per share ("EPS"), dividends per share ("DPS"), and book value per share ("BPS") would all grow at the same rate, and the past growth rates for these factors would be the rate at which they would grow in the future.

Q. DID YOU USE HISTORICAL GROWTH RATES IN YOUR ANALYSIS?

A. No. The conditions necessary for historical growth rates to be good indicators of future growth rates are rarely satisfied. Most utilities' returns on equity and payout ratios have not remained constant over time. Further, growth in book value has occurred not only due to retained earnings, but also due to the issuance of new shares of common stock. Consequently, past growth rates of earnings, dividends, and book equity are frequently unequal. Moreover, an industry may face a changed business environment, thereby making the past a poor basis for projecting the future. Historical growth rates can differ

significantly from forward-looking projected growth rates due to such factors as inflation rates, tax rates, the role of an industry in the economy, and the regulatory environment. In view of these limitations of using historical growth rates, I based my estimated growth rates on projected growth rates as publicly provided by *Zacks Investment Research* ("Zacks"), a respected investor services company, Thomson Financial Network²⁹ estimates provided on Yahoo! Finance, and *The Value Line Investment Survey*.

Q. PLEASE DISCUSS THE DIVIDEND YIELDS USED IN YOUR DCF ANALYSIS.

A. To estimate the required rate of return on equity capital today, I estimated the expected dividend yield, D_1/P_0 where P_0 is the price of a share of common equity today and D_1 is the dividend in the next period. To find the dividends expected a year from now, I multiplied the current annual dividends paid by 1 plus the EPS growth rates for each company. The use of this dividend yield assumes that dividends are distributed at the end of each period (year). Since the current equity share price incorporates all market information considered relevant by investors, generally speaking, non-recent historical prices should be avoided in calculating the dividend yield. However, since share prices are volatile in the short run, it is desirable to use a period long enough to avoid short-term aberrations in the capital market.

Q. WHAT COMMON EQUITY SHARE PRICES DID YOU USE IN YOUR DCF ANALYSIS?

A. I used the average of four weeks of share prices for each electric utility. This period achieves the goals of using current information and avoiding cases where short-run

²⁹ Also referred to as "I/B/E/S" estimates.

volatility causes common-equity share prices to be unrepresentative of the value investors place on a company.

VI. DCF Analysis for the Comparison Group

A. Constant-Growth DCF Analysis

Q. PLEASE DISCUSS THE REQUIRED RATE OF RETURN FOR THE COMPARISON GROUP.

A. To estimate the required rate of return for the group, I found the expected growth rate, g , and the expected dividend yield, D_1/P_0 , for each Comparison Group company. I applied the DCF model to the inputs to find an ROE for each natural gas utility. Finally, I averaged the ROEs to find my DCF ROE for OTP.

Q. WHAT PERIOD DID YOU USE TO ESTABLISH AVERAGE COMMON EQUITY SHARE PRICES FOR THE COMPANIES IN THE COMPARISON GROUP?

A. To find average common equity share prices, I used the trading period of April 1, 2024, to April 26, 2024. This four-week period is long enough to dampen any short-term aberrations in the capital market. I used closing prices for the Comparison Group member companies obtained at Yahoo! Finance.³⁰

Q. HOW DID YOU DETERMINE THE DIVIDENDS FOR THE COMPARISON GROUP COMPANIES?

A. I used the dividends that each Comparison Group company is currently paying as reported by Value Line on February 9, 2024, March 8, 2024, and April 19, 2024;³¹ and by Zacks on

³⁰ Exhibit MFG-15.

³¹ Value Line divides the Electric Industry into three regions and reports one region a month on a rotating basis. The regions reported for the respective dates are the West, East, and Central.

April 29, 2024. I used the greater of these two options in my DCF analysis. The dividends were equal for the electric utilities from the two sources except for Ameren Corp. and Eversource Energy, both of which had a larger Zacks dividend.³²

Q. WHAT ASSUMPTION IS MADE ABOUT THE EXPECTED GROWTH RATE IN THE CONSTANT-GROWTH DCF MODEL?

A. In the constant-growth DCF model, it is assumed that current EPS growth rates continue to infinity. I used, as is commonly done, forecasts of EPS growth rates for five years and assumed those growth rates will continue.

Q. PLEASE DISCUSS THE EXPECTED GROWTH RATE FOR THE COMPARISON GROUP.

A. As noted above, it is appropriate in this proceeding to use only the forecasted growth rates to estimate the expected growth rate to be used in the DCF analysis. Zacks and Yahoo! Finance provide five-year growth-rate projections for EPS and Value Line provides five-year growth rate projections for EPS, DPS, and BPS. To maintain consistency across the sources, I used only the EPS estimates from Value Line.

Q. WHAT INFORMATION DID YOU USE FROM VALUE LINE?

A. I used the Value Line EPS five-year growth projections for the individual firms in the Comparison Group as reported by Value Line at its website on February 9, 2024, March 8, 2024, and April 19, 2024.³³

³² Exhibit MFG-16.

³³ Exhibit MFG-17, Schedule 1.

Q. WHAT INFORMATION DID YOU USE FROM ZACKS?

A. I used the Zacks EPS five-year growth projections available April 29, 2024, for the individual firms in the Comparison Group.³⁴

Q. WHAT INFORMATION DID YOU USE FROM YAHOO! FINANCE?

A. I used the Yahoo! Finance EPS five-year growth projections available April 29, 2024, for the individual firms in the Comparison Group.³⁵

Q. HOW DID YOU COMBINE THE ZACKS, YAHOO! FINANCE, AND VALUE LINE ESTIMATES?

A. I weighted the Zacks, Yahoo! Finance, and Value Line EPS values equally to find my best estimate of the expected growth rate for each company in the Comparison Group.

Q. PLEASE DISCUSS YOUR CALCULATION OF THE EXPECTED DIVIDEND YIELD FOR THE COMPARISON GROUP.

A. The appropriate dividend to use in the constant-growth DCF model is the annual dividend rate at the beginning of the next period (year). I began my estimation of the expected dividend yield by finding the dividends that each Comparison Group member company was currently paying, as noted above.

Q. PLEASE CONTINUE.

A. Next, I adjusted the annualized dividends for expected growth. The dividends of all the companies in the Comparison Group are expected to increase over the next year. I applied a full year's growth rate for a firm to the annualized dividend and added the product to the

³⁴ Exhibit MFG-17, Schedule 1.

³⁵ Exhibit MFG-17, Schedule 1.

annualized dividend yield to transform it into the expected dividend yield.³⁶ The equation for this operation is:

$$\frac{D_1}{P_0} = \frac{D_0}{P_0} (1 + g)$$

Applying this equation to the dividend yield for each company yielded the D_1 values that I use in my estimates.³⁷

B. Flotation Costs

Q. PLEASE DEFINE FLOTATION COSTS.

A. When companies issue equity, the price paid by investors for the new shares is higher than the revenues per share received by the company. The difference is issuance, or flotation, costs. These costs are the fees and expenses the company must pay as part of the issuance. The return on equity must be adjusted to recognize this difference, or a company will be denied the reasonable opportunity to earn its required rate of return.

Q. DID YOU MAKE A FLOTATION COST ADJUSTMENT FOR THE COMPANY?

A. No. OTP Witness Ms. Bulkley discussed flotation costs extensively, but did not include them in her ROE results.³⁸ Therefore, I did not include flotation costs in my ROE results.

³⁶ I followed this rule of applying a full year's growth to the current dividend in my CAPM analysis as well as in this DCF model analysis. My adjustment is larger than that of Ms. Bulkley.

³⁷ Exhibit MFG-17, Schedule 1.

³⁸ Bulkley Direct, pp. 66-70.

Q. DID MS. BULKLEY PERFORM HER FLOTATION-COST ADJUSTMENT CALCULATION CORRECTLY?

- A. Yes. Ms. Bulkley found a reasonable issuance cost for OTP of 3.30 percent. She incorporated that value into an equation like the following equation to find her adjustment for flotation cost.³⁹

$$k = \frac{D_1}{P_0} \left(\frac{1}{1-f} \right) + g$$

Where:

f is the flotation-cost percentage; and

all the other elements of the equation retain their previous meanings.

C. Minimum ROE Standard

Q. IS IT APPROPRIATE TO APPLY A MINIMUM STANDARD TO ROE RESULTS PRODUCED BY THE ROE MODELS?

- A. Yes. Investors demand a higher return from common equity than from debt to compensate for the greater risk of common equity. The Federal Energy Regulatory Commission (“FERC”) uses a minimum standard of the yield for Moody’s 10-Year Baa Corporate Bonds plus 20 percent of the CAPM risk premium as a minimum ROE threshold. Investors faced with an ROE for a company below that threshold would choose the less-risky debt over common equity investment in the company. Thus, OTP would not be competing with these companies for capital.

³⁹ Exhibit MFG-17, Schedule 2; Roger Morin, *New Regulatory Finance* 328 (2006).

Q. WHAT WAS THE MINIMUM STANDARD VALUE?

A. The average yield for the Moody's 10-year Baa Corporate Bond Yield Index was 5.99 percent over April 1, 2024, to April 26, 2024.⁴⁰ I performed two CAPM analyses, one with S&P 500 EPS growth forecast values from Institutional Brokers Estimate System ("I/B/E/S"), and one with S&P 500 EPS growth forecast values from Value Line. I found the mean of 20 percent of the CAPM risk premium for each analysis. The I/B/E/S value was 1.87 percent and the Value Line value was 1.32 percent. I added bond-yield value of 5.99 percent and the risk-premium component value for the two approaches, then found the mean of the two sums (7.86 percent and 7.31 percent). That mean was the minimum threshold of 7.59 percent.⁴¹

Q. DID YOU REMOVE ANY COMPANIES FROM THE DCF ANALYSIS BECAUSE THEY HAD ROE RESULTS THAT WERE UNREASONABLY LOW?

A. Yes. I eliminated Eversource Energy because its DCF ROE of 7.25 was below the threshold. I kept the company in my DCF analysis for illustrative purposes.

Q. DID YOU REMOVE ANY OTHER COMPANIES FROM THE DCF ROE ANALYSIS?

A. Yes. I eliminated Portland General Electric due to its growth-rate estimates. Portland General's Yahoo! Finance EPS growth estimate was 12.50 percent. This value is well above any recent authorized ROE for an electric utility. It is also 4.70 percent greater than the next highest individual EPS estimate for a Comparison Group member, namely the 7.80

⁴⁰ Exhibit MFG-18 Schedule 5.

⁴¹ Exhibit MFG-18, Schedule 8.

percent Value Line estimate for CMS Energy. The 12.50 percent value is an anomaly. When it is removed there is only one EPS growth-rate estimate for Portland General because Zacks did not issue an EPS growth-rate estimate for the company. Therefore, I excluded Portland General from the DCF ROE analysis.⁴²

Q. WHAT ROE DID YOU FIND FOR YOUR CONSTANT-GROWTH DCF ANALYSIS?

A. For the remaining 15 companies, the mean growth rate was 5.67 percent and the mean adjusted dividend yield was 4.54 percent. The combination of these two components (rounded) yielded an ROE of 10.20 percent. The median ROE was 10.30 percent.⁴³

D. Multistage DCF Analysis

Q. WHAT ASSUMPTION IS MADE ABOUT THE EXPECTED GROWTH RATE IN THE MULTISTAGE DCF MODEL?

A. In the multistage DCF model, it is assumed that the current growth rates are replaced by other growth rates in intervals after the present period. There are several possible approaches to a multistage analysis, but in many of the variations, a long-run gross domestic product ("GDP") growth rate is adopted after the first stage.

⁴² Exhibit MFG-17, Schedule 1.

⁴³ Exhibit MFG-17, Schedule 1.

Q. WHAT LOGIC SUPPORTS ADOPTING GDP GROWTH RATES AFTER THE FIRST STAGE OF A MULTISTAGE DCF ANALYSIS?

A. The logic for adopting a long-run GDP growth rate after the first stage of a multistage analysis is that a company cannot sustain growth faster than the growth rate of the economy as a whole over the long run.

Q. PLEASE IDENTIFY YOUR LONG-RUN GDP GROWTH RATES.

A. It was my opinion that the second-stage EPS growth rates will be like the long-run GDP growth rate forecasts of the Social Security Administration (“SSA”) and the Energy Information Administration (“EIA”). I calculated long run GDP growth rates from 2030-2050 from information published by these two agencies.⁴⁴ The SSA rate is 4.04 percent,⁴⁵ while the EIA rate is 4.33 percent.⁴⁶

Q. PLEASE DESCRIBE YOUR MULTISTAGE DCF ANALYSIS.

A. I applied what is sometimes called a blended approach to my multistage DCF analysis. In this approach, all inputs other than the EPS growth rates are the same as in the constant-growth DCF analysis. I continued to use the five-year EPS forecasts in the first stage but used the weighted long-run GDP growth rate as my second-stage EPS input. At that point, I blended the two growth rates by weighting the average of the five-year EPS forecasts two-thirds and the long-run weighted GDP growth rate one-third. This approach is set forth in a widely used regulatory handbook.⁴⁷

⁴⁴ The SSA and EIA GDP growth rates are “nominal.” They reflect current prices and include inflation.

⁴⁵ Exhibit MFG-17, Schedule 3.

⁴⁶ Exhibit MFG-17, Schedule 4.

⁴⁷ Exhibit MFG-17, Schedule 5; Roger Morin, *New Regulatory Finance* 309 (2006).

Q. WHAT IS THE RESULT OF YOUR MULTISTAGE DCF ANALYSIS?

A. After weighting the ROE results for the SSA approach and the EIA approach equally, the ROE for the 15 companies was of 9.71 percent. The median ROE was 9.72 percent.⁴⁸

Q. HAVE YOU ADJUSTED YOUR DCF ROE TO ACCOMMODATE FACTORS OTHER THAN EPS GROWTH RATE CHANGES?

A. No. The DCF model incorporates factors that affect investors' view of the world. The share price of common equity is the mechanism through which these influences are translated. For example, investors' beliefs about future interest-rate levels on the economy are translated into common equity share prices. The same is true of the effect on those prices of changes in federal fiscal policy. Either case affects the ROE of the company. Other factors that are incorporated into share prices are environmental regulations, market volatility, and leverage of companies. Investors will ask for common equity prices that compensate them for the degree of risk that they believe these factors create.

VII. CAPM Analysis for the Comparison Group

Q. WHAT ARE THE STRENGTHS AND WEAKNESSES OF THE CAPM?

A. The CAPM is theoretically sound, but its application raises issues. The analysis using CAPM selects a riskless asset, beta, and market risk premium. The ROE analysis can vary considerably depending on the analyst's choices for these variables. Thus, what at first may seem like a model that is straightforward instead depends heavily on the input values used by an analyst.

⁴⁸ Exhibit MFG-17, Schedule 6.

Q. PLEASE DESCRIBE THE CAPM VERSION THAT YOU EMPLOY IN YOUR ROE ANALYSIS.

A. I based my CAPM analysis on the version that the Federal Energy Regulatory Commission (“FERC”) first adopted in Opinion 569.⁴⁹ This approach addresses potential flaws in the CAPM. The FERC model is forward-looking and includes rules and methods that remove analyst judgment that can cause CAPM analyses conducted at the same time to vary widely. I do not adopt all the FERC procedures, but I follow its outline.

Q. PLEASE IDENTIFY THE RULES FERC APPLIES FOR INCLUDING COMPANIES IN A CAPM ANALYSIS.

A. Starting with the S&P 500 as its base for determining the broad market return, FERC requires that companies included in the market return analysis be paying dividends, an essential part of any DCF analysis. Companies with EPS estimates less than 0 percent and greater than 20 percent are excluded, thereby handling the problem of outliers at either end of the return spectrum.

Q. WHAT SOURCE FOR SHORT-TERM EPS FORECASTS FOR S&P 500 COMPANIES DID FERC SPECIFY BE USED IN A CAPM ANALYSIS?

A. FERC specified that the EPS forecasts for S&P 500 companies be from Yahoo! Finance. I included the Yahoo! Finance EPS forecasts in my analysis in this docket.⁵⁰

⁴⁹ *Ass’n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569, 169 FERC ¶ 61,129 at PP 134, 138, 184-185 (2019).

⁵⁰ The Yahoo! Finance EPS forecasts are I/B/E/S EPS forecast values. Yahoo! Finance and I/B/E/S are used interchangeably in this testimony.

Q. HAS FERC ADDED A SOURCE FOR SHORT-TERM EPS FORECASTS IN CAPM ANALYSIS IN A SUBSEQUENT OPINION?

A. Yes. In Opinion 569-A, FERC stated that it would consider the use of Value Line short-term EPS forecasts in the CAPM in future proceedings.⁵¹ I included the Value Line EPS forecasts in my analysis in this docket.

Q. PLEASE DISCUSS THE RISK-FREE RATE THAT YOU USED.

A. For the risk-free rate, FERC uses a six-month average of 30-year Treasury bond yields, not forecasts of those bond yields. I departed from this aspect of the FERC analysis. I use an average of 30-year Treasury bond yields like FERC, but for a four-week period, not six months. This treatment of average yields is consistent with how I find average equity prices within the DCF model.

Q. PLEASE EXPLAIN THE CALCULATION OF A CAPM ROE.

A. First, the analyst must select the rate of return for a riskless asset. Short-term assets such as 90-day Treasury Bills are considered to be virtually riskless; the default risk is next to nothing, and the inflation risk is negligible. Equity investors, however, typically have a longer planning horizon than the 90-day maturity of these instruments, so the return on these bills is not suitable for this CAPM process. Long-Term Treasury bonds, on the other hand, match the planning horizon and have yields that are closer to common equity returns. But these instruments are subject to substantial inflation risk and, therefore, are not riskless.

⁵¹ See *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569-A, 171 FERC ¶ 61,154 at PP 39, 88, 93 (2020).

Nevertheless, I adopted the 30-year U.S. Treasury yield as my risk-free rate. Its favorable characteristics outweigh its unfavorable characteristics.

Q. WHAT PERIOD DID YOU USE FOR THE 30-YEAR TREASURY YIELD IN YOUR CAPM ANALYSIS?

A. I used the average yield on a 30-year Treasury bond for April 1, 2024, to April 26, 2024, as my riskless asset rate. This average yield was 4.65 percent.⁵² As noted above, I departed from the FERC approach by using a four-week average of recent yields. The six-month period FERC uses includes data that is stale and, therefore, does not reflect investors' current views regarding the future of the economy.

Q. WHY DID YOU USE THE RECENT 30-YEAR TREASURY YIELD IN YOUR CAPM ANALYSIS?

A. Current yields on the 30-year Treasury bond are the best risk-free rate for the CAPM analysis. Much like current common equity share prices reflect all information about factors affecting the value of the shares, so too do current bond yields capture the beliefs of investors as to where yields on the instruments are headed.

Q. WHAT VALUES DID YOU USE FOR BETA (β)?

A. I used the betas for each company in the Comparison Group taken from *The Value Line Investment Survey* reports of February 9, 2024, March 8, 2024, and April 19, 2024.⁵³ These beta values are Value Line's latest assessment for each company.

⁵² Exhibit MFG-18, Schedule 1.

⁵³ Exhibit MFG-18, Schedule 2.

Q. HOW IS BETA (β) INTERPRETED?

A. A beta of 1 indicates that a company's share price will move with the market, while a beta higher than 1 indicates that a stock will be more volatile than the market, and a beta lower than 1 indicates that a stock will be less volatile than the market.

Q. WHAT ELSE WAS INVOLVED IN YOUR CALCULATION?

A. The term within parentheses in the CAPM equation is called the "market risk premium" ("MRP"). It is the difference between the return on a broad market measure and the risk-free rate of return, or in other words, the premium that investors require to take on risk. As noted above, I already had the risk-free rate. Therefore, I needed to calculate a market rate of return.

Q. WHAT METHOD DID YOU USE TO FIND THE MARKET RETURN?

A. As stated, I use the S&P 500 inputs in finding my market risk premium. FERC prescribes the I/B/E/S EPS forecasts published by Yahoo! Finance, and as noted above, added the Value Line EPS forecasts as an additional source. I downloaded these values from the respective sources on April 1, 2024. I downloaded the dividend yields for the S&P 500 companies from Value Line, also on April 1, 2024. I applied the I/B/E/S EPS growth rates⁵⁴ and Value Line growth rates⁵⁵ to the dividend yields to find the expected dividend yield, adding a full year's growth.

⁵⁴ Exhibit MFG-18, Schedule 3.

⁵⁵ Exhibit MFG-18, Schedule 4.

Q. WHAT WERE THE NEXT STEPS IN FINDING THE CAPM RETURN ON EQUITY?

A. I applied the dividend-paying rule, and the minimum and maximum threshold rules of less than 0 percent and greater than 20 percent to the set of S&P 500 companies. The companies that met the screens in the I/B/E/S and Value Line S&P 500 sets are different from one another, because the EPS forecasts vary from company to company within the sets.⁵⁶

Q. WHAT WAS THE FOLLOWING STEP?

A. I weighted the remaining ROEs by the market capitalization for each company. The sum of those individual ROEs is the market return. The value for the I/B/E/S set was 14.02 percent.⁵⁷ The market risk premium was calculated by subtracting the 4.65 percent return on the 30-year Treasury from the market return. The result of this operation was 9.73 percent for the I/B/E/S set. This amount is multiplied by the beta for each Comparison Group company to find that company's CAPM ROE.⁵⁸ The corresponding values for the Value Line set are a market return of 11.24 percent,⁵⁹ the same 4.65 percent risk-free rate of return, and a market risk premium of 6.59 percent. This amount is multiplied by the beta for each Comparison Group company to find that company's CAPM ROE.⁶⁰

Q. DOES FERC HAVE SCREENS FOR OUTLIER CAPM ROES?

A. Yes. FERC applies a Low-End and High-End Test to the CAPM adjusted ROEs. My Low-End Test is the same as the minimum threshold for the DCF ROEs, the four-week average

⁵⁶ Exhibit MFG-18, Schedule 3 and Schedule 4.

⁵⁷ Exhibit MFG-18, Schedule 3.

⁵⁸ Exhibit MFG-18, Schedule 6.

⁵⁹ Exhibit MFG-18, Schedule 4.

⁶⁰ Exhibit MFG-18, Schedule 7.

of the Moody's 10-year Baa Corporate Bond Yield Index value of 5.99 percent⁶¹ plus 20 percent of the CAPM risk premium. The High-End Test is 200 percent of the median value of all companies included in the analysis. The values of the outlier tests are different in the I/B/E/S and Value Line analyses because of the different market risk premiums produced. However, no CAPM ROEs were removed due to the Low-End or High-End Tests in either of my analyses. I combined the two analyses to find a mean Low-End Test of 7.59 percent.⁶²

Q. WHAT WAS THE RESULT OF YOUR CAPM ANALYSIS?

A. The mean ROE for my I/B/E/S CAPM analysis was 13.08 percent and the median ROE was the same value.⁶³ The mean ROE for my Value Line CAPM analysis was 10.58 percent and the median ROE was the same value.⁶⁴

Q. HAVE YOU INCLUDED A SIZE ADJUSTMENT IN YOUR CAPM ANALYSES?

A. No. I did not include a size adjustment. Studies indicate the size adjustment is not appropriate for the CAPM. These studies show that the size effect disappears for years at a time and does not manifest itself in the prices investors pay for smaller and larger stocks.⁶⁵ Further, the studies that have shown the presence of a size effect may be examples of data mining: *e.g.*, start and stop periods for the data to be studied that show a size effect, but the finding cannot be replicated when the span of the study has different beginning and end

⁶¹ Exhibit MFG-18, Schedule 5.

⁶² Exhibit MFG-18, Schedule 8.

⁶³ Exhibit MFG-18, Schedule 6.

⁶⁴ Exhibit MFG-18, Schedule 7.

⁶⁵ Aswath Damodaran, *The Small Cap Premium: Where is the Beef?*, 34.4 Business Valuation Review (2015).

dates.⁶⁶ The studies recommend not making adjustments for a size effect that may be transitory, at best, and not one that investors demand in the prices they pay for common equity.

VIII. Recommended ROE

Q. PLEASE SUMMARIZE YOUR ROE RESULTS.

A. I performed four ROE analyses, constant-growth and multistage DCF, and S&P 500 I/B/E/S and S&P 500 Value Line CAPM. Those ROE values are:

DCF ROE Mean and Median Results

	Constant growth	Multistage
Mean	10.20%	9.71%
Median	10.30%	9.72%

CAPM ROE Mean and Median Results

	I/B/E/S	Value Line
Mean	13.08%	10.58%
Median	13.08%	10.58%

Q. PLEASE COMMENT ON THE DCF ROE RESULTS.

A. The DCF constant-growth ROE result was higher than the multistage counterpart ROE. Electric utility common-equity share prices have fallen for several months. The effect of

⁶⁶ Clifford S. Ang, *The Absence of a Size Effect Relevant to the Cost of Equity*, 37.3 Business Valuation Review (2018).

these lower prices are higher dividend-yield values for the companies. The higher dividend yields have translated to higher ROE values for the members of the Comparison Group. The multistage approach also was affected by the increased dividend yields, pushing up the ROE outcomes for the electric utilities. On the other hand, the multistage approach moderates the influence of these recent higher common-equity share prices by incorporating the lower, steadier positive long-run growth rates.

Q. PLEASE COMMENT ON THE CAPM ROE RESULTS.

A. The CAPM ROE results show greater variability than the DCF ROE results. Whereas the difference between the DCF ROE results from the different approaches is 0.49 percent, the difference in the CAPM ROE results from the two sources of EPS growth-rate forecasts is 2.50 percent. This wide range of results is common for CAPM analyses.

Q. WHAT WEIGHTS DID YOU ASSIGN TO THE FOUR ROE ANALYSES?

A. The DCF model constant-growth and multistage results were within the range of authorized ROEs from 2021-2023 for U.S. electric utilities as reported by Regulatory Research Associates (“RRA”), a unit of S&P Global IQ Pro.⁶⁷ The I/B/E/S S&P 500 CAPM result of 13.08 percent is nearly 2.50 percent greater than the single highest ROE (10.60 percent) authorized in the 2021-2023 period. Such a large discrepancy is an indication the value is not in step with current ROEs. The Value Line S&P 500 CAPM ROE result of 10.58 percent was at the top of the 2021-2023 authorized ROEs range. Given how much the I/B/E/S S&P 500 CAPM ROE result exceeds the top of that range, I excluded it from my analysis of an ROE for OTP. I included the other three ROEs in my analysis.

⁶⁷ Exhibit MFG-19.

Q. WHAT WERE THE WEIGHTED AVERAGES OF THE THREE ROE ANALYSES?

A. I weighted the three remaining ROE results equally. The weighted average of the three ROE means was 10.17 percent. The weighted average of the three ROE medians was 10.30 percent.⁶⁸

Q. WHAT WAS YOUR RECOMMENDED ROE FOR OTP?

A. My recommended OTP ROE was 10.25 percent. This value is roughly the midpoint of the mean and median ROEs.

IX. Reasonableness Check of the ROEs

Q. HAVE YOU CHECKED THE REASONABLENESS OF YOUR ROE RESULTS?

A. Yes. I checked the reasonableness of my analyses' outcomes by comparing the ROEs with recent ROEs authorized in electric rate cases across the United States.

Q. PLEASE EXPLAIN WHICH AUTHORIZED ROES YOU USED TO CHECK THE REASONABLENESS OF YOUR DCF AND CAPM ROES.

A. I collected a set of fully litigated 2021-2023 authorized ROEs from U.S. electric utility rate cases from S&P Global Market Intelligence's Regulatory Research Associates ("RRA").⁶⁹

Q. HOW DID YOU USE THIS SET OF AUTHORIZED ROES?

A. I used the recent authorized ROEs as a basis for evaluating the reasonableness of my ROE results. I did not use it as a substitute for those analyses.

⁶⁸ Exhibit MFG-20, Schedule 1.

⁶⁹ Exhibit MFG-19.

Q. WHY ARE AUTHORIZED ROES NOT A GOOD SUBSTITUTE FOR CURRENT, FORWARD-LOOKING ROE ANALYSES?

A. Recently authorized ROEs reflect the results of rate cases conducted in a variety of environments and at different times. Test years, conditions in capital markets, general economic indicators such as inflation rates, and so forth for previous rate cases can be different and become outdated when compared with these factors for a current rate case. Therefore, recently authorized ROEs should serve only to establish whether a current ROE result is reasonably close to what has happened, not be a substitute for forward-looking analysis based on current conditions.

Q. PLEASE DESCRIBE THE SET OF AUTHORIZED ROES YOU COLLECTED.

A. For fully litigated cases, RRA listed 47 for 2021, 43 for 2022, and 27 for 2023. However, the ROEs for sixteen of the 2021 cases, seven of the 2022 cases, and eleven of the 2023 cases were not available or represented special circumstances.

Q. PLEASE DISCUSS THE ROE AWARDS MADE IN 2021, 2022, AND 2023.

A. The following table summarizes the authorized ROE results for all cases in 2021, 2022, and 2023.

Summary of Fully Litigated ROE Awards for 2021-2023

Year	No. of Cases	Mean ROE	Median ROE	ROE Range
2021	31	9.63	9.50	8.57-10.60
2022	37	9.60	9.60	8.57-10.50
2023	16	9.66	9.60	9.35-10.10

My recommended ROE of 10.25 percent is within the range of means for 2021 and 2022, and slightly above the mean for 2023. Therefore, I conclude that this ROE is reasonable.

X. Recommended Capital Structure and Overall Rate of Return

Q. PLEASE STATE HOW AN OVERALL RATE OF RETURN IS CALCULATED.

A. The overall rate of return for a company is determined by the ratios of each element in its capital structure and the cost of those elements. The ratios are multiplied by the costs, with the products added to determine the rate of return. The overall rate of return is also known as the weighted average cost of capital ("WACC").

Q. WHAT DID YOU INCLUDE IN YOUR OVERALL RETURN ANALYSIS AS THE COSTS OF CAPITAL FOR OTP?

A. I accepted the Company's proposed cost of long-term debt of 4.65 percent and cost of short-term debt of 5.25 percent.⁷⁰ I also included my recommended ROE of 10.25 percent.

Q. WHAT WAS THE CAPITAL STRUCTURE YOU RECOMMENDED FOR OTP?

A. I recommended a capital structure of 45.00 percent long-term debt, 5.00 percent short-term debt, and 50.00 percent common equity. This capital structure reflects the Company's requested capital structure and the average capital structure of Comparison Group companies.

Q. WHAT STEPS DID YOU TAKE TO DETERMINE YOUR RECOMMENDED CAPITAL STRUCTURE FOR OTP?

A. I began my capital-structure analysis calculating the average long-term debt, short-term debt, and common equity ratios for the 17 electric utilities in the Comparison Group. These

⁷⁰ Wahlund Direct, p. 2.

average ratios reflected the dollar amount of each capital-structure element by company for each of the eight quarters from the first quarter of 2022 to the fourth quarter of 2023. The source of the amounts upon which the Comparison Group company ratios were based is S&P Global Market Intelligence.⁷¹

Q. WHY DID YOU SELECT THESE EIGHT QUARTERS FOR YOUR CAPITAL-STRUCTURE ANALYSIS?

A. I used two years of data to smooth the effects of any quarter that was an outlier. Using two years of data also mitigated any seasonal effects on the capital structures. The fourth quarter of 2023 was the most recent quarter for which data were available. Therefore, I began my analysis with data from the first quarter of 2022.

Q. PLEASE SUMMARIZE THE COMPARISON GROUP CAPITAL-STRUCTURE RATIOS IN YOUR ANALYSIS.

A. I calculated ratios for long-term debt, preferred equity, and common equity. The respective mean ratios for the Comparison Group were 53.49 percent, 5.94 percent, and 40.56 percent.

Q. PLEASE COMPARE THE CAPITAL-STRUCTURE RATIOS YOU CALCULATED WITH THE RATIOS THAT OTP REQUESTED FOR ITS CAPITAL STRUCTURE.

A. OTP requested a capital structure of 43.52 percent long-term debt, 2.98 percent short-term debt, and 53.50 percent common equity. Thus, the OTP capital structure request was weighted more toward common equity than was the average of the capital structure for the

⁷¹ Exhibit MFG-20, Schedule 2.

members of the Comparison Group that I calculated. A higher common-equity ratio causes rates for public utility services to be higher.

Q. PLEASE DISCUSS YOUR RECOMMENDED CAPITAL-STRUCTURE RATIOS FOR OTP.

A. My recommended capital structure ratios were between the capital structures of the Comparison Group and OTP's requested capital structure. They were closer to the OTP requested ratios than they were to the Comparison Group average ratios.⁷² This relationship reflects the fact that the Company's requested ratios are actual or pro forma ratios. On the other hand, OTP's requested common-equity ratio is within the high end of the range of the common-equity ratios of the Comparison Group members, but barely. Only one of the group's companies has a higher common-equity ratio than OTP's requested ratio. In recognition of this fact, I have recommended a hypothetical capital structure that is close to the Company's request, but fits better with the ratios of the Comparison Group. It also reduces rates for OTP's customers.

Q. WHY WERE THE AVERAGE CAPITAL STRUCTURES OF THE COMPARISON GROUP AN APPROPRIATE BASIS FOR YOUR CAPITAL STRUCTURE ANALYSIS?

A. My ROE analysis for OTP was carried out at the holding-company level. Therefore, to maintain consistency in my cost of capital analysis, I carried out my capital-structure analysis at the holding-company level.

⁷² Exhibit MFG-20, Schedule 2.

Q. ARE INVESTORS ABLE TO PURCHASE OWNERSHIP OF OPERATING LEVEL COMPANIES?

A. No. Common-equity shares are sold only for electric utility holding companies such as the members of the Comparison Group, not for operating-level utilities such as OTP. Therefore, as investors consider whether to acquire or retain common equity in an electric utility, they must consider the capital structure of the holding company. Thus, it is the holding company capital structure that influences the prices investors pay for common equity. These prices are, in turn, inputs into the discounted cash flow DCF model employed in ROE analysis.

Q. WHAT WAS THE OVERALL ROR THAT YOU RECOMMENDED FOR THE COMPANY?

A. When my estimated ROE of 10.25 percent was included with my recommended capital structure and the Company's costs of long-term debt and short-term debt, the ROR was 7.48 percent.⁷³

⁷³ Exhibit MFG-20, Schedule 3.

XI. Review of the Company's ROE Analysis

A. Comparison Group vs. Proxy Group

Q. PLEASE COMPARE THE MEMBERSHIP OF YOUR COMPARISON GROUP WITH THE MEMBERSHIP OF OTP WITNESS MS. BULKLEY'S'S PROXY GROUP.

A. As noted previously, there was overlap between the Proxy Group and the Comparison Group. Both were composed of 17 electric utilities, with 13 of the companies being common to the two groups.

Q. WERE YOU ABLE TO IDENTIFY WHY OTP WITNESS MS. BULKLEY EXCLUDED THE FOUR ELECTRIC UTILITIES THAT YOU INCLUDED?

A. No. OTP Witness Ms. Bulkley only showed the companies that passed her proxy group screens. She did not show the data for the electric utilities that did not meet her screens.⁷⁴

Q. DID OTP WITNESS MS. BULKLEY APPLY SCREENS RELATED TO GENERATION ASSETS IN SELECTING HER PROXY GROUP?

A. Yes. Her screens included whether generation assets were included in an electric utility's rate base, and if company-owned generation was greater than 40 percent of the electric utility's total generation capacity.⁷⁵

⁷⁴ Bulkley Direct, Exhibit AEB-1, Schedule 3, page 1 of 1.

⁷⁵ *Id.*

Q. WERE GENERATION FACTORS CAPTURED IN YOUR COMPARISON GROUP SCREENS?

A. Yes, but indirectly. Whether an electric utility owns generation assets and the type of generation assets owned are among the many factors that S&P considers as it develops a credit rating for an electric utility. Thus, my S&P credit rating screen captures the influence of generation ownership and the type of generation owned on the risk of electric utilities.

Q. WERE THERE AREAS IN WHICH YOU AND OTP WITNESS MS. BULKLEY AGREED IN SELECTING A PROXY GROUP?

A. Yes. We agreed on many of the same or similar screens, including that to be eligible for consideration, the electric utilities had to: 1) have a record of paying dividends; 2) not be involved in a merger; 3) have positive EPS growth-rate forecasts from at least at least two sources; 4) have a certain level of S&P credit rating; and 5) meet a regulated operating income or other income measure threshold.

Q. WHAT FACTORS OTHER THAN DIFFERENCES IN THE PROXY GROUP COMPANIES CAN ACCOUNT FOR THE DIFFERENCES IN THE ROE ANALYSES VALUES?

A. The different dates of the analyses account for some of the difference in the ROE analyses' results. EPS growth rates, share prices, dividend amounts, beta values, and risk-free rates can change in a few months. These changes cause ROEs for individual proxy group member companies to be different from what they were a few months before. Thus, even when group memberships overlap, differences can still occur.

B. DCF Analysis

Q. DID OTP WITNESS MS. BULKLEY APPLY THE DCF MODEL IN HER ROE ANALYSIS?

A. Yes.

Q. WAS OTP WITNESS MS. BULKLEY'S APPLICATION OF THE DCF MODEL SIMILAR TO YOUR APPLICATION OF THE MODEL?

A. Yes. OTP Witness Ms. Bulkley and I both prepared constant-growth versions of the DCF model. We also both use EPS growth rate estimates from Zacks, Yahoo! Finance, and Value Line. The specific estimates that appear as inputs to our analyses reflect the different dates of our analyses, but our approaches were the same. Our methods for calculating the expected dividend yield also were similar. The periods we used to calculate average common equity share prices for the proxy group companies in our proxy groups were different but recognized that the period should be long enough to buffer the results of a given day's anomalous share price. Further, we both adjusted the dividends in the dividend-yield component for growth. As noted, my adjustment was for a full year's growth, while OTP Witness Ms. Bulkley only applied a half year's growth.

Q. DID OTP WITNESS MS. BULKLEY APPLY A MINIMUM THRESHOLD ROE FOR RETAINING THE ROE VALUE OF A COMPANY IN HER DCF ANALYSIS?

A. No.

Q. PLEASE REVIEW YOUR MINIMUM THRESHOLD CALCULATION METHOD.

A. My method, the FERC method, uses an average yield index—the Moody's Baa-rated corporate bond yield index—as the base for the calculation of the minimum ROE threshold.

Then 20 percent of the CAPM risk premium is added to the corporate bond yield index value.

Q. WHAT ARE THE ADVANTAGES OF THE FERC MINIMUM THRESHOLD METHOD?

A. The FERC approach reflects variation in market values that are driven by investor decisions in the market. Therefore, the level of the minimum threshold changes as the level of the bond yield index changes and as the magnitude of the risk premium fluctuates with changes in investor preferences and market conditions. Examples of such market factors include economic and political factors.

C. CAPM Analysis

Q. DID OTP WITNESS MS. BULKLEY APPLY THE CAPM IN HER ROE ANALYSIS?

A. Yes.

Q. IS OTP WITNESS MS. BULKLEY'S APPLICATION OF THE CAPM MODEL SIMILAR TO YOUR APPLICATION OF THE MODEL?

A. Yes. OTP Witness Ms. Bulkley and I both relied on Value Line earnings growth rates for dividend-paying companies in the S&P 500.⁷⁶ We both removed companies with growth rates that were negative or greater than 20 percent. We both found the dividend yield for the market return in the same way, relying on information for S&P 500 companies from Value Line or Bloomberg. Further, Value Line was the source of our beta values. OTP Witness Ms. Bulkley also employed Bloomberg beta values in an additional analysis.

⁷⁶ As stated previously, I also incorporated earnings growth rates from Yahoo! Finance.

Q. WHAT RISK-FREE RATES DOES OTP WITNESS MS. BULKLEY USE IN HER CAPM ROE ANALYSIS?

A. OTP Witness Ms. Bulkley applies a current rate, a near-term projected rate, and a long-term projected rate, all for 30-year U.S. Treasury bonds, as the risk-free rate she used in performing several CAPM analyses.⁷⁷

Q. DO YOU AGREE WITH THE USE OF PROJECTED BOND YIELDS AS THE RISK-FREE RATE?

A. I do not agree with using projected bond-yield rates as the risk-free rate. Just as current common-equity prices reflect investors' views regarding the expected performance of the company they are buying in future market conditions, so too do current yields reflect investors' views regarding the effect of expectations for interest rate increases on the cost of equity. These views of the effect of expected future market conditions on an equity share price or a bond yield do not have to be perfect predictions of future events. Rather, an individual investor can only form views of future events using historical, current, and projected information. Investors can form different, even divergent, views from the same information. Regardless, the actions they take in the market reflect the range of their expectations of future events, including predicted interest rate increases, and affect current prices and yields. Thus, current U.S. 30-year Treasury yields do take into consideration expected future market conditions and their effect on the cost of equity.

⁷⁷ Bulkley Direct, p. 36.

Q. ARE CURRENT U.S. 30-YEAR TREASURY YIELDS APPROPRIATE AS THE RISK-FREE RATE?

A. Yes. As noted, current yields reflect investors' expectations. The projected yields, on the other hand, are speculative and can be overtaken by events. There is no need to use them as inputs to CAPM analyses.

Q. DO INVESTORS UNCRITICALLY ADOPT PROJECTED U.S. TREASURY YIELD LEVELS PUBLISHED BY BLUE CHIP FINANCIAL FORECASTS?

A. No. If the investors believe completely in the forecasts and believe there are no other economic factors to take into consideration, then the current yields should swiftly match the level of the forecasted yields. Investors do not ignore the forecasts, but instead use the forecasts as one piece of information as they form expectations about U.S. Treasury yields.

Q. DOES THE EMPIRICAL CAPM ADD TO ROE ANALYSIS?

A. No. The empirical CAPM ("ECAPM") does not add to ROE analysis. It produces results that are in excess of the range of reasonable ROEs.

D. Risk-Premium Approach

Q. PLEASE BRIEFLY DISCUSS THE RISK-PREMIUM METHOD.

A. The risk-premium method is a historical approach to ROE analysis. The inputs to the method are authorized ROEs and U.S. Treasury yields from the past. Thus, the regression model developed by OTP Witness Ms. Bulkley finds only what has happened in certain circumstances, not what investors, signaling through their willingness to pay certain prices for common-equity shares, tell the market they expect will happen. The DCF model and the CAPM, as applied by both OTP Witness Ms. Bulkley and me, are forward-looking models and are preferred to the risk-premium method for that reason.

Q. PLEASE DISCUSS THE CIRCULARITY THAT THE RISK-PREMIUM METHOD INTRODUCES INTO ROE ANALYSIS.

A. Circularity is when historical variables become inputs into a current rate case. The risk-premium method introduces circularity into the process of determining a current ROE for a public utility because prior authorized ROEs are inputs into the method.

Q. PLEASE DISCUSS HOW THE RISK-PREMIUM METHOD INTRODUCES CIRCULARITY INTO ROE ANALYSIS.

A. Prior authorized utility ROEs and the bond yields in effect at the time the authorized ROEs are ordered are inputs into the risk-premium method. The values for the variables are used in statistical analysis that develops a relationship between the risk-free bonds and the authorized ROEs. The differences between the two variables values when aggregated in the statistical analysis produce a risk premium. The outcome of the analysis is an equation in which current bond values are used to produce a risk premium and a current ROE for a public utility in a base rate case. Thus, the authorized ROEs are inputs into current rate cases.

Q. DO INVESTORS TAKE PREVIOUS AUTHORIZED ROES INTO ACCOUNT AS THEY MAKE DECISIONS ABOUT BUYING AND SELLING ELECTRIC UTILITY COMMON-EQUITY SHARES?

A. Yes. Previous authorized ROEs for a subject utility and other companies are element that investors consider in making decisions.

Q. HOW IS THIS CONSIDERATION OF PREVIOUS AUTHORIZED ROES BY INVESTORS DIFFERENT THAN USING PREVIOUS AUTHORIZED ROES IN THE RISK-PREMIUM METHOD?

A. When investors include previous authorized ROEs, and other inputs into their decisions, they make judgments as to how much weight to give to each variable. Further, they also include their assessments of the future prospects of a subject utility and other companies in the same industry in their process. These expectations of the future are not part of the risk-premium method. As for the previous authorized ROEs, the relationship between them and bond yield values is rigid in risk-premium analysis.

Q. PLEASE EXPLAIN HOW A CURRENT AUTHORIZED ROE BECOMES A PART OF THE CIRCULAR LOOP INHERENT IN THE RISK-PREMIUM METHOD.

A. The ROE for a current case becomes an input in any following risk-premium approach ROE analyses, setting up a circularity loop of references from one rate case to the next. Eventually, the current authorized ROE becomes part of the set of historical authorized ROEs that serve as inputs into the risk-premium analysis that can be part of the ROE analysis for the subject utility.

E. The Role of Forecasted Data in the ROE Models

Q. DID OTP WITNESS MS. BULKLEY CITE A NUMBER OF FACTORS AS REASONS THE ROE ANALYSIS PRODUCES INADEQUATE RESULTS?

A. Yes. OTP Witness Ms. Bulkley asserted that higher inflation expectations, forecasts of long-term bond yield increases, and expected underperformance of utility common equity

share prices, among other factors, are not adequately captured by the ROE estimation models.⁷⁸

Q. WHAT SUPPORT DID OTP WITNESS MS. BULKLEY OFFER FOR HER ASSERTION?

A. OTP Witness Ms. Bulkley pointed to several forecasts for higher inflation, expected Federal Reserve Policy, and poor performance by utility stock prices relative to the performance of the overall equity market. She stated that these forecasted changes foreshadow declines in utility common-equity share prices from their present levels.⁷⁹

Q. IF A SECTOR OF THE ECONOMY UNDERPERFORMS, DOES THAT NECESSARILY MEAN DCF MODEL RESULTS WILL UNDERSTATE THE REQUIRED ROE?

A. No. OTP Witness Ms. Bulkley's position that the ROE produced by current application of the DCF model will understate the required ROE when rates are in effect in the future depends on her definition of "underperformed." Please note when a sector is said to underperform that the meaning is not necessarily that the prices of common-equity shares for the economy sector will be lower than the current prices of the common-equity shares for the sector. As applied by market analysts in discussing common-equity share prices, the meaning of underperformed means *did not increase at the same rate as the common-equity share prices of other economy sectors*. Thus, an economy sector can underperform, yet the prices of the common-equity shares in question can increase. The sector's common-

⁷⁸ Bulkley Direct, page 13.

⁷⁹ Bulkley Direct, pages 14-19.

equity share price increases, therefore, result in a decrease in the DCF model required ROE. OTP Witness Ms. Bulkley did not acknowledge this definition of underperform. She cited only the effect on the required ROE if future common-equity share prices decline compared with current common-equity share prices.

Q. ARE THERE FLAWS UNDERLYING OTP WITNESS MS. BULKLEY'S POSITION REGARDING THE ABILITY OF THE DCF MODEL TO REFLECT EXPECTED MARKET CONDITION CHANGES?

A. Yes. There are two flaws in OTP Witness Ms. Bulkley's position regarding the ability of the DCF model to reflect expected market conditions.

Q. PLEASE DISCUSS THE FLAWS UNDERLYING OTP WITNESS MS. BULKLEY'S POSITION REGARDING THE DCF MODEL'S ABILITY TO REFLECT EXPECTED MARKET CONDITIONS.

A. A flaw in OTP witness Ms. Bulkley's position regarding the DCF model's ability to reflect expected market conditions was her assumption that investors are unable to incorporate forecasts of change in market factors such as common-equity share prices into their current views of appropriate common-equity share prices. Somehow, OTP Witness Ms. Bulkley implies, investors ignore the same forecasts from financial experts that she relied on in her testimony as she asserted that current market conditions were not sustainable. If OTP witness Ms. Bulkley was aware of the forecasts, then so were the investors. The investors might not have given the forecasts the same weight that Ms. Bulkley did but doing so was a forward-looking choice the investors made with the information available to them as they made current decisions about common-equity share prices.

F. The Role of Business Risk Variables

Q. DOES MS. BULKLEY ASSERT SEVERAL BUSINESS RISK VARIABLES SHOULD RECEIVE SPECIAL TREATMENT IN SETTING THE OTP ROE?

A. Yes. Ms. Bulkley identifies several business risk variables as reasons for giving OTP a higher ROE. These variables are the small size of OTP relative to electric utilities in the Proxy Group, trading volumes of OTP shares, institutional ownership of OTP shares, one OTP customer accounting for a high share of its sales, the expected levels of capital expenditures by OTP, and the behavior of regulatory commissions in the jurisdictions OTP serves.

Q. WHAT IS YOUR RESPONSE TO OTP WITNESS MS. BULKLEY'S RECOMMENDATION?

A. The variables cited by Ms. Bulkley are well known to investors. They are also well known to credit ratings agencies. The credit-rating agencies incorporate these variables as they assign ratings to companies, including public utilities like OTP. Because I use S&P credit ratings as a screen in selecting the Comparison Group, the variables are reflected in my ROE analysis. To count each variable individually is to double count them.

XII. Summary

Q. WHAT ARE THE CRITERIA THE COMMISSION SHOULD CONSIDER IN SETTING OTP'S ROE AND ROR?

A. The Commission should only consider whether the ROE and ROR meet the *Bluefield* and *Hope* criteria for a fair return. Recounting, these criteria include returns that are commensurate with returns being earned on other investments with equivalent risks, a rate of return sufficient to enable the utility to attract capital, and returns sufficient to enable the

regulated company to maintain its credit rating and financial integrity. The interpretation of the *Hope* and *Bluefield* criteria is that a company should be given the opportunity to earn an ROE and ROR sufficient to meet these standards.

Q. PLEASE STATE YOUR RECOMMENDED RETURN ON EQUITY AND OVERALL COST OF CAPITAL FOR OTP?

A. I recommended an ROE of 10.25 percent and an ROR of 7.48 percent.

Q. DO YOU HAVE ANY ADDITIONAL COMMENTS?

A. Yes. My testimony is limited to the subject matters discussed. The Commission and the stakeholders should not infer my agreement with or support for a subject matter not covered in this testimony. Further, I reserve the right to supplement, amend, or otherwise file additional testimony based on additional evidence that comes to light after the filing of this testimony.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

MARLON GRIFFING, Ph.D.

Education

Ph.D., M.A., B.A., Economics, University of Nebraska-Lincoln

Position

Senior Consultant – PCMG and Associates	2015 – present
Senior Consultant – Snavelly King Majoros and Associates	2013 – 2014
Utilities Financial Analyst – Minnesota Department of Commerce	2003 – 2013
Senior Consultant – QSI Consulting	2000 – 2002
Economic Analyst – Nebraska Public Service Commission	1998 – 2000

Professional Experience

Dr. Griffing holds bachelors, masters, and doctoral degrees in economics. Dr. Griffing is well versed in microeconomics, cost/benefit analysis and econometric analysis. He has 23 years' experience as an expert witness and consultant, primarily addressing the cost of capital and capital structure for electric, natural gas, and water utilities. He has also made appearances regarding rate design, the competitive effect of mergers, reliability and supply adequacy, and oil-pipeline companies in certificate of need cases. In addition, he managed testimony in two oil-pipeline certificate-of-need cases and arbitrated a telecommunications dispute for the Nebraska Public Service Commission. Dr. Griffing has appeared more than 60 times in cost of capital dockets and other matters before the regulatory agencies of Arkansas, California, Hawaii, Maine, Maryland, Minnesota, Nebraska, New Jersey, New Mexico, North Dakota, Oklahoma, Pennsylvania, South Dakota, Wyoming, and the Federal Energy Regulatory Commission.

Regulatory Projects and Appearances

1. In the Matter of the FirstEnergy Pennsylvania Base Rate Case (2024) (Appearance: cost of capital on behalf of the Pennsylvania Office of Consumer Advocate)
Pennsylvania Public Utility Commission – Docket No. R-2024-3047068
2. Application of Northern States Power Company for Authority to Increase Rates for Natural Gas Service in North Dakota (2024) – (Appearance: cost of capital on behalf of the North Dakota Public Service Commission Advocacy Staff)
North Dakota Public Service Commission Docket No. PU-23-367
3. Application of Otter Tail Power Company for Authority to Increase Electric Rates in North Dakota (2024) – (Appearance: cost of capital on behalf of the North Dakota Public Service Commission Advocacy Staff)
North Dakota Public Service Commission Docket No. PU-23-342
4. Application of Montana-Dakota Utilities Company for Authority to Increase Rates for Natural Gas Service in North Dakota (2024) – (Appearance: cost of capital on behalf of the North Dakota Public Service Commission Advocacy Staff)
North Dakota Public Service Commission Docket No. PU-23-341
5. In the Matter of the Verified Petition of Jersey Central Power & Light Company for Approval of an Infrastructure Investment Program II (“EnergizeNJ”) (2023) – (Appearance: cost of capital on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. EO23110793
6. In the Matter of the Petition of Veolia Water New Jersey Inc. for Approval of an Increase in Rates for Water/Sewer Service and Other Tariff Changes (2023) – (Appearance: rate of return and cost of capital on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. WR23110790
7. In the Matter of the Petition of the Application of Black Hills Wyoming Gas, LLC d/b/a Black Hills Energy for Approval of a General Rate Increase of \$19,262,41 to the Retail Gas Rates Effective for Usage on and After February 1, 2023 and Extension of the Wyoming Integrity Rider (2023) – (Appearance: cost of capital on behalf of the Wyoming Office of Consumer Advocate)
Wyoming Public Service Commission Docket No. 30026-78-GR-23
8. In the Matter of the Petition of Middlesex Water Company for Approval of an Increase in Rates for Water Service and Other Tariff Services (2023) – (Appearance: cost of capital on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. WR23050292

9. In the Matter of the Petition of Jersey Central Power and Light Company for Authority to Issue and Sell Up to \$700,000,000 Aggregate Principal Amount of Senior Notes in One or More Series and to Make, Execute and Deliver One or More Supplemental Indentures in Connection Therewith (2023) – (Appearance: debt issuance petition on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. EF23060339
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10. In the Matter of the Pittsburgh Water and Sewer Authority Base Rate Case (2023) (Appearance: Cash Flow and Bond Ratings on behalf of the Pennsylvania Office of Consumer Advocate)
Pennsylvania Public Utility Commission – Docket Nos. R-2023-3039920, R-2023-3039921, R-2023-303991
11. In the Matter of the Application of Hawaii Water Service Co. for Approval of a General Rate Increase for Its Pukalani Wastewater Division and Certain Tariff Changes (2022) (Appearance: Cost of Capital on behalf of the Hawaii Division of Consumer Advocacy)
Hawaii Public Service Commission – Case No. 2022-0186
12. In the Matter of the Philadelphia Gas Works Base Rate Case (2023) (Appearance: Cash Flow and Bond Ratings on behalf of the Pennsylvania Office of Consumer Advocate)
Pennsylvania Public Utility Commission – Docket No. R-2023-3037933
13. In the Matter of the Application of Lanai Water Company, Inc. for Review and Approval of Rate Increases; Revised Rate Schedules; and Changes to its Tariff (2022) (Appearance: Cost of Capital on behalf of the Hawaii Division of Consumer Advocacy)
Hawaii Public Service Commission – Case No. 2022-0233
14. Application of Southern Maryland Electric Cooperative, Inc., for Authority to Revise Its Rates and Charges for Electric Service and Certain Rate Design Changes (2023) – (Appearance: cost of capital on behalf of the Maryland Office of the People’s Counsel)
Maryland Public Service Commission Case No. 9688
15. In the Matter of Petition of Atlantic City Electric Company for Approval of Powering the Future, an Infrastructure Investment Program and Related Cost Recovery Mechanism, Pursuant to *N.J.A.C. 14:3-2A.1 et. seq.* (2022) – (Appearance: cost of capital on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. ER22100666
16. Application of San Diego Gas & Electric Company (U902M) for Authority to Establish Its Authorized Cost of Capital for Utility Operations for 2023 and to Reset the Annual Cost of Capital Mechanism (2022) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the United Consumer Action Network)
California Public Utilities Commission Proceeding A.22-04-008

17. In the Matter of the Petition of Rockland Electric Company for Approval of an Infrastructure Investment Program, and Related Cost Recovery Mechanism (2022) – (Appearance: cost of capital on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. ER22030198
18. Application of the Empire District Electric Company, a Kansas Corporation, for an Adjustment in Its Rates and Charges for Electric Service in the State of Oklahoma (2021) – (Appearance: return on equity, cost of capital on behalf of the Office of the Oklahoma Attorney General)
Oklahoma Commerce Commission Cause No. PUD 202100163
19. In the Matter of the Application of Oklahoma Gas and Electric Company for an Order of the Commission Authorizing Applicant to Modify Its Rates, Charges, and Tariffs for Retail Electric Service in Oklahoma (2022) - (Appearance: return on equity, cost of capital on behalf of the Office of the Oklahoma Attorney General)
Oklahoma Commerce Commission Cause No. PUD 202100164
20. In the Matter of the Application of Northern States Power Co. for Authority to Increase Rates for Natural Gas Service in North Dakota (2022) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the North Dakota Public Service Commission Advocacy Staff)
ND Public Service Commission Case No. PU-21-381
21. In the Matter of the Petition of Public Service Electric and Gas Company for Approval of an Infrastructure Advancement Program Pursuant to N.J.A.C. 14:3-2A.1 et. seq. (2021) – (Appearance: cost of capital on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket Nos. EO21111211 and GO21111212
22. In Re: Hawaii-American Water Company – Approval of Rate Increases and Revised Rate Schedules for Wastewater Services (2021) (Appearances: Cost of Capital on behalf of the Hawaii Division of Consumer Advocacy)
Hawaii Public Service Commission – Case No. 2021-0063
23. In Re: Kalaeloa Water Company – Approval of a General Rate Increase / Adjustments for Water and Wastewater Services (2021) (Appearance: Cost of Capital on behalf of the Hawaii Division of Consumer Advocacy)
Hawaii Public Service Commission – Case No. 2021-0005
24. In the Matter of Application of San Diego Gas & Electric Company for Authority to Establish Its Authorized Cost of Capital for Utility Operations for 2022 and to Reset the Annual Cost of Capital Mechanism (2021) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Utility Consumers’ Action Network)
CA Public Utilities Commission Application 21-08-014

25. In the Matter of the Petition of Gordon's Corner Water Company for an Increase in Rates and Charges for Water Service (2021) – (Appearance: cost of capital on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. WR21070979
26. Maine Water Company, Application for Approval of Rate Increase and Rate Smoothing Mechanism for the Biddeford and Saco Division (2021) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Maine Office of the Public Advocate)
Maine Public Utilities Commission Docket No. 2021-00289
27. In the Matter of the Petition of New Jersey Natural Gas Company for Approval of an Increase in Gas Base Rates and for Changes in its Tariff for Gas Service Pursuant to N.J.S.A. 48:2-21 and N.J.S.A. 48:2-21.1, and for Changes to Depreciation Rates for Gas Property Pursuant to N.J.S.A. 48:2-18 (2021) – (Appearance: cost of capital on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. ER21030679
28. In the Matter of the Application of Oklahoma Natural Gas Company, a Division of ONE Gas, Inc., for a Review and Change or Modification in Its Rates, Charges, Tariffs and Terms and Conditions of Service (2021) – (Appearance: return on equity, cost of capital on behalf of the Office of the Oklahoma Attorney General)
Oklahoma Commerce Commission Cause No. PUD 202100063
29. Application of Public Service Company of Oklahoma, An Oklahoma Corporation, for An Adjustment in Its Rates and Charges and the Electric Service Rules, Regulations and Conditions for Service in the State of Oklahoma and to Approve a Performance-Based Rate Proposal (2021) – (Appearance: return on equity, cost of capital on behalf of the Office of the Oklahoma Attorney General)
Oklahoma Commerce Commission Cause No. PUD 202100055
30. Versant Power f/k/a Emera Maine, Proposed Increase in Distribution Rates (2021) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Maine Office of the Public Advocate)
Maine Public Utilities Commission Docket No. 2020-00316
31. In the Matter of the Verified Petition of Atlantic City Electric Company for Approval of Amendments to its Tariff to Provide for an Increase in Rates and Charges for Electric Service Pursuant to N.J.S.A. 48:2-21 and N.J.S.A. 48:2-21.1, and for Other Appropriate Relief (2021) – (Appearance: cost of capital on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. ER201020746

32. In the Matter of the Petition of Elizabethtown Gas Company to Issue Long-Term Debt and Security Therefor and for Authority to Issue and Sell Short-Term Indebtedness, all through December 31, 2023 (2021) – (Appearance: debt issuance petition on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. GF20120749
33. Northern States Power Minnesota 2021 Electric Rate Increase Application (2021) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the North Dakota Public Service Commission Staff)
ND Public Service Commission Case No. PU-20-441
34. Pike County Light & Power Company 2020 General Base Rate Increase (2020) – (Appearance: Cost of Capital on behalf of the Pennsylvania Office of Consumer Advocate)
Pennsylvania Public Utility Commission – Docket Nos. R-2020-3022134 (Gas) and R-2020-3022135 (Electric)
35. Water Rate Case Consultant for the Maine Public Advocate (2020) – (Appearance: cost of capital on behalf of the Maine Office of Public Advocate in selected cases)
Maine Public Utilities Commission Docket No. 2021-00053
36. In the Matter of the Petition of South Jersey Gas Company for Approval of Increased Base Tariff Rates and Charges for Gas Service, Changes to Depreciation Rates and Other Tariff Revisions (2020) – (Appearance: cost of capital on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. GR20030243
37. In the Matter of the Verified Petition of Jersey Central Power & Light Company for Review and Approval of Increases in, and Other Adjustments to, its Rates and Charges for Electric Service, and for Approval of Other Proposed Tariff Revisions in Connection Therewith (2020) – (Appearance: cost of equity on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. ER20020146
38. In the Matter of the Federal Power Act Rule 206 Complaint Against Public Service Electric and Gas Company (2020) – (Appearance: cost of equity on behalf of the New Jersey Division of Rate Counsel)
Federal Energy Regulatory Commission Docket No. ER09-1257-000
39. In the Matter of the Petition of New Jersey-American Water Company for Approval of Increase Base Tariff Rates and Charges for Water and Wastewater Service and Other Tariff Changes (2019) – (Appearance: cost of equity on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. WR19121516

40. In the Matter of the Petition of Jersey Central Power & Light Company for Approval of Its Transmission Rates and Transmission Enhancement Charge for Interconnection with PJM Interconnection, L.L.C. (2019) – (Appearance: cost of equity on behalf of the New Jersey Division of Rate Counsel)
Federal Energy Regulatory Commission Docket No. ER20-227-000
41. Request for Approval of Rate Change, Northern Utilities, Inc. (2019) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Maine Office of the Public Advocate)
Maine Public Utilities Commission Docket No. 2019-00092
42. Application of San Diego Gas & Electric Company (U902M) for Authority to: (i) Adjust its Authorized Return on Common Equity, (ii) Adjust its Authorized Embedded Costs of Debt and Preferred Stock, (iii) Adjust its Authorized Capital Structure; (iv) Modify its Adopted Cost of Capital Mechanism Structure, and (v) Revise its Electric Distribution and Gas Rates Accordingly, and for Related Substantive and Procedural Relief (2019) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Utility Consumers' Action Network)
California Public Utilities Commission Proceeding A.19-04-017
43. In the Matter of the Application of the Empire District Electric Company, a Kansas Corporation, for an Adjustment in its Rates and Charges for Electric Service in the State of Oklahoma (2019) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Office of the Oklahoma Attorney General)
Oklahoma Commerce Commission Cause No. PUD 201800133
44. In the Matter of the Petition of New Jersey Natural Gas Company for Approval of an Increase in Gas Base Rates and for Changes in its Tariff for Gas Service, Pursuant to N.J.S.A. 48:2-21 and 48:2-21.1 and for Changes to Depreciation Rates for Gas Property Pursuant to N.J.S.A. 48:2-18 (2019) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. GR19030420
45. In the Matter of the Petition of Pivotal Utility Holdings d/b/a Elizabethtown Gas Company to Implement an Infrastructure Investment Program (IIP) and Associated Recovery Mechanism (2019) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. GR18011197
46. Commission-Initiated Investigation into Rates and Revenue Requirements Pertaining to Emera Maine, Inc. (2019) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Maine Office of the Public Advocate)
Maine Public Utilities Commission Docket No. 2019-00019

47. In the Matter of Petition of Aqua New Jersey, Inc. for Approval of an Increase in Rates for Water Service and Other Tariff Changes (2018) - (Appearance: return on equity, cost of capital on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. WR18121351
48. Application of Oklahoma Gas and Electric Company for an Order of the Commission Authorizing Applicant to Modify Its Rates, Charges, and Tariffs for Retail Electric Service in the State of Oklahoma (2018) - (Appearance: return on equity, cost of capital on behalf of the Office of the Oklahoma Attorney General)
Oklahoma Commerce Commission Cause No. PUD 201800140
49. Commission-Initiated Investigation into Rates and Revenue Requirements Pertaining to Central Maine Power Company (2018) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Maine Office of the Public Advocate)
Maine Public Utilities Commission Docket No. 2018-00194
50. Application of Public Service Company of Oklahoma, An Oklahoma Corporation, for An Adjustment in Its Rates and Charges and the Electric Service Rules, Regulations and Conditions for Service in the State of Oklahoma and to Approve a Performance-Based Rate Proposal (2018) - (Appearance: return on equity, cost of capital on behalf of the Office of the Oklahoma Attorney General)
Oklahoma Commerce Commission Cause No. PUD 201800097
51. In Re: The Matter of the Application of Maryland American Water Co. for Authority to Increase Rates and Charges (2018) – (Appearance: Cost of capital on behalf of the Maryland Office of the People’s Counsel)
Maryland Public Service Commission – Case No. 9487
52. In the Matter of Petition of Atlantic City Electric Co. for Approval of Amendments to Its Tariff to Provide for an Increase in Rates and Charges for Electric Service and for Other Appropriate Relief (2018) - (Appearance: return on equity, cost of capital on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. ER18060638
53. In the Matter of Petition of SUEZ Water New Jersey, Inc. for Approval of an Increase in Rates for Water/Sewer Service and Other Tariff Changes (2018) - (Appearance: return on equity, cost of capital on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. WR18050593
54. In Re: The Matter of the Application of Columbia Gas of Maryland, Inc. for Authority to Increase Rates and Charges (2018) – (Appearance: Cost of capital on behalf of the Maryland Office of the People’s Counsel)
Maryland Public Service Commission – Case No. 9480

55. In Re: The Matter of the Columbia Gas of Pennsylvania for a General Rate Increase in Distribution Gas Service (2018) – (Appearance: Cost of Capital on behalf of the Pennsylvania Office of Consumer Advocate)
Pennsylvania Public Utility Commission – Docket No. R-2018-2647577
56. In the Matter of the Application of Black Hills Energy Arkansas, Inc. for Approval of a General Tariff Change in Rates and Tariffs (2018) – (Appearance: return on equity, cost of capital on behalf of the Office of the Arkansas Attorney General)
Arkansas Public Service Commission Docket 17-071-U
57. In the Matter of the Petition of Atlantic City Electric Company for Approval of an Infrastructure Investment Program and Related Cost Recovery Mechanism (2018) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. EO18020196
58. In the Matter of the Application of Oklahoma Gas and Electric Company for an Order of the Commission Authorizing Applicant to Modify Its Rates, Charges, and Tariffs for Retail Electric Service in Oklahoma (2018) - (Appearance: return on equity, cost of capital on behalf of the Office of the Oklahoma Attorney General)
Oklahoma Commerce Commission Cause No. PUD 201700496
59. Application of Fayson Lake Water Company for the Approval of an Increase in Rates and Other Appropriate Relief (2017) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. WR17101041
60. Petition of Middlesex Water Company for Approval of an Increase in its Rates for Water Service and Other Tariff Changes, and an Order Authorizing Special Accounting Treatment of Income Tax Refund Proceeds and Future Income Tax Deductions (2017) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. WR17101049
61. In the Matter of the Petition of New Jersey-American Water Company, Inc. for Approval of an Increased Tariff Rates and Charges for Water and Sewer Service, Change in Depreciation Rates, and Other Tariff Modifications (2017) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. WR17090985
62. Montana-Dakota Utilities Co., Application to Increase Natural Gas Rates (2017) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the North Dakota Public Service Commission Staff)
ND Public Service Commission Case No. PU-17-295

63. In the Matter of the Petition of Andover Utility Company, Inc. for Approval of an Increase in Rates for Wastewater Service (2017) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. WR17070726
64. Application of Public Service Company of Oklahoma, An Oklahoma Corporation, for An Adjustment in Its Rates and Charges and the Electric Service Rules, Regulations and Conditions for Service in the State of Oklahoma (2017) - (Appearance: return on equity, cost of capital on behalf of the Office of the Oklahoma Attorney General)
Oklahoma Commerce Commission Cause No. PUD 201700151
65. In the Matter of the Petition of SUEZ Water Arlington Hills, Inc. for Approval of an Increase in Rates for Wastewater Service and Other Tariffs (2016) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the New Jersey Division of Rate Counsel)
New Jersey Board of Public Utilities Docket No. WR16060510
66. In the Matter of Request by Emera Maine for Approval of a Rate Change (2016) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Maine Office of the Public Advocate)
Maine Public Utilities Commission Docket No. 15-00360
67. ENMAX Energy Corporation (EEC) Regulated Rate Option Non-Energy Tariff Application (2015-2016) - (Analysis: cost of capital, risk element identification on behalf of the Alberta Utilities Consumer Advocate)
Alberta Utilities Commission Proceeding 20480
68. Pennsylvania Public Utilities Commission vs. West Penn Power Co., Pennsylvania Electric Co., Pennsylvania Power Co., and Metropolitan Edison Co. (2014-2015) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Office of the Pennsylvania Consumer Advocate)
PA Docket Nos. R-2014-2428742-R-2014-2428745
69. In the Matter of the Application of Minnesota Energy Resources Corporation for Authority to Increase Rates for Natural Gas Service in Minnesota (2010-2012) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)
MN Docket No. G007,011/GR-10-977
70. In the Matter of the Application of Otter Tail Power Company for Authority to Increase Rates for Electric Utility Service in Minnesota (2010-2011) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)
MN Docket No. E017/GR-10-239

71. In the Matter of the Petition of Northern States Power Company, a Minnesota Corporation, for Authority to Increase Rates for Natural Gas Service in Minnesota (2009-2010) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)
MN Docket No. G002/GR-09-1153
72. In the Matter of an Application by CenterPoint Energy Resources Corp., D/B/A CenterPoint Minnesota Gas to Increase Natural Gas Rates in Minnesota (2008-2009) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)
MN Docket No. G008/GR-08-1075
73. In the Matter of Minnesota Energy Resources Corporation's Application for Authority to Increase Natural Gas Rates in Minnesota (2008-2009) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)
MN Docket No. G007,011/GR-08-835
74. In the Matter of the Petition of Northern States Power Company, a Minnesota Corporation and Wholly Owned Subsidiary of Xcel Energy Inc., for Authority to Increase Rates for Natural Gas Service in Minnesota (2006-2007) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)
MN Docket No. G002/GR-06-1429
75. In the Matter of the Application of CenterPoint Energy Resources Corp., D/B/A CenterPoint Energy Minnesota Gas, for Authority to Increase Natural Gas Rates in Minnesota (2005-2006) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)
MN Docket No. G008/GR-05-1380
76. In the Matter of a Petition by Interstate Power and Light Company for Authority to Increase Electric Rates in Minnesota (2005) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)
MN Docket No. E001/GR-05-748
77. In the Matter of the Petition of Northern States Power Company dba Xcel Energy Request for General Rate Increase (2004-2005) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)
MN Docket No. G002/GR-04-1511
78. In the Matter of the Petition of Great Plains Natural Gas Company's Request for General Rate Increase (2004-2005) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)
MN Docket No. G004/GR-04-1487

79. In the Matter of the Petition of CenterPoint Energy Minnegasco, A Division of CenterPoint Resources Corp. for Authority to Increase Natural Gas Rates in Minnesota (2004-2005) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)
Docket No. G008/GR-04-901

Advance Prudence/Certificates of Need

80. In the Matter of the Application Northern States Power Company for an Advance Determination of Prudence for the Big Stone South – Alexandria – Big Oaks 345 kV Transmission Line Project (2023) – (Appearance: Need, necessity and conformance with North Dakota Statutes and Regulation on behalf of the North Dakota Public Service Commission Advocacy Staff)
North Dakota Public Service Commission Docket No. PU-23-329
81. In the Matter of the Application Northern States Power Company for an Advance Determination of Prudence for the Proposed 345 kV Brookings County – Lyon County and Helena – Hampton Second-Circuit Project (2023) – (Appearance: Need, necessity and conformance with North Dakota Statutes and Regulation on behalf of the North Dakota Public Service Commission Advocacy Staff)
North Dakota Public Service Commission Docket No. PU-23-295
82. In the Matter of the Application Northern States Power Company for an Advance Determination of Prudence for the Lyon County to Sherburne County 345 kV Transmission Line (2023) – (Appearance: Need, necessity and conformance with North Dakota Statutes and Regulation on behalf of the North Dakota Public Service Commission Advocacy Staff)
North Dakota Public Service Commission Docket No. PU-23-142
83. In re: Petition of NSTAR Gas Company d/b/a Eversource Energy for Approval of its 2016 Gas System Enhancement Plan Reconciliation Filing (2017) - (Appearance: prudence/used and useful and plant accounting on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 17-GREC-06
84. In re: Petition of Bay State Gas Company d/b/a Columbia Gas of Massachusetts for Approval of its 2016 Gas System Enhancement Plan Reconciliation Filing (2017) - (Appearance: prudence/used and useful and plant accounting on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 17-GREC-05
85. In re: Northern Illinois Gas Company d/b/a Nicor Gas Company Proposed General Increase in Gas Rates (2017) – (Appearance: prudence/used and useful and plant accounting on behalf of the Citizens Utility Board of Illinois)
IL Commerce Commission Docket No. 17-0124
86. In re: Petition of Fitchburg Gas and Electric Light Company d/b/a Unitil for Approval of its 2015 Gas System Enhancement Plan Reconciliation Filing (2016) - (Analysis and Assistance to Counsel: prudence/used and useful and plant accounting on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 16-GREC-01

87. In re: Petition of Bay State Gas Company d/b/a Columbia Gas of Massachusetts for Approval of its 2015 Gas System Enhancement Plan Reconciliation Filing (2016) - (Analysis and Assistance to Counsel: prudence/used and useful and plant accounting on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 16-GREC-05
88. In re: Petition for Approval of Gas Infrastructure Contract Between Public Service Company of New Hampshire d/b/a Eversource Energy and Algonquin Gas Transmission, LLC (2016) - (Analysis and Advice to Counsel: forecasting and cost/benefit on behalf of the New Hampshire Office of Consumer Advocate)
NH Public Utilities Commission Docket No. DE 16-241
89. In the Matter of the Application of Enbridge Energy, Limited Partnership and Enbridge Pipelines (Southern Lights) LLC for a Certificate of Need for the Alberta Clipper and Southern Lights Diluent Pipeline Projects (2007-2008) - (Case Manager: economic impact, public interest and impact on society, advice to counsel, assist on brief on behalf of the Minnesota Department of Commerce)
MN Docket No. PL-9/CN-07-465
90. In the Matter of the Application of Enbridge Energy (Southern Lights) LLC for a Certificate of Need for a Crude Oil Pipeline for the Southern Lights Project (2007-2008) - (Case Manager: economic impact, public interest and impact on society, advice to counsel, assist on brief on behalf of the Minnesota Department of Commerce)
MN Docket No. PL-9/CN-07-464
91. In the Matter of the Application of Minnesota Pipeline Company for a Certificate of Need for a Crude Oil Pipeline (2006-2007) - (Appearance: economic impact on behalf of the Minnesota Department of Commerce)
MN Docket No. PL-5/CN-06-02
92. In the Matter of the Petition of Northern States Power Company dba Xcel Energy dba Xcel Energy Certificate Need to Establish an Independent Spent Fuel Storage Installation at the Monticello Generating Plant (2005-2006) - (Appearance: license renewal, economic impact on behalf of the Minnesota Department of Commerce)
MN Docket No. E002/CN-05-123
93. In the Matter of a Certificate of Need Application for Great River Energy's Cambridge Station (2005) - (Appearance: economic impact on behalf of the Minnesota Department of Commerce)
MN Docket No. ET2/CN-05-347

Mergers

94. In. re: The Merger of the Southern Company and AGL Resources Inc. - Joint Application of the Southern Company, AGL Resources Inc., and Pivotal Utility Holdings, Inc., d/b/a Elkton Gas (2015-2016) - (Analysis: cost of capital, credit ratings, affiliate relationships on behalf of the Maryland Office of People's Counsel)
MD Public Service Commission Case No. 9404
95. In the Matter of a Request of Great Plains Natural Gas Co. for the Approval of the Acquisition by MDU Resources Group, Inc., of Intermountain Gas Company (2008) (Appearance: rule variance, sharing savings, regulatory authority, cost of capital on behalf of the Minnesota Department of Commerce)
MN Docket No. G004/PA-08-813
96. In the Matter of a Request for the Approval of the Acquisition by MDU Resources Group, Inc., and Its Division, Great Plains Natural Gas Co., of Cascade Natural Gas Corporation (2006-2007) (Appearance: sharing savings, regulatory authority, cost of capital on behalf of the Minnesota Department of Commerce)
MN Docket No. G004/PA-06-1585

Regulatory Projects and Appearances

97. Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid: Storm Cost Recovery for Fourteen 2020 Qualifying Events (2022) (Appearance: prudence/used and useful on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
Massachusetts Department of Public Utilities – Docket No. D.P.U. 22-43
98. In Re: Township of East Brunswick – Sewer Rate Study – (2017) - (Evaluation of the existing sewer rate structure and examining and quantify costs for future expansion).
99. In re: Bulletin 2015-10 Generic Proceeding to Establish Parameters for the Next Generation PBR Plans (Appearance: productivity adjustments/performance based ratemaking on behalf of the Alberta Utilities Consumer Advocate)
Alberta Utilities Commission Proceeding 20414
100. In re: Petition of Boston Gas Company and Colonial Gas Company d/b/a National Grid for Approval of Precedent Agreements with Millennium Pipeline Company, LLC (2015-2016) - (Analysis: gas-supply model review, forecasting on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA D.P.U. 15-130

101. In re: Petition of Boston Gas Company and Colonial Gas Company d/b/a National Grid for Approval of Agreements for LNG or Liquefaction Services with GDF Suez Gas NA, LLC; Northeast Energy Center, LLC; Gaz Metro LNG, L.P.; and National Grid LNG (2015-2016) - (Analysis: gas-supply model review, forecasting, large customer loss and retention on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA D.P.U. 15-129

Rate Design

102. In re: The Application of Potomac Electric Power Company for Adjustments to Its Retail Rates for the Distribution of Electric Energy (2017) – (Appearance: cost of service and rate design on behalf of the Maryland Office of People’s Counsel)
MD Public Service Commission Case No. 9443
103. In re: The Application of Delmarva Power and Light Company for Adjustments to Its Retail Rates for the Distribution of Electric Energy (2016) – (Analysis and Assistance to Counsel: cost of service and rate design on behalf of the Maryland Office of People’s Counsel)
MD Public Service Commission Case No. 9424
104. In re: The Application of Potomac Electric Power Company for Adjustments to Its Retail Rates for the Distribution of Electric Energy (2016) – (Analysis and Assistance to Counsel: cost of service and rate design on behalf of the Maryland Office of People’s Counsel)
MD Public Service Commission Case No. 9418
105. In the Matter of Otter Tail Corporation dba Otter Tail Power Company’s Application for Authority to Increase Rates for Electric Service in Minnesota (2007-2008) - (Appearance: rate design, revenue requirement on behalf of the Minnesota Department of Commerce)
MN Docket No. E017/GR-07-1178

Capital Structure

106. In the Matter of the Petition of Greater Minnesota Gas Inc. for Approval of 2011 Capital Structure Petition and Permission to Issue Securities (2011) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)
MN Docket No. G022/S-11-535
107. In the Matter of the Petition of Otter Tail Power Company for Approval of 2011 Capital Structure and Permission to Issue Securities (2011) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)
MN Docket No. G007,011/S-11-392
108. The Petition of Otter Tail Power Company for Approval of 2010 Capital Structure and Permission to Issue Securities (2010) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)
MN Docket No. E017/S-10-292

109. In the Matter of the Greater Minnesota Gas Inc.'s Capital Structure Petition and Compliance with Financial Integrity Order (2010) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)
MN Docket No. G022/S-10-281
110. Interstate Power and Light Company's petition for approval of its proposed capital structure (2009) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)
MN Docket No. E,G001/S-09-607
111. A petition of Interstate Power and Light Company for approval of its proposed capital structure (2008) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)
MN Docket No. E,G001/S-08-540
112. In the Matter of the Annual Capital Structure Filing of Minnesota Energy Resources Corporation (2008) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)
MN Docket No. G007,011/SA-08-329
113. In the Matter of the Annual Capital Structure Filing of Minnesota Energy Resources Corporation (2007) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)
Docket No. G007,011/S-07-352
114. In the Matter of the Annual Capital Structure Filing of Minnesota Energy Resources Corporation (2006-2007) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)
MN Docket No. G007,011/S-06-1013
115. Northern States Power Company's request for approval of its 2006 Capital Structure Prior to Issuing Securities (2005) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)
MN Docket No. E,G002/S-05-1583
116. A petition of Interstate Power and Light Company for approval of its proposed capital structure for calendar year 2005, ending March 31, 2006 (2005) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)
MN Docket No. E,G001/S-05-151

Affiliated Interest

117. Petition of Greater Minnesota Gas, Inc. for Approval of an Affiliated Interest Agreement (2010-2011) - (Appearance: analysis of affiliated interests of closely held company, some owners also suppliers on behalf of the Minnesota Department of Commerce)
MN Docket No. G022/AI-10-1160
118. In the Matter of the Petition of Minnesota Energy Resources Corporation for Approval of Affiliated Interest Agreement (2010-2013) - (Appearance: analysis of affiliated interests agreement post-merger on behalf of the Minnesota Department of Commerce)
MN Docket No. G007,011/AI-10-783
119. In the Matter of the Annual Capital Structure Filing of Minnesota Energy Resources Corporation and Request for Approval of Affiliated Interest Agreement (2009-2010) - (Appearance: capital structure, affiliated interest lending on behalf of the Minnesota Department of Commerce)
MN Docket No. G007,011/SAI-09-1108
120. Petition for Approval of a Lending Agreement Between Interstate Power and Light Company and Alliant Energy Corporation Pursuant to Section 216B.48 of the Minnesota Statutes and Minnesota Rule 7825.2200 (2008-2009) - (Appearance: intercompany lending on behalf of the Minnesota Department of Commerce)
MN Docket No. E,G001/AI-08-1323
121. A Petition for Approval of Affiliated Services Agreement Between Interstate Power and Light Company and RMT, Inc. Pursuant to Section 216.48 of the Minnesota Statutes and Minnesota Rule 7825.2200 (2007-2008) - (Appearance: affiliated interests, engineering services on behalf of the Minnesota Department of Commerce)
MN Docket No. E,G001/AI-07-941

Depreciation

122. Otter Tail Power Company's Request for Approval of its Five-Year Depreciation Study (2008-2009) - (Appearance: depreciation analysis on behalf of the Minnesota Department of Commerce)
MN Docket No. E017/D-08-1042
123. In the Matter of the Petition of Great Plains Natural Gas Company's Request for Approval of its Five-Year Depreciation Study for 2007 (2007-2008) - (Appearance: depreciation analysis on behalf of the Minnesota Department of Commerce)
MN Docket No. G004/D-07-740

124. In the Matter of the Petition of Great Plains Natural Gas Company's Request for Approval of its Proposed Remaining Lives, Salvage Rates, and Resulting Depreciation Rates (2006-2007) - (Appearance: depreciation analysis on behalf of the Minnesota Department of Commerce)
MN Docket No. G004/D-06-700

Telecommunications

125. In the Matter of the Petition of Great Plains Communications, Inc. for Arbitration to Resolve Issues Relating to an Interconnection Agreement with WWC License L.L.C. (2003) - (Arbitrator: arbitrated interconnection agreement disputes on behalf of the Nebraska Public Service Commission)
NE Application No. C-2872
126. In the Matter of the Analysis of Qwest Corporation's Compliance with Section 271(c) of the Telecommunications Act of 1999 (1999-2002) - (Appearances: evaluation of Qwest Corporation's opening its operational support systems (OSS) to competitive local exchange carriers on behalf of the Nebraska Public Service Commission, New Mexico Public Regulation Commission Advocacy Staff, and South Dakota Public Utilities Commission Staff)
NE Application No. C-1830, NM Case No. 3269, SD Docket No. TC01-165

Otter Tail Corporation | Credit Ratings

NASDAQGS: OTTR (MI KEY: 4057017; SPCIQ KEY: 294269)

Agency All

BBB**S&P Global Ratings**

Issuer Credit Rating (Foreign Currency LT)

6/21/2013

CreditWatch/Outlook: Stable

3/1/2022

Baa2**Moody's**

Long Term Rating (LT Issuer Rating Domestic)

10/3/2022

Current Ratings**S&P GLOBAL RATINGS (S&P Entity Name:Otter Tail Corp.)**

RATING TYPE	RATING	RATING DATE	LAST REVIEW DATE	PREVIOUS RATING	ACTION	CREDITWATCH/ OUTLOOK	CREDITWATCH/ OUTLOOK DATE
Issuer Credit Rating							
Foreign Currency LT	BBB	6/21/2013	8/24/2023	BBB	CreditWatch/Outlook	Stable	3/1/2022
Local Currency LT	BBB	6/21/2013	8/24/2023	BBB	CreditWatch/Outlook	Stable	3/1/2022
Foreign Currency ST	NR	5/14/2002		A-1	Not Rated		
Local Currency ST	NR	5/14/2002		A-1	Not Rated		

MOODY'S

RATING TYPE	RATING	DATE	ACTION	OUTLOOK
Ratings Summary				
Long Term Rating (LT Issuer Rating Domestic)	Baa2	10/3/2022	Rating Affirmation	
Outlook		10/3/2022		Stable
Ratings Detail				
LT Issuer Rating (Domestic)	Baa2	10/3/2022	Rating Affirmation	
Senior Unsecured (Domestic)	WR	12/14/2016	Withdrawn	
BACKED Senior Unsecured (Domestic)	WR	7/13/2012	Withdrawn	
Senior Unsec. Shelf (Domestic)	WR	5/9/2012	Withdrawn	

Ratings History**S&P GLOBAL RATINGS (S&P Entity Name:Otter Tail Corp.)**

RATING TYPE	RATING	RATING DATE	ACTION	CREDITWATCH/ OUTLOOK	CREDITWATCH/ OUTLOOK DATE
Foreign Currency LT					

Otter Tail Corporation | Credit Ratings

RATING TYPE	RATING	RATING DATE	ACTION	CREDITWATCH/ OUTLOOK	CREDITWATCH/ OUTLOOK DATE
Issuer Credit Rating	BBB	6/21/2013	CreditWatch/Outlook	Stable	3/1/2022
Issuer Credit Rating	BBB	6/21/2013	CreditWatch/Outlook	Negative	8/18/2020
Issuer Credit Rating	BBB	6/21/2013	CreditWatch/Outlook	Stable	9/17/2019
Issuer Credit Rating	BBB	6/21/2013	CreditWatch/Outlook	Positive	8/21/2017
Issuer Credit Rating	BBB	6/21/2013	Upgrade CreditWatch/Outlook	Stable	6/21/2013
Issuer Credit Rating	BBB-	9/26/2008	Downgrade CreditWatch/Outlook	Stable	9/26/2008
Issuer Credit Rating	BBB+	12/16/2004	CreditWatch/Outlook	Negative	9/13/2007
Issuer Credit Rating	BBB+	12/16/2004	CreditWatch/Outlook	Stable	12/22/2005
Issuer Credit Rating	BBB+	12/16/2004	Downgrade CreditWatch/Outlook	Negative	12/16/2004
Issuer Credit Rating	A-	9/18/2003	Downgrade CreditWatch/Outlook	Negative	9/18/2003
Issuer Credit Rating	A+	11/14/2001	Downgrade CreditWatch/Outlook	Stable	11/14/2001
Issuer Credit Rating	AA-	6/10/1990	CreditWatch/Outlook	Negative	5/14/1997
Issuer Credit Rating	AA-	6/10/1990	Upgrade CreditWatch/Outlook	Stable	6/10/1990
Issuer Credit Rating	A+	8/8/1983	Upgrade CreditWatch/Outlook	Stable	8/8/1983
Issuer Credit Rating	A	7/7/1958	New Rating		
Local Currency LT					
Issuer Credit Rating	BBB	6/21/2013	CreditWatch/Outlook	Stable	3/1/2022
Issuer Credit Rating	BBB	6/21/2013	CreditWatch/Outlook	Negative	8/18/2020
Issuer Credit Rating	BBB	6/21/2013	CreditWatch/Outlook	Stable	9/17/2019
Issuer Credit Rating	BBB	6/21/2013	CreditWatch/Outlook	Positive	8/21/2017
Issuer Credit Rating	BBB	6/21/2013	Upgrade CreditWatch/Outlook	Stable	6/21/2013
Issuer Credit Rating	BBB-	9/26/2008	Downgrade CreditWatch/Outlook	Stable	9/26/2008
Issuer Credit Rating	BBB+	12/16/2004	CreditWatch/Outlook	Negative	9/13/2007
Issuer Credit Rating	BBB+	12/16/2004	CreditWatch/Outlook	Stable	12/22/2005
Issuer Credit Rating	BBB+	12/16/2004	Downgrade CreditWatch/Outlook	Negative	12/16/2004
Issuer Credit Rating	A-	9/18/2003	Downgrade CreditWatch/Outlook	Negative	9/18/2003
Issuer Credit Rating	A+	11/14/2001	Downgrade CreditWatch/Outlook	Stable	11/14/2001
Issuer Credit Rating	AA-	6/10/1990	CreditWatch/Outlook	Negative	5/14/1997
Issuer Credit Rating	AA-	6/10/1990	Upgrade CreditWatch/Outlook	Stable	6/10/1990
Issuer Credit Rating	A+	8/8/1983	Upgrade CreditWatch/Outlook	Stable	8/8/1983
Issuer Credit Rating	A	7/7/1958	New Rating		
Foreign Currency ST					
Issuer Credit Rating	NR	5/14/2002	Not Rated		
Issuer Credit Rating	A-1	11/14/2001	Downgrade		
Issuer Credit Rating	A-1+	11/4/1990	New Rating		
Local Currency ST					
Issuer Credit Rating	NR	5/14/2002	Not Rated		
Issuer Credit Rating	A-1	11/14/2001	Downgrade		
Issuer Credit Rating	A-1+	11/4/1990	New Rating		

Otter Tail Corporation | Credit Ratings

MOODY'S

RATING TYPE	RATING	DATE	ACTION	OUTLOOK
LT Issuer Rating (Domestic)	Baa2	10/3/2022	Rating Affirmation	
LT Issuer Rating (Domestic)	Baa2	8/7/2017	New	
Outlook		10/3/2022		Stable
Outlook		8/7/2017		Stable
Outlook		12/15/2016		Withdrawn
Outlook		1/30/2014		Stable
Outlook		11/8/2013		Ratings Under Review
Outlook		10/7/2013		Positive
Outlook		6/24/2009		Stable

Subsidiaries

SUBSIDIARY	AGENCY	DEBT TYPE (RATING TYPE)	RATING	RATING DATE	LAST REVIEW DATE	PREVIOUS RATING	CREDITWATCH / OUTLOOK	CREDITWATCH / OUTLOOK DATE
OTter Tail Power Co.	S&P Global Ratings	Issuer Credit Rating (Foreign Currency LT)	BBB+	9/17/2019	8/24/2023	BBB	Stable	9/17/2019
	Moody's	Long Term Rating (LT Issuer Rating Domestic)	A3	10/3/2022				

Market Intelligence News

HEADLINE	DATE
Otter Tail on Feb. 13 initiated 2024 diluted earnings per share guidance of \$5.13 to \$5.43, compared with actual earnings per share of \$7.00 in 2023.	2/13/2024 4:20:00 PM CT
Otter Tail stock nosedives as company releases 2024 earnings guidance	

S&P Credit Ratings and Research provided by **S&P Global Ratings**

'Last Review Date' indicates the date on which an Issue/Issuer Credit Rating was last formally reviewed within a twelve-month period or when a Credit Rating Action was last published. For certain dependent instruments, the 'Last Review Date' will only be updated in the event of a Credit Rating change of the linked organization.

Latest S&P Ratings available unless you are a subscriber of S&P Ratings history.

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Otter Tail Power Company | Credit Ratings

(MI KEY: 4147257; SPCIQ KEY: 51538733)

Agency All

BBB+**S&P Global Ratings**

Issuer Credit Rating (Foreign Currency LT)

9/17/2019

Upgrade | CreditWatch/Outlook: Stable

9/17/2019

A3**Moody's**

Long Term Rating (LT Issuer Rating Domestic)

10/3/2022

Current Ratings**S&P GLOBAL RATINGS (S&P Entity Name: Otter Tail Power Co.)**

RATING TYPE	RATING	RATING DATE	LAST REVIEW DATE	PREVIOUS RATING	ACTION	CREDITWATCH/ OUTLOOK	CREDITWATCH/ OUTLOOK DATE
Issuer Credit Rating							
Foreign Currency LT	BBB+	9/17/2019	8/24/2023	BBB	Upgrade CreditWatch/Outlook	Stable	9/17/2019
Local Currency LT	BBB+	9/17/2019	8/24/2023	BBB	Upgrade CreditWatch/Outlook	Stable	9/17/2019

MOODY'S

RATING TYPE	RATING	DATE	ACTION	OUTLOOK
Ratings Summary				
Long Term Rating (LT Issuer Rating Domestic)	A3	10/3/2022	Rating Affirmation	
Short Term Rating (Commercial Paper Domestic)	WR	3/25/2002	Withdrawn	
Outlook		10/3/2022		Stable
Ratings Detail				
LT Issuer Rating (Domestic)	A3	10/3/2022	Rating Affirmation	
Underlying LT IRB/PC (Domestic)	WR	1/24/2013	Withdrawn	

Otter Tail Power Company | Credit Ratings

RATING TYPE	RATING	DATE	ACTION	OUTLOOK
BACKED LT IRB/PC (Domestic)	WR	1/24/2013	Withdrawn	
BACKED Other Short Term (Domestic)	WR	11/30/2011	Withdrawn	
Senior Unsecured (Domestic)	WR	11/30/2011	Withdrawn	
Senior Unsec. Shelf (Domestic)	WR	6/12/2009	Withdrawn	
Pref. Shelf (Domestic)	WR	6/12/2009	Withdrawn	
Senior Unsecured Bank Credit Facility (Domestic)	WR	7/30/2008	Withdrawn	
Underlying Senior Unsecured (Domestic)	WR	10/14/2007	Withdrawn	
First Mortgage Bonds (Domestic)	WR	10/30/2002	Withdrawn	
Commercial Paper (Domestic)	WR	3/25/2002	Withdrawn	
Pref. Stock (Domestic)	WR	12/30/2001	Withdrawn	
Senior Secured Shelf (Domestic)	WR	11/17/1997	Withdrawn	

Ratings History
S&P GLOBAL RATINGS (S&P Entity Name: Otter Tail Power Co.)

RATING TYPE	RATING	RATING DATE	ACTION	CREDITWATCH/ OUTLOOK	CREDITWATCH/ OUTLOOK DATE
Foreign Currency LT					
Issuer Credit Rating	BBB+	9/17/2019	Upgrade CreditWatch/Outlook	Stable	9/17/2019
Issuer Credit Rating	BBB	6/21/2013	CreditWatch/Outlook	Positive	8/21/2017
Issuer Credit Rating	BBB	6/21/2013	Upgrade CreditWatch/Outlook	Stable	6/21/2013
Issuer Credit Rating	BBB-	6/26/2009	New Rating CreditWatch/Outlook	Stable	6/26/2009
Local Currency LT					
Issuer Credit Rating	BBB+	9/17/2019	Upgrade CreditWatch/Outlook	Stable	9/17/2019
Issuer Credit Rating	BBB	6/21/2013	CreditWatch/Outlook	Positive	8/21/2017
Issuer Credit Rating	BBB	6/21/2013	Upgrade CreditWatch/Outlook	Stable	6/21/2013
Issuer Credit Rating	BBB-	6/26/2009	New Rating CreditWatch/Outlook	Stable	6/26/2009

MOODY'S

RATING TYPE	RATING	DATE	ACTION	OUTLOOK
LT Issuer Rating (Domestic)	A3	10/3/2022	Rating Affirmation	
LT Issuer Rating (Domestic)	A3	8/7/2017	Rating Affirmation	
LT Issuer Rating (Domestic)	A1	12/21/1994	New	
LT Issuer Rating	A3	1/30/2014	On Watch - Confirm Only (P.R.)	
LT Issuer Rating	A3	11/8/2013	On Watch - Possible Upgrade	

Otter Tail Power Company | Credit Ratings

RATING TYPE	RATING	DATE	ACTION	OUTLOOK
LT Issuer Rating	A3	10/7/2013	Rating Affirmation	
LT Issuer Rating	A3	6/24/2009	On Watch - Confirm Only (P.R.)	
LT Issuer Rating	A3	1/14/2009	On Watch - Possible Downgrade	
LT Issuer Rating	A3	8/26/2005	Downgrade	
LT Issuer Rating	A2	3/2/2005	On Watch - Possible Downgrade	
LT Issuer Rating	A2	7/10/2002	Downgrade	
Outlook		10/3/2022		Stable
Outlook		8/7/2017		Stable
Outlook		1/30/2014		Stable
Outlook		11/8/2013		Ratings Under Review
Outlook		10/7/2013		Stable
Outlook		12/6/2012		Negative
Outlook		6/24/2009		Stable
Outlook		1/14/2009		Ratings Under Review
Outlook		7/18/2007		Negative
Outlook		8/26/2005		Stable
Outlook		3/2/2005		Ratings Under Review
Outlook		11/15/2003		Negative

S&P Credit Ratings and Research provided by **S&P Global Ratings**

'Last Review Date' indicates the date on which an Issue/Issuer Credit Rating was last formally reviewed within a twelve-month period or when a Credit Rating Action was last published. For certain dependent instruments, the 'Last Review Date' will only be updated in the event of a Credit Rating change of the linked organization.

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ROE and ROR Analysis for Otter Tail Power

Docket No. PU-23-342

Comparison Group Screening

MFG-4

Value Line Electric Utilities Group

Downloaded from Value Line Analyzer on April 22, 2024

Company	Ticker	Exchange where Publicly Traded
ALLETE	ALE	NYS
Alliant Energy	LNT	NDQ
Ameren Corp.	AEE	NYS
American Elec. Power	AEP	NYS
AVANGRID, Inc.	AGR	NYS
Avista Corp.	AVA	NYS
Black Hills	BKH	NYS
CenterPoint Energy	CNP	NYS
CMS Energy Corp.	CMS	NYS
Consol. Edison	ED	NYS
Dominion Energy	D	NYS
DTE Energy	DTE	NYS
Duke Energy	DUK	NYS
Edison Int'l	EIX	NYS
Emera Incorporated	EMA	TSX
Entergy Corp.	ETR	NYS
Evergy, Inc.	EVRG	NYS
Eversource Energy	ES	NYS
Exelon Corp.	EXC	NDQ
FirstEnergy Corp.	FE	NYS
Fortis Inc.	FTS.TO	TSE
Hawaiian Elec.	HE	NYS
IDACORP, Inc.	IDA	NYS
MGE Energy	MGEE	NDQ
NextEra Energy	NEE	NYS
NorthWestern Corp.	NWE	NYS
OGE Energy	OGE	NYS
Otter Tail Corp.	OTTR	NDQ
PG&E Corp.	PCG	NYS
Pinnacle West Capital	PNW	NYS
PNM Resources	PNM	NYS
Portland General	POR	NYS
PPL Corp.	PPL	NYS
Public Serv. Enterprise	PEG	NYS
Sempra Energy	SRE	NYS
Southern Co.	SO	NYS
Summer Energy Holding	SUME	NDQ
Unitil Corp.	UTL	AMS
WEC Energy Group	WEC	NYS
Xcel Energy Inc.	XEL	NDQ

ROE and ROR Analysis for Otter Tail Power
Comparison Group Screening
S&P Capital IQ Pro, April 22, 2024

Docket No. PU-23-342
Exhibit MFG-5

Companies in boldface are excluded for failure to meet one or more criteria

Company	Ticker	Merger, Acquisition, or Other	S&P Credit Rating	Paying Dividends	Positive EPS Growth Rates
ALLETE, Inc.	ALE	Yes	BBB	Yes	Yes
Alliant Energy Corporation	LNT	No	A-	Yes	Yes
Ameren Corporation	AEE	No	BBB+	Yes	Yes
American Electric Power Co.	AEP	No	BBB+	Yes	Yes
Avangrid, Inc.*	AGR	Yes	BBB+	Yes	Yes
Avista Corporation	AVA	No	BBB	Yes	Yes
Black Hills Corporation	BKH	No	BBB+	Yes	Yes
CenterPoint Energy, Inc.**	CNP	Yes	BBB+	No	Yes
CMS Energy Corporation	CMS	No	BBB+	Yes	Yes
Consolidated Edison, Inc.	ED	No	A-	Yes	Yes
Dominion Energy, Inc.	D	No	BBB+	Yes	Yes
DTE Energy Company	DTE	No	BBB+	Yes	Yes
Duke Energy Corporation	DUK	No	BBB+	Yes	Yes
Edison International	EIX	No	BBB	Yes	Yes
Emera Incorporated	EMA	No	BBB	Yes	Yes
Entergy Corporation	ETR	No	BBB+	Yes	Yes
Eversource Energy	ES	No	BBB+	Yes	Yes
Exelon Corporation***	EXC	No	BBB+	Yes	No
FirstEnergy Corp.****	FE	Yes	BBB	Yes	Yes
Fortis Inc.	FTS.TO	No	A-	Yes	Yes
Hawaiian Elec Industries, Inc.*****	HE	No	B-	Yes	Yes
IDACORP, Inc.	IDA	No	BBB	Yes	Yes
MGE Energy, Inc.#	MGEE	No		Yes	Yes
NextEra Energy, Inc.	NEE	No	A-	Yes	Yes
NorthWestern Corporation	NWE	No	BBB	Yes	Yes
OGE Energy Corp.	OGE	No	BBB+	Yes	Yes
Otter Tail Corporation##	OTTR	No	BBB	Yes	Yes
PG&E Corporation###	PCG	No	BB	No	Yes
Pinnacle West Capital Corporation	PNW	No	BBB+	Yes	Yes
PNM Resources, Inc.####	PNM	Yes	BBB	Yes	Yes
Portland General Electric Company	POR	No	BBB+	Yes	Yes
PPL Corporation	PPL	No	A-	Yes	Yes
Public Service Enterprise Group Inc.	PEG	No	BBB+	Yes	Yes
Sempra Energy	SRE	No	BBB+	Yes	Yes
Southern Company	SO	No	BBB+	Yes	Yes
Summer Energy Holdings#####	SUME	No		NA	
Unitil Corporation	UTL	No	BBB+	Yes	Yes
WEC Energy Group, Inc.	WEC	No	A-	Yes	Yes
Xcel Energy Inc.	XEL	No	BBB+	Yes	Yes

*-ALLETE is exploring a sale.

**-Avangrid is a controlled company 81.4 percent owned by Iberdrola; Iberdrola has made an offer to the independent directors of Avangrid to acquire the portion of Avangrid that it does not own.

***-CenterPoint Energy is selling its Louisiana and Mississippi natural gas operations. The transaction is expected to close in the first quarter of 2025.

****-Exelon does not have an EPS growth rate from Value Line.

*****-FirstEnergy implicated in a bribery scheme in Ohio on July 21, 2020; resolution of the matter is ongoing

*****-Hawaiian Electric Industries has a B- credit rating

#-MGE Energy does not have an S&P credit rating

##-Otter Tail Corporation is OTP's parent company

###-PG&E Corporation is not paying dividends as it exits bankruptcy; it also has a BB credit rating

####-PNM Resources was the subject of an Avangrid acquisition attempt, which Avangrid withdrew.

#####-Summer Energy Holdings dividend record and credit rating are not available from S&P; EPS growth-rate

RRA REGULATORY FOCUS

CenterPoint agrees to sell its Southeast US gas utilities to Bernhard Capital

Tuesday, February 27, 2024 9:07 AM CT

By Jim Davis
Market Intelligence

On Feb. 20, CenterPoint Energy Inc. said it reached an agreement through which Bernhard Capital Partners Management LP would acquire its local gas distribution businesses in Louisiana and Mississippi for \$1.2 billion. CenterPoint Energy provides natural gas utility service to roughly 380,000 customers through its operations in the two states via its CenterPoint Energy Resources Corp. subsidiary.

The Take

- The proposed transaction requires approval from the Louisiana Public Service Commission and the Mississippi Public Service Commission, according to the announcement. Assuming all necessary regulatory approvals are secured, the parties expect the deal to be completed in the first quarter of 2025.
- Criteria for reviewing and approving mergers and acquisitions of regulated utilities in Louisiana and Mississippi are relatively stringent, and there is no specific time frame under which the regulatory bodies are required to render a decision on a proposed transaction.
- Regulatory Research Associates views the Louisiana regulatory environment as relatively balanced from an investor perspective.
- RRA views the Mississippi regulatory environment as more constructive than average from an investor perspective.

The companies have not yet filed for approval of the proposed transaction with regulators in either state, but CenterPoint Energy said successful completion of the transaction would allow it to support its "industry-leading capital plan" and to reprioritize "future capital investments ... of approximately \$1 billion elsewhere across its regulated electric and natural gas utility footprint."

New Orleans-based Bernhard is pursuing the acquisition of the natural gas distribution businesses of Entergy Corp. in a separate transaction in the region.

Louisiana PSC

CenterPoint Energy Resources' (CER) two Louisiana operating divisions — Centerpoint Energy Arkla and CenterPoint Energy Entex — are subject to oversight by the PSC. The Arkla division provides utility service to roughly 131,000 customers across 10 parishes in northern Louisiana, and the Entex division provides utility service to about 117,000 customers across 20 parishes in central and southern Louisiana, according to commission orders dated May 19, 2022.

Utility alternative regulation information

Arkla and Entex have been operating under rate stabilization plans (RSPs), a form of alternative regulation, for many years.

The two operating divisions have separate RSPs in place with identical return parameters, including a benchmark 9.95% return on equity (ROE) and a 100-basis-point deadband. Each division submits annual RSP filings, and to the extent that the earned ROE falls outside of the deadband — below 9.45% or above 10.45% — rates are prospectively adjusted by the amount necessary to achieve the benchmark 9.95% ROE.

Arkla division

Arkla's most recent RSP filing (based on a test year ended June 30, 2023) is pending before the commission. It was filed Sept. 29, 2023, and specifies an RSP increase of \$5.2 million. It also specifies a rate base of \$188 million.

The most recent RSP decision rendered by the commission provided for the utility to implement a \$1.2 million net RSP increase (based on a test year ended June 30, 2022). The April 5, 2023, commission ruling adopted a joint report filed by CER and the PSC staff March 3, 2023.

Entex division

Entex's most recent RSP filing Sept. 29, 2023, (based on a test year ended June 30, 2023) specifies a \$4.4 million RSP increase. The filing specifies a rate base of \$160 million. The proceeding is pending before the commission.

The PSC's most recent RSP decision for Entex was issued April 5, 2023, (based on a test year ended June 30, 2022) following a joint report submitted by CER and the commission staff. The PSC ruling authorized the division a \$3.8 million net RSP increase.

Commission M&A approval criteria and information

The commission's rules regarding merger or acquisition approvals specify that "no utility or common carrier subject to the jurisdiction of the [PSC] shall sell, assign, lease, transfer, mortgage, or otherwise dispose of or encumber the whole or any part of its franchise, works, property, or system, nor by any means direct or indirect, merge or consolidate its utility works, operations, systems, franchises, or any part thereof, nor transfer control or ownership of any of the assets, common stock or other indicia of control of the utility to any other person, corporation, partnership, limited liability company, utility, common carrier, subsidiary, affiliated entity or any other entity nor merge or combine with another person, corporation, partnership, limited liability company, utility, common carrier, subsidiary, affiliated company or any other entity or divide into two or more utilities or common carriers, where the values involved in such action exceed one percent (1%) of the gross assets of such regulated utility or common carrier, or subsidiary thereof, nor in any way commit itself to take such action or affect any right, interest, asset, obligation, stock ownership, or control, involved in such action without prior full disclosure of the prior intentment and plan of such utility or common carrier with regard to such action and without prior official action of approval or official action of non-opposition by the Louisiana Public Service Commission."

The rules require the commission to examine whether a proposed merger involving utilities and/or utility holding companies subject to its jurisdiction is in the public interest, maintains or improves the financial condition of the resulting entity, affects the quality of service, provides net benefits to ratepayers, adversely affects competition, impacts the quality of the resulting entity's management, is fair and reasonable to the affected utility, is fair and reasonable to shareholders, is beneficial to the local economies served by the utility, preserves the jurisdiction of the PSC and the commission's ability to regulate and audit utilities, and requires conditions to prevent adverse consequences.

In addition, the commission must examine whether the purchaser is able to continue providing safe, reliable and adequate service to ratepayers; the history of compliance or noncompliance that the acquiring entity has had with regulatory bodies; whether the acquiring entity has the financial ability to operate the utility and maintain or upgrade the quality of the system; if any repairs or improvements are required, and the acquiring entity's ability to execute such tasks; the ability of the acquiring entity to obtain all necessary permits; the manner of financing the transaction and any impact that may have on utility assets and rates; and whether any conditions should be attached to the proposed transaction.

There is no statutory time limit within which the commission is required to adjudicate a merger or acquisition proposal.

The commission has generally been receptive to mergers. In its most recent merger decision involving a large energy utility, the PSC approved a deal that resulted in the 2016 acquisition of Cleco Corp. by Cleco Partners LP. Per the adopted settlement, ratepayers received credits of \$136 million in July 2016, \$7 million of economic development funds were to be provided for use in Cleco's service territory, and \$6 million was to be invested in Cleco's community contribution funding over five years. The adopted settlement also provided for Cleco Partners subsidiary Cleco Power LLC to file a general rate case in June 2019, and to forgo rate increases via its formula rate plan during the interim period; Cleco Power to maintain a capital structure containing a common equity ratio of at least 48%, unless otherwise allowed by the PSC; and Cleco Power to refrain from making distributions if its equity ratio fell below 48% or if the company failed to maintain investor-grade metrics with at least two of the major rating agencies.

RRA's view of Louisiana's regulation of energy utilities

RRA views the Louisiana regulatory environment for energy utilities as relatively balanced from an investor point of view and has accorded the jurisdiction an Average/2 ranking.

The PSC consists of elected officials chosen by voters from five state districts.

Rate case activity is sparse as utilities in the state primarily operate under alternative regulation plans that provide for periodic rate adjustments. However, when rate cases do occur, they tend to be protracted.

The alternative regulation plans for the state's energy utilities contain earnings-sharing incentives and other constructive provisions that address various utility costs and investments in a timely manner, including new generation capacity. The plans have generally incorporated benchmark equity returns that were in line with or above prevailing industry averages at the time they were established.

Fuel, purchased power and gas commodity mechanisms are in place for the state's energy utilities.

Regarding storm costs, the state's electric utilities have been permitted to securitize service restoration costs and replenish their storm reserves through bond issuances since the mid-2000s. The electric utilities are also permitted to seek commission approval to securitize certain other costs, including abandoned plant costs.

Mississippi PSC*Mississippi Gas division*

CER's Mississippi Gas division operating in the state is subject to oversight by the commission. The division serves nearly 133,000 customers, according to filings the utility submitted in May 2023.

Alternative regulation information

The utility operates under an alternative regulation paradigm known as the rate regulation adjustment that has been in place for many years. Under the current version of the adjustment, the utility's allowed ROE is calculated annually based on a discounted cash flow approach and a regression analysis plus a 12.5-basis-point flotation

cost adjustment. If the utility's earned equity return falls more than 100 basis points below the allowed ROE, rates are adjusted by the amount necessary to achieve the allowed ROE. If the earned equity return exceeds the allowed return by more than 100 basis points, the portion of overearnings that exceed the allowed return by 50 basis points are to be allocated to ratepayers and shareholders in a 3-to-1 ratio. Notably, provisions of the rate regulation adjustment allow the company to implement interim rates while the PSC review of an adjustment proceeding is pending, subject to a cap based on 2% of the utility's test-year adjusted operating revenue.

Under the most recent rate regulation adjustment ruling, the commission authorized CER's Mississippi Gas division to implement a \$6.9 million rate increase (based on a test year ended Dec. 31, 2022). The Oct. 3, 2023, decision followed a settlement reached by the utility and the [Mississippi Public Utilities Staff](#). The adopted settlement specified a rate base of \$265.5 million.

CER is expected to file its 2023 rate regulation adjustment in May 2024.

Commission M&A review criteria and information

Any sale, lease, assignment, transfer or disposal of any portion of a certificate of public convenience and necessity (CPCN) or of any "substantial part" of public utility property is subject to PSC oversight and approval. PSC rules state that commission approval is necessary for "all direct or indirect transfers of utility property or [CPCNs], including but not limited to, transfers of [a] controlling interest in the corporate stock of an existing certificated utility to any person, firm, partnership or other corporation."

State law requires that in its review of a proposed transaction involving the rate-based facilities of a public utility, the PSC "shall include, as a prerequisite to its finding that the transaction is consistent with the public interest, a finding that, upon the consummation of the transaction proposed: (a) (i) the native load customers of the public utility will continue to have a first priority to the use and/or benefit of such facilities, or (ii) any loss of such first priority by native load customers to the use and/or benefit of such facilities is not contrary to the public interest; and, (b) any native load customers served by any transmission facilities shall be served on the same basis as before the transaction."

There is no statutory time frame under which the commission is required to render a decision regarding a proposed merger transaction.

In 2013, the commission [rejected a proposed transaction](#) through which [ITC Holdings Corp.](#) would have acquired the transmission assets of [Entergy Mississippi LLC](#). In its decision, the commission ruled that "customers would not be served on an equivalent basis as before the transaction because approval would unbundle retail transmission service and upend the ... regulatory regime centered on commission regulation of [Entergy Mississippi] as a vertically integrated monopoly, while raising rates and permanently ceding effective state authority to the federal government." In light of the PSC's ruling, the parties formally canceled the transaction later that year.

RRA's view of Miss. regulatory environment for energy utilities

RRA views the state's regulatory climate for energy utilities as more constructive than average and accords [Mississippi](#) an Above Average/3 rating.

The commissioners are elected from three judicial districts. The state's energy utilities have operated under formula-based alternative regulation plans (ARPs) for many years. In practice, this has somewhat limited the commission's ability to politicize regulatory matters. The ARPs provide for annual rate adjustments and generally reflect timely recognition of new investment and fluctuations in operating costs. When specified, authorized returns calculated under the plans, which include incentive provisions, have tended to exceed prevailing industry averages.

In a pending proceeding of note, Rankin County has appealed to the state Supreme Court certain aspects of a July 2022 decision pertaining to Entergy Mississippi's ARP.

In briefs filed with the court in August 2023 and January 2024, Rankin County asserts, among other things, that the commission erroneously adopted a rate adjustment that was "not reasonably supported by the record" and was unsupported by the provisions and parameters of the ARP. The plaintiff also contends that the commission abused its authority and violated due process rights by sealing certain records in the proceeding, stating that the public record has been "handicapped by a process where the [PSC] has abandoned any suggestion that it seeks to enforce the public access laws." The court's review of the appeal is ongoing.

Aside from this legal matter, the state's electric utilities have riders in place pertaining to fuel and purchased power expenses, as well as other items such as environmental compliance, transmission and energy efficiency costs. The electric utilities have also been permitted to utilize securitization bonds to recover storm costs.

For additional information concerning RRA's regulatory rankings, refer to the latest "[State Regulatory Evaluations Quarterly Report](#)."

Regulatory Research Associates is a group within S&P Global Commodity Insights.

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For a complete, searchable listing of RRA's in-depth research and analysis, please go to the S&P Capital IQ Pro [Energy Research Library](#).

For a full listing of [past and pending rate cases](#), [rate case statistics](#) and [upcoming events](#), visit the S&P Capital IQ Pro [Energy Research Home Page](#).

This article was published by S&P Global Market Intelligence and not by S&P Global Ratings, which is a separately managed division of S&P Global.

Avangrid Announces Receipt of “Take Private” Proposal From Iberdrola, S.A.

Business Wire

Thursday, March 7, 2024, 6:36:00 AM EST

ORANGE, Conn.--(BUSINESS WIRE)-- Today Avangrid, Inc. (NYSE: AGR), a leading sustainable energy company, and a member of the group of companies controlled by Iberdrola, S.A., announced that **the Unaffiliated Committee of its Board of Directors received a non-binding proposal from Iberdrola, S.A. on March 6, 2024 to acquire all of the issued and outstanding shares of common stock of Avangrid not owned by Iberdrola, S.A. or its affiliates for \$34.25 in cash per share. Iberdrola, S.A. owns approximately 81.6% of Avangrid’s issued and outstanding shares of common stock.**

On March 6, 2024, the Avangrid Board met and determined that the Unaffiliated Committee will review, evaluate, negotiate, and approve or disapprove the proposal, advised by independent legal and financial advisers, as well as any other alternative proposals or other strategic alternatives that may be available to Avangrid. The consummation of the proposed transaction is conditioned upon the approval of the proposed transaction by the Unaffiliated Committee and by the Avangrid shareholders that hold in the aggregate a majority of the outstanding shares of common stock that are not held by Iberdrola, S.A. and its affiliates.

No decision has yet been made with respect to Avangrid’s response to the proposal or any alternatives thereto. Avangrid’s Board cautions that it has only received a proposal, which does not constitute an offer or proposal capable of acceptance and may be withdrawn at any time and in any manner. There can be no assurance that any definitive offer will be made, that any agreement will be executed or that the transaction proposed in the proposal or any other transaction will be approved or completed.

About Avangrid:Avangrid, Inc. (NYSE: AGR) aspires to be the leading sustainable energy company in the United States. Headquartered in Orange, CT with approximately \$44 billion in assets and operations in 24 U.S. states, Avangrid has two primary lines of business: networks and renewables. Through its networks business, Avangrid owns and operates eight electric and natural gas utilities, serving more than 3.3 million customers in New York and New England. Through its renewables business, Avangrid owns and operates a portfolio of renewable energy generation facilities across the United States. Avangrid employs more than 7,500 people and was recognized by JUST Capital as one of the JUST 100 companies – a ranking of America’s best corporate citizens - in 2024 for the fourth consecutive year. In 2024, Avangrid ranked first within the utility sector for its commitment to the environment. The company supports the U.N.’s Sustainable Development Goals and was named among the World’s Most Ethical Companies in 2024 for the sixth consecutive year by the Ethisphere Institute. Avangrid is a member of the group of companies controlled by Iberdrola, S.A. For more information, visit <https://www.avangrid.com>.

Forward Looking Statements

Certain statements in this release may relate to our future business and financial performance and future events or developments involving us and our subsidiaries that are not purely historical and may constitute “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements may be identified by the use of forward-looking terms such as “may,” “will,” “should,” “would,” “could,” “can,” “expect(s),” “believe(s),” “anticipate(s),” “intend(s),” “plan(s),” “estimate(s),” “project(s),” “assume(s),” “guide(s),” “target(s),” “forecast(s),” “are (is) confident that” and “seek(s)” or the negative of such terms or other variations on such terms or comparable terminology. These forward-looking statements generally include statements regarding the potential transaction between Avangrid and Iberdrola, including any statements regarding the expected timetable for completing the potential transaction, the ability to complete the potential

transaction, the expected benefits of the potential transaction, projected financial information, future opportunities, and any other statements regarding the Corporation's future expectations, beliefs, plans, objectives, results of operations, financial condition and cash flows, or future events or performance. Readers are cautioned that all forward-looking statements are based upon current reasonable beliefs, expectations and assumptions. The Corporation's business, financial condition, cash flow, and operating results are influenced by many factors, which are often beyond its control, that can cause actual results to differ from those expressed or implied by the forward-looking statements. For a discussion of risk factors and other important factors affecting forward-looking statements, please see the Corporation's Annual Reports on Form 10-K and Quarterly Reports on Form 10-Q filings and the information filed on the Corporation's Forms 8-K with the Securities and Exchange Commission (the "SEC") as well as its subsequent SEC filings, and the risks and uncertainties related to the proposed transaction with Iberdrola, including, but not limited to: the expected timing and likelihood of completion of the proposed transaction, including the timing, receipt and terms and conditions of any required shareholder, governmental and regulatory approvals of the proposed transaction that could reduce anticipated benefits or cause the parties to abandon the transaction, risks related to disruption of management time from ongoing business operations due to the proposed transaction, the risk that the proposed transaction and its announcement could have an adverse effect on the ability of the Corporation to retain and hire key personnel and maintain relationships with its customers and suppliers, and on its operating results and businesses generally, and litigation or administrative proceedings that may arise in connection with the proposed transaction. Other unpredictable or unknown factors not discussed in this communication could also have material adverse effects on forward-looking statements. Should one or more of these risks or uncertainties materialize, or should any of the underlying assumptions prove incorrect, actual results may vary in material respects from those expressed or implied by these forward-looking statements. You should not place undue reliance on these forward-looking statements. The Corporation does not undertake any obligation to update or revise any forward-looking statements to reflect events or circumstances after the date of this release, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws. Other risk factors are detailed from time to time in the Corporation's reports filed with the SEC and we encourage you to consult such disclosures.

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Allete exploring sale of company – Reuters**Tuesday, December 5, 2023 3:43 PM CT**By Stephen Cedric Jumchai
Platts

Duluth, Minn.-headquartered Allete Inc. is exploring a sale of the company, Reuters reported Dec. 5, citing "people familiar with the matter."

Shares of Allete popped 8.02% in more than six times normal trading volume to close at \$60.76 following publication of the report.

Allete is working with JPMorgan Chase & Co. on a sale process that has attracted potential buyers including infrastructure funds and buyout firms, Reuters reported, however, the sources cautioned that no deal is certain yet.

Through regulated subsidiaries Minnesota Power Inc. and Superior Water Light and Power Co., Allete serves 150,000 retail customers in Minnesota as well as 15,000 electric customers, 13,000 natural gas customers and 10,000 water customers in northwestern Wisconsin. The company also owns and operates roughly 1,300 MW of wind capacity through its ALLETE Clean Energy Inc. business, among other assets. Allete is one of several Upper Midwest utilities pursuing an expansion of regional transmission projects. Its market capitalization is about \$3.5 billion.

For the third quarter, Allete reported net income of \$85.9 million, or \$1.49 per share, compared with \$33.7 million, or 59 cents per share in the prior-year period. The S&P Capital IQ consensus GAAP estimate for Allete in the third quarter of 2023 was 64 cents per share.

A spokesperson for Allete declined to comment.

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This article was amended Dec. 5, 2023, at 5:15 p.m. ET to update that an Allete spokesperson declined a request to comment.

This article was published by S&P Global Market Intelligence and not by S&P Global Ratings, which is a separately managed division of S&P Global.

**ROE and ROR Analysis for Otter Tail Power
FirstEnergy Bribery Effects**

**Docket No. PU-23-342
Exhibit MFG-9**

FirstEnergy Dockets in Other Jurisdictions Affected by Its 2020 Bribery Behavior

BPU Docket. No EF02030185 JCP&L for Authorization Pursuant to N.J.S.A. 48:3-7.2 for Approval to Participate in the FirstEnergy Corp. Intra System Money Pool.

Pennsylvania Public Utility Commission et al. v. FirstEnergy Pennsylvania Electric Company
Docket Nos. R-2024-3047068.

S&P Global Ratings

(/en_US/web/guest/home) General Criteria: Understanding S&P Global Ratings' Rating Definitions

03-Jun-2009 14:39 EDT

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(Editor's Note: We're republishing this article following our periodic review completed on Feb. 23, 2018. See the "Revisions And Updates" section for details.)

Executive Summary

S&P Global Ratings' credit ratings are designed primarily to provide relative rankings among issuers and obligations of overall creditworthiness; the ratings are not measures of absolute default probability. Creditworthiness encompasses likelihood of default, and also includes (i) payment priority, (ii) recovery, and (iii) credit stability.

In addition, our rating symbols are intended to connote the same general level of creditworthiness for issuers and bonds in different sectors and at different times. In order to promote the comparability of ratings across sectors, geographies, and over time, we are introducing stress scenarios associated with each rating category. These stress scenarios will be an important tool for calibrating our criteria to help maintain comparability. The scenarios will not become part of the rating definitions. Nor will they be the sole or primary drivers of our criteria.

S&P Global Ratings is committed to taking action to help restore confidence in ratings. As one example, over the past year, we have launched a number of initiatives designed to foster greater transparency in our analytics and processes. These initiatives have included publishing "what-if" scenario analyses discussing factors that could cause ratings to change, more

explicit discussions of the assumptions we used in forming our opinions, and changes we have made to our rating criteria for several asset classes resulting from macroeconomic developments and ongoing performance data.

By providing more information and data about ratings, we can help market participants better understand how we develop our ratings and -- whether they agree or disagree with our assessment -- act accordingly.

This article is designed to help market participants better understand what our credit ratings mean. Although the official definitions appear outwardly to be very simple, they embody multiple factors that compose the overall assessment of creditworthiness.

S&P Global Ratings has striven to maintain comparability of ratings across sectors. This has been done by relating all ratings to common default behavior and measurement and by common approaches to risk analysis. In the spirit of promoting greater transparency, S&P Global Ratings is now articulating a set of economic stress scenarios enumerated in Appendix IV, which we intend to use as benchmarks for enhancing the consistency and comparability of ratings across sectors and over time. Each scenario describes particular conditions of economic stress, which we associate with a particular rating level, as described in the appendix. Credits rated in each category are intended to be able to withstand particular conditions of economic stress without defaulting (though they might be downgraded significantly as economic stresses increase).

This publication intends to promote greater understanding of ratings and help investors attribute clearer meanings to different rating categories.

Key Attributes Of S&P Global Ratings' Credit Ratings

Rank ordering of creditworthiness

Our credit ratings express forward-looking opinions about the creditworthiness of issuers and obligations (see Appendix I for a description of "issuer" and "issue" ratings). More specifically, our credit ratings express a relative ranking of creditworthiness. Issuers and obligations with higher ratings are judged by us to be more creditworthy than issuers and obligations with lower credit ratings. (See Appendix III for a relevant excerpt from the rating definitions.)

Creditworthiness is a multi-faceted phenomenon. Although there is no "formula" for combining the various facets, our credit ratings attempt to condense their combined effects into rating symbols along a simple, one-dimensional scale. Indeed, as discussed below, the relative importance of the various factors may change in different situations.

The term creditworthiness refers to the question of whether a bond or other financial instrument will be paid according to its contractual terms. At first blush, the idea of creditworthiness seems entirely straightforward. However, delving beneath the outward simplicity reveals the true multi-dimensional nature.

Primary factor -- likelihood of default

In our view, likelihood of default is the centerpiece of creditworthiness. That means likelihood of default--encompassing both capacity and willingness to pay--is the single most important factor in our assessment of the creditworthiness of an issuer or an obligation. Therefore, consistent with our goal of achieving a rank ordering of creditworthiness, higher ratings on issuers and obligations reflect our expectation that the rated issuer or obligation should default less frequently than issuers and obligations with lower ratings, all other things being equal.

Although we emphasize the rank ordering of default likelihood, we do not view the rating categories solely in relative terms. We associate each successively higher rating category with the ability to withstand successively more stressful economic environments, which we view as less likely to occur. We associate issuers and obligations rated in the highest categories with the ability to withstand extreme or severe stress in absolute terms without defaulting. Conversely, we associate issuers and obligations rated in lower categories with vulnerability to mild or modest stress. (See Appendix IV for stress scenarios by rating level that we intend to use in promoting ratings comparability. Appendix V contains a listing of historical examples of stress conditions, including the magnitude of stress that we associate with each.)

Looking to absolute stress levels is part of how we try to achieve comparability of ratings across different types of securities, different times, different currencies, and different regions. That is, we strive to make our rating symbols correspond to the same approximate level of creditworthiness wherever they appear. Thus, when we use a given rating

**ROE and ROR Analysis for Otter Tail Power
Comparison Group Screening
S&P Credit Ratings
S&P Capital IQ Pro, April 1, 2023**

**Docket No. PU-23-342
Exhibit MFG-11**

Company	S&P Credit Rating BBB to A-
Alliant Energy Corporation	A-
Consolidated Edison, Inc.	A-
Eversource Energy	A-
Fortis Inc.	A-
NextEra Energy, Inc.	A-
PPL Corporation	A-
WEC Energy Group, Inc.	A-
Ameren Corporation	BBB+
American Electric Power Co.	BBB+
Black Hills Corporation	BBB+
CMS Energy Corporation	BBB+
Dominion Energy, Inc.	BBB+
DTE Energy Company	BBB+
Duke Energy Corporation	BBB+
Entergy Corporation	BBB+
Evergy, Inc.	BBB+
Exelon Corporation	BBB+
OGE Energy Corp.	BBB+
Pinnacle West Capital Corporation	BBB+
Portland General Electric Company	BBB+
Public Service Enterprise Group Inc.	BBB+
Sempra Energy	BBB+
Southern Company	BBB+
Unitil Corporation	BBB+
Xcel Energy Inc.	BBB+
Avista Corporation	BBB
Edison International	BBB
Emera Incorporated	BBB
IDACORP, Inc.	BBB
NorthWestern Corporation	BBB

Otter Tail Corporation
Otter Tail Power

BBB
BBB+

RECENT PRICE	35.29	P/E RATIO	14.0 (Trailing: 16.0 Median: 14.0)	RELATIVE P/E RATIO	0.82	DIV'D YLD	4.3%	VALUE LINE
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TIMELINESS	— Suspended 2/4/22	High:	37.8	38.9	38.3	37.7	42.7	47.4	51.2	50.5	58.0	58.2	44.4	36.8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														</
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2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
28.65	26.25	28.17	28.53	27.48	29.03	31.90	32.01	33.94	34.81	37.17	35.39	33.85	37.13	19.19	20.50	20.70	21.50	Revenues per sh	23.30
7.64	8.25	8.32	7.23	6.61	6.72	6.61	6.80	7.88	8.37	9.29	9.17	9.65	10.56	6.07	6.15	6.25	6.55	"Cash Flow" per sh	7.50
4.10	4.29	3.87	3.75	1.92	2.31	2.10	2.54	2.68	2.78	3.12	3.22	3.22	2.82	2.26	2.35	2.45	2.60	Earnings per sh ^A	3.15
2.05	2.10	2.10	2.10	2.10	1.46	1.24	1.24	1.26	1.31	1.38	1.45	1.53	1.53	1.35	1.44	1.53	1.62	Div'd Decl'd per sh ^B	1.89
4.74	4.96	5.03	6.09	6.77	6.29	7.07	8.29	9.26	7.87	7.84	7.45	8.25	8.15	7.19	6.80	6.80	6.80	Cap'l Spending per sh	7.00
16.78	19.16	20.49	21.68	25.07	26.52	26.29	28.04	27.96	30.99	31.77	33.12	33.39	35.13	24.89	25.50	26.35	27.25	Book Value per sh ^C	29.75
658.15	659.76	661.85	663.37	854.78	857.29	859.83	919.92	924.04	963.34	988.19	973.00	976.00	979.00	994.00	995.00	1000.0	1000.0	Common Shs Outst'g ^D	1000.0
18.0	11.5	11.0	11.3	19.1	13.4	16.0	12.6	12.5	13.4	13.3	14.7	12.4	16.6	19.9	17.3	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	17.5
1.08	.77	.70	.71	1.22	.75	.84	.63	.66	.67	.72	.78	.64	.90	1.15	1.01			Relative P/E Ratio	.95
2.8%	4.3%	4.9%	5.0%	5.7%	4.7%	3.7%	3.9%	3.7%	3.5%	3.3%	3.1%	3.8%	3.3%	3.2%	4.3%			Avg Ann'l Div'd Yield	3.5%
CAPITAL STRUCTURE as of 9/30/23 Total Debt \$42172 mill. Due in 5 Yrs \$12334 mill. LT Debt \$39431 mill. LT interest \$1450 mill. Includes \$390 mill. nonrecourse transition bonds. (Interest coverage: 2.7x) Leases, Uncapitalized Annual rentals \$156 mill.						27429	29447	31360	33531	35985	34438	33039	36347	19078	20404	20700	21500	Revenues (\$mill)	23300
						1826.0	2282.0	2488.0	2636.0	3026.0	3139.0	3149.0	2764.0	2246.4	2340	2450	2600	Net Profit (\$mill)	3000
						27.2%	32.2%	38.5%	34.2%	11.1%	19.4%	17.4%	16.1%	14.5%	15.0%	15.0%	15.0%	Income Tax Rate	15.0%
						5.5%	5.4%	8.3%	6.5%	4.6%	5.0%	5.5%	7.4%	7.0%	6.0%	5.0%	5.0%	AFUDC % to Net Profit	5.0%
						46.7%	48.3%	55.5%	52.2%	52.8%	49.6%	52.1%	50.9%	59.9%	61.0%	61.0%	61.0%	Long-Term Debt Ratio	64.5%
Pension Assets-12/22 \$20827 mill. Oblig \$23846 mill.						52.8%	51.3%	44.5%	47.8%	47.2%	50.4%	47.9%	49.1%	40.2%	39.0%	39.0%	39.0%	Common Equity Ratio	35.5%
						42811	50272	58053	62422	65229	63943	68068	70107	58836	64125	65250	70300	Total Capital (\$mill)	81000
Pfd Stock None						52087	57439	71555	74202	76707	80233	82584	84219	69076	69175	69750	70100	Net Plant (\$mill)	77600
						5.0%	5.5%	5.5%	5.3%	5.7%	6.0%	5.7%	5.0%	5.0%	5.0%	5.0%	5.0%	Return on Total Cap'l	5.0%
Common Stock 995,437,416 shs. as of 9/30/23						8.0%	8.8%	9.6%	8.8%	9.8%	9.7%	9.7%	8.0%	9.5%	9.5%	10.0%	10.0%	Return on Shr. Equity	10.0%
						8.0%	8.8%	9.6%	8.8%	9.8%	9.7%	9.7%	8.0%	9.5%	9.5%	10.0%	10.0%	Return on Com Equity ^E	10.0%
						3.3%	4.5%	5.1%	4.7%	5.5%	5.4%	5.1%	3.7%	4.0%	4.0%	4.0%	4.0%	Retained to Com Eq	4.0%
MARKET CAP: \$35.1 billion (Large Cap)						59%	49%	47%	47%	44%	45%	47%	54%	60%	60%	60%	60%	All Div'ds to Net Prof	60%
						ELECTRIC OPERATING STATISTICS													
2020 2021 2022																			
% Change Retail Sales (KWH)						BUSINESS: Exelon Corporation is a holding company for Commonwealth Edison (ComEd), PECO Energy, Baltimore Gas and Electric (BGE), Pepco, Delmarva Power (DPL), & Atlantic City Electric (ACE). Has 9.1 mill. elec., 1.3 mill. gas customers. Spun off Constellation Energy (nonregulated generating & energy-marketing ops.) 2/22. Acq'd Constellation Energy 3/12; Pepco Holdings 3/16.													
Avg. Indust. Use (MWH)						Elec. rev. breakdown: residntl., 54%; small commercl. & industrl., 16%; large commercl. & industrl., 17%; other, 13%. Fuel costs: 48% of revs. '22 deprec. rates: 2.8%-8.7% elec., 2.1% gas. Has 18,700 emplos. Chrmn.: John F. Young. CEO: Calvin Butler. Inc.: PA. Address: 10 S.Dearborn St., P.O. Box 805379, Chicago, IL 60680													
Avg. Indust. Revs. per KWH (¢)						5379. Telephone: 312-394-7398. Internet: www.exeloncorp.com.													
Capacity at Peak (Mw)																			
Peak Load (Mw)																			
Load Factor (%)																			
% Change Customers (yr-end)																			

Fixed Charge Cov. (%)	211	237	325
ANNUAL RATES	Past	Past	Est'd '22-'24
of change (per sh)	10 Yrs.	5 Yrs.	to '27-'29
Revenues	2.5%	1.0%	NMF
"Cash Flow"	3.0%	5.5%	NMF
Earnings	-5%	2.5%	NMF
Dividends	-3.0%	4.0%	NMF
Book Value	4.5%	3.5%	NMF

Calendar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2021	9890	7915	8910	9632	36347
2022	5327	4239	4845	4687	19078
2023	5563	4818	5980	4039	20400
2024	5600	4850	6000	4250	20700
2025	5750	5000	6250	4500	21500

Calendar	EARNINGS PER SHARE ^A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2021	d.06	.89	1.09	.90	2.82
2022	.64	.44	.75	.43	2.26
2023	.70	.41	.67	.57	2.35
2024	.70	.45	.80	.50	2.45
2025	.75	.45	.85	.55	2.60

Calendar	QUARTERLY DIVIDENDS PAID ^B				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2020	.3825	.3825	.3825	.3825	1.53
2021	.3825	.3825	.3825	.3825	1.53
2022	.3375	.3375	.3375	.3375	1.35
2023	.360	.360	.360	.360	1.44
2024					

Exelon's Commonwealth Edison (ComEd) unit had its \$1.5 billion integrated grid plans rejected by the Illinois Commerce Commission. The utility failed to meet the requirements of the Climate and Equitable Jobs Act (CEJA), and will resubmit its updated plans to the commission in March. Meanwhile, Exelon's utilities have continued to make progress in a number of other pending rate cases. In New Jersey, Atlantic City Electric awaits a final approval of its settlement, which is expected early this year. In Maryland, Pepco filed its second multi-year plan, and a final order is expected from the Maryland Public Service Commission by mid-2024.

We estimate just a slight profit increase this year. As always for utilities, timely rate relief from regulators, relative to capital deployed for grid enhancements, is the primary driver of year to year performance. And, there might well be some delays in receiving rate relief in 2024. On the other hand, earnings should be much less volatile from year-to-year as Exelon is now an entirely regulated utility. The company will also likely take advantage of ad-

ditional revenues from regulatory mechanisms, and higher distribution rates as a regulated utility. As a result, this year, share earnings might grow 4%, to \$2.45 per share.

The company is well-positioned for the long term. Higher distribution rates and rate relief should continue to drive earnings growth in the next few years. And, the utility will likely be able to benefit from a full year of relief in several of its current open cases over that interim. Too, Exelon expects its utility operations to produce annual earnings growth of 6%-8% through 2026. We look for 2025 earnings of \$2.60 a share, in line with management's EPS growth target. We also think Exelon will trade around \$40-\$60 and earn about \$3.15 a share by 2027-2029.

This issue is best suited for conservative, income-oriented accounts. The stock holds a consistently above-average dividend yield, and is generally considered to be a solid addition to a well-rounded portfolio. Too, total return potential for the 18-month and 3- to 5-year time frames are solid compared to those of peers.

Zachary J. Hodgkinson February 9, 2024

<p>(A) Dil. egs. Excl. nonrec. gain (loss): '09, (206); '12, (506); '13, (316); '14, (226); '16, (1,46); '17, '19, '18, (1,05); '19, (21); '20, (1,21); '21, (\$1,08); disc. ops. gain (loss): '07,</p>	<p>26; '08, 36. Next egs. report: May. (B) Div'd paid in early Mar. June, Sept., & Dec. ■ Div'd reinvest. plan avail. (C) Incl. deferred charges. In '22: \$15.20/36. (D) In mill. (E) Rate allowed</p>	<p>on common equity in IL in '15: 9.25%; in MD in '16: 9.75% elec., 9.65% gas; Regulatory Climate: PA, NJ: Average; IL, MD: Below Avg.</p>
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Company's Financial Strength	B++
Stock's Price Stability	NMF
Price Growth Persistence	NMF
Earnings Predictability	NMF

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**ROE and ROR Analysis for Otter Tail Power
Comparison Group**
From Company 2021 10Ks, amounts in thousands of dollars (000)

**Docket No. PU-23-342
Exhibit MFG-13**

Name	Regulated Electricity Income*,**			Company Income*,**			Electricity as % of Company*,**			Average % Electricity	Source: 2021 10K Pages except where indicated
	2020	2019	2018	2020	2019	2018	2020	2019	2018		
Unitil Corporation***	12,900	11,500	11,400	32,200	44,200	33,000	40.1%	26.0%	34.5%	33.5%	P. 58
Black Hills Energy	156,055	160,297	155,869	428,303	406,042	397,037	36.4%	39.5%	39.3%	38.4%	P. 122-124
Sempra Energy*	4,614,000	4,263,000	3,999,000	11,370,000	10,829,000	10,102,000	40.6%	39.4%	39.6%	39.8%	P. 66
PPL Corporation ^F	1,731,000	1,586,000	1,515,000	2,803,000	2,840,000	2,852,000	61.8%	55.8%	53.1%	56.9%	P. 96, 103, 108
DTE Energy Company**	777,000	714,000	664,000	1,368,000	1,169,000	1,120,000	56.8%	61.1%	59.3%	59.1%	P. 152-153
Emera Incorporated*	536,000	464,000	466,000	938,000	663,000	710,000	57.1%	70.0%	65.6%	64.3%	Financial Statement: P. 30, 31; 2019, P. 29
Dominion Energy** ^B	2,310,000	2,143,044	1,596,000	1,358,000	1,358,000	2,447,000	170.1%	157.8%	65.2%	65.2%	P. 217
Consolidated Edison, Inc.	1,830,000	1,856,000	1,892,000	2,654,000	2,676,000	2,664,000	69.0%	69.4%	71.0%	69.8%	P. 174-175
NextEra Energy	3,800,000	3,302,000	3,154,000	5,116,000	5,353,000	4,280,000	74.3%	61.7%	73.7%	69.9%	P. 60, 65
Avista, Inc.*	943,963	976,713	988,486	1,321,891	1,345,622	1,396,893	71.4%	72.6%	70.8%	71.6%	P. 19, 23, 83
PSEG ^G	1,639,000	1,469,000	1,606,000	2,270,000	1,943,000	2,298,000	72.2%	75.6%	69.9%	72.6%	P. 178-179
Southern Co.	4,217,000	4,674,000	3,201,000	4,885,000	7,736,000	4,191,000	86.3%	60.4%	76.4%	73.4%	P. II-81, II-89, II-98, II-106, II-114, II-125, II-271
CMS Energy Corporation**	554,000	509,000	535,000	755,000	680,000	657,000	67.4%	78.7%	81.4%	75.8%	P. 62, 112
WEC Energy Group, Inc. ** ^H	934,100	864,600	809,400	1,201,400	1,134,700	1,060,500	77.8%	76.2%	76.3%	76.8%	P. 134-135
Fortis Inc. ^E	2,178,000	2,171,000	1,950,000	2,508,000	3,038,000	2,365,000	86.8%	71.5%	82.5%	80.3%	Annual Reports: 2020, P. 79; 2019, P. 81
Eversource Energy	1,621,000	1,285,000	1,415,800	1,988,700	1,590,500	1,699,900	81.5%	80.8%	83.3%	81.9%	P. 135
NorthWestern Corporation	196,823	231,217	223,570	236,204	276,850	266,272	83.3%	83.5%	84.0%	83.6%	P. F-46
Alliant Energy Corporation	678,900	610,200	601,700	777,700	694,400	671,200	87.3%	87.9%	89.6%	88.3%	P. 92,93
Evergy, Inc.	1,101,600	1,023,000	960,300	1,143,900	1,185,800	933,600	96.3%	86.3%	102.9%	91.3%	P. 71, 76, 81
Ameren Corporation*	795,000	757,000	778,000	871,000	828,000	815,000	91.3%	91.4%	95.5%	92.7%	P. 144
American Electric Power Co.	2,690,000	2,523,000	2,612,200	2,987,700	2,592,300	2,682,700	90.0%	97.3%	97.4%	93.7%	P. 81, 87, 93, 125
Duke Energy	3,985,000	5,313,000	4,767,000	4,553,000	5,709,000	4,685,000	87.5%	93.1%	101.8%	94.1%	P. 47, 79; 2019, P. 44
Xcel Energy Inc.**	1,407,000	1,288,000	1,177,000	1,473,000	1,372,000	1,261,000	95.5%	93.9%	93.3%	94.2%	P. 79
IDACORP, Inc., Utility Ops	308,780	297,652	295,256	309,521	298,326	296,922	99.8%	99.8%	99.4%	99.7%	P. 128-129
Portland General Electric Co.*	269,000	353,000	346,000	269,000	353,000	346,000	100.0%	100.0%	100.0%	100.0%	P. 66
Edison International ^C	1,178,000	1,845,000	(406,000)	1,217,000	1,775,000	(552,000)	96.8%	103.9%	73.6%	100.4%	P. 56, 63
OGE Energy Corp.	524,800	507,700	494,200	522,200	504,300	489,600	100.5%	100.7%	100.9%	100.7%	P. 128-129
Pinnacle West Capital Corp.*	802,011	686,984	829,768	788,152	671,960	773,687	101.8%	102.2%	107.2%	103.7%	P. 89, 100
Entergy Corporation ^D	1,914,345	1,735,372	1,219,641	1,769,195	1,390,497	469,365	108.2%	124.8%	259.8%	116.5%	P. 43, 332, 357, 379, 402, 423, 447
Otter Tail Corp.	107,083	98,417	88,031	147,886	134,880	129,389	72.4%	73.0%	68.0%	71.1%	P. 48

Notes

The dollar amounts are operating income unless indicated otherwise

*-Indicates percentage of Operating Revenues

**Indicates percentage of Net Income

***Indicates percentage of Segment Profit

A-Reflects adjustment for gas and water customers, 12.6% of total customers

B-Dominion's 2020 and 2019 results are affected by extraordinary events including cancellation of the Atlantic Coast Pipeline

C-Edison International 2018 results reflect wildfire losses; average is 2020, 2019

D-Entergy had one-time expenses in 2018; average is 2020, 2019.

E-Includes small regulated UNS Energy Gas Operations.

F-Overstated, Kentucky Regulated includes LGE&E gas income.

G-Overstated, Includes Gas Operations of PSE&G.

H-Overstated, includes Gas Operations in Wisconsin.

Customers Percentage Total Electric

ALLETE, Inc.**, ####	MP	Electric	145,000	79.2%				2020	2019	2018
	SWL&P	Electric	15,000	8.2%	87.4%	Fortis	ITC	1,011,000	1,002,000	822,000
		Gas	13,000	7.1%			UNS Energy	451,000	451,000	453,000
		Water	10,000	5.5%			Central Hudson	138,000	133,000	128,000
		Total	183,000	100.0%			FortisBC Energy (Gas)			
			1,205,491	1,208,992	1,127,992		Fortis Alberta	236,000	239,000	220,000
Ameren			2020	2019	2018		FortisBC Electric	127,000	128,000	107,000
	Ameren Missouri		436,000	426,000	478,000		Other Electric	215,000	218,000	217,000
	Ameren Illinois Electric Distri		143,000	146,000	136,000		U.S. Reg Operations	1,600,000	1,586,000	1,403,000
	Ameren Transmission		216,000	185,000	164,000		Total	2,178,000	2,171,000	1,947,000
	Total		795,000	757,000	778,000		U.S. Percent Reg Ops	73.46%	73.05%	72.06%
			2020	2019	2018			2020	2019	2018
American Electric Power	Vertically Integrated		1,328,800	1,328,800	1,444,000	MGE Energy	Electric	64,294	68,656	68,147
	Transmission and Distribution		750,000	597,800	749,800		Transmission			
	AEP Transmission Holdco		611,200	596,400	418,400		Total	64,294	68,656	68,147
	Total		2,690,000	2,523,000	2,612,200			2020	2019	2018
Avista (Operating revenues)			2020	2019	2018	NextEra	Florida Power & Light	3,302,000	3,154,000	3,390,000
	Avista Utilities Electric		927,540	962,048	970,539		Transmission			
	AEL&P		16,423	14,665	17,947		Total	3,302,000	3,154,000	3,390,000
	Total		943,963	976,713	988,486		Gulf Power	271,000	1,368,000	868,000
CenterPoint			2020	2019	2018		Total with Gulf Power	3,573,000	4,522,000	4,258,000
	Houston Electric		503,000	624,000	623,000					
	Indiana Electric Integrated			90,000	0			2020	2019	2018
	Total		503,000	714,000	623,000	PNM Resources	PNM	214,897	61,068	145,033
		1,226,000	831,000	1,136,000	TNMP		88,453	85,814	96,497	
		2020	2019	2018	Total		303,350	146,882	236,047	
Consolidated Edison	CECONY		1,731,000	1,758,000	1,799,000	PPL Corp.		2020	2019	2018
	Orange & Rockland		99,000	98,000	93,000		Kentucky Regulated	436,000	411,000	NA
	Total Electric Reg		1,830,000	1,856,000	1,892,000		Pennsylvania Regulated	458,000	431,000	NA
	Total Con Edison		2,654,000	2,676,000	2,664,000		Total Net Income	894,000	842,000	-
Dominion (Net income)			2020	2019	2018					
	Dominion Energy Virginia		1,891,000	1,786,000	1,596,000		PPL Electric	917,000	745,000	694,000
	Estimate using SCANA 2016, last year	Dominion Energy S.C.		419,000	430,000	-	LKE (LG&E and KU Energy)	814,000	841,000	821,000
	SCANA had positive operating income	Total Electric Reg		2,310,000	2,216,000	1,596,000	Total US Reg Operating Income	1,731,000	1,586,000	1,515,000
SCANA, now Dominion Energy S.C.	Total Dominion		(401,000)	1,358,000	2,447,000		PPL Corp. Operating Income	2,840,000	2,852,000	2,901,000
			2,016	Percentage			Louisville Gas and Electric	393,000	385,000	425,000
	Operating Income	Electric Operations		969,000	83.03%		Kentucky Utilities	485,000	468,000	518,000
		Gas Distribution		149,000	12.77%		Total Kentucky Operating Incom	878,000	853,000	943,000
Emera			1,167,000							
			2020	2019	2018					
	Emera Florida		501,000	419,000	381,000					
	Other Electric		35,000	45,000	85,000					
Avangrid	Total Electric Net Income		536,000	464,000	466,000					
	Total Net Income		938,000	663,000	710,000					
			2020	2019	2018					
	Networks			Percent	Percent					
Entergy		Electric Rev	3,642,000	70.2%	3,485,000	67.5%	2018			
		Gas Rev	1,311,000	25.3%	1,479,000	28.6%		Percent		
		Total Oper Rev	5,188,000		5,164,000		3,641,000	68.6%		
		Total		Electric	Total	Electric	1,473,000	27.7%		
		Oper Income	877,000	615,658	890,000	600,629	5,310,000			
			2020	2019	2018		Total	Electric		
	Entergy Arkansas		402,558	Percent	326,997	Percent	968,000	663,745		

	Entergy Louisiana	854,027	864,821	883,638	896,642	2018				
	Electric Rev	4,019,063	98.8%	4,223,027	98.5%	45,229	Percent			
	Gas Rev	50,799	1.2%	62,148	1.5%	813,250		675,771		
	Entergy Mississippi	236,195		203,754		4,232,541		825,505		
	Entergy New Orleans	56,972	64,412	59,496	68,685	63,779		98.5%		
	Electric Rev	560,632	88.4%	594,417	86.6%	46,446		1.5%		
	Gas Rev	73,209	11.6%	91,806	13.4%	64,609		74,192		
	Entergy Texas	247,849		146,502		624,733		87.1%		
	System Energy	116,744		114,985		92,657		12.9%		
	Total Elec Reg Op Income	1,914,345		1,735,372		206,426				
						43,680				
		2020	2019	2018		1,219,641				
Evergy	Evergy Kansas Central	567,300	596,500	550,500						
	Evergy Metro	434,300	426,500	409,800						
	Total Electric Reg Revenue	1,001,600	1,023,000	960,300						
		2020	2019	2018						
Eversource Energy	Electric Distribution	833,000	800,100	736,800						
	Electric Transmission	788,000	484,900	679,000						
	Total	1,621,000	1,285,000	1,415,800						
		2019	2018	2017						
Exelon--Operating Income	Generation	1,323,000	975,000	947,000						
	Com Ed	1,171,000	1,146,000	1,323,000						
	PECO	713,000	587,000	655,000						
	BGE Elec Op Incom	410,618	363,510	482,140						
	Op Income	532,000	474,000	614,000						
	Electric Op Re	2,368,000	2,428,000	2,384,000	Southern Co.		2020	2019	2018	
	Gas Op Rev	700,000	738,000	652,000	Net Income	Alabama Power	II-89	1,150,000	1,070,000	930,000
	PHI Elec Op Incom	696,912	618,703	735,266		Georgia Power	II-98	1,575,000	1,720,000	793,000
	Op Income	722,000	643,000	762,000		Mississippi Power	II-106	152,000	139,000	235,000
	Electric Op Re	4,639,000	4,609,000	4,428,000		Southern Power	II-114	238,000	339,000	187,000
	Gas Op Rev	167,000	181,000	161,000		Total		3,115,000	3,268,000	1,958,000
	PEPCO	361,000	313,000	392,000		Electric Utilities	II-271	3,115,000	3,268,000	2,304,000
	DPL Elec Op Incom	189,337	163,947	200,330		Total Company	II-81, II-271	3,119,000	4,739,000	2,226,000
	Op Income	217,000	190,000	229,000						
	Electric Op Re	1,143,000	1,139,000	1,125,000	Operating Income	Alabama Power	II-89	1,694,000	1,593,000	1,477,000
	Gas Op Rev	167,000	181,000	161,000		Georgia Power	II-98	1,972,000	2,461,000	1,289,000
	ACE	151,000	149,000	157,000		Mississippi Power	II-106	209,000	225,000	193,000
Generation Excluded	Total Electric Op Income	3,692,866	3,341,160	3,944,736		Southern Power	II-114	342,000	395,000	242,000
		2019	2018	2017				4,217,000	4,674,000	3,201,000
Exelon--Operating Revenue	Operating Revenue					Southern Co. Gas	II-125	812,000	770,000	915,000
	Exelon Total	33,039,000	34,438,000	35,978,000		Total Company	II-81	4,885,000	7,736,000	4,191,000
	Regulated Electric	15,207,000	15,197,000	15,353,000						
	Com Ed	5,904,000	5,747,000	5,882,000						
	PECO	2,543,000	2,490,000	2,470,000	WEC		2020	2019--Op Income	2018--Op Income	
	BGE	2,336,000	2,379,000	2,428,000		Wisconsin		691,600	651,100	618,200
	PHI	4,485,000	4,626,000	4,602,000		Illinois		203,500	170,300	147,100
	Eliminations	(61,000)	(45,000)	(29,000)		Other States		39,000	43,200	44,100
		2020	2019	2018		Total		934,100	864,600	809,400
Exelon--Operating Revenue	Income before income taxes				MGE Energy		20,065	21,529	21,349	
	Exelon Total	2,333,000	3,985,000	2,225,000		Electric		19,048	20,516	20,333
	Regulated	1,840,000	2,395,000	2,108,000		Transmission		18,031	19,503	19316
	Com Ed	615,000	851,000	832,000		Total		37,078	40,018	39,649
	PECO	417,000	593,000	466,000						
	BGE	390,000	439,000	387,000						

PHI	418,000	514,000	425,000
Eliminations	-	(2,000)	(2,000)

FirstEnergy	Customers	Percentage	Total Electric
	2020	2019	2018
Regulated Distribution	1,527,000	1,921,000	2,069,000
Regulated Transmission	792,000	751,000	643,000
	2,319,000	2,672,000	2,712,000

ROE and ROR Analysis for Otter Tail Power
Comparison Group Screening
Operating Income Analysis from Exhibit MFG-13

Docket No. PU-23-342
Exhibit MFG-14

Company	S&P Credit Rating	≥ Percent of operating income from regulated electric operations
Alliant Energy Corporation	A-	88.3%
Ameren Corporation	BBB+	92.7%
American Electric Power Co.	BBB+	93.7%
CMS Energy Corporation	BBB+	75.8%
Duke Energy Corporation	BBB+	94.1%
Edison International	BBB	100.4%
Entergy Corporation	BBB+	116.5%
Evergy, Inc.	BBB+	91.3%
Eversource Energy	A-	81.9%
Fortis Inc.	A-	80.3%
IDACORP, Inc.	BBB	99.7%
NorthWestern Corporation	BBB	83.6%
OGE Energy Corp.	BBB+	100.7%
Pinnacle West Capital Corp.	BBB+	103.7%
Portland General Electric Co.	BBB+	100.0%
WEC Energy Group, Inc.	A-	76.8%
Xcel Energy Inc.	BBB+	94.2%
<hr/>		
Otter Tail Power	BBB+	

ROE and ROR Analysis for OTP
Equity Prices
Source: Yahoo! Finance

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Alliant Energy (LNT)

Date	Close
4/1/2024	\$ 49.68
4/2/2024	\$ 49.97
4/3/2024	\$ 49.45
4/4/2024	\$ 49.13
4/5/2024	\$ 48.85
4/8/2024	\$ 49.45
4/9/2024	\$ 49.99
4/10/2024	\$ 48.68
4/11/2024	\$ 48.48
4/12/2024	\$ 48.00
4/15/2024	\$ 48.00
4/16/2024	\$ 47.40
4/17/2024	\$ 48.42
4/18/2024	\$ 48.84
4/19/2024	\$ 49.82
4/22/2024	\$ 49.89
4/23/2024	\$ 49.97
4/24/2024	\$ 50.37
4/25/2024	\$ 50.23
4/26/2024	\$ 49.59
Mean	\$ 49.21

Ameren (AEE)

Date	Close
4/1/2024	\$ 73.24
4/2/2024	\$ 73.80
4/3/2024	\$ 73.15
4/4/2024	\$ 72.89
4/5/2024	\$ 72.71
4/8/2024	\$ 73.34
4/9/2024	\$ 73.99
4/10/2024	\$ 72.28
4/11/2024	\$ 72.05
4/12/2024	\$ 71.76
4/15/2024	\$ 71.58
4/16/2024	\$ 70.34
4/17/2024	\$ 71.93
4/18/2024	\$ 72.51
4/19/2024	\$ 73.88
4/22/2024	\$ 74.38
4/23/2024	\$ 74.02
4/24/2024	\$ 74.71
4/25/2024	\$ 74.76
4/26/2024	\$ 73.66
Mean	\$ 73.05

American Electric Power (AEP)

Date	Close
4/1/2024	\$ 84.56
4/2/2024	\$ 85.21
4/3/2024	\$ 84.33
4/4/2024	\$ 83.96
4/5/2024	\$ 83.95
4/8/2024	\$ 84.27
4/9/2024	\$ 85.08
4/10/2024	\$ 83.29
4/11/2024	\$ 82.91
4/12/2024	\$ 82.10
4/15/2024	\$ 80.91
4/16/2024	\$ 79.51
4/17/2024	\$ 81.24
4/18/2024	\$ 82.56
4/19/2024	\$ 84.20
4/22/2024	\$ 84.90
4/23/2024	\$ 85.56
4/24/2024	\$ 86.37
4/25/2024	\$ 86.86
4/26/2024	\$ 85.26
Mean	\$ 83.85

CMS Energy (CMS)

Date	Close
4/1/2024	\$ 59.98
4/2/2024	\$ 60.19
4/3/2024	\$ 59.32
4/4/2024	\$ 59.27
4/5/2024	\$ 58.65
4/8/2024	\$ 59.09
4/9/2024	\$ 59.24
4/10/2024	\$ 58.14
4/11/2024	\$ 57.88
4/12/2024	\$ 57.66
4/15/2024	\$ 57.61
4/16/2024	\$ 56.89
4/17/2024	\$ 58.25
4/18/2024	\$ 58.48
4/19/2024	\$ 59.55
4/22/2024	\$ 60.00
4/23/2024	\$ 59.95
4/24/2024	\$ 60.28
4/25/2024	\$ 60.48
4/26/2024	\$ 59.34
Mean	\$ 59.01

ROE and ROR Analysis for OTP
Equity Prices
Source: Yahoo! Finance

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Duke Energy (DUK)

Date	Close
4/1/2024	\$ 96.07
4/2/2024	\$ 96.54
4/3/2024	\$ 95.97
4/4/2024	\$ 96.12
4/5/2024	\$ 95.91
4/8/2024	\$ 96.31
4/9/2024	\$ 97.32
4/10/2024	\$ 95.41
4/11/2024	\$ 95.29
4/12/2024	\$ 94.90
4/15/2024	\$ 94.13
4/16/2024	\$ 92.87
4/17/2024	\$ 94.50
4/18/2024	\$ 95.93
4/19/2024	\$ 98.24
4/22/2024	\$ 98.12
4/23/2024	\$ 98.20
4/24/2024	\$ 98.96
4/25/2024	\$ 99.03
4/26/2024	\$ 97.71
Mean	\$ 96.38

Edison International

Date	Close
4/1/2024	\$ 70.44
4/2/2024	\$ 70.13
4/3/2024	\$ 69.90
4/4/2024	\$ 69.85
4/5/2024	\$ 70.82
4/8/2024	\$ 70.68
4/9/2024	\$ 70.89
4/10/2024	\$ 68.92
4/11/2024	\$ 68.84
4/12/2024	\$ 68.63
4/15/2024	\$ 67.88
4/16/2024	\$ 66.81
4/17/2024	\$ 68.04
4/18/2024	\$ 68.13
4/19/2024	\$ 69.93
4/22/2024	\$ 70.66
4/23/2024	\$ 70.85
4/24/2024	\$ 70.82
4/25/2024	\$ 71.13
4/26/2024	\$ 70.14
Mean	\$ 69.67

Entergy Corporation (ETR)

Date	Close
4/1/2024	\$ 104.74
4/2/2024	\$ 105.27
4/3/2024	\$ 104.40
4/4/2024	\$ 104.32
4/5/2024	\$ 104.23
4/8/2024	\$ 105.76
4/9/2024	\$ 106.32
4/10/2024	\$ 104.56
4/11/2024	\$ 103.83
4/12/2024	\$ 102.91
4/15/2024	\$ 102.29
4/16/2024	\$ 100.61
4/17/2024	\$ 103.19
4/18/2024	\$ 103.75
4/19/2024	\$ 106.77
4/22/2024	\$ 107.45
4/23/2024	\$ 107.18
4/24/2024	\$ 106.46
4/25/2024	\$ 107.53
4/26/2024	\$ 106.50

Mean \$ 104.90

Eversource Energy (EVRG)

Date	Close
4/1/2024	\$ 52.74
4/2/2024	\$ 53.01
4/3/2024	\$ 52.72
4/4/2024	\$ 52.68
4/5/2024	\$ 52.20
4/8/2024	\$ 52.78
4/9/2024	\$ 52.97
4/10/2024	\$ 51.68
4/11/2024	\$ 51.46
4/12/2024	\$ 50.95
4/15/2024	\$ 50.39
4/16/2024	\$ 49.56
4/17/2024	\$ 50.53
4/18/2024	\$ 50.96
4/19/2024	\$ 51.76
4/22/2024	\$ 52.26
4/23/2024	\$ 52.25
4/24/2024	\$ 52.48
4/25/2024	\$ 52.42
4/26/2024	\$ 51.69

Mean \$ 51.87

ROE and ROR Analysis for OTP
Equity Prices
Source: Yahoo! Finance

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Eversource Energy (ES)

Date	Close
4/1/2024	\$ 58.88
4/2/2024	\$ 59.27
4/3/2024	\$ 58.43
4/4/2024	\$ 58.92
4/5/2024	\$ 58.51
4/8/2024	\$ 59.47
4/9/2024	\$ 59.96
4/10/2024	\$ 59.07
4/11/2024	\$ 59.15
4/12/2024	\$ 58.79
4/15/2024	\$ 58.24
4/16/2024	\$ 57.20
4/17/2024	\$ 58.51
4/18/2024	\$ 58.99
4/19/2024	\$ 59.69
4/22/2024	\$ 60.30
4/23/2024	\$ 60.35
4/24/2024	\$ 60.84
4/25/2024	\$ 60.52
4/26/2024	\$ 59.46

Mean \$ 59.23

Fortis Inc. (FTS.TO)

Date	Close
4/1/2024	\$ 53.39
4/2/2024	\$ 53.47
4/3/2024	\$ 53.20
4/4/2024	\$ 52.94
4/5/2024	\$ 52.74
4/8/2024	\$ 53.19
4/9/2024	\$ 53.26
4/10/2024	\$ 52.25
4/11/2024	\$ 51.92
4/12/2024	\$ 51.84
4/15/2024	\$ 51.73
4/16/2024	\$ 51.32
4/17/2024	\$ 51.83
4/18/2024	\$ 52.38
4/19/2024	\$ 52.89
4/22/2024	\$ 53.45
4/23/2024	\$ 53.37
4/24/2024	\$ 53.65
4/25/2024	\$ 53.72
4/26/2024	\$ 53.38

Mean \$ 52.80

IDACORP, Inc. (IDA)

Date	Close
4/1/2024	\$ 92.09
4/2/2024	\$ 92.38
4/3/2024	\$ 91.44
4/4/2024	\$ 91.98
4/5/2024	\$ 91.27
4/8/2024	\$ 93.19
4/9/2024	\$ 93.67
4/10/2024	\$ 91.06
4/11/2024	\$ 91.66
4/12/2024	\$ 90.22
4/15/2024	\$ 90.24
4/16/2024	\$ 89.15
4/17/2024	\$ 90.37
4/18/2024	\$ 92.28
4/19/2024	\$ 93.90
4/22/2024	\$ 94.34
4/23/2024	\$ 94.11
4/24/2024	\$ 94.32
4/25/2024	\$ 94.67
4/26/2024	\$ 94.60

Mean \$ 92.35

NorthWestern Corporator

Date	Close
4/1/2024	\$ 50.65
4/2/2024	\$ 50.36
4/3/2024	\$ 50.27
4/4/2024	\$ 50.14
4/5/2024	\$ 49.88
4/8/2024	\$ 50.25
4/9/2024	\$ 50.54
4/10/2024	\$ 48.75
4/11/2024	\$ 48.98
4/12/2024	\$ 48.90
4/15/2024	\$ 48.46
4/16/2024	\$ 47.90
4/17/2024	\$ 48.52
4/18/2024	\$ 48.93
4/19/2024	\$ 50.13
4/22/2024	\$ 50.40
4/23/2024	\$ 50.45
4/24/2024	\$ 50.61
4/25/2024	\$ 49.91
4/26/2024	\$ 49.55

Mean \$ 49.68

ROE and ROR Analysis for OTP
Equity Prices
Source: Yahoo! Finance

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Exhibit MFG-15
Page 4 of 5

OGE Energy Corp. (OGE)			Pinnacle West Capital Corp.			Portland General Electric (POR)			WEC Energy Group, Inc. (WEC)		
Date	Close		Date	Close		Date	Close		Date	Close	
4/1/2024	\$	34.35	4/1/2024	\$	74.05	4/1/2024	\$	41.95	4/1/2024	\$	81.56
4/2/2024	\$	34.55	4/2/2024	\$	74.04	4/2/2024	\$	42.01	4/2/2024	\$	81.89
4/3/2024	\$	34.33	4/3/2024	\$	73.08	4/3/2024	\$	41.31	4/3/2024	\$	81.22
4/4/2024	\$	34.23	4/4/2024	\$	73.02	4/4/2024	\$	41.32	4/4/2024	\$	81.03
4/5/2024	\$	33.71	4/5/2024	\$	72.76	4/5/2024	\$	41.35	4/5/2024	\$	80.28
4/8/2024	\$	34.03	4/8/2024	\$	74.08	4/8/2024	\$	41.66	4/8/2024	\$	81.33
4/9/2024	\$	34.22	4/9/2024	\$	74.62	4/9/2024	\$	42.18	4/9/2024	\$	81.91
4/10/2024	\$	33.08	4/10/2024	\$	72.20	4/10/2024	\$	40.69	4/10/2024	\$	79.72
4/11/2024	\$	33.08	4/11/2024	\$	72.21	4/11/2024	\$	40.72	4/11/2024	\$	79.39
4/12/2024	\$	32.92	4/12/2024	\$	72.24	4/12/2024	\$	40.56	4/12/2024	\$	78.97
4/15/2024	\$	32.86	4/15/2024	\$	72.11	4/15/2024	\$	40.87	4/15/2024	\$	78.89
4/16/2024	\$	32.49	4/16/2024	\$	71.21	4/16/2024	\$	40.55	4/16/2024	\$	77.80
4/17/2024	\$	32.94	4/17/2024	\$	71.97	4/17/2024	\$	40.98	4/17/2024	\$	79.63
4/18/2024	\$	33.15	4/18/2024	\$	72.97	4/18/2024	\$	41.74	4/18/2024	\$	80.44
4/19/2024	\$	34.05	4/19/2024	\$	74.40	4/19/2024	\$	42.80	4/19/2024	\$	81.56
4/22/2024	\$	34.04	4/22/2024	\$	74.70	4/22/2024	\$	43.29	4/22/2024	\$	81.97
4/23/2024	\$	33.92	4/23/2024	\$	74.50	4/23/2024	\$	43.55	4/23/2024	\$	81.96
4/24/2024	\$	34.32	4/24/2024	\$	74.54	4/24/2024	\$	43.69	4/24/2024	\$	82.63
4/25/2024	\$	34.48	4/25/2024	\$	74.20	4/25/2024	\$	43.25	4/25/2024	\$	82.81
4/26/2024	\$	33.82	4/26/2024	\$	73.69	4/26/2024	\$	42.80	4/26/2024	\$	81.49
Mean			Mean			Mean			Mean		
		\$ 33.73			\$ 73.33			\$ 41.86			\$ 80.82

ROE and ROR Analysis for OTP
Equity Prices
Source: Yahoo! Finance

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Xcel Energy Inc. (XEL)

Date	Close
4/1/2024	\$ 53.28
4/2/2024	\$ 54.08
4/3/2024	\$ 54.09
4/4/2024	\$ 53.77
4/5/2024	\$ 53.53
4/8/2024	\$ 54.08
4/9/2024	\$ 54.37
4/10/2024	\$ 53.75
4/11/2024	\$ 53.49
4/12/2024	\$ 53.17
4/15/2024	\$ 53.17
4/16/2024	\$ 52.53
4/17/2024	\$ 53.19
4/18/2024	\$ 53.76
4/19/2024	\$ 54.72
4/22/2024	\$ 54.96
4/23/2024	\$ 55.27
4/24/2024	\$ 55.33
4/25/2024	\$ 55.01
4/26/2024	\$ 53.96
Mean	\$ 53.98

ROE and ROR Analysis for Otter Tail Power
Comparison Group
Dividends

Docket No. PU-23-342
Exhibit MFG-16

Name	Value Line	Zacks	Highest
Alliant Energy Corporation	\$ 1.92	\$ 1.92	\$ 1.92
Ameren Corporation	\$ 2.52	\$ 2.68	\$ 2.68
American Electric Power Co.	\$ 3.52	\$ 3.52	\$ 3.52
CMS Energy Corporation	\$ 2.06	\$ 2.06	\$ 2.06
Duke Energy Corporation	\$ 4.10	\$ 4.10	\$ 4.10
Edison International	\$ 3.12	\$ 3.12	\$ 3.12
Entergy Corporation	\$ 4.52	\$ 4.52	\$ 4.52
Evergy, Inc.	\$ 2.57	\$ 2.57	\$ 2.57
Eversource Energy	\$ 2.70	\$ 2.86	\$ 2.86
Fortis Inc.	\$ 2.36	NA	\$ 2.36
IDACORP, Inc.	\$ 3.32	\$ 3.32	\$ 3.32
NorthWestern Corporation	\$ 2.60	\$ 2.60	\$ 2.60
OGE Energy Corp.	\$ 1.67	\$ 1.67	\$ 1.67
Pinnacle West Capital Corp.	\$ 3.52	\$ 3.52	\$ 3.52
Portland General Electric Co.	\$ 1.90	\$ 1.90	\$ 1.90
WEC Energy Group, Inc.	\$ 3.34	\$ 3.34	\$ 3.34
Xcel Energy Inc.	\$ 2.19	\$ 2.19	\$ 2.19

Value Line dividends taken from February 9, 2024; March 8, 2024, April 19, 2024 Reports

Zacks dividends taken from website on April 19, 2024

ROE and ROR Analysis for Otter Tail Power
Discounted Cash Flow Model Analysis
Common Equity Share Prices: April 1-26, 2024
Zacks, Yahoo! Finance, and Value Line EPS Growth-
Rate Estimates--February 2024-April 2024

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Exhibit MFG-17, Schedule I

	A	B	C	D	E	F
		Yahoo!				
	Zacks EPS	Finance	Value Line	Mean EPS	Average of	
Company Name	Growth Rate	EPS	EPS Growth	Growth Rate	Closing Prices	Annualized Dividend
	(%)	Rates (%)	Rates (%)	(%)		
Alliant Energy Corporation	6.10%	6.55%	6.50%	6.38%	\$ 49.21	\$ 1.92
Ameren Corporation	6.48%	4.80%	6.50%	5.93%	\$ 73.05	\$ 2.68
American Electric Power Co.	5.11%	5.72%	6.50%	5.78%	\$ 83.85	\$ 3.52
CMS Energy Corporation	7.74%	7.80%	5.00%	6.85%	\$ 59.01	\$ 2.06
Duke Energy Corporation	6.28%	6.86%	5.00%	6.05%	\$ 96.38	\$ 4.10
Edison International	NA	7.30%	6.00%	6.65%	\$ 69.67	\$ 3.12
Entergy Corporation	7.46%	6.80%	0.50%	4.92%	\$ 104.90	\$ 4.52
Eversource Energy	5.00%	2.50%	7.50%	5.00%	\$ 51.87	\$ 2.57
Fortis Inc.	4.16%	3.25%	5.50%	4.30%	\$ 59.23	\$ 1.67
IDACORP, Inc.	NA	2.60%	5.00%	3.80%	\$ 52.80	\$ 2.36
NorthWestern Corporation	NA	4.40%	5.00%	4.70%	\$ 92.35	\$ 3.32
OGE Energy Corp.	NA	4.50%	4.00%	4.25%	\$ 49.68	\$ 2.60
Pinnacle West Capital Corp.	5.00%	-12.34%	6.50%	5.75%	\$ 33.73	\$ 1.67
Portland General Electric Co.	7.55%	6.90%	4.50%	6.32%	\$ 73.33	\$ 3.52
WEC Energy Group, Inc.	NA	12.50%	6.00%	6.00%	\$ 41.86	\$ 1.90
Xcel Energy Inc.	5.93%	5.84%	6.00%	5.92%	\$ 80.82	\$ 3.34
	6.41%	6.70%	7.00%	6.70%	\$ 53.98	\$ 2.19
Mean	6.28%	4.46%	5.43%	5.67%		
Median	6.28%	5.84%	6.00%	5.92%		

	G	H	I	J	K
		Expected	Adjusted	Required	J > 7.59%
	Dividend Yield	Dividend	Dividend	Rate of	Mean of
Company Name	(Rate/Price)	Yield	Yield	Return on	Value Line
				Equity	and IBES Low
					End Tests
Alliant Energy Corporation	3.90%	4.15%	4.29%	10.53%	Yes
Ameren Corporation	3.67%	3.89%	4.02%	9.81%	Yes
American Electric Power Co.	4.20%	4.44%	4.59%	10.22%	Yes
CMS Energy Corporation	3.49%	3.73%	3.86%	10.58%	Yes
Duke Energy Corporation	4.25%	4.51%	4.67%	10.56%	Yes
Edison International	4.48%	4.78%	4.94%	11.43%	Yes
Entergy Corporation	4.31%	4.52%	4.67%	9.44%	Yes
Eversource Energy	4.95%	5.20%	5.38%	10.20%	Yes
Fortis Inc.	2.82%	2.95%	3.05%	7.25%	No
IDACORP, Inc.	4.47%	4.64%	4.80%	8.44%	Yes
NorthWestern Corporation	3.60%	3.76%	3.89%	8.46%	Yes
OGE Energy Corp.	5.23%	5.46%	5.64%	9.71%	Yes
Pinnacle West Capital Corp.	4.96%	5.24%	5.42%	10.99%	Yes
Portland General Electric Co.	4.80%	5.08%	5.25%	11.39%	Yes
WEC Energy Group, Inc.	4.54%	4.83%	4.99%	10.83%	Yes
Xcel Energy Inc.	4.13%	4.38%	4.53%	10.30%	Yes
	4.06%	4.30%	4.44%	11.00%	Yes
<u>Excluded</u>	Mean	4.30%	4.54%	4.69%	10.20%
	Median		4.51%	4.67%	10.30%
					No flotation adjustment

A: Zacks website, April 29, 2024

B: Yahoo! Finance website: April 29, 2024

C: Value Line Investment Survey reports: February 9, 2024; March 8, 2024; April 19, 2024

E: Yahoo! Finance website: April 1, 2024-April 26, 2024. See Exhibit MFG-15.

F: Higher of Value Line Investment report, February 9, 2024; March 8, 2024; April 19, 2024; or Zacks website, April 29, 2024. See Exhibit MFG-16.

K: See Exhibit MFG-18, Schedule 8.

D: (A + B + C)/3

G: F/E

H: G*(1+D)

I: H/(1 - 0.330)

J: D + I

New Regulatory Finance

costs of bond/stock issues in order to finance capital projects designed to serve future as well as current generations. Moreover, expensing flotation costs requires an estimate of the market pressure effect for each individual issue, which is likely to prove unreliable. A more reliable approach is to estimate market pressure for a large sample of stock offerings rather than for one individual issue.

An alternative regulatory treatment is to incorporate flotation costs into the rate base as an intangible asset. While this solves the intergenerational problem and compensates investors fairly for their investment, the method clashes with the "used and useful" principle of rate base inclusions. An intangible asset related to flotation costs is unlikely to be viewed as a used and useful asset in public service by regulators.

The conventional approach to flotation cost adjustment can be derived as follows. From the standard DCF model, the investor's required return on equity capital is expressed as:

$$K = D_1/P_0 + g \quad (10-1)$$

If P_0 is regarded as the proceeds per share actually received by the company from which dividends and earnings will be generated, that is, P_0 equals B_0 , the book value per share, then the company's required return is:

$$r = D_1/B_0 + g \quad (10-2)$$

Denoting the percentage flotation costs f , the proceeds per share B_0 are related to market price P_0 as follows:

$$\begin{aligned} P - fP &= B_0 \\ P(1 - f) &= B_0 \end{aligned} \quad (10-3)$$

Substituting Equation 10-3 into 10-2, we obtain:

$$r = D_1/P(1 - f) + g \quad (10-4)$$

which is the utility's required return adjusted for flotation cost.³

³ Another way to look at it is that in order to prevent dilution of book value per share, the market-to-book ratio must be at least $1/(1 - f)$. The Target Market-to-Book method discussed in Chapter 12 can be used to translate the DCF cost of equity figure into an appropriate allowed return on book equity. As shown in Chapter 12, the allowed return consistent with a target M/B ratio that allows for the recapture of flotation costs is:

$$r = M/B (K - g) + g$$

ROE and ROR Analysis for Otter Tail Power
DCF Analysis
Social Security Administration Long-Term Growth Rate

Docket No. PU-23-342
Exhibit MFG-17
Schedule 3

Table VI.G6.—Selected Economic Variables, Calendar Years 2022-2095
[GDP and taxable payroll in billions]

Calendar year	Adjusted CPI	Average wage index	Taxable payroll	Gross domestic product	Compound new- issue interest factor	Compound effective trust-fund interest factor
Intermediate:						
2022	96.15	\$63,467.98	\$9,069	\$25,422	0.9711	0.9884
2023	100.00	66,147.17	9,552	26,592	1.0000	1.0117
2024	102.53	68,627.58	9,986	27,655	1.0357	1.0356
2025	104.99	71,411.99	10,465	28,902	1.0727	1.0602
2026	107.51	74,348.48	10,944	30,177	1.1112	1.0862
2027	110.09	77,393.67	11,443	31,478	1.1530	1.1140
2028	112.73	80,510.73	11,934	32,778	1.1985	1.1442
2029	115.44	83,757.03	12,438	34,125	1.2492	1.1768
2030	118.21	87,106.49	12,954	35,521	1.3051	1.2123
2031	121.04	90,574.48	13,492	36,976	1.3656	1.2512
2032	123.95	93,995.33	14,023	38,487	1.4295	1.2946
2035	133.09	104,726.27	15,730	43,392	1.6429	1.4693
2040	149.85	125,312.66	18,992	52,850	2.0725	1.8502
2045	168.71	149,423.47	22,925	64,333	2.6144	2.3337
2050	189.95	177,750.26	27,736	78,438	3.2980	2.9438
2055	213.87	211,432.09	33,623	95,785	4.1603	3.7136
2060	240.79	251,610.19	40,795	116,988	5.2481	4.6846
2065	271.11	299,758.28	49,472	142,731	6.6204	5.9095
2070	305.24	357,187.25	59,924	173,850	8.3514	7.4546
2075	343.67	425,523.96	72,602	211,710	10.5351	9.4038
2080	386.94	506,962.67	88,194	258,358	13.2897	11.8627
2085	435.65	603,863.51	107,502	316,227	16.7646	14.9644
2090	490.50	719,124.11	131,330	387,813	21.1481	18.8772
2095	552.26	856,091.73	160,374	475,384	26.6778	23.8131
2100	621.79	1,019,162.94	195,457	581,611	33.6533	30.0396

(Intermediate economy performance case)

Growth Rate 2029-2050*

4.04%

Source: Social Security 2023 Trustees' Report

* = $(2050/2030)^{(1/20)} - 1$

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Exhibit MFG-17
Schedule 4

Table 20. Macroeconomic Indicators

	2024	2025	2026	2027	2028	2029	2030	
Real Gross Domestic Product								
Reference case	20,095	20,409	20,841	21,273	21,681	22,052	22,392	
Price Indices								
GDP Chain-type Price Index (2012=1.000)								
Reference case	1.35	1.38	1.41	1.44	1.47	1.51	1.54	

	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	
Real Gross Domestic Product											
Reference case	22,742	23,153	23,604	24,055	24,511	24,996	25,507	26,032	26,566	27,149	
Price Indices											
GDP Chain-type Price Index (2012=1.000)											
Reference case	1.58	1.61	1.65	1.69	1.73	1.77	1.81	1.85	1.89	1.93	

	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	Growth Rate 2030-2050
Real Gross Domestic Product											
Reference case	27,734	28,324	28,927	29,527	30,130	30,748	31,389	32,040	32,699	33,405	2.02%
Price Indices											
GDP Chain-type Price Index (2012=1.000)											
Reference case	1.97	2.02	2.07	2.11	2.16	2.21	2.27	2.32	2.38	2.43	2.31%

Total 2030-2050 Growth Rate4.33%

Chapter 9: Discounted Cash Flow Application

growth than to insert a constant growth rate into the plain vanilla DCF equation. The practical challenge is to establish a reasonable growth path for future dividends. As previously discussed, an excellent starting point is security analysts' earnings growth forecasts (available from IBES, Zacks, Reuters, First Call) as a proxy for dividend forecasts. These forecasts are typically for the next five years. From the standpoint of the DCF model that extends into perpetuity, this forecasting horizon may be too short. For example, it is quite possible that a company's dividends can grow faster than the general economy for five years, but it is quite implausible for such growth to continue into perpetuity. The two-stage DCF model is based on the premise that investors expect the growth rate for the utilities to be equal to the company-specific growth rates for the next 5 years, let us say, (Stage 1 Growth), and to converge to an expected steady-state long-run rate of growth from year 6 onward (Stage 2 Growth). For example, it is quite plausible that near-term DCF growth estimates for a given company are unduly high and unsustainable over long periods, and that such growth rates are expected to decline toward a lower long-run level over time. Another example of this situation is that of companies that operate in a relatively undeveloped industry (e.g. wholesale power generation) or companies that are experiencing very high growth rates. Here again, the assumption of a constant perpetual growth rate may not be reasonable.

Blended Growth Approach

One way to account for the two stages of growth is to modify the single-stage DCF model by specifying the growth rate as a weighted average of short-term and long-term growth rates. The blended growth rate is calculated as a weighted average giving two-thirds weight to the analysts' five-year growth projections (Zacks, IBES, etc.) and one-third to historical long-term growth of the economy as a whole and/or the long-range projections of growth in Gross Domestic Product (GDP) projected for the very long term. FERC has adopted such a method in the past for determining the return on equity for gas and oil utilities.

To illustrate, two-stage DCF estimates for a group of widely traded dividend-paying diversified natural gas producers are shown on Table 9-5. Column 1 shows the spot dividend yield for each company, Column 2 shows the analyst consensus growth forecast for the next five years for each company, and column 3 shows the long-range GDP forecast of 6.5% for the U.S. economy at that time. Column 4 computes the weighed average growth, giving $2/3$ weight to column 1 and $1/3$ weight to column 2. Averages are shown at the bottom of the table. Adding the average blended growth rate of 9.02% to the average expected dividend yield of 2.83% shown at the bottom of Column 6 produces an estimate of equity costs of 11.85% for the group, unadjusted for flotation costs. Allowance for flotation costs to the results of Column 7 brings the return on equity estimate to 12.00%, shown in Column 7. Note

Multistage DCF with Zacks, Yahoo! Finance, and Value Line EPS Growth-Rate Estimates: 2023 SSA and 2023 EIA long-term growth rates

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Exhibit MFG-17
Schedule 6

[illegible]

O: Moody's BAA Corporate Bonds Index plus 20 percent of CAPM risk premium. See Exhibit MFG-18, Schedule 8

$$P_i = (L + O)/2$$

$$O := I + N$$

ROE and ROR Analysis for Otter Tail Power
CAPM Analysis
Risk-Free Rate Analysis

Docket No. PU-23-342
Exhibit MFG-18, Schedule 1

Daily Treasury Yield Curve Rates

April 1-26, 2024

Date	1 Mo	2 Mo	3 Mo	4 Mo	6 Mo	1 Yr	2 Yr	3 Yr	5 Yr	7 Yr	10 Yr	20 Yr	30 Yr
4/26/2024	5.48	5.51	5.46	5.45	5.40	5.21	4.96	4.84	4.68	4.68	4.67	4.89	4.78
4/25/2024	5.48	5.51	5.47	5.46	5.41	5.21	4.96	4.85	4.70	4.71	4.70	4.93	4.82
4/24/2024	5.49	5.50	5.46	5.44	5.40	5.17	4.89	4.78	4.64	4.66	4.65	4.88	4.78
4/23/2024	5.49	5.50	5.45	5.44	5.39	5.14	4.86	4.76	4.63	4.62	4.61	4.84	4.73
4/22/2024	5.49	5.50	5.42	5.44	5.39	5.16	4.97	4.81	4.66	4.65	4.62	4.84	4.72
4/19/2024	5.49	5.51	5.45	5.44	5.39	5.17	4.97	4.81	4.66	4.65	4.62	4.83	4.72
4/18/2024	5.49	5.52	5.46	5.44	5.39	5.18	4.98	4.83	4.68	4.67	4.64	4.85	4.74
4/17/2024	5.49	5.49	5.45	5.44	5.38	5.16	4.93	4.77	4.62	4.61	4.59	4.81	4.71
4/16/2024	5.49	5.51	5.45	5.44	5.39	5.18	4.97	4.83	4.69	4.69	4.67	4.88	4.77
4/15/2024	5.49	5.51	5.45	5.44	5.38	5.16	4.93	4.78	4.65	4.65	4.63	4.85	4.74
4/12/2024	5.48	5.50	5.45	5.42	5.36	5.13	4.88	4.70	4.54	4.53	4.50	4.73	4.61
4/11/2024	5.48	5.51	5.45	5.44	5.38	5.17	4.93	4.77	4.61	4.60	4.56	4.77	4.65
4/10/2024	5.49	5.50	5.45	5.44	5.40	5.19	4.97	4.77	4.61	4.59	4.55	4.76	4.64
4/9/2024	5.48	5.49	5.43	5.41	5.34	5.03	4.74	4.52	4.37	4.38	4.36	4.60	4.50
4/8/2024	5.48	5.49	5.43	5.41	5.35	5.07	4.78	4.60	4.43	4.43	4.42	4.65	4.55
4/5/2024	5.47	5.50	5.43	5.41	5.34	5.05	4.73	4.54	4.38	4.39	4.39	4.65	4.54
4/4/2024	5.47	5.49	5.41	5.40	5.32	5.00	4.65	4.46	4.30	4.31	4.31	4.57	4.47
4/3/2024	5.47	5.44	5.42	5.40	5.33	5.03	4.68	4.48	4.34	4.36	4.36	4.61	4.51
4/2/2024	5.49	5.45	5.42	5.40	5.34	5.05	4.70	4.51	4.35	4.37	4.36	4.61	4.51
4/1/2024	5.49	5.47	5.44	5.41	5.36	5.06	4.72	4.51	4.34	4.33	4.33	4.58	4.47
											Mean		4.65

ROE and ROR Analysis for Otter Tail Power**CAPM Analysis****Beta calculation for Comparison Group****Value Line Investment Survey****Betas taken from reports of February 9, 2024, March 8, 2024, April 19, 2024****Docket No. PU-23-342****Exhibit MFG-18, Schedule 2**

Company Name	Value Line Betas-- Comparison Group
Alliant Energy Corporation	0.90
Ameren Corporation	0.90
American Electric Power Co.	0.80
CMS Energy Corporation	0.85
Duke Energy Corporation	0.90
Edison International	1.00
Entergy Corporation	0.95
Evergy, Inc.	0.95
Eversource Energy	0.95
Fortis Inc.	0.70
IDACORP, Inc.	0.85
NorthWestern Corporation	0.95
OGE Energy Corp.	1.05
Pinnacle West Capital Corp.	0.95
Portland General Electric Co.	0.90
WEC Energy Group, Inc.	0.85
Xcel Energy Inc.	0.85

ROE and ROR Analysis for OTP
CAPM Analysis—IBES EPS
Standard and Poor's 500

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Constant-Growth DCF Analysis for S&P 500--IBES

All companies shown

A: April 1, 2024

B and E: Value Line Analyzer, April 1, 2024

$$C = B * (1 + A/100)$$

$$D = A + C$$

$$F = E / (\text{Sum of } E)$$

$$G = D * F$$

Companies Excluded

Companies not paying dividends

Companies with EPS ≤ 0%

Companies with EPS > 20%

EPS

Market

Return

%

14.02

	A	B	C	D	E	F	G
				Rate of Return on		Market Cap Weight	Weighted Rate of Return on Equity
Company Name	EPS Growth Rate (%)	Dividend Yield (%)	Expected Dividend Yield (%)	Equity (%)	Market Cap \$ (Mil)	Factor	(%)

Companies not paying dividends

ABIOMED Inc.	10.48	0.00	0.00	10.48	14,975.65		
Adobe Inc.	15.35	0.00	0.00	15.35	298,969.31		
Advanced Micro Dev.	35.32	0.00	0.00	35.32	125,472.73		
Akamai Technologies	12.00	0.00	0.00	12.00	18,293.99		
Alaska Air Group	-23.40	0.00	0.00	-23.40	6,873.82		
Align Techn.	43.25	0.00	0.00	43.25	53,310.43		
Alphabet Inc.	21.00	0.00	0.00	21.00	1,988,216.00		
Alphabet Inc. 'A'	21.00	0.00	0.00	21.00	1,817,980.25		
Amazon.com	36.00	0.00	0.00	36.00	1,613,415.00		
Amer. Airlines	-105.1	0.00	0.00	-105.10	12,392.12		
ANSYS, Inc.	11.18	0.00	0.00	11.18	30,812.87		
Aptiv PLC	46.26	0.00	0.00	46.26	42,356.14		
Arista Networks	18.27	0.00	0.00	18.27	27,758.10		

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	EPS	Dividend	Expected	Rate of	Market Cap \$	Market	Weighted
Company Name	Growth	Yield (%)	Dividend	Return	(Mil)	Cap	Rate of
	Rate (%)		Yield (%)	on		Weight	Return on
				Equity		Factor	Equity
				(%)			(%)
Autodesk, Inc.	28.83	0.00	0.00	28.83	71,174.41		
AutoZone Inc.	14.00	0.00	0.00	14.00	34,890.36		
Bio-Rad Labs. 'A'	17.80	0.00	0.00	17.80	22,939.83		
Biogen	-6.50	0.00	0.00	-6.50	50,972.82		
Boeing	20.17	0.00	0.00	20.17	128,306.84		
Booking Holdings	211.41	0.00	0.00	211.41	85,663.89		
Boston Scientific	23.00	0.00	0.00	23.00	62,632.97		
Cadence Design Sys.	18.20	0.00	0.00	18.20	40,968.97		
CarMax, Inc.	16.40	0.00	0.00	16.40	20,288.51		
Carnival Corp.	9.95	0.00	0.00	9.95	21,891.56		
Catalent, Inc.	16.17	0.00	0.00	16.17	20,439.41		
CBRE Group	11.00	0.00	0.00	11.00	30,831.33		
Centene Corp.	10.80	0.00	0.00	10.80	37,207.19		
Charles River	15.56	0.00	0.00	15.56	20,966.69		
Charter Communic.	36.94	0.00	0.00	36.94	144,386.66		
Chipotle Mex. Grill	44.64	0.00	0.00	44.64	52,022.88		
Copart, Inc.	22.30	0.00	0.00	22.30	32,591.97		
DaVita Inc.	14.44	0.00	0.00	14.44	13,828.43		
Delta Air Lines	-23.70	0.00	0.00	-23.70	24,732.72		
DexCom Inc.	18.50	0.00	0.00	18.50	49,272.52		
Discovery Communic. 'C'	20	0.00	0.00	20.00	14,180.25		
Discovery, Inc.	3.54	0.00	0.00	3.54	14,395.70		
Dish Network 'A'	-25.56	0.00	0.00	-25.56	22,540.26		
Disney (Walt)	37.88	0.00	0.00	37.88	311,211.94		
Dollar Tree, Inc.	14.90	0.00	0.00	14.90	23,511.47		
DXC Technology	28.40	0.00	0.00	28.40	9,227.24		
Edwards Lifesciences	15.31	0.00	0.00	15.31	72,290.47		

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	EPS	Dividend	Expected	Rate of	Market Cap \$	Market	Weighted
Company Name	Growth	Yield (%)	Dividend	Return	(Mil)	Cap	Rate of
	Rate (%)		Yield (%)	on		Weight	Return on
				Equity		Factor	Equity
				(%)			(%)
Enphase Energy	28.50	0.00	0.00	28.50	21,863.75		
Etsy, Inc.	40.30	0.00	0.00	40.30	24,140.59		
Expedia Group	22.8	0.00	0.00	22.80	20,612.50		
F5 Networks	12.80	0.00	0.00	12.80	11,946.44		
Facebook Inc.	21.35	0.00	0.00	21.35	1,004,501.75		
Fiserv Inc.	18.73	0.00	0.00	18.73	75,525.86		
FleetCor Technologies	16.35	0.00	0.00	16.35	21,347.51		
Ford Motor	77.67	0.00	0.00	77.67	53,456.00		
Fortinet Inc.	16.83	0.00	0.00	16.83	47,801.17		
Gartner Inc.	21.60	0.00	0.00	21.60	26,316.18		
Gen'l Motors	15.20	0.00	0.00	15.20	73,805.64		
Generac Holdings	8.00	0.00	0.00	8.00	28,182.28		
Hilton Worldwide Hldgs.	272.65	0.00	0.00	272.65	33,163.52		
Hologic, Inc.	4.10	0.00	0.00	4.10	19,321.11		
Host Hotels & Resorts	28.40	0.00	0.00	28.40	10,813.78		
IDEXX Labs.	24.30	0.00	0.00	24.30	57,604.88		
Illumina Inc.	5.50	0.00	0.00	5.50	75,059.67		
Incyte Corp.	15.00	0.00	0.00	15.00	16,430.48		
Ingersoll Rand Inc.	21.77	0.00	0.00	21.77	21,204.98		
Intuitive Surgical	17.21	0.00	0.00	17.21	123,374.39		
IPG Photonics	31.50	0.00	0.00	31.50	8,844.90		
IQVIA Holdings	22.13	0.00	0.00	22.13	48,858.00		
Keysight Technologies	12.00	0.00	0.00	12.00	30,195.27		
Laboratory Corp.	-9.00	0.00	0.00	-9.00	29,052.55		
Las Vegas Sands	265.70	0.00	0.00	265.70	29,276.48		
Live Nation Entertain.	80.3	0.00	0.00	80.30	17,709.72		
LKQ Corp.	33.50	0.00	0.00	33.50	14,989.21		

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	EPS	Dividend	Expected	Rate of	Market Cap \$	Market	Weighted
Company Name	Growth	Yield (%)	Dividend	Return	(Mil)	Cap	Rate of
	Rate (%)		Yield (%)	on		Weight	Return on
				Equity		Factor	Equity
				(%)			(%)
Marriott Int'l	232.23	0.00	0.00	232.23	42,328.00		
Match Group	29.60	0.00	0.00	29.60	36,996.81		
Mettler-Toledo Int'l	17.80	0.00	0.00	17.80	35,136.22		
Moderna, Inc.	16.8	0.00	0.00	16.80	160,716.39		
Mohawk Inds.	23.60	0.00	0.00	23.60	13,658.08		
Monster Beverage	14.21	0.00	0.00	14.21	50,656.16		
Netflix, Inc.	42.61	0.00	0.00	42.61	230,977.58		
Norwegian Cruise Line	-24.13	0.00	0.00	-24.13	8,841.47		
NVR, Inc.	4.80	0.00	0.00	4.80	18,568.99		
O'Reilly Automotive	12.30	0.00	0.00	12.30	41,399.60		
Organon & Co.	-5.50	0.00	0.00	-5.50	8,515.60		
Paycom Software	26.45	0.00	0.00	26.45	26,597.68		
PayPal Holdings	20.43	0.00	0.00	20.43	315,887.03		
Penn Nat'l Gaming	239.50	0.00	0.00	239.50	10,426.34		
PTC Inc.	16.45	0.00	0.00	16.45	14,844.13		
PVH Corp.	-6.04	0.00	0.00	-6.04	7,569.72		
Qorvo Inc.	14.50	0.00	0.00	14.50	19,997.78		
Regeneron Pharmac.	13.00	0.00	0.00	13.00	67,779.72		
Royal Caribbean	58.7	0.00	0.00	58.70	19,664.77		
salesforce.com	10.02	0.00	0.00	10.02	232,378.50		
Schein (Henry)	16.57	0.00	0.00	16.57	10,592.60		
ServiceNow, Inc.	26.29	0.00	0.00	26.29	115,304.66		
Southwest Airlines	-21.00	0.00	0.00	-21.00	28,659.29		
SVB Fin'l Group	8.00	0.00	0.00	8.00	30,336.13		
Synopsys, Inc.	14.90	0.00	0.00	14.90	44,336.77		
T-Mobile US	42.60	0.00	0.00	42.60	174,496.78		
Take-Two Interactive	13.61	0.00	0.00	13.61	18,816.61		

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	EPS	Dividend	Expected	Rate of	Market Cap \$	Market	Weighted
Company Name	Growth	Yield (%)	Dividend	Return	(Mil)	Cap	Rate of
	Rate (%)		Yield (%)	on		Weight	Return on
				Equity		Factor	Equity
				(%)			(%)
Tapestry Inc.	8.80	0.00	0.00	8.80	11,559.05		
Teledyne Technologies	23.27	0.00	0.00	23.27	21,062.66		
Tesla, Inc.	72.95	0.00	0.00	72.95	677,966.12		
TransDigm Group	25.90	0.00	0.00	25.90	33,090.57		
Trimble Inc.	10.00	0.00	0.00	10.00	22,339.56		
Twitter Inc.	80.00	0.00	0.00	80.00	49,568.10		
Tyler Technologies	10.00	0.00	0.00	10.00	22,405.19		
Ulta Beauty	62.03	0.00	0.00	62.03	19,927.15		
Under Armour 'A'	27.80	0.00	0.00	27.80	10,914.19		
Under Armour 'C'	21.8	0.00	0.00	21.80	9,228.60		
United Airlines Hldgs.	-129.1	0.00	0.00	-129.10	14,575.44		
United Rentals	21.23	0.00	0.00	21.23	24,623.16		
VeriSign Inc.	8.00	0.00	0.00	8.00	23,375.73		
Vertex Pharmac.	10.25	0.00	0.00	10.25	50,467.63		
Waters Corp.	10.60	0.00	0.00	10.60	24,637.89		
Western Digital	20.00	0.00	0.00	20.00	18,669.06		
Wynn Resorts	-116.2	0.00	0.00	-116.20	10,683.42		
Xilinx Inc.	18.83	0.00	0.00	18.83	34,749.40		
Zebra Techn. 'A'	10.00	0.00	0.00	10.00	29,755.09		

Companies with EPS ≤ 0%

Allstate Corp.	-5.00	2.41	2.29	-2.71	40,293.00		
AMETEK, Inc.	-1.20	0.59	0.58	-0.62	31,212.81		
APA Corp.	-24.00	0.60	0.46	-23.54	6,274.35		
Chevron Corp.	-4.90	5.54	5.27	0.37	186,442.62		

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	EPS	Dividend	Expected	Rate of	Market Cap \$	Market	Weighted
Company Name	Growth	Yield (%)	Dividend	Return	(Mil)	Cap	Rate of
	Rate (%)		Yield (%)	on		Weight	Return on
				Equity		Factor	Equity
				(%)			(%)
Citizens Fin'l Group	-2.76	3.73	3.63	0.87	18,274.70		
Clorox Co.	-1.74	2.76	2.71	0.97	20,947.20		
Comerica Inc.	-10.70	3.79	3.38	-7.32	9,624.61		
ConocoPhillips	-1.80	3.21	3.15	1.35	71,681.05		
Exelon Corp.	-0.47	3.17	3.16	2.69	47,151.11		
Fifth Third Bancorp	-2.98	2.88	2.79	-0.19	26,397.29		
FirstEnergy Corp.	-6.60	4.16	3.89	-2.71	20,787.86		
Hess Corp.	-23.4	1.54	1.18	-22.22	20,048.23		
Huntington Bancshs.	-2.15	4.08	3.99	1.84	21,720.15		
Kimberly-Clark	-0.96	3.34	3.31	2.35	46,027.28		
Kraft Heinz Co.	-2.44	4.33	4.22	1.78	45,189.85		
Lumen Technologies	-11.70	8.61	7.60	-4.10	12,831.21		
Marathon Oil Corp.	-2.40	1.79	1.75	-0.65	8,778.32		
MGM Resorts Int'l	-383.00	0.03	-0.08	-383.08	18,799.52		
Phillips 66	-11.15	5.36	4.76	-6.39	29,848.95		
PNC Financial Serv.	-4.26	2.69	2.58	-1.68	78,863.00		
PPL Corp.	-16.20	5.69	4.77	-11.43	22,455.88		
Progressive Corp.	-10.10	0.42	0.38	-9.72	55,927.57		
Prologis	-6.05	1.98	1.86	-4.19	97,967.98		
Quest Diagnostics	-7.78	1.66	1.53	-6.25	19,536.03		
UDR, Inc.	-34.21	2.79	1.84	-32.37	15,607.72		
Valero Energy	-13.80	6.30	5.43	-8.37	25,445.27		
Ventas, Inc.	-19.70	3.25	2.61	-17.09	20,723.37		
ViacomCBS Inc.	-6.27	2.37	2.22	-4.05	26,143.62		
Zions Bancorp.	-32.40	2.83	1.91	-30.49	8,702.98		

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	EPS	Dividend	Expected	Rate of		Market	Weighted
	Growth	Yield	Dividend	Return	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	on	(Mil)	Weight	Return on
				Equity		Factor	Equity
				(%)			(%)
<u>Companies with EPS > 20%</u>							
Albemarle Corp.	29.83	0.72	0.93	30.76	25,413.01		
Amer. Express	43.30	1.14	1.63	44.93	130,190.39		
Amer. Int'l Group	30.69	2.38	3.11	33.80	46,200.43		
Ameriprise Fin'l	25.18	1.71	2.14	27.32	30,176.70		
Baker Hughes	348.1	3.40	15.24	363.34	16,372.14		
Bank of America	24.32	2.06	2.56	26.88	350,375.12		
BorgWarner	27.80	1.54	1.97	29.77	10,613.11		
Capital One Fin'l	45.20	1.39	2.02	47.22	76,740.52		
Caterpillar Inc.	32.24	2.12	2.80	35.04	114,864.89		
Celanese Corp.	29.42	1.76	2.28	31.70	17,203.93		
CF Industries	62.70	2.73	4.44	67.14	9,844.58		
Chubb Ltd.	28.83	1.74	2.24	31.07	82,951.91		
Corning Inc.	22.14	2.37	2.89	25.03	34,014.42		
Corteva, Inc.	24.87	1.27	1.59	26.46	32,270.46		
Danaher Corp.	22.30	0.27	0.33	22.63	224,825.56		
Darden Restaurants	30.10	3.21	4.18	34.28	17,915.84		
Dentsply Sirona	24.97	0.73	0.91	25.88	13,160.26		
Devon Energy	25.00	1.68	2.10	27.10	17,696.78		
Diamondback Energy	56.96	2.58	4.05	61.01	12,634.49		
Digital Realty Trust	24.30	2.98	3.70	28.00	44,748.29		
Discover Fin'l Svcs.	55.60	1.55	2.41	58.01	38,901.23		
Dow Inc.	56.01	4.69	7.32	63.33	46,148.37		
Eastman Chemical	20.40	2.48	2.99	23.39	15,161.73		
Eaton Corp. plc	21.24	1.83	2.22	23.46	66,342.98		
Electronic Arts	27.01	0.51	0.65	27.66	39,950.62		
EOG Resources	71.10	2.63	4.50	75.60	38,144.82		

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	Growth	Yield (%)	Dividend	Return	(Mil)	Cap	Rate of
Company Name	Rate (%)		Yield (%)	on		Weight	Return on
				Equity		Factor	Equity
				(%)			(%)
Equinix, Inc.	37.00	1.48	2.03	39.03	73,080.73		
Everest Re Group Ltd.	62.29	2.34	3.80	66.09	10,885.74		
Fortive Corp.	39.23	0.38	0.53	39.76	26,492.93		
Fortune Brands Home	20.00	1.06	1.27	21.27	13,525.93		
Freep't-McMoRan Inc.	28.90	0.88	1.13	30.03	48,821.07		
Global Payments	20.26	0.60	0.72	20.98	48,854.55		
Halliburton Co.	60.10	0.95	1.52	61.62	16,802.10		
Howmet Aerospace	33.55	0.25	0.33	33.88	13,823.83		
Hunt (J.B.)	23.00	0.70	0.86	23.86	18,225.21		
Invesco Ltd.	21.30	3.07	3.72	25.02	11,125.58		
L3Harris Technologies	41.8	1.76	2.50	44.30	47,533.03		
Lennar Corp.	23.70	1.00	1.24	24.94	32,483.98		
Lincoln Nat'l Corp.	43.93	2.61	3.76	47.69	12,764.93		
LyondellBasell Inds.	47.01	4.51	6.63	53.64	33,534.03		
Marathon Petroleum	43.80	4.12	5.92	49.72	35,906.64		
Martin Marietta	20.05	0.62	0.74	20.79	23,416.22		
MasterCard Inc.	26.18	0.49	0.62	26.80	356,618.62		
McDonald's Corp.	21.60	2.24	2.72	24.32	177,797.89		
Micron Technology	23.80	0.57	0.71	24.51	79,094.40		
Monolithic Power Sys.	25.00	0.52	0.65	25.65	21,025.85		
Morgan Stanley	145.20	2.77	6.79	151.99	189,247.33		
NRG Energy	43.10	3.02	4.32	47.42	10,532.67		
Nucor Corp.	34.99	1.34	1.81	36.80	35,469.55		
NVIDIA Corp.	39.37	0.08	0.11	39.48	481,331.19		
NXP Semi. NV	21.74	1.10	1.34	23.08	57,166.41		
Occidental Petroleum	37.40	0.68	0.93	38.33	21,896.09		
Old Dominion Freight	29.29	0.30	0.39	29.68	32,017.99		

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	EPS Growth Rate (%)	Dividend Yield (%)	Expected Dividend Yield (%)	Rate of Return on Equity (%)	Market Cap \$ (Mil)	Market Cap Weight Factor	Weighted Rate of Return on Equity (%)
PACCAR Inc.	28.25	2.55	3.27	31.52	27,739.68		
PerkinElmer Inc.	37.90	0.16	0.22	38.12	20,284.37		
Pfizer, Inc.	100.10	3.16	6.32	106.42	276,022.28		
Pioneer Natural Res.	77.75	1.57	2.79	80.54	34,725.12		
PulteGroup, Inc.	23.70	1.11	1.37	25.07	13,614.51		
Qualcomm Inc.	25.62	1.91	2.40	28.02	160,379.03		
Ralph Lauren	74.89	2.37	4.14	79.03	8,558.94		
Raytheon Technologies	22.80	2.39	2.93	25.73	128,893.41		
Regions Financial	25.20	3.43	4.29	29.49	18,908.92		
ResMed Inc.	23.30	0.60	0.74	24.04	40,682.19		
Robert Half Int'l	31.00	1.55	2.03	33.03	11,399.67		
Ross Stores	93.74	0.94	1.82	95.56	44,300.36		
SBA Communications	189.32	0.71	2.05	191.37	38,664.91		
Schlumberger Ltd.	36.40	1.87	2.55	38.95	37,491.99		
Schwab (Charles)	22.70	1.04	1.28	23.98	130,028.76		
Seagate Technology plc	21.87	3.01	3.67	25.54	20,243.82		
Synchrony Financial	38.40	1.76	2.44	40.84	28,642.13		
Sysco Corp.	53.09	2.44	3.74	56.83	39,343.89		
Textron, Inc.	23.57	0.11	0.14	23.71	16,026.79		
TJX Companies	134.40	1.42	3.33	137.73	88,066.25		
Trane Technologies plc	22.29	1.23	1.50	23.79	45,805.86		
V.F. Corp.	45.74	2.57	3.75	49.49	29,846.30		
Wells Fargo	115.86	1.67	3.60	119.46	197,060.67		
West Pharmac. Svcs.	27.60	0.15	0.19	27.79	32,724.28		
WestRock Co.	20.62	1.93	2.33	22.95	13,259.59		

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Company Name	A EPS Growth Rate (%)	B Dividend Yield (%)	C Expected Dividend Yield (%)	D Rate of Return on Equity (%)	E Market Cap \$ (Mil)	F Market Cap Weight Factor	G Weighted Rate of Return on Equity (%)
<u>Qualifying Companies</u>							
3M Company	7.47	3.01	3.23	10.70	113,708.16	0.00506	0.0542
Abbott Labs.	13.12	1.45	1.64	14.76	219,705.20	0.00978	0.1444
AbbVie Inc.	4.48	4.43	4.63	9.11	207,094.59	0.00922	0.0840
Accenture Plc	11.36	1.20	1.34	12.70	206,073.34	0.00918	0.1165
Activision Blizzard	13.26	0.63	0.71	13.97	64,416.15	0.00287	0.0401
Advance Auto Parts	16.70	1.93	2.25	18.95	13,586.45	0.00061	0.0115
AES Corp.	8.60	2.53	2.75	11.35	15,830.26	0.00070	0.0080
Aflac Inc.	3.90	2.41	2.50	6.40	38,371.45	0.00171	0.0109
Agilent Technologies	12.39	0.48	0.54	12.93	49,460.75	0.00220	0.0285
Air Products & Chem.	12.96	2.20	2.49	15.45	60,244.49	0.00268	0.0414
Alexandria Real Estate	0.10	2.19	2.19	2.29	27,942.17	0.00124	0.0029
Allegion plc	7.77	1.03	1.11	8.88	12,563.51	0.00056	0.0050
Alliant Energy	6.10	2.62	2.78	8.88	15,348.00	0.00068	0.0061
Altria Group	5.17	7.13	7.50	12.67	88,979.74	0.00396	0.0502
Amcor plc	6.28	3.87	4.11	10.39	18,717.40	0.00083	0.0087
Amer. Elec. Power	5.50	3.43	3.62	9.12	44,894.57	0.00200	0.0182
Amer. Tower 'A'	16.58	1.91	2.23	18.81	128,946.69	0.00574	0.1080
Amer. Water Works	8.20	1.37	1.48	9.68	32,647.32	0.00145	0.0141
Ameren Corp.	7.90	2.54	2.74	10.64	22,953.89	0.00102	0.0109
AmerisourceBergen	11.57	1.53	1.71	13.28	24,347.56	0.00108	0.0144
Amgen	5.92	3.19	3.38	9.30	129,208.06	0.00575	0.0535
Amphenol Corp.	14.40	0.79	0.90	15.30	44,161.23	0.00197	0.0301
Analog Devices	14.78	1.66	1.91	16.69	61,042.52	0.00272	0.0454
Anthem, Inc.	13.38	1.26	1.43	14.81	90,592.64	0.00403	0.0597

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	EPS	Dividend	Expected	Rate of	Market Cap	Market	Weighted
	Growth	Yield	Dividend	Return	\$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	on	(Mil)	Weight	Return on
				Equity		Factor	Equity
				(%)			(%)
Aon plc	14.21	0.74	0.85	15.06	62,416.75	0.00278	0.0418
Apple Inc.	15.68	0.62	0.72	16.40	2,423,273.75	0.10792	1.7695
Applied Materials	16.54	0.75	0.87	17.41	116,416.18	0.00518	0.0903
Archer Daniels Mid'l'd	10.00	2.50	2.75	12.75	34,043.10	0.00152	0.0193
Assurant Inc.	17.20	1.60	1.88	19.08	10,009.23	0.00045	0.0085
AT&T Inc.	3.53	7.47	7.73	11.26	198,702.23	0.00885	0.0997
Atmos Energy	7.20	2.73	2.93	10.13	12,934.73	0.00058	0.0058
Automatic Data Proc.	14.03	1.93	2.20	16.23	88,328.74	0.00393	0.0638
AvalonBay Communities	2.54	2.92	2.99	5.53	31,096.38	0.00138	0.0077
Avery Dennison	9.16	1.30	1.42	10.58	17,886.11	0.00080	0.0084
Ball Corp.	15.64	0.88	1.02	16.66	29,641.40	0.00132	0.0220
Bank of New York Mellon	13.56	2.54	2.88	16.44	46,205.70	0.00206	0.0338
Bath & Body Works	13.63	1.01	1.15	14.78	16,464.88	0.00073	0.0108
Baxter Int'l Inc.	11.17	1.49	1.66	12.83	37,624.09	0.00168	0.0215
Becton, Dickinson	9.10	1.38	1.51	10.61	72,213.27	0.00322	0.0341
Berkley (W.R.)	9.00	0.70	0.76	9.76	13,139.79	0.00059	0.0057
Best Buy Co.	9.40	2.54	2.78	12.18	27,569.04	0.00123	0.0150
Bio-Techne	15.00	0.28	0.32	15.32	18,293.24	0.00081	0.0125
BlackRock, Inc.	13.15	1.83	2.07	15.22	137,360.00	0.00612	0.0931
Boston Properties	7.00	3.59	3.84	10.84	17,636.73	0.00079	0.0085
Bristol-Myers Squibb	5.97	2.88	3.05	9.02	150,948.19	0.00672	0.0606
Broadcom Inc.	14.74	3.07	3.52	18.26	192,277.69	0.00856	0.1564
Broadridge Fin'l	11.80	1.47	1.64	13.44	20,128.36	0.00090	0.0121
Brown & Brown	13.22	0.65	0.74	13.96	15,973.54	0.00071	0.0099
Brown-Forman 'B'	10.59	1.10	1.22	11.81	32,797.72	0.00146	0.0172
C.H. Robinson	12.39	2.30	2.58	14.97	11,729.62	0.00052	0.0078
Campbell Soup	2.36	3.46	3.54	5.90	13,817.94	0.00062	0.0036

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	EPS	Dividend	Expected	Rate of	Market Cap \$	Market	Weighted
	Growth	Yield (%)	Dividend	Return	(Mil)	Cap	Rate of
Company Name	Rate (%)		Yield (%)	on		Weight	Return on
				Equity		Factor	Equity
				(%)			(%)
Cardinal Health	7.10	3.80	4.07	11.17	14,995.23	0.00067	0.0075
Carrier Global	14.46	0.87	1.00	15.46	48,039.50	0.00214	0.0331
Cboe Global Markets	7.47	1.37	1.47	8.94	13,075.06	0.00058	0.0052
CDW Corp.	13.10	0.82	0.93	14.03	27,005.84	0.00120	0.0169
CenterPoint Energy	1.80	2.46	2.50	4.30	14,569.24	0.00065	0.0028
Cerner Corp.	13.52	1.11	1.26	14.78	23,766.73	0.00106	0.0156
Church & Dwight	7.75	1.19	1.28	9.03	20,793.58	0.00093	0.0084
Cigna Corp.	11.02	1.95	2.16	13.18	70,550.62	0.00314	0.0414
Cincinnati Financial	14.39	2.08	2.38	16.77	19,501.93	0.00087	0.0146
Cintas Corp.	11.90	0.98	1.10	13.00	40,401.68	0.00180	0.0234
Cisco Systems	6.55	2.68	2.86	9.41	232,457.25	0.01035	0.0974
Citigroup Inc.	19.00	2.87	3.42	22.42	147,008.44	0.00655	0.1467
Citrix Sys.	6.50	1.48	1.58	8.08	12,725.83	0.00057	0.0046
CME Group	5.14	1.82	1.91	7.05	70,794.49	0.00315	0.0222
CMS Energy Corp.	5.62	2.73	2.88	8.50	18,488.65	0.00082	0.0070
Coca-Cola	9.68	2.97	3.26	12.94	243,797.50	0.01086	0.1405
Cognizant Technology	13.98	1.25	1.42	15.40	40,251.75	0.00179	0.0276
Colgate-Palmolive	6.12	2.30	2.44	8.56	65,928.98	0.00294	0.0251
Comcast Corp.	18.10	1.69	2.00	20.10	271,184.75	0.01208	0.2427
Conagra Brands	2.24	3.40	3.48	5.72	15,963.04	0.00071	0.0041
Consol. Edison	2.00	4.11	4.19	6.19	27,039.80	0.00120	0.0075
Constellation Brands	9.45	1.42	1.55	11.00	41,147.40	0.00183	0.0202
Cooper Cos.	10.00	0.01	0.01	10.01	21,284.41	0.00095	0.0095
Costco Wholesale	9.98	0.71	0.78	10.76	197,287.75	0.00879	0.0945
Crown Castle Int'l	17.90	2.91	3.43	21.33	83,833.92	0.00373	0.0796
CSX Corp.	17.55	1.10	1.29	18.84	76,709.48	0.00342	0.0644
Cummins Inc.	18.52	2.48	2.94	21.46	33,565.45	0.00149	0.0321

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				Rate of Return on		Market Cap	Weighted Rate of
	EPS		Expected			Weight	Return on
Company Name	Growth Rate (%)	Dividend Yield (%)	Dividend Yield (%)	Equity (%)	Market Cap \$ (Mil)	Factor	Equity (%)
CVS Health	5.71	2.36	2.49	8.20	111,489.62	0.00496	0.0407
Deere & Co.	12.44	0.97	1.09	13.53	115,920.77	0.00516	0.0698
Dollar General	6.62	0.73	0.78	7.40	54,714.53	0.00244	0.0180
Dominion Energy	6.90	3.32	3.55	10.45	63,045.81	0.00281	0.0293
Domino's Pizza	12.00	0.74	0.83	12.83	19,371.20	0.00086	0.0111
Dover Corp.	14.73	1.17	1.34	16.07	24,690.75	0.00110	0.0177
DTE Energy	6.72	2.75	2.93	9.65	23,277.37	0.00104	0.0100
Duke Energy	2.50	3.70	3.79	6.29	82,321.45	0.00367	0.0231
Duke Realty Corp.	6.00	2.14	2.27	8.27	18,845.79	0.00084	0.0069
DuPont de Nemours	13.73	1.68	1.91	15.64	38,776.44	0.00173	0.0270
eBay Inc.	12.49	1.04	1.17	13.66	48,140.63	0.00214	0.0293
Ecolab Inc.	18.39	0.88	1.04	19.43	62,750.31	0.00279	0.0543
Edison Int'l	5.80	4.61	4.88	10.68	22,238.74	0.00099	0.0106
Emerson Electric	10.69	2.01	2.22	12.91	60,774.74	0.00271	0.0350
Entergy Corp.	6.00	3.56	3.77	9.77	22,132.96	0.00099	0.0096
Equifax, Inc.	13.60	0.61	0.69	14.29	30,994.45	0.00138	0.0197
Equity Residential	6.5	2.95	3.14	9.64	30,428.24	0.00136	0.0131
Essex Property Trust	7.90	2.69	2.90	10.80	20,544.23	0.00091	0.0099
Eversource Energy	5.12	3.24	3.41	8.53	15,791.61	0.00070	0.0060
Expeditors Int'l	6.70	2.76	2.94	9.64	30,999.68	0.00138	0.0133
Extra Space Storage	7.80	0.95	1.02	8.82	20,557.42	0.00092	0.0081
Exxon Mobil Corp.	6.00	2.35	2.49	8.49	22,918.03	0.00102	0.0087
Fastenal Co.	1.00	6.43	6.49	7.49	230,287.25	0.01026	0.0769
Fastenal Co.	6.33	2.07	2.20	8.53	31,154.76	0.00139	0.0118
Federal Rlty. Inv. Trust	6.70	3.71	3.96	10.66	8,889.59	0.00040	0.0042
FedEx Corp.	17.56	1.10	1.29	18.85	72,374.69	0.00322	0.0608
Fidelity Nat'l Info.	15.04	1.16	1.33	16.37	83,083.92	0.00370	0.0606

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	EPS	Dividend	Expected	Rate of	Market Cap \$	Market	Weighted
	Growth	Yield (%)	Dividend	Return	(Mil)	Cap	Rate of
Company Name	Rate (%)		Yield (%)	on		Weight	Return on
				Equity		Factor	Equity
				(%)			(%)
First Republic Bank	15.98	0.47	0.55	16.53	34,363.62	0.00153	0.0253
FMC Corp.	7.36	2.15	2.31	9.67	11,756.65	0.00052	0.0051
Franklin Resources	9.49	3.61	3.95	13.44	15,594.03	0.00069	0.0093
Gallagher (Arthur J.)	12.20	1.36	1.53	13.73	29,185.69	0.00130	0.0178
Gap (The), Inc.	4.90	1.80	1.89	6.79	10,054.59	0.00045	0.0030
Garmin Ltd.	10.78	1.75	1.94	12.72	31,663.73	0.00141	0.0179
Gen'l Dynamics	8.55	2.42	2.63	11.18	55,013.66	0.00245	0.0274
Gen'l Electric	7.00	0.32	0.34	7.34	111,280.24	0.00496	0.0364
Gen'l Mills	4.63	3.51	3.67	8.30	36,024.45	0.00160	0.0133
Genuine Parts	4.60	2.64	2.76	7.36	17,694.93	0.00079	0.0058
Gilead Sciences	1.32	3.95	4.00	5.32	90,237.85	0.00402	0.0214
Globe Life Inc.	10.31	0.83	0.92	11.23	9,866.28	0.00044	0.0049
Goldman Sachs	17.28	1.25	1.47	18.75	135,599.17	0.00604	0.1132
Grainger (W.W.)	15.38	1.51	1.74	17.12	22,306.42	0.00099	0.0170
Hanesbrands, Inc.	16.13	3.14	3.65	19.78	6,678.57	0.00030	0.0059
Hartford Fin'l Svcs.	11.58	2.10	2.34	13.92	23,849.89	0.00106	0.0148
Hasbro, Inc.	17.70	2.84	3.34	21.04	13,209.34	0.00059	0.0124
HCA Healthcare	15.71	0.80	0.93	16.64	78,275.38	0.00349	0.0580
Healthpeak Properties	2.90	3.40	3.50	6.40	19,011.08	0.00085	0.0054
Henry (Jack) & Assoc.	14.00	1.07	1.22	15.22	12,803.18	0.00057	0.0087
Hershey Co.	9.13	2.01	2.19	11.32	36,983.37	0.00165	0.0186
Hewlett Packard Ent.	17.76	3.26	3.84	21.60	19,183.87	0.00085	0.0185
Home Depot	13.70	2.15	2.44	16.14	342,450.75	0.01525	0.2462
Honeywell Int'l	11.44	1.63	1.82	13.26	157,701.17	0.00702	0.0931
Hormel Foods	7.10	2.19	2.35	9.45	24,948.18	0.00111	0.0105
Horton D.R.	10.60	0.89	0.98	11.58	33,463.20	0.00149	0.0173
HP Inc.	17.29	2.76	3.24	20.53	33,892.22	0.00151	0.0310

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	EPS	Dividend	Expected	Rate of	Market Cap \$	Market	Weighted
Company Name	Growth	Yield (%)	Dividend	Return	(Mil)	Cap	Rate of
	Rate (%)		Yield (%)	on		Weight	Return on
				Equity		Factor	Equity
				(%)			(%)
Humana Inc.	13.00	0.69	0.78	13.78	52,658.35	0.00235	0.0323
Huntington Ingalls	0.70	2.27	2.29	2.99	8,087.04	0.00036	0.0011
IDEX Corp.	12.00	0.98	1.10	13.10	16,708.63	0.00074	0.0097
IHS Markit	11.12	0.69	0.77	11.89	46,066.20	0.00205	0.0244
Illinois Tool Works	13.92	2.12	2.42	16.34	72,412.20	0.00322	0.0527
Intel Corp.	3.16	2.66	2.74	5.90	211,734.84	0.00943	0.0557
Intercontinental Exch.	11.42	1.14	1.27	12.69	64,964.57	0.00289	0.0367
Interpublic Group	17.40	3.04	3.57	20.97	14,508.35	0.00065	0.0135
Int'l Business Mach.	6.90	4.71	5.03	11.93	124,619.66	0.00555	0.0662
Int'l Flavors & Frag.	4.49	2.12	2.22	6.71	37,733.72	0.00168	0.0113
Int'l Paper	19.20	3.50	4.17	23.37	22,881.34	0.00102	0.0238
Intuit Inc.	17.40	0.47	0.55	17.95	145,732.72	0.00649	0.1165
Iron Mountain	6.44	5.48	5.83	12.27	13,067.83	0.00058	0.0071
Jacobs Engineering	13.03	0.63	0.71	13.74	17,431.33	0.00078	0.0107
Johnson & Johnson	8.19	2.39	2.59	10.78	466,362.12	0.02077	0.2238
Johnson Ctrl. Int'l plc	19.33	1.49	1.78	21.11	51,593.51	0.00230	0.0485
JPMorgan Chase	10.57	2.57	2.84	13.41	470,960.53	0.02097	0.2813
Juniper Networks	9.35	2.84	3.11	12.46	9,340.92	0.00042	0.0052
Kansas City South'n	16.50	0.74	0.86	17.36	26,536.62	0.00118	0.0205
Kellogg	3.15	3.56	3.67	6.82	22,335.50	0.00099	0.0068
KeyCorp	14.60	3.80	4.35	18.95	19,224.73	0.00086	0.0162
Kimco Realty	4.60	3.50	3.66	8.26	9,134.80	0.00041	0.0034
Kinder Morgan Inc.	7.39	6.63	7.12	14.51	36,888.23	0.00164	0.0238
KLA Corp.	19.63	1.32	1.58	21.21	48,514.02	0.00216	0.0458
Kroger Co.	6.58	1.82	1.94	8.52	34,648.74	0.00154	0.0131
Lam Research	16.06	0.91	1.06	17.12	81,216.12	0.00362	0.0619
Lamb Weston Holdings	11.30	1.44	1.60	12.90	9,660.48	0.00043	0.0056

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	EPS	Dividend	Expected	Rate of	Market Cap \$	Market	Weighted
Company Name	Growth	Yield (%)	Dividend	Return	(Mil)	Cap	Rate of
	Rate (%)		Yield (%)	on		Weight	Return on
				Equity		Factor	Equity
				(%)			(%)
Lauder (Estee)	14.71	0.71	0.81	15.52	115,687.88	0.00515	0.0800
Leggett & Platt	5.20	3.52	3.70	8.90	6,370.36	0.00028	0.0025
Leidos Hldgs.	9.60	1.49	1.63	11.23	13,721.46	0.00061	0.0069
Lilly (Eli)	7.08	1.27	1.36	8.44	256,983.86	0.01144	0.0966
Lockheed Martin	4.80	3.09	3.24	8.04	98,748.24	0.00440	0.0353
Loews Corp.	14.03	0.46	0.52	14.55	14,427.83	0.00064	0.0094
Lowe's Cos.	16.70	1.60	1.87	18.57	142,806.95	0.00636	0.1181
M&T Bank Corp.	14.20	3.22	3.68	17.88	17,597.84	0.00078	0.0140
MarketAxess Holdings	4.72	0.57	0.60	5.32	17,543.46	0.00078	0.0042
Marsh & McLennan	12.90	1.40	1.58	14.48	77,535.23	0.00345	0.0500
Masco Corp.	15.40	1.57	1.81	17.21	14,767.82	0.00066	0.0113
McCormick & Co.	6.80	1.60	1.71	8.51	23,076.09	0.00103	0.0087
McKesson Corp.	11.73	0.94	1.05	12.78	31,592.91	0.00141	0.0180
Medtronic plc	11.46	2.00	2.23	13.69	174,000.69	0.00775	0.1061
Merck & Co.	15.33	3.34	3.85	19.18	196,910.12	0.00877	0.1682
MetLife Inc.	8.35	3.15	3.41	11.76	53,550.68	0.00238	0.0281
Microchip Technology	18.30	1.15	1.36	19.66	39,371.33	0.00175	0.0345
Microsoft Corp.	16.53	0.77	0.90	17.43	2,185,998.75	0.09735	1.6965
Mid-America Apartment	7.00	2.20	2.35	9.35	21,353.63	0.00095	0.0089
Molson Coors Beverage	3.48	2.78	2.88	6.36	10,939.34	0.00049	0.0031
Mondelez Int'l	8.80	2.19	2.38	11.18	89,365.39	0.00398	0.0445
Moody's Corp.	12.52	0.66	0.74	13.26	69,616.05	0.00310	0.0411
Mosaic Company	7.00	1.03	1.10	8.10	11,742.52	0.00052	0.0042
Motorola Solutions	14.14	1.21	1.38	15.52	39,600.96	0.00176	0.0274
MSCI Inc.	19.50	0.69	0.82	20.32	50,304.49	0.00224	0.0455
Nasdaq, Inc.	13.20	1.16	1.31	14.51	32,873.39	0.00146	0.0212
NetApp, Inc.	8.80	2.51	2.73	11.53	17,766.41	0.00079	0.0091

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	A	B	C	D	E	F	G
				Rate of Return on Equity		Market Cap Weight	Weighted Rate of Return on Equity
Company Name	EPS Growth Rate (%)	Dividend Yield (%)	Expected Dividend Yield (%)		Market Cap \$ (Mil)		
Newell Brands	4.22	3.75	3.91	8.13	10,443.57	0.00047	0.0038
NextEra Energy	9.95	1.92	2.11	12.06	165,632.03	0.00738	0.0890
NIKE, Inc. 'B'	15.64	0.65	0.75	16.39	266,551.00	0.01187	0.1946
NiSource Inc.	3.52	3.45	3.57	7.09	9,992.59	0.00045	0.0032
Norfolk Southern	17.64	1.64	1.93	19.57	65,519.20	0.00292	0.0571
Northern Trust Corp.	18.66	2.45	2.91	21.57	23,842.47	0.00106	0.0229
Northrop Grumman	6.00	1.73	1.83	7.83	58,245.05	0.00259	0.0203
NortonLifeLock Inc.	12.70	1.95	2.20	14.90	14,937.51	0.00067	0.0099
Omnicom Group	9.50	3.97	4.35	13.85	15,643.14	0.00070	0.0096
ONEOK Inc.	9.86	7.63	8.38	18.24	22,540.56	0.00100	0.0183
Oracle Corp.	9.64	1.44	1.58	11.22	250,277.17	0.01115	0.1250
Otis Worldwide	11.98	1.06	1.19	13.17	38,625.40	0.00172	0.0226
Packaging Corp.	16.40	2.76	3.21	19.61	13,776.70	0.00061	0.0120
Parker-Hannifin	11.16	1.41	1.57	12.73	37,821.15	0.00168	0.0214
Paychex, Inc.	12.37	2.37	2.66	15.03	41,330.02	0.00184	0.0277
Pentair plc	17.60	1.03	1.21	18.81	12,919.07	0.00058	0.0108
People's United Fin'l	10.74	4.60	5.09	15.83	6,783.94	0.00030	0.0048
PepsiCo, Inc.	9.75	2.75	3.02	12.77	215,978.95	0.00962	0.1228
Perrigo Co. plc	4.00	2.41	2.51	6.51	5,420.10	0.00024	0.0016
Philip Morris Int'l	11.03	4.76	5.29	16.32	157,338.64	0.00701	0.1143
Pinnacle West Capital	0.10	4.33	4.33	4.43	9,044.15	0.00040	0.0018
Pool Corp.	17.00	0.67	0.78	17.78	19,128.52	0.00085	0.0151
PPG Inds.	16.60	1.43	1.67	18.27	39,047.60	0.00174	0.0318
Price (T. Rowe) Group	12.20	2.06	2.31	14.51	47,701.90	0.00212	0.0308
Principal Fin'l Group	16.47	3.72	4.33	20.80	17,851.47	0.00079	0.0165
Procter & Gamble	6.93	2.43	2.60	9.53	350,831.75	0.01562	0.1489
Prudential Fin'l	8.46	4.38	4.75	13.21	41,422.53	0.00184	0.0244

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	EPS	Expected	Rate of		Market	Weighted
	Growth	Dividend	Return	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	Yield (%)	on	(Mil)	Weight	Return on
			Equity		Factor	Equity
			(%)			(%)
Public Serv. Enterprise	3.27	3.25	3.36	32,256.00	0.00144	0.0095
Public Storage	17.00	2.53	2.96	55,904.64	0.00249	0.0497
Quanta Services	15.43	0.25	0.29	13,396.42	0.00060	0.0094
Raymond James Fin'l	8.54	1.16	1.26	18,479.76	0.00082	0.0081
Realty Income Corp.	5.45	3.99	4.21	25,909.04	0.00115	0.0111
Regency Centers Corp.	9.10	3.69	4.03	10,940.96	0.00049	0.0064
Republic Services	10.60	1.54	1.70	38,133.16	0.00170	0.0209
Rockwell Automation	12.41	1.38	1.55	36,268.57	0.00162	0.0225
Rollins, Inc.	8.20	0.85	0.92	18,615.35	0.00083	0.0076
Roper Tech.	11.90	0.47	0.53	50,420.08	0.00225	0.0279
S&P Global	9.34	0.76	0.83	103,630.00	0.00461	0.0469
Sealed Air	11.30	1.35	1.50	8,880.92	0.00040	0.0051
Sempra Energy	4.30	3.40	3.55	41,765.85	0.00186	0.0146
Sherwin-Williams	12.87	0.76	0.86	79,282.86	0.00353	0.0485
Simon Property Group	8.60	4.38	4.76	42,047.10	0.00187	0.0250
Skyworks Solutions	12.55	1.28	1.44	28,933.78	0.00129	0.0180
Smith (A.O.)	8.00	1.48	1.60	11,191.80	0.00050	0.0048
Smucker (J.M.)	1.61	3.01	3.06	14,267.16	0.00064	0.0030
Snap-on Inc.	10.10	2.40	2.64	11,892.51	0.00053	0.0067
Southern Co.	6.20	4.03	4.28	69,880.16	0.00311	0.0326
Stanley Black & Decker	11.64	1.64	1.83	34,087.44	0.00152	0.0204
Starbucks Corp.	11.40	1.73	1.93	136,386.72	0.00607	0.0809
State Street Corp.	13.82	2.61	2.97	30,004.99	0.00134	0.0224
STERIS plc	10.00	0.80	0.88	21,573.06	0.00096	0.0105
Stryker Corp.	13.33	0.96	1.09	99,394.97	0.00443	0.0638
Target Corp.	14.80	1.45	1.66	122,822.70	0.00547	0.0901
TE Connectivity	10.36	1.34	1.48	49,070.29	0.00219	0.0259

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				Rate of Return on		Market Cap	Weighted Rate of
	EPS	Dividend	Expected	on	Market Cap \$	Cap	Return on
Company Name	Growth	Yield (%)	Dividend	Equity	(Mil)	Weight	Equity
	Rate (%)		Yield (%)	(%)		Factor	(%)
Teleflex Inc.	11.00	0.37	0.41	11.41	17,401.41	0.00077	0.0088
Teradyne Inc.	16.76	0.35	0.41	17.17	18,862.27	0.00084	0.0144
Texas Instruments	10.00	2.22	2.44	12.44	169,663.38	0.00756	0.0940
Thermo Fisher Sci.	11.80	0.19	0.21	12.01	214,279.61	0.00954	0.1146
Tractor Supply	11.65	1.10	1.23	12.88	22,309.45	0.00099	0.0128
Travelers Cos.	8.55	2.22	2.41	10.96	39,918.08	0.00178	0.0195
Truist Fin'l	4.60	3.46	3.62	8.22	74,719.59	0.00333	0.0273
Tyson Foods 'A'	7.50	2.22	2.39	9.89	29,254.75	0.00130	0.0129
U.S. Bancorp	13.06	3.00	3.39	16.45	83,099.91	0.00370	0.0609
Union Pacific	16.68	1.90	2.22	18.90	146,797.34	0.00654	0.1235
United Parcel Serv.	17.48	2.11	2.48	19.96	169,807.16	0.00756	0.1509
UnitedHealth Group	14.17	1.39	1.59	15.76	393,532.78	0.01753	0.2761
Universal Health 'B'	8.21	0.54	0.58	8.79	12,671.00	0.00056	0.0050
Unum Group	6.51	4.61	4.91	11.42	5,321.17	0.00024	0.0027
Verisk Analytics	9.95	0.61	0.67	10.62	30,889.01	0.00138	0.0146
Verizon Communic.	3.79	4.58	4.75	8.54	229,652.23	0.01023	0.0874
Visa Inc.	18.37	0.59	0.70	19.07	451,678.50	0.02011	0.3836
Vornado R'lty Trust	17.33	5.16	6.05	23.38	7,869.21	0.00035	0.0082
Vulcan Materials	19.15	0.80	0.95	20.10	24,448.57	0.00109	0.0219
Wabtec Corp.	7.30	0.55	0.59	7.89	16,618.77	0.00074	0.0058
Walgreens Boots	2.93	3.90	4.01	6.94	42,396.51	0.00189	0.0131
Walmart Inc.	8.10	1.48	1.60	9.70	418,225.53	0.01862	0.1807
Waste Management	15.37	1.54	1.78	17.15	62,937.09	0.00280	0.0481
WEC Energy Group	6.60	2.90	3.09	9.69	30,426.86	0.00136	0.0131
Welltower Inc.	13.00	2.99	3.38	16.38	35,186.91	0.00157	0.0257
Western Union	8.16	4.29	4.64	12.80	8,917.37	0.00040	0.0051
Weyerhaeuser Co.	5.00	2.01	2.11	7.11	25,342.63	0.00113	0.0080

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				Rate of Return on		Market Cap Weight Factor	Weighted Rate of Return on Equity (%)
Company Name	EPS Growth Rate (%)	Dividend Yield (%)	Expected Dividend Yield (%)	Equity (%)	Market Cap \$ (Mil)		
Whirlpool Corp.	8.50	2.54	2.76	11.26	13,877.64	0.00062	0.0070
Williams Cos.	2.00	6.82	6.96	8.96	29,184.56	0.00130	0.0116
Willis Towers Wat. plc	6.36	1.49	1.58	7.94	27,615.91	0.00123	0.0098
Xcel Energy Inc.	6.90	2.73	2.92	9.82	37,320.76	0.00166	0.0163
Xylem Inc.	18.76	0.86	1.02	19.78	23,461.62	0.00104	0.0207
Yum! Brands	15.21	1.53	1.76	16.97	40,048.22	0.00178	0.0303
Zimmer Biomet Hldgs.	9.75	0.67	0.74	10.49	30,132.11	0.00134	0.0141
Zoetis Inc.	13.57	0.49	0.56	14.13	96,421.31	0.00429	0.0607
			Totals		22,455,188	1.00	14.02

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11.24

Companies not paying dividends

Companies with EPS < 1

Companies with EPS > 20%

Return
%

	A	B	C	D	E	F	G
Company Name	EPS Growth Rate (%)	Dividend Yield (%)	Expected Dividend Yield (%)	Rate of Return on Equity (%)	Market Cap \$ (Mil)	Market Cap Weight Factor	Weighted Rate of Return on Equity (%)

Companies not paying dividends

Adobe Inc.	14.50	0.00	0.00	14.50	236,209
Advanced Micro Dev.	17.50	0.00	0.00	17.50	290,264
Airbnb Inc.		0.00	0.00	0.00	105,250
Akamai Technologies	5.00	0.00	0.00	5.00	16,575
Align Techn.	13.50	0.00	0.00	13.50	25,208
Alphabet Inc.	13.00	0.00	0.00	13.00	1,873,395
Alphabet Inc. 'A'	15.98	0.00	0.00	15.98	1,853,300
Amazon.com	19.50	0.00	0.00	19.50	1,840,289
Amer. Airlines		0.00	0.00	0.00	9,522
ANSYS Inc.	9.00	0.00	0.00	9.00	29,813
Aptiv PLC	27.00	0.00	0.00	27.00	22,046
Arch Capital Group	23.50	0.00	0.00	23.50	34,411
Arista Networks	17.00	0.00	0.00	17.00	92,606

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	A	B	C	D	E	F	G
	EPS	Dividend	Expected	Rate of		Market	Weighted
	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
Autodesk Inc.	10.00	0.00	0.00	10.00	56,160		
AutoZone Inc.	12.50	0.00	0.00	12.50	55,180		
Axon Enterprise	21.50	0.00	0.00	21.50	23,666		
Bio-Rad Labs. 'A'	9.00	0.00	0.00	9.00	9,801		
Biogen	-1.00	0.00	0.00	-1.00	31,610		
Boeing		0.00	0.00	0.00	114,455		
Booking Holdings	28.00	0.00	0.00	28.00	125,920		
Boston Scientific	12.50	0.00	0.00	12.50	98,791		
Builders FirstSource	20.00	0.00	0.00	20.00	25,496		
Cadence Design Sys.	14.00	0.00	0.00	14.00	86,206		
Caesars Entertainment		0.00	0.00	0.00	9,016		
CarMax Inc.	3.50	0.00	0.00	3.50	13,128		
Carnival Corp.		0.00	0.00	0.00	21,298		
Catalent Inc.	5.50	0.00	0.00	5.50	10,114		
CBRE Group	5.00	0.00	0.00	5.00	29,146		
Centene Corp.	10.00	0.00	0.00	10.00	41,626		
Charles River	7.00	0.00	0.00	7.00	13,756		
Charter Communic.	8.50	0.00	0.00	8.50	42,885		
Chipotle Mex. Grill	22.50	0.00	0.00	22.50	79,569		
Cooper Cos.	9.50	0.00	0.00	9.50	20,200		
Copart Inc.	9.00	0.00	0.00	9.00	54,699		
Corpay	15.50	0.00	0.00	15.50	22,122		
CoStar Group	15.00	0.00	0.00	15.00	39,301		
DaVita Inc.	9.50	0.00	0.00	9.50	12,677		
Dayforce Inc.		0.00	0.00	0.00	10,775		
Deckers Outdoor	14.00	0.00	0.00	14.00	23,474		

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	EPS	Dividend	Expected	Rate of		Market	Weighted
	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
DexCom Inc.	24.00	0.00	0.00	24.00	51,210		
Dollar Tree Inc.	9.00	0.00	0.00	9.00	27,908		
Edwards Lifesciences	10.00	0.00	0.00	10.00	55,926		
Enphase Energy	14.00	0.00	0.00	14.00	15,432		
EPAM Systems	5.50	0.00	0.00	5.50	16,878		
Etsy Inc.	2.00	0.00	0.00	2.00	8,157		
Expedia Group		0.00	0.00	0.00	19,314		
F5 Inc.	10.50	0.00	0.00	10.50	11,144		
Fair Isaac	19.50	0.00	0.00	19.50	30,984		
First Solar Inc.	34.00	0.00	0.00	34.00	16,136		
Fiserv Inc.	9.50	0.00	0.00	9.50	93,605		
Fortinet Inc.	21.50	0.00	0.00	21.50	51,649		
Gartner Inc.	10.00	0.00	0.00	10.00	37,747		
Generac Holdings	12.50	0.00	0.00	12.50	7,116		
Hologic Inc.	-1.00	0.00	0.00	-1.00	17,600		
IDEXX Labs.	11.00	0.00	0.00	11.00	43,965		
Illumina Inc.	-6.00	0.00	0.00	-6.00	21,044		
Incyte Corp.	16.50	0.00	0.00	16.50	13,052		
Insulet Corp.	69.50	0.00	0.00	69.50	11,675		
Intuitive Surgical	12.50	0.00	0.00	12.50	137,527		
IQVIA Holdings	11.50	0.00	0.00	11.50	46,121		
Keysight Technologies	8.00	0.00	0.00	8.00	26,354		
Live Nation Entertain.		0.00	0.00	0.00	23,896		
lululemon athletica	16.50	0.00	0.00	16.50	59,212		
Match Group	13.50	0.00	0.00	13.50	9,683		
Mettler-Toledo Int'l	9.00	0.00	0.00	9.00	28,045		

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	EPS	Dividend	Expected	Rate of		Market	Weighted
	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
MGM Resorts Int'l		0.00	0.00	0.00	15,208		
Moderna Inc.	-17.50	0.00	0.00	-17.50	39,274		
Mohawk Inds.	1.00	0.00	0.00	1.00	7,870		
Molina Healthcare	12.00	0.00	0.00	12.00	24,134		
Monster Beverage	13.00	0.00	0.00	13.00	62,640		
Netflix Inc.	14.50	0.00	0.00	14.50	274,727		
Norwegian Cruise Line		0.00	0.00	0.00	8,585		
NVR Inc.	1.50	0.00	0.00	1.50	25,427		
O'Reilly Automotive	11.00	0.00	0.00	11.00	67,656		
ON Semiconductor	13.00	0.00	0.00	13.00	32,540		
Palo Alto Networks		0.00	0.00	0.00	91,018		
PayPal Holdings	12.00	0.00	0.00	12.00	69,734		
PTC Inc.	11.00	0.00	0.00	11.00	22,668		
Qorvo Inc.	9.50	0.00	0.00	9.50	10,975		
Regeneron Pharmac.	3.00	0.00	0.00	3.00	105,205		
Royal Caribbean		0.00	0.00	0.00	34,728		
Schein (Henry)	7.50	0.00	0.00	7.50	9,665		
ServiceNow Inc.	61.00	0.00	0.00	61.00	157,138		
Super Micro Computer	39.00	0.00	0.00	39.00	50,128		
Synopsys Inc.	14.50	0.00	0.00	14.50	89,963		
Take-Two Interactive	59.00	0.00	0.00	59.00	25,307		
Teledyne Technologies	9.50	0.00	0.00	9.50	20,055		
Tesla Inc.	23.00	0.00	0.00	23.00	558,423		
TransDigm Group	21.00	0.00	0.00	21.00	67,459		
Trimble Inc.	5.50	0.00	0.00	5.50	15,712		
Tyler Technologies	10.00	0.00	0.00	10.00	17,711		

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	EPS Growth Rate (%)	Dividend Yield (%)	Expected Dividend Yield (%)	Rate of Return on Equity (%)	Market Cap \$ (Mil)	Market Cap Weight Factor	Weighted Rate of Return on Equity (%)
Company Name							
Uber Technologies		0.00	0.00	0.00	162,875		
Ulta Beauty	13.50	0.00	0.00	13.50	25,495		
Under Armour 'C'		0.00	0.00	0.00	3,101		
United Airlines Hldgs.		0.00	0.00	0.00	15,082		
VeriSign Inc.	13.00	0.00	0.00	13.00	19,236		
Vertex Pharmac.	9.50	0.00	0.00	9.50	106,254		
Warner Bros. Discovery		0.00	0.00	0.00	21,308		
Waters Corp.	5.00	0.00	0.00	5.00	20,594		
Western Digital	7.00	0.00	0.00	7.00	19,795		
Zebra Techn. 'A'	-1.00	0.00	0.00	-1.00	14,679		

Companies with EPS ≤ 0%

AES Corp.	0.00	4.44	4.44	4.44	10,406		
Albemarle Corp.	-4.50	1.29	1.23	-3.27	14,605		
Baker Hughes	0.00	2.52	2.52	2.52	33,590		
Best Buy Co.	-0.50	4.89	4.87	4.37	16,999		
Camden Property Trust	-6.50	4.26	3.98	-2.52	10,503		
Constellation Energy	0.00	0.80	0.80	0.80	56,052		
Coterra Energy	0.00	3.10	3.10	3.10	20,843		
Delta Air Lines	0.00	0.88	0.88	0.88	29,200		
Digital Realty Trust	-5.00	3.51	3.33	-1.67	43,903		
Discover Fin'l Svcs.	0.00	2.23	2.23	2.23	31,450		
EQT Corp.	0.00	1.86	1.86	1.86	13,911		
Equity Residential	-4.50	4.23	4.04	-0.46	23,538		

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	EPS Growth Rate (%)	Dividend Yield (%)	Expected Dividend Yield (%)	Rate of Return on Equity (%)	Market Cap \$ (Mil)	Market Cap Weight Factor	Weighted Rate of Return on Equity (%)
Company Name							
Expeditors Int'l	-1.00	1.15	1.14	0.14	17,384		
Federal Rlty. Inv. Trust	0.00	4.31	4.31	4.31	7,947		
Fidelity Nat'l Info.	-3.00	2.04	1.98	-1.02	41,854		
GE HealthCare	0.00	0.13	0.13	0.13	41,375		
Host Hotels & Resorts	0.00	3.85	3.85	3.85	14,825		
Kenvue Inc.	0.00	3.92	3.92	3.92	39,085		
KeyCorp	-2.00	5.45	5.34	3.34	14,080		
Laboratory Corp.	-1.50	1.38	1.36	-0.14	17,775		
Las Vegas Sands	0.00	1.58	1.58	1.58	38,079		
LyondellBasell Inds.	0.00	4.89	4.89	4.89	33,191		
Mid-America Apt.	-11.00	4.48	3.99	-7.01	15,143		
Mosaic Company	-6.00	2.60	2.44	-3.56	10,459		
News Corp. 'B'	0.00	0.75	0.75	0.75	15,841		
Paramount Global	-2.50	1.60	1.56	-0.94	8,157		
Revvity Inc.	-2.50	0.27	0.26	-2.24	12,911		
Southwest Airlines	0.00	2.50	2.50	2.50	17,192		
Targa Resources	0.00	2.75	2.75	2.75	24,334		
Tyson Foods 'A'	-16.50	3.40	2.84	-13.66	20,599		
Ventas Inc.	0.00	4.19	4.19	4.19	17,560		
Viatis Inc.	-1.50	4.71	4.64	3.14	14,252		
Walgreens Boots	-2.00	4.74	4.65	2.65	18,183		
Weyerhaeuser Co.	-1.00	2.27	2.25	1.25	25,768		
Wynn Resorts	0.00	1.00	1.00	1.00	11,345		

Companies with EPS > 20%

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	EPS	Dividend	Expected	Rate of		Market	Weighted
	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
Bristol-Myers Squibb	24.50	4.63	5.76	30.26	105,524		
Diamondback Energy	34.00	1.87	2.51	36.51	34,493		
Disney (Walt)	37.00	0.64	0.88	37.88	219,061		
Ford Motor	37.00	10.23	14.02	51.02	53,600		
Gen'l Electric	29.50	0.18	0.23	29.73	189,308		
Halliburton Co.	27.50	2.20	2.81	30.31	34,207		
Hilton Worldwide	37.00	0.28	0.38	37.38	54,286		
Lilly (Eli)	27.50	0.67	0.85	28.35	733,737		
Marathon Oil Corp.	25.50	1.73	2.17	27.67	15,989		
Marriott Int'l	23.00	0.82	1.01	24.01	74,996		
Molson Coors Beverage	42.00	2.63	3.73	45.73	14,257		
NVIDIA Corp.	33.00	0.02	0.03	33.03	2,226,766		
PG&E Corp.	30.00	0.31	0.40	30.40	34,563		
Schlumberger Ltd.	26.00	2.02	2.55	28.55	77,650		
Welltower Inc.	25.50	2.72	3.41	28.91	52,469		

Qualifying Companies

3M Company	4.50	5.59	5.84	10.34	59,740	0.00186	0.0193
Abbott Labs.	4.00	1.97	2.05	6.05	193,350	0.00603	0.0365
AbbVie Inc.	3.50	3.52	3.64	7.14	311,202	0.00970	0.0693
Accenture Plc	8.50	1.36	1.48	9.98	238,533	0.00744	0.0742
Aflac Inc.	7.50	2.39	2.57	10.07	49,159	0.00153	0.0154
Agilent Technologies	8.00	0.64	0.69	8.69	43,159	0.00135	0.0117

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	EPS	Dividend	Expected	Rate of		Market	Weighted
	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
Air Products & Chem.	10.50	2.93	3.24	13.74	53,119	0.00166	0.0228
Alexandria Real Estate	1.00	4.03	4.07	5.07	19,939	0.00062	0.0032
Allegion plc	8.50	1.42	1.54	10.04	11,838	0.00037	0.0037
Alliant Energy	6.00	3.71	3.93	9.93	12,498	0.00039	0.0039
Allstate Corp.	11.00	2.28	2.53	13.53	42,227	0.00132	0.0178
Altria Group	5.00	8.75	9.19	14.19	79,273	0.00247	0.0351
Amcort plc	7.50	5.46	5.87	13.37	13,213	0.00041	0.0055
Amer. Elec. Power	6.50	4.31	4.59	11.09	43,549	0.00136	0.0151
Amer. Express	8.50	1.23	1.33	9.83	166,146	0.00518	0.0510
Amer. Int'l Group	9.00	1.88	2.05	11.05	54,069	0.00169	0.0186
Amer. Tower 'A'	5.50	3.33	3.51	9.01	90,729	0.00283	0.0255
Amer. Water Works	3.00	2.54	2.62	5.62	22,996	0.00072	0.0040
Ameren Corp.	6.00	3.72	3.94	9.94	18,942	0.00059	0.0059
Ameriprise Fin'l	12.50	1.34	1.51	14.01	43,708	0.00136	0.0191
AMETEK Inc.	13.00	0.61	0.69	13.69	42,513	0.00133	0.0181
Amgen	4.50	3.30	3.45	7.95	146,109	0.00456	0.0362
Amphenol Corp.	13.00	0.79	0.89	13.89	67,143	0.00209	0.0291
Analog Devices	7.50	1.89	2.03	9.53	96,365	0.00300	0.0286
Aon plc	10.00	0.86	0.95	10.95	65,475	0.00204	0.0223
APA Corp.	19.50	3.55	4.24	23.74	10,367	0.00032	0.0077
Apple Inc.	6.50	0.54	0.58	7.08	2,762,278	0.08613	0.6094
Applied Materials	10.00	0.69	0.76	10.76	170,384	0.00531	0.0572
Archer Daniels Midl'd	7.50	2.94	3.16	10.66	31,452	0.00098	0.0105
Assurant Inc.	10.50	1.60	1.77	12.27	9,525	0.00030	0.0036
AT&T Inc.	4.00	6.45	6.71	10.71	123,053	0.00384	0.0411
Atmos Energy	7.00	2.87	3.07	10.07	17,572	0.00055	0.0055

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	EPS	Dividend	Expected	Rate of		Market	Weighted
	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
Automatic Data Proc.	11.00	2.34	2.60	13.60	101,739	0.00317	0.0431
AvalonBay Communities	5.50	3.76	3.97	9.47	26,087	0.00081	0.0077
Avery Dennison	5.00	1.59	1.67	6.67	17,438	0.00054	0.0036
Ball Corp.	10.00	1.23	1.35	11.35	20,599	0.00064	0.0073
Bank of America	4.50	2.67	2.79	7.29	291,183	0.00908	0.0662
Bank of NY Mellon	9.00	3.08	3.36	12.36	43,183	0.00135	0.0166
Bath & Body Works	6.00	1.66	1.76	7.76	10,919	0.00034	0.0026
Baxter Int'l Inc.	4.00	2.77	2.88	6.88	21,234	0.00066	0.0046
Becton Dickinson	5.50	1.62	1.71	7.21	68,721	0.00214	0.0154
Berkley (W.R.)	16.00	0.51	0.59	16.59	22,285	0.00069	0.0115
Bio-Techne Corp.	10.00	0.44	0.48	10.48	11,295	0.00035	0.0037
BlackRock Inc.	7.50	2.69	2.89	10.39	121,819	0.00380	0.0395
Blackstone Inc.	15.00	2.51	2.89	17.89	90,745	0.00283	0.0506
BorgWarner	5.50	1.35	1.42	6.92	7,519	0.00023	0.0016
Boston Properties	0.50	6.08	6.11	6.61	10,089	0.00031	0.0021
Broadcom Inc.	17.50	1.65	1.94	19.44	590,788	0.01842	0.3581
Broadridge Fin'l	9.50	1.57	1.72	11.22	24,050	0.00075	0.0084
Brown & Brown	6.50	0.60	0.64	7.14	24,666	0.00077	0.0055
Brown-Forman 'B'	16.50	1.66	1.93	18.43	25,044	0.00078	0.0144
Bunge Global SA	1.50	2.80	2.84	4.34	14,156	0.00044	0.0019
C.H. Robinson	3.50	3.35	3.47	6.97	8,613	0.00027	0.0019
Campbell Soup	5.00	3.60	3.78	8.78	12,918	0.00040	0.0035
Capital One Fin'l	4.00	1.69	1.76	5.76	53,928	0.00168	0.0097
Cardinal Health	10.00	1.80	1.98	11.98	27,301	0.00085	0.0102
Carrier Global	13.50	1.30	1.48	14.98	49,157	0.00153	0.0230
Caterpillar Inc.	13.00	1.46	1.65	14.65	181,463	0.00566	0.0829

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	EPS	Dividend	Expected	Rate of		Market	Weighted
	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
Cboe Global Markets	13.00	1.20	1.36	14.36	19,338	0.00060	0.0087
CDW Corp.	7.00	0.99	1.06	8.06	33,632	0.00105	0.0085
Celanese Corp.	4.50	1.74	1.82	6.32	18,010	0.00056	0.0035
Cencora	8.00	0.86	0.93	8.93	48,244	0.00150	0.0134
CenterPoint Energy	6.00	2.85	3.02	9.02	17,737	0.00055	0.0050
CF Industries	2.00	2.32	2.37	4.37	16,211	0.00051	0.0022
Chevron Corp.	16.50	4.27	4.97	21.47	291,752	0.00910	0.1954
Chubb Ltd.	16.00	1.33	1.54	17.54	105,468	0.00329	0.0577
Church & Dwight	5.50	1.11	1.17	6.67	25,376	0.00079	0.0053
Cigna Group	12.00	1.58	1.77	13.77	103,537	0.00323	0.0445
Cincinnati Financial	10.50	2.73	3.02	13.52	18,608	0.00058	0.0078
Cintas Corp.	14.00	0.85	0.97	14.97	64,355	0.00201	0.0300
Cisco Systems	4.50	3.23	3.38	7.88	200,678	0.00626	0.0493
Citigroup Inc.	2.50	3.53	3.62	6.12	115,082	0.00359	0.0220
Citizens Fin'l Group	4.50	4.94	5.16	9.66	16,243	0.00051	0.0049
Clorox Co.	7.00	3.19	3.41	10.41	18,673	0.00058	0.0061
CME Group	7.50	2.15	2.31	9.81	76,731	0.00239	0.0235
CMS Energy Corp.	5.00	3.52	3.70	8.70	17,231	0.00054	0.0047
Coca-Cola	8.00	3.23	3.49	11.49	261,711	0.00816	0.0938
Cognizant Technology	6.50	1.60	1.70	8.20	37,650	0.00117	0.0096
Colgate-Palmolive	8.00	2.26	2.44	10.44	72,745	0.00227	0.0237
Comcast Corp.	8.00	2.88	3.11	11.11	171,078	0.00533	0.0593
Comerica Inc.	2.50	5.49	5.63	8.13	6,827	0.00021	0.0017
Conagra Brands	3.50	4.92	5.09	8.59	13,786	0.00043	0.0037
ConocoPhillips	9.00	1.97	2.15	11.15	143,622	0.00448	0.0499
Consol. Edison	6.00	3.75	3.98	9.98	30,630	0.00096	0.0095

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	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
Constellation Brands	6.50	1.33	1.42	7.92	49,086	0.00153	0.0121
Corning Inc.	12.50	3.43	3.86	16.36	26,789	0.00084	0.0137
Corteva Inc.	9.00	1.20	1.31	10.31	39,081	0.00122	0.0126
Costco Wholesale	9.50	0.59	0.65	10.15	328,546	0.01024	0.1039
Crown Castle Int'l	6.00	5.99	6.35	12.35	45,362	0.00141	0.0175
CSX Corp.	7.00	1.28	1.37	8.37	74,322	0.00232	0.0194
Cummins Inc.	7.50	2.34	2.52	10.02	40,699	0.00127	0.0127
CVS Health	5.50	3.37	3.56	9.06	101,726	0.00317	0.0287
Danaher Corp.	7.50	0.43	0.46	7.96	186,042	0.00580	0.0462
Darden Restaurants	13.00	3.00	3.39	16.39	20,862	0.00065	0.0107
Deere & Co.	5.00	1.49	1.56	6.56	109,687	0.00342	0.0225
Dentsply Sirona	8.50	1.92	2.08	10.58	7,053	0.00022	0.0023
Devon Energy	9.50	3.62	3.96	13.46	31,159	0.00097	0.0131
Dollar General	2.00	1.51	1.54	3.54	34,254	0.00107	0.0038
Dominion Energy	0.50	5.54	5.57	6.07	40,310	0.00126	0.0076
Domino's Pizza	11.50	1.34	1.49	12.99	15,686	0.00049	0.0064
Dover Corp.	6.50	1.16	1.24	7.74	24,558	0.00077	0.0059
Dow Inc.	1.50	4.90	4.97	6.47	40,852	0.00127	0.0082
DTE Energy	6.00	3.71	3.93	9.93	22,697	0.00071	0.0070
Duke Energy	5.50	4.34	4.58	10.08	73,561	0.00229	0.0231
DuPont de Nemours	9.00	2.07	2.26	11.26	32,048	0.00100	0.0112
Eastman Chemical	5.00	3.46	3.63	8.63	10,987	0.00034	0.0030
Eaton Corp. plc	12.50	1.21	1.36	13.86	123,707	0.00386	0.0535
eBay Inc.	7.00	2.15	2.30	9.30	27,024	0.00084	0.0078
Ecolab Inc.	7.00	1.00	1.07	8.07	65,257	0.00203	0.0164
Edison Int'l	4.50	4.52	4.72	9.22	26,658	0.00083	0.0077

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	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
Electronic Arts	17.50	0.62	0.73	18.23	35,462	0.00111	0.0202
Elevance Health	11.50	1.27	1.42	12.92	120,813	0.00377	0.0487
Emerson Electric	7.00	1.88	2.01	9.01	64,042	0.00200	0.0180
Entergy Corp.	0.50	4.39	4.41	4.91	21,928	0.00068	0.0034
EOG Resources	13.00	2.97	3.36	16.36	73,289	0.00229	0.0374
Equifax Inc.	4.50	0.59	0.62	5.12	32,636	0.00102	0.0052
Equinix Inc.	16.00	2.07	2.40	18.40	77,442	0.00241	0.0444
Essex Property Trust	1.00	4.01	4.05	5.05	14,983	0.00047	0.0024
Everest Group	10.00	1.84	2.02	12.02	16,957	0.00053	0.0064
Evergy Inc.	5.50	5.04	5.32	10.82	11,892	0.00037	0.0040
Eversource Energy	5.50	4.81	5.07	10.57	20,681	0.00064	0.0068
Exelon Corp.	2.00	4.18	4.26	6.26	36,377	0.00113	0.0071
Extra Space Storage	5.00	4.85	5.09	10.09	18,816	0.00059	0.0059
Exxon Mobil Corp.	7.00	3.36	3.60	10.60	447,779	0.01396	0.1479
FactSet Research	11.00	0.88	0.98	11.98	18,570	0.00058	0.0069
Fastenal Co.	9.00	2.01	2.19	11.19	44,420	0.00139	0.0155
FedEx Corp.	5.50	1.94	2.05	7.55	64,970	0.00203	0.0153
Fifth Third Bancorp	5.00	3.93	4.13	9.13	24,936	0.00078	0.0071
FirstEnergy Corp.	4.50	4.34	4.54	9.04	21,954	0.00068	0.0062
FMC Corp.	5.00	3.70	3.89	8.89	7,998	0.00025	0.0022
Fortive Corp.	15.00	0.37	0.43	15.43	30,178	0.00094	0.0145
Fox Corp. 'A'	8.00	1.72	1.86	9.86	14,397	0.00045	0.0044
Franklin Resources	3.00	4.53	4.67	7.67	13,531	0.00042	0.0032
Freep't-McMoRan Inc.	12.50	1.30	1.46	13.96	66,024	0.00206	0.0287
Gallagher (Arthur J.)	17.50	0.94	1.10	18.60	55,242	0.00172	0.0320
Garmin Ltd.	5.00	2.06	2.16	7.16	28,130	0.00088	0.0063

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	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
Gen Digital Inc.	10.50	2.32	2.56	13.06	13,753	0.00043	0.0056
Gen'l Dynamics	10.00	2.01	2.21	12.21	77,306	0.00241	0.0294
Gen'l Mills	6.00	3.49	3.70	9.70	39,499	0.00123	0.0119
Gen'l Motors	8.50	1.12	1.22	9.72	59,990	0.00187	0.0182
Genuine Parts	8.50	2.58	2.80	11.30	21,676	0.00068	0.0076
Gilead Sciences	3.00	4.16	4.28	7.28	92,179	0.00287	0.0209
Global Payments	13.50	0.84	0.95	14.45	34,651	0.00108	0.0156
Globe Life Inc.	8.00	0.81	0.87	8.87	12,404	0.00039	0.0034
Goldman Sachs	1.50	2.77	2.81	4.31	129,489	0.00404	0.0174
Grainger (W.W.)	7.00	0.74	0.79	7.79	50,114	0.00156	0.0122
Hartford Fin'l Svcs.	8.50	1.86	2.02	10.52	30,582	0.00095	0.0100
Hasbro Inc.	4.50	5.16	5.39	9.89	7,531	0.00023	0.0023
HCA Healthcare	10.00	0.80	0.88	10.88	88,453	0.00276	0.0300
Healthpeak Properties	18.50	6.83	8.09	26.59	9,477	0.00030	0.0079
Henry (Jack) & Assoc.	6.50	1.28	1.36	7.86	12,495	0.00039	0.0031
Hershey Co.	9.50	2.77	3.03	12.53	40,476	0.00126	0.0158
Hess Corp.	20.00	1.17	1.40	21.40	45,867	0.00143	0.0306
Hewlett Packard Ent.	5.50	3.78	3.99	9.49	22,005	0.00069	0.0065
Home Depot	6.00	2.34	2.48	8.48	381,335	0.01189	0.1008
Honeywell Int'l	10.50	2.15	2.38	12.88	131,129	0.00409	0.0526
Hormel Foods	5.50	3.36	3.54	9.04	18,892	0.00059	0.0053
Horton D.R.	4.00	0.79	0.82	4.82	52,679	0.00164	0.0079
Howmet Aerospace	17.00	0.30	0.35	17.35	27,682	0.00086	0.0150
HP Inc.	7.00	3.74	4.00	11.00	29,086	0.00091	0.0100
Hubbell Inc.	9.00	1.20	1.31	10.31	21,850	0.00068	0.0070
Humana Inc.	8.00	1.02	1.10	9.10	42,866	0.00134	0.0122

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	EPS	Dividend	Expected	Rate of		Market	Weighted
	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
Hunt (J.B.)	8.50	0.88	0.95	9.45	20,119	0.00063	0.0059
Huntington Bancshs.	8.00	4.66	5.03	13.03	19,292	0.00060	0.0078
Huntington Ingalls	11.50	1.78	1.98	13.48	11,577	0.00036	0.0049
IDEX Corp.	6.00	1.12	1.19	7.19	18,242	0.00057	0.0041
Illinois Tool Works	9.50	2.08	2.28	11.78	80,867	0.00252	0.0297
Ingersoll Rand Inc.	12.50	0.09	0.10	12.60	37,786	0.00118	0.0148
Int'l Business Mach.	4.00	3.42	3.56	7.56	177,109	0.00552	0.0417
Int'l Flavors & Frag.	0.50	1.91	1.92	2.42	21,422	0.00067	0.0016
Int'l Paper	5.50	4.72	4.98	10.48	13,574	0.00042	0.0044
Intel Corp.	6.00	1.18	1.25	7.25	178,422	0.00556	0.0403
Intercontinental Exch.	6.50	1.32	1.41	7.91	77,985	0.00243	0.0192
Interpublic Group	8.50	4.02	4.36	12.86	12,868	0.00040	0.0052
Intuit Inc.	13.50	0.57	0.65	14.15	179,118	0.00559	0.0790
Invesco Ltd.	3.00	5.43	5.59	8.59	7,116	0.00022	0.0019
Invitation Homes	8.50	3.27	3.55	12.05	21,302	0.00066	0.0080
Iron Mountain	7.00	3.24	3.47	10.47	23,404	0.00073	0.0076
Jabil Inc.	15.00	0.25	0.29	15.29	16,325	0.00051	0.0078
Jacobs Solutions	9.00	0.77	0.84	9.84	18,917	0.00059	0.0058
Johnson & Johnson	3.50	3.17	3.28	6.78	374,927	0.01169	0.0793
Johnson Ctrl's. Int'l plc	11.00	2.31	2.56	13.56	43,703	0.00136	0.0185
JPMorgan Chase	8.50	2.14	2.32	10.82	567,592	0.01770	0.1915
Juniper Networks	8.50	2.39	2.59	11.09	11,793	0.00037	0.0041
Kellanova	1.50	4.06	4.12	5.62	18,780	0.00059	0.0033
Keurig Dr Pepper	12.50	3.03	3.41	15.91	41,310	0.00129	0.0205
Kimberly-Clark	7.50	3.92	4.21	11.71	41,930	0.00131	0.0153
Kimco Realty	18.00	5.04	5.95	23.95	12,050	0.00038	0.0090

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	A	B	C	D	E	F	G
Company Name	EPS Growth Rate (%)	Dividend Yield (%)	Expected Dividend Yield (%)	Rate of Return on Equity (%)	Market Cap \$ (Mil)	Market Cap Weight Factor	Weighted Rate of Return on Equity (%)
Kinder Morgan Inc.	15.00	6.27	7.21	22.21	40,168	0.00125	0.0278
KLA Corp.	10.50	0.83	0.92	11.42	94,134	0.00294	0.0335
Kraft Heinz Co.	4.00	4.53	4.71	8.71	43,374	0.00135	0.0118
Kroger Co.	6.00	2.04	2.16	8.16	40,918	0.00128	0.0104
L3Harris Technologies	9.50	2.19	2.40	11.90	40,287	0.00126	0.0149
Lam Research	9.00	0.87	0.95	9.95	124,593	0.00389	0.0387
Lamb Weston Holdings	15.00	1.43	1.64	16.64	14,896	0.00046	0.0077
Lauder (Estee)	2.50	1.80	1.85	4.35	52,603	0.00164	0.0071
Leidos Hldgs.	7.50	1.19	1.28	8.78	17,362	0.00054	0.0048
Lennar Corp.	4.00	1.22	1.27	5.27	45,974	0.00143	0.0076
Linde plc	7.50	1.09	1.17	8.67	226,342	0.00706	0.0612
LKQ Corp.	7.00	2.29	2.45	9.45	14,011	0.00044	0.0041
Lockheed Martin	9.00	2.89	3.15	12.15	106,422	0.00332	0.0403
Loews Corp.	19.50	0.32	0.38	19.88	17,438	0.00054	0.0108
Lowe's Cos.	6.50	1.75	1.86	8.36	144,877	0.00452	0.0378
M&T Bank Corp.	6.50	3.77	4.02	10.52	23,789	0.00074	0.0078
Marathon Petroleum	14.50	1.67	1.91	16.41	72,772	0.00227	0.0372
MarketAxess Holdings	8.50	1.37	1.49	9.99	8,213	0.00026	0.0026
Marsh & McLennan	12.00	1.39	1.56	13.56	101,775	0.00317	0.0430
Martin Marietta	10.50	0.50	0.55	11.05	37,318	0.00116	0.0129
Masco Corp.	6.50	1.52	1.62	8.12	17,106	0.00053	0.0043
MasterCard Inc.	16.00	0.54	0.63	16.63	458,270	0.01429	0.2376
McCormick & Co.	4.50	2.44	2.55	7.05	18,443	0.00058	0.0041
McDonald's Corp.	10.00	2.40	2.64	12.64	205,572	0.00641	0.0810
McKesson Corp.	8.50	0.48	0.52	9.02	69,528	0.00217	0.0196
Medtronic plc	6.50	3.28	3.49	9.99	111,744	0.00348	0.0348

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	EPS	Dividend	Expected	Rate of		Market	Weighted
	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
Merck & Co.	15.50	2.49	2.88	18.38	313,543	0.00978	0.1797
Meta Platforms	17.00	0.40	0.47	17.47	1,294,637	0.04037	0.7052
MetLife Inc.	7.00	2.84	3.04	10.04	54,607	0.00170	0.0171
Microchip Technology	6.00	2.13	2.26	8.26	47,738	0.00149	0.0123
Micron Technology	19.50	0.49	0.59	20.09	106,260	0.00331	0.0666
Microsoft Corp.	10.50	0.72	0.80	11.30	3,160,309	0.09855	1.1131
Mondelez Int'l	11.00	2.37	2.63	13.63	97,805	0.00305	0.0416
Monolithic Power Sys.	10.50	0.75	0.83	11.33	32,035	0.00100	0.0113
Moody's Corp.	5.50	0.79	0.83	6.33	71,202	0.00222	0.0141
Morgan Stanley	7.50	3.72	4.00	11.50	150,020	0.00468	0.0538
Motorola Solutions	10.50	1.13	1.25	11.75	57,510	0.00179	0.0211
MSCI Inc.	12.50	1.14	1.28	13.78	44,223	0.00138	0.0190
Nasdaq Inc.	7.00	1.45	1.55	8.55	29,911	0.00093	0.0080
NetApp Inc.	8.50	1.91	2.07	10.57	21,515	0.00067	0.0071
Newmont Corp.	5.00	2.91	3.06	8.06	27,234	0.00085	0.0068
News Corp. 'A'	16.00	0.77	0.89	16.89	14,805	0.00046	0.0078
NextEra Energy	8.50	3.31	3.59	12.09	127,616	0.00398	0.0481
NIKE Inc. 'B'	16.50	1.48	1.72	18.22	152,110	0.00474	0.0864
NiSource Inc.	6.00	3.84	4.07	10.07	11,102	0.00035	0.0035
Nordson Corp.	9.50	1.03	1.13	10.63	15,153	0.00047	0.0050
Norfolk Southern	9.50	2.07	2.27	11.77	58,955	0.00184	0.0216
Northern Trust Corp.	3.00	3.57	3.68	6.68	17,251	0.00054	0.0036
Northrop Grumman	8.00	1.70	1.84	9.84	70,664	0.00220	0.0217
NRG Energy	1.00	2.43	2.45	3.45	13,974	0.00044	0.0015
Nucor Corp.	2.00	1.08	1.10	3.10	47,570	0.00148	0.0046
NXP Semi. NV	10.00	1.68	1.85	11.85	62,601	0.00195	0.0231

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	EPS Growth Rate (%)	Dividend Yield (%)	Expected Dividend Yield (%)	Rate of Return on Equity (%)	Market Cap \$ (Mil)	Market Cap Weight Factor	Weighted Rate of Return on Equity (%)
Company Name							
Occidental Petroleum	15.50	1.38	1.59	17.09	55,989	0.00175	0.0298
Old Dominion Freight	8.50	0.48	0.52	9.02	47,412	0.00148	0.0133
Omnicom Group	7.00	3.18	3.40	10.40	18,657	0.00058	0.0061
ONEOK Inc.	13.50	5.07	5.75	19.25	45,980	0.00143	0.0276
Oracle Corp.	9.50	1.24	1.36	10.86	355,022	0.01107	0.1202
Otis Worldwide	11.50	1.37	1.53	13.03	40,388	0.00126	0.0164
PACCAR Inc.	14.50	3.57	4.09	18.59	63,526	0.00198	0.0368
Packaging Corp.	7.00	2.71	2.90	9.90	16,511	0.00051	0.0051
Parker-Hannifin	12.50	1.11	1.25	13.75	70,172	0.00219	0.0301
Paychex Inc.	10.00	3.14	3.45	13.45	44,255	0.00138	0.0186
Paycom Software	18.50	0.78	0.92	19.42	11,040	0.00034	0.0067
Pentair plc	12.00	1.12	1.25	13.25	13,604	0.00042	0.0056
PepsiCo Inc.	7.50	3.03	3.26	10.76	236,136	0.00736	0.0792
Pfizer Inc.	2.50	6.07	6.22	8.72	156,394	0.00488	0.0425
Philip Morris Int'l	5.00	5.55	5.83	10.83	145,364	0.00453	0.0491
Phillips 66	17.50	2.77	3.25	20.75	69,847	0.00218	0.0452
Pinnacle West Capital	2.50	4.86	4.98	7.48	8,249	0.00026	0.0019
Pioneer Natural Res.	8.50	4.03	4.37	12.87	59,265	0.00185	0.0238
PNC Financial Serv.	6.50	4.18	4.45	10.95	61,269	0.00191	0.0209
Pool Corp.	5.50	1.08	1.14	6.64	15,837	0.00049	0.0033
PPG Inds.	6.50	1.74	1.85	8.35	33,545	0.00105	0.0087
PPL Corp.	7.50	3.81	4.10	11.60	19,939	0.00062	0.0072
Price (T. Rowe) Group	1.50	4.27	4.33	5.83	26,425	0.00082	0.0048
Principal Fin'l Group	5.50	3.29	3.47	8.97	20,134	0.00063	0.0056
Procter & Gamble	5.00	2.32	2.44	7.44	381,166	0.01189	0.0884
Progressive Corp.	14.50	0.19	0.22	14.72	120,346	0.00375	0.0552

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	EPS	Dividend	Expected	Rate of		Market	Weighted
	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
Prologis	0.50	3.03	3.05	3.55	118,969	0.00371	0.0132
Prudential Fin'l	5.50	4.51	4.76	10.26	41,428	0.00129	0.0133
Public Serv. Enterprise	4.00	3.76	3.91	7.91	31,817	0.00099	0.0078
Public Storage	7.00	4.26	4.56	11.56	49,393	0.00154	0.0178
PulteGroup Inc.	6.50	0.72	0.77	7.27	24,229	0.00076	0.0055
Qualcomm Inc.	7.50	1.91	2.05	9.55	187,455	0.00585	0.0558
Quanta Services	15.50	0.15	0.17	15.67	36,306	0.00113	0.0177
Quest Diagnostics	1.50	2.35	2.39	3.89	14,305	0.00045	0.0017
Ralph Lauren	13.00	1.58	1.79	14.79	12,161	0.00038	0.0056
Raymond James Fin'l	12.50	1.47	1.65	14.15	25,603	0.00080	0.0113
Realty Income Corp.	5.50	5.89	6.21	11.71	31,006	0.00097	0.0113
Regency Centers Corp.	14.50	4.45	5.10	19.60	10,292	0.00032	0.0063
Regions Financial	7.50	4.96	5.33	12.83	18,235	0.00057	0.0073
Republic Services	11.00	1.14	1.27	12.27	59,176	0.00185	0.0226
ResMed Inc.	8.50	1.04	1.13	9.63	28,297	0.00088	0.0085
Robert Half Inc.	6.00	2.64	2.80	8.80	8,492	0.00026	0.0023
Rockwell Automation	10.00	1.77	1.95	11.95	32,292	0.00101	0.0120
Rollins Inc.	9.00	1.28	1.40	10.40	22,668	0.00071	0.0073
Roper Tech.	8.50	0.54	0.59	9.09	59,229	0.00185	0.0168
Ross Stores	15.00	1.00	1.15	16.15	49,525	0.00154	0.0249
RTX Corp.	12.00	2.49	2.79	14.79	125,857	0.00392	0.0580
S&P Global	8.00	0.85	0.92	8.92	134,966	0.00421	0.0375
Salesforce Inc.	18.00	0.52	0.61	18.61	297,204	0.00927	0.1725
SBA Communications	19.00	1.85	2.20	21.20	23,324	0.00073	0.0154
Schwab (Charles)	10.00	1.61	1.77	11.77	127,044	0.00396	0.0466
Seagate Technology plc	11.00	3.20	3.55	14.55	18,315	0.00057	0.0083

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	EPS	Dividend	Expected	Rate of		Market	Weighted
	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
Sempra Energy	6.50	3.56	3.79	10.29	44,055	0.00137	0.0141
Sherwin-Williams	11.50	0.84	0.94	12.44	87,309	0.00272	0.0339
Simon Property Group	3.50	5.15	5.33	8.83	51,063	0.00159	0.0141
Skyworks Solutions	1.50	2.75	2.79	4.29	16,911	0.00053	0.0023
Smith (A.O.)	11.50	1.46	1.63	13.13	12,929	0.00040	0.0053
Smucker (J.M.)	7.50	3.50	3.76	11.26	13,105	0.00041	0.0046
Snap-on Inc.	7.50	2.55	2.74	10.24	15,412	0.00048	0.0049
Southern Co.	6.00	4.07	4.31	10.31	76,594	0.00239	0.0246
Stanley Black & Decker	3.50	3.52	3.64	7.14	14,189	0.00044	0.0032
Starbucks Corp.	9.00	2.46	2.68	11.68	104,842	0.00327	0.0382
State Street Corp.	7.00	3.82	4.09	11.09	22,780	0.00071	0.0079
Steel Dynamics	1.50	1.29	1.31	2.81	23,333	0.00073	0.0020
STERIS plc	7.50	0.94	1.01	8.51	23,049	0.00072	0.0061
Stryker Corp.	8.50	0.92	1.00	9.50	134,248	0.00419	0.0398
Synchrony Financial	4.50	2.31	2.41	6.91	17,954	0.00056	0.0039
Sysco Corp.	16.00	2.46	2.85	18.85	40,886	0.00127	0.0240
T-Mobile US	19.50	1.64	1.96	21.46	192,716	0.00601	0.1290
Tapestry Inc.	12.50	2.95	3.32	15.82	10,874	0.00034	0.0054
Target Corp.	10.50	2.58	2.85	13.35	78,693	0.00245	0.0328
TE Connectivity	8.00	1.67	1.80	9.80	43,730	0.00136	0.0134
Teleflex Inc.	9.00	0.62	0.68	9.68	10,361	0.00032	0.0031
Teradyne Inc.	16.50	0.46	0.54	17.04	16,356	0.00051	0.0087
Texas Instruments	3.00	3.06	3.15	6.15	154,342	0.00481	0.0296
Textron Inc.	16.00	0.08	0.09	16.09	18,323	0.00057	0.0092
Thermo Fisher Sci.	5.00	0.27	0.28	5.28	224,115	0.00699	0.0369
TJX Companies	16.50	1.40	1.63	18.13	112,796	0.00352	0.0638

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	EPS	Dividend	Expected	Rate of		Market	Weighted
	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
Tractor Supply	11.00	1.71	1.90	12.90	27,880	0.00087	0.0112
Trane Technologies plc	14.50	1.12	1.28	15.78	67,838	0.00212	0.0334
Travelers Cos.	10.50	1.78	1.97	12.47	51,388	0.00160	0.0200
Truist Fin'l	6.00	5.87	6.22	12.22	49,106	0.00153	0.0187
U.S. Bancorp	4.50	4.51	4.71	9.21	67,710	0.00211	0.0195
UDR Inc.	2.50	4.67	4.79	7.29	12,193	0.00038	0.0028
Union Pacific	6.50	2.15	2.29	8.79	150,142	0.00468	0.0412
United Parcel Serv.	3.50	4.26	4.41	7.91	131,825	0.00411	0.0325
United Rentals	17.00	0.92	1.08	18.08	47,717	0.00149	0.0269
UnitedHealth Group	12.00	1.52	1.70	13.70	457,163	0.01426	0.1953
Universal Health 'B'	6.00	0.44	0.47	6.47	12,279	0.00038	0.0025
V.F. Corp.	2.00	2.50	2.55	4.55	5,607	0.00017	0.0008
Valero Energy	6.50	2.41	2.57	9.07	57,731	0.00180	0.0163
Verisk Analytics	9.00	0.66	0.72	9.72	34,270	0.00107	0.0104
Verizon Communic.	0.50	6.63	6.66	7.16	168,669	0.00526	0.0377
VICI Properties	9.50	5.76	6.31	15.81	18,126	0.00057	0.0089
Visa Inc.	13.50	0.74	0.84	14.34	531,118	0.01656	0.2375
Vulcan Materials	8.00	0.68	0.73	8.73	35,897	0.00112	0.0098
Wabtec Corp.	12.00	0.56	0.63	12.63	25,401	0.00079	0.0100
Walmart Inc.	6.50	1.26	1.34	7.84	494,839	0.01543	0.1210
Waste Management	6.00	1.42	1.51	7.51	85,343	0.00266	0.0200
WEC Energy Group	6.50	4.15	4.42	10.92	25,411	0.00079	0.0087
Wells Fargo	10.50	2.44	2.70	13.20	208,093	0.00649	0.0856
West Pharmac. Svcs.	7.50	0.20	0.22	7.72	29,163	0.00091	0.0070
WestRock Co.	8.50	2.45	2.66	11.16	12,706	0.00040	0.0044
Williams Cos.	10.00	5.02	5.52	15.52	46,088	0.00144	0.0223

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	EPS	Dividend	Expected	Rate of		Market	Weighted
	Growth	Yield	Dividend	Return on	Market Cap \$	Cap	Rate of
Company Name	Rate (%)	(%)	Yield (%)	Equity (%)	(Mil)	Weight	Return on
						Factor	Equity (%)
Willis Towers Wat. plc	8.50	1.22	1.32	9.82	28,383	0.00089	0.0087
Xcel Energy Inc.	6.00	4.22	4.47	10.47	29,006	0.00090	0.0095
Xylem Inc.	15.50	1.13	1.31	16.81	27,928	0.00087	0.0146
Yum! Brands	10.50	1.90	2.10	12.60	38,223	0.00119	0.0150
Zimmer Biomet Hldgs.	4.50	0.77	0.80	5.30	26,445	0.00082	0.0044
Zoetis Inc.	8.00	1.01	1.09	9.09	78,376	0.00244	0.0222
			Totals		32,069,324	1.00	11.24

ROE and ROR Analysis for Otter Tail Power
 CAPM Analysis
 Moody's 10-Year Baa Corporate Bonds Index April 1-26, 2024
 Downloaded April 29, 2024

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 Schedule 5

S&P Global
 Market Intelligence
 Chart Builder

Entities: Moodys Bond Yield Avg - BAA Rated Corporates
 Metrics: Index Value

SERIES NAME	CATEGORY	HIGH	LOW	AVERAGE
Moodys Bond Yield Avg - BAA Rated Corporates-Index Value (Daily)	Market Data	6.17	5.80	5.99

Pricing Date	Moodys Bond Yield Avg - BAA Rated Corporates-Index Value (Daily)
4/26/2024	6.12
4/25/2024	6.17
4/24/2024	6.13
4/23/2024	6.07
4/22/2024	6.08
4/19/2024	6.08
4/18/2024	6.11
4/17/2024	6.07
4/16/2024	6.13
4/15/2024	6.09
4/12/2024	5.95
4/11/2024	5.97
4/10/2024	5.95
4/9/2024	5.80
4/8/2024	5.88
4/5/2024	5.88
4/4/2024	5.82
4/3/2024	5.85
4/2/2024	5.87
4/1/2024	5.82
Mean	5.99

ROE and ROR Analysis for Otter Tail Power
CAPM ROE Analysis--IBES
Calculation for Proxy Group

Docket No. PU-23-342
Exhibit MFG-18
Schedule 6

	A	B	C	D	E	F	G
	Market Return	Rf	MRP	Beta	RP	CAPM ROE	Filtered Results
Alliant Energy Corporation	14.02%	4.65%	9.37%	0.90	8.43%	13.08%	13.08%
Ameren Corporation	14.02%	4.65%	9.37%	0.90	8.43%	13.08%	13.08%
American Electric Power Co.	14.02%	4.65%	9.37%	0.80	7.50%	12.15%	12.15%
CMS Energy Corporation	14.02%	4.65%	9.37%	0.85	7.96%	12.61%	12.61%
Duke Energy Corporation	14.02%	4.65%	9.37%	0.90	8.43%	13.08%	13.08%
Edison International	14.02%	4.65%	9.37%	1.00	9.37%	14.02%	14.02%
Entergy Corporation	14.02%	4.65%	9.37%	0.95	8.90%	13.55%	13.55%
Evergy, Inc.	14.02%	4.65%	9.37%	0.95	8.90%	13.55%	13.55%
Eversource Energy	14.02%	4.65%	9.37%	0.95	8.90%	13.55%	13.55%
Fortis Inc.	14.02%	4.65%	9.37%	0.70	6.56%	11.21%	11.21%
IDACORP, Inc.	14.02%	4.65%	9.37%	0.85	7.96%	12.61%	12.61%
NorthWestern Corporation	14.02%	4.65%	9.37%	0.95	8.90%	13.55%	13.55%
OGE Energy Corp.	14.02%	4.65%	9.37%	1.05	9.84%	14.49%	14.49%
Pinnacle West Capital Corp.	14.02%	4.65%	9.37%	0.95	8.90%	13.55%	13.55%
Portland General Electric Co.	14.02%	4.65%	9.37%	0.90	8.43%	13.08%	13.08%
WEC Energy Group, Inc.	14.02%	4.65%	9.37%	0.85	7.96%	12.61%	12.61%
Xcel Energy Inc.	14.02%	4.65%	9.37%	0.85	7.96%	12.61%	12.61%
					Mean	13.08%	13.08%
					Median	13.08%	13.08%

A: MFG-18, Sch 5

E: C * D

B: MFG-18 Sch 1

F: B + E

C: A - B

G: Low-end test < Column F < High-end test

D: MFG-18, Sch 2

Low-End Test:	Moody's 10-Year Baa Corporate Bond Index, S&P	
	Global Market Intelligence)	5.99%
	CAPM Risk Premium, Column C	9.37%
	20 percent of CAPM risk premium	1.87%
	Moody's 10-Year Baa Public Corporate Bond Index + 20 percent of CAPM risk premium	7.86%
High-End Test:	Proxy Group median, Column G	13.08%
	200 percent of Proxy Group median	26.17%

ROE and ROR Analysis for Otter Tail Power
CAPM ROE Analysis--Value Line
Calculation for Proxy Group

Docket No. PU-23-342
Exhibit MFG-18
Schedule 7

	A	B	C	D	E	F	G
	Market	Rf	MRP	Beta	RP	CAPM	Filtered
	Return					ROE	Results
Alliant Energy Corporation	11.24%	4.65%	6.59%	0.90	5.93%	10.58%	10.58%
Ameren Corporation	11.24%	4.65%	6.59%	0.90	5.93%	10.58%	10.58%
American Electric Power Co.	11.24%	4.65%	6.59%	0.80	5.27%	9.92%	9.92%
CMS Energy Corporation	11.24%	4.65%	6.59%	0.85	5.60%	10.25%	10.25%
Duke Energy Corporation	11.24%	4.65%	6.59%	0.90	5.93%	10.58%	10.58%
Edison International	11.24%	4.65%	6.59%	1.00	6.59%	11.24%	11.24%
Entergy Corporation	11.24%	4.65%	6.59%	0.95	6.26%	10.91%	10.91%
Evergy, Inc.	11.24%	4.65%	6.59%	0.95	6.26%	10.91%	10.91%
Eversource Energy	11.24%	4.65%	6.59%	0.95	6.26%	10.91%	10.91%
Fortis Inc.	11.24%	4.65%	6.59%	0.70	4.61%	9.26%	9.26%
IDACORP, Inc.	11.24%	4.65%	6.59%	0.85	5.60%	10.25%	10.25%
NorthWestern Corporation	11.24%	4.65%	6.59%	0.95	6.26%	10.91%	10.91%
OGE Energy Corp.	11.24%	4.65%	6.59%	1.05	6.92%	11.57%	11.57%
Pinnacle West Capital Corp.	11.24%	4.65%	6.59%	0.95	6.26%	10.91%	10.91%
Portland General Electric Co.	11.24%	4.65%	6.59%	0.90	5.93%	10.58%	10.58%
WEC Energy Group, Inc.	11.24%	4.65%	6.59%	0.85	5.60%	10.25%	10.25%
Xcel Energy Inc.	11.24%	4.65%	6.59%	0.85	5.60%	10.25%	10.25%

Mean 10.58% 10.58%
Median 10.58% 10.58%

A: MFG-18, Sch 4

B: MFG-18 Sch 1

C: A - B

E: C * D

F: B + E

G: Low-end test < Column I < High-end test

D: MFG-18, Sch 2

Low-End Test:	Moody's 10-Year Baa Corporate Bond Index, S&P Global Market	5.99%
	CAPM Risk Premium, Column C	6.59%
	20 percent of CAPM risk premium	1.32%
	Moody's 10-Year Baa Corporate Bond Index + 20 percent of CAPM risk premium	7.31%
High-End Test:	Proxy Group median, Column F	10.58%
	200 percent of Proxy Group median	21.16%

ROE and ROR Analysis for Otter Tail Power
CAPM ROE Analysis
Average of Low-End Tests for I/B/E/S and Value Line

Docket No. PU-23-342
Exhibit MFG-18
Schedule 8

I/B/E/S Low-End Test:	Moody's 10-Year Baa Corporate Bond Index, S&P	5.99%
	CAPM Risk Premium, IBES, MFG-18, Schedule 6	9.37%
	20 percent of CAPM risk premium	1.87%
	Moody's 10-Year Baa Public Corporate Bond Index + 20 percent of CAPM risk premium	7.86%

Value Line Low-End Test:	Moody's 10-Year Baa Corporate Bond Index, S&P	5.99%
	CAPM Risk Premium, Value Line, MFG-18, Schedule 7	6.59%
	20 percent of CAPM risk premium	1.32%
	Moody's 10-Year Baa Public Corporate Bond Index + 20 percent of CAPM risk premium	7.31%

Mean of Value Line and I/B/E/S Low-End Tests		7.59%
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ROE and ROR Analysis for Otter Tail Power
Summary of Authorized ROEs in Electric Rate Cases
January 1, 2021-December 31, 2023

Docket No. PU-23-342
Exhibit MFG-19

<https://www.capitaliq.spglobal.com/web/client?auth=inherit&industry/pastRateCases?Type=1>

S&P Capital IQ PRO

Rate Case History (Past Rate Cases)

List: None

Company List: All

States: All

Years: 2021, 2022, 2023

2021

State	Company	Docket	Rate Case Service Type	Case Type	Date	Decision Type	Return on Equity (%)	Common Equity to Total Capital (%)
New Mexico	Southwestern Public Svc Co.	C-20-00238-UT	Electric	Vertically Integrated	1/4/2021	Settled	9.35	54.72
Florida	Florida Power & Light Co.	D-20210015-EI	Electric	Vertically Integrated	1/11/2021	Settled	10.60	NA
Florida	Duke Energy Florida LLC	D-20210016-EI	Electric	Vertically Integrated	1/14/2021	Settled	9.85	44.84
Maine	Versant Power	D-2020-00316	Electric	Distribution	1/19/2021	Fully Litigated	9.35	49.00
Idaho	Avista Corp.	C-AVU-E-21-01	Electric	Vertically Integrated	1/29/2021	Settled	9.40	50.00
New York	Orange & Rockland Utilts Inc.	C-21-E-0074	Electric	Distribution	1/29/2021	Settled	9.20	48.00
Florida	Tampa Electric Company	D-20210034-EI	Electric	Vertically Integrated	2/1/2021	Settled	9.95	45.07
Pennsylvania	UGI Utilities Inc.	D-R-2021-3023618	Electric	Distribution	2/8/2021	Settled	NA	NA
Texas	Southwestern Public Svc Co.	D-51802	Electric	Vertically Integrated	2/8/2021	Settled	NA	NA
Michigan	Consumers Energy Co.	C-U-20963	Electric	Vertically Integrated	3/1/2021	Fully Litigated	9.90	41.84
Wisconsin	Wisconsin Electric Power Co.	D-5-AF-107 (WEP-Elec)	Electric	Vertically Integrated	3/30/2021	NA	NA	NA
Wisconsin	Wisconsin Public Service Corp.	D-5-AF-107 (Elec)	Electric	Vertically Integrated	3/30/2021	NA	NA	NA
Missouri	Union Electric Co.	C-ER-2021-0240	Electric	Vertically Integrated	3/31/2021	Settled	NA	NA
Pennsylvania	PECO Energy Co	D-R-2021-3024601	Electric	Distribution	3/31/2021	Settled	NA	NA
Virginia	Virginia Electric & Power Co.	C-PUR-2021-00058	Electric	Vertically Integrated	3/31/2021	Settled	9.35	51.92
New Hampshire	Unitil Energy Systems Inc.	D-DE-21-030	Electric	Distribution	4/2/2021	Settled	9.20	52.00
Pennsylvania	Duquesne Light Co.	D-R-2021-3024750	Electric	Distribution	4/16/2021	Settled	NA	NA
Oklahoma	Public Service Co. of OK	Ca-PUD202100055	Electric	Vertically Integrated	4/30/2021	Settled	9.40	NA
Wisconsin	Madison Gas and Electric Co.	D-3270-UR-124 (Elec)	Electric	Vertically Integrated	5/3/2021	Settled	9.80	55.00
Wisconsin	Wisconsin Power and Light Co	D-6680-UR-123 (Elec)	Electric	Vertically Integrated	5/5/2021	Settled	10.00	52.50
New Jersey	Rockland Electric Company	D-ER21050823	Electric	Distribution	5/21/2021	Settled	9.60	48.51
Idaho	PacifiCorp	C-PAC-E-21-07	Electric	Vertically Integrated	5/27/2021	Settled	NA	NA
California	Liberty Utilities (CalPeco Ele	A-21-05-017	Electric	Vertically Integrated	5/28/2021	Fully Litigated	10.00	52.50
Kansas	The Empire District Electric C	D-21-EPDE-444-RTS	Electric	Vertically Integrated	5/28/2021	Settled	NA	NA
Missouri	The Empire District Electric C	C-ER-2021-0312	Electric	Vertically Integrated	5/28/2021	Settled	NA	NA
Texas	El Paso Electric Co.	D-52195	Electric	Vertically Integrated	6/1/2021	Settled	9.35	51.00
Vermont	Green Mountain Power Corp.	21-1963-TF	Electric	Vertically Integrated	6/1/2021	Fully Litigated	8.57	50.42
Massachusetts	Massachusetts Electric Co.	DPU 21-74	Electric	Distribution	6/15/2021	Fully Litigated	NA	NA

California	Pacific Gas and Electric Co.	A-21-06-021 (Elec)	Electric	Vertically Integrated	6/30/2021	Fully Litigated	NA	NA
Indiana	Indiana Michigan Power Co.	Ca-45576	Electric	Vertically Integrated	7/1/2021	Settled	9.70	40.70
Colorado	Public Service Co. of CO	D-21AL-0317E	Electric	Vertically Integrated	7/2/2021	Settled	9.30	55.69
Wisconsin	Northern States Power Co.	D-4220-UR-125 (Elec)	Electric	Vertically Integrated	7/2/2021	Settled	10.00	52.50
Arkansas*	Entergy Arkansas LLC	D-16-036-FR (2021 review)	Electric	Vertically Integrated	7/7/2021	Settled	9.65	37.75
Oregon	Portland General Electric Co.	D-UE-394	Electric	Vertically Integrated	7/9/2021	Settled	9.50	50.00
	Southwestern Electric Power Co.	D-21-070-U	Electric	Vertically Integrated	7/23/2021	Fully Litigated	9.50	44.54
Arkansas*								
California	Pacific Gas and Electric Co.	A-21-08-015	Electric	Vertically Integrated	8/23/2021	Fully Litigated	10.25	52.00
California	San Diego Gas & Electric Co.	A-21-08-014 (Elec)	Electric	Vertically Integrated	8/23/2021	Fully Litigated	10.20	52.00
California	Southern California Edison Co.	A-21-08-013	Electric	Vertically Integrated	8/23/2021	Fully Litigated	10.30	52.00
Virginia	Kentucky Utilities Co.	C-PUR-2021-00171	Electric	Vertically Integrated	8/31/2021	Settled	NA	NA
Maryland	Delmarva Power & Light Co.	C-9670	Electric	Distribution	9/1/2021	Settled	NA	NA
Massachusetts	NSTAR Electric Co.	DPU 21-106	Electric	Distribution	9/15/2021	Fully Litigated	NA	NA
Arkansas*	Oklahoma Gas and Electric Co.	D-18-046-FR (2021 update)	Electric	Vertically Integrated	10/1/2021	Settled	NA	37.95
Ohio	Duke Energy Ohio Inc.	C-21-0887-EL-AIR	Electric	Distribution	10/1/2021	Settled	9.50	50.50
Minnesota	Northern States Power Co.	D-E-002/GR-21-630	Electric	Vertically Integrated	10/25/2021	Fully Litigated	9.25	52.50
Minnesota	Minnesota Power Entrprs Inc.	D-E-015/GR-21-335	Electric	Vertically Integrated	11/1/2021	Fully Litigated	9.65	52.50
Tennessee	Kingsport Power Company	D-21-00107	Electric	Vertically Integrated	11/17/2021	Settled	9.50	48.90
Oklahoma	Oklahoma Gas and Electric Co.	Ca-PUD202100164	Electric	Vertically Integrated	12/30/2021	Settled	9.50	53.37
Mean							9.63	50.37
Median							9.50	51.92
Range							8.57-10.60	41.84-55.69
							n = 31	n = 27

*-Arkansas capital structures include extra elements. The cases are not included in the mean, median or range calculations.

2022

State	Company	Docket	Rate Case Service Type	Case Type	Date	Decision Type	Return on Equity (%)	Common Equity to Total Capital (%)
Missouri	Evergy Missouri West	C-ER-2022-0130	Electric	Vertically Integrated	1/7/2022	Settled	NA	NA
Massachusetts	NSTAR Electric Co.	DPU 22-22	Electric	Distribution	1/14/2022	Fully Litigated	9.80	53.21
Michigan	DTE Electric Co.	C-U-20836	Electric	Vertically Integrated	1/18/2022	Fully Litigated	9.90	39.62
Vermont	Green Mountain Power Corp.	C-22-0175-TF	Electric	Vertically Integrated	1/18/2022	Fully Litigated	8.57	49.98
Washington	Avista Corp.	D-UE-220053	Electric	Vertically Integrated	1/21/2022	Settled	NA	NA
New York	Consolidated Edison Company	C-22-E-0064	Electric	Distribution	1/28/2022	Settled	9.25	48.00
Washington	Puget Sound Energy Inc.	D-UE-220066	Electric	Vertically Integrated	1/31/2022	Settled	9.40	49.00
Oklahoma	The Empire District Electric C	Ca-PUD202100163	Electric	Vertically Integrated	2/28/2022	Settled	9.30	NA
Oregon	PacifiCorp	D-UE-399	Electric	Vertically Integrated	3/1/2022	Settled	9.50	50.00
California	Pacific Gas and Electric Co.	A-22-04-008	Electric	Vertically Integrated	4/20/2022	Fully Litigated	10.00	52.00
California	San Diego Gas & Electric Co.	A-22-04-012	Electric	Vertically Integrated	4/20/2022	Fully Litigated	9.95	52.00
California	Southern California Edison Co.	A-22-04-009	Electric	Vertically Integrated	4/20/2022	Fully Litigated	10.05	52.00
Michigan	Consumers Energy Co.	C-U-21224	Electric	Vertically Integrated	4/25/2022	Settled	9.90	NA
Wisconsin	Wisconsin Electric Power Co.	D-5-UR-110 (WEP-Elec)	Electric	Vertically Integrated	4/28/2022	Fully Litigated	9.80	58.22
Wisconsin	Wisconsin Public Service Corp.	D-6690-UR-127 (Elec)	Electric	Vertically Integrated	4/28/2022	Fully Litigated	9.80	53.40
Texas	Oncor Electric Delivery Co.	D-53601	Electric	Distribution	5/13/2022	Fully Litigated	9.70	42.50
North Dakota	MDU Resources Group	C-PU-22-194	Electric	Vertically Integrated	5/16/2022	Settled	9.75	50.81
Maryland	Delmarva Power & Light Co.	C-9681	Electric	Distribution	5/19/2022	Settled	9.60	50.50
New York	NY State Electric & Gas Corp.	C-22-E-0317	Electric	Distribution	5/26/2022	Settled	9.20	48.00

New York	Rochester Gas & Electric Corp.	C-22-E-0319	Electric	Distribution	5/26/2022	Settled	9.20	48.00
Wyoming	Cheyenne Light Fuel Power Co.	D-20003-214-ER-22	Electric	Vertically Integrated	6/1/2022	Settled	9.75	52.00
Nevada	Sierra Pacific Power Co.	D-22-06014	Electric	Vertically Integrated	6/6/2022	Fully Litigated	9.56	52.40
Arizona	Tucson Electric Power Co.	D-E-01933A-22-0107	Electric	Vertically Integrated	6/17/2022	Fully Litigated	9.55	54.32
Massachusetts	Massachusetts Electric Co.	DPU 22-73	Electric	Distribution	6/17/2022	Fully Litigated	NA	NA
Georgia	Georgia Power Co.	D-44280	Electric	Vertically Integrated	6/24/2022	Settled	10.50	56.00
South Dakota	Northern States Power Co.	D-EL22-017	Electric	Vertically Integrated	6/30/2022	Settled	NA	NA
Texas	Entergy Texas Inc.	D-53719	Electric	Vertically Integrated	7/1/2022	Settled	9.57	51.21
Arkansas*	Entergy Arkansas LLC	D-16-036-FR (2022 review)	Electric	Vertically Integrated	7/7/2022	Settled	NA	37.77
Alaska	Alaska Electric Light Power	D-U-22-078	Electric	Vertically Integrated	7/18/2022	Fully Litigated	11.45	60.70
Missouri	Union Electric Co.	C-ER-2022-0337	Electric	Vertically Integrated	8/1/2022	Settled	NA	NA
Montana	NorthWestern Energy Group	D-2022-7-78 (elec)	Electric	Vertically Integrated	8/8/2022	Settled	9.65	48.02
Maine	Central Maine Power Co.	D-2022-00152	Electric	Distribution	8/11/2022	Settled	9.35	50.00
Florida	Duke Energy Florida LLC	D-20220143-EI	Electric	Vertically Integrated	8/12/2022	Settled	10.10	NA
Florida***	Florida Power & Light Co.	20210015 - ROE trigger	Electric	Vertically Integrated	8/23/2022	Settled	10.80	NA
South Carolina	Duke Energy Progress LLC	D-2022-254-E	Electric	Vertically Integrated	9/1/2022	Settled	9.60	52.43
Michigan	Upper Peninsula Power Co.	C-U-21286	Electric	Vertically Integrated	9/8/2022	Settled	9.90	NA
Connecticut	The United Illuminating Co.	D-22-08-08	Electric	Distribution	9/9/2022	Fully Litigated	8.63	50.00
Indiana	Northern IN Public Svc Co. LLC	Ca-45772	Electric	Vertically Integrated	9/19/2022	Settled	9.80	51.63
Arkansas*	Oklahoma Gas and Electric Co.	D-18-046-FR (2022 update)	Electric	Vertically Integrated	10/3/2022	Settled	NA	38.57
Maine	Versant Power	D-2022-00255	Electric	Distribution	10/3/2022	Settled	9.35	49.00
North Carolina	Duke Energy Progress LLC	D-E-2 Sub 1300	Electric	Vertically Integrated	10/6/2022	Fully Litigated	9.80	53.00
Montana	MDU Resources Group	D-2022-11-099	Electric	Vertically Integrated	11/2/2022	Settled	9.65	50.30
New Mexico	Southwestern Public Svc Co.	C-22-00286-UT	Electric	Vertically Integrated	11/18/2022	Settled	9.50	54.70
Oklahoma	Public Service Co. of OK	Ca-PUD2022-000093	Electric	Vertically Integrated	11/22/2022	Settled	9.30	52.00
Colorado	Public Service Co. of CO	D-22AL-0530E	Electric	Vertically Integrated	11/30/2022	Settled	9.30	55.69
Kentucky	Duke Energy Kentucky Inc.	C-2022-00372	Electric	Vertically Integrated	12/1/2022	Fully Litigated	9.75	52.15
Mean							9.60	50.97
Median							9.60	51.63
Range							8.57-10.50	39.62-55.69
							n = 36	n = 33

*-Arkansas capital structures include extra elements. The cases are not included in the mean, median or range calculations.
 **-Alaska Electric Light Power operates in an unusual environment. It is not included in the mean, median or range calculations.
 ***-Florida Power and Light Co.'s ROE includes an adjustment that is not determined in a base rate case.
 The cases are not included in the mean, median or range calculations.

2023

State	Company	Docket	Rate Case Service Type	Case Type	Date	Decision Type	Return on Equity (%)	Common Equity to Total Capital (%)
North Carolina	Duke Energy Carolinas LLC	D-E-7 Sub 1276	Electric	Vertically Integrated	1/19/2023	Fully Litigated	10.10	53.00
Pennsylvania	UGI Utilities Inc.	D-R-2022-3037368	Electric	Distribution	1/27/2023	Settled	NA	NA
Idaho	Avista Corp.	C-AVU-E-23-01	Electric	Vertically Integrated	2/1/2023	Settled	9.40	50.00
Texas	Electric Transmission Texas	D-54608	Electric	Transmission	2/1/2023	Settled	NA	NA
Michigan	DTE Electric Co.	C-U-21297	Electric	Vertically Integrated	2/7/2023	Fully Litigated	9.90	NA
California	PacifiCorp	A-22-05-006	Electric	Vertically Integrated	2/8/2023	Fully Litigated	10.00	52.25
Arkansas*	The Empire District Electric Co.	D-22-085-U	Electric	Vertically Integrated	2/13/2023	Settled	9.70	NA
New Jersey	Atlantic City Electric Co.	D-ER23020091	Electric	Distribution	2/15/2023	Settled	9.60	50.20
Oregon	Portland General Electric Co.	D-UE-416	Electric	Vertically Integrated	2/15/2023	Settled	9.50	50.00
Maryland	Baltimore Gas and Electric Co.	C-9692 (EL)	Electric	Distribution	2/17/2023	Fully Litigated	9.50	52.00
Wyoming	PacifiCorp	D-20000-633-ER-23	Electric	Vertically Integrated	3/1/2023	Fully Litigated	9.35	48.99
Maryland	The Potomac Edison Co.	C-9695	Electric	Distribution	3/22/2023	Fully Litigated	9.50	53.00
Virginia	Appalachian Power Co.	C-PUR-2023-00002	Electric	Vertically Integrated	3/31/2023	Settled	NA	NA
Kansas	Eversky Kansas Central Inc.	D-23-EKCE-775-RTS (EKC/EK)	Electric	Vertically Integrated	4/25/2023	Settled	NA	NA

Kansas	Evergy Metro Inc	D-23-EKCE-775-RTS (EM)	Electric	Vertically Integrated	4/25/2023	Settled	NA	NA
Wisconsin	Madison Gas and Electric Co.	D-3270-UR-125 (Elec)	Electric	Vertically Integrated	4/28/2023	Fully Litigated	9.70	56.06
Wisconsin	Northern States Power Co.	D-4220-UR-126 (Elec)	Electric	Vertically Integrated	4/28/2023	Fully Litigated	9.80	52.50
Wisconsin	Wisconsin Power and Light Co	D-6680-UR-124 (Elec)	Electric	Vertically Integrated	4/28/2023	Fully Litigated	9.80	53.70
Idaho	Idaho Power Co.	C-IPC-E-23-11	Electric	Vertically Integrated	6/1/2023	Settled	9.60	NA
Vermont	Green Mountain Power Corp.	C-23-1852-TF	Electric	Vertically Integrated	6/1/2023	Fully Litigated	9.58	49.88
Nevada	Nevada Power Co.	D-23-06007	Electric	Vertically Integrated	6/5/2023	Fully Litigated	9.52	52.72
Massachusetts	Massachusetts Electric Co.	DPU 23-55	Electric	Distribution	6/15/2023	Fully Litigated	NA	NA
Arkansas*	Entergy Arkansas LLC	D-16-036-FR (2023 review)	Electric	Vertically Integrated	7/7/2023	Settled	NA	38.65
Massachusetts	NSTAR Electric Co.	DPU 23-92	Electric	Distribution	9/15/2023	Fully Litigated	NA	NA
California*	Pacific Gas and Electric Co.	Advice 4813-G/7046-E	Electric	Vertically Integrated	10/13/2023	Fully Litigated	10.70	52.00
California*	San Diego Gas & Electric Co.	Advice Letter 4300-E / 3239-G	Electric	Vertically Integrated	10/13/2023	Fully Litigated	10.65	52.00
California*	Southern California Edison Co.	Advice Letter 5120-E (U 338-E	Electric	Vertically Integrated	10/13/2023	Fully Litigated	10.75	52.00

Mean	9.66	51.89
Median	9.60	52.00
Range	9.35-10.10	48.99-56.06
	n = 16	n = 17

*-Arkansas capital structures include extra elements. The cases are not included in the mean, median or range calculations.

**These California cases include an adjustment that is not determined in a base rate case. The cases are not included in the mean, median or range calculations.

Total 2021-2023

Mean	9.63	50.78
Median	9.60	52.00

ROE and ROR Analysis for Otter Tail Power
Summary of ROE Analyses and Recommended ROE

Docket No. PU-23-342
Exhibit MFG-20
Schedule 1

Analysis	Weight	ROE	Exhibit
Constant-Growth DCF	Mean	10.20%	Exhibit ____ (MFG-17) Schedule 1
	Median	10.30%	
Multistage DCF	Mean	9.71%	Exhibit ____ (MFG-17) Schedule 6
	Median	9.72%	
CAPM S&P 500 Value Line	Mean	13.08%	Exhibit ____ (MFG-18), Schedule 6
	Median	13.08%	
CAPM S&P 500 Value Line	Mean	10.58%	Exhibit ____ (MFG-18), Schedule 7
	Median	10.58%	

Average of DCF models and Value Line CAPM	Mean	10.17%
	Median	10.30%

Recently awarded ROEs		2021	2022	2023	Exhibit ____ (MFG-19)
	Mean	9.63	9.60	9.66	
	Median	9.50	9.60	9.60	
	Range	8.57-10.60	8.57-10.50	9.35-10.10	
	Cases	n = 31	n = 36	n = 16	

Recommended ROE for Otter Tail Power 10.25%

**ROE and ROR Analysis Otter Tail Power
Capital Structure Analysis**

**Docket No. PU-23-342
Exhibit MFG-20, Schedule 2
Page 1 of 4**

**S&P Global
Market Intelligence**

S&P Market Intelligence website, downloaded April 29, 2024

Average Long-Term Debt for each quarter (\$000)

Company Name	2023Q4	2023Q3	2023Q2	2023Q1	2022Q4	2022Q3	2022Q2	2022Q1	Average 2022Q1- 2023Q4
Alliant Energy Corporation	8,423,500	8,307,500	8,159,000	7,972,000	7,691,000	7,275,500	7,182,000	7,070,500	7,760,125
The recommended common equity cost of 10.25 per	14,475,000	14,078,500	14,254,500	13,933,000	13,631,000	13,281,000	12,774,000	12,562,500	13,623,688
American Electric Power Company, Inc.	37,771,050	37,262,850	37,035,300	35,905,150	34,610,950	33,859,450	32,475,650	31,704,300	35,078,088
CMS Energy Corporation	14,384,500	14,083,500	13,520,500	13,134,000	12,986,000	12,233,000	11,901,000	12,103,000	13,043,188
Duke Energy Corporation	72,809,500	71,502,500	70,356,500	68,353,500	66,906,500	65,625,000	63,725,000	62,393,000	67,708,938
Edison International	31,031,000	30,495,500	30,357,000	29,164,500	27,047,500	26,210,500	26,254,500	25,872,500	28,304,125
Entergy Corporation	23,943,512	24,490,512	24,392,972	24,138,768	24,224,608	24,589,919	25,360,173	25,614,852	24,594,414
Evergy, Inc.	10,225,850	9,697,350	10,097,150	10,051,850	9,601,850	9,196,950	9,221,900	9,326,400	9,677,413
Eversource Energy	23,260,874	22,307,708	21,556,171	20,594,031	20,239,523	20,129,163	19,180,213	17,957,219	20,653,113
Fortis Inc.	20,248,289	20,377,536	20,087,731	19,634,397	19,364,323	19,591,069	19,303,558	19,135,705	19,717,826
IDACORP, Inc.	2,800,970	2,654,251	2,482,702	2,338,598	2,132,774	2,073,550	2,063,166	2,025,637	2,321,456
NorthWestern Energy Group, Inc.	2,620,473	2,558,117	2,456,984	2,415,870	2,450,880	2,474,503	2,525,210	2,536,697	2,504,842
OGE Energy Corp.	4,355,350	4,339,350	4,166,550	3,788,800	3,565,850	3,547,900	4,022,300	4,515,500	4,037,700
Pinnacle West Capital Corporation	9,059,911	9,377,432	9,271,496	8,768,836	8,183,656	7,969,292	7,957,074	7,802,239	8,548,742
Portland General Electric Company	4,143,500	3,927,500	3,778,000	3,738,000	3,640,000	3,582,500	3,584,000	3,582,500	3,747,000
WEC Energy Group, Inc.	15,754,050	15,782,400	15,717,800	15,309,450	14,851,150	14,217,050	13,518,850	13,533,550	14,835,538
Xcel Energy Inc.	25,957,500	25,472,500	24,472,000	23,907,000	24,142,500	24,345,500	23,507,500	22,845,000	24,331,188

**ROE and ROR Analysis Otter Tail Power
Capital Structure Analysis**

**Docket No. PU-23-342
Exhibit MFG-20, Schedule 2
Page 2 of 4**

Average Short-Term Debt for each quarter (\$000)

Company Name	2023Q4	2023Q3	2023Q2	2023Q1	2022Q4	2022Q3	2022Q2	2022Q1	Average 2022Q1- 2023Q4
Alliant Energy Corporation	1,098,000	880,000	884,000	988,000	1,049,500	1,086,500	870,500	880,000	967,063
Ameren Corporation	1,787,000	1,934,000	1,513,500	1,379,000	1,393,000	1,501,000	1,616,000	1,328,000	1,556,438
American Electric Power Company, Inc.	5,561,900	6,493,100	7,004,050	6,706,500	5,483,450	4,449,150	5,592,250	5,826,850	5,889,656
CMS Energy Corporation	1,183,500	1,211,000	1,282,500	1,278,000	1,061,500	859,500	550,500	383,500	976,250
Duke Energy Corporation	7,232,000	7,626,000	7,562,500	7,535,000	7,432,000	6,950,500	7,096,000	7,012,000	7,305,750
Edison International	4,008,500	4,244,000	4,322,000	4,707,000	5,431,000	5,247,000	4,263,500	3,886,500	4,513,688
Entergy Corporation	3,094,925	2,916,297	3,041,047	3,165,855	3,088,859	2,638,785	2,344,524	2,347,539	2,829,729
Evergy, Inc.	2,790,950	3,135,150	2,530,350	2,202,700	2,309,500	2,595,900	2,521,250	2,103,800	2,523,700
Eversource Energy	3,229,126	3,153,041	2,757,690	2,836,255	2,436,759	1,731,326	1,968,299	2,642,391	2,594,361
Fortis Inc.	1,940,163	1,944,730	1,893,987	2,021,443	2,043,216	1,898,603	1,571,060	1,477,475	1,848,835
IDACORP, Inc.	24,900	0	62,500	62,500	39,680	77,180	37,500	0	38,033
NorthWestern Energy Group, Inc.	103,232	103,119	175,300	197,580	147,565	75,245	2,955	2,902	100,987
OGE Energy Corp.	455,300	414,750	709,050	999,950	999,900	1,212,550	1,078,350	609,200	809,881
Pinnacle West Capital Corporation	1,158,481	739,747	669,208	560,058	559,841	644,693	515,110	453,171	662,538
Portland General Electric Company	134,500	90,000	124,000	186,000	172,500	41,000	21,500	23,000	99,063
WEC Energy Group, Inc.	2,776,000	2,365,000	2,268,600	2,300,850	1,979,500	1,615,100	1,708,450	1,841,750	2,106,906
Xcel Energy Inc.	1,424,500	1,553,500	2,014,500	2,194,500	1,603,500	1,012,500	1,527,500	1,934,000	1,658,063

**ROE and ROR Analysis Otter Tail Power
Capital Structure Analysis**

**Docket No. PU-23-342
Exhibit MFG-20, Schedule 2
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Average Common Equity for each quarter (\$000)

Company Name	2023Q4	2023Q3	2023Q2	2023Q1	2022Q4	2022Q3	2022Q2	2022Q1	Average 2022Q1- 2023Q4
Alliant Energy Corporation	6,751,500	6,589,000	6,390,000	6,302,000	6,270,500	6,201,000	6,107,000	6,033,500	6,330,563
Ameren Corporation	11,196,000	10,870,000	10,652,000	10,557,500	10,354,500	10,040,500	9,843,000	9,753,000	10,408,313
American Electric Power Company, Inc.	25,278,200	24,605,550	23,819,800	23,815,800	24,085,800	24,167,100	23,923,650	23,112,250	24,101,019
CMS Energy Corporation	7,141,000	6,941,500	6,888,500	6,823,500	6,740,000	6,671,500	6,642,000	6,518,500	6,795,813
Duke Energy Corporation	47,059,000	46,669,500	46,796,500	47,291,000	47,833,500	48,032,500	47,583,000	47,371,000	47,329,500
Edison International	13,760,000	13,753,500	13,742,500	13,656,500	13,529,000	13,606,000	13,775,500	13,832,500	13,706,938
Entergy Corporation	14,157,058	13,464,267	13,147,650	13,012,610	12,531,668	11,903,715	11,710,591	11,673,694	12,700,156
Eergy, Inc.	9,706,050	9,641,950	9,511,950	9,486,350	9,546,350	9,458,150	9,272,200	9,240,750	9,482,969
Eversource Energy	14,929,917	15,620,020	15,651,735	15,611,265	15,376,166	15,168,194	14,946,953	14,718,267	15,252,814
Fortis Inc.	14,674,638	14,848,328	14,669,372	14,436,611	14,331,610	14,569,230	14,215,139	13,981,916	14,465,856
IDACORP, Inc.	2,914,229	2,887,326	2,838,409	2,815,147	2,792,769	2,742,553	2,692,158	2,672,972	2,794,445
NorthWestern Energy Group, Inc.	2,762,864	2,713,569	2,689,862	2,679,092	2,601,256	2,500,925	2,415,751	2,353,347	2,589,583
OGE Energy Corp.	4,526,150	4,459,900	4,374,550	4,391,700	4,427,050	4,348,800	4,259,800	4,159,500	4,368,431
Pinnacle West Capital Corporation	6,276,175	6,170,805	6,007,920	6,048,782	6,146,605	6,076,421	5,919,425	5,918,385	6,070,565
Portland General Electric Company	3,307,000	3,247,500	3,156,000	2,945,500	2,769,500	2,749,000	2,723,500	2,708,000	2,950,750
WEC Energy Group, Inc.	11,738,600	11,717,200	11,659,000	11,506,750	11,366,200	11,323,050	11,266,900	11,078,200	11,456,988
Xcel Energy Inc.	17,462,500	17,111,500	16,866,000	16,746,500	16,529,500	16,177,500	15,851,500	15,672,000	16,552,125

**ROE and ROR Analysis Otter Tail Power
Capital Structure Analysis**

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Exhibit MFG-20, Schedule 2
Page 4 of 4**

Company Name	Average Total Capital 2022Q1- 2023Q4	Long-Term Debt %	Short-Term Debt %	Common Equity %	Total %
Alliant Energy Corporation	15,057,750	51.54%	6.42%	42.04%	100.00%
Ameren Corporation	25,588,438	53.24%	6.08%	40.68%	100.00%
American Electric Power Company, Inc.	65,068,763	53.91%	9.05%	37.04%	100.00%
CMS Energy Corporation	20,815,250	62.66%	4.69%	32.65%	100.00%
Duke Energy Corporation	122,344,188	55.34%	5.97%	38.69%	100.00%
Edison International	46,524,750	60.84%	9.70%	29.46%	100.00%
Entergy Corporation	40,124,300	61.30%	7.05%	31.65%	100.00%
Evergy, Inc.	21,684,081	44.63%	11.64%	43.73%	100.00%
Eversource Energy	38,500,287	53.64%	6.74%	39.62%	100.00%
Fortis Inc.	36,032,516	54.72%	5.13%	40.15%	100.00%
IDACORP, Inc.	5,153,934	45.04%	0.74%	54.22%	100.00%
NorthWestern Energy Group, Inc.	5,195,412	48.21%	1.94%	49.84%	100.00%
OGE Energy Corp.	9,216,013	43.81%	8.79%	47.40%	100.00%
Pinnacle West Capital Corporation	15,281,845	55.94%	4.34%	39.72%	100.00%
Portland General Electric Company	6,796,813	55.13%	1.46%	43.41%	100.00%
WEC Energy Group, Inc.	28,399,431	52.24%	7.42%	40.34%	100.00%
Xcel Energy Inc.	42,541,375	57.19%	3.90%	38.91%	100.00%
	Average	53.49%	5.94%	40.56%	100.00%
	Median	53.91%	6.08%	40.15%	
	Low	43.81%	0.74%	29.46%	
	High	62.66%	11.64%	54.22%	
Otter Tail Power Request		43.52%	2.98%	53.50%	100.00%
Recommended for Otter Tail Power		45.00%	5.00%	50.00%	100.00%

ROE and ROR Analysis for Otter Tail Power
Recommended ROE and ROR
Weighted Average Cost of Capital
Based on Inputs from MFG-20, Schedules 1-2

Docket No. PU-23-342
Exhibit MFG-20
Schedule 3

Rate of Return NDPSC Staff			
	Ratio	Cost	WACC
Long-Term Debt	45.00%	4.65%	2.09%
Short-Term Debt	5.00%	5.25%	0.26%
Common Equity	50.00%	10.25%	5.13%
Overall Rate of Return	100.00%		7.48%

The recommended common equity cost of 10.25 percent is taken from Exhibit MFG-20, Schedule 1. The capital structure incorporates information from Exhibit MFG-20, Schedule 2. The costs of long-term debt and short-term debt are taken from the Direct Testimony of Todd R. Wahlund, Volume 2B, page 2.

Requested Rate of Return Otter Tail Power			
	Ratio	Cost	WACC
Long-Term Debt	43.52%	4.65%	2.02%
Short-Term Debt	2.98%	5.25%	0.16%
Common Equity	53.50%	10.60%	5.67%
Overall Rate of Return	100.00%		7.85%

The recommended common equity cost of 10.50 percent is taken from the Direct Testimony of Ann E. Bulkley, page 60, lines 3-4. The costs of long-term debt and short-term debt, and the capital structure are taken from the Direct Testimony of Todd R. Wahlund, Volume 2B, page 2. .

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Otter Tail Power Company
2023 Electric Rate Increase
Application

Case No. PU-23-342

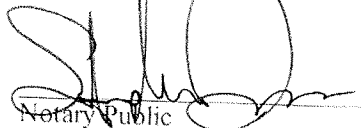
VERIFICATION

STATE OF Minnesota)
) ss.
COUNTY OF Ramsey)

Marlon Griffing, being first duly sworn on oath, deposes and states that he has read the testimony and any exhibits submitted in the above captioned matter under his name, that they were prepared by him or under his direction, that he knows the contents thereof, and that the same are true and correct to the best of his knowledge and belief.


Marlon Griffing

Subscribed and sworn to before me this 18th day of May, 2024.


Notary Public
My Commission Expires: 01-31-2027

