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

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

October 4, 2024

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Public Service Commission Advocacy Staff
Mitch Armstrong, SAAG, Advocacy Counsel

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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 9.56 percent for OTP. For OTP's capital structure, my analysis shows ratios of 45.02 percent long-term debt, 2.98 percent short-term debt, and 52.00 percent common equity are appropriate. When the ROE of 9.56 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 7.22 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.

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[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, the 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 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."

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[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, 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 with 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;

D_1 is the annual dividend one year from the present;

P_0 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 (D_0). 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.

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[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 August 15, 2024, included 39 companies.[8]

Q. WAS OTTR ONE OF THE 39 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]

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[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 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] This electric utility was excluded.[14]

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[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.

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.[15] 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.[16] Finally, ALLETE, Inc. is being acquired and taken private by the Canadian Pension Plan Investment Board and Global Infrastructure Partners.[17] CenterPoint, Avangrid, PNM Resources, and ALLETE were excluded because of these activities.

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[15] Exhibit MFG-6.
[16] Exhibit MFG-7.
[17] 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.[18] 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-

[18] Exhibit MFG-9, FirstEnergy Dockets.

dimensional scale. Indeed, as discussed below, the relative importance of the various factors may change in different situations.[19]

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 39 after the previous screens were applied. Of these utilities, MGE Energy, Inc. does not have an S&P credit rating and was excluded. Hawaiian Electric Industries has a B- S&P credit rating, below investment grade.[20] The 30 remaining companies had investment-grade credit ratings,

[19] Exhibit MFG-10.
[20] PG&E has a credit rating of BB, but it was already eliminated by other screens.

ranging from BBB to A-.[21] 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.[22]

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 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.

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[21] Exhibit MFG-11.
[22] Exhibit MFG-12.

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

A. I included 15 of the remaining 29 companies in the Comparison Group after applying the operating income/net income/operating revenue screen.[23]

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., Duke Energy, Edison International, Entergy Corporation, Evergy, Inc., Eversource Energy, IDACORP, Inc., NorthWestern Corporation, OGE Energy Corp., Pinnacle West Capital Corp., Portland General Electric Co., Southern Co., and Xcel Energy, Inc. Three of the 15 companies were rated BBB, nine were rated BBB+, and three were rated A-.[24] 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 was composed of 17 electric utilities.[25] Thirteen of those companies were members of the Comparison Group. The four electric utilities that were not are ALLETE, Inc.,[26] Avista Corporation, CMS Energy., and NextEra Energy. The two electric utilities I included that are not in Ms. Bulkley's Proxy Group are Edison International and Eversource Energy.

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[23] Exhibit MFG-13.
[24] Exhibit MFG-14.
[25] Direct Test. of Ann E. Bulkley on behalf of Otter Tail Power Company, Exhibit AEB-1 (November 2, 2023) [hereinafter "Bulkley Direct"].
[26] 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 Network[27] 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, 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

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[27] 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 July 22, 2024, to August 16, 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.[28]

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 June 7, 2024, July 19, 2024, and August 7, 2024;[29] and by Zacks on

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[28] Exhibit MFG-15.
[29] 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.

August 19, 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.[30]

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 June 7, 2024, July 19, 2024, and August 9, 2024.[31]

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[30] Exhibit MFG-16.
[31] Exhibit MFG-17, Schedule 1.

Q. WHAT INFORMATION DID YOU USE FROM ZACKS?

A. I used the Zacks EPS five-year growth projections available August 19, 2024, for the individual firms in the Comparison Group.[32]

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

A. I used the Yahoo! Finance EPS five-year growth projections available August 16, 2024, for the individual firms in the Comparison Group.[33]

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

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[32] Exhibit MFG-17, Schedule 1.
[33] Exhibit MFG-17, Schedule 1.

annualized dividend yield to transform it into the expected dividend yield.[34] 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.[35]

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.[36] Therefore, I did not include flotation costs in my ROE results.

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[34] 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.
[35] Exhibit MFG-17, Schedule 1.
[36] 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:[37]

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

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, these companies would not be capable of competing with OTP for capital.

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[37] 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 5.73 percent over July 22, 2024, to August 16, 2024.[38] I performed two CAPM analyses, one with the current Kroll estimate of the equity risk premium,[39] [40] and one with S&P 500 EPS growth forecast values from Value Line.[41] I found the mean of 20 percent of the CAPM risk premium for each analysis. The Kroll ROE value was 1.00 percent and the Value Line value was 2.06 percent. I added the bond-yield value of 5.73 percent and the risk-premium component value for the two approaches, then found the mean of the two sums (6.73 percent and 7.79 percent). The 7.26 percent mean was the minimum threshold.[42]

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

A. No.

Q. DID YOU MAKE ANY ADJUSTMENTS TO COMPANY ROES IN YOUR DCF ANALYSIS?

A. Yes. I eliminated the Yahoo! Finance EPS growth rate for OGE Energy from the calculation of the ROE for that company. The value is -12.34 percent, which is below the minimum company threshold and is a value I eliminated from ROE calculations in my CAPM ROE analysis.

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[38] Exhibit MFG-18 Schedule 3.
[39] Exhibit MFG-18, 4, Kroll, *Cost of Capital in the Current Environment*, June 2024 Update.
[40] Exhibit MFG-18, Schedule 5.
[41] Exhibit MFG-18, Schedule 7.
[42] Exhibit MFG-18, Schedule 8.

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

A. For the remaining 15 companies, the mean growth rate was 6.00 percent and the mean adjusted dividend yield was 4.16 percent. The combination of these two components (rounded) yielded an ROE of 10.16 percent. The median ROE was 9.96 percent.[43] One utility's ROE, Portland Generals 13.91 percent, is having an outsize effect on the mean ROE. Portland General's ROE is nearly 3 percent greater than the second highest value, 11.04 percent for Pinnacle West Capital. Thus, the median ROE is given consideration in arriving at the OTP recommended ROE.

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 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.

[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 whole economy 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]

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[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 8.88 percent. The median ROE was 8.82 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. Application of the CAPM is problematic. Under the CAPM, an analyst selects a riskless asset, beta, and market risk premium. The ROE analysis can vary considerably depending on the analyst's choices for these variables. For example, will the data used as inputs be forward-looking? Thus, what at first may seem like a model that is straightforward instead depends heavily on the input values used by an analyst.

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[48] Exhibit MFG-17, Schedule 6.

Q. WHAT INSTRUMENT DID YOU USE AS YOUR RISKLESS ASSET?

A. The analyst must select the 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. 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 July 22, 2024, to August 16, 2024, as my riskless asset rate. This average yield was 4.29 percent.[49] This approach to calculating the risk-free rate is consistent with how I found common-equity share prices within the DCF model.

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

[49] Exhibit MFG-18, Schedule 1.

of investors as to where yields on the instruments are headed. There is no need to incorporate forecasted yields separately as investors are aware of these predictions.

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 June 7, 2024, July 19, 2024, and August 9, 2024.[50] These beta values are Value Line's latest assessment for each company.

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 DID YOU USE AS THE MARKET RISK PREMIUM?

A. I used two approaches to determine the market risk premium. In one case, I adopted Kroll's estimate of the risk premium that companies currently require as they consider future returns on investment. In the other case I used Value Line S&P 500 inputs to find the market return for that broad market return.

Q. WHAT SOURCE DID YOU USE FOR AN EXPERT ESTIMATE OF THE CURRENT MARKET RISK PREMIUM?

A. I used Kroll's 2024 equity risk premium (equivalent to the MRP) estimate of 5.0 percent.[51] Kroll is currently publisher of a financial statistical volume[52] previously published by Duff

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[50] Exhibit MFG-18, Schedule 2.
[51] Exhibit MFG-18, Schedule 4, Kroll, *Cost of Capital in the Current Environment*, June 6, 2024.
[52] *Stocks, Bonds, Bills, and Inflation.*

& Phelps and before that by Ibbotson and Associates. The company also provides financial advice. This value reflects the opinion of the company's corporate risk experts.

Q. WHAT WAS THE NEXT STEP IN CALCULATING THE KROLL CAPM ROE?

A. I multiplied the MRP by the beta for each Comparison Group company to find that company's risk premium (RP). [53]

Q. WHAT WAS THE FINAL STEP IN CALCULATING THE KROLL CAPM ROE?

A. I added the RP for each Comparison Group company to the risk-free rate to find a specific company's CAPM ROE. [54]

Q. WHAT WAS THE RESULT OF THE KROLL CAPM ANALYSIS?

A. The mean ROE for my Kroll CAPM analysis was 8.96 percent and the median ROE was 9.04 percent.[55]

Q. PLEASE DESCRIBE THE CONSTRAINTS THAT APPLY TO YOUR CALCULATION OF THE S&P 500 MARKET RISK RETURN?

A. Under FERC Opinion 569, FERC starts 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 zero percent and greater than 20 percent also are excluded, thereby handling the problem of outliers at either end of the spectrum.

Q. WHAT DID YOU USE AS THE SOURCE OF DIVIDENDS AND SHORT-TERM EPS FORECASTS?

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[53] Exhibit MFG-18, Schedule 5.
[54] *Id.*
[55] *Id.*

A. FERC accepted Value Line short-term EPS forecasts in the CAPM in Opinion 569-A.[56] Therefore, I used Value Line's EPS forecasts for the companies in Value Line's S&P 500. Value Line also provides dividend yields for S&P 500 companies.

Q. WHAT ELSE WAS INVOLVED IN YOUR CALCULATION?

A. The term within parentheses in the CAPM equation is called the "market risk premium." It is the difference between the return on a broad market measure and the risk-free rate of return. In other words, the premium that investors require in order 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 PROCEDURE DID YOU USE TO FIND THE MARKET RETURN?

A. As stated, I use the S&P 500 inputs in finding my market risk premium. I downloaded these values on August 21, 2024.[57] I applied Value Line growth rates[58] to the dividend yields to find the expected dividend yield, adding a full year's growth.

Q. WHAT FOLLOWED IN FINDING THE S&P CAPM RETURN ON EQUITY?

A. I applied the dividend-paying rule, and the minimum and maximum threshold rules of less than or equal to zero percent and greater than 20 percent to the set of S&P 500 companies.[59] I then 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 Value Line set was 14.57 percent.[60] The market risk premium was calculated by subtracting the 4.29 percent

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[56] *See Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569-A, 171 FERC ¶ 61,154, ¶¶ 58 (2020).
[57] Exhibit MFG-18, Schedule 6.
[58] Exhibit MFG-18, Schedule 7.
[59] Exhibit MFG-18, Schedule 6.
[60] *Id.*

return on the 30-year Treasury from the market return. The result was 10.28 percent. This amount is multiplied by the beta for each Comparison Group company and added to the risk-free rate to find that company's CAPM ROE.[61]

Q. DOES FERC HAVE SCREENS FOR OUTLIER CAPM ROES?

A. Yes. FERC applies 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 of the Moody's 10-year Baa Corporate Bond Yield Index value of 5.73 percent 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 Kroll and Value Line analyses because of the different market risk premiums produced. I averaged the two values to find a mean Low-End Test of 7.26 percent.[62] No CAPM ROEs were removed due to the Low-End or High-End Tests in either of my analyses.

Q. WHAT WAS THE RESULT OF YOUR VALUE LINE S&P 500 CAPM ANALYSIS?

A. The mean ROE for my Value S&P 500 CAPM analysis was 13.88 percent and the median ROE was 14.06 percent.[63]

Q. DID YOU INCLUDE A SIZE ADJUSTMENT IN YOUR CAPM ANALYSES?

A. No. I did not include a size adjustment. There are studies that indicate the size adjustment is not appropriate for the CAPM. Damodaran emphasizes that the historical data supporting the effect are ambiguous. The support was strongest up to 1980 but has waned since then. The size premium has disappeared for decades, then reappeared, and disappeared again and

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[61] Exhibit MFG-18, Schedule 7.
[62] Exhibit MFG-18, Schedule 8.
[63] Exhibit MFG-18, Schedule 7.

again.[64] Ang states that investors do not appear to demand compensation for small size. He cites studies of the practices of mutual fund investors, equity analysts, and financial officers of companies. In all three studies, the favored method for estimating the required rate of return is the unadjusted CAPM. Versions of the CAPM with size adjustments do not improve on the basic model results enough to be adopted by the users. If multifactor models did perform better, Ang asserts, it would be observed that investors prefer to use them in place of the unadjusted CAPM. Further, the studies that have shown 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 beginnings and ends.[65]

Both Damodaran and Ang declare that the small capitalization premium may be a proxy for liquidity. They maintain that it is not a good substitute for illiquidity, which requires looking closely at individual firms rather than making a size adjustment to all firms. They also both note that almost all of the size premium that shows in the data is earned in January. No explanation for why small companies is riskier in January has been put forth, a requirement for the size premium to be a valid factor. The studies recommend not making adjustments for an effect that may be transitory, at best, and not one that investors demand in the prices they pay for common equity. For the foregoing reasons I do not include an adjustment for size in my CAPM ROE analysis.

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[64] Damodaran, Aswath, "The Small Cap Premium: Where is the Beef?" Business Valuation Review, Volume 34, Number 4 (2015).
[65] Ang, Clifford S., "The Absence of a Size Effect Relevant to the Cost of Equity." Business Valuation Review, Volume 37, Number 3 (2018).

Q. DID YOU INCLUDE A CREDIT-RISK ADJUSTMENT IN YOUR CAPM ANALYSIS?

A. No. By using credit rating as one of the proxy group selection criteria, I accounted for different credit risks. The companies selected for the proxy group range from A- to BBB, a relatively tight grouping. As noted previously, companies that are close in credit rating have similar risk, so no credit-rating adjustment is necessary.

VIII. Recommended ROE

Q. PLEASE SUMMARIZE YOUR ROE RESULTS.

A. I performed four ROE analyses: (1) constant-growth DCF, (2) multistage DCF, (3) Kroll MRP estimate CAPM, and (4) S&P 500 CAPM for Value Line. The resulting ROE values were:

DCF ROE Mean and Median Results

	Constant growth	Multistage
Mean	**10.16%**	**8.88%**
Median	**9.96%**	**8.82%**

CAPM ROE Mean and Median Results

	Kroll	Value Line
Mean	**8.96%**	**13.88%**
Median	**9.04%**	**14.06%**

Q. PLEASE COMMENT ON THE DCF ROE RESULTS.

A. The DCF constant-growth ROE result was higher than the multistage counterpart ROE. The constant-growth DCF result was well within the 8.80-10.50 percent range of authorized ROEs from January 1, 2021, to August 21, 2024, for U.S. electric utilities as reported by Regulatory Research Associates ("RRA"), a unit of S&P Global IQ Pro.[66] The multistage DCF result was at the extreme bottom of the range.

Q. PLEASE COMMENT ON THE CAPM ROE RESULTS.

A. The Value Line CAPM ROE was the highest of the results. At 13.88 percent the mean of the Value Line S&P 500 was more than 3.00 percent greater than the single-highest, not the average, ROE authorized for an electric utility in the United States in the RRA dataset. The Kroll CAPM ROE was consistent with the range of recent authorized ROEs.

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

A. I excluded the DCF multistage ROE result and the Value Line S&P 500 CAPM ROE in setting an ROE for OTP. The DCF multistage result was well below the lowest electric utility ROE authorized in 2024 as reported by RRA. Therefore, I excluded it as I considered an ROE for the Company. The Value Line S&P 500 CAPM ROE result is, as noted above, far above the range of authorized ROEs 2021-2024. As such the Value Line S&P 500 CAPM ROE result provides little insight into the ROE needed by an electric utility to compete for capital in the current markets. Therefore I also excluded it from my analysis of an ROE for OTP.

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[66] Exhibit MFG-19.

Q. WHAT WERE THE WEIGHTED VALUES OF THE TWO REMAINING ROE ANALYSES?

A. I weighted the constant-growth DCF model and Kroll CAPM ROE results equally. The weighted average of the two ROE means was 9.56 percent. The weighted average of the two ROE medians was 9.50 percent.[67]

Q. WHAT WAS YOUR RECOMMENDED ROE FOR OTP?

A. My recommended OTP ROE was 9.56 percent. This value is the mean of the two ROE values.

IX. Reasonableness Check of the ROEs

Q. HOW DID YOU CHECK THE REASONABLENESS OF YOUR ROE RESULTS?

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

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

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

Q. WHY ARE PAST 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.

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[67] Exhibit MFG-20, Schedule 1.

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. WHAT DID YOU CONCLUDE REGARDING YOUR ROE ANALYSIS AND THE RESULTS FOR THE 2021-2024 AUTHORIZED NATURAL GAS ROES?

A. My recommended ROE of 9.56 percent is consistent with the annual mean ROEs (9.58 percent to 9.76 percent) and median ROEs (9.50 percent to 9.75 percent) for the 2021-2023 authorized electric ROEs.[68] My analysis captures the most recent trends in common equity prices, dividends, EPS growth rate estimates, beta values, and U.S. Treasury bond yields. The 9.56 percent ROE reflects these trends.

X. Recommended Capital Structure and Overall Rate of Return

Q. WHAT DEBT COSTS DID OTP PROPOSE IN THIS DOCKET?

A. OTP proposed a cost of long-term debt of 4.65 percent. This cost of long-term debt is based on the OTP's Test Year period ending December 31, 2024. The Company proposed a cost of short-term debt of 5.25 percent. The OTP short-term debt cost is also based on the 2024 Test Year. These ratios are presented in the Direct Testimony of Mr. Wahlund.[69]

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

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[68] Exhibit MFG-20, Schedule 1.
[69] Wahlund Direct, p. 12.

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. I also included my recommended ROE of 9.56 percent.

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

A. I recommended a capital structure of 45.02 percent long-term debt, 2.98 percent short-term debt, and 52.00 percent common equity.

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 15 electric utilities in the Comparison Group. These average ratios reflected the dollar amount of each capital-structure element by company for each of the eight quarters from the third quarter of 2022 to the second quarter of 2024. The source of the amounts upon which the Comparison Group company ratios were based is S&P Global Market Intelligence.[70]

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 second

[70] Exhibit MFG-20, Schedule 2.

quarter of 2024 was the most recent quarter for which data were available. Therefore, I began my analysis with data from the third quarter of 2022.

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

A. I calculated ratios for long-term debt, short-term debt, and common equity. The respective mean ratios for the Comparison Group were 53.77 percent, 6.00 percent, and 40.23 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 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.[71] 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

[71] Exhibit MFG-20, Schedule 2.

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 conducted at the holding-company level. Therefore, to maintain consistency in my cost of capital analysis, I conducted my capital-structure analysis at the holding-company level.

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 9.56 percent was included with my recommended capital structure and the Company's costs of long-term debt and short-term debt, the ROR was 7.22 percent.[72]

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, 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 UTILTIES 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.[73]

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[72] Exhibit MFG-20, Schedule 3.
[73] Bulkley Direct, Exhibit AEB-1, Schedule 3, page 1 of 1.

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.[74]

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.

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[74] *Id.*

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 were also 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. Ms. Bulkley and I both relied on Value Line earnings growth rates for dividend-paying companies in an S&P 500 analysis.[75] 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.

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.[76]

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

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[75] As stated previously, I also incorporated earnings growth rates from Yahoo! Finance.
[76] Bulkley Direct, p. 36.

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.

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 VALUE TO ROE ANALYSIS?

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

subject of research in peer-reviewed journals.[77] It should not be relied upon in ROE analysis. Despite not having been peer reviewed, the ECAPM has been proposed for use in numerous rate cases. However, few Commissions have accepted the ECAPM as electric and gas utilities in general have low betas. Adjusting betas upward, as is done in the ECAPM, guarantees a higher ROE. If betas make sense, then to claim that low-beta stocks tend to have higher risk premia contradicts the efficient market theory.

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.

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[77] Morin, Roger A, *New Regulatory Finance*, Public Utilities Reports, June 1, 2006, page 190, page 213. A reference to Morin 1989 is included in a list of empirical studies of the CAPM in which the outcome for low-beta stocks (such as public utilities) is higher than that predicted by the model. However, the Reference section of the chapter cites a 1989 US West Communications docket before the Arizona Corporation Commission in which Professor Morin filed Rebuttal Testimony.

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 AUTORIZED 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 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 previously 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 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-equity

[78] Bulkley Direct, page 13.
[79] Bulkley Direct, pages 14-19.

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 9.56 percent and an ROR of 7.22 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.

STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Otter Tail Power Company
2023 Electric Rate Increase
Application

Case No. PU-23-342

VERIFICATION

STATE OF MN)
) 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
Marlon Griffing

Subscribed and sworn to before me this 2nd day of October, 2024.

Notary Public
My Commission Expires: 01/31/2027

ESTEPHANIE NAOMI DIAZ CELON
Notary Public - Minnesota
My Commission Expires Jan. 31, 2027

PCMG and Associates LLC

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 – Snavely 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.

PCMG and Associates LLC

Regulatory Projects and Appearances

1. In the Matter of the Application of Liberty Utilities Arkansas for Approval of a General Tariff Change in Rates and Tariffs (2024) (Appearance: cost of capital on behalf of the Arkansas Attorney General)
   Arkansas Public Service Commission – Docket No. 23-069-U

2. In the Matter of the Application of Summit Utilities Arkansas, Inc., for Approval of a General Tariff Change in Rates and Tariffs (2024) (Appearance: cost of capital on behalf of the Arkansas Attorney General)
   Arkansas Public Service Commission – Docket No. 23-079-U

3. In the Matter of the Application of Black Hills Energy Arkansas, Inc., for Approval of a General Tariff Change in Rates and Tariffs (2024) (Appearance: cost of capital on behalf of the Arkansas Attorney General)
   Arkansas Public Service Commission – Docket No. 23-074-U

4. Pennsylvania Public Utility Commission v. 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

5. 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

6. 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

7. 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

8. 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

9. 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

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10. 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

11. 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

12. 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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13. 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

14. 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

15. 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

16. 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

17. 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

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18. 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

19. 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

20. 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

21. 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

22. 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

23. 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

24. 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

25. 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

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26. 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

27. 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

28. 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

29. 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

30. 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

31. 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

32. 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

33. 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

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34. 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

35. 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

36. 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

37. 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)

38. 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

39. 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

40. 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

41. 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

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42. 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

43. 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

44. 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

45. 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

46. 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

47. 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

48. 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

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49. 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

50. 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

51. 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

52. 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

53. 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

54. 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

55. 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

56. 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

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57. 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

58. 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

59. 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

60. 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

61. 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

62. 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

63. 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

64. 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

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65. 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

66. 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

67. 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

68. 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

69. 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

70. 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

71. 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 behalf of the Office of the Pennsylvania Consumer Advocate)
    PA Docket Nos. R-2014-2428742-R-2014-2428745

72. 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

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73. 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

74. 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

75. 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

76. 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

77. 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

78. 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

79. 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

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80. 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

81. 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

82. 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

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Advance Prudence/Certificates of Need

83. 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

84. 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

85. 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

86. 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

87. 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

88. 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

89. 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

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90. 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

91. 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

92. 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

93. 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

94. 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

95. 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

96. 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

PCMG and Associates LLC

Mergers

97. 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

98. 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

99. 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

100. 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

101. 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).

102. 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

103. 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

104. 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

105. 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

106. 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

107. 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

108. 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

109. 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

110. 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

111. 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

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112. 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

113. 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

114. 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

115. 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

116. 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

117. 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

118. 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

119. 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

PCMG and Associates LLC

Affiliated Interest

120. 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

121. 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

122. 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

123. 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

124. 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

125. 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

126. 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

PCMG and Associates LLC

127. 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

128. 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

129. 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

S&P Capital IQ PRO

Otter Tail Corporation | Credit Ratings

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

Agency S&P Global Ratings

BBB

S&P Global Ratings

Issuer Credit Rating (Foreign Currency LT)
6/21/2013

CreditWatch/Outlook: Stable
3/1/2022

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	8/25/2024	BBB	CreditWatch/Outlook	Stable	3/1/2022
Local Currency LT	BBB	6/21/2013	8/25/2024	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		

Ratings History

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	8/25/2024	BBB	Stable	9/17/2019

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. Otter Tail stock nosedives as company releases 2024 earnings guidance	2/13/2024 4:20:00 PM CT

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.

S&P Capital IQ PRO

Otter Tail Power Company | Credit Ratings

(MI KEY: 4147257; SPCIQ KEY: 51538733)

Agency S&P Global Ratings

BBB+

S&P Global Ratings

Issuer Credit Rating (Foreign Currency LT)
9/17/2019

Upgrade | CreditWatch/Outlook: Stable
9/17/2019

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	8/25/2024	BBB	Upgrade | CreditWatch/Outlook	Stable	9/17/2019
Local Currency LT	BBB+	9/17/2019	8/25/2024	BBB	Upgrade | CreditWatch/Outlook	Stable	9/17/2019

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
Local Currency LT					
Issuer Credit Rating	BBB+	9/17/2019	Upgrade | CreditWatch/Outlook	Stable	9/17/2019

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.

ROE and ROR Analysis for Otter Tail Power
Comparison Group Screening
Value Line Electric Utilities Group
Downloaded from Value Line on August 15, 2024

Docket No. PU-23-342
Exhibit MFG-4

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
Unitil Corp.	UTL	AMS
WEC Energy Group	WEC	NYS
Xcel Energy Inc.	XEL	NDQ

ROE and ROR Analysis for Otter Tail Power **Docket No. PU-23-342**
Comparison Group Screening **Exhibit MFG-5**
S&P Capital IQ Pro, August 15, 2024

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	Postive 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
Evergy, Inc.	EVRG	No	BBB+	Yes	Yes
Eversource Energy	ES	No	A-	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
PG&E Corporation##	PCG	No	**BB**	**No**	Yes
Pinnacle West Capital Corporation	PNW	No	BBB+	Yes	Yes
PNM Resources, Inc.###	PNM	No	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	A-	Yes	Yes
Unitil Corporation	UTL	No	BBB+	Yes	Yes
WEC Energy Group, Inc.	WEC	No	A-	Yes	Yes
Xcel Energy Inc.	XEL	No	BBB+	Yes	Yes
Otter Tail Corporation####	OTTR	No	BBB	Yes	Yes

*-ALLETE is being acquired and taken private by a Canadian pension fund and private equity firm. Announced May 6, 2024.
**-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.
*****-Hawaiian Electric Industries has a B- credit rating
#-MGE Energy does not have an S&P credit rating
##-PG&E Corporation as it exits bankruptcy pnly resumed paying dividends in the first quarter of 2024.
###-PNM Resources's share prices plunged after Avangrid withdrew an attempted acquisition.
####-Otter Tail Corp. is the parent company of subject company Otter Tail Power.

S&P Capital IQ PRO

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 competition 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 intendment 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.

S&P Global Commodity Insights produces content for distribution on S&P Capital IQ Pro.

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.

View source version on businesswire.com: https://www.businesswire.com/news/home/20240307874858/en/

Analysts: Charlotte Ancel, Charlotte.Ancel@Avangrid.com, 203-997-7366
Media: Leo Rosales, Leo.Rosales@Avangrid.com, 518-419-2401

Source: AVANGRID, Inc.

S&P Capital IQ PRO

ALLETE, Inc. | Key Development Details

NYSE: ALE (MI KEY: 4022309; SPCIQ KEY: 289272)

Canada Pension Plan Investment Board and Global Infrastructure Management, LLC entered into a definitive agreement to acquire ALLETE, Inc. (NYSE:ALE) for $3.9 billion in a going private transaction.

Canada Pension Plan Investment Board and Global Infrastructure Management, LLC entered into a definitive agreement to acquire ALLETE, Inc. (NYSE:ALE) for $3.9 billion in a going private transaction on May 5, 2024. In connection with the merger, CPP Investments and GIP will acquire all of the outstanding common shares of ALLETE for $67.00 per share in cash representing an enterprise value of approximately $6.2 billion, including ALLETE's net debt. Upon completion of the acquisition, ALLETE's shares will no longer trade on the New York Stock Exchange, and ALLETE will become a private company. Upon termination of the Merger Agreement under certain specified circumstances, CPPIB and Global Infrastructure Management would be required to pay a termination fee of $212 million or $164 million (depending on the specific circumstances of termination) to ALLETE, and under other specified circumstances, ALLETE would be required to pay CPPIB and Global Infrastructure Management a termination fee of $116 million. The acquisition includes all of ALLETE's businesses, each company will continue to operate under its current name and brand. ALLETE will remain locally managed with our headquarters in Duluth, Minnesota, and we will continue our strong engagement with all the communities our ALLETE companies and talented teams serve. Bethany Owen will continue as a Chief Executive Offer and current management team will continue to lead ALLETTE. The transaction is subject to the approval of ALLETE's shareholders, the receipt of regulatory approvals, including by the MPUC, PSCW and FERC, the expiration or termination of the applicable waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 and other customary closing conditions. Dividends payable to ALLETE shareholders are expected to continue in the ordinary course until the closing, subject to approval by ALLETE's Board of Directors. The acquisition was unanimously approved by ALLETE's Board of Directors and board of CCPIB and Global Infrastructure Management. The merger is expected to close in mid-2025. J.P. Morgan Securities LLC is acting as lead financial advisor and provided a fairness opinion to ALLETE, and Houlihan Lokey Capital, Inc. acted as financial advisor and also provided a fairness opinion to ALLETE. Pankaj Sinha, Emily Prezioso Walsh, Erik Elsea of Skadden, Arps, Slate, Meagher & Flom LLP is acting as legal advisors to ALLETE. Andrew T. Calder, Emily Lichtenheld, Melissa Kalka, Mary Kogut, Chad Davis, Julian Seiguer, Bryan Flannery, David Wheat, Stephen Butler, Brooksany Barrowes, Ben Hardison and Doug Bacon of Kirkland & Ellis LLP and David S. Allinson, Richard Quay and David Beller of Latham & Watkins LLP acted as legal advisors for CPPIB and Global Infrastructure Management. Morgan Stanley & Co. LLC and Moelis & Company acted as financial advisors for CPPIB and Global Infrastructure Management. Aaron Dixon of Alston & Bird, LLP represented Houlihan Lokey as financial advisor to ALLETE, Inc.

Company Name	ALLETE, Inc.
Event Date	5/6/2024
Announcement Date	5/6/2024
Development Type	M&A: Transaction Announcement
Source	Capital IQ Transaction Database
Advisors	NA

Related Transactions

TRANSACTION ID	ANNOUNCEMENT DATE	NAME OF THE TARGET OR ISSUER	NAME OF THE BUYER OR INVESTOR	SELLER	TRANSACTION TYPE	TRANSACTION VALUE ($M)	INDUSTRY
2080116	5/6/2024	ALLETE, Inc.	Canada Pension Plan Investment Board; Global Infrastructure Management,	NA	M&A - Acquisition of Whole Company (incl. Majority	6,232.93	Electric Utilities

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

(**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, August 16, 2024

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

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

Otter Tail Power	BBB+
Otter Tail Corporation	BBB

EXELON CORP. NDQ-EXC

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

TIMELINESS — Suspended 2/4/22
SAFETY 2 Raised 8/13/21
TECHNICAL — Suspended 2/4/22
BETA NMF (1.00 = Market)

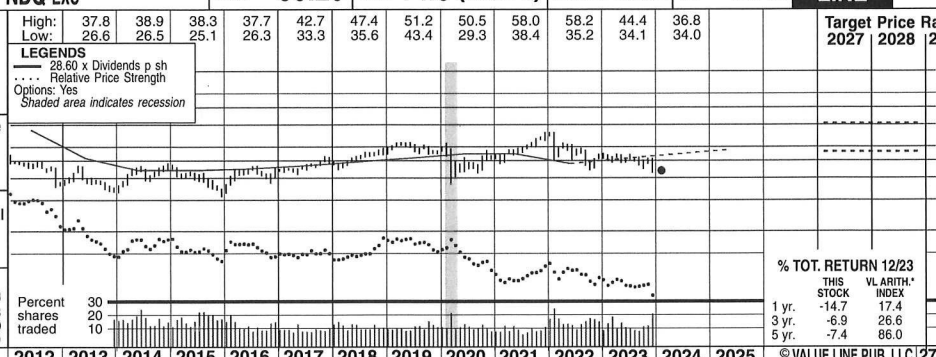
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$30-$50 $40 (15%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	65	(+85%)	*20%*
Low	45	(+30%)	*10%*

Institutional Decisions

	1Q2023	2Q2023	3Q2023
to Buy	474	438	453
to Sell	378	411	400
Hld's(000)	809770	812887	816650



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	968.19	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%*
27429	29447	31360	33531	35985	34438	33039	36347	19078	*20400*	*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%*
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 ($mill)	*81000*
52087	57439	71555	74202	76707	80233	82584	84219	69076	*69175*	*69750*	*70100*	Net Plant ($mill)	*77600*
5.3%	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%*
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%*
59%	49%	47%	47%	44%	45%	47%	54%	60%	*60%*	*60%*	*60%*	All Div'ds to Net Prof	*60%*

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.

Pension Assets-12/22 $20827 mill.
Oblig $23846 mill.

Pfd Stock None

Common Stock 995,437,416 shs.
as of 9/30/23
MARKET CAP: $35.1 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	NA	NA	NA
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load (Mw)	NA	NA	NA
Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.7	+.6	NA
Fixed Charge Cov. (%)	211	237	325

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '22-'24 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*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	9890	7915	8910	9632	36347
2022	5327	4239	4845	4667	19078
2023	5563	4818	5980	*4039*	*20400*
2024	*5600*	*4850*	*6000*	*4250*	*20700*
2025	*5750*	*5000*	*6250*	*4500*	*21500*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
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*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
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					

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. Elec. rev. breakdown: residntl., 54%; small commercl. & indstrl., 16%; large commercl. & indstrl., 17%; other, 13%. Fuel costs: 48% of revs. '22 deprec. rates: 2.8%-8.7% elec., 2.1% gas. Has 18,700 empls. Chrmn.: John F. Young. CEO: Calvin Butler. Inc.: PA. Address: 10 S.Dearborn St., P.O. Box 805379, Chicago, IL 60680-5379. Telephone: 312-394-7398. Internet: www.exeloncorp.com.

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 additional 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*

(A) Dil. egs. Excl. nonrec. gain (loss): '09, (20¢); '12, (50¢); '13, (31¢); '14, (22¢); '16, ($1.46); '17, $1.19; '18, ($1.05); '19, (21¢); '20, ($1.21); '21, ($1.08); disc. ops. gain (loss): '07, 2¢; '08, 3¢. Next egs. report: May. **(B)** Div'ds paid in early Mar., June, Sept., & Dec. ■ Div'd reinvest. plan avail. **(C)** Incl. deferred charges. In '22: $15.20/sh. **(D)** In mill. **(E)** Rate allowed 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.

Company's Financial Strength	B++
Stock's Price Stability	NMF
Price Growth Persistence	NMF
Earnings Predictability	NMF

ROE and ROR Analysis for Otter Tail Power
Comparison Group
From Company 2023 10Ks, amounts in thousands of dollars (000)

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

	Regulated Electricity Income*,**			Company Income*,**			Electricity as % of Company*,**				
Name	2023	2022	2021	2023	2022	2021	2023	2022	2021	Average % Electricity	Source: 2023 10K Pages except where indicated
PSEG [A]	1,974,000	1,892,000	1,818,000	3,685,000	1,381,000	(856,000)	53.6%	137.0%	-212.4%	-7.3%	P. 143-144
Sempra Energy*	4,334,000	4,783,000	4,658,000	16,720,000	14,439,000	12,857,000	25.9%	33.1%	36.2%	31.8%	P. F-8
Unitil Corporation***	17,900	15,700	14,000	45,200	41,400	36,100	39.6%	37.9%	38.8%	38.8%	P. 52
Black Hills Energy	248,800	214,300	202,700	472,700	455,200	409,400	52.6%	47.1%	49.5%	49.7%	P. 100-101
Consolidated Edison, Inc.	1,653,000	1,590,000	1,902,000	3,196,000	2,624,000	2,826,000	51.7%	60.6%	67.3%	59.9%	P. 159-160
Fortis Inc. [B]	1,901,000	1,654,000	1,482,000	3,084,000	2,740,000	2,469,000	61.6%	60.4%	60.0%	60.7%	Annual Reports: 2023, P. 20; 2021, P. 73
WEC Energy Group, Inc.**	971,600	889,100	814,000	1,331,700	1,409,700	1,298,500	73.0%	63.1%	62.7%	66.2%	P. 141-142
CMS Energy Corporation**	550,000	567,000	565,000	877,000	827,000	1,348,000	64.7%	68.3%	41.9%	66.5%	P. 92, 173
Emera Incorporated**	627,000	596,000	462,000	809,000	850,000	723,000	77.5%	70.1%	63.9%	70.5%	Annual Report P. 15
Avista, Inc.*	1,220,309	1,192,527	1,052,418	1,751,554	1,710,207	1,438,936	69.7%	69.7%	73.1%	70.8%	P. 20, 24, 77
DTE Energy Company** [C]	772,000	956,000	864,000	1,397,000	1,083,000	907,000	55.3%	88.3%	95.3%	71.8%	P. 144-145
Eversource Energy	1,844,900	1,694,100	1,553,900	2,399,300	2,198,200	1,993,300	76.9%	77.1%	78.0%	77.3%	P. 141
Southern Co.	4,714,000	4,518,000	2,579,000	5,826,000	5,370,000	3,698,000	80.9%	84.1%	69.7%	82.5%	P. II-75, II-83, II-90, II-97, II-104, II-251
NorthWestern Corporation	262,169	219,743	238,802	300,455	263,079	275,681	87.3%	83.5%	86.6%	85.8%	P. 1, 2, 3
Alliant Energy Corporation	827,000	805,000	716,000	943,000	928,000	795,000	87.7%	86.7%	90.1%	88.2%	P. 97
Duke Energy*** [D]	4,223,000	3,929,000	3,850,000	4,742,000	4,397,000	4,246,000	89.1%	89.4%	90.7%	89.7%	P. 134-135
Evergy, Inc.	1,115,200	1,172,200	1,203,900	1,282,400	1,267,200	1,354,900	87.0%	92.5%	88.9%	89.7%	P. 75, 80, 85
Xcel Energy Inc.**	1,686,000	1,631,000	1,478,000	1,771,000	1,736,000	1,597,000	95.2%	94.0%	92.5%	93.9%	P. 80
Ameren Corporation**	1,099,000	1,027,000	913,000	1,152,000	1,074,000	990,000	95.4%	95.6%	92.2%	94.4%	P. 157
Dominion Energy** [E]	1,684,000	1,905,000	1,863,000	1,994,000	1,321,000	3,399,000	84.5%	144.2%	54.8%	94.5%	Dominion 10K P. 91, 99, 197, DESC 10K P. 29
Entergy Corporation*	11,842,454	13,186,845	10,873,995	12,147,412	13,764,237	11,742,896	97.5%	95.8%	92.6%	96.6%	P. 233
American Electric Power Co.	3,605,800	3,515,000	3,255,500	3,556,200	3,482,700	3,411,300	101.4%	100.9%	95.4%	99.3%	P. 59-60, 90
IDACORP, Inc., Utility Ops	313,379	327,170	329,568	313,477	327,178	329,651	99.97%	100.00%	99.97%	100.0%	P. 125
Portland General Electric Co.	396,000	397,000	378,000	396,000	397,000	378,000	100.0%	100.0%	100.0%	100.0%	P. 76
OGE Energy Corp.	651,600	662,500	546,100	650,200	649,500	544,200	100.2%	102.0%	100.3%	100.9%	P. 95-96
Edison International	2,640,000	1,513,000	1,510,000	2,627,000	1,483,000	1,477,000	100.5%	102.0%	102.2%	101.3%	P. 58, 65
Pinnacle West Capital Corp.*	839,931	744,941	818,961	824,640	731,911	805,310	101.9%	101.8%	101.7%	101.8%	P. 94, 105
PPL Corporation [F]	1,731,000	1,586,000	1,515,000	1,630,000	1,274,000	1,424,000	106.2%	124.5%	106.4%	112.4%	P. 73, 80, 86, 92
NextEra Energy [G]	6,597,000	5,294,000	4,516,000	10,237,000	4,081,000	2,913,000	64.4%	129.7%	155.0%	116.4%	P. 60, 65
Otter Tail Corp.	106,521	113,138	106,964	377,919	390,439	249,708	28.2%	29.0%	42.8%	33.3%	P. 53
Excluded, see Notes											

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-PSEG's unregulated generation unit had large losses in 2021 and 2022; percentages are not reliable

B-Includes small regulated UNS Energy Gas Operations.

C-DTE Energy 2021 results reflect separation of DTE Midstream in 2021; average is 2022, 2023

D-Duke Energy is electric share of reportable segments income; one-time losses affect company totals

E-Dominion reports reflect sales of operating divisions; further sales are planned.
The percentage regulated electricity operations account for of total income is

F-10K reports do not separate electric and gas operations meaningfully

G-Operating income was erratic, so percentages are not reliable

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-	88.2%
Ameren Corporation	BBB+	94.4%
American Electric Power Co.	BBB+	99.3%
Duke Energy Corporation	BBB+	89.7%
Edison International	BBB	101.3%
Entergy Corporation	BBB+	96.6%
Evergy, Inc.	BBB+	89.7%
Eversource Energy	A-	77.3%
IDACORP, Inc.	BBB	100.0%
NorthWestern Corporation	BBB	85.8%
OGE Energy Corp.	BBB+	100.9%
Pinnacle West Capital Corp.	BBB+	101.8%
Portland General Electric Co.	BBB+	100.0%
Southern Co.	A-	82.5%
Xcel Energy Inc.	BBB+	93.9%
Otter Tail Power	BBB+	

ROE/ROR Analysis OTP
Equity Prices
Source: Yahoo! Finance

Alliant Energy (LNT)		Ameren (AEE)		American Electric Power (AEP)		Duke Energy (DUK)	
Date	Close	Date	Close	Date	Close	Date	Close
7/22/2024	$ 55.00	7/22/2024	$ 75.74	7/22/2024	$ 94.35	7/22/2024	$ 107.54
7/23/2024	$ 54.65	7/23/2024	$ 75.08	7/23/2024	$ 93.64	7/23/2024	$ 107.12
7/24/2024	$ 55.66	7/24/2024	$ 77.04	7/24/2024	$ 95.02	7/24/2024	$ 108.60
7/25/2024	$ 55.84	7/25/2024	$ 77.55	7/25/2024	$ 95.84	7/25/2024	$ 107.56
7/26/2024	$ 56.01	7/26/2024	$ 78.04	7/26/2024	$ 96.45	7/26/2024	$ 108.03
7/29/2024	$ 55.88	7/29/2024	$ 78.20	7/29/2024	$ 97.07	7/29/2024	$ 108.68
7/30/2024	$ 56.13	7/30/2024	$ 79.52	7/30/2024	$ 98.14	7/30/2024	$ 109.90
7/31/2024	$ 55.66	7/31/2024	$ 79.27	7/31/2024	$ 98.12	7/31/2024	$ 109.27
8/1/2024	$ 56.61	8/1/2024	$ 81.26	8/1/2024	$ 101.24	8/1/2024	$ 112.60
8/2/2024	$ 57.11	8/2/2024	$ 82.53	8/2/2024	$ 101.79	8/2/2024	$ 113.92
8/5/2024	$ 55.23	8/5/2024	$ 80.19	8/5/2024	$ 98.06	8/5/2024	$ 111.01
8/6/2024	$ 55.74	8/6/2024	$ 80.56	8/6/2024	$ 98.29	8/6/2024	$ 112.92
8/7/2024	$ 55.93	8/7/2024	$ 80.49	8/7/2024	$ 99.57	8/7/2024	$ 113.51
8/8/2024	$ 55.90	8/8/2024	$ 80.20	8/8/2024	$ 98.04	8/8/2024	$ 112.43
8/9/2024	$ 56.07	8/9/2024	$ 80.31	8/9/2024	$ 97.53	8/9/2024	$ 112.67
8/12/2024	$ 55.96	8/12/2024	$ 80.32	8/12/2024	$ 97.14	8/12/2024	$ 113.37
8/13/2024	$ 56.26	8/13/2024	$ 81.30	8/13/2024	$ 98.13	8/13/2024	$ 113.72
8/14/2024	$ 56.48	8/14/2024	$ 81.26	8/14/2024	$ 97.24	8/14/2024	$ 113.46
8/15/2024	$ 56.94	8/15/2024	$ 81.34	8/15/2024	$ 96.56	8/15/2024	$ 113.11
8/16/2024	$ 57.37	8/16/2024	$ 82.10	8/16/2024	$ 96.94	8/16/2024	$ 112.30
Mean	$ 56.02	Mean	$ 79.61	Mean	$ 97.46	Mean	$ 111.09

ROE/ROR Analysis OTP
Equity Prices
Source: Yahoo! Finance

Edison International (EIX)		Entergy Corporation (ETR)		Evergy, Inc. (EVRG)		Eversource Energy (ES)	
Date	Close	Date	Close	Date	Close	Date	Close
7/22/2024	$ 75.20	7/22/2024	$ 111.02	7/22/2024	$ 55.49	7/22/2024	$ 61.76
7/23/2024	$ 75.11	7/23/2024	$ 110.35	7/23/2024	$ 55.22	7/23/2024	$ 60.82
7/24/2024	$ 76.04	7/24/2024	$ 111.86	7/24/2024	$ 56.22	7/24/2024	$ 63.03
7/25/2024	$ 76.43	7/25/2024	$ 111.42	7/25/2024	$ 56.33	7/25/2024	$ 63.60
7/26/2024	$ 78.51	7/26/2024	$ 113.63	7/26/2024	$ 56.75	7/26/2024	$ 64.50
7/29/2024	$ 78.20	7/29/2024	$ 114.36	7/29/2024	$ 57.21	7/29/2024	$ 64.94
7/30/2024	$ 79.38	7/30/2024	$ 116.34	7/30/2024	$ 57.71	7/30/2024	$ 65.96
7/31/2024	$ 80.01	7/31/2024	$ 115.97	7/31/2024	$ 58.00	7/31/2024	$ 64.91
8/1/2024	$ 81.61	8/1/2024	$ 120.82	8/1/2024	$ 59.75	8/1/2024	$ 66.07
8/2/2024	$ 82.27	8/2/2024	$ 120.80	8/2/2024	$ 60.16	8/2/2024	$ 67.11
8/5/2024	$ 80.55	8/5/2024	$ 115.51	8/5/2024	$ 58.52	8/5/2024	$ 65.02
8/6/2024	$ 81.53	8/6/2024	$ 116.16	8/6/2024	$ 58.78	8/6/2024	$ 65.49
8/7/2024	$ 81.64	8/7/2024	$ 116.98	8/7/2024	$ 59.03	8/7/2024	$ 65.34
8/8/2024	$ 81.73	8/8/2024	$ 117.22	8/8/2024	$ 59.00	8/8/2024	$ 64.85
8/9/2024	$ 81.98	8/9/2024	$ 117.53	8/9/2024	$ 58.69	8/9/2024	$ 64.91
8/12/2024	$ 82.41	8/12/2024	$ 117.52	8/12/2024	$ 58.52	8/12/2024	$ 64.87
8/13/2024	$ 82.91	8/13/2024	$ 117.27	8/13/2024	$ 58.82	8/13/2024	$ 65.75
8/14/2024	$ 83.14	8/14/2024	$ 117.99	8/14/2024	$ 59.13	8/14/2024	$ 66.45
8/15/2024	$ 83.16	8/15/2024	$ 117.10	8/15/2024	$ 58.60	8/15/2024	$ 64.85
8/16/2024	$ 83.41	8/16/2024	$ 117.60	8/16/2024	$ 58.76	8/16/2024	$ 65.11
Mean	$ 80.26	Mean	$ 115.87	Mean	$ 58.03	Mean	$ 64.77

IDACORP, Inc. (IDA)		NorthWestern Corporation (NWE)		OGE Energy Corp. (OGE)		Pinnacle West Capital Corp. (PNW)	
Date	Close	Date	Close	Date	Close	Date	Close
7/22/2024	$ 95.40	7/22/2024	$ 53.09	7/22/2024	$ 37.38	7/22/2024	$ 82.47
7/23/2024	$ 94.86	7/23/2024	$ 52.10	7/23/2024	$ 37.37	7/23/2024	$ 82.56
7/24/2024	$ 96.44	7/24/2024	$ 52.68	7/24/2024	$ 37.75	7/24/2024	$ 83.51
7/25/2024	$ 97.25	7/25/2024	$ 53.13	7/25/2024	$ 38.05	7/25/2024	$ 83.59
7/26/2024	$ 97.50	7/26/2024	$ 53.27	7/26/2024	$ 38.33	7/26/2024	$ 84.71
7/29/2024	$ 97.63	7/29/2024	$ 52.87	7/29/2024	$ 38.33	7/29/2024	$ 85.19
7/30/2024	$ 98.58	7/30/2024	$ 53.51	7/30/2024	$ 38.82	7/30/2024	$ 85.45
7/31/2024	$ 97.75	7/31/2024	$ 53.77	7/31/2024	$ 38.77	7/31/2024	$ 85.59
8/1/2024	$ 102.31	8/1/2024	$ 53.46	8/1/2024	$ 39.70	8/1/2024	$ 88.07
8/2/2024	$ 104.13	8/2/2024	$ 53.91	8/2/2024	$ 39.78	8/2/2024	$ 88.23
8/5/2024	$ 100.69	8/5/2024	$ 51.49	8/5/2024	$ 38.44	8/5/2024	$ 85.23
8/6/2024	$ 101.22	8/6/2024	$ 51.91	8/6/2024	$ 38.82	8/6/2024	$ 85.32
8/7/2024	$ 100.89	8/7/2024	$ 51.74	8/7/2024	$ 39.37	8/7/2024	$ 85.33
8/8/2024	$ 101.39	8/8/2024	$ 52.18	8/8/2024	$ 39.16	8/8/2024	$ 85.40
8/9/2024	$ 101.65	8/9/2024	$ 52.17	8/9/2024	$ 39.32	8/9/2024	$ 86.00
8/12/2024	$ 101.13	8/12/2024	$ 51.81	8/12/2024	$ 39.13	8/12/2024	$ 85.74
8/13/2024	$ 101.95	8/13/2024	$ 52.24	8/13/2024	$ 39.33	8/13/2024	$ 86.07
8/14/2024	$ 102.31	8/14/2024	$ 52.60	8/14/2024	$ 39.28	8/14/2024	$ 85.70
8/15/2024	$ 102.12	8/15/2024	$ 52.93	8/15/2024	$ 38.98	8/15/2024	$ 85.95
8/16/2024	$ 102.03	8/16/2024	$ 53.20	8/16/2024	$ 39.28	8/16/2024	$ 86.45
Mean	$ 99.86	Mean	$ 52.70	Mean	$ 38.77	Mean	$ 85.33

Portland General Electric (POR)		Southern Co. (SO)		Xcel Energy Inc. (XEL)	
Date	Close	Date	Close	Date	Close
7/22/2024	$ 47.13	7/22/2024	$ 81.85	7/22/2024	$ 55.74
7/23/2024	$ 46.76	7/23/2024	$ 81.35	7/23/2024	$ 55.14
7/24/2024	$ 47.69	7/24/2024	$ 82.67	7/24/2024	$ 56.36
7/25/2024	$ 47.87	7/25/2024	$ 81.66	7/25/2024	$ 56.87
7/26/2024	$ 47.42	7/26/2024	$ 82.17	7/26/2024	$ 57.36
7/29/2024	$ 46.79	7/29/2024	$ 83.05	7/29/2024	$ 57.69
7/30/2024	$ 47.40	7/30/2024	$ 83.38	7/30/2024	$ 58.63
7/31/2024	$ 47.38	7/31/2024	$ 83.52	7/31/2024	$ 58.28
8/1/2024	$ 47.95	8/1/2024	$ 87.57	8/1/2024	$ 59.11
8/2/2024	$ 48.03	8/2/2024	$ 88.58	8/2/2024	$ 59.75
8/5/2024	$ 46.25	8/5/2024	$ 86.57	8/5/2024	$ 57.99
8/6/2024	$ 46.07	8/6/2024	$ 86.45	8/6/2024	$ 57.86
8/7/2024	$ 46.48	8/7/2024	$ 87.29	8/7/2024	$ 58.36
8/8/2024	$ 46.56	8/8/2024	$ 86.46	8/8/2024	$ 58.15
8/9/2024	$ 46.37	8/9/2024	$ 86.80	8/9/2024	$ 57.96
8/12/2024	$ 46.41	8/12/2024	$ 87.20	8/12/2024	$ 58.02
8/13/2024	$ 46.54	8/13/2024	$ 87.20	8/13/2024	$ 59.66
8/14/2024	$ 46.39	8/14/2024	$ 87.19	8/14/2024	$ 58.96
8/15/2024	$ 46.34	8/15/2024	$ 87.01	8/15/2024	$ 58.90
8/16/2024	$ 46.53	8/16/2024	$ 87.36	8/16/2024	$ 59.98
Mean	$ 46.92	Mean	$ 85.27	Mean	$ 58.04

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	$ 2.68	$ 2.68	$ 2.68
American Electric Power Co.	$ 3.52	$ 3.52	$ 3.52
Duke Energy Corporation	$ 4.18	$ 4.18	$ 4.18
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	$ 2.86	$ 2.86	$ 2.86
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.	$ 2.00	$ 2.00	$ 2.00
Southern Co.	$ 2.88	$ 2.88	$ 2.88
Xcel Energy Inc.	$ 2.19	$ 2.19	$ 2.19

Value Line dividends taken from June 7, 2024; July 19, 2024; August 9, 2024 Reports

Zacks dividends taken from website on August 19, 2024

ROE and ROR Analysis for Otter Tail Power **Docket No. PU-23-342**
Discounted Cash Flow Model Analysis **Exhibit MFG-17, Schedule 1**
Common Equity Share Prices: July 22, 2024-August 16, 2024
Value Line EPS Growth-Rate Estimates--June 2024-August 2024

	A	B	C	D	E
Company Name	Zacks EPS Growth Rate (%)	Yahoo! Finance EPS Growth Rates (%)	Value Line EPS Growth Rates (%)	Mean EPS Growth Rate (%)	Average of Closing Prices
Alliant Energy Corporation	6.84%	7.70%	6.00%	6.85%	$ 56.02
Ameren Corporation	6.58%	5.50%	6.50%	6.19%	$ 79.61
American Electric Power Co.	6.24%	6.62%	6.50%	6.45%	$ 97.46
Duke Energy Corporation	6.10%	6.66%	5.00%	5.92%	$ 111.09
Edison International	NA	7.60%	6.00%	6.80%	$ 80.26
Entergy Corporation	7.33%	6.80%	0.50%	4.88%	$ 115.87
Evergy, Inc.	5.00%	6.00%	0.50%	3.83%	$ 58.03
Eversource Energy	5.73%	4.20%	6.00%	5.31%	$ 64.77
IDACORP, Inc.	NA	4.40%	5.50%	4.95%	$ 99.86
NorthWestern Corporation	NA	4.50%	4.00%	4.25%	$ 52.70
OGE Energy Corp.	5.00%	-12.34%	5.00%	5.00%	$ 38.77
Pinnacle West Capital Corp.	8.22%	7.20%	4.50%	6.64%	$ 85.33
Portland General Electric Co.	NA	12.50%	6.00%	9.25%	$ 46.92
Southern Co.	6.95%	7.30%	6.50%	6.92%	$ 85.27
Xcel Energy Inc.	6.39%	6.73%	7.00%	6.71%	$ 58.04
Mean				6.00%	

Yahoo! Finance EPS removed from OGE Energy average

	F	G	H	I	J
	Annualized Dividend	Dividend Yield (Rate/Price)	Expected Dividend Yield	Required Rate of Return on Equity	J > 7.26% Mean of Kroll and Value Line Low-End Tests
Alliant Energy Corporation	$ 1.92	3.43%	3.66%	10.51%	Yes
Ameren Corporation	$ 2.68	3.37%	3.57%	9.77%	Yes
American Electric Power Co.	$ 3.52	3.61%	3.84%	10.30%	Yes
Duke Energy Corporation	$ 4.18	3.76%	3.99%	9.91%	Yes
Edison International	$ 3.12	3.89%	4.15%	10.95%	Yes
Entergy Corporation	$ 4.52	3.90%	4.09%	8.97%	Yes
Evergy, Inc.	$ 2.57	4.43%	4.60%	8.43%	Yes
Eversource Energy	$ 2.86	4.42%	4.65%	9.96%	Yes
IDACORP, Inc.	$ 3.32	3.32%	3.49%	8.44%	Yes
NorthWestern Corporation	$ 2.60	4.93%	5.14%	9.39%	Yes
OGE Energy Corp.	$ 1.67	4.31%	4.53%	9.53%	Yes
Pinnacle West Capital Corp.	$ 3.52	4.13%	4.40%	11.04%	Yes
Portland General Electric Co.	$ 2.00	4.26%	4.66%	13.91%	Yes
Southern Co.	$ 2.88	3.38%	3.61%	10.53%	Yes
Xcel Energy Inc.	$ 2.19	3.77%	4.03%	10.73%	Yes
			4.16%		

Excluded

Mean	10.16%
Median	9.96%

A: Zacks website, August 19, 2024
B: Yahoo! Finance website: August 16, 2024.
C: Value Line Investment Survey reports: June 7, 2024; July 19, 2024; August 9, 2024
E: Yahoo! Finance website: August 16, 2024. See Exhibit MFG-15.
F: Higher of Zacks website, August 19, 2024, and Value Line Investment Survey Reports, June 7, 2024; July 19, 2024; August 9, 2024. See Exhibit MFG-16.
J: Moody's BAA Corporate Bonds Index plus 20 percent of CAPM risk premium. See Exhibit MFG-18, Schedule 8.

D: Average (A, B, C)
G: F/E
H: G*(1+D)
I: D + H

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:

$$K = D_1/P_0 + g \tag{10-1}$$

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:

$$r = D_1/B_0 + g \tag{10-2}$$

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

$$P - fP = B_0$$

$$P(1 - f) = B_0 \tag{10-3}$$

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

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

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:

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

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

ROE and ROR Analysis for Otter Tail Power
U.S Energy Information Administration Long-Term Growth Rate

Docket No. PU-23-342
Exhibit MFG-17
Schedule 4

Source: U.S. Energy Information Administration, Annual Energy Outlook 2023

Table 20. Macroeconomic Indicators

(Billions 2012 chain-weighted dollars unless otherwise noted)

	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	Plus	2.31%

Total 2030-2050 Growth Rate 4.33%

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

ROE and ROR Analysis for Otter Tail Power
Discounted Cash Flow Model Analysis
Common Equity Share Prices: July 22, 2024-August 16, 2024
Multistage DCF with Zacks, Yahoo! Finance, and Value Line EPS Growth-Rate Estimates; 2023 SSA and 2023 EIA long-term growth rates

Docket No. PU-23-342
Exhibit MFG-17
Schedule 6

	A	B	C	D	E	F	G	H
Company Name	**Zacks EPS Growth Rates (%)**	**Yahoo! EPS Growth Rates (%)**	**Value Line EPS Growth Rates (%)**	**Mean EPS Growth Rate (%)**	**Average of Closing Prices**	**Annualized Dividend**	**Dividend Yield (Rate/Price)**	**Expected Dividend Yield**
Alliant Energy Corporation	6.84%	7.70%	6.00%	6.85%	$ 56.02	$ 1.92	3.43%	3.66%
Ameren Corporation	6.58%	5.50%	6.50%	6.19%	$ 79.61	$ 2.68	3.37%	3.57%
American Electric Power Co.	6.24%	6.62%	6.50%	6.45%	$ 97.46	$ 3.52	3.61%	3.84%
Duke Energy Corporation	6.10%	6.66%	5.00%	5.92%	$ 111.09	$ 4.18	3.76%	3.99%
Edison International	NA	7.60%	6.00%	6.80%	$ 80.26	$ 3.12	3.89%	4.15%
Entergy Corporation	7.33%	6.80%	0.50%	4.88%	$ 115.87	$ 4.52	3.90%	4.09%
Evergy, Inc.	5.00%	6.00%	0.50%	3.83%	$ 58.03	$ 2.57	4.43%	4.60%
Eversource Energy	5.73%	4.20%	6.00%	5.31%	$ 64.77	$ 2.86	4.42%	4.65%
IDACORP, Inc.	NA	4.40%	5.50%	4.95%	$ 99.86	$ 3.32	3.32%	3.49%
NorthWestern Corporation	NA	4.50%	4.00%	4.25%	$ 52.70	$ 2.60	4.93%	5.14%
OGE Energy Corp.	5.00%	-12.34%	5.00%	5.00%	$ 38.77	$ 1.67	4.31%	4.53%
Pinnacle West Capital Corp.	8.22%	7.20%	4.50%	6.64%	$ 85.33	$ 3.52	4.13%	4.40%
Portland General Electric Co.	NA	12.50%	6.00%	9.25%	$ 46.92	$ 2.00	4.26%	4.66%
Southern Co.	6.95%	7.30%	6.50%	6.92%	$ 85.27	$ 2.88	3.38%	3.61%
Xcel Energy Inc.	6.39%	6.73%	7.00%	6.71%	$ 58.04	$ 2.19	3.77%	4.03%

Yahoo! Finance EPS removed from OGE Energy average

	I	J	K	L	M	N	O	P
Company Name	**SSA Long-Run Projected EPS Growth Rate = 4.04%**	**SSA Long-Run Weighted EPS Growth Rate 4.04%**	**SSA Weighted Cost of Equity, Long-Run Rate**	**EIA Long-Run Projected EPS Growth Rate = 4.33%**	**Weighted Long-Run Projected EPS Growth Rate = 4.33%**	**EIA Weighted Cost of Equity, Long-Run Rate**	**Multistage Mean Cost of Equity**	**J > 7.26% Mean of Kroll and Value Line Low-End Tests**
Alliant Energy Corporation	4.04%	5.91%	9.57%	4.33%	6.01%	9.67%	9.62%	Yes
Ameren Corporation	4.04%	5.48%	9.05%	4.33%	4.13%	7.70%	8.38%	Yes
American Electric Power Co.	4.04%	5.65%	9.49%	4.33%	4.30%	8.15%	8.82%	Yes
Duke Energy Corporation	4.04%	5.29%	9.28%	4.33%	3.95%	7.93%	8.61%	Yes
Edison International	4.04%	5.88%	10.03%	4.33%	4.53%	8.68%	9.36%	Yes
Entergy Corporation	4.04%	4.60%	8.69%	4.33%	3.25%	7.34%	8.02%	Yes
Evergy, Inc.	4.04%	3.90%	8.50%	4.33%	2.56%	7.15%	7.83%	Yes
Eversource Energy	4.04%	4.89%	9.54%	4.33%	3.54%	8.19%	8.86%	Yes
IDACORP, Inc.	4.04%	4.65%	8.14%	4.33%	3.30%	6.79%	7.46%	Yes
NorthWestern Corporation	4.04%	4.18%	9.32%	4.33%	2.83%	7.98%	8.65%	Yes
OGE Energy Corp.	4.04%	4.68%	9.21%	4.33%	3.33%	7.86%	8.54%	Yes
Pinnacle West Capital Corp.	4.04%	5.77%	10.17%	4.33%	4.43%	8.83%	9.50%	Yes
Portland General Electric Co.	4.04%	7.51%	12.17%	4.33%	6.17%	10.82%	11.50%	Yes
Southern Co.	4.04%	5.96%	9.57%	4.33%	4.61%	8.22%	8.90%	Yes
Xcel Energy Inc.	4.04%	5.82%	9.84%	4.33%	4.47%	8.50%	9.17%	Yes
				Excluded		**Mean**	8.88%	
						Median	8.82%	

A: Zacks website, August 19, 2024
B: Yahoo! Finance website: August 16, 2024.
C: Value Line Investment Survey reports: June 7, 2024; July 19, 2024; August 9, 2024
E: Yahoo! Finance website: August 16, 2024. See Exhibit MFG-15.
F: Higher of Zacks website, August 19, 2024, and Value Line Investment Survey Reports, June 7, 2024; July 19, 2024; August 9, 2024. See Exhibit MFG-16.
I: U.S. Social Security Administration, The 2023 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, (OASDI Trustees Report), Table VIG6. See Exhibit MFG-17, Schedule 2.
L: U.S. Energy Information Administration, *Annual Energy Outlook 2022, Macroeconomic Indicators* (Real GDP Growth + GDP Chain-Type Index Increase 2022-2050), https://www.eia.gov/analysis/projection-data.php#annualproj. See Exhibit MFG-17, Schedule 3.
P: Moody's BAA Corporate Bonds Index plus 20 percent of CAPM risk premium. See Exhibit MFG-18, Schedule 8.

D: Average (A, B, C)
G: F/E
H: G*(1+D)
J: = 2/3*D + 1/3*I
K: H + J
M: 2/3*D + 1/3*J
N: H + M
O: = (H + K)/2

ROE and ROR Analysis for Otter Tail Power
CAPM Analysis
Risk-Free Rate Analysis
Downloaded August 20, 2024

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

Daily Treasury Yield Curve Rates

July 22, 2024-August 16, 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
8/16/2024	5.53	5.40	5.33	5.21	5.02	4.49	4.06	3.87	3.77	3.81	3.89	4.26	4.15
8/15/2024	5.53	5.40	5.34	5.22	5.04	4.52	4.08	3.90	3.79	3.83	3.92	4.28	4.18
8/14/2024	5.49	5.39	5.32	5.21	5.00	4.42	3.94	3.76	3.67	3.72	3.83	4.22	4.12
8/13/2024	5.48	5.39	5.32	5.18	4.97	4.40	3.93	3.75	3.68	3.74	3.85	4.25	4.16
8/12/2024	5.53	5.40	5.33	5.20	5.02	4.47	4.01	3.82	3.75	3.80	3.90	4.30	4.19
8/9/2024	5.54	5.40	5.33	5.22	5.02	4.50	4.05	3.86	3.80	3.85	3.94	4.33	4.23
8/8/2024	5.55	5.42	5.34	5.21	5.01	4.48	4.04	3.86	3.83	3.89	3.99	4.38	4.28
8/7/2024	5.50	5.43	5.34	5.21	4.99	4.45	4.00	3.81	3.79	3.85	3.96	4.35	4.26
8/6/2024	5.50	5.43	5.34	5.18	5.00	4.46	3.99	3.76	3.73	3.79	3.90	4.28	4.18
8/5/2024	5.52	5.43	5.35	5.14	4.91	4.34	3.89	3.71	3.62	3.66	3.78	4.16	4.06
8/2/2024	5.54	5.43	5.29	5.14	4.88	4.33	3.88	3.70	3.62	3.68	3.80	4.19	4.11
8/1/2024	5.55	5.46	5.37	5.28	5.08	4.62	4.16	3.96	3.84	3.89	3.99	4.35	4.27
7/31/2024	5.49	5.51	5.41	5.32	5.14	4.73	4.29	4.10	3.97	4.00	4.09	4.44	4.35
7/30/2024	5.50	5.50	5.40	5.35	5.16	4.78	4.35	4.16	4.03	4.06	4.15	4.50	4.40
7/29/2024	5.50	5.51	5.41	5.36	5.18	4.79	4.36	4.19	4.05	4.08	4.17	4.51	4.42
7/26/2024	5.49	5.51	5.38	5.36	5.18	4.79	4.36	4.20	4.06	4.10	4.20	4.53	4.45
7/25/2024	5.49	5.52	5.39	5.37	5.19	4.83	4.41	4.26	4.13	4.18	4.27	4.59	4.50
7/24/2024	5.50	5.50	5.40	5.37	5.19	4.82	4.37	4.24	4.12	4.20	4.28	4.62	4.54
7/23/2024	5.49	5.51	5.41	5.38	5.22	4.85	4.40	4.26	4.15	4.18	4.25	4.56	4.48
7/22/2024	5.49	5.51	5.43	5.39	5.24	4.88	4.50	4.29	4.17	4.20	4.26	4.57	4.48
											Mean		4.29

ROE and ROR Analysis for Otter Tail Power
CAPM Analysis
Beta calculation for Comparison Group
Value Line Investment Survey
Betas taken from reports of June 7, 2024; July 19, 2024; August 9, 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.	0.85
Duke Energy Corporation	0.90
Edison International	1.00
Entergy Corporation	1.00
Evergy, Inc.	0.95
Eversource Energy	0.95
IDACORP, Inc.	0.85
NorthWestern Corporation	0.95
OGE Energy Corp.	1.05
Pinnacle West Capital Corp.	0.95
Portland General Electric Co.	0.95
Southern Co.	0.95
Xcel Energy Inc.	0.85

ROE and ROR Analysis for Otter Tail Power
CAPM Analysis
Moody's 10-Year Baa Corporate Bonds Index July 22, 2024-August 16, 2024
Downloaded August 20, 2024

Docket No. PU-23-342
Exhibit MFG-18
Schedule 3

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**	**5.93**	**5.57**	**5.73**

Pricing Date	Moodys Bond Yield Avg - BAA Rated Corporates-Index Value (Daily)
8/16/2024	5.58
8/15/2024	5.60
8/14/2024	5.57
8/13/2024	5.65
8/12/2024	5.68
8/9/2024	5.71
8/8/2024	5.77
8/7/2024	5.76
8/6/2024	5.68
8/5/2024	5.63
8/2/2024	5.60
8/1/2024	5.70
7/31/2024	5.77
7/30/2024	5.80
7/29/2024	5.83
7/26/2024	5.85
7/25/2024	5.89
7/24/2024	5.93
7/23/2024	5.84
7/22/2024	5.84
Mean	5.73

KROLL

June 6, 2024

Kroll Lowers its Recommended U.S. Equity Risk Premium to 5.0%, Effective June 5, 2024

Executive Summary

Kroll regularly reviews fluctuations in global economic and financial market conditions that may warrant changes to our equity risk premium (ERP) and accompanying risk-free rate recommendations. The risk-free rate and ERP are key inputs used to calculate the cost of equity capital in the context of the Capital Asset Pricing Model (CAPM) and other models used to develop discount rates. We also update country risk data on a quarterly basis for 175+ countries using various models.

The Kroll Recommended U.S. ERP is decreasing from 5.5% to 5.0% when developing USD-denominated discount rates as of June 5, 2024, and thereafter, until further notice.

Notwithstanding the current recommendation, we are monitoring economic and geopolitical events that may change our views and impact our guidance toward the end of 2024 and into 2025. In particular, the U.S. Presidential Election in November 2024 has the potential to cause turmoil in U.S. and global financial markets. Of particular concern is any potential promise of a significant increase in government spending and a corresponding rise in the U.S. budget deficit, which could place upward pressure on long-term interest rates and disrupt financial markets. Other global geopolitical events that warrant close watch include, but are not limited to, the impact of general elections in other major economies (e.g., Mexico, India, UK), trade conflicts between the U.S. and China, rising tensions in the Middle East and the protracted Russia's war on Ukraine.

Background

The Kroll U.S. Recommended ERP was last changed on June 8, 2023, when it was lowered from 6.0% to 5.5%. This ERP guidance was applicable when developing USD-denominated discount rates and was to be used in conjunction with our U.S. risk-free guidance—the higher of the spot 20-year U.S. Treasury yield (prevailing as of the valuation date) and the Kroll normalized U.S. risk-free rate of 3.5%.

ROE and ROR Analysis for Otter Tail Power
CAPM ROE Analysis--Kroll Risk Premium
Calculation for Proxy Group

Docket No. PU-23-342
Exhibit MFG-18
Schedule 5

	A	B	C	D	E	F
Company Name	**Rf**	**MRP**	**Beta**	**RP**	**CAPM ROE**	**Filtered Results**
Alliant Energy Corporation	4.29%	5.00%	0.90	4.50%	8.79%	8.79%
Ameren Corporation	4.29%	5.00%	0.90	4.50%	8.79%	8.79%
American Electric Power Co.	4.29%	5.00%	0.85	4.25%	8.54%	8.54%
Duke Energy Corporation	4.29%	5.00%	0.90	4.50%	8.79%	8.79%
Edison International	4.29%	5.00%	1.00	5.00%	9.29%	9.29%
Entergy Corporation	4.29%	5.00%	1.00	5.00%	9.29%	9.29%
Evergy, Inc.	4.29%	5.00%	0.95	4.75%	9.04%	9.04%
Eversource Energy	4.29%	5.00%	0.95	4.75%	9.04%	9.04%
IDACORP, Inc.	4.29%	5.00%	0.85	4.25%	8.54%	8.54%
NorthWestern Corporation	4.29%	5.00%	0.95	4.75%	9.04%	9.04%
OGE Energy Corp.	4.29%	5.00%	1.05	5.25%	9.54%	9.54%
Pinnacle West Capital Corp.	4.29%	5.00%	0.95	4.75%	9.04%	9.04%
Portland General Electric Co.	4.29%	5.00%	0.95	4.75%	9.04%	9.04%
Southern Co.	4.29%	5.00%	0.95	4.75%	9.04%	9.04%
Xcel Energy Inc.	4.29%	5.00%	0.85	4.25%	8.54%	8.54%
				Mean	8.96%	8.96%
				Median	9.04%	9.04%

A: MFG-18, Sch 1
B: MFG-18, Sch 4
C: MFG-18 Sch 2

D: B * C
E: B + E
F: Low-end test < Column E < High-end test

Low-End Test:	Moody's 10-Year Baa Corporate Bond Index, MFG-18, Schedule 3	5.73%
	CAPM Risk Premium, Column B	5.00%
	20 percent of CAPM risk premium	1.00%
	premium	6.73%

High-End Test:	Proxy Group median, Column E	9.04%
	200 percent of Proxy Group median	18.08%

Constant-Growth DCF Analysis for S&P 500--Value Line
All companies shown
A, B, and E: Value Line Analyzer, August 21, 2024

C = B * (1 + A/100)
D = A + C
F = E/(Sum of Column E)
G = D * F

Companies Excluded
Companies not paying dividends
Companies with EPS ≤ 0
Companies with EPS > 20%

EPS Market Return % 14.57

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 (%)
Companies not paying dividends							
Adobe Inc.	24.00	0.00	0.00	24.00	242,366		
Advanced Micro Dev.	78.50	0.00	0.00	78.50	227,734		
Airbnb Inc.	0.00	0.00	0.00	0.00	73,696		
Akamai Technologies	17.50	0.00	0.00	17.50	15,150		
Align Techn.	12.50	0.00	0.00	12.50	16,564		
Alphabet Inc. 'A'	39.00	0.00	0.00	39.00	1,976,079		
Amazon.com	32.50	0.00	0.00	32.50	1,784,349		
Amer. Airlines	0.00	0.00	0.00	0.00	6,395		
ANSYS Inc.	12.00	0.00	0.00	12.00	27,884		
Aptiv PLC	-10.50	0.00	0.00	-10.50	17,864		
Arch Capital Group	28.50	0.00	0.00	28.50	37,868		
Arista Networks	28.00	0.00	0.00	28.00	109,506		

	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 (%)**
Autodesk Inc.	0.00	0.00	0.00	0.00	52,937		
AutoZone Inc.	20.50	0.00	0.00	20.50	54,799		
Axon Enterprise	48.50	0.00	0.00	48.50	27,965		
Bio-Rad Labs. 'A'	30.00	0.00	0.00	30.00	9,141		
Biogen	-7.00	0.00	0.00	-7.00	29,226		
Boeing	0.00	0.00	0.00	0.00	103,717		
Boston Scientific	11.50	0.00	0.00	11.50	112,338		
Builders FirstSource	87.50	0.00	0.00	87.50	19,601		
Cadence Design Sys.	23.00	0.00	0.00	23.00	74,419		
Caesars Entertainment	0.00	0.00	0.00	0.00	7,500		
CarMax Inc.	2.00	0.00	0.00	2.00	12,110		
Carnival Corp.	0.00	0.00	0.00	0.00	18,701		
Catalent Inc.	9.50	0.00	0.00	9.50	10,692		
CBRE Group	13.00	0.00	0.00	13.00	33,862		
Centene Corp.	16.50	0.00	0.00	16.50	40,518		
Charles River	17.00	0.00	0.00	17.00	10,227		
Charter Communic.	29.50	0.00	0.00	29.50	50,586		
Chipotle Mex. Grill	43.50	0.00	0.00	43.50	70,831		
Cooper Cos.	14.00	0.00	0.00	14.00	18,202		
Copart Inc.	26.50	0.00	0.00	26.50	49,066		
Corpay	14.00	0.00	0.00	14.00	19,990		
CoStar Group	16.00	0.00	0.00	16.00	30,100		
CrowdStrike Hldgs.	0.00	0.00	0.00	0.00	62,309		
DaVita Inc.	17.50	0.00	0.00	17.50	13,057		

	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 (%)
Dayforce Inc.	0.00	0.00	0.00	0.00	8,639		
Deckers Outdoor	28.50	0.00	0.00	28.50	23,376		
DexCom Inc.	0.00	0.00	0.00	0.00	28,069		
Dollar Tree Inc.	-9.50	0.00	0.00	-9.50	19,967		
Edwards Lifesciences	13.50	0.00	0.00	13.50	40,053		
Enphase Energy	0.00	0.00	0.00	0.00	15,049		
EPAM Systems	22.00	0.00	0.00	22.00	11,584		
Etsy Inc.	51.00	0.00	0.00	51.00	5,939		
Expedia Group	-4.00	0.00	0.00	-4.00	17,229		
F5 Inc.	-2.00	0.00	0.00	-2.00	11,153		
Fair Isaac	28.00	0.00	0.00	28.00	44,455		
First Solar Inc.	0.00	0.00	0.00	0.00	24,143		
Fiserv Inc.	20.00	0.00	0.00	20.00	94,645		
Fortinet Inc.	53.50	0.00	0.00	53.50	55,553		
Gartner Inc.	26.00	0.00	0.00	26.00	37,095		
GE Vernova Inc	0.00	0.00	0.00	0.00	50,476		
Generac Holdings	17.50	0.00	0.00	17.50	8,726		
GoDaddy Inc.	0.00	0.00	0.00	0.00	22,907		
Hologic Inc.	33.00	0.00	0.00	33.00	18,794		
IDEXX Labs.	21.50	0.00	0.00	21.50	39,360		
Incyte Corp.	0.00	0.00	0.00	0.00	13,737		
Insulet Corp.	0.00	0.00	0.00	0.00	13,429		
Intuitive Surgical	10.50	0.00	0.00	10.50	167,421		
IQVIA Holdings	16.00	0.00	0.00	16.00	43,061		

	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 (%)**
Keysight Technologies	31.00	0.00	0.00	31.00	22,221		
Live Nation Entertain.	0.00	0.00	0.00	0.00	21,531		
lululemon athletica	29.00	0.00	0.00	29.00	30,202		
Match Group	8.50	0.00	0.00	8.50	8,893		
Mettler-Toledo Int'l	16.50	0.00	0.00	16.50	29,761		
MGM Resorts Int'l	0.00	0.00	0.00	0.00	11,613		
Moderna Inc.	0.00	0.00	0.00	0.00	31,584		
Mohawk Inds.	-1.00	0.00	0.00	-1.00	10,140		
Molina Healthcare	37.00	0.00	0.00	37.00	20,014		
Monster Beverage	13.00	0.00	0.00	13.00	48,168		
Netflix Inc.	49.00	0.00	0.00	49.00	283,970		
Norwegian Cruise Line	0.00	0.00	0.00	0.00	6,620		
NVR Inc.	24.50	0.00	0.00	24.50	27,154		
O'Reilly Automotive	21.00	0.00	0.00	21.00	66,604		
ON Semiconductor	25.50	0.00	0.00	25.50	30,438		
Palo Alto Networks	0.00	0.00	0.00	0.00	109,927		
PayPal Holdings	17.00	0.00	0.00	17.00	68,257		
PTC Inc.	0.00	0.00	0.00	0.00	20,642		
Qorvo Inc.	0.00	0.00	0.00	0.00	10,305		
Regeneron Pharmac.	30.50	0.00	0.00	30.50	128,527		
Royal Caribbean	0.00	0.00	0.00	0.00	39,307		
Schein (Henry)	3.00	0.00	0.00	3.00	8,802		
ServiceNow Inc.	0.00	0.00	0.00	0.00	168,601		
Solventum Corp	0.00	0.00	0.00	0.00	9,979		

	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 (%)
Super Micro Computer	39.50	0.00	0.00	39.50	33,790		
Synopsys Inc.	21.00	0.00	0.00	21.00	81,321		
Take-Two Interactive	0.00	0.00	0.00	0.00	24,751		
Teledyne Technologies	21.50	0.00	0.00	21.50	19,178		
Tesla Inc.	0.00	0.00	0.00	0.00	643,208		
TransDigm Group	4.00	0.00	0.00	4.00	69,826		
Trimble Inc.	27.50	0.00	0.00	27.50	13,106		
Tyler Technologies	13.00	0.00	0.00	13.00	27,982		
Uber Technologies	0.00	0.00	0.00	0.00	150,906		
Ulta Beauty	21.50	0.00	0.00	21.50	15,743		
Under Armour 'C'	-16.00	0.00	0.00	-16.00	3,398		
United Airlines Hldgs.	0.00	0.00	0.00	0.00	13,231		
VeriSign Inc.	9.50	0.00	0.00	9.50	17,143		
Vertex Pharmac.	68.50	0.00	0.00	68.50	121,639		
Warner Bros. Discovery	0.00	0.00	0.00	0.00	17,059		
Waters Corp.	9.00	0.00	0.00	9.00	19,972		
Western Digital	-20.50	0.00	0.00	-20.50	20,052		
Zebra Techn. 'A'	14.00	0.00	0.00	14.00	17,185		
Companies with EPS ≤ 0%							
3M Company	-22.50	2.22	1.72	-20.78	69,312		

	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 (%)**
AES Corp.	0.00	4.13	4.13	4.13	12,041		
Alexandria Real Estate	0.00	4.49	4.49	4.49	19,336		
Allstate Corp.	-7.50	2.03	1.88	-5.62	47,771		
Amcor plc	0.00	4.69	4.69	4.69	15,393		
AT&T Inc.	-3.00	5.66	5.49	2.49	140,752		
Baker Hughes	0.00	2.53	2.53	2.53	34,681		
Bath & Body Works	-2.00	2.55	2.50	0.50	7,002		
Campbell Soup	0.00	3.14	3.14	3.14	14,790		
Carrier Global	0.00	1.16	1.16	1.16	59,174		
CF Industries	0.00	2.61	2.61	2.61	14,849		
Clorox Co.	0.00	3.32	3.32	3.32	17,948		
Colgate-Palmolive	-1.50	1.96	1.93	0.43	83,490		
Constellation Energy	0.00	0.76	0.76	0.76	58,637		
Corteva Inc.	0.00	1.31	1.31	1.31	36,061		
Coterra Energy	0.00	3.51	3.51	3.51	17,979		
Delta Air Lines	-19.50	1.55	1.25	-18.25	24,971		
Disney (Walt)	-27.00	1.04	0.76	-26.24	161,640		
Dominion Energy	-2.00	4.81	4.71	2.71	46,517		
Dow Inc.	0.00	5.50	5.50	5.50	37,101		
DTE Energy	-0.50	3.34	3.32	2.82	25,263		
DuPont de Nemours	0.00	1.98	1.98	1.98	32,876		
Eastman Chemical	-0.50	3.39	3.37	2.87	11,168		
Ecolab Inc.	-2.00	0.95	0.93	-1.07	68,129		
Electronic Arts	0.00	0.55	0.55	0.55	38,958		

	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 (%)
EQT Corp.	-25.00	2.00	1.50	-23.50	13,902		
Equity Residential	-12.50	3.79	3.32	-9.18	26,940		
Exelon Corp.	-2.50	4.11	4.01	1.51	37,030		
Federal Rlty. Inv. Trust	0.00	3.87	3.87	3.87	9,161		
FirstEnergy Corp.	-1.00	4.09	4.05	3.05	24,333		
Ford Motor	-14.00	5.89	5.07	-8.93	42,542		
Fortive Corp.	-5.00	0.47	0.45	-4.55	24,076		
Fox Corp. 'A'	0.00	1.33	1.33	1.33	18,286		
Fox Corp. 'B'	0.00	1.43	1.43	1.43			
Franklin Resources	-3.50	5.63	5.43	1.93	11,496		
GE HealthCare	0.00	0.14	0.14	0.14	38,117		
Gen'l Electric	-21.50	0.67	0.53	-20.97	183,839		
Gilead Sciences	-9.50	4.15	3.76	-5.74	92,378		
Hasbro Inc.	-2.50	4.33	4.22	1.72	8,996		
Hess Corp.	0.00	1.30	1.30	1.30	41,330		
Hormel Foods	0.00	3.50	3.50	3.50	17,679		
Host Hotels & Resorts	0.00	5.20	5.20	5.20	11,529		
Howmet Aerospace	0.00	0.53	0.53	0.53	38,292		
Ingersoll Rand Inc.	0.00	0.09	0.09	0.09	36,756		
Int'l Business Mach.	-6.50	3.47	3.24	-3.26	176,666		
Int'l Flavors & Frag.	-3.50	1.65	1.59	-1.91	24,692		
Int'l Paper	-3.00	4.01	3.89	0.89	16,021		
Intel Corp.	-5.00	2.51	2.38	-2.62	85,178		
Invesco Ltd.	-11.50	5.16	4.57	-6.93	7,413		

	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 (%)**
Invitation Homes	0.00	3.19	3.19	3.19	21,473		
Kellanova	-1.00	2.85	2.82	1.82	27,479		
Kenvue Inc.	0.00	3.78	3.78	3.78	40,560		
Kimberly-Clark	-1.00	3.46	3.43	2.43	47,456		
Kraft Heinz Co.	-3.50	4.64	4.48	0.98	41,698		
L3Harris Technologies	0.00	2.06	2.06	2.06	42,901		
Lamb Weston Holdings	0.00	2.57	2.57	2.57	8,538		
Las Vegas Sands	0.00	2.03	2.03	2.03	29,072		
Linde plc	0.00	1.23	1.23	1.23	216,871		
Marathon Oil Corp.	0.00	1.59	1.59	1.59	15,705		
Micron Technology	-9.00	0.47	0.43	-8.57	111,355		
Molson Coors Beverage	-2.00	3.39	3.32	1.32	10,885		
News Corp. 'A'	0.00	0.73	0.73	0.73	15,585		
News Corp. 'B'	0.00	0.71	0.71	0.71	16,739		
NRG Energy	0.00	1.98	1.98	1.98	17,094		
Otis Worldwide	0.00	1.48	1.48	1.48	36,964		
Paramount Global	-14.00	1.96	1.69	-12.31	6,701		
PG&E Corp.	0.00	0.22	0.22	0.22	39,308		
PPL Corp.	-14.00	3.32	2.86	-11.14	22,908		
RTX Corp.	-7.50	2.14	1.98	-5.52	156,503		
Southwest Airlines	-44.50	2.84	1.58	-42.92	15,189		
Stanley Black & Decker	-5.50	3.43	3.24	-2.26	14,685		
Targa Resources	0.00	2.32	2.32	2.32	30,719		
Trane Technologies plc	0.00	0.97	0.97	0.97	78,098		

	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 (%)**
UDR Inc.	-1.50	4.19	4.13	2.63	13,746		
Ventas Inc.	0.00	3.18	3.18	3.18	23,531		
Viatris Inc.	0.00	4.21	4.21	4.21	13,603		
Vistra Corp.	0.00	1.10	1.10	1.10	27,365		
Walgreens Boots	-2.50	9.59	9.35	6.85	9,004		
Wells Fargo	-5.00	2.98	2.83	-2.17	182,590		
Welltower Inc.	-22.00	2.28	1.78	-20.22	66,304		
Wynn Resorts	0.00	4.05	4.05	4.05	8,298		
Zimmer Biomet Hldgs.	-3.00	0.89	0.86	-2.14	22,345		

Companies with EPS > 20%

Alphabet Inc.	23.50	0.49	0.61	24.11	2,002,367		
Amer. Int'l Group	22.50	2.19	2.68	25.18	48,924		
APA Corp.	66.50	3.45	5.74	72.24	10,707		
Archer Daniels Midl'd	20.50	3.43	4.13	24.63	27,906		
Ball Corp.	23.00	1.29	1.59	24.59	19,031		
Berkley (W.R.)	24.00	0.56	0.69	24.69	22,054		

	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 (%)
Broadcom Inc.	55.00	1.33	2.06	57.06	733,259		
Bunge Global SA	37.00	2.87	3.93	40.93	13,564		
Chevron Corp.	28.50	4.67	6.00	34.50	267,207		
ConocoPhillips	54.00	2.85	4.39	58.39	126,960		
Crown Castle Int'l	25.00	5.82	7.28	32.28	47,941		
Deere & Co.	32.50	1.67	2.21	34.71	96,802		
Devon Energy	45.00	1.98	2.87	47.87	28,162		
Diamondback Energy	38.00	1.83	2.53	40.53	35,035		
EOG Resources	46.50	3.02	4.42	50.92	72,713		
Equinix Inc.	21.00	2.03	2.46	23.46	79,861		
Expeditors Int'l	21.00	1.22	1.48	22.48	16,840		
Exxon Mobil Corp.	22.50	3.19	3.91	26.41	469,020		
Fidelity Nat'l Info.	23.00	1.84	2.26	25.26	43,965		
Healthpeak Properties	26.00	5.51	6.94	32.94	11,911		
Horton D.R.	35.50	0.69	0.93	36.43	57,032		
Intuit Inc.	21.00	0.57	0.69	21.69	177,999		
Jabil Inc.	28.50	0.31	0.40	28.90	12,260		
Keurig Dr Pepper	20.50	2.55	3.07	23.57	47,872		
Kinder Morgan Inc.	26.50	5.49	6.94	33.44	46,519		
KLA Corp.	27.00	0.73	0.93	27.93	106,947		
Lam Research	23.00	0.98	1.21	24.21	110,515		
Lennar Corp.	27.50	1.18	1.50	29.00	46,441		
Lowe's Cos.	23.50	1.94	2.40	25.90	135,930		
Marathon Petroleum	33.50	1.84	2.46	35.96	63,563		

	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 (%)
Microsoft Corp.	22.50	0.78	0.96	23.46	3,098,520		
Monolithic Power Sys.	42.50	0.58	0.83	43.33	41,981		
Mosaic Company	45.00	3.04	4.41	49.41	8,883		
MSCI Inc.	23.00	1.15	1.41	24.41	43,654		
Nucor Corp.	39.00	1.59	2.21	41.21	33,869		
NVIDIA Corp.	42.00	0.03	0.04	42.04	2,903,587		
Occidental Petroleum	26.00	1.72	2.17	28.17	50,490		
Old Dominion Freight	26.00	0.55	0.69	26.69	41,997		
Paycom Software	32.50	0.97	1.29	33.79	8,713		
Pool Corp.	29.50	1.39	1.80	31.30	13,173		
PulteGroup Inc.	32.50	0.66	0.87	33.37	25,337		
Quanta Services	24.00	0.14	0.17	24.17	38,584		
Revvity Inc.	27.00	0.24	0.30	27.30	14,488		
Salesforce Inc.	26.00	0.63	0.79	26.79	266,043		
SBA Communications	42.50	1.82	2.59	45.09	23,504		
Steel Dynamics	40.00	1.60	2.24	42.24	18,164		
Thermo Fisher Sci.	24.00	0.26	0.32	24.32	229,831		
Tractor Supply	21.00	1.75	2.12	23.12	28,299		
United Rentals	22.00	0.93	1.13	23.13	46,510		
Valero Energy	26.50	2.89	3.66	30.16	47,359		
VICI Properties	53.00	5.25	8.03	61.03	30,444		
West Pharmac. Svcs.	30.50	0.27	0.35	30.85	21,214		
Weyerhaeuser Co.	24.00	2.66	3.30	27.30	21,840		

	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 (%)
Qualifying Companies							
Abbott Labs.	14.50	2.00	2.29	16.79	191,197	0.00758	0.1272
AbbVie Inc.	15.50	3.21	3.71	19.21	340,785	0.01351	0.2595
Accenture Plc	11.50	1.61	1.80	13.30	200,413	0.00794	0.1056
Aflac Inc.	10.00	2.01	2.21	12.21	59,117	0.00234	0.0286
Agilent Technologies	16.00	0.69	0.80	16.80	39,665	0.00157	0.0264
Air Products & Chem.	8.00	2.56	2.76	10.76	61,468	0.00244	0.0262
Albemarle Corp.	18.50	2.20	2.61	21.11	8,562	0.00034	0.0072
Allegion plc	9.50	1.47	1.61	11.11	11,422	0.00045	0.0050
Alliant Energy	7.00	3.40	3.64	10.64	14,487	0.00057	0.0061
Altria Group	7.50	7.66	8.23	15.73	87,925	0.00349	0.0548
Amer. Elec. Power	4.50	3.70	3.87	8.37	51,247	0.00203	0.0170
Amer. Express	10.50	0.99	1.09	11.59	175,264	0.00695	0.0805
Amer. Tower 'A'	11.50	3.20	3.57	15.07	104,242	0.00413	0.0623
Amer. Water Works	15.00	2.20	2.53	17.53	27,606	0.00109	0.0192
Ameren Corp.	7.00	3.30	3.53	10.53	21,664	0.00086	0.0090
Ameriprise Fin'l	17.00	1.41	1.65	18.65	41,838	0.00166	0.0309
AMETEK Inc.	13.00	0.69	0.78	13.78	37,388	0.00148	0.0204
Amgen	6.50	2.91	3.10	9.60	173,112	0.00686	0.0659
Amphenol Corp.	12.50	0.71	0.80	13.30	78,018	0.00309	0.0411
Analog Devices	14.00	1.71	1.95	15.95	106,845	0.00424	0.0675

	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 (%)**
Aon plc	16.50	0.82	0.96	17.46	71,893	0.00285	0.0497
Apple Inc.	19.50	0.45	0.54	20.04	3,375,079	0.13378	2.6807
Applied Materials	20.00	0.70	0.84	20.84	166,944	0.00662	0.1379
Assurant Inc.	4.00	1.55	1.61	5.61	9,675	0.00038	0.0022
Atmos Energy	9.00	2.69	2.93	11.93	19,412	0.00077	0.0092
Automatic Data Proc.	15.00	2.13	2.45	17.45	107,704	0.00427	0.0745
AvalonBay Communities	1.00	3.28	3.31	4.31	30,325	0.00120	0.0052
Avery Dennison	12.00	1.75	1.96	13.96	16,835	0.00067	0.0093
Bank of America	13.00	2.47	2.79	15.79	305,313	0.01210	0.1911
Bank of NY Mellon	6.00	2.93	3.11	9.11	47,943	0.00190	0.0173
Baxter Int'l Inc.	6.00	3.27	3.47	9.47	18,105	0.00072	0.0068
Becton Dickinson	4.50	1.67	1.75	6.25	67,659	0.00268	0.0167
Best Buy Co.	12.00	4.53	5.07	17.07	17,917	0.00071	0.0121
Bio-Techne Corp.	16.50	0.44	0.51	17.01	11,462	0.00045	0.0077
BlackRock Inc.	10.50	2.52	2.78	13.28	127,565	0.00506	0.0672
Blackstone Inc.	12.00	2.41	2.70	14.70	97,948	0.00388	0.0571
Booking Holdings	5.00	0.98	1.03	6.03	121,704	0.00482	0.0291
BorgWarner	2.00	1.39	1.42	3.42	7,227	0.00029	0.0010
Bristol-Myers Squibb	4.50	4.96	5.18	9.68	98,127	0.00389	0.0377
Broadridge Fin'l	15.00	1.53	1.76	16.76	24,739	0.00098	0.0164
Brown & Brown	19.50	0.53	0.63	20.13	28,871	0.00114	0.0230
Brown-Forman 'B'	3.50	2.27	2.35	5.85	21,035	0.00083	0.0049
BXP Inc.	4.00	5.72	5.95	9.95	10,728	0.00043	0.0042
C.H. Robinson	7.00	2.49	2.66	9.66	11,467	0.00045	0.0044

	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 (%)
Camden Property Trust	8.00	3.49	3.77	11.77	12,795	0.00051	0.0060
Capital One Fin'l	17.00	1.76	2.06	19.06	51,913	0.00206	0.0392
Cardinal Health	12.50	1.90	2.14	14.64	25,952	0.00103	0.0151
Caterpillar Inc.	16.50	1.67	1.95	18.45	165,174	0.00655	0.1208
Cboe Global Markets	8.00	1.07	1.16	9.16	21,586	0.00086	0.0078
CDW Corp.	18.50	1.14	1.35	19.85	28,948	0.00115	0.0228
Celanese Corp.	11.50	2.23	2.49	13.99	13,732	0.00054	0.0076
Cencora	12.50	0.86	0.97	13.47	47,405	0.00188	0.0253
CenterPoint Energy	3.50	3.10	3.21	6.71	16,543	0.00066	0.0044
Chubb Ltd.	11.50	1.36	1.52	13.02	110,591	0.00438	0.0571
Church & Dwight	9.50	1.13	1.24	10.74	24,595	0.00097	0.0105
Cigna Group	16.00	1.67	1.94	17.94	95,136	0.00377	0.0676
Cincinnati Financial	12.50	2.58	2.90	15.40	20,356	0.00081	0.0124
Cintas Corp.	17.50	0.82	0.96	18.46	77,272	0.00306	0.0566
Cisco Systems	7.50	3.52	3.78	11.28	183,169	0.00726	0.0819
Citigroup Inc.	13.00	3.78	4.27	17.27	113,073	0.00448	0.0774
Citizens Fin'l Group	7.00	4.19	4.48	11.48	18,390	0.00073	0.0084
CME Group	1.00	2.21	2.23	3.23	74,686	0.00296	0.0096
CMS Energy Corp.	5.50	3.11	3.28	8.78	19,810	0.00079	0.0069
Coca-Cola	5.00	2.90	3.05	8.05	295,511	0.01171	0.0942
Cognizant Technology	2.00	1.65	1.68	3.68	36,967	0.00147	0.0054
Comcast Corp.	11.50	3.18	3.55	15.05	151,420	0.00600	0.0903
Conagra Brands	5.50	4.67	4.93	10.43	14,734	0.00058	0.0061
Consol. Edison	2.00	3.33	3.40	5.40	34,898	0.00138	0.0075

	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 (%)
Constellation Brands	6.00	1.69	1.79	7.79	43,963	0.00174	0.0136
Corning Inc.	4.00	2.83	2.94	6.94	32,424	0.00129	0.0089
Costco Wholesale	16.00	0.54	0.63	16.63	382,503	0.01516	0.2521
CSX Corp.	15.00	1.47	1.69	16.69	65,216	0.00259	0.0431
Cummins Inc.	9.50	2.49	2.73	12.23	40,017	0.00159	0.0194
CVS Health	6.50	4.86	5.18	11.68	70,100	0.00278	0.0324
Danaher Corp.	17.50	0.43	0.51	18.01	194,090	0.00769	0.1385
Darden Restaurants	10.50	3.98	4.40	14.90	16,744	0.00066	0.0099
Digital Realty Trust	18.00	3.31	3.91	21.91	47,109	0.00187	0.0409
Discover Fin'l Svcs.	18.00	2.19	2.58	20.58	32,014	0.00127	0.0261
Dollar General	14.00	2.03	2.31	16.31	25,626	0.00102	0.0166
Domino's Pizza	17.00	1.41	1.65	18.65	15,391	0.00061	0.0114
Dover Corp.	14.50	1.15	1.32	15.82	24,300	0.00096	0.0152
Duke Energy	4.50	3.65	3.81	8.31	87,591	0.00347	0.0289
Eaton Corp. plc	10.50	1.26	1.39	11.89	119,260	0.00473	0.0562
eBay Inc.	14.50	1.94	2.22	16.72	27,545	0.00109	0.0183
Edison Int'l	14.00	3.86	4.40	18.40	32,100	0.00127	0.0234
Elevance Health	20.00	1.21	1.45	21.45	125,393	0.00497	0.1066
Emerson Electric	10.00	2.05	2.26	12.26	59,207	0.00235	0.0288
Entergy Corp.	5.50	3.83	4.04	9.54	25,164	0.00100	0.0095
Equifax Inc.	5.00	0.53	0.56	5.56	36,662	0.00145	0.0081
Essex Property Trust	6.50	3.38	3.60	10.10	18,486	0.00073	0.0074
Everest Group	2.00	2.22	2.26	4.26	16,038	0.00064	0.0027
Evergy Inc.	6.50	4.41	4.70	11.20	13,597	0.00054	0.0060

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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 (%)
Eversource Energy	5.50	4.44	4.68	10.18	23,349	0.00093	0.0094
Extra Space Storage	17.00	4.09	4.79	21.79	22,322	0.00088	0.0193
FactSet Research	15.00	1.08	1.24	16.24	15,391	0.00061	0.0099
Fastenal Co.	11.00	2.35	2.61	13.61	37,948	0.00150	0.0205
FedEx Corp.	7.00	1.95	2.09	9.09	69,722	0.00276	0.0251
Fifth Third Bancorp	7.50	3.68	3.96	11.46	27,154	0.00108	0.0123
FMC Corp.	9.00	3.94	4.29	13.29	7,667	0.00030	0.0040
Freep't-McMoRan Inc.	19.50	1.43	1.71	21.21	60,183	0.00239	0.0506
Gallagher (Arthur J.)	11.00	0.84	0.93	11.93	62,378	0.00247	0.0295
Garmin Ltd.	13.00	1.76	1.99	14.99	32,683	0.00130	0.0194
Gen Digital Inc.	5.00	2.01	2.11	7.11	15,338	0.00061	0.0043
Gen'l Dynamics	3.00	1.97	2.03	5.03	80,711	0.00320	0.0161
Gen'l Mills	6.50	3.47	3.70	10.20	39,361	0.00156	0.0159
Gen'l Motors	1.00	1.10	1.11	2.11	47,971	0.00190	0.0040
Genuine Parts	10.50	2.99	3.30	13.80	19,117	0.00076	0.0105
Global Payments	10.00	0.95	1.05	11.05	26,809	0.00106	0.0117
Globe Life Inc.	10.50	1.02	1.13	11.63	8,840	0.00035	0.0041
Goldman Sachs	13.00	2.21	2.50	15.50	161,586	0.00640	0.0993
Grainger (W.W.)	16.50	0.86	1.00	17.50	46,570	0.00185	0.0323
Halliburton Co.	18.00	2.27	2.68	20.68	27,320	0.00108	0.0224
Hartford Fin'l Svcs.	16.50	1.72	2.00	18.50	32,533	0.00129	0.0239
HCA Healthcare	18.00	0.71	0.84	18.84	97,806	0.00388	0.0730
Henry (Jack) & Assoc.	7.50	1.34	1.44	8.94	12,013	0.00048	0.0043
Hershey Co.	10.50	2.81	3.11	13.61	40,578	0.00161	0.0219

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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 (%)
Hewlett Packard Ent.	7.00	2.92	3.12	10.12	23,077	0.00091	0.0093
Hilton Worldwide	14.00	0.29	0.33	14.33	52,162	0.00207	0.0296
Home Depot	14.50	2.53	2.90	17.40	352,815	0.01398	0.2433
Honeywell Int'l	3.50	2.19	2.27	5.77	128,375	0.00509	0.0293
HP Inc.	17.50	3.19	3.75	21.25	33,986	0.00135	0.0286
Hubbell Inc.	12.50	1.29	1.45	13.95	20,382	0.00081	0.0113
Humana Inc.	15.00	0.99	1.14	16.14	42,944	0.00170	0.0275
Hunt (J.B.)	12.00	1.09	1.22	13.22	16,688	0.00066	0.0087
Huntington Bancshs.	8.50	4.75	5.15	13.65	19,579	0.00078	0.0106
Huntington Ingalls	1.50	1.95	1.98	3.48	10,468	0.00041	0.0014
IDEX Corp.	11.00	1.45	1.61	12.61	14,672	0.00058	0.0073
Illinois Tool Works	7.00	2.35	2.51	9.51	70,858	0.00281	0.0267
Intercontinental Exch.	11.50	1.15	1.28	12.78	89,457	0.00355	0.0453
Interpublic Group	11.50	4.45	4.96	16.46	11,583	0.00046	0.0076
Iron Mountain	9.00	2.39	2.61	11.61	31,879	0.00126	0.0147
Jacobs Solutions	13.50	0.83	0.94	14.44	18,016	0.00071	0.0103
Johnson Ctrls. Int'l plc	0.50	2.16	2.17	2.67	45,759	0.00181	0.0048
Johnson & Johnson	9.00	3.16	3.44	12.44	381,437	0.01512	0.1882
JPMorgan Chase	14.50	2.19	2.51	17.01	603,739	0.02393	0.4070
Juniper Networks	1.00	2.27	2.29	3.29	12,618	0.00050	0.0016
KeyCorp	8.00	5.24	5.66	13.66	14,752	0.00058	0.0080
Kimco Realty	0.50	4.50	4.52	5.02	13,650	0.00054	0.0027
KKR & Co.	18.50	0.59	0.70	19.20	104,767	0.00415	0.0797
Kroger Co.	15.00	2.43	2.79	17.79	38,049	0.00151	0.0268

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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 (%)
Labcorp Holdings	16.00	1.30	1.51	17.51	18,658	0.00074	0.0129
Lauder (Estee)	9.50	2.88	3.15	12.65	32,855	0.00130	0.0165
Leidos Hldgs.	12.00	1.03	1.15	13.15	19,905	0.00079	0.0104
Lilly (Eli)	11.00	0.56	0.62	11.62	885,472	0.03510	0.4079
LKQ Corp.	14.50	3.05	3.49	17.99	10,407	0.00041	0.0074
Lockheed Martin	13.50	2.29	2.60	16.10	133,483	0.00529	0.0852
Loews Corp.	15.50	0.32	0.37	15.87	17,247	0.00068	0.0108
LyondellBasell Inds.	1.50	0.37	0.38	1.88	31,297	0.00124	0.0023
M&T Bank Corp.	8.00	3.37	3.64	11.64	26,701	0.00106	0.0123
MarketAxess Holdings	11.00	1.23	1.37	12.37	9,141	0.00036	0.0045
Marriott Int'l	9.50	1.16	1.27	10.77	61,418	0.00243	0.0262
Marsh & McLennan	9.50	1.48	1.62	11.12	108,939	0.00432	0.0480
Martin Marietta	15.00	0.58	0.67	15.67	32,389	0.00128	0.0201
Masco Corp.	13.50	1.54	1.75	15.25	16,623	0.00066	0.0100
MasterCard Inc.	15.50	0.57	0.66	16.16	426,108	0.01689	0.2729
McCormick & Co.	5.00	2.15	2.26	7.26	20,942	0.00083	0.0060
McDonald's Corp.	9.00	2.63	2.87	11.87	195,418	0.00775	0.0919
McKesson Corp.	14.50	0.49	0.56	15.06	72,421	0.00287	0.0432
Medtronic plc	2.00	3.42	3.49	5.49	107,189	0.00425	0.0233
Merck & Co.	4.50	2.71	2.83	7.33	287,664	0.01140	0.0836
Meta Platforms	16.50	0.38	0.44	16.94	1,334,283	0.05289	0.8961
MetLife Inc.	11.00	3.06	3.40	14.40	50,941	0.00202	0.0291
Microchip Technology	18.00	2.37	2.80	20.80	41,901	0.00166	0.0345
Mid-America Apt.	4.00	3.84	3.99	7.99	17,707	0.00070	0.0056

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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 (%)
Mondelez Int'l	6.00	2.39	2.53	8.53	95,205	0.00377	0.0322
Moody's Corp.	11.00	0.73	0.81	11.81	84,879	0.00336	0.0397
Morgan Stanley	11.00	3.72	4.13	15.13	161,755	0.00641	0.0970
Motorola Solutions	12.50	0.94	1.06	13.56	69,821	0.00277	0.0375
Nasdaq Inc.	14.00	1.38	1.57	15.57	39,900	0.00158	0.0246
NetApp Inc.	13.50	1.64	1.86	15.36	26,185	0.00104	0.0159
Newmont Corp.	10.50	2.04	2.25	12.75	56,665	0.00225	0.0286
NextEra Energy	12.50	2.77	3.12	15.62	160,311	0.00635	0.0992
NIKE Inc. 'B'	8.50	1.88	2.04	10.54	118,644	0.00470	0.0496
NiSource Inc.	10.50	3.49	3.86	14.36	14,271	0.00057	0.0081
Nordson Corp.	10.50	1.15	1.27	11.77	13,543	0.00054	0.0063
Norfolk Southern	9.50	2.23	2.44	11.94	54,708	0.00217	0.0259
Northern Trust Corp.	3.00	3.54	3.65	6.65	17,101	0.00068	0.0045
Northrop Grumman	12.00	1.67	1.87	13.87	73,964	0.00293	0.0407
NXP Semi. NV	14.50	1.67	1.91	16.41	62,662	0.00248	0.0408
Omnicom Group	4.50	3.02	3.16	7.66	18,479	0.00073	0.0056
ONEOK Inc.	13.00	4.67	5.28	18.28	50,392	0.00200	0.0365
Oracle Corp.	10.50	1.18	1.30	11.80	373,578	0.01481	0.1748
PACCAR Inc.	14.50	4.66	5.34	19.84	49,118	0.00195	0.0386
Packaging Corp.	10.00	2.57	2.83	12.83	17,452	0.00069	0.0089
Parker-Hannifin	17.00	1.13	1.32	18.32	74,347	0.00295	0.0540
Paychex Inc.	11.00	3.13	3.47	14.47	45,049	0.00179	0.0258
Pentair plc	3.50	1.11	1.15	4.65	13,758	0.00055	0.0025
PepsiCo Inc.	5.50	3.15	3.32	8.82	238,678	0.00946	0.0835

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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 (%)
Pfizer Inc.	15.50	5.82	6.72	22.22	163,663	0.00649	0.1442
Philip Morris Int'l	5.00	4.44	4.66	9.66	182,218	0.00722	0.0698
Phillips 66	13.50	3.38	3.84	17.34	57,637	0.00228	0.0396
Pinnacle West Capital	2.00	4.18	4.26	6.26	9,736	0.00039	0.0024
PNC Financial Serv.	8.50	3.80	4.12	12.62	66,937	0.00265	0.0335
PPG Inds.	1.00	2.27	2.29	3.29	28,110	0.00111	0.0037
Price (T. Rowe) Group	9.00	4.80	5.23	14.23	23,581	0.00093	0.0133
Principal Fin'l Group	5.50	3.74	3.95	9.45	17,839	0.00071	0.0067
Procter & Gamble	8.00	2.39	2.58	10.58	398,391	0.01579	0.1671
Progressive Corp.	8.00	0.17	0.18	8.18	137,253	0.00544	0.0445
Prologis	7.00	3.21	3.43	10.43	114,088	0.00452	0.0472
Prudential Fin'l	2.00	4.67	4.76	6.76	40,001	0.00159	0.0107
Public Serv. Enterprise	4.00	3.06	3.18	7.18	40,094	0.00159	0.0114
Public Storage	5.50	3.74	3.95	9.45	56,197	0.00223	0.0210
Qualcomm Inc.	19.00	2.03	2.42	21.42	186,539	0.00739	0.1583
Quest Diagnostics	14.00	2.00	2.28	16.28	16,633	0.00066	0.0107
Ralph Lauren	7.50	2.08	2.24	9.74	10,035	0.00040	0.0039
Raymond James Fin'l	17.50	1.70	2.00	19.50	23,823	0.00094	0.0184
Realty Income Corp.	1.00	5.27	5.32	6.32	35,570	0.00141	0.0089
Regency Centers Corp.	10.50	3.81	4.21	14.71	11,991	0.00048	0.0070
Regions Financial	16.00	4.79	5.56	21.56	19,156	0.00076	0.0164
Republic Services	13.50	1.06	1.20	14.70	63,569	0.00252	0.0370
ResMed Inc.	16.00	0.94	1.09	17.09	32,640	0.00129	0.0221
Rockwell Automation	9.00	1.91	2.08	11.08	29,773	0.00118	0.0131

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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 (%)**
Rollins Inc.	14.50	1.24	1.42	15.92	23,489	0.00093	0.0148
Roper Tech.	12.00	0.61	0.68	12.68	56,601	0.00224	0.0285
Ross Stores	2.00	1.09	1.11	3.11	47,197	0.00187	0.0058
S&P Global	12.50	0.74	0.83	13.33	154,200	0.00611	0.0815
Schlumberger Ltd.	10.00	2.63	2.89	12.89	62,168	0.00246	0.0318
Schwab (Charles)	10.50	1.53	1.69	12.19	119,412	0.00473	0.0577
Seagate Technology plc	3.50	2.88	2.98	6.48	20,381	0.00081	0.0052
Sempra Energy	13.50	3.21	3.64	17.14	49,817	0.00197	0.0339
Sherwin-Williams	12.50	0.84	0.95	13.45	88,848	0.00352	0.0473
Simon Property Group	1.50	5.16	5.24	6.74	51,529	0.00204	0.0138
Skyworks Solutions	10.00	2.77	3.05	13.05	16,749	0.00066	0.0087
Smith (A.O.)	8.50	1.61	1.75	10.25	11,767	0.00047	0.0048
Smucker (J.M.)	2.00	3.64	3.71	5.71	12,713	0.00050	0.0029
Snap-on Inc.	10.50	3.01	3.33	13.83	14,404	0.00057	0.0079
Southern Co.	3.50	3.30	3.42	6.92	95,435	0.00378	0.0262
Starbucks Corp.	9.00	2.49	2.71	11.71	106,398	0.00422	0.0494
State Street Corp.	5.00	3.96	4.16	9.16	23,624	0.00094	0.0086
STERIS plc	14.50	0.94	1.08	15.58	23,002	0.00091	0.0142
Stryker Corp.	12.00	0.99	1.11	13.11	126,784	0.00503	0.0659
Synchrony Financial	15.50	2.16	2.49	17.99	18,302	0.00073	0.0131
Sysco Corp.	3.00	2.68	2.76	5.76	37,923	0.00150	0.0087
T-Mobile US	20.00	1.35	1.62	21.62	229,259	0.00909	0.1965
Tapestry Inc.	9.00	3.69	4.02	13.02	8,723	0.00035	0.0045
Target Corp.	13.50	3.30	3.75	17.25	62,808	0.00249	0.0429

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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 (%)
TE Connectivity	7.00	1.79	1.92	8.92	44,184	0.00175	0.0156
Teleflex Inc.	11.50	0.58	0.65	12.15	10,962	0.00043	0.0053
Teradyne Inc.	17.00	0.39	0.46	17.46	19,258	0.00076	0.0133
Texas Instruments	13.00	2.66	3.01	16.01	178,592	0.00708	0.1133
Textron Inc.	7.00	0.09	0.10	7.10	16,123	0.00064	0.0045
TJX Companies	9.00	1.38	1.50	10.50	123,351	0.00489	0.0514
Travelers Cos.	8.50	1.96	2.13	10.63	49,027	0.00194	0.0207
Truist Fin'l	7.50	4.96	5.33	12.83	56,066	0.00222	0.0285
Tyson Foods 'A'	3.00	3.16	3.25	6.25	22,145	0.00088	0.0055
U.S. Bancorp	5.00	4.63	4.86	9.86	66,068	0.00262	0.0258
Union Pacific	11.00	2.20	2.44	13.44	147,078	0.00583	0.0784
United Parcel Serv.	12.00	5.16	5.78	17.78	108,329	0.00429	0.0763
UnitedHealth Group	16.50	1.45	1.69	18.19	533,296	0.02114	0.3845
Universal Health `B'	6.50	0.36	0.38	6.88	14,848	0.00059	0.0041
Verisk Analytics	9.50	0.58	0.64	10.14	38,264	0.00152	0.0154
Verizon Communic.	6.00	6.58	6.97	12.97	172,169	0.00682	0.0885
Visa Inc.	14.50	0.80	0.92	15.42	499,806	0.01981	0.3054
Vulcan Materials	12.00	0.76	0.85	12.85	32,083	0.00127	0.0163
Wabtec Corp.	7.50	0.54	0.58	8.08	27,408	0.00109	0.0088
Walmart Inc.	7.50	1.21	1.30	8.80	552,644	0.02191	0.1928
Waste Management	10.00	1.45	1.60	11.60	82,767	0.00328	0.0380
WEC Energy Group	6.00	3.73	3.95	9.95	28,333	0.00112	0.0112
Williams Cos.	19.50	4.38	5.23	24.73	52,892	0.00210	0.0519
Willis Towers Wat. plc	19.50	1.27	1.52	21.02	28,618	0.00113	0.0238

	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 (%)
Xcel Energy Inc.	6.50	3.82	4.07	10.57	32,861	0.00130	0.0138
Xylem Inc.	6.50	1.14	1.21	7.71	31,939	0.00127	0.0098
Yum! Brands	10.50	1.95	2.15	12.65	38,570	0.00153	0.0193
Zoetis Inc.	14.50	0.94	1.08	15.58	83,795	0.00332	0.0517
			Totals		25,228,241	1.00	14.57

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 Return	**Rf**	**MRP**	**Beta**	**RP**	**CAPM ROE**	**Filtered Results**
Alliant Energy Corporation	14.57%	4.29%	10.28%	0.90	9.25%	13.54%	13.54%
Ameren Corporation	14.57%	4.29%	10.28%	0.90	9.25%	13.54%	13.54%
American Electric Power Co.	14.57%	4.29%	10.28%	0.85	8.74%	13.03%	13.03%
Duke Energy Corporation	14.57%	4.29%	10.28%	0.90	9.25%	13.54%	13.54%
Edison International	14.57%	4.29%	10.28%	1.00	10.28%	14.57%	14.57%
Entergy Corporation	14.57%	4.29%	10.28%	1.00	10.28%	14.57%	14.57%
Evergy, Inc.	14.57%	4.29%	10.28%	0.95	9.77%	14.06%	14.06%
Eversource Energy	14.57%	4.29%	10.28%	0.95	9.77%	14.06%	14.06%
IDACORP, Inc.	14.57%	4.29%	10.28%	0.85	8.74%	13.03%	13.03%
NorthWestern Corporation	14.57%	4.29%	10.28%	0.95	9.77%	14.06%	14.06%
OGE Energy Corp.	14.57%	4.29%	10.28%	1.05	10.79%	15.08%	15.08%
Pinnacle West Capital Corp.	14.57%	4.29%	10.28%	0.95	9.77%	14.06%	14.06%
Portland General Electric Co.	14.57%	4.29%	10.28%	0.95	9.77%	14.06%	14.06%
Southern Co.	14.57%	4.29%	10.28%	0.95	9.77%	14.06%	14.06%
Xcel Energy Inc.	14.57%	4.29%	10.28%	0.85	8.74%	13.03%	13.03%
					Mean	13.88%	13.88%
					Median	14.06%	14.06%

A: MFG-18, Sch 6
B: MFG-18, Sch 1
C: A - B
D: MFG-18, Sch 2

E: C * D
F: B + E
G: Low-end test < Column F < High-end test

Low-End Test:	Moody's 10-Year Baa Corporate Bond Index, MFG-18, Schedule 3	5.73%
	CAPM Risk Premium, Column C	10.28%
	20 percent of CAPM risk premium	2.06%
	Moody's 10-Year Baa Corporate Bond Index + 20 percent of CAPM risk premium	7.79%

High-End Test:	Proxy Group median, Column F	14.06%
	200 percent of Proxy Group median	28.11%

ROE and ROR Analysis for Otter Tail Power
CAPM ROE Analysis
Low-End Tests

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

Kroll Low-End Test:	Moody's 10-Year Baa Corporate Bond Index, S&P Global	5.73%
	CAPM Risk Premium, Value Line, MFG-18, Schedule 5	5.00%
	20 percent of CAPM risk premium	1.00%
	Moody's 10-Year Baa Public Corporate Bond Index + 20 percent of CAPM risk premium	6.73%

Value Line Low-End Test:	Moody's 10-Year Baa Corporate Bond Index, S&P Global	5.73%
	CAPM Risk Premium, Value Line, MFG-18, Schedule 7	10.28%
	20 percent of CAPM risk premium	2.06%
	Moody's 10-Year Baa Public Corporate Bond Index + 20 percent of CAPM risk premium	7.79%

Mean of Kroll and Value Line Low-End Tests 7.26%

ROE and ROR Analysis for Otter Tail Power
Summary of Authorized ROEs in Electric Rate Cases
January 1, 2021-August 21, 2024
https://www.capitaliq.spglobal.com/web/client?auth=inherit#industry/pastRateCases?Type=1

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

S&P Capital IQ PRO

Rate Case History
List: None
Company List: All
States: All
Years: 2021, 2022, 2023, 2024

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 Utlts 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
Arkansas*	Southwestern Electric Power Co	D-21-070-U	Electric	Vertically Integrated	7/23/2021	Fully Litigated	9.50	44.54
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	Evergy 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
Kentucky	Duke Energy Kentucky, Inc.	C-2022-00372	Electric	Vertically Integrated	10/12/2023	Fully Litigated	9.75	52.15
New York	New York State Electric & Gas Corp	C-22-E-0317	Electric	Distribution	10/12/2023	Settled	9.20	48.00
New York	Rochester Gas and Electric Corp.	C-22-E-0319	Electric	Distribution	10/12/2023	Settled	9.20	48.00
Virginia	Virginia Electric and Power Co.	C-PUR-2023-00022 (Rider CCR)	Electric	Limited-Issue Rider	10/16/2023	Fully Litigated	9.35	52.29
Maryland	The Potomac Edison Company	C-9695	Electric	Distribution	10/18/2023	Fully Litigated	9.50	53.00
Indiana	AES Indiana	Ca-45264-TDSIC-7	Electric	Limited-Issue Rider	10/18/2023	Fully Litigated	NA	NA
New Mexico	Southwestern Public Service Co.	C-22-00286-UT	Electric	Vertically Integrated	10/19/2023	Settled	9.50	54.70
Montana	NorthWestern Energy Group, Inc.	D-2022-7-78 (elec)	Electric	Vertically Integrated	10/25/2023	Settled	9.65	48.02
Indiana	Duke Energy Indiana, LLC	Ca-44720-TDSIC-12	Electric	Limited-Issue Rider	10/31/2023	Fully Litigated	NA	NA
Oklahoma	Public Service Company of Oklahon	Ca-PUD2022-000093	Electric	Vertically Integrated	11/3/2023	Settled	9.30	52.00
Wisconsin	Madison Gas and Electric Company	D-3270-UR-125 (Elec)	Electric	Vertically Integrated	11/3/2023	Fully Litigated	9.70	56.06
Wisconsin	Northern States Power Company	D-4220-UR-126 (Elec)	Electric	Vertically Integrated	11/9/2023	Fully Litigated	9.80	52.50
Wisconsin	Wisconsin Power and Light Co.	D-6680-UR-124 (Elec)	Electric	Vertically Integrated	11/9/2023	Fully Litigated	9.80	53.70
California	Pacific Gas and Electric Company	A-21-06-021 (Elec)	Electric	Vertically Integrated	11/16/2023	Fully Litigated	NA	NA
California	Pacific Gas and Electric Company	A-21-06-021 (Track 2)	Electric	Limited-Issue Rider	11/16/2023	Settled	NA	NA
New Jersey	Atlantic City Electric Company	D-ER23020091	Electric	Distribution	11/17/2023	Settled	9.60	50.20
Kansas	Evergy Kansas Central, Inc.	D-23-EKCE-775-RTS (EKC/EKS)	Electric	Vertically Integrated	11/21/2023	Settled	NA	NA
Kansas	Evergy Metro, Inc.	D-23-EKCE-775-RTS (EM)	Electric	Vertically Integrated	11/21/2023	Settled	NA	NA
Wyoming	PacifiCorp	D-20000-633-ER-23	Electric	Vertically Integrated	11/28/2023	Fully Litigated	9.35	48.99
Indiana	Southern Indiana Gas and Electric (	Ca-44910-TDSIC-13	Electric	Limited-Issue Rider	11/29/2023	Fully Litigated	NA	NA
California	Southern California Edison Co.	A-19-08-013 (Track 4)	Electric	Limited-Issue Rider	11/30/2023	Settled	NA	NA
Virginia	Appalachian Power Company	C-PUR-2023-00002	Electric	Vertically Integrated	11/30/2023	Settled	NA	NA
Michigan	DTE Electric Company	C-U-21297	Electric	Vertically Integrated	12/1/2023	Fully Litigated	9.90	NA
Arkansas*	Entergy Arkansas, LLC	D-16-036-FR (2023 review)	Electric	Vertically Integrated	12/4/2023	Settled	NA	38.65
Arkansas*	The Empire District Electric Co.	D-22-085-U	Electric	Vertically Integrated	12/7/2023	Settled	9.70	NA
California	PacifiCorp	A-22-05-006	Electric	Vertically Integrated	12/14/2023	Fully Litigated	10.00	52.25
Maryland	Baltimore Gas and Electric Compan	C-9692 (EL)	Electric	Distribution	12/14/2023	Fully Litigated	9.50	52.00
Illinois	Commonwealth Edison Company	D-23-0055	Electric	Distribution	12/14/2023	Fully Litigated	8.91	50.00
Illinois	Ameren Illinois Company	D-23-0082	Electric	Distribution	12/14/2023	Fully Litigated	8.72	50.00
North Carolina	Duke Energy Carolinas, LLC	D-E-7 Sub 1276	Electric	Vertically Integrated	12/15/2023	Fully Litigated	10.10	53.00
Oregon	Portland General Electric Company	D-UE-416	Electric	Vertically Integrated	12/18/2023	Settled	9.50	50.00
California**	Pacific Gas and Electric Company	Advice 4813-G/7046-E	Electric	Vertically Integrated	12/22/2023	Fully Litigated	10.70	52.00
California**	San Diego Gas & Electric Company	Advice Letter 4300-E / 3239-G	Electric	Vertically Integrated	12/22/2023	Fully Litigated	10.65	52.00
California**	Southern California Edison Co.	Advice Letter 5120-E (U 338-E)	Electric	Vertically Integrated	12/22/2023	Fully Litigated	10.75	52.00
Nevada	Nevada Power Company	D-23-06007	Electric	Vertically Integrated	12/26/2023	Fully Litigated	9.52	52.72
Massachusetts	NSTAR Electric Company	DPU 23-92	Electric	Distribution	12/26/2023	Fully Litigated	NA	NA
Idaho	Idaho Power Company	C-IPC-E-23-11	Electric	Vertically Integrated	12/28/2023	Settled	9.60	NA
						Mean	**9.58**	**51.63**
						Median	**9.58**	**52.15**
						Range	**8.72-10.10**	**48.00-56.06**
							n = 38	**n = 33**

*-Arkansas capital structures include extra elements. The cases are not included in the mean, median or range calculations.
**-The ROEs in these California dockets reflect adjustments that are not made a base rate case. The cases are not included in the mean, median or range calculations.

2024

State	Company	Docket	Rate Case Service	Case Type	Date	Decision Type	Return on Equity (%)	Common Equity to
South Dakota	NorthWestern Energy Group	D-EL23-016	Electric	Vertically Integrated	1/9/2024	Settled	NA	NA

West Virginia	Appalachian Power Co.	C-23-0377-E-ENEC	Electric	Limited-Issue Rider	1/9/2024	Fully Litigated	NA	NA
Kentucky	Kentucky Power Co.	C-2023-00159	Electric	Vertically Integrated	1/19/2024	Settled	9.75	41.25
Arizona	UNS Electric Inc.	D-E-04204A-22-0251	Electric	Vertically Integrated	1/30/2024	Fully Litigated	9.75	53.72
New Jersey	Jersey Cntrl Power & Light Co.	D-ER23030144	Electric	Distribution	2/14/2024	Settled	9.60	51.90
Virginia	Virginia Electric & Power Co.	C-PUR-2023-00101	Electric	Vertically Integrated	2/28/2024	Settled	9.70	NA
Michigan	Consumers Energy Co.	C-U-21389	Electric	Vertically Integrated	3/1/2024	Fully Litigated	9.90	41.13
Arizona	Arizona Public Service Co.	D-E-01345A-22-0144	Electric	Vertically Integrated	3/5/2024	Fully Litigated	9.55	51.93
Arkansas*	Oklahoma Gas and Electric Co.	D-18-046-FR (2023 update)	Electric	Vertically Integrated	3/7/2024	Settled	NA	38.39
Washington	PacifiCorp	D-UE-230172	Electric	Vertically Integrated	3/19/2024	Settled	NA	NA
West Virginia	Monongahela Power Co.	C-23-0460-E-42T	Electric	Vertically Integrated	3/26/2024	Settled	9.80	NA
Texas	Southwestern Public Svc Co.	D-54634	Electric	Vertically Integrated	4/11/2024	Settled	NA	NA
Indiana	AES Indiana	Ca-45911	Electric	Vertically Integrated	4/17/2024	Settled	9.90	44.36
Delaware	Delmarva Power & Light Co.	D-22-0897	Electric	Distribution	4/18/2024	Settled	9.60	50.50
Indiana	Indiana Michigan Power Co.	Ca-45933	Electric	Vertically Integrated	5/8/2024	Settled	9.85	NA
Maryland	Potomac Electric Power Co.	C-9702	Electric	Distribution	6/10/2024	Fully Litigated	9.50	50.50
Louisiana	Cleco Power LLC	D-U-36923	Electric	Vertically Integrated	6/19/2024	Settled	NA	NA
South Carolina	Duke Energy Carolinas LLC	D-2023-388-E	Electric	Vertically Integrated	6/20/2024	Settled	9.94	51.21
Massachusetts	Fitchburg Gas & Electric Light	DPU 23-80	Electric	Distribution	6/28/2024	Fully Litigated	9.40	52.26
Michigan	Indiana Michigan Power Co.	C-U-21461	Electric	Vertically Integrated	7/2/2024	Fully Litigated	9.86	40.20
New York	Central Hudson Gas & Electric	C-23-E-0418	Electric	Distribution	7/18/2024	Fully Litigated	9.50	48.00
South Carolina	Dominion Energy South Carolina	D-2024-34-E	Electric	Vertically Integrated	8/8/2024	Settled	9.94	52.51
South Dakota	MDU Resources Group	D-EL23-020	Electric	Vertically Integrated	8/13/2024	Settled	NA	NA
Florida	Duke Energy Florida LLC	D-20240025-EI	Electric	Vertically Integrated	8/21/2024	Settled	10.30	45.57

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

Mean	**9.76**	**48.22**
Median	**9.75**	**50.50**
Range	**9.40-10.30**	**41.13-53.72**
	n = 17	**n = 14**

Total 2021-2024

Mean	**9.62**	**50.06**
Median	**9.60**	**51.21**

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			
Constant-Growth DCF	**Mean**	10.16%	Exhibit ____ (MFG-17) Schedule 1
	Median	9.96%	
Multistage DCF	**Mean**	8.88%	Exhibit ____ (MFG-17) Schedule 5
	Median	8.82%	
CAPM Kroll	**Mean**	8.96%	Exhibit ____ (MFG-18), Schedule 5
	Median	9.04%	
CAPM Value Line	**Mean**	13.88%	Exhibit ____ (MFG-18), Schedule 7
	Median	14.06%	
Average of all DCF models and Kroll CAPM	**Mean**	9.33%	
	Median	9.27%	
erage w/o Multistage DCF and Value Line CAPM	**Mean**	9.56%	
	Median	9.50%	

		2021	**2022**	**2023**	**2024**	
	Mean	9.63	9.60	9.58	9.76	
Recently awarded ROEs	**Median**	9.50	9.60	9.58	9.75	Exhibit ____ (MFG-19)
	Range	8.57-10.60	8.57-10.50	8.72-10.10	9.40-10.30	
	Cases	n = 31	n = 36	n = 38	n = 17	

Recommended ROE for Otter Tail Power 9.56%

S&P Global
Market Intelligence

S&P Market Intelligence website, downloaded August 16, 2024

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

Company Name	2024Q2	2024Q1	2023Q4	2023Q3	2023Q2	2023Q1	2022Q4	2022Q3	Average 2022Q3-2024Q2
Alliant Energy Corporation	8,712,000	8,471,000	8,423,500	8,307,500	8,159,000	7,972,000	7,691,000	7,275,500	8,126,438
Ameren Corporation	15,723,500	15,144,000	14,475,000	14,078,500	14,254,500	13,933,000	13,631,000	13,281,000	14,315,063
American Electric Power Company, Inc.	39,816,950	38,729,300	37,771,050	37,262,850	37,035,300	35,905,150	34,610,950	33,859,450	36,873,875
Duke Energy Corporation	76,629,000	74,631,500	72,809,500	71,502,500	70,356,500	68,353,500	66,906,500	65,625,000	70,851,750
Edison International	33,919,000	32,540,000	31,031,000	30,495,500	30,357,000	29,164,500	27,047,500	26,210,500	30,095,625
Entergy Corporation	25,305,266	23,768,560	23,943,512	24,490,512	24,392,972	24,138,768	24,224,608	24,589,919	24,356,765
Evergy, Inc.	11,806,500	11,406,250	10,225,850	9,697,350	10,097,150	10,051,850	9,601,850	9,196,950	10,260,469
Eversource Energy	25,728,623	24,671,344	23,260,874	22,307,708	21,556,171	20,594,031	20,239,523	20,129,163	22,310,929
IDACORP, Inc.	2,776,044	2,775,875	2,800,970	2,654,251	2,482,702	2,338,598	2,132,774	2,073,550	2,504,345
NorthWestern Energy Group, Inc.	2,672,493	2,730,900	2,620,473	2,558,117	2,456,984	2,415,870	2,450,880	2,474,503	2,547,527
OGE Energy Corp.	4,541,850	4,316,450	4,355,350	4,339,350	4,166,550	3,788,800	3,565,850	3,547,900	4,077,763
Pinnacle West Capital Corporation	9,169,367	8,759,075	9,059,911	9,377,432	9,271,496	8,768,836	8,183,656	7,969,292	8,819,883
Portland General Electric Company	4,637,000	4,424,000	4,143,500	3,927,500	3,778,000	3,738,000	3,640,000	3,582,500	3,983,813
The Southern Company	60,922,500	59,585,000	57,920,000	56,906,500	54,962,000	52,739,000	51,932,000	52,244,000	55,901,375
Xcel Energy Inc.	28,087,500	26,725,000	25,957,500	25,472,500	24,472,000	23,907,000	24,142,500	24,345,500	25,388,688
Otter Tail Corp.	943,564	889,427	829,658	823,970	823,912	830,790	830,729	823,730	849,472

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

Company Name	2024Q2	2024Q1	2023Q4	2023Q3	2023Q2	2023Q1	2022Q4	2022Q3	Average 2022Q3-2024Q2
Alliant Energy Corporation	999,500	1,214,500	1,098,000	880,000	884,000	988,000	1,049,500	1,086,500	1,025,000
Ameren Corporation	1,753,500	1,701,000	1,787,000	1,934,000	1,513,500	1,379,000	1,393,000	1,501,000	1,620,250
American Electric Power Company, Inc.	4,448,000	5,272,700	5,561,900	6,493,100	7,004,050	6,706,500	5,483,450	4,449,150	5,677,356
Duke Energy Corporation	6,219,500	6,852,500	7,232,000	7,626,000	7,562,500	7,535,000	7,432,000	6,950,500	7,176,250
Edison International	3,159,000	3,442,000	4,008,500	4,244,000	4,322,000	4,707,000	5,431,000	5,247,000	4,320,063
Entergy Corporation	3,270,000	3,702,632	3,094,925	2,916,297	3,041,047	3,165,855	3,088,859	2,638,785	3,114,800
Evergy, Inc.	2,045,200	2,045,650	2,790,950	3,135,150	2,530,350	2,202,700	2,309,500	2,595,900	2,456,925
Eversource Energy	2,892,258	2,912,417	3,229,126	3,153,041	2,757,690	2,836,255	2,436,759	1,731,326	2,743,609
IDACORP, Inc.	49,800	49,800	24,900	0	62,500	62,500	39,680	77,180	45,795
NorthWestern Energy Group, Inc.	165,894	53,344	103,232	103,119	175,300	197,580	147,565	75,245	127,660
OGE Energy Corp.	637,900	667,150	455,300	414,750	709,050	999,950	999,900	1,212,550	762,069
Pinnacle West Capital Corporation	1,688,142	1,644,993	1,158,481	739,747	669,208	560,058	559,841	644,693	958,145
Portland General Electric Company	103,500	176,000	134,500	90,000	124,000	186,000	172,500	41,000	128,438
The Southern Company	4,460,000	4,783,000	4,978,000	5,444,000	6,510,500	7,103,500	5,960,500	4,312,000	5,443,938
Xcel Energy Inc.	1,564,500	1,405,000	1,424,500	1,553,500	2,014,500	2,194,500	1,603,500	1,012,500	1,596,563
Otter Tail Corp.	6,405	43,589	69,337	50,846	55,526	37,065	6,638	14,998	35,550

Average Common Equity for each quarter ($000)

Company Name	2024Q2	2024Q1	2023Q4	2023Q3	2023Q2	2023Q1	2022Q4	2022Q3	Average 2022Q3-2024Q2
Alliant Energy Corporation	6,804,000	6,797,000	6,751,500	6,589,000	6,390,000	6,302,000	6,270,500	6,201,000	6,513,125
Ameren Corporation	11,491,000	11,396,000	11,196,000	10,870,000	10,652,000	10,557,500	10,354,500	10,040,500	10,819,688
American Electric Power Company, Inc.	25,969,250	25,525,000	25,278,200	24,605,550	23,819,800	23,815,800	24,085,800	24,167,100	24,658,313
Duke Energy Corporation	47,629,000	47,331,500	47,059,000	46,669,500	46,796,500	47,291,000	47,833,500	48,032,500	47,330,313
Edison International	13,648,500	13,673,000	13,760,000	13,753,500	13,742,500	13,656,500	13,529,000	13,606,000	13,671,125
Entergy Corporation	14,513,035	14,540,494	14,157,058	13,464,267	13,147,650	13,012,610	12,531,668	11,903,715	13,408,812
Evergy, Inc.	9,671,350	9,651,100	9,706,050	9,641,950	9,511,950	9,486,350	9,546,350	9,458,150	9,584,156
Eversource Energy	14,681,151	14,358,740	14,929,917	15,620,020	15,651,735	15,611,265	15,376,166	15,168,194	15,174,648
IDACORP, Inc.	3,055,730	2,911,357	2,914,229	2,887,326	2,838,409	2,815,147	2,792,769	2,742,553	2,869,690
NorthWestern Energy Group, Inc.	2,810,138	2,799,166	2,762,864	2,713,569	2,689,862	2,679,092	2,601,256	2,500,925	2,694,609
OGE Energy Corp.	4,461,500	4,478,450	4,526,150	4,459,900	4,374,550	4,391,700	4,427,050	4,348,800	4,433,513
Pinnacle West Capital Corporation	6,205,084	6,188,347	6,276,175	6,170,805	6,007,920	6,048,782	6,146,605	6,076,421	6,140,017
Portland General Electric Company	3,471,500	3,389,000	3,307,000	3,247,500	3,156,000	2,945,500	2,769,500	2,749,000	3,129,375
The Southern Company	32,184,500	31,682,000	31,255,500	30,869,500	30,600,000	30,468,000	30,823,500	29,985,000	30,983,500
Xcel Energy Inc.	17,897,500	17,728,500	17,462,500	17,111,500	16,866,000	16,746,500	16,529,500	16,177,500	17,064,938
Otter Tail Corp.	1,531,558	1,470,235	1,422,968	1,365,684	1,296,108	1,240,547	1,200,670	1,150,283	1,334,757

Company Name	Average 2022Q3-2024Q2	Long-Term Debt %	Short-Term Debt %	Common Equity %	Total %
Alliant Energy Corporation	15,664,563	51.88%	6.54%	41.58%	100.00%
Ameren Corporation	26,755,000	53.50%	6.06%	40.44%	100.00%
American Electric Power Company, Inc.	67,209,544	54.86%	8.45%	36.69%	100.00%
Duke Energy Corporation	125,358,313	56.52%	5.72%	37.76%	100.00%
Edison International	48,086,813	62.59%	8.98%	28.43%	100.00%
Entergy Corporation	40,880,376	59.58%	7.62%	32.80%	100.00%
Evergy, Inc.	22,301,550	46.01%	11.02%	42.98%	100.00%
Eversource Energy	40,229,186	55.46%	6.82%	37.72%	100.00%
IDACORP, Inc.	5,419,830	46.21%	0.84%	52.95%	100.00%
NorthWestern Energy Group, Inc.	5,369,796	47.44%	2.38%	50.18%	100.00%
OGE Energy Corp.	9,273,344	43.97%	8.22%	47.81%	100.00%
Pinnacle West Capital Corporation	15,918,045	55.41%	6.02%	38.57%	100.00%
Portland General Electric Company	7,241,625	55.01%	1.77%	43.21%	100.00%
The Southern Company	92,328,813	60.55%	5.90%	33.56%	100.00%
Xcel Energy Inc.	44,050,188	57.64%	3.62%	38.74%	100.00%
Otter Tail Corporation	2,219,779	38.27%	1.60%	60.13%	100.00%

All Comparison Group companies included	**Average**	53.77%	6.00%	40.23%	100.00%
	Median	55.01%	6.06%	38.74%	99.81%
Companies with long-term debt ratios greater than 60 percent excluded	**Average**	52.58%	5.78%	41.65%	100.00%
	Median	54.18%	6.04%	41.01%	101.23%
Otter Tail Power Request		43.52%	2.98%	53.50%	100.00%
Recommended for Otter Tail Power		45.02%	2.98%	52.00%	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	45.02%	4.65%	2.09%
Short-Term Debt	2.98%	5.25%	0.16%
Common Equity	52.00%	9.56%	4.97%
Overall Rate of Return	100.00%		7.22%

The recommended common equity cost of 9.56 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, 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 10.60 percent is taken from the Direct Testimony of Ann E. Bulkley, Exhibit AEB-1, Page 3. The capital structure, costs of long-term debt and short-term debt are taken from the Direct Testimony of Todd R. Wahlund, page 2.