

**STATE OF NORTH DAKOTA**  
**PUBLIC SERVICE COMMISSION**

**Northern States Power Company  
2024 Natural Gas Rate Increase  
Application**

**Case No. PU-23-367**

**AFFIDAVIT OF SERVICE BY ELECTRONIC MAIL**

**STATE OF NORTH DAKOTA  
COUNTY OF BURLEIGH**

**Shelly A. Bauske** deposes and says that:

she is over the age of 18 years and not a party to this action and, on the **1st day of July 2024**, she sent an electronic message to **six** addresses, each including an electronic copy in portable document format of:

- **Prefiled Direct Testimony of Marlon F. Griffing**
- **Prefiled Direct Testimony of Dante Mugrace**
- **Prefiled Direct Testimony of Karl R. Pavlovic**

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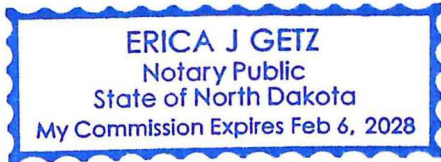
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The addresses shown are the respective addressee's last reasonably ascertainable electronic mail addresses.

Subscribed and sworn to before me  
this **1st day of July 2024**.



Shelly a Baustik

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SEAL



# Public Service Commission

## State of North Dakota

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July 1, 2024

Public Service Commission  
Attention: Steve Kahl  
600 East Boulevard Avenue, Dept 408  
Bismarck, ND 58505-0480

In re: Northern States Power Company  
2024 Natural Gas Rate Increase  
Application  
Case No. PU-23-367

Dear Mr. Kahl,

Enclosed for filing in the above referenced matter please find the original copy of the following public document:

1. Prefiled Direct Testimony of Marlon F. Griffing.

Respectfully,

A handwritten signature in black ink, appearing to read "Brian Johnson".

Brian Johnson  
Special Assistant Attorney General Bar ID 07397  
North Dakota Public Service Commission  
600 East Boulevard Avenue Dept. 408  
Bismarck, ND 58505  
701-328-2407

**BEFORE THE NORTH DAKOTA  
PUBLIC SERVICE COMMISSION**

**IN THE MATTER OF THE APPLICATION )  
OF NORTHERN STATES POWER COMPANY )  
FOR AUTHORITY TO INCREASE RATES )  
FOR NATURAL GAS SERVICE )  
IN NORTH DAKOTA )**

**DOCKET NO. PU-23-367**

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

**ON BEHALF OF**

**THE ADVOCACY STAFF OF THE  
NORTH DAKOTA PUBLIC SERVICE COMMISSION**

**July 8, 2024**

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1 **I. INTRODUCTION**

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

3 A. My name is Dr. Marlon F. Griffing. I am a Senior Consultant with the economic  
4 consulting firm of PCMG & Associates Inc. (“PCMG”). My business address is 22  
5 Brookes Drive, Gaithersburg, MD 20877.

6 **Q. WHAT DOES PCMG DO?**

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

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

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

17 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE NORTH DAKOTA**  
18 **PUBLIC SERVICE COMMISSION (“NDPSC” OR “COMMISSION”)?**

19 A. Yes. I submitted written testimony in the prior NDPSC general rate cases of Northern  
20 States Power Minnesota (“NSPM”) in Docket No. PU-21-381, Northern States Power  
21 Minnesota in Docket No. PU-20-441, and Montana-Dakota Utilities Co. in Docket No.  
22 PU-17-295. I am currently engaged in the general rate case of Otter Tail Power Company  
23 before the Commission in Docket No. PU-23-342.

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

2 A. I am appearing on behalf of the Advocacy Staff of the NDPSA.

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

4 A. My responsibility is to determine a fair rate of return on common equity capital and a fair  
5 overall cost of capital for Northern States Power (“NSP” or “Company”). NSP is a wholly  
6 owned subsidiary of Xcel Energy, Inc. (“Xcel”).<sup>1</sup> NSP provides natural gas distribution  
7 service in North Dakota. The Company is seeking an increase in its North Dakota natural  
8 gas rates in this docket. NSP witness Joshua C. Nowak testifies regarding return on equity  
9 (“ROE”), cost of long-term debt, cost of short-term debt, capital structure, and rate of return  
10 (“ROR”).<sup>2</sup> I respond to Mr. Nowak’s Direct Testimony.

11 **Q. HOW DO YOU PREPARE RECOMMENDED RATES FOR THE COMPANY?**

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

15 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

16 A. My testimony is organized in the following way:

- 17 • First, I discuss economic considerations and legal precedents underlying the cost of  
18 equity in regulatory proceedings.
- 19 • Second, I provide an overview of the return on equity analysis.

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<sup>1</sup> Direct Testimony of Joshua C. Nowak on Behalf of Northern States Power Company, December 29, 2023, page 1 [hereinafter “Nowak Direct”].

<sup>2</sup> Nowak Direct, page 2, lines 1-5.

- 1 • Third, I explain how I selected the members of the Comparison Group of companies  
2 used in my analysis.
- 3 • Fourth, I perform discounted cash flow (“DCF”) model analysis and Capital Asset  
4 Pricing Model (“CAPM”) analysis for the Comparison Group, recommended an ROE  
5 for the Company, and checked the ROE for reasonableness.
- 6 • Fifth, I recommend a capital structure and overall cost of capital for the Company.
- 7 • Sixth, I critique the Company’s cost of capital analysis.
- 8 • Seventh, I summarize my testimony and recommendations.

9 **Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE COMPANY’S ROE AND**  
10 **OVERALL COST OF CAPITAL?**

11 A. I recommend an ROE of 9.80 percent for the Company. For NSP’s capital structure, I used  
12 a hypothetical capital structure. My analysis shows ratios of 47.5 percent long-term debt,  
13 2.5 percent short-term debt, and 50 percent common equity are appropriate. When my  
14 recommended ROE is incorporated into the foregoing capital structure along with NSP’s  
15 proposed cost of long-term debt of 4.54 percent and cost of short-term debt of 7.72 percent,  
16 the result is an overall rate of return of 7.26 percent for NSP.

17 **II. THE COST OF EQUITY IN THE REGULATORY ENVIRONMENT**

18 **A. The Role of Economic Theory**

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

21 A. According to economic theory, the forces of supply and demand interacting in a competitive  
22 environment produce an allocation of resources that yields an optimal mix of goods and

1 services. Firms and individuals maximize profits and satisfaction given the prices and incomes  
2 that the interplay of market forces generates. This outcome is described as economically  
3 efficient. Put simply, there is no better output of goods and services that can be produced  
4 with the available resources.

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

7 A. No. Several conditions must be present for the economically efficient outcome to occur in  
8 an industry. These conditions include many buyers and sellers, identical products, perfect  
9 information about prices, and so forth. If these conditions exist, then price is the only way  
10 for providers of goods and services to compete in markets. If the conditions for competition  
11 do not exist, however, then letting supply and demand work unfettered will not produce the  
12 socially desired efficient outcome.

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

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

19 **Q. ARE THERE OTHER ASPECTS OF A NATURAL GAS DISTRIBUTION**  
20 **UTILITY'S COSTS THAT RESULT IN FEW SELLERS?**

21 A. Yes. The natural gas utility industry is what is typically known as a declining-cost industry.

1 **Q. WHAT IS A DECLINING-COST INDUSTRY?**

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

4 **Q. IS A DECLINING AVERAGE COST OF SERVICE SUFFICIENT FOR AN**  
5 **INDUSTRY TO BE TERMED “DECLINING COST?”**

6 A. No. In fact, average costs decline in most industries as production and sales increase.  
7 However, in the typical industry, the average cost eventually rises and does so at a sales  
8 level that is smaller than the total demand for the product in a given industry. As a  
9 consequence, a few to several firms share the market because beyond the sales volume at  
10 which average costs rise, firms lose, rather than gain, cost advantage.

11 **Q. ARE PUBLIC UTILITIES DECLINING-COST INDUSTRIES?**

12 A. Yes. With their high fixed costs, public utilities have high initial average costs, but as their  
13 sales increase, the average cost drops. This fact alone does not make public utilities  
14 declining-cost industries. In most industries, average costs fall as sales increase. However,  
15 in most industries, average costs start to rise at sales levels that are much less than the total  
16 demand for the product produced in any given industry. Therefore, the number of firms  
17 sharing the market ranges from a few to many. What sets public utilities apart is that their  
18 average costs continue to decline over very high volumes of sales, up to and beyond total,  
19 or effective, market demand. A declining-cost industry creates market failure—that is,  
20 when the market produces an outcome that is inefficient. In this case, the inefficiency is  
21 caused by the market leading to a monopoly provider.

1 **Q. HOW DOES BEING A DECLINING-COST INDUSTRY CREATE A MARKET**  
2 **FAILURE?**

3 A. As an utility increases its sales and market share, its average costs decline, and continue to  
4 do so. Thus, the firm with the largest market share has an increasing advantage over  
5 competitors. In effect, there is not enough room in the market for another distributor. The  
6 logical result is a market with one producer—often referred to as a natural monopoly—not  
7 the many firms envisioned in the theory of competition.

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

10 A. Because sufficient competition does not exist in the markets for public utilities, including  
11 the gas utility industry, to ensure low prices and adequate service, society has typically  
12 turned to regulation to achieve these goals. The government regulators generally are  
13 charged with pursuing an outcome that approximates the efficient outcome of the  
14 competitive model. Regulation thus is viewed as a way to decrease prices and increase  
15 services provided by a natural monopoly. A challenge for regulators is to set policies which  
16 ensure that the regulated firm provides an appropriate supply of services at reasonable  
17 rates. A reasonable rate enables a public utility not only to recover its operating expenses,  
18 depreciation, and taxes, but also to earn a reasonable rate of return on its capital.

1 **B. Standards for Finding a Fair Rate of Return**

2 **Q. DO ANY STANDARDS EXIST FOR DETERMINING A REASONABLE RATE OF**  
3 **RETURN?**

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

8 ...[T]he return to the equity owner should be commensurate with the returns  
9 on investments in other enterprises having corresponding risks. That return,  
10 moreover, should be sufficient to assure confidence in the financial integrity  
11 of the enterprise, so as to maintain its credit and to attract capital.<sup>5</sup>

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

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

20 A. No. There is circularity to the comparable earnings standard because the competitive nature  
21 of the capital markets virtually ensures that the returns to *all* enterprises are comparable  
22 with each other. Investors establish the price of each traded stock based on that stock’s

---

<sup>3</sup> *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm’n of W. Va.*, 262 U.S. 679 (1923).

<sup>4</sup> *Fed. Power Comm’n v. Hope Nat. Gas Co.*, 320 U.S. 591 (1944).

<sup>5</sup> *Hope*, 320 U.S. at 603.

1 present and prospective earnings and perceived risk. The prices for common equity for  
2 companies with high earnings are bid up, while the prices for companies with low earnings  
3 are bid down. If earnings were the only concern, the ratio of earnings to share prices, the  
4 return for investors, would become equal for all companies. However, investors recognize  
5 relative risk as they buy and sell common equity shares. For companies with high risk,  
6 share prices will be lower; for companies with low risk, share prices will be higher. Thus,  
7 the comparable earnings test becomes a nullity. All returns, because they are adjusted for  
8 risk, are comparable with all other returns.

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

11 A. In public utility regulation, the conventional procedure for resolving this circularity is to  
12 identify the required equity return for a utility's stock. That return is combined with the  
13 cost of debt, and the blended return to total capital is then applied to a rate base reflective  
14 of the book value of the utility's investment. The book value is the accountant's  
15 quantification of the depreciated original cost of the utility's assets adjusted for ratepayer  
16 contributions such as deposits and deferred taxes. Under this procedure, the market price  
17 of a stock is used only to determine the return that investors expect from that stock. That  
18 expectation is then applied to the book value of the utility's investment to identify the level  
19 of earnings that regulation will allow the utility's common shareholders to recover.

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

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

9 **Q. WHAT IS RISK?**

10 A. Risk is the chance of a loss or less-than-expected return on an investment. A business, for  
11 example, may introduce a new product with the expectation that it will sell well. There is,  
12 of course, no guarantee that consumers will purchase the product. The risk investors attach  
13 to the company varies inversely with their view as to the probability of the product doing  
14 well. In general, the greater the risk of an investment, the greater the return required to  
15 attract investors, and vice versa.

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

18 A. The Commission should look to current market conditions as it balances investor and  
19 consumer interests. The rate of return should reflect the condition of the capital markets in  
20 which NSP will have to compete with other firms for funding. Historically allowed rates  
21 and historical performances are not the most reliable inputs in this forward-looking  
22 approach. This statement does not mean that historical rates and performance are irrelevant.

1 They are factors because they affect investors' views of a company's prospects and,  
2 therefore, the investors' willingness to purchase its common equity shares.

3 **Q. HOW DO THE METHODS YOU USED TO DETERMINE THE COST OF**  
4 **COMMON EQUITY CAPITAL REFLECT CURRENT MARKET CONDITIONS?**

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

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

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

1 **III. OVERVIEW OF THE RETURN ON EQUITY ANALYSIS**

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

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

8 **Q. WHAT METHODS HAVE YOU ADOPTED IN YOUR ROE ANALYSIS?**

9 A. I use the Discounted Cash Flow (DCF) method, which is widely used in utility general rate  
10 cases in determining rate of return. I also include the results of the Capital Asset Pricing  
11 Model (“CAPM”), combining them with the DCF results for my recommended ROE. I  
12 use recently authorized returns for natural gas utility operating companies in U.S.  
13 jurisdictions as a check on the reasonableness of the ROE outcome.

14 **Q. WHAT IS THE DCF METHOD?**

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

1 
$$k = \frac{D_1}{P_0} + g$$

2 Where:

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

4  $D_1$  is the annual dividend one year from the present;

5  $P_0$  is the current price of a stock share; and

6 g is the expected growth rate of the dividend.

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

9 A. The annual dividend one year from now is derived by applying the growth-rate estimate  
10 (g) to the actual current annual dividend ( $D_0$ ). The equation form is:

11 
$$D_1 = D_0 * (1 + g)$$

12 **Q. WHAT ARE THE ELEMENTS OF THE DCF MODEL?**

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

16 **Q. WHAT IS THE CAPM METHOD?**

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

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

2           Where:

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

4            $\beta$  is beta, the measure of systematic risk;

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

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

7            $[(k_m - r)]$  is known as the “market risk premium”]

8   **Q.   HOW WOULD YOU CHARACTERIZE THE CAPM METHOD?**

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

14   **Q.   DOES YOUR EQUITY RATE OF RETURN ANALYSIS USE DCF**  
15   **INFORMATION FOR NSP?**

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

1 **Q. DOES YOUR EQUITY RATE OF RETURN ANALYSIS USE OTHER COMPANY**  
2 **INFORMATION?**

3 A. Yes. NSP has its own credit rating from Standard & Poor's ("S&P"). That rating is A-, one  
4 notch above the BBB+ S&P rating for XEI.<sup>6</sup> These credit ratings reflect S&P's evaluation  
5 of the risk for the Company and XEI. I considered both credit ratings as I set the credit  
6 rating criterion for inclusion in my proxy group.

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

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

13 **IV. SELECTING THE COMPARISON GROUP**

14 **Q. WHAT PROCEDURE DID YOU USE FOR SELECTING THE COMPARISON**  
15 **GROUP?**

16 A. I set out to find a group of companies that are, from the perspective of investors, like NSP.  
17 Thus, I wanted firms that are natural gas utility companies that represent approximately the  
18 same investment risk as the Company.

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<sup>6</sup> Exhibit MFG-2.

1 **Q. HOW DID YOU FIND SUITABLE CANDIDATE COMPANIES FOR THE**  
2 **COMPARISON GROUP?**

3 A. I looked at Value Line, a widely used investor service, for companies that Value Line  
4 classifies as part of the Natural Gas Utility Industry. The edition of the *Value Line*  
5 *Investment Survey* available at the Value Line website on June 17, 2024, included 12  
6 companies in this category.<sup>7</sup>

7 **Q. WAS NSP OR XEI ONE OF THE 12 COMPANIES IN THE VALUE LINE**  
8 **NATURAL GAS INDUSTRY?**

9 A. No.

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

11 A. I applied screens to the initial set of Value Line natural gas utility companies to ensure that  
12 the companies included in my Comparison Group were similar in risk to the risk of the  
13 Company.<sup>8</sup>

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

16 A. I applied the following screens to the initial set of natural gas utility companies:

- 17 1. U.S.-based firm;
- 18 2. shares publicly traded on a stock exchange;
- 19 3. a stable record of paying dividends;
- 20 4. not be expected to sell, merge into or be acquired by another company, or
- 21 be engaged in an unusual regulatory proceeding;

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<sup>7</sup> Exhibit MFG-3.

<sup>8</sup> Exhibit MFG-4.

- 1                   5. have a Standard & Poor's ("S&P") credit rating of BBB- (investment
- 2                   grade) or better;
- 3                   6. have positive growth-rate projections from expert analysts; and
- 4                   7. have 65 percent or more of the three-year average of net operating income,
- 5                   net income, or operating revenue be derived from regulated natural gas
- 6                   operations.

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

9 A. I sought companies that face a business environment like that in which NSP operates. The  
10 Company's operating utility in this case is in North Dakota and subject to state regulation,  
11 statutes, and rules that are similar to those found in the rest of the United States. All the  
12 companies are U.S.-based.

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

15 A. One analytical tool that I used for finding a company's ROE, the DCF model,<sup>9</sup> requires  
16 information about common equity share prices, dividends, and growth-rate projections.  
17 The requirement that companies be publicly traded ensures that their common equity share  
18 prices are available. All the Value Line Natural Gas Utility companies were publicly  
19 traded.<sup>10</sup>

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<sup>9</sup> As will be seen in a later section, the forward-looking Value-Line-based CAPM I have applied incorporates a DCF analysis and, thus, also relies on publicly traded companies.

<sup>10</sup> Exhibit MFG-4.

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

3 A. The DCF model requires dividends as an input. If a company is not paying dividends or  
4 has a record of cutting dividends, then its DCF analysis is not reliable. All the companies  
5 still under consideration have been consistently paying dividends.<sup>11</sup>

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

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

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

15 A. Yes. Southwest Gas Holdings is in the process of spinning off its Centuri infrastructure  
16 construction unit. The transaction has reached the stage where shares in Centuri Group, the  
17 name of the new company, were sold in an April 18, 2024, public offering.<sup>12</sup> Southwest  
18 Gas Holdings common equity share prices surged upward after the offering but stabilized  
19 thereafter. The company's shares no longer are volatile because uncertainty about the  
20 spinoff has been removed and investors have internalized the spinoff in their decisions.  
21 Therefore, I continued to consider the company for the Comparison Group.<sup>13</sup>

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<sup>11</sup> Exhibit MFG-4.

<sup>12</sup> Exhibit MFG-5, page 1

<sup>13</sup> Exhibit MFG-5, page 2.

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

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

10 Creditworthiness is a multi-faceted phenomenon. Although there is  
11 no "formula" for combining the various facets, our credit ratings  
12 attempt to condense their combined effects into rating symbols  
13 along a simple, one-dimensional scale. Indeed, as discussed below,  
14 the relative importance of the various factors may change in  
15 different situations.<sup>14</sup>

16 **Q. HOW DID YOU APPLY THE S&P CREDIT RATING SCREEN?**

17 A. A credit rating of BBB- or better is termed "investment grade." This level rating is an  
18 important threshold and gets its name from the fact that some institutional investors will  
19 not purchase the stock of a company if it does not have an investment-grade credit rating.  
20 By applying this screen, I ensure that there is a robust market for the common equity of  
21 companies. Please note that the credit rating screen does not require that companies have  
22 a credit rating identical to that of the subject company. The credit rating need only be  
23 similar to that of the subject company.

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<sup>14</sup> Exhibit MFG-6.

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

3 A. Of the remaining utilities, Adams Resources & Energy, RGC Resources Inc., Star Group  
4 L.P, and UGI Corp. did not have an S&P credit rating, nor did any of their units or  
5 subsidiaries. Hence, the four companies were excluded.

6 **Q. ARE THERE NATURAL GAS UTILITIES WITHOUT S&P CREDIT RATINGS**  
7 **THAT YOU DID CONTINUE TO CONSIDER?**

8 A. Yes. Neither Chesapeake Utilities nor New Jersey Resources has a credit rating from S&P.  
9 They qualify for retention through equivalent ratings. Chesapeake Utilities has ratings of  
10 “2B” and “2A” from the National Association of Insurance Commissioners.<sup>15</sup> These ratings  
11 are equivalent to a BBB credit rating (or higher) from S&P.<sup>16</sup> As for New Jersey Resources,  
12 Moody’s has a credit rating for New Jersey Natural Gas, a subsidiary of New Jersey  
13 Resources, of A1.<sup>17</sup> This Moody’s credit rating is equivalent to an S&P credit rating of  
14 A+.<sup>18</sup>

15 **Q. WHAT IS THE RANGE OF THE CREDIT RATINGS FOR THE QUALIFYING**  
16 **COMPANIES?**

17 A. The eight remaining companies have S&P credit ratings (or an equivalent rating) ranging  
18 from BBB to A+. Thus, the credit ratings of these public utilities are investment grade.

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<sup>15</sup> See, Annual Statement of the Metropolitan Life Insurance Company (December 31, 2023), Schedule D, Part 1, (e.g.) at 1334.  
[https://s201.q4cdn.com/280976757/files/doc\\_downloads/statutory-filings/metropolitan/2023/2023-mlic-annual-statement-includes-investment-schedules.pdf](https://s201.q4cdn.com/280976757/files/doc_downloads/statutory-filings/metropolitan/2023/2023-mlic-annual-statement-includes-investment-schedules.pdf)

<sup>16</sup> Exhibit MFG-7.

<sup>17</sup> Exhibit MFG-8.

<sup>18</sup> Exhibit MFG-7.

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

5 A. If the growth-rate projections are negative or missing, then any DCF analysis performed  
6 on them is not meaningful. All eight companies still under consideration for the  
7 Comparison Group had at least two positive EPS growth-rate forecasts.<sup>19</sup>

8 **Q. WHAT IS THE PURPOSE OF THE SCREEN REQUIRING MORE THAN 65**  
9 **PERCENT OF A COMPANY’S THREE-YEAR AVERAGE OF AN INCOME OR**  
10 **REVENUE INDICATOR BE DERIVED FROM REGULATED NATURAL GAS**  
11 **UTILITY OPERATIONS?**

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

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

18 A. I included seven of the remaining companies in the Comparison Group after applying the  
19 operating income/net income/operating revenue screen.<sup>20</sup> New Jersey Resources is  
20 eliminated with a natural gas operating income ratio of 52.2 percent.<sup>21</sup>

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<sup>19</sup> Exhibit MFG-4.

<sup>20</sup> Exhibit MFG-9.

<sup>21</sup> Exhibit MFG-10.

1 **Q. WHAT WAS THE COMPOSITION OF THE COMPARISON GROUP AFTER**  
2 **YOUR SCREENING?**

3 A. The Comparison Group is composed of Atmos Energy, Chesapeake Utilities, NiSource,  
4 Northwest Natural Holding Co., ONE Gas, Southwest Gas Holdings, and Spire, Inc.<sup>22</sup>

5 **Q. HOW DOES THE MEMBERSHIP OF MR. NOWAK'S PROXY GROUP**  
6 **COMPARE WITH THE MEMBERSHIP OF YOUR COMPARISON GROUP?**

7 A. Mr. Nowak's Proxy Group includes five of the seven natural gas utilities in my Comparison  
8 Group. He does not include Chesapeake Utilities or Southwest Gas Holdings.<sup>23</sup>

9 **V. DCF MODEL OVERVIEW**

10 **Q. WHAT IS THE PURPOSE OF A DCF ANALYSIS?**

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

14 **Q. HOW ARE EXPECTED GROWTH RATES USED?**

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

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

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<sup>22</sup> Exhibit MFG-11.

<sup>23</sup> Nowak Direct, page 14.

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

4 **Q. DO YOU USE HISTORICAL GROWTH RATES IN YOUR ANALYSIS?**

5 A. No. The conditions necessary for historical growth rates to be good indicators of future  
6 growth rates are rarely satisfied. Most utilities’ returns on equity and payout ratios have not  
7 remained constant over time. Further, growth in book value has occurred not only due to  
8 retained earnings, but also due to the issuance of new shares of common stock.  
9 Consequently, past growth rates of earnings, dividends, and book equity are frequently  
10 unequal. Moreover, an industry may face a changed business environment, thereby making  
11 the past a poor basis for projecting the future. Historical growth rates can differ significantly  
12 from forward-looking projected growth rates due to such factors as inflation rates, tax rates,  
13 the role of an industry in the economy, and the regulatory environment.

14 **Q. WHAT ESTIMATES OF GROWTH RATES DO YOU RELY ON RATHER THAN**  
15 **USING HISTORICAL GROWTH RATES?**

16 A. In view of the limitations of using historical growth rates, I based my estimated growth rates  
17 on projected growth rates as publicly provided by (1) Zacks Investment Research (“Zacks”),  
18 a respected investor services company, (2) Thomson Financial Network estimates provided  
19 on Yahoo! Finance, and (3) The Value Line Investment Survey.

20 **Q. WHAT DIVIDEND YIELDS WERE USED IN YOUR DCF ANALYSIS?**

21 A. To estimate the required rate of return on equity capital today, I estimated the expected  
22 dividend yield,  $D_1/P_0$  where  $P_0$  is the price of a share of common equity today and  $D_1$  is  
23 the dividend in the next period. To find the dividends expected a year from now, I

1 multiplied the current annual dividends paid by one plus the EPS growth rates for each  
2 company. The use of this dividend yield assumes that dividends are distributed at the end  
3 of each period (year). Since the current equity share price incorporates all market  
4 information considered relevant by investors, generally speaking, non-recent historical  
5 prices should be avoided in calculating the dividend yield. However, since share prices are  
6 volatile in the short run, it is desirable to use a period long enough to avoid short-term  
7 aberrations in the capital market.

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

10 A. I used the average of four weeks of share prices for each natural gas utility. This period  
11 achieves the goals of using current information and avoiding cases where short-run  
12 volatility causes common-equity share prices to be unrepresentative of the value investors  
13 place on a company.

## 14 **VI. DCF ANALYSIS FOR THE COMPARISON GROUP**

### 15 **A. Constant-Growth DCF Analysis**

16 **Q. HOW WAS THE REQUIRED RATE OF RETURN FOR THE COMPARISON**  
17 **GROUP DETERMINED?**

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

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

3 A. I used the average common equity share prices from May 6, 2024, through May 31, 2024.<sup>24</sup>  
4 This four-week period is long enough to dampen any short-term aberrations in the capital  
5 market. It was also close to the July 8, 2024, date of this Testimony, thus making the results  
6 timely. I used closing prices for the Comparison Group member companies obtained at  
7 Yahoo! Finance.<sup>25</sup>

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

10 A. I used the dividends that each Comparison Group member company is currently paying as  
11 reported by Value Line on May 24, 2024, and by Zacks on June 20, 2024. I used the greater  
12 of these two options in my DCF analysis. The dividends were equal from the two sources.<sup>26</sup>

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

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

18 **Q. WHAT DID YOU USE TO DETERMINE THE EXPECTED GROWTH RATE FOR**  
19 **THE COMPARISON GROUP?**

20 A. As noted above, it is appropriate in this proceeding to use only the forecasted growth rates  
21 to estimate the expected growth rate to be used in the DCF analysis. Zacks and Yahoo!

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<sup>24</sup> There are 19 days of price observations in the four weeks. Financial markets were closed May 27, 2024.

<sup>25</sup> Exhibit MFG-12, pages 1-2.

<sup>26</sup> Exhibit MFG-13.

1 Finance provide five-year growth-rate projections for EPS, and Value Line provides five-  
2 year growth rate projections for EPS, DPS, and BPS. To maintain consistency across the  
3 sources, I used only the EPS estimates from Value Line.

4 **Q. WHAT INFORMATION DID YOU USE FROM VALUE LINE?**

5 A. I used the Value Line EPS five-year growth projections for the individual firms in the  
6 Comparison Group as reported by Value Line in its Investment Surveys of May 24, 2024.<sup>27</sup>

7 **Q. WHAT INFORMATION DID YOU USE FROM ZACKS?**

8 A. I used the Zacks EPS five-year growth projections available June 20, 2024, for the  
9 individual firms in the Comparison Group.<sup>28</sup>

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

11 A. I used the Yahoo! Finance EPS five-year growth projections available June 20, 2024, for  
12 the individual firms in the Comparison Group.<sup>29</sup>

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

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

17 **Q. HOW DID YOU CALCULATE THE EXPECTED DIVIDEND YIELD FOR THE**  
18 **COMPARISON GROUP?**

19 A. The appropriate dividend to use in the constant-growth DCF model is the annual dividend  
20 rate at the beginning of the next period (year). I began my estimation of the expected

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<sup>27</sup> Exhibit MFG-14, Schedule 1.

<sup>28</sup> *Id.*

<sup>29</sup> *Id.*

1 dividend yield by finding the dividends that each Comparison Group member company  
2 was currently paying, as noted above.

3 Next, I adjusted the annualized dividends for expected growth. The dividends of all  
4 the companies in the Comparison Group are expected to increase over the next year. I  
5 applied a full year's growth rate for a firm to the annualized dividend and added the product  
6 to the annualized dividend yield to transform it into the expected dividend yield.<sup>30</sup> The  
7 equation for this operation is:

$$8 \quad \frac{D_1}{P_0} = \frac{D_0}{P_0} (1 + g)$$

9 Applying this equation to the dividend yield for each company yielded the  $D_1$  values that I  
10 used in my estimates.<sup>31</sup>

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

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

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<sup>30</sup> I also followed this rule of applying a full year's growth to the current dividend in my CAPM analysis.

<sup>31</sup> Exhibit MFG-14, Schedule 1.

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

3 A. No. The average yield for the Moody's 10-year Baa Corporate Bond Yield Index was 5.94  
4 percent over May 6, 2024-May 31, 2024,<sup>32</sup> while the mean of 20 percent of the CAPM risk  
5 premium for the two CAPM approaches was 1.21 percent.<sup>33</sup> The sum of the two  
6 components of the minimum threshold was 7.15 percent. All the ROEs in the analysis  
7 exceeded that value.

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

10 A. For the seven companies, the mean ROE was 10.09 percent. The median ROE also was  
11 10.09 percent.<sup>34</sup>

12 **B. Multistage DCF Analysis**

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

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

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<sup>32</sup> Exhibit MFG-15 Schedule 5.

<sup>33</sup> Exhibit MFG-15, Schedule 8.

<sup>34</sup> Exhibit MFG-14, Schedule 1.

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

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

6 **Q. WHAT LONG-RUN GDP GROWTH RATES DID YOU USE?**

7 A. It was my opinion that the second-stage EPS growth rates will be similar to the long-run  
8 GDP growth rate forecasts of the Social Security Administration (“SSA”) and the Energy  
9 Information Administration (“EIA”). I calculated long-run GDP growth rates from 2030-  
10 2050 from information published by these two agencies.<sup>35</sup> The SSA rate was 4.04  
11 percent,<sup>36</sup> while the EIA rate was 4.33 percent.<sup>37</sup>

12 **Q. WHAT TYPE OF MULTISTAGE DCF ANALYSIS DID YOU USE?**

13 A. I applied what is sometimes called a blended approach as my multistage DCF analysis. In  
14 this approach, all inputs other than the EPS growth rates are the same as in the constant-  
15 growth DCF analysis. I continued to use the five-year EPS forecasts in the first stage but  
16 used the weighted long-run GDP growth rate as my second-stage EPS input. At that point  
17 I blended the two growth rates by weighting the average of the five-year EPS forecasts  
18 two-thirds and the long-run weighted GDP growth rate one-third. This approach is set  
19 forth in a widely used regulatory handbook.<sup>38</sup>

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<sup>35</sup> The SSA and EIA GDP growth rates include inflation.

<sup>36</sup> Exhibit MFG-14, Schedule 2.

<sup>37</sup> Exhibit MFG-14, Schedule 3.

<sup>38</sup> Exhibit MFG-14, Schedule 4; Morin, Roger, *New Regulatory Finance (2006)*, Public Utilities Reports, Inc., Vienna, Virginia, page 309.

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

2 A. For the seven companies, the mean ROE was 9.45 percent. The median ROE was 9.30  
3 percent.<sup>39</sup>

4 **Q. PLEASE DISCUSS FLOTATION ADJUSTMENTS.**

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

10 **Q. HAVE YOU MADE A FLOTATION ADJUSTMENT FOR THE COMPANY?**

11 A. No. I have not included a flotation adjustment in my ROE values. The Commission can  
12 decide to add an adjustment relying on the following analysis.

13 **Q. FINDING AN APPROPRIATE FLOTATION ADJUSTMENT FOR NSP.**

14 A. Mr. Nowak determines that the flotation cost for NSP is 2.09 percent, the average of  
15 issuance expenses for NSP and Xcel Energy from 1949 to 2023. There is a notable break  
16 in the issuance expenses percentage starting in 2013.<sup>40</sup> The percentages after that date  
17 never exceed 1.179 percent. The average for the ten transactions is 0.927 percent. This  
18 value is representative of what Xcel is paying for issuances now. When applied, the  
19 flotation adjustment is 3.7 basis points.<sup>41</sup> This adjustment can be added to any of the ROE  
20 recommendations in this testimony if the Commission chooses.

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<sup>39</sup> Exhibit MFG-14, Schedule 5.

<sup>40</sup> Exhibit (JCN-1), Schedule 9, page 1 of 2.

<sup>41</sup> Exhibit MFG-14, Schedule 1.

1 **VII. CAPM ANALYSIS FOR THE COMPARISON GROUP**

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

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

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

9 A. The analyst must select the riskless asset. Short-term assets such as 90-day Treasury Bills  
10 are considered to be virtually riskless; the default risk is next to nothing, and the inflation  
11 risk is negligible. Equity investors, however, typically have a longer planning horizon than  
12 the 90-day maturity of these instruments, so the return on these bills is not suitable for this  
13 CAPM process. Long-Term Treasury bonds, on the other hand, match the planning horizon  
14 and have yields that are closer to common equity returns. But these instruments are subject  
15 to substantial inflation risk and, therefore, are not riskless. Nevertheless, I adopted the 30-  
16 year U.S. Treasury yield as my risk-free rate. Its favorable characteristics outweigh its  
17 unfavorable characteristics.

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

20 A. I used the average yield on a 30-year Treasury bond for May 6, 2024, to May 31, 2024, as  
21 my riskless asset rate. This average yield was 4.60 percent.<sup>42</sup> This approach to calculating

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<sup>42</sup> Exhibit MFG-15, Schedule 1.

1 the risk-free rate is consistent with how I found common-equity share prices within the  
2 DCF model.

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

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

9 **Q. WHAT VALUES DID YOU USE FOR BETA ( $\beta$ )?**

10 A. I used the betas for each company in the Comparison Group taken from *The Value Line*  
11 *Investment Survey* reports of May 24, 2024.<sup>43</sup> These beta values are Value Line's latest  
12 assessment for each company.

13 **Q. HOW IS BETA ( $\beta$ ) INTERPRETED?**

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

17 **Q. WHAT DID YOU USE AS THE MARKET RISK PREMIUM?**

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

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<sup>43</sup> Exhibit MFG-15, Schedule 2.

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

3 A. I used Kroll's equity risk premium (equivalent to the MRP) estimate of 5.5 percent.<sup>44</sup> Kroll  
4 is currently publisher of a financial statistical volume<sup>45</sup> previously published by Duff &  
5 Phelps and before that by Ibbotson and Associates. The company also provides financial  
6 advice. This value reflects the opinion of the company's corporate risk experts.

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

8 A. I multiplied the MRP by the beta for each Comparison Group company to find that  
9 company's risk premium (RP).<sup>46</sup>

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

11 A. I added the RP for each Comparison Group company to the risk-free rate to find a specific  
12 company's CAPM ROE.<sup>47</sup>

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

14 A. The mean ROE for my Kroll CAPM analysis was 9.35 percent and the median ROE was  
15 9.28 percent.<sup>48</sup>

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

18 A. Under Opinion 569, FERC starts with the S&P 500 as its base for determining the broad  
19 market return. FERC requires that companies included in the market return analysis be  
20 paying dividends, an essential part of any DCF analysis. Companies with EPS estimates

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<sup>44</sup> Exhibit MFG-18, Schedule 4, Kroll, *Cost of Capital in the Current Environment*, June 2023 Update.

<sup>45</sup> *Stocks, Bonds, Bills, and Inflation*.

<sup>46</sup> Exhibit MFG-18, Schedule 5.

<sup>47</sup> *Id.*

<sup>48</sup> *Id.*

1 less than zero percent and greater than 20 percent are excluded, thereby handling the  
2 problem of outliers at either end of the spectrum.

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

5 A. FERC has accepted Value Line short-term EPS forecasts in the CAPM.<sup>49</sup> Therefore, I  
6 used Value Line's EPS forecasts for the companies in Value Line's S&P 500. Value  
7 Line also provides dividend yields for S&P 500 companies.

8 **Q. WHAT ELSE WAS INVOLVED IN YOUR CALCULATION?**

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

14 **Q. WHAT PROCEDURE DID YOU USE TO FIND THE MARKET RETURN?**

15 A. As stated, I use the S&P 500 inputs in finding my market risk premium. I downloaded these  
16 values on April 1, 2024.<sup>50</sup> I applied Value Line growth rates<sup>51</sup> to the dividend yields to  
17 find the expected dividend yield, adding a full year's growth.

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<sup>49</sup> See *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569-A, 171 FERC ¶ 61,154, ¶¶ 58 (2020).

<sup>50</sup> Exhibit MFG-15, Schedule 6.

<sup>51</sup> Exhibit MFG-15, Schedule 7.

1 **Q. WHAT WERE THE NEXT STEPS IN FINDING THE S&P CAPM RETURN ON**  
2 **EQUITY?**

3 A. I applied the dividend-paying rule, and the minimum and maximum threshold rules of less  
4 than or equal to zero percent and greater than 20 percent to the set of S&P 500 companies.<sup>52</sup>  
5 I then weighted the remaining ROEs by the market capitalization for each company. The  
6 sum of those individual ROEs is the market return. The value for the Value Line set was  
7 11.24 percent.<sup>53</sup> The market risk premium was calculated by subtracting the 4.60 percent  
8 return on the 30-year Treasury from the market return. The result was 6.64 percent. This  
9 amount is multiplied by the beta for each Comparison Group company to find that  
10 company's CAPM ROE.<sup>54</sup>

11 **Q. DOES FERC HAVE SCREENS FOR OUTLIER CAPM ROES?**

12 A. Yes. FERC applies Low-End and High-End Test to the CAPM adjusted ROEs. My Low-  
13 End Test is the same as the minimum threshold for the DCF ROEs, the four-week average  
14 of the Moody's 10-year Baa Corporate Bond Yield Index value of 5.94 percent plus 20  
15 percent of the CAPM risk premium. The High-End Test is 200 percent of the median value  
16 of all companies included in the analysis. The values of the outlier tests are different in the  
17 Kroll and Value Line analyses because of the different market risk premiums produced.  
18 However, no CAPM ROEs were removed due to the Low-End or High-End Tests in either  
19 of my analyses. I combined the two analyses to find a mean Low-End Test of 7.15  
20 percent.<sup>55</sup>

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<sup>52</sup> Exhibit MFG-15, Schedule 6.

<sup>53</sup> Exhibit MFG-15, Schedule 3.

<sup>54</sup> Exhibit MFG-15, Schedule 7.

<sup>55</sup> Exhibit MFG-15, Schedule 8.

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

2 A. No. I did not include a size adjustment. There are studies that indicate the size adjustment  
3 is not appropriate for the CAPM. The studies show that the effect disappears for years at a  
4 time and does not manifest itself in the prices investors pay for smaller and larger stocks.<sup>56</sup>  
5 Further, the studies that have shown a size effect may be examples of data mining: e.g.,  
6 start and stop periods for the data to be studied that show a size effect, but the finding  
7 cannot be replicated when the span of the study has different beginnings and ends.<sup>57</sup> The  
8 studies recommend not making adjustments for an effect that may be transitory, at best,  
9 and not one that investors demand in the prices they pay for common equity.

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

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

16 **VIII. RECOMMENDED ROE**

17 **Q. PLEASE SUMMARIZE YOUR ROE RESULTS.**

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

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<sup>56</sup> Damodaran, Aswath, “The Small Cap Premium: Where is the Beef?” Business Valuation Review, Volume 34, Number 4 (2015).

<sup>57</sup> Ang, Clifford S., “The Absence of a Size Effect Relevant to the Cost of Equity.” Business Valuation Review, Volume 37, Number 3 (2018).

1

**DCF ROE Mean and Median Results**

	<b>Constant growth</b>	<b>Multistage</b>
<b>Mean</b>	<b>10.09%</b>	<b>9.45%</b>
<b>Median</b>	<b>10.09%</b>	<b>9.30%</b>

2

**CAPM ROE Mean and Median Results**

	<b>Kroll</b>	<b>Value Line</b>
<b>Mean</b>	<b>9.35%</b>	<b>10.34%</b>
<b>Median</b>	<b>9.28%</b>	<b>10.24%</b>

3 **Q. PLEASE COMMENT ON THE DCF ROE RESULTS.**

4 A. The DCF constant-growth ROE result was higher than the multistage counterpart ROE.  
5 The multistage approach incorporates the steadier long-run growth rates. Both results were  
6 within the 8.80-10.50 percent range of authorized ROEs from January 1, 2021, to  
7 December 31, 2023, for U.S. natural gas utilities as reported by Regulatory Research  
8 Associates (“RRA”), a unit of S&P Global IQ Pro.<sup>58</sup>

9 **Q. PLEASE COMMENT ON THE CAPM ROE RESULTS.**

10 A. The Value Line CAPM ROE was the highest of the results. On the other hand, the Kroll  
11 CAPM ROE was the lowest of the four results. Both analyses produced results at least  
12 within the edge of the range of recent authorized ROEs.

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<sup>58</sup> Exhibit MFG-16.

1 **Summary of ROE Awards for 2021-2023**

<b>Year</b>	<b>No. of Cases</b>	<b>Mean ROE</b>	<b>Median ROE</b>	<b>ROE Range</b>
<b>2021</b>	43	9.56	9.60	8.80-10.24
<b>2022</b>	33	9.53	9.60	9.20-10.20
<b>2023</b>	37	9.60	9.55	9.25-10.50

2  
3 **Q. HOW DID YOU ARRIVE AT A RECOMMENDED ROE FOR NSP?**

4 A. The four ROE results, as noted, do lie within the U.S. authorized ROEs range of 8.80  
5 percent to 10.50 percent. Therefore, I weighted these four results equally, producing a mean  
6 ROE of 9.81 percent and a median ROE of 9.73 percent. My recommended ROE for NSP  
7 is 9.80 percent, reflecting the mean and median ROEs.<sup>59</sup>

8 **IX. REASONABLENESS CHECK OF THE RECOMMENDED ROE**

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

10 A. I checked the reasonableness of my analyses' outcomes by comparing the ROEs with  
11 recent ROEs authorized in natural gas rate cases across the United States.

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

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

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

17 A. Recently authorized ROEs reflect the results of rate cases conducted in a variety of  
18 environments and at different times. Test years, conditions in capital markets, general

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<sup>59</sup> Exhibit MFG-17, Schedule 1.

1 economic indicators such as inflation rates, and so forth for previous rate cases can be  
2 different and become outdated when compared with these factors for a current rate case.  
3 Therefore, recently authorized ROEs should serve only to establish whether a current ROE  
4 result is reasonably close to what has happened, not be a substitute for forward-looking  
5 analysis based on current conditions.

6 **Q. WHAT DID YOU CONCLUDE REGARDING YOUR ROE ANALYSIS AND THE**  
7 **RESULTS FOR THE 2021-2023 AUTHORIZED NATURAL GAS ROES?**

8 A. My recommended ROE of 9.80 percent marginally exceeds the annual mean ROEs (9.53  
9 percent to 9.60 percent) and median ROEs (9.55 percent to 9.60 percent) for the 2021-2023  
10 authorized natural gas ROEs.<sup>60</sup> My analysis reflects the most recent trends in common  
11 equity prices, dividends, EPS growth rate estimates, beta values, and U.S. Treasury bond  
12 yields. The 9.80 percent ROE reflects these trends.

13 **X. RECOMMENDED CAPITAL STRUCTURE AND**  
14 **OVERALL RATE OF RETURN**

15 **Q. WHAT DEBT COSTS DID NSP PROPOSE IN THIS DOCKET?**

16 A. NSP proposed a cost of long-term debt of 4.54 percent. This cost of long-term debt is based  
17 on the NSP's Test Year period ending December 31, 2024.<sup>61</sup> NSP proposed a cost of short-  
18 term debt of 7.72 percent. The NSP short-term debt cost also is based on the Test Year.<sup>62</sup>

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<sup>60</sup> Exhibit MFG-17, Schedule 1.

<sup>61</sup> Nowak Direct, Exhibit (JCN-1), Schedule 13, page 2 of 2.

<sup>62</sup> Nowak Direct, Exhibit (JCN-1), Schedule 13, page 1 of 2.

1 **Q. WHAT IS YOUR POSITION REGARDING NSP'S PROPOSED LONG-TERM**  
2 **DEBT COST?**

3 A. I accepted the proposed 4.54 percent long-term debt cost for this docket. This debt cost is  
4 reasonable.

5 **Q. WHAT IS YOUR POSITION REGARDING NSP'S PROPOSED SHORT-TERM**  
6 **DEBT COST?**

7 A. I accepted the proposed 7.72 percent long-term debt cost for this docket. This debt cost is  
8 reasonable.

9 **Q. WHAT CAPITAL STRUCTURE DID YOU RECOMMEND FOR NSP?**

10 A. I recommended a capital structure of 47.50 percent long-term debt, 2.50 percent short-term  
11 debt, and 50.00 percent common equity.<sup>63</sup>

12 **Q. HOW DID YOU DETERMINE YOUR RECOMMENDED NSP CAPITAL**  
13 **STRUCTURE?**

14 A. To find a recommended capital structure for NSP, I turned to the Comparison Group  
15 companies. Recall that they have risk profiles similar to that of NSP. Therefore, The  
16 Company's capital structure ratios should be, not identical, but close to the average ratio  
17 values for the group. To that end, I calculated the average long-term debt, short-term debt,  
18 and common equity proportions for the seven natural gas utilities in the Comparison Group.  
19 These average ratios reflected the dollar amount by company for each of the eight quarters  
20 from the second quarter of 2022 to the first quarter of 2024. The source of the amounts  
21 upon which the company ratios were based is S&P Global Market Intelligence.

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<sup>63</sup> Exhibit MFG-16, Schedule 2.

1 **Q. WHY DID YOU SELECT THESE EIGHT QUARTERS FOR YOUR CAPITAL**  
2 **STRUCTURE ANALYSIS?**

3 A. I used two years of data to smooth the effects of any quarter that was an outlier. Using two  
4 years of data also mitigated any seasonal effects on the capital structures. The first quarter  
5 of 2024 is the most recent quarter for which data were available. Therefore, I began my  
6 analysis with data from the second quarter of 2022.

7 **Q. WHAT WAS THE OUTCOME OF YOUR CAPITAL STRUCTURE ANALYSIS?**

8 A. For the Comparison Group set of seven natural gas utilities over the eight quarters, the  
9 long-term debt proportion was 45.95 percent, the short-term debt proportion was 10.80  
10 percent, and the common-equity proportion was 43.24 percent. NSP requested a capital  
11 structure of 47.38 percent long-term debt, 0.12 percent short-term debt, and common equity  
12 of 52.50 percent.<sup>64</sup>

13 **Q. DID YOU PERFORM AN ADDITIONAL CAPITAL STRUCTURE ANALYSIS?**

14 A. Yes. I removed ONE Gas and Spire Inc. from the analysis. These public utilities have,  
15 respectively, short-term debt averages of 18.56 percent and 15.41 percent. The values are  
16 outliers. The capital structure that resulted from these deletions is 47.55 percent long-term  
17 debt, 8.33 percent short-term debt, and 44.11 percent common equity.

18 **Q. PLEASE DISCUSS YOUR CAPITAL STRUCTURE ANALYSIS.**

19 A. The Comparison Group's common-equity ratio with the ONE Gas and Spire values  
20 remains more than 8 percent percent below the NSP request of a ratio of 52.50 percent.

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<sup>64</sup> Nowak Direct, Schedule DWD-1

1 This disparity indicates that NSP's requested capital structure includes an excessive  
2 amount of common equity.

3 **Q. WHAT IS YOUR RESPONSE TO THE COMPANY'S CAPITAL STRUXTURE**  
4 **REQUEST IN LIGHT OF THE MEAN CAPITAL STRUCTURE RATIOS FOR**  
5 **THE COMPARISON GROUP?**

6 A. The long-term debt ratios of the Company and the group average are close to one another,  
7 so I made 47.50 percent my recommended proportion. On the other hand, the Company is  
8 requesting virtually no short-term debt, which is well below the mean ratio for the group,  
9 and a much higher proportion of common equity than the group mean. The NSP request  
10 would mean higher rates for its ratepayers if granted. Considering these factors, I set my  
11 recommended capital structure proportions at 2.50 percent for short-term debt and 50.00  
12 percent for common equity.

13 **Q. WHAT IS THE OVERALL ROR THAT YOU RECOMMENDED FOR THE**  
14 **COMPANY?**

15 A. When my recommended ROE of 9.80 percent is included with my recommended capital  
16 structure and the Company's debt costs in the modified balance sheet, the ROR is 7.25  
17 percent.<sup>65</sup>

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<sup>65</sup> Exhibit MFG-17, Schedule 3.

1 **XI. REVIEW OF THE COMPANY'S ROE ANALYSIS**

2 **A. Summary of NSP ROE Analysis**

3 **Q. WHAT METHODS DID MR. NOWAK USE TO ARRIVE AT HIS**  
4 **RECOMMENDED ROE?**

5 A. Mr. Nowak used a constant-growth DCF model, the CAPM, and a risk premium approach.  
6 He further supported his utility quantitative analyses by applying an expected earnings  
7 analysis to the proxy group.<sup>66</sup>

8 **Q. WHAT WAS THE ROE RECOMMENDED BY MR. NOWAK FOR NSP?**

9 A. Mr. Nowak recommended an ROE of 10.20 percent. He identified a range of 9.90 percent  
10 to 10.90 percent for NSP by his application of the various ROE methods. From this range  
11 he stated that 10.20 percent is appropriate for NSP.<sup>67</sup>

12 **B. DCF Analysis**

13 **Q. DID MR. NOWAK APPLY THE DCF MODEL IN HIS ROE ANALYSIS?**

14 A. Yes. Mr. Nowak followed the same approach I did for the constant-growth DCF model.  
15 However, he used 90-day average prices and 180-day average prices in addition to a 30-  
16 day average price for each company. Further, he presented DCF ROE results for low and  
17 high EPS values for the proxy group members in addition to mean values, giving him a set  
18 of nine DCF results.<sup>68</sup>

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<sup>66</sup> Nowak Direct, page 29.

<sup>67</sup> *Id.*, page 4.

<sup>68</sup> *Id.*, page 34.

1 **Q. PLEASE COMMENT ON MR. NOWAK’S USE OF THREE PERIODS TO**  
2 **DEVELOP AVERAGE PRICE INPUT VALUES FOR THE DCF MODEL.**

3 A. The 90-day and 180-day average price periods at first glance might seem to increase the  
4 variety of inputs for the DCF model. Additional examination shows that they give older  
5 price information equal weight to the more recent information provided by the 30-day  
6 average prices, a weighting that is not desirable and is unnecessary. The 30-day average  
7 price values reflect all the information available to investors in the 90-day and 180-day  
8 values. However, it allows the investors to give that older information the weight the  
9 investors believe it deserves rather than treating it equally. The equal weighting approach  
10 means that stale price values are incorporated into the analysis.

11 **Q. DID MR. NOWAK ADJUST HIS DCF ROES FOR GROWTH?**

12 A. Yes. Mr. Nowak adjusted the dividends in his DCF model analysis for growth. He applied  
13 a half year’s growth,<sup>69</sup> whereas I applied a full year’s growth. Thus, my adjustment was  
14 larger than his adjustment.

15 **Q. WHAT WAS THE RESULT OF MR. NOWAK’S DCF ANALYSIS?**

16 A. Mr. Nowak’s constant-growth DCF ROE results ranged in value from 9.02 percent to 11.92  
17 percent.<sup>70</sup>

18 **C. CAPM Analysis**

19 **Q. DID MR. NOWAK APPLY THE CAPM IN HIS ROE ANALYSIS?**

20 A. Yes. Mr. Nowak applied the CAPM in his ROE analysis.<sup>71</sup>

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<sup>69</sup> Nowak Direct, page 32.

<sup>70</sup> *Id.*, page 34.

<sup>71</sup> *Id.*, page 35.

1 **Q. DID MR. NOWAK USE DIFFERENT INPUT VALUES FOR THE VARIABLES IN**  
2 **HIS CAPM ANALYSES?**

3 A. Yes. Mr. Nowak used three risk-free rate values, two beta values, and two versions of the  
4 S&P 500 market return in his CAPM analyses. He did average the S&P market returns so  
5 the number of ROE outputs from his CAPM analysis is six.<sup>72</sup>

6 **Q. WHAT WERE THE RESULTS OF MR. NOWAK'S CAPM ANALYSES?**

7 A. The results for Mr. Nowak's CAPM ROE analyses ranged from 11.14 percent to 12.10  
8 percent.<sup>73</sup>

9 **Q. PLEASE COMMENT ON MR. NOWAK'S USE OF THREE RISK-FREE RATES**  
10 **IN HIS APPLICATION OF THE CAPM MODEL.**

11 A. Mr. Nowak uses the 30-day average yield on the 30-Year Treasury Bond , the forecasted  
12 rate over the next year, and a five-year forecasted rate. Current yields on the 30-year  
13 Treasury bond are the appropriate risk-free rate for this situation. Much like current  
14 common equity share prices reflect all information about factors affecting the value of the  
15 shares, so too do current bond yields capture the beliefs of investors as to where yields on  
16 the instruments are headed. Recent yields are a better indicator of what investors believe  
17 long-term interest rates are going to be than forecasts because investors are speaking  
18 through their participation in the bond market as to what future yields will be.

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<sup>72</sup> Nowak Direct, pages 36-38.

<sup>73</sup> *Id.*, page 38

1 **D. Risk-Premium Approach**

2 **Q. PLEASE BRIEFLY DISCUSS THE RISK-PREMIUM METHOD.**

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

10 **Q. PLEASE DISCUSS THE RISK-PREMIUM METHOD'S CALCULATIONS.**

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

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

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

1 analysis for the subject utility. The current views of investors regarding the subject  
2 company are not part of the risk-premium approach.

3 **Q. DO INVESTORS TAKE PREVIOUS AUTHORIZED ROES INTO ACCOUNT AS**  
4 **THEY MAKE DECISIONS ABOUT BUYING AND SELLING NATURAL GAS**  
5 **UTILITY COMMON-EQUITY SHARES?**

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

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

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

17 **Q. WHAT WAS THE RESULT OF MR. NOWAK'S RISK-PREMIUM ANALYSIS?**

18 A. The results for Mr. Nowak's risk-premium ROE analyses ranged from 10.18 percent to  
19 10.62 percent.

20 **E. Expected Earnings Analysis**

1 **Q. PLEASE DESCRIBE MR. NOWAK'S EXPECTED EARNINGS ANALYSIS.**

2 A. Mr. Nowak correctly stated that the Expected Earnings approach measures the return that  
3 investors expect to earn on book value.<sup>74</sup> The approach is flawed for this very reason:  
4 investors cannot expect to purchase shares of common equity in a utility, or any company,  
5 for its book value. Investors must pay market price for common-equity shares. When  
6 market price exceeds book value, as it generally does for utilities, the expected earnings  
7 approach overstates the return to investors.

8 **Q. HOW DOES USING BOOK VALUE OVERSTATE THE ROE INVESTORS CAN**  
9 **OBTAIN?**

10 A. Applying the expected earnings approach requires a departure from the reality of the  
11 market. For example, it is as though in finding the dividend-yield component of the DCF  
12 model, an analyst is forced to use book value in place of market price in the denominator.  
13 The lower book value pushes up the yield, but it is not a yield that investors can obtain.  
14 Only in the rare instance that book value equals market price of common-equity shares will  
15 the book-value return and the market-value return be the same. Thus, Mr. Nowak's  
16 Expected Earnings analysis overstated the ROE that investors can expect.

17 **F. Summary of Mr. Nowak's ROE Analyses**

18 **Q. PLEASE CHARACTERIZE MR. NOWAK'S ROE RESULTS.**

19 A. Mr. Nowak takes DCF approaches, then multiplies the ROE results from each model by  
20 using different input values for the variables. From the nine DCF model ROEs, the six  
21 CAPM ROE values, and the three risk-premium approach ROEs, Mr. Nowak concludes

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<sup>74</sup> Nowak Direct, page 42.

1 that 9.90 percent to 10.90 percent is a reasonable range for NSP's ROE. There is no  
2 explanation as to why these values are reasonable. The same holds true for Mr. Nowak's  
3 choice of 10.20 percent as the correct ROE for the Company. He states that this ROE value  
4 is below the midpoint of the range and 56 basis points below the average of the DCF,  
5 CAPM, and risk-premium approaches. Therefore, the value is conservative.<sup>75</sup>

6 **Q. DO YOU AGREE WITH MR. NOWAK'S EXPLANATION?**

7 A. No. Mr. Nowak's statements regarding the relationship of his ROE recommendation to  
8 other ROE numbers are descriptions, not the basis for a choice of ROE. While being 100  
9 percent true, they are not the product of analysis. His 10.20 percent ROE recommendation,  
10 therefore, is not sound.

11 **XII. CONCLUSION**

12 **Q. WHAT ARE THE CRITERIA THE COMMISSION SHOULD CONSIDER IN**  
13 **SETTING THE COMPANY'S ROE AND COST OF CAPITAL?**

14 A. The Commission should only consider whether the ROE and overall cost of capital meet  
15 the *Bluefield* and *Hope* criteria for a fair return. Recounting, these criteria include returns  
16 commensurate with returns being earned on other investments with equivalent risks, rate  
17 of return sufficient to enable the utility to attract capital and returns sufficient to enable the  
18 regulated company to maintain its credit rating and financial integrity. The interpretation  
19 of the *Hope* and *Bluefield* criteria is that a company should be given the opportunity to earn  
20 an ROE and overall cost of capital sufficient to meet these standards.

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<sup>75</sup> Nowak Direct, page 4.

1 **Q. WHAT IS YOUR RECOMMENDED RETURN ON EQUITY AND OVERALL**  
2 **COST OF CAPITAL FOR NSP?**

3 A. I recommend an ROE of 9.80 percent and an overall cost of capital of 7.26 percent for  
4 NSP.

5 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

6 A. Yes. However, I reserve the right to update this testimony as may be necessary.

**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 – Snaveley 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.

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***Regulatory Projects and Appearances***

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

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

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California Public Utilities Commission Proceeding A.22-04-008

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

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Annual Cost of Capital Mechanism (2021) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Utility Consumers’ Action Network)  
CA Public Utilities Commission Application 21-08-014

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

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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

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

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New Jersey Board of Public Utilities Docket No. WR19121516

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

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Maine Public Utilities Commission Docket No. 2019-00019

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

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54. In Re: The Matter of the Application of Columbia Gas of Maryland, Inc. for Authority to Increase Rates and Charges (2018) – (Appearance: Cost of capital on behalf of the Maryland Office of the People’s Counsel)  
Maryland Public Service Commission – Case No. 9480
55. In Re: The Matter of the Columbia Gas of Pennsylvania for a General Rate Increase in Distribution Gas Service (2018) – (Appearance: Cost of Capital on behalf of the Pennsylvania Office of Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket No. R-2018-2647577
56. In the Matter of the Application of Black Hills Energy Arkansas, Inc. for Approval of a General Tariff Change in Rates and Tariffs (2018) – (Appearance: return on equity, cost of capital on behalf of the Office of the Arkansas Attorney General)  
Arkansas Public Service Commission Docket 17-071-U
57. In the Matter of the Petition of Atlantic City Electric Company for Approval of an Infrastructure Investment Program and Related Cost Recovery Mechanism (2018) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities Docket No. EO18020196
58. In the Matter of the Application of Oklahoma Gas and Electric Company for an Order of the Commission Authorizing Applicant to Modify Its Rates, Charges, and Tariffs for Retail Electric Service in Oklahoma (2018) - (Appearance: return on equity, cost of capital on behalf of the Office of the Oklahoma Attorney General)  
Oklahoma Commerce Commission Cause No. PUD 201700496
59. Application of Fayson Lake Water Company for the Approval of an Increase in Rates and Other Appropriate Relief (2017) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities Docket No. WR17101041
60. Petition of Middlesex Water Company for Approval of an Increase in its Rates for Water Service and Other Tariff Changes, and an Order Authorizing Special Accounting Treatment of Income Tax Refund Proceeds and Future Income Tax Deductions (2017) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities Docket No. WR17101049
61. In the Matter of the Petition of New Jersey-American Water Company, Inc. for Approval of an Increased Tariff Rates and Charges for Water and Sewer Service, Change in Depreciation Rates, and Other Tariff Modifications (2017) – (Appearance: cost of equity,

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cost of debt, capital structure, overall rate of return on behalf of the New Jersey Division of Rate Counsel)

New Jersey Board of Public Utilities Docket No. WR17090985

62. Montana-Dakota Utilities Co., Application to Increase Natural Gas Rates (2017) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the North Dakota Public Service Commission Staff)  
ND Public Service Commission Case No. PU-17-295
63. In the Matter of the Petition of Andover Utility Company, Inc. for Approval of an Increase in Rates for Wastewater Service (2017) – (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities Docket No. WR17070726
64. Application of Public Service Company of Oklahoma, An Oklahoma Corporation, for An Adjustment in Its Rates and Charges and the Electric Service Rules, Regulations and Conditions for Service in the State of Oklahoma (2017) - (Appearance: return on equity, cost of capital on behalf of the Office of the Oklahoma Attorney General)  
Oklahoma Commerce Commission Cause No. PUD 201700151
65. In the Matter of the Petition of SUEZ Water Arlington Hills, Inc. for Approval of an Increase in Rates for Wastewater Service and Other Tariffs (2016) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities Docket No. WR16060510
66. In the Matter of Request by Emera Maine for Approval of a Rate Change (2016) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Maine Office of the Public Advocate)  
Maine Public Utilities Commission Docket No. 15-00360
67. ENMAX Energy Corporation (EEC) Regulated Rate Option Non-Energy Tariff Application (2015-2016) - (Analysis: cost of capital, risk element identification on behalf of the Alberta Utilities Consumer Advocate)  
Alberta Utilities Commission Proceeding 20480
68. Pennsylvania Public Utilities Commission vs. West Penn Power Co., Pennsylvania Electric Co., Pennsylvania Power Co., and Metropolitan Edison Co. (2014-2015) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return behalf of the Office of the Pennsylvania Consumer Advocate)  
PA Docket Nos. R-2014-2428742-R-2014-2428745

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69. In the Matter of the Application of Minnesota Energy Resources Corporation for Authority to Increase Rates for Natural Gas Service in Minnesota (2010-2012) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)  
MN Docket No. G007,011/GR-10-977
70. In the Matter of the Application of Otter Tail Power Company for Authority to Increase Rates for Electric Utility Service in Minnesota (2010-2011) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)  
MN Docket No. E017/GR-10-239
71. In the Matter of the Petition of Northern States Power Company, a Minnesota Corporation, for Authority to Increase Rates for Natural Gas Service in Minnesota (2009-2010) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)  
MN Docket No. G002/GR-09-1153
72. In the Matter of an Application by CenterPoint Energy Resources Corp., D/B/A CenterPoint Minnesota Gas to Increase Natural Gas Rates in Minnesota (2008-2009) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)  
MN Docket No. G008/GR-08-1075
73. In the Matter of Minnesota Energy Resources Corporation's Application for Authority to Increase Natural Gas Rates in Minnesota (2008-2009) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)  
MN Docket No. G007,011/GR-08-835
74. In the Matter of the Petition of Northern States Power Company, a Minnesota Corporation and Wholly Owned Subsidiary of Xcel Energy Inc., for Authority to Increase Rates for Natural Gas Service in Minnesota (2006-2007) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)  
MN Docket No. G002/GR-06-1429
75. In the Matter of the Application of CenterPoint Energy Resources Corp., D/B/A CenterPoint Energy Minnesota Gas, for Authority to Increase Natural Gas Rates in Minnesota (2005-2006) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)  
MN Docket No. G008/GR-05-1380

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76. In the Matter of a Petition by Interstate Power and Light Company for Authority to Increase Electric Rates in Minnesota (2005) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)  
MN Docket No. E001/GR-05-748
77. In the Matter of the Petition of Northern States Power Company dba Xcel Energy Request for General Rate Increase (2004-2005) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)  
MN Docket No. G002/GR-04-1511
78. In the Matter of the Petition of Great Plains Natural Gas Company's Request for General Rate Increase (2004-2005) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)  
MN Docket No. G004/GR-04-1487
79. In the Matter of the Petition of CenterPoint Energy Minnegasco, A Division of CenterPoint Resources Corp. for Authority to Increase Natural Gas Rates in Minnesota (2004-2005) - (Appearance: cost of equity, cost of debt, capital structure, overall rate of return on behalf of the Minnesota Department of Commerce)  
Docket No. G008/GR-04-901

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***Advance Prudence/Certificates of Need***

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

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Assistance to Counsel: prudence/used and useful and plant accounting on behalf of the  
Massachusetts Attorney General Office of Ratepayer Advocacy)  
MA Department of Public Utilities Docket No. D.P.U. 16-GREC-01

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

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93. In the Matter of a Certificate of Need Application for Great River Energy's Cambridge Station (2005) - (Appearance: economic impact on behalf of the Minnesota Department of Commerce)  
MN Docket No. ET2/CN-05-347

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***Mergers***

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

***Regulatory Projects and Appearances***

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

**PCMG and Associates LLC**

**PCMG and Associates LLC**

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

***Rate Design***

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

***Capital Structure***

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

**PCMG and Associates LLC**

108. The Petition of Otter Tail Power Company for Approval of 2010 Capital Structure and Permission to Issue Securities (2010) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)  
MN Docket No. E017/S-10-292
109. In the Matter of the Greater Minnesota Gas Inc.'s Capital Structure Petition and Compliance with Financial Integrity Order (2010) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)  
MN Docket No. G022/S-10-281
110. Interstate Power and Light Company's petition for approval of its proposed capital structure (2009) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)  
MN Docket No. E,G001/S-09-607
111. A petition of Interstate Power and Light Company for approval of its proposed capital structure (2008) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)  
MN Docket No. E,G001/S-08-540
112. In the Matter of the Annual Capital Structure Filing of Minnesota Energy Resources Corporation (2008) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)  
MN Docket No. G007,011/SA-08-329
113. In the Matter of the Annual Capital Structure Filing of Minnesota Energy Resources Corporation (2007) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)  
Docket No. G007,011/S-07-352
114. In the Matter of the Annual Capital Structure Filing of Minnesota Energy Resources Corporation (2006-2007) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)  
MN Docket No. G007,011/S-06-1013
115. Northern States Power Company's request for approval of its 2006 Capital Structure Prior to Issuing Securities (2005) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)  
MN Docket No. E,G002/S-05-1583

**PCMG and Associates LLC**

116. A petition of Interstate Power and Light Company for approval of its proposed capital structure for calendar year 2005, ending March 31, 2006 (2005) - (Appearance: capital structure on behalf of the Minnesota Department of Commerce)  
MN Docket No. E,G001/S-05-151

**PCMG and Associates LLC**

***Affiliated Interest***

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

**Depreciation**

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

**PCMG and Associates LLC**

**PCMG and Associates LLC**

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

**Telecommunications**

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



## NEWS DETAILS

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### Centuri Announces Closing of Initial Public Offering

April 22, 2024

PHOENIX--(BUSINESS WIRE)-- Centuri Holdings, Inc. (NYSE: CTRI) ("Centuri"), a leading, pure-play North American utility infrastructure services company, today announced the closing of its initial public offering ("IPO") of 14,260,000 shares of its common stock at a price to the public of \$21.00 per share, including the underwriters' full exercise of their option to purchase 1,860,000 shares to cover over-allotments. Shares of Centuri's common stock began trading on the New York Stock Exchange under the symbol "CTRI" on April 18, 2024.

As previously announced, in addition to the shares of Centuri's common stock sold in the IPO, Icahn Partners LP and Icahn Partners Master Fund LP, investment entities affiliated with Carl C. Icahn, purchased 2,591,929 shares of Centuri's common stock in a concurrent private placement at a price per share equal to the IPO price. The sale of these shares was not registered under the Securities Act of 1933, as amended (the "Securities Act").

UBS Investment Bank, BofA Securities and J.P. Morgan acted as joint lead book-running managers for the IPO. Wells Fargo Securities acted as a book-running manager for the IPO. Baird, KeyBanc Capital Markets and Siebert Williams Shank acted as co-managers for the IPO.

The offering was made only by means of a prospectus. A registration statement on Form S-1 relating to the offering was filed with, and declared effective, by the U.S. Securities and Exchange Commission (the "SEC"). Copies of the prospectus related to the offering may be obtained from the SEC at [www.sec.gov](http://www.sec.gov), and from: UBS Securities LLC, Attn: Prospectus Department, 1285 Avenue of the Americas, New York, NY 10019 or email: [ol-prospectusrequest@ubs.com](mailto:ol-prospectusrequest@ubs.com); BofA Securities, Attention: Prospectus Department, NC1-022-02-25, 201 North Tryon Street, Charlotte, North Carolina 28255-0001 or by email at [dg.prospectus\\_requests@bofa.com](mailto:dg.prospectus_requests@bofa.com); or J.P. Morgan Securities LLC, Attention: Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, NY 11717, by telephone at 866-803-9204 or by email at [prospectus-eq\\_fi@jpmorganchase.com](mailto:prospectus-eq_fi@jpmorganchase.com).

This press release does not constitute an offer to sell or the solicitation of an offer to buy these securities, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction. Any offers, solicitations or offers to buy, or any sales of securities will be made in accordance with the registration requirements of the Securities Act of 1933, as amended.

Credit Rating Providers - Generic Rating Symbol Mapping (*)											
(Pursuant to the guidance in this Manual, particularly, Part One, "The Use of Credit Ratings of NRSROs in NAIC Processes," "Filing Exemptions," "Policies Applicable to Specific Asset Classes," and Part Three, "Procedure Applicable to Filing Exempt (FE) Securities and Private Letter (PL) Rating Securities")											
NAIC Designation	NAIC Designation Modifier	NAIC Designation Category	Moody's Investor's Service	Standard and Poor's	Fitch Ratings	Dominion Bond Rating Service	A.M. Best Company	Morningstar Credit Ratings, LLC	Kroll Bond Rating Agency	Egan Jones Rating Company	HR Ratings de Mexico, S.A. de C.V.
1	A	1.A	Aaa	AAA	AAApre, AAA	AAA, Pfd-1 (high)	aaa	AAA	AAA	AAA	HR AAA (G)
1	B	1.B	Aa1	AA+	AA+	AA (high), Pfd-1	aa+	AA+	AA+	AA+	HR AA+ (G)
1	C	1.C	Aa2	AA	AA	AA, Pfd-1 (low)	aa	AA	AA	AA	HR AA (G)
1	D	1.D	Aa3	AA-	AA-	AA (low), Pfd-1	aa-	AA-	AA-	AA-	HR AA- (G)
1	E	1.E	A1	A+	A+	A (high)	a+	A+	A+	A+	HR A+ (G)
1	F	1.F	A2	A	A	A	a	A	A	A	HR A (G)
1	G	1.G	A3	A-	A-	A (low)	a-	A-	A-	A-	HR A- (G)
2	A	2.A	Baa1	BBB+	BBB+	BBB (high), Pfd-2 (high)	bbb+	BBB+	BBB+	BBB+	HR BBB+ (G)
2	B	2.B	Baa2	BBB	BBB	BBB, Pfd-2	bbb	BBB	BBB	BBB	HR BBB (G)
2	C	2.C	Baa3	BBB-	BBB-	BBB (low), Pfd-2 (low)	bbb-	BBB-	BBB-	BBB-	HR BBB- (G)
3	A	3.A	Ba1	BB+	BB+	BB (high), Pfd-3 (high)	bb+	BB+	BB+	BB+	HR BB+ (G)
3	B	3.B	Ba2	BB	BB	BB, Pfd-3	bb	BB	BB	BB	HR BB (G)
3	C	3.C	Ba3	BB-	BB-	BB (low), Pfd-3 (low)	bb-	BB-	BB-	BB-	HR BB- (G)
4	A	4.A	B1	B+	B+	B (high), Pfd-4 (high)	b+	B+	B+	B+	HR B+ (G)
4	B	4.B	B2	B	B	B, Pfd-4	b	B	B	B	HR B (G)
4	C	4.C	B3	B-	B-	B (low), Pfd-4 (low)	b-	B-	B-	B-	HR B- (G)
5	A	5.A	Caa1	CCC+	CCC+	CCC (high), Pfd-5 (high)	ccc+	CCC+	CCC+	CCC+	HR C+ (G)
5	B	5.B	Caa2	CCC	CCC	CCC, Pfd-5	ccc	CCC	CCC	CCC	HR C (G)
5	C	5.C	Caa3	CCC-	CCC-	CCC (low), Pfd-5 (low)	ccc-	CCC-	CCC-	CCC-	HR C- (G)
6	6	6	Ca	CC	CC	CC (high)	cc	CC	CC	CC	HR D (G)
6	6	6	C	C	C	CC	c	C	C	C	
6	6	6	D	D	DDD	CC (low)	d	D	D	D	
6	6	6	DD	DD	DD	C (high)					
6	6	6	D	D	D	C					
6	6	6				C (low)					
6	6	6				D					



New Jersey Natural Gas Company | Credit Ratings

(MI KEY: 4061755; SPCIQ KEY: 4233224)

Agency All

# NR

**S&P Global Ratings**

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Issuer Credit Rating (Foreign Currency LT)  
5/27/2019

Not Rated | CreditWatch/Outlook: NR  
5/27/2019

# A1

**Moody's**

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Long Term Rating (Senior Secured Domestic)  
3/18/2020

**Current Ratings**

**S&P GLOBAL RATINGS (S&P Entity Name:New Jersey Natural Gas Co.)**

RATING TYPE	RATING	RATING DATE	LAST REVIEW DATE	PREVIOUS RATING	ACTION	CREDITWATCH/ OUTLOOK	CREDITWATCH/ OUTLOOK DATE
<b>Issuer Credit Rating</b>							
Foreign Currency LT	NR	5/27/2019	5/27/2019	BBB+	Not Rated   CreditWatch/Outlook	NR	5/27/2019
Local Currency LT	NR	5/27/2019	5/27/2019	BBB+	Not Rated   CreditWatch/Outlook	NR	5/27/2019
Foreign Currency ST	NR	5/27/2019	5/27/2019	A-2	Not Rated		
Local Currency ST	NR	5/27/2019	5/27/2019	A-2	Not Rated		

**MOODY'S**

RATING TYPE	RATING	DATE	ACTION	OUTLOOK
<b>Ratings Summary</b>				
Long Term Rating (Senior Secured Domestic)	A1	3/18/2020	Downgrade	
Short Term Rating (Commercial Paper Domestic)	P-2	3/18/2020	Downgrade	
Outlook		3/18/2020		Stable

**Ratings Detail**

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# S&P Global Ratings

## (/en\_US/web/guest/home) General Criteria: Understanding S&P Global Ratings' Rating Definitions

03-Jun-2009 14:39 EDT

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

## Executive Summary

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

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

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

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

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

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

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

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

## Key Attributes Of S&P Global Ratings' Credit Ratings

### Rank ordering of creditworthiness

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

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

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

### Primary factor -- likelihood of default

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

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

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



# Cost of Capital in the Current Environment

June 2023 Update

“ Although at a slower pace, major central banks are continuing to hike interest rates to tame high inflation. Headline inflation appears to have peaked, but core inflation (i.e., excluding the volatile energy and food prices) continues to be stubbornly high. Economists have upgraded real growth expectations for 2023 relative to the beginning of the year, partly due to China’s reopening (after ending its zero-COVID-19 policy) and warmer weather that helped lower energy prices. Nevertheless, several countries are still expected to fall into recession in 2023 or in early 2024. In fact, Germany and the Eurozone are already in technical recession (i.e., two consecutive quarters of contraction). However, global financial markets are generally pricing a soft landing rather than a deep and prolonged recessionary period. Amidst this uncertain environment, cost of capital estimates are now similar to levels observed around the Global Financial Crisis of 2008-2009. ”

Carla S. Nunes, CFA – Managing Director, Kroll

## Kroll Cost of Capital Inputs

Data as of June 14, 2023

	Normalized Risk-Free Rate	Kroll-Recommended Equity Risk Premium
U.S. (in USD)	Higher of 3.5% or Spot*	5.5%
Eurozone** (in EUR)	Higher of 3.0% or Spot**	5.5% to 6.0%

\* We recommend using the spot 20-year U.S. Treasury yield as the proxy for the risk-free rate, if the prevailing yield as of the valuation date is higher than our recommended U.S. normalized risk-free rate of 3.5%. This guidance is effective when developing USD-denominated discount rates as of June 16, 2022, and thereafter.

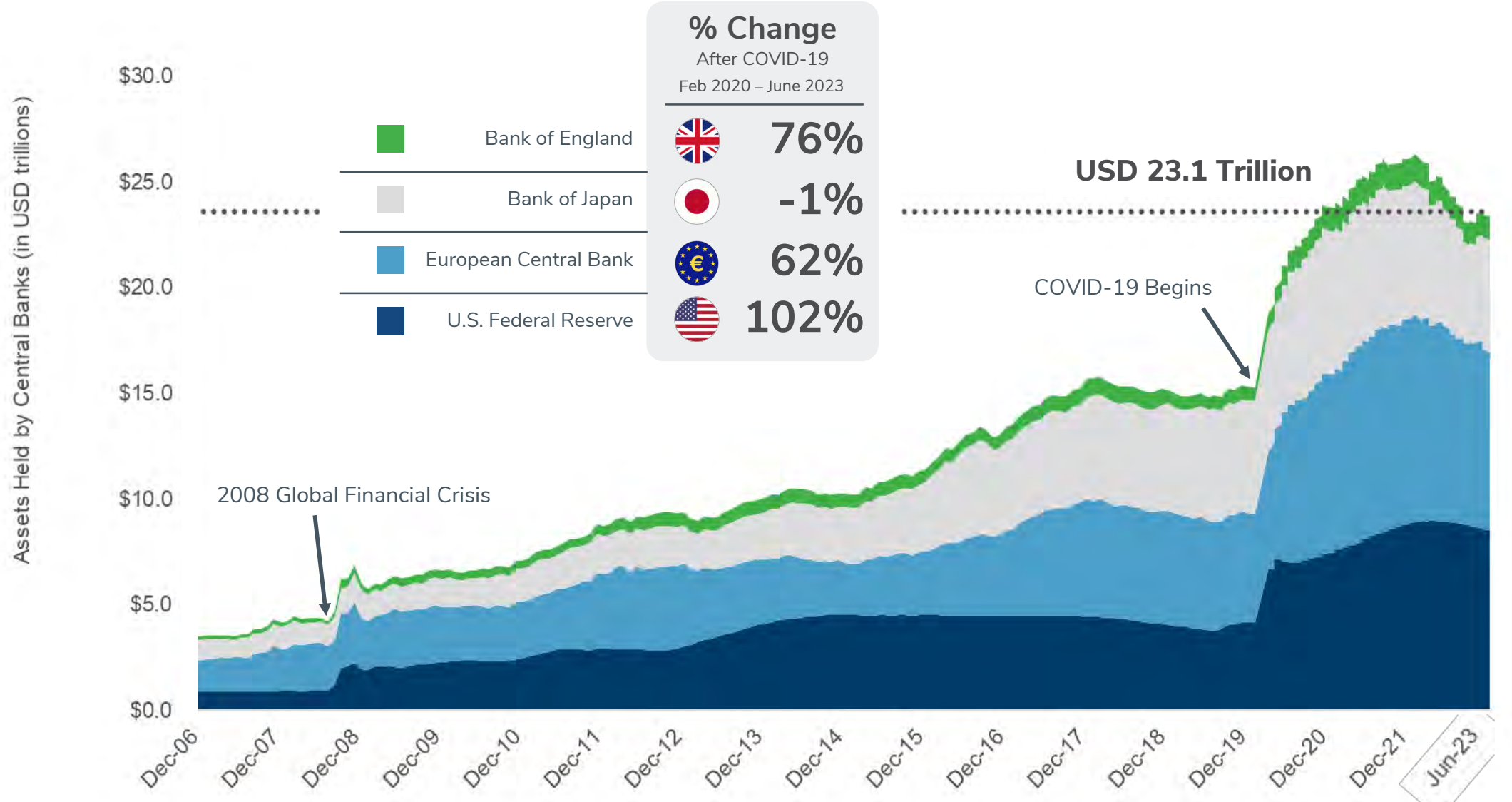
\*\* We recommend using the spot 15-year German government bond yield as the proxy for the risk-free rate, if the prevailing yield as of the valuation date is higher than our recommended German normalized risk-free rate of 3.0%. This guidance is effective when developing EUR-denominated discount rates as of October 18, 2022, and thereafter.

\*\*\* German normalized risk-free rate and Eurozone equity risk premium (ERP) for use in EUR-denominated discount rates from a German investor perspective. Our current ERP recommendation is at the top of the range. Additional country risk adjustments may be warranted when estimating discount rates for other countries in the Eurozone.

For more information, visit: <https://www.kroll.com/costofcapitalnavigator>

## Total Assets Held by Major Central Banks Over Time

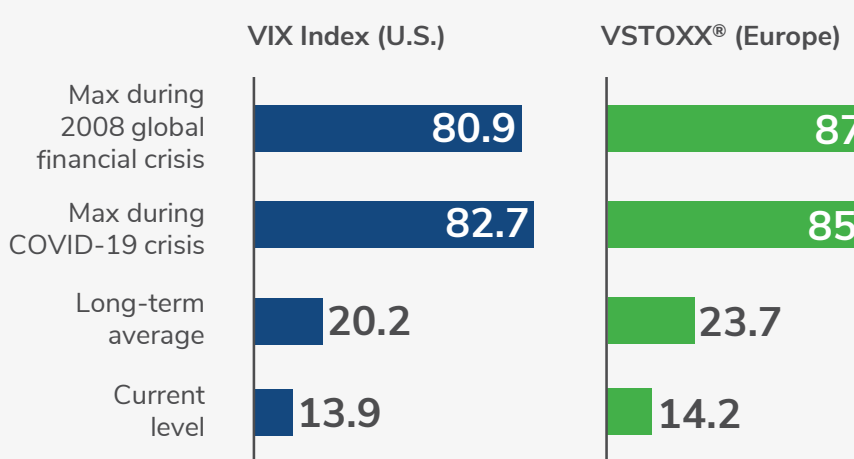
Data as of June 14, 2023



Sources: Capital IQ, FRED® Economic Data, Bank of England, Bank of Japan and European Central Bank

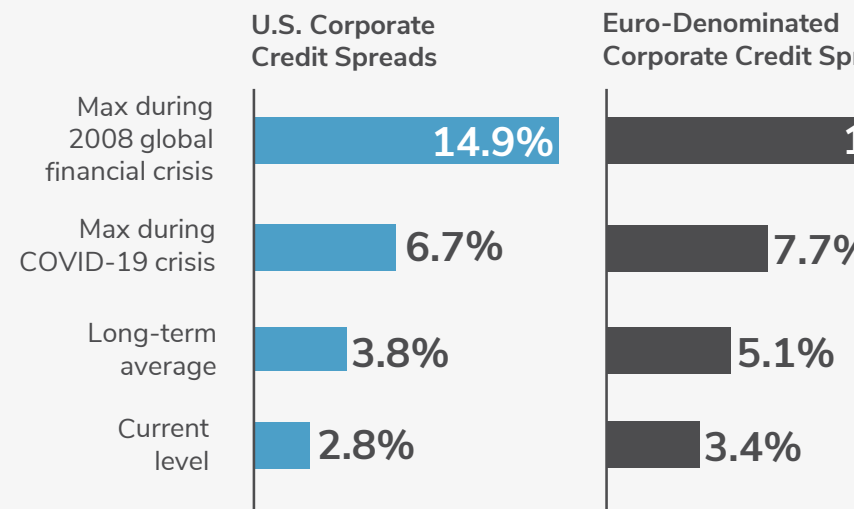
## Global Market Volatility

Data as of June 14, 2023



## Global Credit Spreads

Data as of June 14, 2023

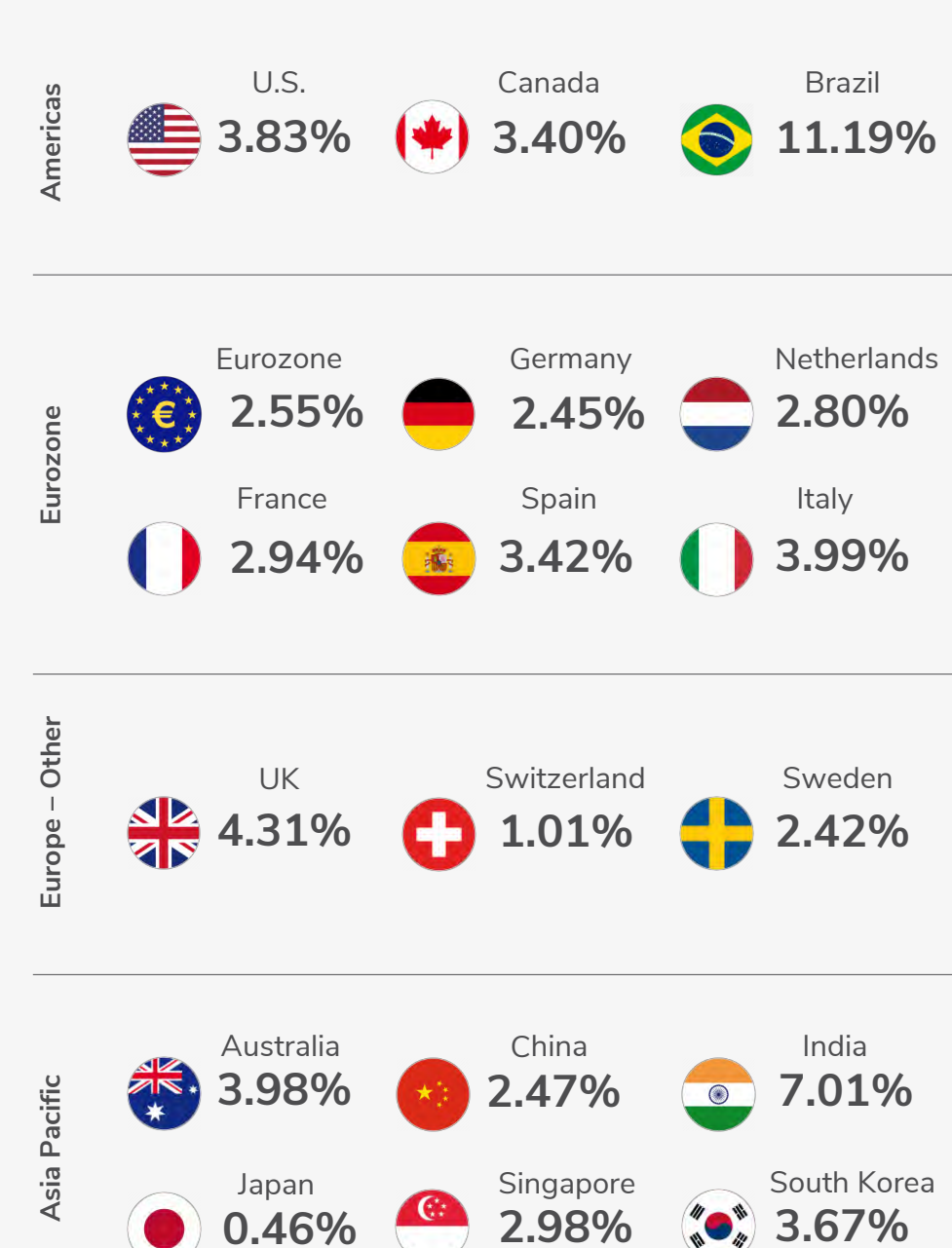


Sources: Capital IQ, FRED® Economic Data, Bloomberg

U.S. corporate credit spreads are based on the difference in effective yields between the ICE BofA U.S. High Yield Index and the ICE BofA U.S. Corporate Index. Euro-denominated corporate credit spreads are based on the difference in effective yields between the Bloomberg Pan-European High Yield Index (EUR) and the Bloomberg Euro Aggregate Corporate Bond Index. Long-term averages are based on 1995 to present for VIX daily series, 1999 to present for VSTOXX daily series, 1996 to present for U.S. credit spread daily series, and 1998 to present for EUR-denominated credit spread monthly series.

## Global 10-Year Government Bond Yields

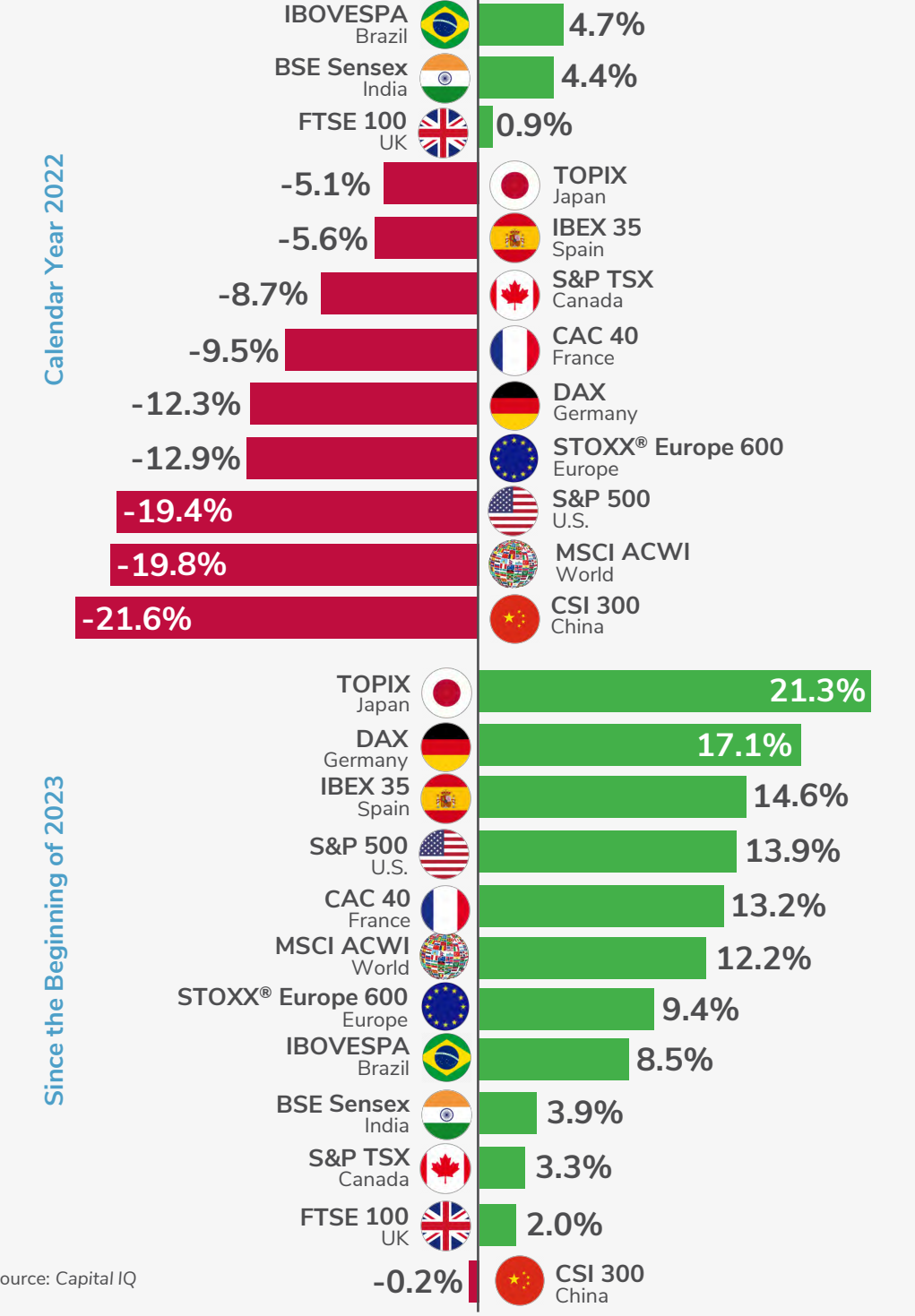
Data as of June 14, 2023



Sources: Refinitiv (Brazil, India), European Central Bank (Eurozone aggregate yield) and Capital IQ (other countries)

## Stock Market Performance

Data as of June 14, 2023



Source: Capital IQ

## U.S. and Eurozone Consumer Sentiment vs. Business Confidence

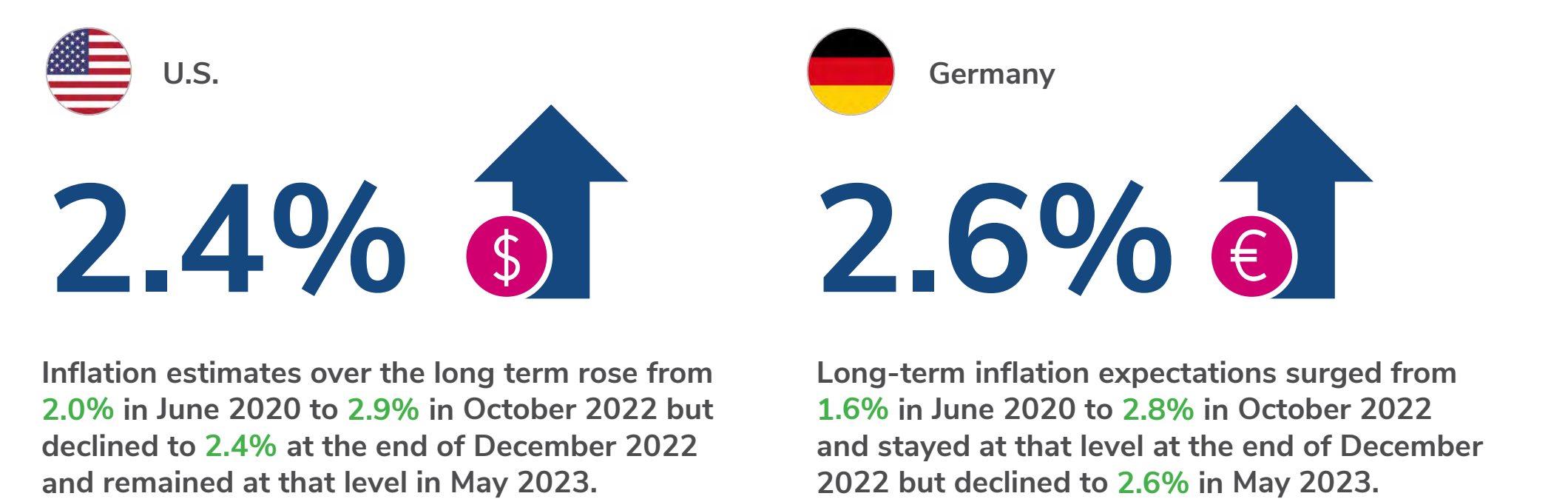
Data as of June 14, 2023

	Pre-COVID-19 (February 2020)	Post-COVID-19 (June 2023)	Long-Term Avg. (1952-2023)
Consumer Sentiment (U.S.)	101.0	59.2	85.7
Consumer Sentiment (Eurozone)	107.9	86.9	100.0
Business Confidence (U.S.)	99.0	98.9	100.0
Business Confidence (Eurozone)	100.3	101.9	100.0

Sources: Michigan University’s Index of Consumer Sentiment, OECD’s Business Confidence Index and European Commission business and consumer surveys (The same methodology that the European Commission uses to standardize its Economic Sentiment Indicator (ESI) was applied to the Eurozone Consumer Confidence and Business Climate Indicator series.)

## Long-Term Inflation Expectations (Median)

Data as of May 31, 2023



Sources of underlying U.S. data: Blue Chip Economic Indicators; Blue Chip Financial Forecasts, Consensus Economics, IHS Markit (S&P Global Market Intelligence), Federal Reserve Bank of Cleveland, Federal Reserve Bank of Philadelphia (Aruoba Term Structure of Inflation Expectations, Livingston Survey, and Survey of Professional Forecasters), Oxford Economics and the University of Michigan’s Surveys of Consumers Inflation Expectations. Sources of underlying German data: Consensus Economics, Economist Intelligence Unit, IHS Markit (S&P Global Market Intelligence), International Monetary Fund, Oxford Economics and PwC.

## U.S. vs. Eurozone Unemployment Rate

Data as of June 14, 2023

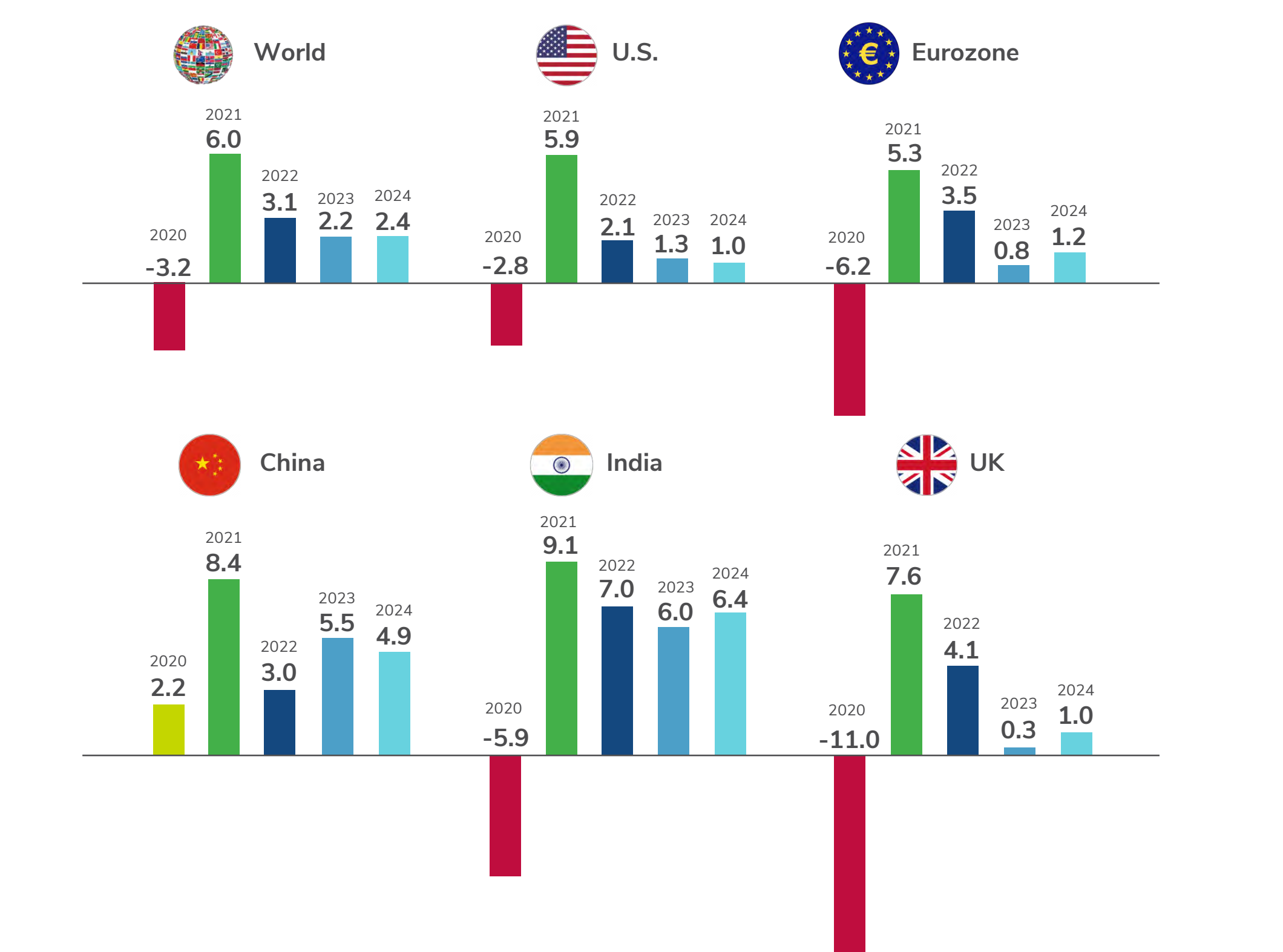
Year	Month	U.S.	Eurozone
2020	March	4.4%	7.1%
	June	11.0%	8.0%
	September	7.9%	8.7%
	December	6.7%	8.1%
2021	March	6.0%	8.1%
	June	5.9%	7.8%
	September	4.7%	7.4%
	December	3.9%	7.0%
2022	March	3.6%	6.8%
	June	3.6%	6.7%
	September	3.5%	6.6%
	December	3.5%	6.7%
2023	March	3.5%	6.6%
	Latest Available*	3.7%	6.5%

Source: U.S. Bureau of Labor Statistics and Eurostat

\* Data through May 2023 for the U.S. and April 2023 for the Eurozone.

## Real GDP Growth (%) Estimates (Median)

Data as of June 15, 2023



Sources: OECD, International Monetary Fund, World Bank, Blue Chip Economic Indicators, Consensus Economics, Economic Intelligence Unit, Fitch Ratings, IHS Markit (S&P Global Market Intelligence), Moody’s Analytics, Oxford Economics and S&P Global Ratings.

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Chapter 9: Discounted Cash Flow Application

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

### Blended Growth Approach

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

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

SOUTHWEST GAS NYSE-SWX												RECENT PRICE	P/E RATIO		Trailing: 19.9 Median: 20.0		RELATIVE P/E RATIO	DIV'D YLD	3.3%		VALUE LINE																																																																																																																																																																																																																																																																																																																																																																																										
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QUARTERLY REVENUES (\$ mill.)		<table border="1"> <thead> <tr> <th>Cal-endar</th><th>Mar.31</th><th>Jun.30</th><th>Sep.30</th><th>Dec.31</th><th>Full Year</th> </tr> </thead> <tbody> <tr> <td>2021</td><td>885.9</td><td>821.4</td><td>888.7</td><td>1084.5</td><td>3680.5</td> </tr> <tr> <td>2022</td><td>1267.4</td><td>1146.1</td><td>1125.6</td><td>1420.9</td><td>4960.0</td> </tr> <tr> <td>2023</td><td>1603.3</td><td>1293.6</td><td>1169.5</td><td>1387.6</td><td>5454.0</td> </tr> <tr> <td>2024</td><td>1581.0</td><td>1000</td><td>1220</td><td>1199</td><td>5000</td> </tr> <tr> <td>2025</td><td>1225</td><td>1275</td><td>1350</td><td>1400</td><td>5250</td> </tr> </tbody> </table>																		Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year	2021	885.9	821.4	888.7	1084.5	3680.5	2022	1267.4	1146.1	1125.6	1420.9	4960.0	2023	1603.3	1293.6	1169.5	1387.6	5454.0	2024	1581.0	1000	1220	1199	5000	2025	1225	1275	1350	1400	5250																																																																																																																																																																																																																																																																																																																																																								
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BUSINESS:		<p>Southwest Gas Holdings, Inc. is the parent holding company of Southwest Gas. Centuri Group spun-off 4/22/24. Southwest Gas is a regulated gas distributor serving 2.2 million customers in Arizona, Nevada, and California. 2023 margin mix: residential 68%, small commercial, 20%; large commercial and industrial, 8%; transportation, 4%. Total throughput: 2.2 billion therms. Southwest has 2,371 employees; Centuri 12,572. Off. &amp; dir. own .4% of common stock; Carl C. Icahn, 15.4%; BlackRock, 13.0%; The Vanguard Group, 10.1%; (3/24 Proxy). Chairman: Michael J. Melarkey. Pres. &amp; CEO: Karen S. Haller. Inc.: DE. Addr.: 8360 S. Durango Drive, P.O. Box 98510 Las Vegas, Nevada 89193. Telephone: 702-876-7237. Internet: www.swgas.com.</p>																																																																																																																																																																																																																																																																																																																																																																																																													
Despite missing our earnings targets, Southwest stock is up nearly 25% in price since our last review. The stock jumped significantly after the 2023 year-end earnings call when management provided insight as to the planned spin-off of the Centuri Group. Otherwise the company continued to struggle throughout the year due to higher costs and customer pushback on energy bills, though these operating results via comparisons is obscured by the significant charges from recent corporate restructuring.		<p>Despite the ongoing devestiture, some catalysts should provide a near-term lift. Though Southwest is still offloading shares of the newly issued CTRI stock, operating margins reached a record in the first-quarter under the new corporate structure. Strong customer growth trends and regulatory approvals suggest a bright outlook compared with recent profit performances. Management expects a 20% to 25% increase in the authorized rate base by 2026, providing ample potential to our earnings targets late decade.</p>																																																																																																																																																																																																																																																																																																																																																																																																													
The company successfully completed its initial public offering of the Centuri Group. The move, championed by activist investor Carl Icahn, aims to restore Southwest as a pure-play regulated natural gas utility. Centuri Group, the infrastructure services company, is now listed under the ticker CTRI. The stock debuted at \$21 per share, a roughly \$1.8 billion valuation, but quickly rose to around \$25 each, where it has traded since. The company reported a \$186 million loss on \$2.9 billion in revenue in fiscal 2023. Southwest plans to use proceeds to reduce debt and improve cash flows.		<p>Sustainable profit growth may prove difficult in the long run. The company has been facing substantial backlash from customers for sharp increases in energy costs. While this in large part reflects commodity markets conditions, many customers are highly vocal about the company's perceived grifting which could lead to increased regulatory pressure down the line. The stock has risen on recent developments and currently trades well within our three- to five-year target price range. The timeliness rank remains suspended pending business realignment.</p>																																																																																																																																																																																																																																																																																																																																																																																																													
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## Northern States Power Company | Credit Ratings

(MI KEY: 4057754; SPCIQ KEY: 12040739)

Agency All

# A-

### S&P Global Ratings

Issuer Credit Rating (Foreign Currency LT)

3/13/2024

Downgrade | CreditWatch/Outlook: Negative

3/13/2024

# A2

### Moody's

Long Term Rating (LT Issuer Rating )

12/12/2023

### Current Ratings

#### S&P GLOBAL RATINGS (S&P Entity Name:Northern States Power Co.)

RATING TYPE	RATING	RATING DATE	LAST REVIEW DATE	PREVIOUS RATING	ACTION	CREDITWATCH/ OUTLOOK	CREDITWATCH/ OUTLOOK DATE
<b>Issuer Credit Rating</b>							
Foreign Currency LT	A-	3/13/2024	3/13/2024	A	Downgrade   CreditWatch/Outlook	Negative	3/13/2024
Local Currency LT	A-	3/13/2024	3/13/2024	A	Downgrade   CreditWatch/Outlook	Negative	3/13/2024
Foreign Currency ST	A-2	3/13/2024	3/13/2024	A-1	Downgrade		
Local Currency ST	A-2	3/13/2024	3/13/2024	A-1	Downgrade		

### MOODY'S

RATING TYPE	RATING	DATE	ACTION	OUTLOOK
<b>Ratings Summary</b>				
Long Term Rating (LT Issuer Rating )	A2	12/12/2023		
Short Term Rating (Commercial Paper Domestic)	P-1	12/12/2023		
Outlook		12/12/2023		Stable

### Ratings Detail



Northern States Power Company | Credit Ratings

RATING TYPE	RATING	DATE	ACTION	OUTLOOK
Commercial Paper (Domestic)	P-1	12/12/2023		
First Mortgage Bonds (Domestic)	Aa3	12/12/2023		
Senior Unsecured Bank Credit Facility (Domestic)	A2	12/12/2023		
LT Issuer Rating	A2	12/12/2023		
Underlying First Mortgage Bonds (Domestic)	Aa3	12/12/2023		
Senior Secured Shelf (Domestic)	WR	4/21/2024	Withdrawn	
Senior Unsec. Shelf (Domestic)	WR	4/17/2021	Withdrawn	
BACKED Senior Secured (Domestic)	WR	9/27/2012	Withdrawn	
Senior Unsecured (Domestic)	WR	7/31/2009	Withdrawn	
Underlying Senior Secured (Domestic)	WR	11/30/2008	Withdrawn	
Senior Secured Bank Credit Facility (Domestic)	WR	3/29/2005	Withdrawn	
BACKED LT IRB/PC (Domestic)	WR	4/19/2004	Withdrawn	
BACKED Other Short Term (Domestic)	WR	8/21/2002	Withdrawn	
Junior Subordinate (Domestic)	WR	7/26/2001	Withdrawn	
Underlying LT IRB/PC (Domestic)	WR	9/11/2000	Withdrawn	
Pref. Stock	WR	8/17/2000	Withdrawn	
Pref. Shelf (Domestic)	WR	8/17/2000	Withdrawn	

Ratings History

S&P GLOBAL RATINGS (S&P Entity Name:Northern States Power Co.)

RATING TYPE	RATING	RATING DATE	ACTION	CREDITWATCH/ OUTLOOK	CREDITWATCH/ OUTLOOK DATE
<b>Foreign Currency LT</b>					
Issuer Credit Rating	A-	3/13/2024	Downgrade   CreditWatch/Outlook	Negative	3/13/2024
Issuer Credit Rating	A	7/24/2023	CreditWatch/Outlook	Negative	3/1/2024
Issuer Credit Rating	A	7/24/2023	Upgrade   CreditWatch/Outlook	Stable	7/24/2023
Issuer Credit Rating	A-	6/23/2010	Upgrade   CreditWatch/Outlook	Stable	6/23/2010
Issuer Credit Rating	BBB+	10/16/2007	CreditWatch/Outlook	Positive	6/10/2009
Issuer Credit Rating	BBB+	10/16/2007	Upgrade   CreditWatch/Outlook	Stable	10/16/2007
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Stable	3/12/2004
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Watch Pos	5/14/2003
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Watch Dev	8/7/2002
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Watch Neg	7/26/2002



Northern States Power Company | Credit Ratings

RATING TYPE	RATING	RATING DATE	ACTION	CREDITWATCH/ OUTLOOK	CREDITWATCH/ OUTLOOK DATE
Issuer Credit Rating	BBB	6/24/2002	Downgrade   CreditWatch/Outlook	Negative	6/24/2002
Issuer Credit Rating	A-	8/17/2000	CreditWatch/Outlook	Watch Neg	2/11/2002
Issuer Credit Rating	A-	8/17/2000	Downgrade   CreditWatch/Outlook	Stable	8/17/2000
Issuer Credit Rating	AA-	8/6/1990	CreditWatch/Outlook	Watch Neg	3/25/1999
Issuer Credit Rating	AA-	8/6/1990	CreditWatch/Outlook	Stable	5/20/1997
Issuer Credit Rating	AA-	8/6/1990	CreditWatch/Outlook	Watch Pos	5/1/1995
Issuer Credit Rating	AA-	8/6/1990	CreditWatch/Outlook	Stable	7/5/1992
Issuer Credit Rating	AA-	8/6/1990	CreditWatch/Outlook	Positive	4/15/1991
Issuer Credit Rating	AA-	8/6/1990	Downgrade   CreditWatch/Outlook	Stable	8/6/1990
Issuer Credit Rating	AA	4/19/1988	Downgrade   CreditWatch/Outlook	Stable	4/19/1988
Issuer Credit Rating	AA+	4/16/1984	Upgrade   CreditWatch/Outlook	Negative	4/16/1984
Issuer Credit Rating	AA	2/22/1944	New Rating		
<b>Local Currency LT</b>					
Issuer Credit Rating	A-	3/13/2024	Downgrade   CreditWatch/Outlook	Negative	3/13/2024
Issuer Credit Rating	A	7/24/2023	CreditWatch/Outlook	Negative	3/1/2024
Issuer Credit Rating	A	7/24/2023	Upgrade   CreditWatch/Outlook	Stable	7/24/2023
Issuer Credit Rating	A-	6/23/2010	Upgrade   CreditWatch/Outlook	Stable	6/23/2010
Issuer Credit Rating	BBB+	10/16/2007	CreditWatch/Outlook	Positive	6/10/2009
Issuer Credit Rating	BBB+	10/16/2007	Upgrade   CreditWatch/Outlook	Stable	10/16/2007
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Stable	3/12/2004
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Watch Pos	5/14/2003
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Watch Dev	8/7/2002
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Watch Neg	7/26/2002
Issuer Credit Rating	BBB	6/24/2002	Downgrade   CreditWatch/Outlook	Negative	6/24/2002
Issuer Credit Rating	A-	8/17/2000	CreditWatch/Outlook	Watch Neg	2/11/2002
Issuer Credit Rating	A-	8/17/2000	Downgrade   CreditWatch/Outlook	Stable	8/17/2000
Issuer Credit Rating	AA-	8/6/1990	CreditWatch/Outlook	Watch Neg	3/25/1999
Issuer Credit Rating	AA-	8/6/1990	CreditWatch/Outlook	Stable	5/20/1997
Issuer Credit Rating	AA-	8/6/1990	CreditWatch/Outlook	Watch Pos	5/1/1995
Issuer Credit Rating	AA-	8/6/1990	CreditWatch/Outlook	Stable	7/5/1992
Issuer Credit Rating	AA-	8/6/1990	CreditWatch/Outlook	Positive	4/15/1991



Northern States Power Company | Credit Ratings

RATING TYPE	RATING	RATING DATE	ACTION	CREDITWATCH/ OUTLOOK	CREDITWATCH/ OUTLOOK DATE
Issuer Credit Rating	AA-	8/6/1990	Downgrade   CreditWatch/Outlook	Stable	8/6/1990
Issuer Credit Rating	AA	4/19/1988	Downgrade   CreditWatch/Outlook	Stable	4/19/1988
Issuer Credit Rating	AA+	4/16/1984	Upgrade   CreditWatch/Outlook	Negative	4/16/1984
Issuer Credit Rating	AA	2/22/1944	New Rating		
<b>Foreign Currency ST</b>					
Issuer Credit Rating	A-2	3/13/2024	Downgrade		
Issuer Credit Rating	A-1	7/24/2023	Upgrade		
Issuer Credit Rating	A-2	2/14/2006	New Rating		
Issuer Credit Rating	NR	6/1/2004	Not Rated		
Issuer Credit Rating	A-2	5/14/2003	Upgrade   CreditWatch/Outlook	NM	5/14/2003
Issuer Credit Rating	A-3	6/24/2002	CreditWatch/Outlook	Watch Dev	8/7/2002
Issuer Credit Rating	A-3	6/24/2002	CreditWatch/Outlook	Watch Neg	7/26/2002
Issuer Credit Rating	A-3	6/24/2002	Downgrade   CreditWatch/Outlook	NM	6/24/2002
Issuer Credit Rating	A-2	8/17/2000	CreditWatch/Outlook	Watch Neg	2/11/2002
Issuer Credit Rating	A-2	8/17/2000	Downgrade   CreditWatch/Outlook	NM	8/17/2000
Issuer Credit Rating	A-1+	11/22/1981	CreditWatch/Outlook	Watch Neg	3/25/1999
Issuer Credit Rating	A-1+	11/22/1981	Upgrade		
Issuer Credit Rating	A-1	12/31/1980	New Rating		
<b>Local Currency ST</b>					
Issuer Credit Rating	A-2	3/13/2024	Downgrade		
Issuer Credit Rating	A-1	7/24/2023	Upgrade		
Issuer Credit Rating	A-2	2/14/2006	New Rating		
Issuer Credit Rating	NR	6/1/2004	Not Rated		
Issuer Credit Rating	A-2	5/14/2003	Upgrade   CreditWatch/Outlook	NM	5/14/2003
Issuer Credit Rating	A-3	6/24/2002	CreditWatch/Outlook	Watch Dev	8/7/2002
Issuer Credit Rating	A-3	6/24/2002	CreditWatch/Outlook	Watch Neg	7/26/2002
Issuer Credit Rating	A-3	6/24/2002	Downgrade   CreditWatch/Outlook	NM	6/24/2002
Issuer Credit Rating	A-2	8/17/2000	CreditWatch/Outlook	Watch Neg	2/11/2002
Issuer Credit Rating	A-2	8/17/2000	Downgrade   CreditWatch/Outlook	NM	8/17/2000
Issuer Credit Rating	A-1+	11/22/1981	CreditWatch/Outlook	Watch Neg	3/25/1999
Issuer Credit Rating	A-1+	11/22/1981	Upgrade		



Northern States Power Company | Credit Ratings

RATING TYPE	RATING	RATING DATE	ACTION	CREDITWATCH/ OUTLOOK	CREDITWATCH/ OUTLOOK DATE
Issuer Credit Rating	A-1	12/31/1980	New Rating		

**MOODY'S**

RATING TYPE	RATING	DATE	ACTION	OUTLOOK
<b>LT Issuer Rating</b>	<b>A2</b>	<b>12/12/2023</b>		
LT Issuer Rating	A2	1/31/2014	Upgrade	
LT Issuer Rating	A3	11/8/2013	On Watch - Possible Upgrade	
LT Issuer Rating	A3	4/19/2004	Upgrade	
LT Issuer Rating	Baa1	12/11/2003	On Watch - Possible Upgrade	
LT Issuer Rating	Baa1	9/5/2002	Downgrade	
LT Issuer Rating	A3	8/16/2002	Downgrade	
LT Issuer Rating	A3	8/16/2002	On Watch - Possible Downgrade	
LT Issuer Rating	A1	7/29/2002	On Watch - Possible Downgrade	
LT Issuer Rating	A1	10/18/2001	On Watch - Confirm Only (P.R.)	
LT Issuer Rating	A1	11/16/2000	On Watch - Possible Upgrade	
LT Issuer Rating	A1	8/17/2000	On Watch - Confirm Only (P.R.)	
LT Issuer Rating	A1	3/26/1999	On Watch - Possible Downgrade	
LT Issuer Rating	A1	7/15/1997	Upgrade	
LT Issuer Rating	A2	5/11/1995	New	
LT Issuer Rating	A2	5/11/1995	On Watch - Possible Upgrade	
<b>Outlook</b>		<b>12/12/2023</b>		<b>Stable</b>
Outlook		10/19/2018		Stable
Outlook		1/31/2014		Stable
Outlook		11/8/2013		Ratings Under Review
Outlook		4/19/2004		Stable
Outlook		12/11/2003		Ratings Under Review
Outlook		11/15/2003		Stable

**Program Ratings**

Source : S&P Global Ratings

**Commercial Paper**

DESCRIPTION	MATURITY DATE	DEBT TYPE	RATING TYPE	RATING DATE	LAST REVIEW DATE	CREDIT/WATCH OUTLOOK	CREDIT/WATCH OUTLOOK DATE
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Northern States Power Company | Credit Ratings

DESCRIPTION	MATURITY DATE	DEBT TYPE	RATING TYPE	RATING	RATING DATE	LAST REVIEW DATE	CREDIT/WATCH OUTLOOK	CREDIT/WATCH OUTLOOK DATE
4(2) CP prog auth amt US\$500 mil		Commercial Paper	Local Currency ST	A-2	3/13/2024	3/13/2024		

S&P Credit Ratings and Research provided by

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

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

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Xcel Energy Inc. | Credit Ratings

NASDAQGS: XEL (MI KEY: 4025308; SPCIQ KEY: 527542)

Agency All

**BBB+**

**S&P Global Ratings**

Issuer Credit Rating (Foreign Currency LT)

3/13/2024

Downgrade | CreditWatch/Outlook: Negative

3/13/2024

**Baa1**

**Moody's**

Long Term Rating (LT Issuer Rating )

12/22/2023

**Current Ratings**

**S&P GLOBAL RATINGS (S&P Entity Name:Xcel Energy Inc.)**

RATING TYPE	RATING	RATING DATE	LAST REVIEW DATE	PREVIOUS RATING	ACTION	CREDITWATCH/ OUTLOOK	CREDITWATCH/ OUTLOOK DATE
<b>Issuer Credit Rating</b>							
Foreign Currency LT	BBB+	3/13/2024	3/13/2024	A-	Downgrade   CreditWatch/Outlook	Negative	3/13/2024
Local Currency LT	BBB+	3/13/2024	3/13/2024	A-	Downgrade   CreditWatch/Outlook	Negative	3/13/2024
Foreign Currency ST	A-2	6/8/2005	3/13/2024	NR	New Rating		
Local Currency ST	A-2	6/8/2005	3/13/2024	NR	New Rating		

**MOODY'S**

RATING TYPE	RATING	DATE	ACTION	OUTLOOK
<b>Ratings Summary</b>				
Long Term Rating (LT Issuer Rating )	Baa1	12/22/2023		
Short Term Rating (Commercial Paper Domestic)	P-2	12/22/2023		
Outlook		12/22/2023		Stable
<b>Ratings Detail</b>				
Commercial Paper (Domestic)	P-2	12/22/2023		
Senior Unsecured (Domestic)	Baa1	12/22/2023		
Senior Unsecured Bank Credit Facility (Domestic)	Baa1	12/22/2023		
LT Issuer Rating	Baa1	12/22/2023		
Senior Unsec. Shelf (Domestic)	WR	4/21/2024	Withdrawn	
Subordinate Shelf (Domestic)	WR	4/17/2021	Withdrawn	
Junior Subord. Shelf (Domestic)	WR	4/17/2021	Withdrawn	
Pref. Shelf (Domestic)	WR	4/17/2021	Withdrawn	
Junior Subordinate (Domestic)	WR	5/30/2013	Withdrawn	
Pref. Stock	WR	10/30/2011	Withdrawn	

**Ratings History**

**S&P GLOBAL RATINGS (S&P Entity Name:Xcel Energy Inc.)**

RATING TYPE	RATING	RATING DATE	ACTION	CREDITWATCH/ OUTLOOK	CREDITWATCH/ OUTLOOK DATE
<b>Foreign Currency LT</b>					
Issuer Credit Rating	BBB+	3/13/2024	Downgrade   CreditWatch/Outlook	Negative	3/13/2024
Issuer Credit Rating	A-	6/23/2010	CreditWatch/Outlook	Negative	3/1/2024



Xcel Energy Inc. | Credit Ratings

RATING TYPE	RATING	RATING DATE	ACTION	CREDITWATCH/ OUTLOOK	CREDITWATCH/ OUTLOOK DATE
Issuer Credit Rating	A-	6/23/2010	Upgrade   CreditWatch/Outlook	Stable	6/23/2010
Issuer Credit Rating	BBB+	10/16/2007	CreditWatch/Outlook	Positive	6/10/2009
Issuer Credit Rating	BBB+	10/16/2007	Upgrade   CreditWatch/Outlook	Stable	10/16/2007
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Stable	3/12/2004
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Watch Pos	5/14/2003
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Watch Dev	8/7/2002
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Watch Neg	7/26/2002
Issuer Credit Rating	BBB	6/24/2002	Downgrade   CreditWatch/Outlook	Negative	6/24/2002
Issuer Credit Rating	A-	8/17/2000	CreditWatch/Outlook	Watch Neg	2/11/2002
Issuer Credit Rating	A-	8/17/2000	New Rating   CreditWatch/Outlook	Stable	8/17/2000
<b>Local Currency LT</b>					
Issuer Credit Rating	BBB+	3/13/2024	Downgrade   CreditWatch/Outlook	Negative	3/13/2024
Issuer Credit Rating	A-	6/23/2010	CreditWatch/Outlook	Negative	3/1/2024
Issuer Credit Rating	A-	6/23/2010	Upgrade   CreditWatch/Outlook	Stable	6/23/2010
Issuer Credit Rating	BBB+	10/16/2007	CreditWatch/Outlook	Positive	6/10/2009
Issuer Credit Rating	BBB+	10/16/2007	Upgrade   CreditWatch/Outlook	Stable	10/16/2007
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Stable	3/12/2004
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Watch Pos	5/14/2003
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Watch Dev	8/7/2002
Issuer Credit Rating	BBB	6/24/2002	CreditWatch/Outlook	Watch Neg	7/26/2002
Issuer Credit Rating	BBB	6/24/2002	Downgrade   CreditWatch/Outlook	Negative	6/24/2002
Issuer Credit Rating	A-	8/17/2000	CreditWatch/Outlook	Watch Neg	2/11/2002
Issuer Credit Rating	A-	8/17/2000	New Rating   CreditWatch/Outlook	Stable	8/17/2000
<b>Foreign Currency ST</b>					
Issuer Credit Rating	A-2	6/8/2005	New Rating		
Issuer Credit Rating	NR	6/1/2004	Not Rated		
Issuer Credit Rating	A-2	5/14/2003	Upgrade   CreditWatch/Outlook	NM	5/14/2003
Issuer Credit Rating	A-3	6/24/2002	CreditWatch/Outlook	Watch Dev	8/7/2002
Issuer Credit Rating	A-3	6/24/2002	CreditWatch/Outlook	Watch Neg	7/26/2002
Issuer Credit Rating	A-3	6/24/2002	Downgrade   CreditWatch/Outlook	NM	6/24/2002
Issuer Credit Rating	A-2	8/17/2000	CreditWatch/Outlook	Watch Neg	2/11/2002
Issuer Credit Rating	A-2	8/17/2000	New Rating		
<b>Local Currency ST</b>					
Issuer Credit Rating	A-2	6/8/2005	New Rating		
Issuer Credit Rating	NR	6/1/2004	Not Rated		
Issuer Credit Rating	A-2	5/14/2003	Upgrade   CreditWatch/Outlook	NM	5/14/2003
Issuer Credit Rating	A-3	6/24/2002	CreditWatch/Outlook	Watch Dev	8/7/2002
Issuer Credit Rating	A-3	6/24/2002	CreditWatch/Outlook	Watch Neg	7/26/2002
Issuer Credit Rating	A-3	6/24/2002	Downgrade   CreditWatch/Outlook	NM	6/24/2002
Issuer Credit Rating	A-2	8/17/2000	CreditWatch/Outlook	Watch Neg	2/11/2002
Issuer Credit Rating	A-2	8/17/2000	New Rating		
<b>MOODY'S</b>					
RATING TYPE	RATING	DATE	ACTION	OUTLOOK	
<b>LT Issuer Rating</b>	<b>Baa1</b>	<b>12/22/2023</b>			
LT Issuer Rating	Baa1	3/28/2019	Downgrade		
LT Issuer Rating	A3	10/19/2018	Rating Affirmation		
LT Issuer Rating	A3	3/28/2017	Rating Affirmation		
LT Issuer Rating	A3	1/31/2014	Upgrade		
LT Issuer Rating	Baa1	11/8/2013	On Watch - Possible Upgrade		



Xcel Energy Inc. | Credit Ratings

RATING TYPE	RATING	DATE	ACTION	OUTLOOK
LT Issuer Rating	Baa1	4/19/2004	Upgrade	
LT Issuer Rating	Baa3	12/11/2003	On Watch - Possible Upgrade	
LT Issuer Rating	Baa3	5/20/2003	On Watch - Confirm Only (P.R.)	
LT Issuer Rating	Baa3	9/5/2002	Downgrade	
LT Issuer Rating	Baa3	9/5/2002	On Watch - Possible Downgrade	
LT Issuer Rating	Baa2	7/29/2002	Downgrade	
LT Issuer Rating	Baa2	7/29/2002	On Watch - Possible Downgrade	
LT Issuer Rating	A3	2/15/2002	On Watch - Possible Downgrade	
LT Issuer Rating	A3	10/18/2001	On Watch - Confirm Only (P.R.)	
LT Issuer Rating	A3	10/12/2001	On Watch - Possible Downgrade	
LT Issuer Rating	A3	8/17/2000	New	
<b>Outlook</b>		<b>12/22/2023</b>		<b>Stable</b>
Outlook		3/28/2019		Stable
Outlook		10/19/2018		Negative
Outlook		3/28/2017		Stable
Outlook		1/31/2014		Stable
Outlook		11/8/2013		Ratings Under Review
Outlook		4/19/2004		Stable
Outlook		12/11/2003		Ratings Under Review
Outlook		11/15/2003		Stable

Subsidiaries								
SUBSIDIARY	AGENCY	DEBT TYPE (RATING TYPE)	RATING	RATING DATE	LAST REVIEW DATE	PREVIOUS RATING	CREDITWATCH / OUTLOOK	CREDITWATCH / OUTLOOK DATE
Lake Superior District Power Co.	Moody's	Long Term Rating (First Mortgage Bonds Domestic)	WR	12/29/1986				
New Century Energies Inc.	S&P Global Ratings	Issuer Credit Rating (Foreign Currency LT)	NR	8/17/2000		BBB+	NR	8/17/2000
	Moody's	Long Term Rating (LT Issuer Rating )	WR	10/5/2000				
Northern States Power Co.	S&P Global Ratings	Issuer Credit Rating (Foreign Currency LT)	A-	3/13/2024	3/13/2024	A	Negative	3/13/2024
Northern States Power Co.	S&P Global Ratings	Issuer Credit Rating (Foreign Currency LT)	A-	10/16/2007	3/13/2024	A-	Negative	3/13/2024
	Moody's	Long Term Rating (LT Issuer Rating )	A2	12/12/2023				
	Moody's	Long Term Rating (Senior Unsecured Bank Credit Facility Domestic)	A2	1/11/2024				
Public Service Co. of Colorado	S&P Global Ratings	Issuer Credit Rating (Foreign Currency LT)	A-	6/23/2010	3/13/2024	A-	Negative	7/28/2023
	Moody's	Long Term Rating (LT Issuer Rating )	A3	12/19/2023				
Public Service Colorado Credit Corp.	S&P Global Ratings	Issuer Credit Rating (Foreign Currency LT)	NR	11/20/2002		BBB	NR	11/20/2002
	Moody's	Long Term Rating (Senior Unsecured Domestic)	WR	5/30/2000				
Rocky Mountain Energy Center LLC	Moody's	Long Term Rating (Senior Secured Bank Credit Facility Domestic)	WR	1/5/2011				
Southwestern Public Service Co.	S&P Global Ratings	Issuer Credit Rating (Foreign Currency LT)	BBB	3/13/2024	3/13/2024	A-	Negative	3/13/2024
	Moody's	Long Term Rating (LT Issuer Rating )	Baa2	3/8/2024				

Program Ratings	
Source : S&P Global Ratings	

Commercial Paper								
DESCRIPTION	MATURITY DATE	DEBT TYPE	RATING TYPE	RATING	RATING DATE	LAST REVIEW DATE	CREDITWATCH / OUTLOOK	CREDITWATCH / OUTLOOK DATE
4(2) CP prog auth amt US\$1 bil		Commercial Paper	Local Currency ST	A-2	6/1/2005	3/13/2024		

Market Intelligence News	
HEADLINE	DATE
"There's no doubt that datacenters, and their robust demand for 24/7 power, are providing a big spark of excitement among utility investors," Scotia Capital (USA) analyst Andrew Weisel wrote in an April 22 report. AI-driven power demand to drive discussions on US utilities' Q1 earnings calls	4/23/2024 10:31:00 AM CT



Xcel Energy Inc. | Credit Ratings

HEADLINE	DATE
Xcel Energy on Feb. 29 disclosed that it received a letter from a law firm with "notice of potential exposure" to damages tied to the Smokehouse Creek Fire in Texas. Xcel Energy stock closes down 9% on notice of potential wildfire exposure	2/29/2024 4:03:00 PM CT
Investments that improve the US electric grid's resiliency against severe weather events and cyberattacks also will be "increasingly important," credit rating agency Moody's wrote. Renewables, aging grid drive 'urgent need' for transmission investment – Moody's	9/12/2023 4:31:00 PM CT
First-quarter earnings for US investor-owned utilities will be pressured by unfavorable weather as companies also try to offset higher interest rates in an overall inflationary environment. Investors looking to see how US utilities maintain growth plans off Q1 results	4/25/2023 11:11:00 AM CT
Analysts see stable utility sector stocks poised to ride out potential recession The U.S. utility industry could even see stock prices rise during a potential economic downturn, despite the downside risk to holding companies facing climate, regulatory, earnings and load growth issues, analysts said.	7/5/2022 5:02:00 AM CT

S&P Credit Ratings and Research provided by

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**ROE and ROR Analysis for NSP Gas**  
**Summary of ROE Analyses and Recommended ROE**

**Docket No. PU-23-367**  
**Exhibit MFG-17**  
**Schedule 1**

<b>Analysis</b>	<b>Weight</b>	<b>ROE</b>	<b>Exhibit</b>		
Constant-Growth DCF	<b>Mean</b>	10.09%	Exhibit MFG-14, Schedule 1		
	<b>Median</b>	10.09%			
Multistage DCF	<b>Mean</b>	9.45%	Exhibit MFG-14, Schedule 5		
	<b>Median</b>	9.30%			
CAPM Kroll Market Risk Premium	<b>Mean</b>	9.35%	Exhibit MFG-15, Schedule 4		
	<b>Median</b>	9.28%			
CAPM S&P 500 Value Line	<b>Mean</b>	10.34%	Exhibit MFG-15, Schedule 6		
	<b>Median</b>	10.24%			
<b>DCF and CAPM Value Line results</b>		<b>Mean</b>	9.81%		
		<b>Median</b>	9.73%		
		<b>2121</b>	<b>2022</b>	<b>2023</b>	
<b>Recently awarded ROEs</b>	<b>Mean</b>	9.56	9.53	9.60	Exhibit MFG-16
	<b>Median</b>	9.60	9.60	9.55	
	<b>Range</b>	8.80-10.24	9.20-10.20	9.20-10.50	
	<b>Cases</b>	n = 43	n = 33	n = 37	
	<b>Overall</b>				
	<b>Mean</b>	9.56			
	<b>Median</b>	9.60			
	<b>Range</b>	8.80-10.50			
	<b>Cases</b>	n = 113			
<b>Recommended ROE for Summit Utilities Arkansas</b>			9.80%		

**S&P Capital IQ** PRO

S&P Market Intelligence website, downloaded June 23, 2024  
 In thousands of dollars

Company Name	2024Q1	2023Q4	2023Q3	2023Q2	2023Q1	2022Q4	2022Q3	2022Q2	Average 2022Q2- 2024Q1
<b>Average Long-Term Debt for each quarter</b>									
Atmos Energy Corporation	7,527,695	7,181,468	6,738,154	6,597,871	6,552,446	6,248,372	5,852,056	5,758,380	6,557,055
Chesapeake Utilities	1,196,312	926,233	656,084	662,861	629,587	593,794	598,210	605,826	733,613
NiSource, Inc.	11,402,950	11,046,300	11,007,050	10,633,750	9,910,100	9,538,350	9,520,700	9,350,000	10,301,150
Northwest Natural Holding Company	1,577,194	1,502,325	1,437,288	1,372,711	1,349,012	1,345,304	1,244,916	1,124,093	1,369,105
ONE Gas, Inc.	2,160,532	2,018,651	1,869,407	1,875,893	2,277,358	2,554,098	2,356,459	2,283,743	2,174,517
Southwest Gas Holdings, Inc.	4,694,173	4,987,463	5,260,192	4,931,222	4,546,128	5,190,124	5,227,023	4,574,106	4,926,304
Spire Inc.	3,334,600	3,436,000	3,588,750	3,627,900	3,429,400	3,094,250	3,120,050	3,207,600	3,354,819

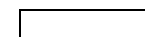
Company Name	2024Q1	2023Q4	2023Q3	2023Q2	2023Q1	2022Q4	2022Q3	2022Q2	Average 2022Q2- 2024Q1
<b>Average Short-Term Debt for each quarter</b>									
Atmos Energy Corporation	10,538	150,363	148,378	4,513	1,101,498	2,313,276	2,313,249	2,201,417	1,030,404
Chesapeake Utilities	196,079	170,871	129,552	118,152	172,161	208,764	176,167	162,066	166,726
NiSource, Inc.	2,163,500	2,663,700	1,933,000	1,465,600	1,554,300	1,549,750	947,550	585,100	1,607,813
Northwest Natural Holding Company	170,300	253,261	273,495	299,179	332,662	271,693	208,671	279,254	261,064
ONE Gas, Inc.	938,255	1,011,145	1,075,757	1,055,689	829,984	623,070	1,281,762	1,897,644	1,089,163
Southwest Gas Holdings, Inc.	694,278	400,810	78,728	283,514	1,061,331	1,017,870	963,254	1,634,546	766,791
Spire Inc.	1,298,750	1,311,700	1,041,550	890,900	1,150,600	1,404,400	1,032,800	689,350	1,102,506

ROE and ROR Analysis NSP Gas  
 Capital Structure Analysis  
 Proxy Group Ratios

Company Name	2024Q1	2023Q4	2023Q3	2023Q2	2023Q1	2022Q4	2022Q3	2022Q2	Average 2022Q2- 2024Q1
<b>Average Common Equity for each quarter</b>									
Atmos Energy Corporation	11,445,924	11,071,637	10,736,223	10,403,793	10,020,740	9,627,683	9,343,631	9,125,701	10,221,916
Chesapeake Utilities	1,263,504	1,056,391	865,453	861,408	845,695	823,620	815,070	810,607	917,718
NiSource, Inc.	7,201,250	6,283,200	6,068,800	6,102,750	5,970,050	5,621,650	5,446,250	5,450,250	6,018,025
Northwest Natural Holding Company	1,313,612	1,251,689	1,229,909	1,244,293	1,211,874	1,148,149	1,129,818	1,063,362	1,199,088
ONE Gas, Inc.	2,797,931	2,706,312	2,650,787	2,653,153	2,617,953	2,515,350	2,449,935	2,451,493	2,605,364
Southwest Gas Holdings, Inc.	3,333,139	3,274,391	3,250,786	3,279,491	3,177,458	3,235,837	3,435,884	3,473,967	3,307,619
Spire Inc.	2,978,550	2,742,050	2,682,900	2,717,500	2,683,300	2,599,300	2,590,200	2,601,550	2,699,419

ROE and ROR Analysis NSP Gas  
 Capital Structure Analysis  
 Proxy Group Ratios

Company Name	Average Total Capital		Long-Term Debt %	Short-Term Debt %	Common Equity %	
	2022Q2-	2024Q1				
Atmos Energy Corporation	17,809,375		36.82%	5.79%	57.40%	100.00%
Chesapeake Utilities	1,818,057		40.35%	9.17%	50.48%	100.00%
NiSource, Inc.	17,926,988		57.46%	8.97%	33.57%	100.00%
Northwest Natural Holding Company	2,829,257		48.39%	9.23%	42.38%	100.00%
ONE Gas, Inc.	5,869,045		37.05%	18.56%	44.39%	100.00%
Southwest Gas Holdings, Inc.	9,000,714		54.73%	8.52%	36.75%	100.00%
Spire Inc.	7,156,744		46.88%	15.41%	37.72%	100.00%
<b>Proxy Group</b>	<b>Average %</b>		45.95%	10.80%	43.24%	100.00%
<b>Proxy Group w/o ONE Gas and Spire</b>	<b>Average %</b>		47.55%	8.33%	44.11%	100.00%
<b>Capital structure requested by NSP Gas</b>			47.38%	0.12%	52.50%	100.00%
<b>Recommended capital structure for NSP Gas</b>			<b>Long-Term Debt</b>	<b>Short-Term Debt</b>	<b>Common Equity</b>	
			47.50%	2.50%	50.00%	100.00%



**ROE and ROR Analysis for NSP Gas**  
**Recommended ROE and ROR**  
**Weighted Average Cost of Capital**  
**Based on Inputs from MFG-20, Schedules 1-2**

**Docket No. PU-23-367**  
**Exhibit MFG-17**  
**Schedule 3**

**Rate of Return NDPSC**

	<b>Ratio</b>	<b>Cost</b>	<b>WACC</b>
<b>Long-Term Debt</b>	47.50%	4.54%	2.16%
<b>Short-Term Debt</b>	2.50%	7.72%	0.19%
<b>Common Equity</b>	50.00%	9.80%	4.90%
<b>Overall Rate of Return</b>	100.00%		7.25%

The recommended common equity cost of 9.80 percent is taken from Exhibit MFG-20, Schedule 1. The capital structure incorporates information from Exhibit MFG-20, Schedule 2. The cost of long-term debt and short-term debt are taken from the Direct Testimony of Joshua C. Nowak, page 5.

**Requested Rate of Return**  
**NSP Gas**

	<b>Ratio</b>	<b>Cost</b>	<b>WACC</b>
<b>Long-Term Debt</b>	47.38%	4.54%	2.15%
<b>Short-Term Debt</b>	0.12%	7.72%	0.01%
<b>Common Equity</b>	52.50%	10.20%	5.36%
<b>Overall Rate of Return</b>	100.00%		7.52%

The recommended common equity cost of 10.20 percent is taken from the Direct Testimony of Joshua C. Nowak, Exhibit JCN-1, Page 4. The capital structure is taken from the Direct Testimony of Mr. Nowak, page 56. The costs of long-term debt and short-term debt are taken from the Direct Testimony of Mr. Nowak, page 5.

**Flotation Cost Calculation**

<b>Year</b>	<b>Percentage</b>
2013	1.179
2014	1.097
2018	1.002
2019	0.416
2020	1.133
2021	0.909
2022	0.913
2022	0.869
2022	0.904
2023	0.850

**Mean** 0.927

**Adjustment** 0.037%

Percentages from Exhibit (JCN-1), Schedule 9, Page 1 of 2; Adjustment from Exhibit MFG-14, Schedule 1





# Public Service Commission

## State of North Dakota

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### COMMISSIONERS

Randy Christmann  
Sheri Haugen-Hoffart  
Julie Fedorchak

600 East Boulevard, Dept. 408  
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July 1, 2024

Public Service Commission  
Attention: Steve Kahl  
600 East Boulevard Avenue, Dept 408  
Bismarck, ND 58505-0480

In re: Northern States Power Company  
2024 Natural Gas Rate Increase  
Application  
Case No. PU-23-367

Dear Mr. Kahl,

Enclosed for filing in the above referenced matter please find the original copy of the following public document:

1. Prefiled Direct Testimony of Dante Mugrace.

Respectfully,

A handwritten signature in black ink, appearing to read "Brian Johnson".

Brian Johnson  
Special Assistant Attorney General Bar ID 07397  
North Dakota Public Service Commission  
600 East Boulevard Avenue Dept. 408  
Bismarck, ND 58505  
701-328-2407

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Direct Testimony and Schedules

Dante Mugrace

**Before the North Dakota Public Service Commission  
State of North Dakota**

In the Matter of the Application of  
Northern States Power Company – North Dakota  
a Division of Xcel Energy  
For Authority to Establish Increased Rates for  
Gas Service

**Case No. PU-23-367**

Overall Revenue Requirement  
Rate Base Valuation  
Operating Income

**July 1, 2024**

1 I. INTRODUCTION – STATEMENT OF QUALIFICATION

2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

3 A. My name is Dante Mugrace. My business address is 22 Brookes Avenue,  
4 Gaithersburg, MD 20877.

5 Q. WHAT IS YOUR PRESENT OCCUPATION?

6 A. I am a Senior Consultant with the Economic and Management Consultant Firm of  
7 PCMG and Associates, LLC. (PCMG). In my capacity as a Senior Consultant, I  
8 am responsible for evaluating and examining rate and rate-related proceedings  
9 before various governmental entities, preparing expert testimony and reviewing  
10 and making recommendations concerning revenue requirement proposals, as well  
11 as, offering opinions on economic policy and policy issues and methodologies  
12 used to set a value on a utility's rate base and cost of service components of  
13 revenue requirements.

14 Q. PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE?

15 A. PCMG is an association of experts in the area of utility regulation and policy,  
16 economics, accounting, and finance. PCMG's members have over 75 years of  
17 collective experience providing assistance to counsel and expert testimony  
18 regarding the regulation of electric, gas, water and wastewater utilities that operate  
19 under local, state, and federal jurisdictions. PCMG brings to client engagements  
20 a consultative and collaborative approach to the identification of issues and the  
21 development of positions with strict adherence to client procedures and deadlines.  
22 PCMG focuses on areas regarding revenue requirement, cost of service, rate  
23 design, cost of capital and rate of return. We provide overall analyses on various  
24 ratemaking concepts as well as a review of public utility accounting methods used  
25 by various public utilities and State Public Service Commissions. We also evaluate  
26 the reasonableness of costs and investments that are used to set rates, and  
27 measure the value of rate base, whether these costs are prudent in nature, used  
28 and useful and known and measurable in utility operations. Prior to my association  
29 with PCMG, I was employed as a Senior Consultant with the consulting firm of  
30 Snavelly-King Majoros and Associates (SKM) from 2013 to 2015 in the same

1 capacity as PCMG. Prior to SKM, I was employed by the New Jersey Board of  
2 Public Utilities (NJBPU or BPU or Board) from 1983 to my retirement in 2011.  
3 During my tenure at the NJBPU, I held various Accounting, Auditing, Rate Analyst,  
4 Supervisory and Management positions. My last position was Bureau Chief of  
5 Rates in the Agency's Water Division (Bureau Chief of Rates). I held this position  
6 for nearly 10 years. My CV is attached as Appendix A.

7 **Q. WHAT EXPERIENCE DO YOU HAVE IN THE AREA OF UTILITY RATE**  
8 **SETTING PROCEEDINGS AND OTHER REGULATORY AND UTILITY**  
9 **MATTERS?**

10 **A.** In my capacity as Bureau Chief of Rates, I was responsible for managing,  
11 assigning, directing, and overseeing the rate process regarding the administrative,  
12 financial, and managerial functions of the Rates Bureau. My primary duties were  
13 to ensure that the utilities had sufficient revenues to cover their operating  
14 expenses, while ensuring that those expenses were reasonable in nature, prudent,  
15 and known and measurable in providing service and benefits to customers, and  
16 were in accordance with Board policies, regulatory standards, and prior rate  
17 Orders. I was also responsible to ensure that the utilities had the opportunity to  
18 earn a reasonable return on their plant investments, including the ability to provide  
19 safe, adequate, and proper service at reasonable rates. During my time at the  
20 NJBPU, I was involved in hundreds of rate and rate-related proceedings that were  
21 resolved either through settlement or through fully litigated proceedings. In my  
22 capacity as a Senior Consultant, I was involved or am currently involved in rate  
23 and rate-related proceedings before the Commissions in the Commonwealths of  
24 Massachusetts and Pennsylvania, and the States of Hawaii, Maine, Maryland,  
25 New Jersey, New York, North Dakota, and Ohio. I was involved in the Generic  
26 Proceedings to Establish Parameters for the Next Generation Performance Based  
27 Rate Plans before the Alberta Utilities Commission. I have been or am currently  
28 involved in matters before the Federal Energy Regulatory Commission ("FERC")  
29 regarding transmission formula rate plans. More recently I was involved in the  
30 Generic Proceeding instituted by the NJ Board of Public Utilities (NJBPU)  
31 regarding the Tax Cuts and Jobs Act of 2017 (BPU Docket No. AX1801001)

1 regarding the setting of the federal tax adjustments and the adjustment of rates  
2 and the impact on the flowback of excess accumulated deferred income taxes. I  
3 am currently involved in several proceedings with the NJBPU with respect to the  
4 establishment of energy efficiency and peak demand reduction programs in  
5 accordance with the NJ Clean Energy Act of 2018 (BPU Docket Nos.  
6 QO19010040, QO19060748 and QO17091004).

7 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

8 **A.** I hold a Master of Business Administration (“MBA”) degree with a concentration in  
9 Strategic Management from Pace University – Lubin School of Business in New  
10 York City, New York. I hold a Master of Public Administration (“MPA”) degree from  
11 Kean University in Union, New Jersey. I hold a Bachelor of Science (“BS”) degree  
12 in Accounting from Saint Peter’s University in Jersey City, New Jersey.

13 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

14 **A.** I am testifying on behalf of the Advocacy Staff of the North Dakota Public Service  
15 Commission (NDPSC).

16 **II. PURPOSED OF TESTIMONY**

17 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

18 **A.** The purpose of my testimony is to evaluate and make a revenue requirement  
19 recommendation regarding Northern States Power Company – North Dakota  
20 (NSPC or Company) gas base rate case proceeding that was filed with the North  
21 Dakota Public Service Commission (NDPSC or Commission) on December 29,  
22 2023 in Case No. PU-23-367. My overall revenue requirement recommendations  
23 are based upon the Company’s proposed test year period ending December 31,  
24 2024. The Company has proposed an annual revenue requirement increase of  
25 \$8.463 million or 9.40% over current rate revenues. Incorporated into my  
26 testimony, I have presented findings with respect to the Company’s test year rate  
27 base, revenues, operating expenses and net income at present rate revenues. I  
28 have incorporated and am relying on the recommendations of Dr. Marlon Griffing

1 for cost of capital and return on equity, and Dr. Karl Pavlovic for cost of service  
2 and rate design that may affect my revenue requirement.

3 **Q. HAVE YOU REVIEWED AND EXAMINED THE COMPANY'S TESTIMONY AND**  
4 **ACCOMPANYING EXHIBITS IN THIS PROCEEDING?**

5 **A.** Yes. I have reviewed NSPC's testimony, statements and exhibits, and have also  
6 reviewed and relied on the responses to data requests propounded by Advocacy  
7 Staff and PCMG.

8 **Q. HAVE YOU PREPARED SCHEDULES TO ACCOMPANY YOUR TESTIMONY?**

9 **A.** Yes. I have prepared Schedules DM-1 through DM-22.

10 **Q. PLEASE SUMMARIZE THE RATE RELIEF PROPOSED BY NSPC.**

11 **A.** As previously indicated above, the Company filed an application for an increase in  
12 electric service on December 29, 2023, requesting an increase in natural gas base  
13 distribution rates in the amount of \$8.463 million or 9,40% above current rates.  
14 The revenue requirement is predicated upon a future test year ending December  
15 31, 2024, (Exhibit BCH-1 Schedule 11) which include an overall rate of return of  
16 7.52% and a common equity component of 10.20%. (Exhibit BCH-1 Schedule 3A  
17 and Workpaper Volume 3 – VI C1). The Company has computed an average rate  
18 base balance of \$167,970,000 based upon average balances of plant investments.  
19 The Company's last base rate case was filed in September 2021 and used a 2022  
20 future test year period in Case No. PU-21-381. The Company stated that since its  
21 last base rate case proceeding, the Company has made \$52.57 million of capital  
22 investments to the North Dakota gas operations. (Krug testimony page 14).

23 **Q. HOW DID THE COMPANY COMPUTE ITS PROPOSED REVENUE**  
24 **REQUIREMENT INCREASE OF \$8,463,000.**

25 **A.** The Company has computed its proposed revenue requirement increase by  
26 computing the average rate base (beginning and ending test year balances) and  
27 the adding and subtracting average balances related to Cash Working Capital  
28 (CWC) materials and supplies, fuel inventory, prepayments and various non-plant  
29 assets and liabilities. The Company multiplied its proposed average rate base

1 balance of \$167,970,000 by the proposed rate of return of 7.52% to arrive at a  
2 proposed Operating Income requirement of \$12,631,344. The Company then  
3 subtracted its Operating Income at present rates of \$6,234,000 to arrive at an  
4 income deficiency of \$6,397,344.<sup>1</sup> The Company then multiplied this amount by its  
5 revenue conversion factor of 1.322837 to arrive at its revenue requirement  
6 increase proposal of \$8,463,000.<sup>2</sup>

7 **Q. HAVE YOU ACCEPTED THE COMPANY'S PROPOSED TEST YEAR ENDING**  
8 **DECEMBER 31, 2024?**

9 **A.** Yes.

10 **Q. HAS THE COMPANY UPDATED ITS PROPOSED REVENUE REQUIREMENT**  
11 **INCREASE SUBSEQUENT TO THE DECEMBER 29, 2023 FILING DATE?**

12 **A.** No.

### 13 III. REVENUE REQUIREMENT RECOMMENDATIONS

14  
15 **Q. PLEASE SUMMARIZE YOUR FINDING AND RECOMMENDATIONS.**

16 **A.** Based upon the use of the Company's test year period ending December 31, 2024,  
17 I have the following recommendations:<sup>3</sup>

- 18 1. My recommended rate base balance is \$167,305,914 which is \$664,086 lower  
19 than the Company's proposed rate base balance of \$167,970,000.
- 20 2. My rate of return is based upon the recommendation of Dr. Marlon Griffing,  
21 which recommends an overall return of 7.26%, which includes a common  
22 equity component of 9.80%.
- 23 3. My recommended operating revenues at present rates is \$90,459,000 which is  
24 the same as the Company's operating revenues at present rates of  
25 \$90,459,000.

---

<sup>1</sup> Company Exhibit BCH-1 Schedule 7 page 1.

<sup>2</sup> On February 21, 2024, the Commission authorized the Company to increase rates on an interim basis, subject to refund including interest at a rate to be determined by the Commission. The interim rate increase was approved at a level of \$7,889,000 effective March 1, 2024. This represents approximately 93.2% of the Company's as filed rate increase of \$8,463,000.

<sup>3</sup> Differences due to rounding

1 4. My overall revenue requirement increase based upon an overall rate of return  
2 of 7.26% is \$6,344,087 or 7.013%; this is \$2,118,556 lower than the Company's  
3 overall revenue requirement increase of \$8,462,643 or 9.355%.

4 **Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?**

5 **A.** The remainder of my testimony is organized by documenting and explaining  
6 adjustments to various rate base components and net operating income  
7 components to arrive at my recommended revenue requirement decrease.

8 **Q. ARE YOU ACCEPTING ANY OF THE COMPANY'S PROPOSED RATE BASE  
9 BALANCE AND OPERATING INCOME ADJUSTMENTS?**

10 **A.** Yes. I am accepting certain of the Company's Rate Base balances and certain of  
11 the Company's Operating Income adjustments. These adjustments are not  
12 identified in my testimony but are identified in my revenue requirement schedules.  
13 My testimony reflects the areas of disagreement from that of the Company and the  
14 effect these adjustments have on rates.

15  
16 **IV. Cost of Capital**

17 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS COST OF  
18 CAPITAL?**

19 **A.** The Company has proposed an overall Cost of Capital of 7.52%. The breakdown  
20 of this return is based upon a long-term debt rate of 4.54%, a short-term debt  
21 rate of 0.12% and a common equity component of 10.20%. (WP VI-C1- Cost of  
22 Capital Schedule).

23 **Q. WHAT IS YOUR RECOMMENDED COST OF CAPITAL?**

24 **A.** As per Advocacy Staff witness Dr. Griffing's recommendation, I am incorporating  
25 an overall cost of capital of 7.26% which includes a common equity component of  
26 9.38%. This is shown on Schedule DM-2, and on Dr. Griffing's Exhibit MFG-17,  
27 Schedule 3.

1 **V. Rate Base Issues**

2 **A. Gas Plant in Service (GPIS)**

3 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS GAS PLANT**  
4 **IN SERVICE BALANCE?**

5 **A.** As shown on Exhibit BCH-1 Schedule 3A the Company proposed an average plant  
6 in service balance of \$279,835,000, as of December 31, 2024. The Company has  
7 developed this balance starting with total Company investments proposed in the  
8 2024 test year period and provided retail gas service to its customers. (Halama  
9 testimony page 17). The Company calculated the investment related to the North  
10 Dakota jurisdiction by the use of a simple average of projected net plant at the  
11 beginning and end of the test year consistent with the method employed in the  
12 Company's most recent North Dakota gas rate case (Exhibit BCH-1 page 17). The  
13 Company also included capital investments expected to be placed in service since  
14 the Company's last base rate case in 2022. The Company has included peaking  
15 plant investment costs, new business projects in Grand Forks and West Fargo, fire  
16 safety and other improvements to the Company's peaking plants, the meter  
17 module replacement program, reliability projects, replacement of problematic pipe,  
18 and a relocation project arising out of the Fargo-Moorhead flood diversion project.  
19 (Berger testimony page 2-3).

20 **Q. WHAT OTHER INVESTMENTS HAS THE COMPANY INCLUDED IN ITS TEST**  
21 **YEAR PERIOD?**

22 **A.** The Company has included costs for its Distribution Integrity Management  
23 Program (DIMP) and the Pipeline and Hazardous Materials Safety Administration  
24 (PHMSA). (Berger testimony page 5). The Company provided a schedule of  
25 capital investments expected to be placed in service through 2022- 2024 as shown  
26 in response to NDPSC-2-9). Ms. Berger has provided a breakdown of these  
27 capital investments beginning on page 14 of per testimony:

- 28 • Routine Investments - \$11.7 million
- 29 • Gas Capital Additions – 27.1 million (through 2024)

1 **Q. HOW DOES THE COMPANY ALLOCATE ITS GAS PLANT IN SERVICE**  
2 **BALANCE FROM THAT OF THE PARENT COMPANY – XCEL ENERGY AND**  
3 **NORTHERN STATES POWER COMPANY – MINNESOTA (NSPM)?**

4 **A.** The Company allocates its Gas Plant in Service (GPIS) balance by the use of  
5 jurisdiction allocations from NSPM (total utility) to the North Dakota jurisdiction.  
6 The jurisdiction cost of service study allocates rate base, capital structure, cost of  
7 capital, income taxes and cash working capital from NSPM to the North Dakota  
8 jurisdiction (Exhibit BCH-1 Schedule 15). (See also Exhibit BCH-1 Schedule 13  
9 and Schedule 14).

10  
11 **Q. DO YOU HAVE ANY CHANGES OR ADJUSTMENTS TO THE COMPANY'S**  
12 **ALLOCATIONS FACTORS USED IN THE DEVELOPMENT OF THE**  
13 **COMPANY'S REVENUE REQUIREMENT?**

14 **A.** No. I am accepting the Company's proposed allocation factors that were used in  
15 the development of the Company's revenue requirement proposal.

16 **Q. DO YOU HAVE ANY ADJUSTMENTS WITH RESPECT TO THE COMPANY'S**  
17 **GPIS BALANCE OF \$279,835,000?**

18 **A.** No. I reviewing the responses to NDPSC Data Request 3-2, the Company provided  
19 information related to certain capital expenditures expected to be placed in service  
20 up to December 31, 2024. These costs are related to the Company's Meter  
21 Module Replacement Program and the Company's Renew Aldy-A Steel Main  
22 program. In response to NDPSC Data Request 3-1, the Company provided  
23 information related to estimated in-service dates for capital additions. The  
24 Company stated that it updates its forecasts for these capital additions in July  
25 2024. Once completed the Company can provide an update for the current year  
26 forecast based upon six-months ' actuals and six-months forecasted.

27 **Q. WHAT IS YOUR RESPONSE?**

28 **A.** The Company should provide updated forecasts related to capital additions in its  
29 rebuttal testimony and provide any variances from the as-filed numbers to the  
30 update numbers, noting the reasons for such differences.

1 **Q. WHAT OTHER ADJUSTMENTS DO YOU HAVE?**

2 **A.** With respect to the Company's inclusion of Construction Work in Progress (CWIP)  
3 of \$678,000 as shown on Company Exhibit BCH-1 Schedule 15, I am  
4 recommending disallowance of these costs from the Company's Rate Base  
5 balance. Rate Base components, such as plant in service should be used and  
6 useful in the provision of utility service. Given that this plant is not used and useful  
7 I am recommending these costs be removed. Unless the Company can confirm  
8 that all CWIP balance that represent projects that have been placed in service  
9 during the test year, these costs should not be recovered from ratepayers. All plant  
10 in service should be used and useful in providing service.

11

12 **B. Accumulated Depreciation**

13 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ACCUMULATED**  
14 **DEPRECIATION?**

15 **A.** In the same manner as the Company developed its GPIS balance, the Company  
16 performed the same analysis with respect to its Accumulated Depreciation or  
17 Depreciation Reserve amount, by taking the simple average of balances at the  
18 beginning and end of test year. The Company proposed an average depreciation  
19 reserve balance of \$96,004,000 as shown on Company Exhibit BCH-1 Schedule  
20 5 and Schedule 15.

21 **Q. DO YOU HAVE ANY ADJUSTMENTS WITH THE WAY THE COMPANY**  
22 **DEVELOPED ITS ACCUMULATED DEPRECIATION BALANCE?**

23 **A.** No. I am accepting the Company's methodology as to the development of the  
24 Company's Accumulated Depreciation.

25 **Q. DO YOU HAVE ANY ADJUSTMENTS TO THE COMPANY'S GPIS BALANCE?**

26 **A.** No. I do not. This is reflected on my Schedule DM-6.

27

28

1 **C. Accumulated Deferred Income Taxes (ADIT)**

2 **Q. WHAT HAS THE COMPANY PROPOSED REGARDING ITS ACCUMULATED**  
3 **DEFERRED INCOME TAXES?**

4 **A.** The Company has proposed an ADIT balance of \$22,871,000 as shown on Exhibit  
5 BCH-1 Schedule 5 and Schedule 15. The Company used an average projected  
6 ADIT balance of projected beginning and ending 2024 test year ADIT balances.  
7 The Company incorporated the Internal Revenue Service (IRS) tax regulations  
8 (Sec. 1.167 (1) of the tax code which defines a pro-rated schedule for the extent  
9 average accumulated deferred income taxes which can be used to reduce rate  
10 base to comply with the tax normalization requirements of the Code when  
11 forecasted information is used to set rates. (Halama testimony page 20). The  
12 Company stated that it has complied with the ADIT amortization requirements in  
13 the Settlement Case PU-18-156. The Company amortized the excess plant-  
14 related ADIT using the average rate assumption method (ARAM) and amortized  
15 the unprotected, excess non-plant related ADIT over a three-year period. (Halama  
16 testimony page 21). The excess non-plant related ADIT was amortized as ordered  
17 over three-years and ended in 2020, and therefore no impact remains in the 2024  
18 test year. (Halama testimony page 21).

19 **Q. DO YOU HAVE ANY ADJUSTMENTS REGARDING THE COMPANY'S**  
20 **METHODOLOGY ON THE DEVELOPMENT OF ITS ADIT?**

21 **A.** No. I am accepting the Company's methodology as to the development of the  
22 Company's ADIT. This is reflected on my Schedule DM-7.

23  
24 **D. Cash Working Capital (CWC)**

25 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO CASH**  
26 **WORKING CAPITAL (CWC)?**

27 **A.** The Company has proposed a CWC balance of (\$726,000) as shown on Exhibit  
28 BCH-1 Schedule 3A and Schedule 5. The Company has included certain  
29 investments, various non-plant assets and liabilities, materials and supplies, and

1 fuel inventory. (Halama testimony page 21). For certain components, the  
2 Company has used thirteen-month average balances projected during the test  
3 year. (Halama testimony page 22). For other components, the Company has used  
4 a simple average of beginning and ending test year balances. The Company has  
5 calculated its CWC by applying the results of a comprehensive lead/lag study to  
6 the projected test year revenues and expenses. (Halama testimony page 23).

7 **Q. DO YOU HAVE ANY ADJUSTMENTS IN THE WAY THE COMPANY HAS**  
8 **COMPUTED ITS CWC BALANCE?**

9 **A.** No. I am accepting the Company's methodology but have adjustments related to  
10 my recommended adjustment to the Company's proposed revenues and  
11 expenses.

12 **Q. WHAT ARE YOUR ADJUSTMENTS?**

13 **A.** I have adjusted my CWC accordingly and based upon my adjustments to the  
14 Company's Rate Base components, the Operating Income and the Operating  
15 Expenses, I have calculated a CWC balance of (\$714,086). This is shown on  
16 Schedule DM-8.

17  
18 **E. Other Rate Base Items**

19 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO NON-PLANT**  
20 **ASSETS AND LIABILITIES?**

21 **A.** The Company proposed other Rate Base Item of \$7,058,000 as shown on Exhibit  
22 BCH-1 Schedule 3A and Schedule 15.

23 **Q. DO YOU HAVE ANY ADJUSTMENTS RELATED TO THE COMPANY'S**  
24 **PROPOSED OTHER RATE BASE ITEMS?**

25 **A.** No, I am accepting the Company's Other Rate Base items in the amount of  
26 \$7,060,000 as shown on my Schedule DM-3.

27  
28  
29

1 **VI. Operating Income Issues**

2 **A. Operating Revenues**

3 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS OPERATING**  
4 **REVENUES AT PRESENT RATES?**

5 **A.** The Company has proposed Operating Revenues at Present Rates of  
6 \$90,459,000 as shown on Exhibit BCH-1 Schedule 3A, and Schedule 11. The Gas  
7 Retail Revenues are comprised of \$89,990,000 plus Other Operating Revenues of  
8 \$469,000.

9 **Q. WHAT WEATHER NORMALIZATION PERIOD HAS THE COMPANY USED TO**  
10 **DEVELOP ITS SALES REVENUES?**

11 **A.** The Company has utilized a 15-year weather normalization period (Goodenough  
12 testimony page 10). Mr. Goodenough stated that the 2008 through May 2023 was  
13 used to determine the relationships of the monthly historical data and then  
14 simulated over the forecast period by assuming normal weather in terms of 20-  
15 Year averaged Heating Degree Day (HDD) and the projected levels of independent  
16 predictor variables. (Goodenough testimony page 10).

17 **Q. DO YOU HAVE ANY ADJUSTMENTS TO THE COMPANY'S OPERATING**  
18 **REVENUES AT PRESENT RATES?**

19 **A.** No, I am accepting the Company's Present Rate Revenues.  
20

21 **B. Operating and Maintenance Expenses**

22 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS OPERATING**  
23 **AND MAINTENANCE EXPENSE?**

24 **A.** As shown on Exhibit BCH-1 Schedule 3A, and Scheule 11, the Company proposed  
25 a total Operating and Maintenance Expense (O&M) balance for the 2024 test year  
26 of \$71,021,000. This balance is composed of various accounts related to  
27 Purchased Gas, Gas Production and Storage, Gas Transmission, Distribution,  
28 Customer Accounting/Customer Service, Sale/Economic Development and  
29 Administrative and General. This balance includes the Company specific

1 adjustments in each of the accounts listed above, and as shown on Exhibit BCH-  
2 1 Schedule 4 and 6.

3 **Q. WHAT ADJUSTMENTS DO YOU HAVE WITH RESPECT TO THE COMPANY'S**  
4 **OVERALL OPERATING AND MAINTENANCE EXPENSES?**

5 **A.** I have adjustments to certain of the Company's overall O&M Expense balance that  
6 do not include specific adjustments the Company has made and proposed as  
7 shown on Exhibit BCH-1 Schedule 4 and 6. My overall adjustments to the  
8 Company's certain O&M Expense incorporate the use of a three-year  
9 normalization adjustment minus any labor adjustments.

10 **Q. WHY ARE YOU USING A NORMALIZATION ADJUSTMENT TO CERTAIN OF**  
11 **THE COMPANY'S OVERALL O&M EXPENSES?**

12 **A.** A review of the Company's O&M Expenses shows that certain of the Company's  
13 balances for the periods 2021-2023 (Data Request 02-21 Attachment A) fluctuate  
14 and vary from year to year. In other accounts, the balances during the same period  
15 appear to be abnormal and irregular from what the Company is proposing to utilize  
16 and set in the test year 2024 period. In other areas there are negative balances  
17 or no prior costs accounted for. Data Request 02-021 reflects these fluctuations  
18 and variabilities from year to year. A further inquiry of certain expense breakdown  
19 categories were asked for and received in Data Request 2-19 and 2-20. The use  
20 of a three-year normalization period smooths out fluctuations in setting rates going  
21 forward. Prior costs can also show and provide a trend of expenses that were  
22 incurred by the Company to determine the reasonableness of the adjustments in  
23 costs going forward. It is appropriate to normalize these types of costs to set rates  
24 in this proceeding, whether these costs represent increases or decreases in the  
25 Company's proposed overall costs.

26 **Q. DID YOU ASK THE COMPANY WHETHER IT USED CPI ADJUSTMENTS IN**  
27 **THE DEVELOPMENT OF ITS EXPENSES?**

28 **A.** Yes, I did. In response to Data Request 2-7, I asked the Company for all CPI  
29 indices used in the development of the Company's 2024 expenses. The Company  
30 stated that CPI's were not used directly in the development of the revenue

1 requirement. Business areas may use inflation factors to develop certain  
2 projections of specific anticipated costs, such as materials, non-labor and labor  
3 costs.

4 **Q. HAS THE COMPANY STATED WHAT FACTORS IMPACTED THE COMPANY'S**  
5 **GAS BUSINESS AND THE NEED FOR THIS INSTANT RATE INCREASE?**

6 **A.** Yes. In Mr. Halama's testimony page 5, he stated that several notable factors  
7 impacted the Company's gas business since the Company's last gas rate case  
8 primarily inflation, supply chain disruptions. Mr. Halama stated that unprecedented  
9 inflation has affected the cost of capital investments and operations from the cost  
10 of materials and supplies to the cost of paying employees and contractors. These  
11 issues continue to drive costs since the Company developed its future test year  
12 forecast from the last rate case in 2021.

13 **Q. WHAT IS YOUR RESPONSE?**

14 **A.** Inflation and supply chain issues as well as disruptions in the Company's gas  
15 operations have declined and tapered off dramatically in 2024<sup>4</sup>. Fuel prices have  
16 been in the decline since the Company has filed its last rate proceeding and  
17 continue to be lower than what the Company has experienced in the past.

18 **Q. UTILIZING YOUR THREE-YEAR NORMALIZATION APPROACH WHAT IS**  
19 **YOUR OVERALL ADJUSTMENT TO THE COMPANY'S O&M EXPENSE?**

20 **A.** As more fully reflected on Schedule DM-10, and the breakdown of each of these  
21 expenses as shown on DM-11 through DM-18, my three-year normalization  
22 adjustments (which does not include labor adjustments) is an overall decrease of  
23 approximately \$974,000. In reviewing these three-year expenses, I identified costs  
24 that exceed 10% overall, which I believe is appropriate in setting rates for service.  
25 I believe a variance of 10% or greater presents a reason to decide whether the  
26 costs presented in the test year requires a need to make an adjustment in setting  
27 rates prospectively.

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<sup>4</sup> [Current US Inflation Rates: 2000-2024 \(usinflationcalculator.com\)](https://www.usinflationcalculator.com)

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**B1. Normalization of O&M Expenses**

**1. Gas Production & Storage**

**Q. WHAT IS YOUR NORMALIZED ADJUSTMENT TO THE COMPANY’S GAS PRODUCTION & STORAGE EXPENSE?**

**A.** In response to Data Request 2-21, the Company provided a three-year breakdown of its Gas Production and Storage Expenses. In reviewing these three-year expense levels, I identified costs that fluctuated from year to year. These expenses are identified on my Schedule DM-12. In total, these costs have varied by 10% from the 2021 through the 2023 calendar periods. Normalizing these costs increases these costs by \$33,860. I am recommending an additional \$33,860 of Gas Production and Storage costs for 2024.

**2. Transmission Expense**

**Q. WHAT IS YOUR NORMALIZED ADJUSTMENT TO THE COMPANY’S GAS TRANSMISSION EXPENSE?**

**A.** In response to Data Request 2-21, the Company provided a three-year breakdown of its Gas Transmission Expenses. In reviewing these three-year expense levels, I identified costs that fluctuated from year to year. These expenses are identified on my Schedule DM-13. In total these costs have varied by (-68.54%) from the 2021 through the 2023 calendar periods. Normalizing these costs reduces these costs by \$144,763. I am recommending a reduction of \$144,763. This is shown on my Schedule DM-13.

**3. Gas Distribution**

**Q. WHAT IS YOUR NORMALIZED ADJUSTMENT TO THE COMPANY’S GAS DISTRIBUTION EXPENSE?**

**A.** In response to Data Request 2-21, the Company provided a three-year breakdown of its Gas Distribution Expenses. In reviewing these three-year expense levels, I identified costs that fluctuated from year to year. These expenses are identified on my Schedule DM-14. In total these costs have varied by 40.00% from the 2021

1 through the 2023 calendar periods. Normalizing these costs reduces these costs  
2 by \$142,456. I am recommending a reduction of \$142,456. This is shown on my  
3 Schedule DM-14.

#### 4 **4. Administrative & General Expenses (A&G)**

5 **Q. WHAT IS YOUR NORMALIZED ADJUSTMENT TO THE COMPANY'S**  
6 **ADMINISTRATIVE AND GENERAL EXPENSES?**

7 **A.** In response to Data Request 2-21, the Company provided a three-year breakdown  
8 of its A&G Expenses. In reviewing these three-year expense levels, I identified  
9 costs that fluctuated from year to year. These expenses are identified on my  
10 Schedule DM-18. In total these costs have varied by 15.07% from the 2021  
11 through the 2023 calendar periods. Normalizing these costs reduces these costs  
12 by \$146,924. I am recommending a reduction of \$146,924. This is shown on my  
13 Schedule DM-14.

#### 14 **5. Other Normalization Adjustments**

15 **Q. WHAT OTHER NORMALIZATION ADJUSTMENTS DO YOU HAVE?**

16 **A.** In response to Data Request 2-20, the Company provided a breakdown of its  
17 software maintenance and licensing agreements related to new applications,  
18 existing applications and cyber security threats. The Company stated that the  
19 software increases are primarily due to cost of living adjustments (COLA) and new  
20 software applications, of which the COLA is approximately 8% annually.

21 **Q. WHAT ARE YOUR ADJUSTMENTS?**

22 **A.** I am recommending disallowance of the COLA adjustment of 8%. The Company  
23 has shown that its software costs are \$356,291 in the test year period. The  
24 Company has identified that these costs in 2022 were \$263,968, or an increase of  
25 \$92,324. The Company has not provided any other breakdown as to these  
26 increased costs. (In response to 2-20, the Company objected to this question as  
27 overly broad and unduly burdensome). With respect to my disallowance of the  
28 Company's COLA adjustments, these types of costs are not known and  
29 measurable because they do not reflect the true or actual cost of expenses

1 expected to be incurred in the test year. Inflation type adjustments are typically  
2 blanket type adjustments which do not directly relate to actual costs to the  
3 Company. Costs should be based upon evidence or documentation that supports  
4 the Company's adjustments. Therefore, I am recommending disallowance of the  
5 Company's \$92,323 adjustment in the test year.

6 **Q. WHAT IS YOUR NEXT ADJUSTMENT?**

7 **A.** In response to Data Request 2-20, the Company provided a breakdown of its  
8 Outside Services. The Company provided a list of costs totaling \$718,819. In  
9 reviewing these expenses, the Company has eliminated certain expenses from its  
10 2020-2023 expense categories. Given that these expenses categories were  
11 eliminated or accounted for elsewhere, I normalized the Company's re-occurring  
12 costs. The calculates to a balance of \$420,903. I then adjusted the Company's  
13 proposed balance of \$718,819 by \$420,903 to arrive at an adjustment of \$297,916.  
14 (In response to Data Request 2-20, the Company objected to this data response  
15 stating that it was overly broad and unduly burdensome). Given this objection, it  
16 is appropriate to normalize these costs over prior actual costs incurred. The  
17 Company has provided no other information to support this increase projection.  
18 My adjustment is shown on my Schedule DM-10.

19  
20 **C. Purchased Gas Expenses**

21 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS**  
22 **PURCHASED GAS EXPENSES?**

23 **A.** As shown on Company Exhibit BCH-1 Schedule 6, the Company has proposed a  
24 balance of \$58,155,000.

25 **Q. WHAT ADJUSTMENTS DO YOU HAVE REGARDING THE COMPANY'S**  
26 **PROPOSED PURCHASED GAS EXPENSES?**

27 **A.** In reviewing the Company's filing and related data responses to Purchased Gas  
28 Expenses, I am accepting the Company's balance of \$58,155,000. This is shown  
29 on my Schedule DM-11.

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**D. Gas Production & Storage Expenses**

**Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS PURCHASED GAS EXPENSES?**

**A.** As shown on Company Exhibit BCH-1 Schedule 6, the Company has proposed a balance of \$2,300,000.

**Q. WHAT ADJUSTMENTS DO YOU HAVE REGARDING THE COMPANY'S PROPOSED PURCHASED GAS EXPENSES?**

**A.** In reviewing the Company's filing and related data responses to Purchased Gas Expenses, except for my three-year normalization balance adjustment, I am accepting the Company's remaining balance that represent the Company's Gas Production and Storage expense. This is shown on my Schedule DM-12.

**E. Gas Transmission Expenses**

**Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS GAS TRANSMISSION EXPENSES?**

**A.** As shown on Company Exhibit BCH-1 Schedule 6, the Company has proposed a balance of \$295,000.

**Q. WHAT ADJUSTMENTS DO YOU HAVE REGARDING THE COMPANY'S PROPOSED GAS TRANSMISSION EXPENSES?**

**A.** In reviewing the Company's filing and related data responses to the Gas Transmission Expenses, except for my three-year normalization balance adjustment, I am accepting the Company's remaining balance representing the Gas Transmission expenses. This is shown on my Schedule DM-13.

**F. Gas Distribution Expenses**

**Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS GAS TRANSMISSION EXPENSES?**

**A.** As shown on Company Exhibit BCH-1 Schedule 6, the Company has proposed a balance of \$5,282,000.

1 **Q. WHAT ADJUSTMENTS DO YOU HAVE REGARDING THE COMPANY'S**  
2 **PROPOSED GAS DISTRIBUTION EXPENSES?**

3 **A.** In reviewing the Company's filing and related data responses to the Gas  
4 Transmission Expenses, except for my three-year normalization balance  
5 adjustment, I am accepting the Company's remaining balances representing the  
6 Gas Distribution expenses. This is shown on my Schedule DM-14.

7 **G. Customer Accounting Expenses**

8 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS CUSTOMER**  
9 **ACCOUNTING EXPENSES?**

10 **A.** The Company proposed a balance of \$1,354,000 as shown on Company Exhibit  
11 BCH-1 Schedule 6. The Company began with a balance of \$1,318,000 and added  
12 \$35,291 related to the additional bad debt expense related to the Company's  
13 proposed revenue requirement increase of \$8,463,000. The Company utilized a  
14 bad debt expense rate of 0.42% as shown on Company WP-A7.

15 **Q. WHAT ADJUSTMENTS DO YOU HAVE?**

16 **A.** My adjustment reflects my overall recommended revenue requirement adjustment  
17 multiplied by the Company's .42% rate of uncollectible or bad debt expense. This  
18 produces an adjustment of \$26,455, or a reduction of \$8,836 from the Company's  
19 balance of \$35,291. My adjustment is shown on my Schedule DM-15.

20

21 **H. Customer Service & Information Expenses**

22 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS CUSTOMER**  
23 **SERVICE & INFORMATION EXPENSES?**

24 **A.** The Company proposed a balance of \$192,000 as shown on Company Exhibit  
25 BCH-1 Schedule 6. The Company adjusted this balance to removed \$40,000  
26 related to its Advertising Expense (WP-A1) to arrive at a balance of \$152,000.

27 **Q. WHAT WERE THE COMPANY'S TOTAL ADVERTISING COSTS PROPOSED**  
28 **IN 2024?**

1 **A.** As shown on Workpaper A1-Advertising, the Company recorded total Advertising  
2 Costs of \$112,479. The remaining Advertising Costs included were related to  
3 Customer Assistance, Informational and Instructional expense, Economic  
4 Development and A&G General Advertising.

5 **Q. WHAT ADJUSTMENTS DO YOU HAVE REGARDING THE COMPANY'S**  
6 **CUSTOMER SERVICE & INFORMATION EXPENSE – ADVERTISING?**

7 **A.** I am removing \$5,070 of Advertising Expense that is related to Economic  
8 Development. Since I am recommending removing Economic Development  
9 Donations under the Company's Sales, Economic Development & Other  
10 Expenses, I am recommending that these costs under Advertising should also be  
11 removed. My arguments for removing these costs are as outlined below under  
12 Section I. My recommendation is shown on my Schedule DM-16.

13

14 **I. Sales, Economic Development & Other Expenses**

15 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO SALES,**  
16 **ECONOMIC DEVELOPMENT AND OTHER EXPENSES?**

17 **A.** As shown on Exhibit BCH-1 Schedule 6, the Company proposed a balance of  
18 \$5,458 to its Sales, Economic Development and Other Expenses. The Company  
19 then added \$4,000 related to Economic Donations in the amount of \$4,000 to  
20 arrive at a balance of \$9,458. The Company provided Workpaper A10 in support  
21 of the \$4,000 related to the allocation portion of Economic Development to ND Gas  
22 Jurisdiction.

23 **Q. WHAT IS INCLUDED IN THE COMPANY'S ECONOMIC DEVELOPMENT**  
24 **DONATIONS?**

25 **A.** Company Witness Mr. Halama (Exhibit BCH-1 page 37) stated that the Company  
26 makes contributions to a number of regional and local economic development  
27 organizations positioned to combine resources for the purposes of maintaining and  
28 improving the long-term economic health of communities in its service territory or  
29 retaining employment opportunities and expanding the state and local tax base. In  
30 Workpaper A10, the did not provide a detailed breakdown of these costs. In

1 response to 2-12, the Company was asked to provide a breakdown of these costs  
2 and referred to Workpaper A-10, which provided no further information.

3 **Q. WHAT IS YOUR POSITION ON ECONOMIC DEVELOPMENT DONATIONS?**

4 **A.** I do not believe that ratepayers should pay for these types of costs in rates. These  
5 expense items are akin to charitable contributions. The Company is a utility  
6 company providing gas utility service to certain parts of North Dakota. The  
7 Company should not be expensing costs related to non-utility type services, nor  
8 be in a position to support regional and local economic development. These type  
9 of initiatives should be provided at the State and Local or even at the Federal level.  
10 Additionally, ratepayers do not have a say in what type of donations they are  
11 paying for, or whether ratepayers receive any benefit for these contributions.  
12 These types of costs should not be included in the revenue requirement proposed  
13 by the Company. The Company should pay for these costs, below the line, and  
14 receive the tax benefits through the corporate entity.

15 **Q. WHAT IS YOUR RECOMMENDATION?**

16 **A.** I am recommending removal of the \$4,000 of Economic Development Donations  
17 from the Company's Sales, Economic Development and Other Expenses balance.  
18 This is shown on Schedule DM-17.

19  
20 **J. Administrative & General Expenses**

21 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS**  
22 **ADMINISTRATIVE AND GENERAL EXPENSES?**

23 **A.** As shown on Exhibit BCH-1 Schedule 6, the Company proposed an Unadjusted  
24 Balance of \$3,593,554, Precedential Adjustments of (\$187,000) and Ratemaking  
25 Adjustments of \$68,000, computing to Adjusted Balance of \$3,474,000. These  
26 adjustments reflect Precedential Adjustments which the Company has not  
27 changed from prior rate case treatment and exhibit Commission Policy Statements  
28 and Rate Case Adjustments related to particular adjustments in this case, (Halama

1 testimony page 33). I will address each of these Precedential and Ratemaking  
2 Adjustments below.

3 **Q. WHAT SPECIFIC PRECEDENTIAL ADJUSTMENTS HAS THE COMPANY**  
4 **PROPOSED IN THIS PROCEEDING?**

5 **A.** The Company has proposed the following Precedential Adjustments:

6 **Precedential Adjustments**

7	Advertising -	(\$ 34,000)	WP A1
8	Association Dues	(\$ 3,000)	WP-A2
9			
10	Incentive Pay	(\$ 20,000)	WP A4
11	Incentive Pay LTI	(\$ 130,000)	WP A5
12			

13 **Q. WHAT ADJUSTMENTS DO YOU HAVE REGARDING THE COMPANY'S**  
14 **PRECEDENTIAL ADJUSTMENTS?**

15 **A.** I have reviewed each of the Company's Precedential Adjustments, and I am  
16 accepting the Company's adjustments totaling (\$187,000). This is shown on my  
17 Schedule DM-18.

18  
19 **Q. WHAT ARE THE OTHER SPECIFIC ADJUSTMENTS HAS THE COMPANY**  
20 **PROPOSED IN THIS PROCEEDING?**

21 **A.** The Company has proposed five Ratemaking Adjustments:

22 **Ratemaking Adjustments**

23	a.	Aviation	(\$35,000)	WP A3
24	b.	Dues - Chamber of Commerce	\$ 3,000	WP A9
25	c.	Foundational Donations	\$22,000	WP A11
26	d.	Incentive Pay – Environ. LTI	\$16,000	WP A12
27	e.	Incentive Pay – Time Based LTI	\$62,000	WP A13
28				

29 **Q. WHAT ADJUSTMENTS DO YOU HAVE REGARDING THE COMPANY'S**  
30 **RATEMAKING ADJUSTMENTS ABOVE?**

31 **A.** I adjusted the Company's Ratemaking Adjustments per above and which is  
32 reflected on Schedule DM-18.

- 1 a. Chamber of Commerce Dues – (\$3,000)
- 2 b. Foundational Donations – (\$22,000)
- 3 c. Incentive Pay Environmental LTI – (Await response to 2-5)
- 4 d. Incentive Pay Time Based LTI - (Await response to 2-5)
- 5 a. Dues - Chambers of Commerce

6

7 **Q. WHAT HAS THE COMPANY INCLUDED IN ITS CHAMBERS OF COMMERCE?**

8 **A.** The Company has included \$3,000 of Chamber of Commerce Dues in revenue  
9 requirement request. (Workpaper A9 and Company Exhibit BCH-1 Schedule 4).  
10 Company witness Mr. Halama stated that these costs provide an essential link  
11 between the Company and the communities it serves and facilitate improved utility  
12 service (Halama testimony page 37). Mr. Halama stated that because membership  
13 in these organizations provide benefits to all utility customers, recovery of  
14 membership dues paid to Chambers of Commerce is appropriate. (Halama  
15 testimony page 36).

16 **Q. WHAT ARE YOUR ADJUSTMENTS?**

17 **A.** I am recommending no recovery because this type of cost does not benefit North  
18 Dakota ratepayers. This cost mainly serves to advance the policy positions before  
19 State and Governmental agencies and to communicate its corporate citizenship  
20 initiatives. Ratepayers should not be required to pay for such costs, which provide  
21 no meaningful benefits to utility service. I am recommending removal the  
22 Company’s Chamber of Commerce costs of \$3,000. Further, in response to Data  
23 Request 2-12, the Company has not provided any detailed breakdown of these  
24 costs. My adjustment is shown on my Schedule DM-18.

25 b. Foundational Donations

26 **Q. WHAT HAS THE COMPANY INCLUDED IN ITS FOUNDATION AND OTHER**  
27 **ECONOMIC DONATIONS?**

28 **A.** The Company has included \$22,000 (50%) of costs related to Foundational  
29 Donations. Company witness Mr. Halama stated that the Company makes  
30 contributions to a number of charities and institutions that could be associated with  
31 the Company’s North Dakota Jurisdiction. (Halama testimony page 38).

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**Q. WHAT IS YOUR RECOMMENDATION?**

**A.** I am recommending that the \$22,000 costs related to Economic Development Donations be removed from the Company’s costs of service. In response to Data Request 2-12, the Company stated that it does not specify specific recipients of contributions in a forecasted test year. Given this lack of information, I believe these costs, which are similar to charitable contributions, should be removed from the Company’s cost of service because ratepayers do not have any say of what type of contributions they are paying for. These types of payments do not benefit ratepayers, and as I stated previously in my testimony, only benefits the Company as being good corporate citizens. These costs should be funded below the line by the shareholders of the Company and receive a tax benefit through the corporate entity. The Company does not have the right to make others pay for charitable contributions, especially those costs that do not provide specific benefits to its ratepayers. My recommendation is shown on my Schedule DM-18.

c. Incentive Pay – Environmental LTI

**Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO INCENTIVE PAY – ENVIRONMENTAL LTI?**

**A.** According to Company witness Mr. Halama, the Company is seeking to include \$16,000 in rates for the Long-Term Incentive program (LTI) for its Environmental LTI, as shown on Company Exhibit BCH-1 Schedule 4. (Workpaper A-11). Company witness Mr. Krug stated that the LTI is available to the Company’s senior and executive level employees, of which less than five percent of exempt and non-bargaining employees are eligible for LTI. The LTI is intended to incentivize these senior employees to effectively manage the Company towards its overall goals and in the best interest of customers and shareholders. (Krug testimony page 24). The LTI is geared toward employees who have a higher influence in the Company’s direction and strategy. The LTI program helps retain key employees and is

1 necessary for Xcel Energy to remain competitive in the labor market. The  
2 Environment portion is tied into achieving the Company's environmental goals  
3 which will result in efficiencies, allow for a lower cost of capital and remove fuel  
4 costs in addition to environmental benefits and other benefits. (Krug testimony  
5 page 23-24).

6 **Q. DID THE COMPANY PROVIDE ANY INFORMATION WITH RESPECT TO GOAL**  
7 **ACHIEVEMENT AND SCORECARD RESULTS?**

8 **A.** In response to Data Request 2-13, the Company stated that 2024 Corporate  
9 Scorecard included the following 2024 Goals:

10	Customer Satisfaction	20%
11	Public Safety	20%
12	Electric System Reliability	20%
13	Employee Safety	20%
14	DEI	10%
15	Wind Availability	<u>10%</u>
16	Total	100%

17 **Q. DID YOU ASK THE COMPANY TO "LINE UP" THE COSTS RELATED TO THE**  
18 **COMPANY'S ANNUAL INCENTIVE PLAN TO THE WEIGHTED GOALS AS**  
19 **IDENTIFIED ABOVE?**

20 **A.** Yes. In response to NDPSC 3-3, the Company responded stating that it is not  
21 possible to line up the Corporate Scorecards as shown in response to NDPSC 2-  
22 13 Attachment B with the AIP and LTI costs shown in Attachment A of NDPSC-2-  
23 13.

24 **Q. WHAT IS YOUR RESPONSE?**

25 **A.** Given this response, and the absence of information I am unable to formulate a  
26 recommendation with respect to whether the goals related to the above Scorecard  
27 actually benefits ratepayers in the areas as outlined above.

1 **Q. WHAT ADJUSTMENTS DO YOU HAVE?**

2 **A.** I do not see any connection or correlation with respect to the Company's Goal  
3 Achievement and Scorecard results as indicated about and the Company's  
4 proposed Incentive Pay – Environmental LTI costs. I believe these types of  
5 incentive costs benefits shareholders because they incentives key employees to  
6 stay with the Company and I do not see any nexus between these incentive costs  
7 and the Company's Corporate Scorecard Goals shown above. I do not see any  
8 customer oriented benefits accruing to ratepayers with respect to the Company's  
9 rewarding executives to stay with the Company. These types of executive rewards  
10 are the sole responsibility of the Company and its shareholders to pay for, and not  
11 the responsibility of ratepayers to pay for these costs in the provision of utility  
12 services.

13 d. Incentive Pay – Time Based LTI

14 **Q. WHAT HAS THE COMPANY PROPOSED RELATED TO ITS TIME BASE LTI?**

15 **A.** The Company has proposed to recover \$62,000 based upon an LTI which is a  
16 program tied to the length of key employee's service with the Company. The  
17 Company stated that it benefits from its ability to retain institutional knowledge and  
18 capabilities of key employees. (Krug testimony page 25) (Exhibit BCH-1 Schedule  
19 4) (Workpaper A13).

20 **Q. WHAT ADJUSTMENTS DO YOU HAVE?**

21 **A.** As I stated previously above regarding the Company's Incentive Pay for its  
22 Environmental LTI, I am also recommending disallowance of costs related to the  
23 Company's Time Based LTI. These costs do not provide any customer oriented  
24 goals but rather rewards key employees to stay with the Company for a period of  
25 time. These types of incentive costs should be borne by the Company and its  
26 shareholders as these costs benefit the Company and its shareholders to stay with  
27 the Company. The Company has the opportunity to recover these costs only if  
28 they benefit ratepayers in the areas of safe and reliable service, customer  
29 satisfaction, safety and other associated ratepayer benefits. These types of

1 incentive goals relate to the Company's financial performance and goals and  
2 shareholder interests and the alignment of shareholder goals. The Company  
3 should not have unfettered access to ratepayer's money when it does not benefit  
4 ratepayers. My recommendation is shown on my Schedule DM-18.

5 **K. Labor Vacancy Adjustments**

6 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO LABOR**  
7 **EXPENSE?**

8 **A.** The Company has not specifically identified the level of Labor costs in its filing.  
9 Through discovery the Company was asked to provide a schedule of employees  
10 expected to be hired in 2024 as well as other labor related information to determine  
11 the level of payroll to be included in the test year 2024. As shown on Data  
12 Response to 2-14 Attachment A, the Company proposed total Labor Expense of  
13 \$6,094,700 for all employee categories. The Company objected to the requests  
14 identified in Data Request 2-14 in that it is not relevant and not likely to lead to the  
15 discovery of admissible evidence. Among other things, headcount does not  
16 provide meaningful insight into the Company's labor expense for its North Dakota  
17 gas utility service.

18 **Q. DID THE COMPANY PROVIDE A SCHEDULE OF EMPLOYEES EXPECTED TO**  
19 **BE HIRED BY NSPC-GAS COMPANY IN THE PROJECTED YEAR 2024?**

20 **A.** While the Company objected to Data Request 2-15, (CONFIDENTIAL Attachment  
21 A) the Company provided a schedule of employees expected to be hired in the  
22 2024 test year period. No other information was provided.

23 **Q. HAS THE COMPANY PERFORMED A VACANCY RATE ANALYSIS FOR THE**  
24 **NSPC- GAS UTILITY OPERATIONS?**

25 **A.** No. In fact, the Company objected to Data Request 2-17, as being overly broad  
26 and unduly burdensome. The request seeks a relatively large volume of detailed  
27 information in a format not readily kept by the Company and which would require  
28 a special study to produce.

29 **Q. WHAT APPROACH HAVE YOU DETERMINED TO ADJUST LABOR COSTS?**

1 **A.** I am recommending an adjustment of labor for all O&M labor by functional group  
2 by the use of a vacancy rate analysis. I relied on the Company's response to Data  
3 Request 2-17, which shows the level of employees from 2020 through projected  
4 test year 2024. Given that the Company allocates its labor costs by jurisdictional  
5 allocation, and these can vary from year to year, it is appropriate to adjust these  
6 labor costs prospectively. Labor costs can vary from year to year in each of  
7 NSPM's service territories and depending on the circumstances and the need to  
8 allocate labor, costs can vary.

9 **Q. HOW DID YOU ADJUSTMENT TO THE COMPANY'S TOTAL LABOR COSTS?**

10 **A.** I began with the number of employees of NSPM – Minnesota (Data Response 2-  
11 17 Attachment A) which shows the number of employees from 2020 through 2024.  
12 I then took the Company's proposed level of employees in 2024 of 3,238 and  
13 compared that number the average level of employees in in 2021-2023). This  
14 resulted in an average number of employees of 3,143, or a difference of 95  
15 employees expected to be in place in 2024 of 3,238. This results in a ratio of  
16 3.012% (95 / 3,143).

17 **Q. WHAT WERE YOUR NEXT STEPS?**

18 **A.** I then took the ratio of 3.012% and multiplied that ratio by the total Labor costs  
19 allocated to the North Dakota – Gas Operations of \$6,094,700 shown on Data  
20 Response 2-17 to arrive at an adjustment of \$183,572. This is shown on my  
21 Schedule DM-10.

22

23 **L. Depreciation Expenses**

24 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO DEPRECIATION**  
25 **EXPENSE?**

26 **A.** The Company proposed an Unadjusted Depreciation Expense balance of  
27 \$9,541,000 as shown on Exhibit BCH-1 Schedule 6. The Company proposed an  
28 adjustment of (\$176,000) related to adjustments with respect to its Depreciation  
29 Study. (Workpaper A8). This produced a balance of \$9,369,000.

1 Q. WHAT ADJUSTMENTS DID THE COMPANY INCORPORATE THAT  
2 RESULTED IN A REDUCTION OF DEPRECIATION EXPENSE?

3 A. According to Company witness Ms. Johnson she proposed changes for approved  
4 lives, net salvage value rates, retirement curves and depreciation rates. (Johnson  
5 testimony page 12). Table 2 of Ms. Johnson's testimony reflected the summary of  
6 depreciation expense change by functional class. The total adjustment shown on  
7 Table 2 reflects a decrease of \$171,868. (Johnson testimony page 14).

8  
9 Q. WHAT ADJUSTMENT DO YOU HAVE WITH RESPECT TO THE COMPANY'S  
10 DEPRECIATION EXPENSE?

11 A. I do not have any adjustments related to the Company's Depreciation Study and  
12 Remaining Life Adjustments. I do not have any adjustment related to the removal  
13 of certain plant additions. This is shown on my Schedule DM-19.

14  
15 **M. Amortization Expense**

16 Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS  
17 AMORTIZATION EXPENSE?

18 A. The Company has proposed a total Amortization Expense of \$567,317 (Exhibit  
19 BCH-1 Schedule 6). The breakdown is as follows:

20  
21

22	a).	Income Tax Tracker	\$ 9,317
23	b).	NOL ADIT ARAM	\$ 60,000
24	c).	Rate Case Expenses	<u>\$498,000</u>
25		<b>Total</b>	<b><u>\$567,317</u></b>

26 a). Income Tax Tracker - \$9,317

27 Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS INCOME  
28 TAX TRACKER OF \$9,317?

29 A. The Company stated that it has concluded tax audits with the IRS and the  
30 Minnesota Department of Revenue for tax years 2010-2016, and as a result of the  
31 audits, the Company paid tax and interest on the disputed amounts. The Company

1 is proposing to recover these costs over a three year period. (Halama testimony  
2 page 39). (\$27,951/3) (WP A14).

3 **Q. WHAT IS YOUR RECOMMENDATION?**

4 **A.** I am accepting the Company's Income Tax Tracker proposal, and the costs  
5 allocated to the North Dakota jurisdiction of \$27,951 and amortized over a three-  
6 year period or \$9,317 annually. This is shown on Schedule DM-20.

7

8

9 b). NOL ADIT ARAM - \$60,000

10

11 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS NET**  
12 **OPERATING LOSS TAX REFORM REGULATORY AMORTIZATION?**

13 **A.** The Company is proposing to amortize the NOL ADIT ARAM over a 23-year  
14 period. The Commission's Order in PU-18-156 approved the Company's proposed  
15 amortization level included in the Tax Cuts and Jobs Act (TCJA) refund calculation.  
16 (Halama testimony page 40). (WP A15).

17 **Q. WHAT ADJUSTMENTS DO YOU HAVE?**

18 **A.** I am accepting the Company's proposal related to the \$60,000 annual amortization  
19 expense related to the NOL ADIT ARAM. My adjustment is shown on Schedule  
20 DM-20.

21 c). Rate Case Expenses \$498,000

22 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS RATE CASE**  
23 **EXPENSES?**

24 **A.** The Company has proposed to recover about \$1.381 million (\$1.381 million / 3  
25 three years or \$498,000 annually) of projected direct costs associated with this  
26 rate case docket and a three-year amortization period. (Halama testimony page  
27 40). (WP A16).

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**Q. WHAT IS YOUR RECOMMENDATION?**

**A.** I am accepting the Company’s proposed rate case expense balance of \$1.381 million, and the 3 year amortization period to or an annual recovery of \$498,000. My adjustment is shown on Schedule DM-20.

**N. Taxes Other Than Income Taxes**

**Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO TAXES OTHER THAN INCOME TAXES?**

**A.** As shown on Company Exhibit Schedule 3A page 2 of 3, and in Exhibit BCH-1 Schedule 6, the Company proposed total Taxes other Than Income Taxes of \$3,693,000.<sup>5</sup> The breakdown representing the balance is as follows:

a).	Property Taxes – Net	\$2,020,000
b).	Deferred Income Taxes	\$1,277,000
c).	Payroll – (Adj.)	<u>\$ 396,000</u>
	<b>Total</b>	<b>\$ 3,693,000</b>

a). Property Taxes – Net - \$2,020,000

**Q. HOW DID THE COMPANY DEVELOP ITS PROPERTY TAX BALANCE OF \$2,020,000?**

**A.** In response to Public Data Request 2-25, the Company is allocated a portion of its Property Taxes from NSPM-Minnesota. (WP-P6 Property Taxes).

**Q. DO YOU HAVE ANY ADJUSTMENTS TO THE COMPANY PROPERTY TAX BALANCE?**

**A.** No. Given that I did not have any adjustments to the Company’s UPIS balance, I do not have any adjustments to the Company’s proposed Property Taxes. My adjustment is shown on my Schedule DM-21.

<sup>5</sup> Any differences due to rounding.

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b). Deferred Income Taxes - \$1,277,000

**Q. WHAT DID THE COMPANY PROPOSED WITH RESPECT TO ITS DEFERRED INCOME TAXES?**

**A.** The Company proposed a balance to its Deferred Income Taxes of \$1,277,000 as shown on Company Schedule 3A page 2 of 3.

**Q. WHAT ADJUSTMENTS DO YOU HAVE?**

**A.** I am accepting the Company balance to its Deferred Income Taxes of \$1,277,000. These costs relate to tax additions and deductions which determine deferred income taxes and the resulting tax income that is used to calculate the federal and state income taxes. (Halama testimony page 26). The federal income tax rate reflects a 21% rate effective January 1, 2018 with the enactment of the TCJA. The utilization or generation of net operating losses or tax credits impact both deferred income taxes and federal and state income taxes. (Halama testimony page 26). My adjustment is shown on my Schedule DM-21.

c). Payroll – (Adj.) \$396,000

**Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS PAYROLL TAXES?**

**A.** The Company proposed a payroll tax adjustment of \$396,000. Since I made adjustments to the Company's Labor balance, and Incentive Compensation I am making the associated adjustment to the Company's Payroll Taxes and Others. I utilized the Company's O&M Labor assigned to the North Dakota jurisdiction (Data Response 2-17) of \$6,094,700 and the Company's proposed Payroll of \$396,000 to arrive at a 6.497% ratio. I then took my adjustments to Labor and Incentive Compensation and multiplied the balance by 6.497% to arrive at a Payroll adjustment of \$16,994.

1 **Q. WHAT IS YOUR TOTAL ADJUSTMENT RELATED TO THE COMPANY'S**  
2 **TAXES OTHER THAN INCOME TAXES?**

3 **A.** My adjustment is a decrease of \$16,994. This is shown on Schedule DM-21.  
4

5  
6 **O. State Income Taxes**

7 **Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS STATE**  
8 **INCOME TAXES?**

9 **A.** The Company proposed a State Income Tax Expense of \$288,755 (Schedule DM-  
10 22). This is comprised of Current State Income Taxes of (\$76,000) and Proposed  
11 State Income Taxes of \$364,755, shown on Exhibit BCH-1 Schedule 3A.

12 **Q. HOW DID THE COMPANY COMPUTE ITS STATE INCOME TAX?**

13 **A.** The Company computed its State Income Taxes by using the Statutory State Tax  
14 Rate of 4.31% (Exhibit BCH-1 Revised Schedule 3A) and multiplying that rate by  
15 the proposed Revenue Requirement of \$8,463,000 to arrive at a balance of  
16 \$288,755. (Company Exhibit BCH-1 Schedule 11).

17 **Q. HOW DID YOU COMPUTE YOUR STATE INCOME TAXES FOR PURPOSES**  
18 **OF THIS PROCEEDING?**

19 **A.** I utilized the Company's methodology, and the flow-throughs of my adjustments to  
20 Operating Revenues, Operating Expenses, Depreciation and Amortization  
21 Expense, and Rate Base related adjustments, to compute my recommended State  
22 Income Tax adjustment.

23 **Q. WHAT IS YOUR STATE INCOME TAX EXPENSE?**

24 **A.** My proposed State Income Tax Expense is \$197,430, which is calculated by taking  
25 my recommended revenue requirement of \$6,344,087 and multiplying that amount  
26 by 4.31% to arrive at a balance of \$273,430 and adjusting for the current balance  
27 of (\$76,000) and is shown on my Schedule DM-22. The additional State Income  
28 Tax is incorporated into my revenue requirement Schedule DM-1 through the  
29 Gross Revenue Conversion Factor of 1.322837.

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**P. Federal Income Taxes**

**Q. WHAT HAS THE COMPANY PROPOSED WITH RESPECT TO ITS FEDERAL INCOME TAXES?**

**A.** The Company has proposed a Federal Income Tax Expense of \$1,353,631. This is comprised of current Federal Income Taxes of (\$347,000) and proposed Federal Income Taxes of \$1,700,631 shown on Company Exhibit BCH-1 Schedule 3A.

**Q. HOW DID THE COMPANY COMPUTE ITS FEDERAL INCOME TAX EXPENSE?**

**A.** The Company computed its Federal Income Taxes by using the Statutory Federal Tax Rate of 21.00% (Exhibit BCH-1 Revised Schedule 3A) and multiplying that rate by the Company's proposed Revenue Requirement of \$8,463,000 to arrive at a balance of \$1,353,631.

**Q. HOW DID YOU COMPUTE YOUR FEDERAL INCOME TAXES FOR PURPOSES OF THIS PROCEEDING?**

**A.** As I calculated the Company's State Income Taxes, I have used the same methodology to calculate the Company's Federal Income Taxes. Using my recommended Revenue Requirement increase of \$6,344,087, I multiplied that amount by 21% to arrive at a proposed Income Tax Expense of \$1,274,838.

**Q. WHAT IS YOUR FEDERAL INCOME TAX EXPENSE?**

**A.** My proposed Federal Income Tax Expense is \$1,274,838. This is shown on my Schedule DM-22. My total proposed balance of \$927,838 includes the Company's current balance of (\$347,000). The additional Federal Income Tax is incorporated into my revenue requirement Schedule DM-1 through the Gross Revenue Conversion Factor of 1.322837.

**Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

**A.** Yes, it does. I reserve the right to amend my direct testimony in the event other information becomes forthcoming, subsequent to the filing of this testimony.

# PCMG and Associates LLC

## DANTE MUGRACE

### *Education*

Master Business Administration, MBA Strategic Management, Pace University, Lubin School of Business, New York, NY, 2010

Master Public Administration, MPA, Kean University, Union, NJ, 2001

Bachelor of Science, BS. Accounting, St. Peter's University, Jersey City, NJ, 1983

### *Position*

Senior Consultant – PCMG and Associates	2014 – present
Senior Consultant – Snavelly King Majoros and Associates	2013 – 2014
Independent Consultant	2012 – 2013
Bureau Chief/Administrative Analyst/Accountant – New Jersey Board of Public Utilities	1983 – 2011

### *Professional Experience*

Mr. Mugrace has 35 years' experience in all aspects of regulatory accounting and policy including processing, analyzing and evaluating utility rate case petitions before Public Service Commissions. Mr. Mugrace examines and evaluates rate filings, contracts, agreements and rate matters regarding utility operations and provides recommendations as to best course of action. Additionally, Mr. Mugrace analyzes and reviews utility regulatory matters and sets forth recommendations for resolution of issues, calculates total revenue requirement needed to cover operating expenses and rate of return; researches and evaluates regulatory utility matters to assess impact on various classes of customers, regarding rates, service, compliance and cost of service provisions, as well as annual true-up and tracking mechanisms.

Prior to undertaking consulting assignments, Mr. Mugrace was the Bureau Chief Utility Rate Manager for the New Jersey Board of Public Utilities, in which role he managed and assigned tasks to a staff of 12 professionals and supervisory personal in the daily administrative, financial and managerial functions of the Division. Mr. Mugrace's primary duties were to determine whether the utility had sufficient revenues to cover its operating expenses and earn a return on its plant investment and to ensure that the utility provided safe, reliable and continuing utility service to its customers. Mr. Mugrace set rates and charges for utility companies, which had revenues of up to \$500 million, and ensured that the revenue requirement provided for recovery of all operating expenses, return on investment and depreciation. Mr. Mugrace was also responsible for reviewing and verifying that the companies' property, plant and equipment (up to \$2.5 billion) were used and useful in providing service to its customers. Mr. Mugrace coordinated and met with the New Jersey State Department of Environmental Protection to

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determine whether water and wastewater utilities were complying with state regulations and were adhering to any regulatory agency directives or orders. Mr. Mugrace developed ways to minimize the rising costs of water utility services by investigating alternative rate structures, analyzing engineering mechanisms and techniques, looking into the feasibility of mergers and acquisitions within the water industry and reviewing financing, and rate alternatives to minimize the impact on ratepayers. Mr. Mugrace was responsible for ensuring that the rate-case process adhered the statutory timeframe for preparing, reviewing and recommending findings to the Board Commissioners on financial operations, costs, revenues and operating expenses, prior to the litigation proceedings. Mr. Mugrace also examined alternative rate recovery mechanisms and clauses, phase-ins of revenue requirements, deferral mechanisms and pass-through of rate charges. Mr. Mugrace assumed the role of Director during transition periods and Administrative changes. Finally, Mr. Mugrace conducted the recruitment and hiring of employees for placement within the Division and the Board.

### *Professional and Business Affiliations*

- Institute of Public Utilities (IPU) Michigan State University (MSU), National Association of Regulatory Utility Commissioners (NARUC), National Association of State Utility Consumer Advocates (NASUCA)

### *References*

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## PCMG and Associates LLC

### *Regulatory Projects and Appearances*

1. In Re: Northern States Power Company for Approval of a 2024 Natural Gas Rate Increase. (Appearance: Revenue Requirement on behalf of the North Dakota Public Service Commission Advocacy Staff).  
North Dakota Public Service Commission – Docket No. PU-23-367.
2. In Re: FirstEnergy Pennsylvania Electric Company for Approval of a General Base Rate Case increase for Electric Distribution rates for service. (Appearance: Revenue Requirement on behalf of the Pennsylvania Office of Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket No. R-2024-3047068
3. In Re: Duquesne Light Company for Approval of a General Base Rate Case to increase Electric Distribution rates for service. (Appearance: Revenue Requirement on behalf of the Pennsylvania Office of Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket No.- R-2024-3046523
4. In Re: Peoples Natural Gas Company, LLC for Approval of a General Base Rate Case increases in Natural Gas Service. (Appearance: Revenue Requirement on behalf of the Pennsylvania Office of Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket No. R-2023-3044549
5. In Re: Black Hills Energy Arkansas, Inc. (BHEA) and Summit Utilities Arkansas, Inc. (SUA) for a General Change, or Modification in its Rates, Charges and Tariffs (Appearance: Incentive Compensation Proposals on behalf of the Attorney General Office) Arkansas Public Service Commission – Docket No. (BHEA) - 23-074-U and Docket No. (SUA) - 23-079-U.
6. In Re: Montana Dakota Utilities Co. for Approval to increase Gas Rates for Natural Gas Service in North Dakota (Appearance- Revenue Requirement on behalf of the North Dakota Public Service Commission Advocacy Staff)  
North Dakota Public Service Commission – Docket No. PU-23-341
7. In Re: Otter Tail Power Company for Approval to increase Electric Rates in North Dakota. (Appearance: Revenue Requirement on behalf of the North Dakota Public Service Commission Advocacy Staff)  
North Dakota Public Service Commission – Docket No. PU-23-342
8. In Re: New Jersey-American Water Company for Approval to change the level of its Purchased Water and Purchased Wastewater Treatment Adjustment Clause for 2023. (Appearance: Accounting Issues on behalf of the New Jersey Division of Rate Counsel)

## PCMG and Associates LLC

New Jersey Board of Public Utilities – Docket No. WR23110791

9. In Re: Verified Petition of Jersey Central Power & Light Company to establish a Rate for Rider Lost Revenue Adjustment Mechanism for Sales Losses incurred during Program Year 2 Pursuant to the Energy Efficiency and Peak Demand Reductions Programs (PY Rider LRAM Filing).  
(Appearance: Accounting Issues on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. ER23110865
10. In Re: Fitchburg Gas & Electric Company; The Berkshire Gas Company; Boston Gas Company d/b/a National Grid; Liberty Utilities; Eversource Gas of Massachusetts d/b/a Eversource Energy and; NSTAR Gas Company d/b/a Eversource Energy – 2023 Gas System Enhancement Program Plan Filings. (DPU GSEP-01; DPU GSEP-02; DPU GSEP-03; DPU GSEP-04; DPU GSEP-05; and DPU GSEP-06, respectively)  
(Appearance: Accounting Issues on behalf of the Commonwealth of Massachusetts Office of the Attorney General)  
Department of Public Utilities
11. In Re: Northern States Power Company – Advance Determination of Prudence – 345 kV Transmission Line – MN.  
(Appearance: Accounting Issues and Revenue Requirement on behalf of the North Dakota Public Service Commission Advocacy Staff.  
North Dakota Public Service Commission – Docket No. PU-23-142.
12. In Re: Northern States Power Company – Advance Determination of Prudence- Brookings Second Circuit Project.  
(Appearance: Accounting Issues and Revenue Requirement on behalf of the North Dakota Public Service Commission Advocacy Staff.  
North Dakota Public Service Commission – Docket No. PU-23-295.
13. In Re: Northern States Power Company – Advance Determination of Prudence – 345 kV Big Stone to Sherburne.  
(Appearance: Accounting Issues and Revenue Requirements on behalf of the North Dakota Public Service Commission Advocacy Staff.  
North Dakota Public Service Commission – Docket No. PU-23-329.
14. In Re: Rockland Electric Company – Annual Conservation Incentive Program Filing – Reconciliation for the period July 1, 2022 – June 30, 2023.  
(Appearance: Accounting Issues on behalf the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. ER23070471
15. In Re: Public Service Electric & Gas Company for Approval of Incremental COVID-19 Costs for Recovery through a New Special Purpose Clause and for Authorization to Recovery Uncollectible Costs for Gas Through the Societal Benefits Charge
16. (Appearance: Accounting Issues on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. ER23070448

## PCMG and Associates LLC

17. In Re: Jersey Central Power & Light Company's Verified Petition Seeking Review and Approval of the Net Deferred Costs Included in its COVID-19 Regulatory Asset and Establishment of a COVID-19 Recovery Charge (JCP&L CRC-Filing)  
(Appearance: Accounting Issues on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. ER23070453.
18. In Re: Aqua New Jersey, Inc. Petition for 2024 PSTAC Rate and True-up for 2021 and 2022 PSTAC.  
(Appearance: Accounting Issues on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. WR23080576
19. In Re: Public Service Electric & Gas Company for Approval of Changes in its Electric Tax Adjustment Credit and Gas Tax Adjustment Credit 2023 (2023 TAC Filing)  
(Appearance: Accounting Issues on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. ER23090634 and GR23090635
20. In Re: New Jersey – American Water Company for Deferral Accounting Authority for the Costs of Implementing the Clean Energy Act of 2018 Benchmarking Requirements.  
(Appearance: Accounting Issues on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. WF23060346
21. In Re: Public Service Electric & Gas Company – Annual BGSS (2023-2024) Commodity Charge Filing for its Residential Gas Customers under its Periodic Pricing Mechanism and for Changes in its Balancing Charge Rate.  
(Appearance: Accounting Issues on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. GR23060331
22. In Re: Public Service Electric & Gas Company – Electric and Gas Green Programs Recovery Charges 2023. (GPRC).  
(Appearance: Accounting Issues on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. ER23070423 and GR23070424
23. In Re: Public Service Electric & Gas Company – Electric Solar Pilot Recovery Charge (SPRC) for its Solar Loan I Program (2023).  
(Appearance: Accounting Issues on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. ER23060412
24. In Re: Middlesex Water Company for approval of Proposed Cost Recovery of Lead Service Line Replacement Program  
(Appearance: Accounting Issues on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. WR23050291
25. In Re: Black Hills Wyoming Gas, LLC d/b/a Black Hills Energy for Approval of a General Rate Increase of \$19,262,412 to the Retail Gas Rates.

## PCMG and Associates LLC

(Appearance: Revenue Requirement on behalf of the Wyoming Office of Consumer Advocate)

Wyoming Public Service Commission – Docket No. 30026-78-GR-23

26. In Re: Pittsburgh Water and Sewer Authority for an Increase in Rates for Water Service, Wastewater Service and Stormwater Service  
(Appearance: Revenue Requirement on behalf of the Pennsylvania Office of Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket Nos. R-2023-3039920 (water), R-2023-3039921 (wastewater), and R-2023-3039919 (stormwater)
27. In Re: Massachusetts Electric and Nantucket Electric Companies d/b/a National Grid – Request for recovery of Incremental Storm related expenses associated with fourteen weather events between February 2020 and December 2020.  
(Appearance: Storm Cost recovery (Operating and Maintenance Expenses) on behalf of the Massachusetts Office of Attorney General.  
Massachusetts Department of Public Utilities – DPU No. 22-43.
28. In Re: Philadelphia Gas Works – for approval of an Increase in rates for Distribution Gas Service for 2023  
(Appearance: Revenue Requirement on behalf of the Pennsylvania Office of Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket No. R-2023-3037933
29. In Re: Lanai Water Company, Inc. for Review and Approval of Rate Increases, Revised Rate Schedules and Charges to its Tariff.  
(Appearance: Revenue Requirement on behalf of the Hawaii Division of Consumer Advocacy)  
Hawaii Public Utilities Commission – Docket No. 2022-0233
30. In Re: Hawaii Water Service Company, Inc., For Approval of a General Rate Increase for Its Pukalani Wastewater Division and Certain Tariff Changes  
(Appearance: Revenue Requirement on behalf of the Hawaii Division of Consumer Advocacy)  
Hawaii Public Utilities Commission – Docket No. 2022-0186
31. In Re: UGI Utilities – Electric Division for Review of an Electric Base Rate Case proceeding for 2023.  
(Appearance: Revenue Requirement on behalf of the Pennsylvania Office of Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket No. R-2022-3037368
32. In Re: Southern Maryland Electric Cooperative, Inc. (SMECO) for Authority to Revise its Rates and Charges for Electric Service and Certain Rate Design Changes.  
(Appearance: Revenue Requirement on behalf of the Maryland Office of People’s Counsel)

## PCMG and Associates LLC

Maryland Public Service Commission – Case No. 9688

33. In Re: Public Service Electric and Gas Company – 2022 Electric and Gas Tax Adjustment Credit (TAC)  
(Appearance: Revenue Requirement on behalf of the NJ Division of Rate Counsel)  
NJ Board of Public Utilities – BPU Docket Nos. ER22100667 and GR22100668
34. In Re: Public Service Electric and Gas Company – 2022 Green Program Recovery Charge.  
(Appearance: Revenue Requirement on behalf of the NJ Division of Rate Counsel)  
NJ Board of Public Utilities – BPU Docket Nos. ER22070413 and GR22070414
35. In Re: Rockland Electric Company – Annual Conservation Incentive Program Filing – Reconciliation for the Period July 1, 2021 – June 30, 2022.  
(Appearance: Revenue Requirement on behalf of the NJ Division of Rate Counsel)  
NJ Board of Public Utilities – BPU Docket No. ER22070469.
36. In Re: Atlantic City Electric Company for Implementation to its Conservation Incentive Program Rate Mechanism and Associated Customer Class Rate (2022)  
(Appearance: Revenue Requirement on behalf of the NJ Division of Rate Counsel)  
NJ Board of Public Utilities – BPU Docket No. ER22070463
37. In Re: Public Service Electric and Gas Company – 2022/2023 Annual BGSS Commodity Charge filing for its Residential Gas Customers under its Periodic Pricing Mechanism and for changes to its Balancing Charge.  
(Appearance: Revenue Requirement on behalf of the NJ Division of Rate Counsel)  
NJ Board of Public Utilities – BPU Docket No. GR22060363
38. In Re: Citizens’ Electric Company of Lewisburg, PA – 2022 Base Rate Case Proceeding for an Increase in Electric Distribution Rates.  
(Appearance: Revenue Requirement on behalf of the Pennsylvania Office of Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket No. R-2022-3032369
39. In Re: Valley Energy, Inc. – 2022 Base Rate Case for an Increase in Gas Distribution Rates.  
(Appearance: Revenue Requirement on behalf of the Pennsylvania Office of Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket No. R-2022-3032300
40. In Re: Berkshire Gas Company – 2021 Gas System Enhancement Program Reconciliation Filing.  
(Appearance: Revenue Requirement on behalf of the Massachusetts Attorney General’s Office)  
Massachusetts Department of Public Utilities – D.P.U. 22-GREC-02

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41. In Re: Liberty Utilities (New England Natural Gas Company) 2021 Gas System Enhancement Program Reconciliation Filing.  
(Appearance: Revenue Requirement on behalf of the Massachusetts Attorney General's Office)  
Massachusetts Department of Public Utilities – D.P.U. 22-GREC-04
42. In Re: Eversource Gas Company (Eversource Energy) 2021 Gas System Enhancement Program Reconciliation Filing.  
(Appearance: Revenue Requirement on behalf of the Massachusetts Attorney General's Office)  
Massachusetts Department of Public Utilities – D.P.U. 22-GREC-05
43. In Re: South Jersey Gas Company – 2022 Base Rate Case Proceeding for an Increase in rates for Distribution Gas Service.  
(Appearance: Revenue Requirement, CWC and Consolidated Income Taxes on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – BPU Docket No. GR22040253
44. In Re: Public Service Electric and Gas Company – 2022 Electric Conservation Incentive Program (CIP) for changes in its Electric CIP rate for 2022.  
(Appearance: Revenue Requirement on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. ER22020035
45. In Re: PECO Energy Company-Gas Division – 2022 Base Rate Case Proceeding for an Increase in rates for Distribution Gas Service.  
(Appearance: Revenue Requirement on behalf of the Pennsylvania Office of Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket No. R-2022-3031113.
46. In Re: Nova Scotia Power Company- 2022-2024 General Rate Application for an Increase in Rates for Electric Service  
(Appearance- Review of COSS – Subcontract with Synapse Energy Economics, Inc. on behalf of the Nova Scotia Utility Review Board)  
Nova Scotia Utility and Review Board – Docket No. M10431
47. In Re: Georgia Power Company – 2022 Base Rate Case petition for an Increase in rates for Electric Distribution Service  
(Appearance: Review of O&M Expenses for calendar years 2023-2025 on behalf of the Georgia Public Service Commission – Docket No. TBD)
48. In Re: UGI Utilities Inc, Gas Division – 2022 Base Rate Case petition for an Increase in Distribution Gas Service Rates  
(Appearance: Revenue Requirement on behalf of the Pennsylvania Office of Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket No. R-2022-3030218

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49. In Re: Hawaii-American Water Company – Approval of Rate Increases and Revised Rate Schedules for Wastewater Services – 2021  
(Appearances: Revenue Requirement on behalf of the Hawaii Division of Consumer Advocacy)  
Hawaii Public Service Commission – Case No. 2021-0063
50. In Re: Kalaeloa Water Company – Approval of a General Rate Increase / Adjustments for Water and Wastewater Services – 2021  
(Appearance: Revenue Requirement on behalf of the Hawaii Division of Consumer Advocacy)  
Hawaii Public Service Commission – Case No. 2021-0005
51. In Re: Northern States Power Company – 2021 Natural Gas Rate Increase Application  
(Appearance: Revenue Requirements on behalf of the Advocacy Staff of the North Dakota Public Service Commission – Case No. PU-21-381
52. In Re: Shore Water Company – Petition for an Increase in Rates for Water Service and Other Relief  
(Appearance: New Jersey Division of Rate Counsel – Accounting and Revenue Requirement)  
New Jersey Board of Public Utilities – BPU Docket No. WR21091141
53. In Re: Atlantic City Sewerage Company – Petition for an Increase in Rates for Sewerage Service and other Tariff Changes  
(Appearance: New Jersey Division of Rate Counsel – Accounting and Revenue Requirement)  
New Jersey Board of Public Utilities – BPU Docket No. WR21071006
54. In Re: Gordon’s Corner Water Company – Petition for an Increase in Rates and Charges for Water Service  
(Appearance: New Jersey Division of Rate Counsel – Accounting and Revenue Requirement)  
New Jersey Board of Public Utilities – BPU Docket No. WR21070979
55. In Re: The Petition of HPBS Inc., for review and approval of Central Scheduling System (CSS) charge increase and revised CSS Schedule (2021)  
(Appearance – Accounting and Revenue Requirement on behalf of the Hawaii Division of Commerce and Consumer Affairs)  
Hawaii DCCA – Docket No. PTP-2021-001
56. In Re: The Berkshire Gas Company, 2020 Gas System Enhancement Program Reconciliation Filing  
(Appearance – Massachusetts Attorney General’s Office – Accounting and Revenue Requirement)  
Massachusetts Department of Public Utilities – DPU Docket No. 21-GREC-02

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57. In Re: Eversource Gas Company of Massachusetts d/b/a Eversource Energy, 2020 Gas System Enhancement Program Reconciliation Filing  
(Appearance – Massachusetts Attorney General’s Office – Account and Revenue Requirement)  
Massachusetts Department of Public Utilities – DPU Docket No. 21-GREC-05
58. In Re: NSTAR Gas Company d/b/a Eversource Energy, 2020 Gas System Enhancement Program Reconciliation Filing  
(Appearance: Massachusetts Attorney General’s Office – Accounting and Revenue Requirement)  
Massachusetts Department of Public Utilities – DPU Docket No. 21-GREC-06
59. In Re: Joint Petition of New Jersey Natural Gas Company and Public Service Electric and Gas Company for Authorization and Approval of a Waiver of Certain Accounting Treatment Pursuant to the Clean Energy Order  
(Appearance – New Jersey Division of Rate Counsel – Accounting and Revenue Requirement.  
New Jersey Board of Public Utilities – BPU Docket No. EO20030254
60. In Re: Public Service Electric and Gas Company – 2021/2022 Annual BGSS Commodity Charge Filing for its Residential Gas Customers under its Periodic Pricing Mechanism and for Changes in its Balance Charge.  
(Appearance – New Jersey Division of Rate Counsel – Accounting and Revenue Requirement)  
New Jersey Board of Public Utilities – BPU Docket No. GR21060878
61. In Re: Middlesex Water Company – Petition for Approval of an Increase in Rates for Water Service and Other Tariff Changes.  
(Appearances – New Jersey Division of Rate Counsel – Accounting and Revenue Requirement)  
New Jersey Board of Public Utilities – BPU Docket No. WR21050813
62. In Re: New Jersey Natural Gas Company – Petition for an Increase in Gas Base Rates and Changes in its Tariff for Gas Service and for a Change to Depreciation Rates for Gas Property and for Approval of a Base Rate Adjustment Pursuant to the NJ RISE and SAFE II Programs.  
(Appearances: New Jersey Division of Rate Counsel – Accounting and Revenue Requirement)  
New Jersey Board of Public Utilities – BPU Docket Nos. GR21030679 and GR21030680.
63. In Re: PECO Energy Company – a division of Exelon Corp., for a General Base Rate Case Filing for Electric Operations  
(Appearances: Accounting and Policy on behalf of the Pennsylvania Office of the Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket No. R-2021-3024601

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64. In Re: The Pittsburgh Water and Sewer Authority for approval of increased rates and charges for Water, Wastewater and Stormwater services  
(Appearance: Accounting and Policy, and Regulatory Policy on behalf of the Pennsylvania Office of the Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket Nos. R-2021-3024773 (Water) R-2021-3024774 (Wastewater) and R-2021-3024779 (Stormwater).
65. In Re: Northern States Power Company – 2021 Electric Base Rate Case Increase  
(Appearance: Revenue Requirement on behalf of the Advocacy Staff of the North Dakota Public Service Commission)  
North Dakota Public Service Commission – Case No. PUC-20-441
66. In Re: Public Service Electric and Gas Company – Approval of a Tax Adjustment Clause (TAC).  
(Appearance; Revenue Requirement on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket Nos. ER20100685 and GR20100686.
67. In Re: Pike County Light and Power Company – Approval to increase base rates for Electric and Gas Service.  
(Appearance: Revenue Requirement in behalf of the Pennsylvania Office of Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket Nos. R-2020-3022134 (Gas) and R-2020-3022135 (Electric)
68. In Re: Jersey Central Power and Light Company for Approval of JCP&L’s Energy Efficiency and Conservation Plan Including Energy Efficiency and Peak Demand Reduction Programs.  
(Appearance: Revenue Requirement on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket Nos. QO19010040 and EO20090620
69. In Re: Atlantic City Electric Company for Approval of an Energy Efficiency Program, Cost Recovery Mechanism, and Other Related Relief for Plan Years One Through Three.  
(Appearance: Revenue Requirement on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket Nos. QO19010040 and EO20090621
70. In Re: Rockland Electric Company for Approval of Its Energy Efficiency and Peak Demand Reduction Programs.  
(Appearance: Revenue Requirement on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket Nos. QO19010040 and EO20090623
71. In Re: Public Service Electric and Gas Company for Approval of Changes in its Electric Green Programs Recovery Charge and its Gas Green Programs Recovery Charge 2020 PSE&G Green Programs Cost Recovery filing

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(Appearance: Revenue Requirement on behalf of the NJ Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket Nos. ER20060467 and GR20060468

72. In Re: Public Service Electric and Gas Company's 2020/2021 Annual BGSS Commodity Charge filing for its Residential Gas Customers under its Pricing Mechanism and for Changes in its Balance Charge  
(Appearance: Revenue Requirement on behalf of the NJ Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. GR20060379
73. In Re: Public Service Electric and Gas Company's 2020 Annual Margin Adjustment Clause (MAC)  
(Appearance: Revenue Requirement on behalf of the NJ Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. GR20060384
74. In Re: South Jersey Gas Company for Approval to Revise the Rider H Rate Associated with the Tax Cuts and Jobs Act of 2017  
(Appearance: Revenue Requirement on behalf of the NJ Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. GR20060382
75. In Re: Berkshire Gas Company -2019 Gas System Enhancement Program Reconciliation Filing  
(Appearance: Revenue Requirement on behalf of the Massachusetts Office of the Attorney General)  
Commonwealth of Massachusetts -Department of Public Utilities – DPU 20-GREC-02
76. In Re: Bay States Gas Company d/b/a Columbia Gas – 2019 Gas System Enhancement Program Reconciliation Filing.  
(Appearance: Revenue Requirement on behalf of the Massachusetts Office of the Attorney General)  
Commonwealth of Massachusetts – Department of Public Utilities – DPU 20-GREC-05
77. In Re: NSTAR Gas Company – 2019 Gas System Enhancement Program Reconciliation Filing  
(Appearance: Revenue Requirement on behalf of the Massachusetts Office of the Attorney General)  
Commonwealth of Massachusetts – Department of Public Utilities – DPU 20-GREC-06
78. In Re: South Jersey Gas Company for Approval of Increased Base Tariff Rates and Charges for Gas Service, Changes to Depreciation Rates and Other Tariff Revisions.  
(Appearances: Revenue Requirement and Cash Working Capital) on behalf of the New Jersey Division of Rate Counsel.  
New Jersey Board of Public Utilities – Docket No. GR20030243
79. In Re: Jersey Central Power & Light Company for Review and Approval of Increased in, and Other Adjustments to Rates and Charges for Electric Services and approval of Other Proposed Tariff Revisions (Appearance: Revenue Requirement, Cash Working Capital,

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Consolidated Income Taxes, LED Conversion and Reliability Roll-In) on behalf of the New Jersey Division of Rate Counsel.  
New Jersey Board of Public Utilities – Docket No. ER20020146

80. In Re: The Pittsburgh Water and Sewer Authority for approval of increased rates and charges for water and wastewater service and for approval of a multi-year rate plan. (Appearance: Accounting and Policy, Customer Service and Regulatory Policy) on behalf of the Pennsylvania Office of the Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket Nos. R-2020-3017951 and R-2020-3017970.
81. In Re: New Jersey-American Water Company, Inc. for approval of Increased Base Tariff Rates and Charges for Water and Wastewater Services and Other Tariff Revisions. (Appearance: Accounting and Revenue Requirement and Cash Working Capital / Consolidated Income Taxes) on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. WR19121516
82. In Re: Hawaiian Electric Company, Inc., for approval of a General Rate Increase and Revised Rate Schedules and Rules. (Appearance: Accounting and Revenue Requirement on behalf of the Hawaiian Division of Consumer Advocacy)  
Hawaii Public Utilities Commission – Docket No. 2019-0085
83. In Re: Mount Olive Villages Water Company for approval of an Increase in Rates for Water Service and Other Tariff Changes. (Appearance: Accounting and Consulting Services on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. WR19060770
84. In Re: Mount Olive Villages Sewer Company for approval of an Increase in Rates for Sewer Service and Other Tariff Changes. (Appearance: Accounting and Consulting Services on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. WR19060769
85. In Re: Public Service Electric and Gas Company for approval of changes in its Electric Green Programs Recovery and its Gas Green Programs Recovery Charge (2019 PSE&G Green Programs Cost Recovery Filing). (Appearance: Accounting and Consulting Services on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket Nos. ER19070764 and GR19070765
86. In Re: Proposed Amendment to N.J.A.C. 14:9- Adoption by reference to the Uniform System of Accounts for Water Utilities and Wastewater Utilities. (Appearance: Consulting Services on behalf of the New Jersey Division of Rate Counsel)

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New Jersey Board of Public Utilities- Docket Nos. WX19050612 (Water) and WX19050613 (Wastewater)

87. In Re: Public Service Electric and Gas Company's 2019/2020 Annual BGSS Commodity Charge filing for its Residential Gas Customers Under its Periodic Pricing Mechanism and for Changes in its Balancing Charge.  
(Appearance: Revenue Requirement and accounting/consulting services on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. GR190600699
88. In Re: Bay States Gas Company d/b/a Columbia Gas of Massachusetts for Approval of a 2018 Gas System Enhancement Program Reconciliation Filing  
(Appearance: Revenue Requirement on behalf of the Massachusetts Office of the Attorney General)  
Commonwealth of Massachusetts Department of Public Utilities – Docket No. 19-GREC-05
89. In Re: NSTAR Gas Company d/b/a Eversource Energy for Approval of a 2018 Gas System Enhancement Program Reconciliation Filing  
(Appearance: Revenue Requirement on behalf of the Massachusetts Office of the Attorney General)  
Commonwealth of Massachusetts Department of Public Utilities – Docket No. 19-GREC-06
90. In Re: Public Service Electric and Gas Company for Approval of Gas Rate Base Adjustments Pursuant to its Gas System Modernization Program (April 2019 GSMP)  
(Appearance: Revenue Requirement on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. GR19040522
91. In Re: Kalaeloa Water Company, LLC for Approval of General Rate Case and Revised Rules, Regulations and Rates.  
(Appearance: Revenue Requirement on behalf of the Hawaii Division of Consumer Advocacy)  
Hawaii Public Utilities Commission – Docket No. 2019-0057
92. In Re: Elizabethtown Gas Company for Approval of an Increase in Rates and Charges for Gas Service, Changes to Depreciation Rates and Other Tariff Revisions.  
(Appearance: Revenue Requirement and Other Accounting Issues on behalf of the New Jersey Division of Rate Counsel).  
New Jersey Board of Public Utilities – Docket No. GR19040586
93. In Re: Petition of Peoples Natural Gas Company for Approval of an Increase in Rates for Natural Gas Distribution Service.  
(Appearance: Revenue Requirement and Other Accounting Issues on behalf of the Pennsylvania Office of Consumer Advocate)  
Pennsylvania Public Utility Commission – Docket No. R-2018-3006818

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94. In Re: Petition of Aqua New Jersey, Inc. for Approval of an Increase in Rates for Water Service and other Tariff Changes.  
(Appearance: Revenue Requirement and other Accounting Issues on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – BPU Docket No. WR18121351
95. In Re: Petition of Public Service Electric and Gas Company for Approval of its Clean Energy Future – Energy Efficiency (CEF-EE) Program on a Regulated Basis.  
(Appearance: Revenue Requirement and other Accounting Issues on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – BPU Docket Nos. GO18101112 and EO18101113.
96. In Re: Petition of Public Service Electric and Gas Company for Approval of its Clean Energy Future – Energy Vehicle and Energy Storage (CEF-EVES) Program on a Regulated Basis. (Appearance – Revenue Requirement and other Accounting Issues on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – BPU Docket No. EO18101111.
97. In Re: Petition of New Jersey Natural Gas Company- Request for Deferred Accounting Authority for Costs Related to New Information Technology Systems. (Appearance: Impact on Revenues, prudence of costs on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – BPU Docket No. GR18101096
98. In Re: Petition for Approval of An Indirect Change in Control of the New Jersey Public Utilities Subsidiaries of SUEZ Water Resources, Inc. and Other Related Approvals.  
(Appearance: Impact on Rates, Service, Employees, Positive Benefits on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – BPU Docket No. WM18090982
99. In Re: The Matter of the Merger of Roxbury Water Company into New Jersey American Water Company (Appearance: Impact on Rates, Service and Employees, Positive Benefits on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities – BPU Docket No. WM18080904
100. In Re: The Matter of the Application of Maryland-American Water Company for Authorization to Adjust its Existing Schedule of Tariffs and Rates.  
(Appearance: Revenue Requirement on behalf of the Maryland Office of People’s Counsel)  
Maryland Public Service Commission – Case No. 9487
101. In Re: The Matter of the Joint Petition for Approval of an Increase in Rates for Water and Wastewater Service and Other Tariff Changes for SUEZ Water NJ, Inc., Toms River, Inc., Arlington Hill, Inc., West Milford, Inc., Matchaponix, Inc., and Princeton Meadows, Inc.

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(Appearance: Revenue Requirement and the development of Consolidated Income Taxes on behalf of the NJ Division of Rate Counsel)

New Jersey Board of Public Utilities – BPU Docket No. WR18050593

102. In Re: The Matter of the Application of Atlantic City Electric Company to Adjust the Level of its Rider RGGI Rate Associated with its Solar Renewable Energy Certificate Financing Program 2018 (Appearance: Revenue Requirement on behalf of the NJ Division of Rate Counsel)

New Jersey Board of Public Utilities – BPU Docket No. ER18050543

103. In Re: The Matter of the Petition of New Jersey Natural Gas Company's Approval of the Cost Recovery Associated with Energy Efficiency Programs (Appearance; Revenue Requirement on behalf of the NJ Division of Rate Counsel)

New Jersey Board of Public Utilities – BPU Docket No, GR18050585

104. In Re: The Matter of Bay States Gas Company d/b/a Columbia Gas of Massachusetts, 2017 Gas System Enhancement Reconciliation Filing (Appearance: Revenue Requirement on behalf of the Massachusetts Attorney General's Office of Ratepayer Advocacy)

Commonwealth of Massachusetts – Department of Public Utilities – Docket No. D.P.U. 18-GREC-05.

105. In Re; The Matter of NSTAR Gas Company d/b/a Eversource Energy, Gas System Enhancement Program Reconciliation Filing (Appearance: Revenue Requirement on behalf of the Massachusetts Attorney General's Office of Ratepayer Advocacy)

Commonwealth of Massachusetts – Department of Public Utilities – Docket No. D.P.U. 18-GREC-06.

106. In Re: The Matter of the Merger of SUEZ Water NJ, SUEZ Water Toms River, SUEZ Water Arlington Hills, SUEZ Water West Milford, SUEZ Water Princeton Meadows and SUEZ Water Matchaponix (Appearance: Positive Benefits related to the Merger on behalf of the NJ Division of Rate Counsel)

New Jersey Board of Public Utilities – BPU Docket No. WR18030266

107. In Re: The Matter of the Columbia Gas of Pennsylvania for a General Rate Increase in Distribution Gas Service (Appearance; Accounting Issues and Revenue Requirement on behalf of the Pennsylvania Office of Consumer Advocate)

Pennsylvania Public Utility Commission – Docket No. R-2018-2647577

108. In Re: The Matter of the New Jersey Board of Public Utilities Consideration of the Tax Cuts and Jobs Act of 2017 – Generic Proceeding (Appearance: Revenue Requirement on behalf of the NJ Division of Rate Counsel)

New Jersey Board of Public Utilities – BPU Docket No. AX18010001

109. In Re: Acquisition of Elizabethtown Gas, a Division of Pivotal Utilities Holdings, Inc. by ETG Acquisition Corp., a Division of South Jersey Industries, Inc., and Related

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Transactions. (Appearance: Customer Service Issues/Employee and Labor Relations on behalf of the NJ Division of Rate Counsel)

New Jersey Board of Public Utilities – BPU Docket No. GM17121309.

110. In Re: Middlesex Water Company – Base Rate Case Proceeding for Water Service. (Appearance: revenue requirement on behalf of the NJ Division of Rate Counsel).  
New Jersey Board of Public Utilities – BPU Docket No. WR17101049.
111. In Re: Township of East Brunswick – Sewer Rate Study – (Evaluation of the existing sewer rate structure and examining and quantify costs for future expansion).
112. In Re: Montana-Dakota Utilities – Base Rate Case Proceeding for Gas Service. (Appearance: revenue requirement on behalf of the North Dakota Public Service Commission). NDPSC Docket No. PU-17-295.
113. In Re: Andover Utility Company – Base Rate Case Proceeding for Wastewater Services. (Appearance: revenue requirement on behalf of the New Jersey Division of Rate Counsel).  
New Jersey Board of Public Utilities – BPU Docket No. WR17070726.
114. In Re: Public Service Electric and Gas Company- Approval of Changes in its Electric and Gas Green Programs Recovery Charges “2017 Public Service Electric & Gas Green Programs Cost Recovery Filing. (Appearance: revenue requirement on behalf of the New Jersey Division of Rate Counsel).  
New Jersey Board of Public Utilities – BPU Docket Nos. ER17070724 and GR17070725.
115. In Re: Bay States Gas Company d/b/a Columbia Gas of Massachusetts, 2016 Gas System Enhancement Program Reconciliation Filing, (Appearance: revenue requirement on behalf of the Massachusetts Attorney General’s Office of Ratepayer Advocacy).  
Commonwealth of Massachusetts Department of Public Utilities – Docket No. D.P.U. 17-GREC-05.
116. In Re: NSTAR Gas Company d/b/a Eversource Energy, 2016 Gas System Enhancement Program Reconciliation Filing (Appearance: revenue requirement on behalf of the Massachusetts Attorney General’s Office of Ratepayer Advocacy).  
Commonwealth of Massachusetts Department of Public Utilities – Docket No. D.P.U. 17-GREC-06.
117. In Re: Petition of Columbia Gas of Maryland – Increase in rates for Distribution Service – (Appearance: revenue requirement on behalf of the Office of People’s Counsel) Public Service Commission of Maryland – Case No. 9447
118. In Re: Petition of South Jersey Gas Company – Increase in base rates for gas services – (Appearance: revenue requirement on behalf of the NJ Division of Rate Counsel)  
New Jersey Board of Public Utilities – Docket No. GR17010071

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119. In Re: Petition of UGI Penn Natural Gas – Increase in base rates for gas services – (Appearance: revenue requirement on behalf of the Pennsylvania Office of Consumer Advocate)  
Pennsylvania Public Utilities Commission Docket No. R-2016-2580030
120. In Re: Petition of PJM Interconnection, LLC. – Mid-Atlantic Interstate Transmission, LLC. Formula Rate Filing. (Appearance on behalf of the Pennsylvania Office of Consumer Advocate).  
FERC Docket No. ER17-211-000
121. In Re: Petition of Pivotal Utility Holdings, Inc. d/b/a Elizabethtown Gas Company for approval of Increased Base Tariff Rates and Charges for Gas Service and Other Tariff Revisions (Appearance: revenue requirement on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities Docket No. GR16090826
122. In Re: Petition of SUEZ Water New Jersey, et al – Approval of a Management and Services Agreement pursuant to N.J.S.A 48: 3-7.1 (Appearance on the reasonableness of contract agreements on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities Docket No. WO16080806
123. In Re: Petition of SUEZ Water Arlington Hills Inc. – Approval of an Increase in Rates for Wastewater Services and other Tariff Changes (Appearance: revenue requirement on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities Docket No. WR16050510
124. In Re: Petition of Public Service Electric and Gas Company – 2016 Marginal Adjustment Clause (MAC) (Appearance; reconciliation and rate setting on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities Docket No. GR16060484
125. In Re: Petition of Public Service Electric and Gas Company for Approval of Changes in its Electric Green Programs Recovery Charges and its Gas Green Program Recovery Charges 2016 PSEG Program Cost Recovery Filing  
(Appearance: reconciliation and rate setting on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities Docket Nos. ER16070613 and GR16070614
126. In Re: Petition of the Mount Olive Village Sewer Company, Inc., for Approval of an Increase in Rates for Service (Appearance: revenue requirement on behalf of the New Jersey Division of Rate Counsel)  
New Jersey Board of Public Utilities Docket No. WR16050391
127. In Re: Petition of the Mount Olive Village Water Company, Inc. for Approval of an Increase in Rates for Service (Appearance; revenue requirement on behalf of the New Jersey Division of Rate Counsel)

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New Jersey Board of Public Utilities Docket No. WR16050390

128. 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 Advice to Counsel: computation of the revenue requirement and rate impact on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)  
MA Department of Public Utilities Docket No. D.P.U. 16-GREC-01
129. 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) - (Appearance: computation of the revenue requirement and rate impact on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)  
MA Department of Public Utilities Docket No. D.P.U. 16-GREC-05
130. 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: compliance with statutes and regulations, review of contract, and ratemaking on behalf of the New Hampshire Office of Consumer Advocate)  
NH Public Utilities Commission Docket No. DE 16-241
131. In Re: Central Maine Power Company, Annual Compliance Filing and Price Change (2016) - (Analysis and Advice to Counsel; tax normalization regulatory asset on behalf of the Maine Office of the Public Advocate)  
ME Public Service Commission Docket No. 2016-00035
132. 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
133. In Re: The Matter of Request by Emera Maine for Approval of a Rate Change (2016) - (Appearance: revenue requirement on behalf of the Maine Office of the Public Advocate)  
Maine Public Utilities Commission Docket No. 15-00360)
134. In Re: the Matter of the Joint Application of the Southern Company, AGL Resources Inc., and Pivotal Holdings, Inc. d/b/a Elkton Gas (2015-2016) - (Analysis and advice to counsel: customer service impacts, employee impacts, supplier diversity on behalf of the Maryland Office of People's Counsel)  
MD PSC Case No. 9404
135. In Re: The Matter of the Merger of Southern Company and AGL Inc. (2015-2016) - (Appearance: customer service impacts and employee impacts on behalf of the NJ Division of Rate Counsel)  
New Jersey BPU Docket No. GM15101196

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136. In Re: The Matter of the United Water New Jersey, Inc., for Approval of an Increase in Rates for Water Service and Other Tariff Changes (2015-2016) - (Appearance: revenue requirements, rate base issues and operating income on behalf of the NJ Division of Rate Counsel)  
New Jersey BPU Docket No. WR15101177
137. 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) - (Analysis: review of contract and compliance of the Gas Supply Plan on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)  
MA D.P.U. 15-130
138. 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; Metro LNG, L.P.; and National Grid LNG (2015) - (Analysis: review of contract and compliance of the Gas Supply Plan on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)  
MA D.P.U. 15-129
139. In Re: Columbia Gas of Massachusetts CY2014 Targeted Infrastructure Reinvestment Factor (TIRF) Compliance Filing (2015) - (Appearance: computation of the revenue requirement impact on the TIRF on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)  
MA D.P.U. 15-55
140. In Re: The Matter of the Bay State Gas Company d/b/a Columbia Gas of Massachusetts for Approval of its Targeted Infrastructure Reinvestment Factor (TIRF) for CY 2013 (2014) - (Appearance: computation of the revenue requirement impact on the TIRF)  
MA D.P.U. 14-83
141. In Re: The Matter of the Merger of Exelon Corporation and Pepco Holdings, Inc. (Atlantic City Electric Company) (2014-2015) - (Appearance: customer service impacts)  
New Jersey BPU Docket No. EM14060581
91. In Re: Public Utilities Commission of Ohio – In the Matter of the Application of Ohio Power Company (American Electric Power Ohio) (AEP Ohio) to Adopt a Final Implementation Plan for the Retail Stability Rider – (Appearance - Accounting Issues) (2014) on behalf of the Ohio Office of Consumer Counsel (OCC)  
PUCO Case No. 14-1186-EL-RDR
92. In Re: Public Utilities Commission of Ohio - In the Matter of the Application of Aqua Ohio, Inc. to Increase its Rates and Charges for its Waterworks Service. – Revenue and Rates (2014) - (Appearance: operating income, certain rate base issues and income taxes on behalf of the Ohio Office of Consumer Counsel)  
PUCO Case No. 13-2124-WW-AIR

## PCMG and Associates LLC

93. In Re: New York Public Service Commission, as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. Revenue Requirement (2013-2014) – (Appearance: revenue requirement, rate base issues and operating income on behalf of the Intervenor, the County of Westchester)  
NYPSC Case Nos. 13-E-0030, 13-G-0031 and 13-S-0032, et al
94. In Re: North Dakota Public Service Commission, - Application of Northern States Power Company for Authority to Increase Rates for Electric Service in North Dakota, On-Going Revenue Requirement (2013) - (Appearance: revenue requirement and rate base, operating income, operating and maintenance expenses on behalf of the North Dakota Public Service Commission Staff)  
North Dakota Case No. PU-12-813
95. In the Matter of the Petition of New Jersey American Water Company for Authorization to Implement a Distribution System Improvement Charge (DSIC) Order Denying Petition and Instituting Stakeholder Process (2008) - (Case manager on policy decision and revenue requirement impact on behalf of the Staff of the NJ Board of Public Utilities)  
BPU Docket No. WO08050358
96. In the Matter of the Joint Petition of the City of Trenton, New Jersey and New Jersey-American Water Company, Inc. for Authorization of the Purchase and Sale of the Assets of the Outside Water Utility System ("OWUS") of the City of Trenton, New Jersey and for Other Relief Order Adopting Initial Decision, (2008) - (Case manager on the revenue requirement impact on behalf of the Staff of the NJ Board of Public Utilities)  
BPU Docket No. WM08010063
97. In the Matter of the Petition of United Water New Jersey, United Water Toms River, United Water Lambertville, United Water Mid-Atlantic and Gaz de France for Approval as Need for a Change in Ownership and Control (2007) - (Case manager on customer impact, employee impact and impact on rates on behalf of the Staff of the NJ Board of Public Utilities)  
BPU Docket No. WM06110767
98. In the Matter of the Petition of United Water Arlington Hills Sewerage, Inc. for an Increase in Rates for Wastewater Service and Other Tariff Changes (2009) - (Case manager on revenue requirement and overall rate proceeding on behalf of the Staff of the NJ Board of Public Utilities)  
BPU Docket No. WR08100929
99. In the Matter of the Petition of United Water New Jersey Inc. for Approval of an Increase in Rates for Water Service and Other Tariff Changes, (2009) - (Case manager on revenue requirement and overall rate proceeding on behalf of the Staff of the NJ Board of Public Utilities)  
BPU Docket No. WR08090710

## PCMG and Associates LLC

100. In the Matter of the Petition of United Water Toms River, Inc. for Approval of an Increase in Rates for Water Service and Other Tariff Changes (2008) - (Case manager on the revenue requirement and overall rate proceeding on behalf of the Staff of the NJ Board of Public Utilities)  
BPU Docket No. WR08030139
101. In the Matter of the Joint Petitioners of New Jersey-American Water Company, Inc., S.J. Services, Inc., South Jersey Water Company, Inc. and Penns Grove Water Supply Company, Inc. for Among Other Things Approval of a Change in Control of South Jersey Water Supply Company, Inc. and Penns Grove Water Supply Company, Inc. (2007) - (Case manager on the overall rate proceeding on behalf of the Staff of the NJ Board of Public Utilities)  
BPU Docket No. WM07020076
102. In the Matter of the Petition of Aqua, New Jersey, Inc. for Approval of an Increase in Rates for Water Service and Other Tariff Changes (2008) - (Case manager on revenue requirement and the overall rate proceeding on behalf of the Staff of the NJ Board of Public Utilities)  
BPU Docket No. WR0712095
103. I/M/O the Joint Petition of Thames Water, Aqua Holdings GMBH, on Behalf of Itself and Its Parent Holdings Company, RWE Aktiengesellschaft, Thames Water Aqua US Holdings, Inc., American Water works Company Inc., Thames Water Holdings Incorporated, E 'town Corporation, New Jersey-American Water Company, Inc., Elizabethtown Water Company, the Mount Holly Water Company and Applied Wastewater Management, Inc. for Confirmation that the Board of Public Utilities Does Not Have Jurisdiction Over, or, Alternatively, for Approval of a Proposed Transaction Involving, Among Other Things, the Sale by Thames Water Aqua Holdings GMBH of Up to 100% of the Shares of the Common Stock of American Waterworks Company, Inc. in One or More Public Offerings (2007) - (Case manager on revenue requirement impacts, effect on rates and effect on service on behalf of the Staff of the NJ Board of Public Utilities)  
BPU Docket No. WM06050388
104. In the Matter of the Petition of Elizabethtown Water Company for Approval of an Increase in Rates for Water Service (2007) - (Case manager on revenue requirement and overall rate proceeding on behalf of the Staff of the NJ Board of Public Utilities)  
BPU Docket No. WR03070510
105. In the Matter of the Petition of New Jersey American Water Company, Inc. for Approval of Increased Tariff Rates and Charges for Water and Sewer Service; Increased Depreciation Rates and Other Tariff Revisions (2008) - (Case manager on revenue requirement and overall rate proceeding on behalf of the Staff of the NJ Board of Public Utilities)  
BPU Docket No. WR08010020
106. In the Matter of Middlesex Water Company for Approval of an Increase in its Rates for Water Service and Other Tariff Changes (2007) - (Case manager on overall revenue

## PCMG and Associates LLC

requirement and overall rate proceeding on behalf of the Staff of the NJ Board of Public Utilities)

BPU Docket No. WR07040275

107. In the Matter of the Joint Petition of United Water New Jersey, Inc., United Water Arlington Hills, Inc., United Water Hampton, Inc., United Water Vernon Water Hills, Inc., and United Water Lambertville, Inc. for an Increase in Rates and Charges for Water Service and Other Tariff Changes and for Approval to Merge the Operations of the Joint Petitioners into and with United Water New Jersey, Inc. (2007) - (Case manager on revenue requirement and overall rate proceeding on behalf of the Staff of the NJ Board of Public Utilities)

BPU Docket No. WR07020135

**WEIGHTED AVERAGE COST OF CAPITAL**

(1) Company Proposed

		<b>Ratios</b>	<b>Cost of Capital</b>	<b>Weighted Average</b>
1	LT Debt	47.38000%	4.54000%	2.15105%
2	ST Debt	0.12000%	0.12000%	0.01200%
3	Common Equity	52.50000%	10.20000%	5.35500%
4	<b>Total Capital</b>	<b>100.00000%</b>		<b>7.51805%</b>
5	rounded			7.52000%

(2) ND PSC Advocacy Staff

6	LT Debt	47.500%	4.540%	2.16%
7	ST Debt	2.500%	7.720%	0.193%
8	Common Equity	50.000%	9.800%	4.900%
9	<b>Total Capital</b>	<b>100.000%</b>		<b>7.26%</b>

(1) Company VI C1

(2) Exhibit MFG-17- Schedule 3

<u>AVERAGE RATE BASE</u>		(1)			
		Company	ND PSC		References
		Proposed	Adjustments	Advocacy Staff	
<u>Gas Plant in Service</u>					
1	Gas Manufactured Plant	\$ 11,445,000	\$ -	\$ 11,445,000	
2	Transmission	\$ 4,006,000	\$ -	\$ 4,006,000	
3	Distribution	\$ 214,184,000	\$ -	\$ 214,184,000	
4	Gas Storage	\$ 14,311,000	\$ -	\$ 14,311,000	
5	General	\$ 19,609,000	\$ -	\$ 19,609,000	
6	Common	\$ 16,280,000	\$ -	\$ 16,280,000	
7	<b>Total Gas Plant In Service</b>	<b>\$ 279,835,000</b>		<b>\$ 279,835,000</b>	
8	Depreciation Reserve	\$ 96,003,000	\$ 1,000	\$ 96,004,000	
9	<b>Net Gas Plant In Service</b>	<b>\$ 183,832,000</b>	<b>\$ (1,000)</b>	<b>\$ 183,831,000</b>	
10	Gas Plant Held for Future Use	\$ -	\$ -	\$ -	
11	Construction Work in Progress	\$ 678,000	\$ (678,000)	\$ -	
12	<b>Accumulated Deferred Income Taxes</b>	<b>\$ 22,872,000</b>	<b>\$ (1,000)</b>	<b>\$ 22,871,000</b>	
13	Cash Working Capital	\$ (726,000)	\$ 11,914	\$ (714,086)	
14	<b>Subtotal</b>	<b>\$ 160,912,000</b>	<b>\$ (666,086)</b>	<b>\$ 160,245,914</b>	
<u>Other Rate Base Items</u>					
15	Materials and Supplies	\$ 306,000	\$ -	\$ 306,000	
16	Fuel Inventory	\$ 6,008,000	\$ -	\$ 6,008,000	
17	Non-Plant Assets & Liabilities	\$ 1,049,000	\$ -	\$ 1,049,000	
18	Customer Advances	\$ (1,560,000)	\$ -	\$ (1,560,000)	
19	Customer Deposits	\$ (20,000)	\$ -	\$ (20,000)	
20	Prepays and Other	\$ 287,000	\$ -	\$ 287,000	
21	Regulatory Amortization	\$ 990,000	\$ -	\$ 990,000	WP A15
22	<b>Total Other Rate Base Items</b>	<b>\$ 7,058,000</b>	<b>\$ 2,000</b>	<b>\$ 7,060,000</b>	NDPSC 1-32
23	<b>Total Average Rate Base</b>	<b>\$ 167,970,000</b>	<b>\$ (664,086)</b>	<b>\$ 167,305,914</b>	

(1) Company Exhibit BCH-1 Schedule 15

differences due to rounding

**OPERATING INCOME STATEMENT**

		(1)				Present Rates	
		Company		Company		ND PSC	
		Present Rates	Adjustments	Proposed Rates	Adjustments	Advocacy Staff	References
<b>Operating Revenues</b>							
1	Retail Revenues	\$ 89,990,000	\$ 8,463,000	\$ 98,453,000	\$ -	\$ 89,990,000	
2	Interdepartmental	\$ -		\$ -	\$ -	\$ -	
3	Other Operating	\$ 469,000	\$ -	\$ 469,000	\$ -	\$ 469,000	
4	<b>Total Operating Revenues</b>	<b>\$ 90,459,000</b>	<b>\$ 8,463,000</b>	<b>\$ 98,922,000</b>	<b>\$ -</b>	<b>\$ 90,459,000</b>	DM-9
<b>Operating Expenses</b>							
5	Purchased Gas	\$ 58,155,000		\$ 58,155,000	\$ -	\$ 58,155,000	DM-12
6	Gas Production & Storage	\$ 2,300,000		\$ 2,300,000	\$ 33,860	\$ 2,333,860	DM-13
7	Gas Transmission	\$ 295,000		\$ 295,000	\$ (144,763)	\$ 150,237	DM-14
8	Gas Distribution	\$ 5,282,000		\$ 5,282,000	\$ (142,456)	\$ 5,139,544	DM-15
9	Customer Accounting	\$ 1,354,000		\$ 1,354,000	\$ (12,850)	\$ 1,341,150	DM-16
10	Customer Service & Other	\$ 152,000		\$ 152,000	\$ (238)	\$ 151,762	DM-17
11	Sales, Econ Development & Other	\$ 9,000		\$ 9,000	\$ (3,542)	\$ 5,458	DM-18
12	Administrative & General	\$ 3,474,000		\$ 3,474,000	\$ (258,677)	\$ 3,215,877	DM-19
	Software Maintenance / Licensing				\$ (92,323)	\$ (92,324)	NDPSC 2-20
	Outside Services				\$ (297,916)	\$ (297,916)	NDPSC 2-19
	Vacancy Rate Adjustment				\$ (183,572)	\$ (183,572)	2-34/17
13	<b>Total Operating Expenses</b>	<b>\$ 71,021,000</b>	<b>\$ -</b>	<b>\$ 71,021,000</b>	<b>\$ (1,101,924)</b>	<b>\$ 69,919,076</b>	
14	Depreciation Expense	\$ 9,370,000	\$ -	\$ 9,370,000	\$ (1,000)	\$ 9,369,000	DM-20
15	Amortization Expense	\$ 567,000	\$ -	\$ 567,000	\$ 317	\$ 567,317	DM-21
16	Taxes Other Than Income	\$ 2,416,000	\$ -	\$ 2,416,000	\$ (16,994)	\$ 2,399,006	DM-22
17	State Income Taxes	\$ (76,000)	\$ 364,755	\$ 288,755	\$ -	\$ (76,000)	DM-23
18	Federal Income Taxes	\$ (347,000)	\$ 1,700,631	\$ 1,353,631	\$ -	\$ (347,000)	DM-23
	Deferred Income Tax and ITC	\$ 1,277,000		\$ 1,277,000		\$ 1,277,000	
19	<b>Total Taxes</b>	<b>\$ 3,270,000</b>	<b>\$ 2,065,387</b>	<b>\$ 5,335,387</b>	<b>\$ (16,994)</b>	<b>\$ 3,253,006</b>	
20	<b>Total Expenses</b>	<b>\$ 84,226,000</b>	<b>\$ 2,065,387</b>	<b>\$ 86,291,387</b>	<b>\$ (1,117,601)</b>	<b>\$ 83,108,399</b>	
21	AFUDC	\$ -	\$ -	\$ -	\$ -	\$ -	
22	<b>Total Operating Income</b>	<b>\$ 6,233,000</b>	<b>\$ 6,397,613</b>	<b>\$ 12,630,613</b>	<b>\$ 1,117,601</b>	<b>\$ 7,350,601</b>	
23	Rate Base	\$ 167,970,000		\$ 167,970,000		\$ 167,305,914	
24	Rate of Return	3.711%		7.5196%		7.26%	
				\$ 12,630,613		\$ 12,146,409	
(1)	Company Exhibit BCH-1 Schedule 11						

differences due to rounding

**GAS PLANT IN SERVICE**

		(1)						
		Company		Company		ND PSC		References
		Proposed Unadj.	Adjustments	Proposed Adj.	Adjustments	Advocacy Staff		
1	Gas Manufactured Plant	\$ 11,445,000	\$ -	\$ 11,445,000		\$ 11,445,000		
2	Gas Storage	\$ 14,311,000	\$ -	\$ 14,311,000		\$ 14,311,000		
3	Gas Transmission	\$ 4,006,000	\$ -	\$ 4,006,000		\$ 4,006,000		
4	Gas Distribution	\$ 214,184,000	\$ -	\$ 214,184,000		\$ 214,184,000		
5	General	\$ 19,609,000	\$ -	\$ 19,609,000		\$ 19,609,000		
6	Common	\$ 16,280,000	\$ -	\$ 16,280,000		\$ 16,280,000		
7	<b>Total Gas Plant In Service</b>	<b>\$ 279,835,000</b>	<b>\$ -</b>	<b>\$ 279,835,000</b>	<b>\$ -</b>	<b>\$ 279,835,000</b>		

(1) Company Exhibit BCH-1 Schedule 5

**ACCUMULATED DEPRECIATION**

	(1)				ND PSC		
	Company		Company		Advocacy Staff		References
	Unadjusted	Adjustments	Proposed	Adjustments			
Gas Manufactured Plant	\$ 2,944,000	\$ -	\$ 2,944,000	\$ -	\$ 2,944,000		
Gas Storage	\$ 8,376,000	\$ -	\$ 8,376,000	\$ -	\$ 8,376,000		
Gas Transmission	\$ 1,818,000	\$ 5,000	\$ 1,823,000	\$ -	\$ 1,823,000		
Gas Distribution	\$ 66,782,000	\$ 124,000	\$ 66,906,000	\$ -	\$ 66,906,000		
General	\$ 8,044,000	\$ (166,000)	\$ 7,878,000	\$ -	\$ 7,878,000		
Common	\$ 8,126,000	\$ (49,000)	\$ 8,077,000	\$ -	\$ 8,077,000		
<b>Total Accumulated Depreciation</b>	<b>\$ 96,090,000</b>	<b>\$ (86,000)</b>	<b>\$ 96,004,000</b>	<b>\$ -</b>	<b>\$ 96,004,000</b>		

(1) Company Exhibit BCH-1 Schedule 5

**ACCUMULATED DEFERRED INCOME TAXES**

		(1)						
		Company		Company		ND PSC		
		Unadjusted	Adjustments	Proposed	Adjustments	Advocacy Staff	References	
1	Gas Manufactured Plant	\$ (17,000)	\$ -	\$ (17,000)	\$ -	\$ (17,000)		
2	Transmission	\$ 614,000	\$ 4,000	\$ 618,000	\$ -	\$ 618,000		
3	Distribution	\$ 19,623,000	\$ (47,000)	\$ 19,576,000	\$ -	\$ 19,576,000		
4	Gas Storage	\$ (117,000)	\$ -	\$ (117,000)	\$ -	\$ (117,000)		
5	General	\$ 1,496,000	\$ 54,000	\$ 1,550,000	\$ -	\$ 1,550,000		
6	Common	\$ 1,030,000	\$ 14,000	\$ 1,044,000	\$ -	\$ 1,044,000		
7	Net Operating Loss	\$ -	\$ -	\$ -	\$ -	\$ -		
8	Non-Plant Related	\$ 217,000	\$ -	\$ 217,000	\$ -	\$ 217,000		
9	<b>Total Accumulated Deferred Income Taxes</b>	<b>\$ 22,846,000</b>	<b>\$ 25,000</b>	<b>\$ 22,871,000</b>	<b>\$ -</b>	<b>\$ 22,871,000</b>		NDPSC-2-23

(1) Company Exhibit BCH-1 Schedule 15  
 ADIT Rate 27.9718% NDPSC-2-22

<b>CASH WORKING CAPITAL</b>		(1)					
	<b>Lead/Lag Days</b>	<b>Company Dollars</b>	<b>Dollar x Days</b>	<b>Adjustments</b>	<b>ND PSC Advocacy Staff</b>	<b>References</b>	
1	<b>Fuel Expenses</b>	37.67 \$	58,155 \$	2,190,699 \$	- \$	2,190,699	
	<b>Labor</b>						
2	Regular Payroll	12.11 \$	5,110 \$	61,882 \$	(503) \$	55,792	DM-4
3	Incentive	251.96 \$	56 \$	14,110 \$	(214) \$	13,896	
4	Pension & Benefits	37.29 \$	1,002 \$	37,365 \$	(31) \$	37,333	
		<b>\$</b>	<b>6,168 \$</b>	<b>113,356 \$</b>	<b>(6,335) \$</b>	<b>107,021</b>	
5	All Other Operating Expenses	30.71 \$	6,698 \$	205,696 \$	(1,097) \$	204,599	
6	Property Taxes	354.81 \$	2,020 \$	716,716 \$	- \$	716,716	
7	Employer's Payroll Taxes	28.07 \$	396 \$	11,116 \$	(47) \$	11,069	
8	Gross Earnings Tax	38.6 \$	1,662 \$	64,153 \$		64,153	
9	Federal Income Taxes	37.25 \$	(347) \$	(12,926) \$	(2,542) \$	(10,384)	
10	State Income Taxes	37.25 \$	(76) \$	(2,831) \$	(541) \$	(2,290)	
		<b>\$</b>	<b>10,353 \$</b>	<b>981,924 \$</b>		<b>983,863</b>	
11	<b>Total</b>	<b>\$</b>	<b>74,676 \$</b>	<b>3,285,979</b>		<b>\$ 3,281,583</b>	
12	Net Annual Expense (365)			\$ 9,003		\$ 8,991	
13	Revenues	40.61 \$	89,990 \$	3,654,494		\$ 3,654,494	
14	Late Payment	\$	251 \$	-		\$ -	
15	Miscellaneous Services	40.61 \$	124 \$	5,036		\$ 5,036	
16	Rentals	0 \$	91 \$	-		\$ -	
17	<b>Total</b>	<b>\$</b>	<b>90,456 \$</b>	<b>3,659,530</b>		<b>\$ 3,659,530</b>	
18	Net Annual Amount (365)			\$ 10,026		\$ 10,026	
19	Expense/Revenue Factor			82.55%		82.55%	
20	Allocated Revenue			\$ 8,277		\$ 8,277	
21	<b>Net Cash Working Capital</b>		<b>\$ (726,130)</b>			<b>\$ (714,086)</b>	

(1) Company Exhibit BCH-1 Schedule 8

**OPERATING REVENUES**

		(1)		ND PSC	
		Company	Adjustments	Advocacy Staff	References
		Proposed			
1	Residential Service	\$ 35,616,798	\$ -	\$ 35,616,798	
2	Commerical/Industrial	\$ 43,893,333	\$ -	\$ 43,893,333	
3	Small Interruptible Service	\$ 2,472,464	\$ -	\$ 2,472,464	
4	Large Interruptible Service	\$ 6,673,944	\$ -	\$ 6,673,944	
5	Interruptible	\$ 26,250	\$ -	\$ -	
6	Firm Transportation Service	\$ 1,307,271	\$ -	\$ -	
7	<b>Total Present Rate Revenues</b>	<b>\$ 89,990,060</b>	<b>\$ -</b>	<b>\$ 88,656,539</b>	
8	Other Gas Revenues	\$ 469,287	\$ -	\$ 469,287	
9	<b>Total Operating Revenues</b>	<b>\$ 90,459,347</b>	<b>\$ -</b>	<b>\$ 89,125,826</b>	

(1) Company WP R1 and R2 Present Revenues  
 Differences due to rounding

**OPERATION & MAINTENANCE  
 EXPENSES - WORKSHEET**

		(1)		ND PSC		
		Company	Adjustments	Advocacy Staff	References	
		Proposed				
1	Purchased Gas Expense	\$ 58,155,000	\$ -	\$ 58,155,000	DM-11	
2	Gas Production & Storage	\$ 2,300,000	\$ 33,860	\$ 2,333,860	DM-12	
3	Gas Transmission	\$ 295,000	\$ (144,763)	\$ 150,237	DM-13	
4	Gas Distribution	\$ 5,282,000	\$ (142,456)	\$ 5,139,544	DM-14	
5	Customer Accounting	\$ 1,354,000	\$ -	\$ 1,354,000	DM-15	
6	Customer Service & Information	\$ 152,000	\$ -	\$ 152,000	DM-16	
7	Sales, Econ Develop & Other	\$ 9,000	\$ (4,000)	\$ 5,000	DM-17	
8	Administrative & General	\$ 3,474,000	\$ (258,677)	\$ 3,215,323	DM-18	
9	<b>Total</b>	<b>\$ 71,021,000</b>	<b>\$ (516,035)</b>	<b>\$ 70,504,965</b>		

Software Maintenance/Licensing	\$ 356,291	\$ (92,323)	\$ 263,968	NDPSC 2-20
Outside Services	\$ 718,819	\$ (297,916)	\$ 420,903	NDPSC 2-19
Vacancy Rate Ratio	\$ -	\$ (183,572)	\$ (183,572)	NDPSC-2-17

\$ (573,811)
\$ (253,359)
\$ (146,924)
<u>\$ (974,094)</u>

Total Normalization Adjustment

- (1) Company WP O2-3 Jurisdictional Alloc.  
 Differences due to rounding

check for vacancy rate - 2-17 and 2-15  
 check for hires in 2-15 - trade secret for salaries  
 review 2-34 without labor

**PURCHASED GAS**

	(1) Company Proposed	Adjustments	ND PSC Advocacy Staff	References
1 <b>Unadjusted Balance</b>	<b>\$ 58,155,000</b>		<b>\$ 58,155,000</b>	
2 Adjustments	\$ -		\$ -	
3 Precedential Adjustments	\$ -		\$ -	
4 <b>Adjusted Balance</b>	<b>\$ 58,155,000</b>	<b>\$ -</b>	<b>\$ 58,155,000</b>	

(1) Company Schedule BCH-1 Schedule 6  
 Company WP O2-3 Jurisdictional Allocation

**GAS PRODUCTION & STORAGE**

		(1)			
		Company	ND PSC		
		Proposed	Adjustments	Advocacy Staff	References
1	<b>Unadjusted Balance</b>	\$ 2,300,000	\$ -	\$ 2,300,000	
	GDesign Day	\$ 1,050,382			
	GDirectND	\$ 1,250,000	\$ -	\$ 1,250,000	
2	Adjustments	\$ -		\$ -	
3	Precedential Adjustments	\$ -	\$ -	\$ -	
4	<b>Adjusted Balance</b>	<b>\$ 2,300,382</b>	<b>\$ 33,860</b>	<b>\$ 2,334,242</b>	

**Normalization Adjustments**

Other Storage Exp-Non-Labor (841)	\$ 81,149	\$ (22,297)	\$ 58,852
Maint. of Storage/Improve (843.2)	\$ 19,477	\$ (6,765)	\$ 12,712
Maint. Of Vaporizing Equip. (843.6)	\$ 12,987	\$ (4,996)	\$ 7,991
Maint. Of Other Equip. (843.9)	\$ 4,594	\$ (6,191)	\$ (1,597)
Liquefaction (844.3)	\$ 14,338	\$ 15,317	\$ 29,655
Other Expenses (846.2)	\$ 21,054	\$ (3,369)	\$ 17,685
Maint.of Structures (847.2)	\$ 71,544	\$ 43,578	\$ 115,122
Maint. Of Processing (847.3)	\$ 83,328	\$ 18,584	\$ 101,912
	<b>\$ 308,471</b>	<b>\$ 33,860</b>	<b>\$ 342,331</b>
		10.98%	

- (1) Company Exhibit BCH-1 Schedule 6  
 Company WP O2-3 Jurisdictional Allocation  
 Wescott, Maplewood & Sibley Plants

**GAS TRANSMISSION**

	(1)			
	Company Proposed	Adjustments	ND PSC Advocacy Staff	References
1 <b>Unadjusted Balance</b>	<b>\$ 295,000</b>		<b>\$ 295,000</b>	
2 Adjustments - three year average Damage Prevention Program	\$ -	\$ -	\$ -	
3 Precedential Adjustments	\$ -	\$ -	\$ -	
4 <b>Adjusted Balance</b>	<b>\$ 295,000</b>	<b>\$ (144,763)</b>	<b>\$ 150,237</b>	
Gas Trans Mains. Exp. (856)	\$ 210,378	\$ (150,424)	\$ 59,954	NDPSC-2-21
Maint. Gas Trans Mains (863)	\$ 829	\$ 5,662	\$ 6,491	
	<b>\$ 211,207</b>	<b>\$ (144,763)</b>	<b>\$ 66,444</b>	
		-68.54%		

(1) Company Exhibit BCH-1 Schedule 6  
 Company WP O2-3 Jurisdictional Allocation

**GAS DISTRIBUTION**

		(1)		ND PSC		
		Company		Advocacy Staff		References
		Proposed	Adjustments			
<b>Unadjusted Balance</b>						
1	G Customer MNND Border	\$ 100,605	\$ -	\$ 100,605		
2	G Customers	\$ 635,004	\$ -	\$ 635,004		
3	G Direct MN	\$ -	\$ -	\$ -		
4	G Direct ND	\$ 4,546,198	\$ -	\$ 4,546,198		
5	<b>Total Balance</b>	<b>\$ 5,281,807</b>	<b>\$ -</b>	<b>\$ 5,281,807</b>		
6	Damage Prevention Program	\$ -	\$ -	\$ -		
7	Precedential Adjustments	\$ -	\$ -	\$ -		
8	<b>Adjusted Balance</b>	<b>\$ 5,281,807</b>	<b>\$ (142,456)</b>	<b>\$ 5,139,351</b>		
	Dist. Operation (870)	\$ 481,221	\$ (115,705)	\$ 365,516		
	Dist. Op MeasReg Sta (875)	\$ 11,399	\$ 15,905	\$ 27,304		
	Dist. Op Meter & House Reg (878)	\$ (860,461)	\$ (35,427)	\$ (895,888)		
	Dist Oper - Other (880)	\$ 7,295	\$ (3,593)	\$ 3,702		
	Dist. Mtce of Meters/House (893)	\$ 4,249	\$ (3,636)	\$ 613		NDPSC-2-33
		<b>\$ (356,297)</b>	<b>\$ (142,456)</b>	<b>\$ (498,753)</b>		
			39.98%			

(1) Company Exhibit BCH-1 Schedule 6  
 Company WP O2-3 Jurisdictional Allocation

**CUSTOMER ACCOUNTING**

		(1)		ND PSC		
		Company		Advocacy Staff		References
		Proposed	Adjustments			
<b>Unadjusted Balance</b>						
1	G Bad Debts	\$ 373,388	\$ -	\$ 373,388		
2	G Customers	\$ 795,758	\$ -	\$ 795,758		
3	G Direct MN	\$ -	\$ -	\$ -		
4	G Direct ND	\$ 149,480	\$ -	\$ 149,480		
5	<b>Total Balance</b>	<b>\$ 1,318,626</b>	<b>\$ -</b>	<b>\$ 1,318,626</b>		
6	Adjustments - Bad Debt (WP-A7)	\$ 35,291	\$ (8,836)	\$ 26,455		DR 2-27
7	Precedential Adjustments	\$ -	\$ -	\$ -		
8	<b>Adjusted Balance</b>	<b>\$ 1,353,917</b>	<b>\$ (12,767)</b>	<b>\$ 1,341,150</b>		

Differences due to rounding issues

- (1) Company Exhibit BCH-1 Schedule 6  
 Company WP O2-3 Jurisdictional Allocation

**CUSTOMER SERVICE & INFORMATION**

		(1)		ND PSC	
		Company	Adjustments	Advocacy Staff	References
		Proposed			
<b>Unadjusted Balance</b>					
1	G Customers MNND Border	\$ 1,564		\$ 1,564	
2	G Customers	\$ 52,214		\$ 52,214	
3	G Direct ND	\$ 137,984		\$ 137,984	
4	<b>Total Unadjusted Balance</b>	<b>\$ 191,762</b>	<b>\$ -</b>	<b>\$ 191,762</b>	
	Advertising (WP-A1)	\$ (40,000)	\$ -	\$ (40,000)	
	Association Dues (WP-A2)	\$ -			
	Incentive Pay (WP-A3)	\$ -			
	Pension - Non Qualified SERP (WP-A6)	\$ -			
	Precedential Adjustments	\$ (40,000)	\$ -	\$ (40,000)	
	Adjustments	\$ -	\$ -	\$ -	
5	Other	\$ -	\$ -	\$ -	
6	<b>Adjusted Balance</b>	<b>\$ 151,762</b>	<b>\$ -</b>	<b>\$ 151,762</b>	

(1) Company Exhibit BCH-1 Schedule 6  
 Company WP O2-3 Jurisdictional Allocation

**SALES & ECONOMIC DEVELOPMENT**

	(1)		ND PSC	
	Company		Advocacy Staff	References
	Proposed	Adjustments		
<b>Unadjusted Balance</b>				
G Customers	\$ 456		\$ 456	
G Direct Customers	\$ 5,002		\$ 5,002	
<b>Total Unadjusted Balance</b>	<b>\$ 5,458</b>	<b>\$ -</b>	<b>\$ 5,458</b>	
Adjustments (WP-A10) Econ. Develop	\$ 4,000	\$ (4,000)	\$ -	
Precedential Adjustments	\$ -	\$ -	\$ -	
<b>Adjusted Balance</b>	<b>\$ 9,458</b>	<b>\$ (4,000)</b>	<b>\$ 5,458</b>	

- (1) Company Exhibit BCH-1 Schedule 6  
 Company WP O2-3 Jurisdictional Allocation

**ADMINISTRATIVE & GENERAL**

		(1)		ND PSC		
		Company		Advocacy Staff		References
		Proposed	Adjustments			
<b>Unadjusted Balance</b>						
1	G Customers MNND Border	\$ 24,659	\$ -	\$ 24,659		
2	G Customers	\$ 3,010,850	\$ -	\$ 3,010,850		
3	G Direct ND	\$ 558,045	\$ -	\$ 558,045		
4	Other	\$ -	\$ -	\$ -		
5	<b>Total Unadjusted Balance</b>	<b>\$ 3,593,554</b>	<b>\$ -</b>	<b>\$ 3,593,554</b>		
6	Adjustments - Other	\$ -	\$ -	\$ -		
<b>Precedential Adjustments:</b>						
7	Advertising (WP-A1)	\$ (34,000)	\$ -	\$ (34,000)		
	Associated Dues (WP-A2)	\$ (3,000)	\$ -	\$ (3,000)		
8	Customer Deposits	\$ -	\$ -	\$ -		
9	Incentive Pay (WP-A4)	\$ (20,000)	\$ -	\$ (20,000)		
10	Incentive Pay LT (WP-A5)	\$ (130,000)	\$ -	\$ (130,000)		
11	SERP (WP-A6)	\$ -	\$ -	\$ -		
12	<b>Total Precedential Adjustments</b>	<b>\$ (187,000)</b>	<b>\$ -</b>	<b>\$ (187,000)</b>		
<b>RM Adjustments</b>						
13	Aviation (100%) (WP-A3)	\$ (35,000)	\$ -	\$ (35,000)		
14	Chamber of Commerce (WP-A9)	\$ 3,000	\$ (3,000)	\$ -		
15	Economic Develop Donations	\$ -	\$ -	\$ -		
	Foundational (WP11)	\$ 22,000	\$ (22,000)	\$ -		
	DEI costs					
	Employee Recognition		\$ (8,753)	\$ (8,753)		NDPSC-2-13
16	Incentive Pay - Environ. LTI (WP-A12)	\$ 16,000	\$ (16,000)	\$ -		NDPSC 2-13
17	Incentive Pay - Time Based LTI (WP-A13)	\$ 62,000	\$ (62,000)	\$ -		NDPSC-3-3
18	<b>Total RM Adjustments</b>	<b>\$ 68,000</b>	<b>\$ (111,753)</b>	<b>\$ (43,753)</b>		
19	<b>Adjusted Balance</b>	<b>\$ 3,474,554</b>	<b>\$ (111,753)</b>	<b>\$ 3,362,801</b>		
20	rounding	\$ -	\$ -	\$ -		
21	<b>Total</b>	<b>\$ 3,474,554</b>	<b>\$ (258,677)</b>	<b>\$ 3,215,877</b>		
	Office Supplies (921)	\$ 633,817	\$ (89,095)	\$ 544,722		
	I&D (925)	\$ 226,700	\$ (68,541)	\$ 158,159		
	Pension & Benefits (926)	\$ 73,400	\$ (11,345)	\$ 62,055		
	Reg Comm. Exp (928)					
	Dupl. Chg. Cr. (929)	\$ (60,912)	\$ 22,057	\$ (38,855)		
	Advertising (930.1)	\$ 2,113				
	Advertising (930.1)	\$ 3,073				
	A&G Misc. (930.2)	\$ 70,105				
	A&G Misc. (930.2)	\$ 26,327				
		<b>\$ 974,623</b>	<b>\$ (146,924)</b>	<b>\$ 726,081</b>		
				-15.07%		

(1) Company Exhibit BCH-1 /Schedule 4 and Schedule 6  
Company O2-3 Jurisdictional Allocation

**DEPRECIATION EXPENSE**

	Depr Rate	(1) Company Proposed	Adjustments	ND PSC Advocacy Staff	References
1		<b>\$ 9,541,000</b>	<b>\$ -</b>	<b>\$ 9,541,000</b>	
4					
		Gas Distribution	\$ 248,000		
		Gas Transmission	\$ 10,000		
		Common General	\$ (78,000)		
		General	\$ (227,000)		
		Common Intangible	\$ (20,000)		
		Intangible Plant	\$ (105,000)		
		<b>Total</b>	<b>\$ (172,000)</b>	<b>\$ (172,000)</b>	
		<b>Balance</b>	<b>\$ 9,369,000</b>		
		<b>Depreciation Balances</b>			
5	Intangible Plant	9.971%	\$ 1,623,222	\$ -	-
6	Gas Production	6.395%	\$ 731,897	\$ -	-
7	General	6.410%	\$ 1,256,906	\$ -	-
8	Gas Storage	3.672%	\$ 525,463	\$ -	-
9	Gas Transmission	1.730%	\$ 69,286	\$ -	-
	Gas Distribution	2.491%	\$ 5,334,710	\$ -	-
11	<b>Total Depreciation Expense</b>		<b>\$ 9,541,484</b>	<b>\$ -</b>	<b>-</b>
12	<b>Adjusted Balance</b>		<b>\$ 9,369,484</b>	<b>\$ (484)</b>	<b>\$ 9,369,000</b>

NDPSC-2-29

(1) Company Exhibit BCH-1 Schedule 6

**AMORTIZATION EXPENSE**

	(1)			
	Company		ND PSC	
	Proposed	Adjustments	Advocacy Staff	References
<b>Unadjusted Balance</b>	<b>\$ -</b>			
(2) Income Tax Tracker	\$ 9,317	\$ -	\$ 9,317	NDPSC-2-28
NOL Tax Reform ADIT ARAM	\$ 60,000	\$ -	\$ 60,000	
(3) Rate Case Expense Amortization	\$ 498,000	\$ -	\$ 498,000	
<b>Adjusted Balance</b>	<b>\$ 567,317</b>	<b>\$ -</b>	<b>\$ 567,317</b>	

(1) Company Exhibit BCH-1 Schedule 6

(2) over three years

WP-A-14

(3) over three years

WP-A-16

<b>TAXES OTHER THAN INCOME</b>				
	(1)			
	<b>Company</b>		<b>ND PSC</b>	
	<b>Proposed</b>	<b>Adjustments</b>	<b>Advocacy Staff</b>	<b>References</b>
<b>Property Taxes</b>	<b>\$ 2,020,000</b>	<b>\$ -</b>	<b>\$ 2,020,000</b>	
<b>Payroll Taxes</b>	<b>\$ 396,000</b>	<b>\$ (16,994)</b>	<b>\$ 379,006</b>	
<b>Deferred Income Taxes / ITC</b>	<b>\$ 1,222,000</b>	<b>\$ -</b>	<b>\$ 1,222,000</b>	
Depreciation Study - Remaining Life				
TD&G	\$ 55,000	\$ -	\$ 55,000	
Other	\$ -	\$ -	\$ -	
<b>Total</b>	<b>\$ 55,000</b>	<b>\$ -</b>	<b>\$ 55,000</b>	
Gas Distribution	\$ (72,000)	\$ -	\$ (72,000)	
Gas Transmission	\$ (3,000)	\$ -	\$ (3,000)	
Common-General	\$ 22,000	\$ -	\$ 22,000	
General	\$ 72,000	\$ -	\$ 72,000	
Common-Intangible	\$ 6,000	\$ -	\$ 6,000	
Intangible Plant	\$ 30,000	\$ -	\$ 30,000	
<b>Total</b>	<b>\$ 55,000</b>	<b>\$ -</b>	<b>\$ 55,000</b>	
<b>Adjusted Deferred Income Taxes/ITC</b>	<b>\$ 1,277,000</b>	<b>\$ -</b>	<b>\$ 1,277,000</b>	
<b>Total Taxes Other Than Income</b>	<b>\$ 3,693,000</b>	<b>\$ (16,994)</b>	<b>\$ 3,676,006</b>	

(1) Company Exhibit BCH-1 Schedule 6

**STATE INCOME TAXES**  
**FEDERAL INCOME TAXES**

	(1)			
	Company		ND PSC	
	Proposed	Adjustments	Advocacy Staff	References
<b>State Income Taxes</b>				
Current - 4.31% (2024 test year)	\$ (76,000)	\$ -	\$ (76,000)	NDPSC-2-30
Proposed Revenue Requirement	\$ 8,463,000		\$ 6,344,087	
Proposed State Income Taxes	\$ 364,755	\$ (91,325)	\$ 273,430	
<b>Proposed Balance</b>	<b>\$ 288,755</b>	<b>\$ (91,325)</b>	<b>\$ 197,430</b>	
<b>Federal Income Taxes</b>				
Current - 21% (2024 test year)	\$ (347,000)	\$ -	\$ (347,000)	NDPSC-2-30
Proposed Revenue Requirement	\$ 8,463,000		\$ 6,344,087	
Proposed Federal Income Taxes	\$ 1,700,631	\$ (425,793)	\$ 1,274,838	
<b>Proposed Balance</b>	<b>\$ 1,353,631</b>	<b>\$ (425,793)</b>	<b>\$ 927,838</b>	
Check total	\$ 1,642,387	\$ (517,119)	\$ 1,125,268	

(1) Company Exhibit BCH-1 Schedule 3A  
 Differences due to rounding





# Public Service Commission

## State of North Dakota

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### COMMISSIONERS

Randy Christmann  
Sheri Haugen-Hoffart  
Julie Fedorchak

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Fax: 701-328-2410  
TDD: 800-366-6888 or 711

July 1, 2024

Public Service Commission  
Attention: Steve Kahl  
600 East Boulevard Avenue, Dept 408  
Bismarck, ND 58505-0480

In re: Northern States Power Company  
2024 Natural Gas Rate Increase  
Application  
Case No. PU-23-367

Dear Mr. Kahl,

Enclosed for filing in the above referenced matter please find the original copy of the following public document:

1. Prefiled Direct Testimony of Karl R. Pavlovic.

Respectfully,

A handwritten signature in black ink, appearing to read "Brian Johnson".

Brian Johnson  
Special Assistant Attorney General Bar ID 07397  
North Dakota Public Service Commission  
600 East Boulevard Avenue Dept. 408  
Bismarck, ND 58505  
701-328-2407

STATE OF NORTH DAKOTA  
BEFORE THE NORTH DAKOTA PUBLIC SERVICE COMMISSION

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IN THE MATTER OF THE APPLICATION OF  
NORTHERN STATES POWER COMPANY FOR  
AUTHORITY TO INCREASE RATES FOR  
NATURAL GAS SERVICE IN NORTH DAKOTA

---

Case No. PU-23-367

**DIRECT TESTIMONY OF  
KARL R. PAVLOVIC**

**Submitted on Behalf of  
the Advocacy Staff of the  
North Dakota Public Service Commission**

July 1, 2022

1 **DIRECT TESTIMONY OF**  
2 **KARL R. PAVLOVIC**

3 **QUALIFICATIONS**

4 **Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.**

5 A. My name is Karl Richard Pavlovic. My business address is 22 Brookes Avenue,  
6 Gaithersburg, MD 20877. I am a Senior Consultant with and the Managing Director of  
7 PCMG and Associates LLC.

8 **Q. PLEASE DESCRIBE PCMG.**

9 A. PCMG and Associates LLC (PCMG) is an association of experts in economics, accounting,  
10 finance, and utility regulation and policy, with over 75 years collective experience  
11 providing assistance to counsel and expert testimony regarding the regulation of electric,  
12 gas, water, and wastewater utilities. PCMG began operation on January 1, 2015. During  
13 its most recent year of operation, PCMG has provided assistance to counsel and/or  
14 testimony in regulatory proceedings before Federal Energy Regulatory Commission, the  
15 Pennsylvania Public Service Commission, the Maine Public Utilities Commission, the  
16 Massachusetts Department of Public Utilities, the New Jersey Board of Public Utilities,  
17 and the Hawaii Public Utilities Commission. PCMG is currently providing assistance to  
18 the Hawaii Division of Consumer Advocate, the Maine Office of the Public Advocate, the  
19 Massachusetts Office of the Attorney General, the New Jersey Division of Rate Counsel,  
20 and the Pennsylvania Office of Consumer Advocate.

1 **Q. HAVE YOU PREPARED A SUMMARY OF YOUR QUALIFICATIONS AND**  
2 **EXPERIENCE?**

3 A. Yes. Exhibit KRP-1 to my testimony summarizes my qualifications and experience.

4 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN REGULATORY**  
5 **PROCEEDINGS?**

6 A. Yes. Exhibit KRP-1 also contains a complete list of my engagements as an expert and/or  
7 expert witness in matters before state and federal regulatory agencies. I have submitted  
8 testimony to the Federal Communications Commission, the Federal Energy Regulatory  
9 Commission, the Alaska Public Utilities Commission, the Alberta Utilities Commission,  
10 the California Public Utilities Commission, the Delaware Public Service Commission, the  
11 Public Service Commission of the District of Columbia, the Hawaii Public Utilities  
12 Commission, the Illinois Commerce Commission, the Kansas Corporation Commission,  
13 the Maine Public Utilities Commission, the Maryland Public Service Commission, the  
14 Massachusetts Department of Public Utilities, the Missouri Public Service Commission,  
15 and the North Dakota Public Service Commission.

16 **Q. IN WHICH PROCEEDINGS HAVE YOU PREVIOUSLY APPEARED BEFORE**  
17 **THIS COMMISSION?**

18 A. I appeared on behalf of the North Dakota Public Service Commission Advocacy Staff in  
19 Case No. PU-12-813 Application of Northern States Power Company for Authority to  
20 Increase Rates for Electric Service in North Dakota, in Case No. PU-17-295 Montana-  
21 Dakota Utilities Co. for Authority to Establish Increased Rates for Natural Gas Service,  
22 in Case PU-20-441 Application of Northern States Power Company for Authority to

1 Increase Rates for Electric Service in North Dakota, and in Case No. PU-21-381  
2 Application of Northern States Power Company for Authority to Increase Rates for  
3 Natural Gas Service in North Dakota.

4 **Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS?**

5 A. I received undergraduate and graduate degrees in Philosophy from Yale College and  
6 Purdue University. By education and professional experience I have expertise in formal  
7 and mathematical logic, statistics, economics, financial analysis, econometrics, and  
8 computer modeling. I have knowledge and experience in the areas of commercial and  
9 industrial operations in the energy, transportation, and telecommunications industries and  
10 am familiar with a wide range of experimental and investigative methods in science and  
11 engineering.

12 **Q. PLEASE SUMMARIZE YOUR ELECTRIC AND GAS REGULATORY**  
13 **EXPERIENCE.**

14 For most of my career I have performed analyses and submitted testimony regarding  
15 electric and gas utility least-cost planning, reliability, cost of service, rate design, and  
16 weather-emergency response. Specifically regarding gas utilities, I have testified on: (a)  
17 integrated resource planning, (b) class cost of service and rate design, and (c) various  
18 infrastructure operating expense and investment recovery mechanisms.

19 **I. PURPOSE AND ORGANIZATION**

20 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

21 A. I have been asked by the Commission's Advocacy Staff to address Northern States Power  
22 (NSP) assertions and proposals in this proceeding regarding (1) North Dakota class cost of

1 service study, (2) North Dakota class revenue responsibility distribution, and (3) North  
2 Dakota rate design.

3 **Q. HAVE YOU PREPARED ANY EXHIBITS IN SUPPORT OF YOUR**  
4 **RECOMMENDATIONS?**

5 A. Yes. I have included the following four exhibits:

6 Exhibit No. KRP-1: Qualifications

7 Exhibit No. KRP-2: CCOSS Without Minimum System Classification

8 Exhibit No. KRP-3: Calculations for Tables 2, 3, 4 and 5.

9  
10  
11 **II. SUMMARY OF TESTIMONY AND CONCLUSIONS**

12 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

13 A. My testimony finds the following.

- 14 • The NSP CCOSS' use of a minimum size study to classify a portion of  
15 distribution mains as customer-related is inconsistent with the principle of cost  
16 causation.
- 17 • The NSP CCOSS' use of customer and demand allocators to allocate mains is  
18 inconsistent with the principle of cost causation.
- 19 • NSP's CCOSS without minimum-size classification and allocation of distribution  
20 mains is a guide to rate design that is consistent with the principle of cost causation.

21 I recommend that the Commission:

- 1 • Direct that NSP’s distribution mains be classified as wholly demand-related with  
2 no customer-related component, consistent with the CCOSS’ classification of  
3 transmission plant and regulator stations as only demand-related.
- 4 • Direct that NSP’s distribution mains costs be allocated using NSP’s Average and  
5 Peak, consistent with the CCOSS’ allocation of transmission plant and regulator  
6 stations.
- 7 • Direct that NSP derive class tariff rates from class revenue requirements based on  
8 NSP’s CCOSS without minimum-size classification and allocation of NSP’s  
9 distribution mains.

10  
11 **III. DISCUSSION**

12 **A. NORTH DAKOTA COST OF SERVICE AND RATE DESIGN**

13 **Q. PLEASE SUMMARIZE NSP'S NORTH DAKOTA COST OF SERVICE AND**  
14 **RATE DESIGN PROPOSALS.**

15 A. Based on a forecasted 2024 Test Year class cost of service study<sup>1</sup> and a revenue requirement  
16 distribution to classes based on the ratemaking principles of cost causation, competitive  
17 service pricing and moderation of rate increases,<sup>2</sup> and the cost study's class customer cost  
18 results, NSP proposes the following changes in customer rates in Table 1.

---

<sup>1</sup> Direct Testimony of Christopher J. Barthol (Berthol Direct).

<sup>2</sup> Direct Testimony of Martha E Hoschmiller (Hoschmiller Direct)..

1

**Table 1: NSP Rate Design Proposals<sup>3</sup>**

<b>Residential (RC 401):</b> 12.5% revenue increase with Delivery Service Charge increased 5.1% from \$22.25/month to \$25.00/month and a new Distribution Charge of \$0.06155/therm;
<b>Commercial and Industrial (RC 403, 410):</b> 7.2% revenue increase with (a) Basic Service Charge unchanged of \$35.00/month and (b) Distribution Charge increased 37.54% from \$0.13581/therm to \$0.18665/therm;
<b>Small Interruptible (RC 404):</b> 7.7% revenue increase with (a) Basic Service Charge increased 25.0% from \$100.00/month to \$125.00/month and (b) Distribution Charge increased 31.5% from \$0.11065/therm to \$0.14549/therm;
<b>Large Interruptible (RC 405):</b> 8.1% revenue increase with (a) Basic Service Charge unchanged of \$275.00/month and (b) Distribution Charge increased 48.4% from \$0.07636/therm to \$0.11330/therm.

2

3

**B. NORTH DAKOTA CLASS COST OF SERVICE STUDY**

4

**Q. HAVE YOU EXAMINED NSP’S NORTH DAKOTA CLASS COST OF SERVICE STUDY (CCOSS)?**

5

6

A. Yes. NSP’s CCOSS is a spreadsheet model<sup>4</sup> that follows the standard class cost of service procedure of first functionalizing costs, second classifying the functionalized costs as directly assignable to certain classes or as demand-related, customer-related or commodity-related, and third allocating to customer classes those functionalized costs that are classified as demand-, customer-, or commodity-related.<sup>5</sup>

7

8

9

10

11

**Q. HAVE YOU FOUND ANY ERRORS IN THE CCOSS’ FUNCTIONALIZATION OF NSP’S GAS COSTS?**

12

13

A. No. The CCOSS properly functionalizes NSP’s gas costs using the FERC Gas Uniform System of Accounts (USoA).

14

<sup>3</sup> Hoschmiller Direct, page 1 line23 to page 2 line 7 and Exhibit MEH-1, Schedules 3and 4.

<sup>4</sup> Exhibit CJB-1, Schedule 3.

<sup>5</sup> See NARUC Gas Distribution Rate Design Manual (NARUC Gas Manual), 1989, pages 22-24.

1 **Q. HAVE YOU FOUND ANY ERRORS IN THE CCOSS' CLASSIFICATION OF**  
2 **NSP'S FUNCTIONALIZED GAS COSTS?**

3 A. Yes. The CCOSS relies on a NARUC minimum system study<sup>6</sup> to first classify NSP's  
4 distribution mains costs as 65.3% customer-related and the remaining 34.7% classified  
5 demand related to which NSP makes a "demand adjustment" that lowers the customer -  
6 related percentage to 49.2% and raises the demand related percentage to 50.8%.<sup>7</sup> NSP's  
7 minimum system study is based on the minimum size main theory which "assumes that  
8 there is a ... minimum size main necessary to connect the customer to the system"  
9 (emphasis added).<sup>8</sup> Under the minimum size theory, "all distribution mains are priced  
10 out at the historic unit cost of the smallest main installed, and assigned as customer  
11 costs."<sup>9</sup> The NARUC manual noted in 1989, the date of publication, that the minimum  
12 size main theory was controversial.<sup>10</sup> While this method of distribution mains  
13 classification is still frequently used, there is, from the perspective of cost causation, no  
14 theoretical or practical justification for minimum size mains classification.

15 **Q. WHAT IS THE COST CAUSATION THAT DEFINES THE CLASSIFICATION**  
16 **OF GAS DISTRIBUTION ACCOUNTS AS CUSTOMER-RELATED?**

17 A. As clearly articulated in Bonbright's Principles of Public Utility Rates,<sup>11</sup> under the  
18 principle of cost causation, customer-related costs are "those operating and capital costs  
19 found to vary with number of customers."<sup>12</sup> Operationally defined, customer-related

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<sup>6</sup> Barthol Direct, page 9 lines 12-24; NARUC Gas Distribution Rate Design manual (NARUC Manual).

<sup>7</sup> Barthol Direct, page 11 line 12 to page 14, line 12 and Exhibit CJB-1, Schedule 2, pages 3-4..

<sup>8</sup> NARUC Gas Manual, page 22.

<sup>9</sup> NARUC Gas Manual, page 22; Direct Testimony of Christopher J. Barthol, page 14, lines 11-13.

<sup>10</sup> NARUC Gas Manual, page 22.

<sup>11</sup> Bonbright et al, Principles of Public Utility Rates, 1988.

<sup>12</sup> Bonbright, page 490; also see NARUC Manual Electric Utility Cost Allocation Manual, 1992, page 90, "The customer component of distribution facilities is the portion of costs which varies with the number of customers."

1 costs are the “costs of connecting another customer or the savings in costs of not  
2 connecting the customer.”<sup>13</sup> Per the NARUC Gas Manual, customer costs are those  
3 operating capital costs found to vary directly with the number of customers served rather  
4 than with the amount of utility service supplied ... [t]hey include the expenses of  
5 metering, reading, billing, collecting, and accounting, as well as those cost associated  
6 with the capital investment in metering and in customers’ service connections.”<sup>14</sup> NSP’s  
7 CCOSS properly classifies the costs of services, meters and house regulators as  
8 customer-related. The CCOSS errs only in classifying a portion of the distribution mains  
9 costs as customer-related, rather than properly as demand-related.

10 **Q. WHAT IS THE COST CAUSATION THAT DEFINES THE CLASSIFICATION**  
11 **OF GAS DISTRIBUTION ACCOUNTS AS DEMAND-RELATED?**

12 A. As Bonbright also explains, it is theoretically impossible for the capital costs of  
13 distribution system facilities upstream of the facilities to be classified as customer-related  
14 because the connection of a new customer (or disconnection of an existing customer) has  
15 no measurable impact on the costs of those facilities.<sup>15</sup> Since the costs of the distribution  
16 facilities upstream of customer-related facilities do not and cannot vary with the number  
17 of customers connected to the distribution system, for the purposes of embedded cost  
18 analysis, those costs are properly classified as demand-related, because those costs do  
19 “var[y] continuously (and, perhaps, even more or less directly) with the maximum  
20 demand imposed on this system as measured by peak load.”<sup>16</sup> Per the NARUC Gas

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<sup>13</sup> Bonbright, page 490.

<sup>14</sup> NARUC Gas Manual, page 22; see also page 23 “only facilities, such as meters, regulators and service taps, are considered to be customer related, as they vary directly with the number of customers on the system.”

<sup>15</sup> Bonbright, page 491.

<sup>16</sup> Bonbright, page 492; see also NARUC Electric Manual, page 90, “Classifying distribution plant as a demand cost assigns investment ... based upon its contribution to some total peak load ,, [because] costs are incurred to serve area load, rather than a specific number of customers.”

1 Manual, demand related costs “are related to maximum system requirements which the  
2 system is designed to serve during short intervals and do not directly vary with the  
3 number of customers or their annual usage.”<sup>17</sup> NSP’s CCOSS properly classifies the  
4 costs of production plant, storage plant, transmission plant and regulator stations as  
5 demand-related. The CCOSS errs only in classifying a portion of the distribution mains  
6 costs as customer-related, rather than properly as demand-related.

7 **Q. WHAT IS YOUR RECOMMENDATION REGARDING THE CLASSIFICATION**  
8 **OF DISTRIBUTION MAINS IN NSP’S CCOSS?**

9 A. For reasons given above I recommend that NSP’s distribution mains be classified as  
10 wholly demand-related with no customer-related component, consistent with the CCOSS’  
11 classification of transmission mains and regulator stations as demand-related.

12 **Q. HAVE YOU FOUND ANY ERRORS IN THE CCOSS’ ALLOCATION OF NSP’S**  
13 **CLASSIFIED AND FUNCTIONALIZED GAS COSTS?**

14 A. No, except for the allocation error that results from the erroneous classification of a portion  
15 of distribution mains as customer-related and the allocation of that portion using a customer  
16 allocator.

17 **Q. WHAT IS YOUR RECOMMENDATION REGARDING THE ALLOCATION OF**  
18 **NSP’S MAINS COSTS?**

19 A. For the reasons given above I recommend that NSP’s distribution mains costs be  
20 classified as only demand-related and allocated using the Average and Peak demand  
21 allocator consistent with to the demand allocator applied to transmission and regulator  
22 station costs.

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<sup>17</sup> NARUC Gas Manual, pages 23 and 24.

1 **Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATIONS REGARDING THE**  
2 **CLASSIFICATION AND ALLOCATION OF NSP'S GAS COSTS?**

3 A. Regarding distribution mains classification, NSP's residential rate class has  
4 proportionately more customers than its commercial rate classes and significantly less  
5 aggregate demand than the commercial classes. Consequently, the CCOSS' class  
6 customer allocation of distribution mains costs that the CCOSS erroneously classifies as  
7 customer-related results in an unsupported and unjustified over allocation of distribution  
8 costs to NSP's residential rate class, which constitutes a interclass subsidization of the  
9 commercial & industrial class. Classifying the entirety of NSP's distribution mains costs  
10 as demand-related corrects the over allocation.

11 **Q. HAVE YOU QUANTIFIED THE IMPACT OF YOUR RECOMMENDATION?**

12 A. Yes. NSP's CCOSS calculates the customer class total operating income and rate of return  
13 under current rates as shown in columns B and C of Table 2 below. My correction of the  
14 minimum-size classification and allocation error in NSP's CCOSS described above results  
15 in the customer class costs of service shown in columns D and E of Table 2.

1

**Table 2: Comparison of Class Costs of Service Under Current Rates (\$000)**

Rate Class (A)	NSP CCOSS <sup>18</sup>		CCOSS without Minimum- Size Classification <sup>19</sup>		Increase (Decrease) (F)
	Operating Income (B)	Rate of Return (C)	Operating Income (D)	Rate of Return (E)	
Residential	\$1,075	1.07%	\$2,215	2.86%	(\$3,451)
C&I Firm	\$4,213	6.63%	\$3,180	3.75%	\$4,051
Small Interruptible	\$318	30.28%	\$294	18.96%	(\$599)
Large Interruptible	\$628	24.32%	\$546	12.79%	(\$82)
Total	\$6,234	3.71%	\$6,234	3.71%	\$0

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**NORTH DAKOTA CLASS REVENUE REQUIREMENTS**

9

**Q. WHAT IS NSP’S PROPOSAL REGARDING CLASS REVENUE**

10

**REQUIREMENTS?**

11

A. NSP proposes to apportion or distribute the overall revenue requirement to customer classes

12

based on cost of service adjusted with regarding efficient energy use, competitive services

13

and moderation in rate increase.<sup>20</sup>

<sup>18</sup> Exhibit CJB-1, Schedule3, page 1 lines 40 and 42.

<sup>19</sup> Exhibit KRP-2.

<sup>20</sup> Hoschmiller Direct, page 2, lines 11-24.

1 **Q. DO YOU FIND ANY ERRORS IN NSP’S PROPOSED CLASS REVENUE**  
 2 **REQUIREMENT APPORTIONMENT?**

3 A. Yes, in that it is based on the results of NSP’s CCOSS with minimum-size classification of  
 4 distribution mains. Table 3 below compares NSP’s proposed class revenue requirements  
 5 and class revenue increases to the class revenue requirements and increases based on the  
 6 results from the CCOSS without minimum-size classification of distribution mains.

7 **Table 3: Comparison of Class Revenue Requirements (\$000)**

		NSP <sup>21</sup>			PSC <sup>22</sup>		
Rate Class (A)	Current Revenue (B)	Proposed Revenue (C)	Increase (Decrease) (D)	Percent Increase (E)	Proposed Revenue (F)	Increase (Decrease) (G)	Increase (Decrease) (H)
Residential	\$35,610	\$40,061	\$4,451	12.50%	\$38,611	\$3,001	8.43%
C&I Firm	\$45,208	\$48,471	\$3,263	7.22%	\$49,516	\$4,308	9.53%
Small Interruptible	\$2,472	\$2,662	\$190	7.69%	\$2,870	\$398	16.11%
Large Interruptible	\$6,700	\$7,242	\$542	8.09%	\$7,440	\$740	11.04%
Total	\$89,990	\$98,436	\$8,446	9.39%	\$98,437	\$8,447	9.39%

8  
 9 **Q. HAVE YOU DEVELOPED A CLASS REVENUE RESPONSIBILITY BASED ON**  
 10 **THE CCOSS WITHOUT MINIMUM-SIZE CLASSIFICATION OF**  
 11 **DISTRIBUTION MAINS AND ADVOCACY STAFF WITNESS MUGRACE’S**  
 12 **PROPOSED OVERALL REVENUE REQUIREMENT?**

13 A. Yes. I have developed class revenue requirements based on the CCOSS without minimum-  
 14 size classification of distribution mains and Staff Witness Mugrace’s recommended revenue

<sup>21</sup> Hoschmiller Direct, page 9, Table 2.

<sup>22</sup> Exhibit KRP-3.

1 requirement.<sup>23</sup> Table 4 compares those class revenue requirements to NSP’s proposed class  
2 revenue requirements.

3 **Table 4: Comparison of Class Revenue Requirements (\$000)**

Rate Class (A)	NSP Proposed Revenue <sup>24</sup> (B)	PSC Proposed Revenue <sup>25</sup> (C)	Increase (Decrease)
Residential	\$40,061	\$37,970	(\$2,091)
C&I Firm	\$48,471	\$48,694	\$223
Small Interruptible	\$2,662	\$2,823	\$161
Large Interruptible	\$7,242	\$7,316	\$74
Total	\$98,436	\$96,803	(\$1,633)

4  
5 As one can see from Table 3, the net impact of the corrected class cost of service and Staff  
6 Witness Mugrace’s recommended revenue requirement is a reduction in the revenue  
7 requirement of the Residential rate class and marginal increases for the other classes.

8  
9  
10 **C. NORTH DAKOTA TARIFF RATE DESIGN**

11 **Q. WHAT ARE NSP’S RATE DESIGN PROPOSALS?**

12 A. NSP is proposing no structural changes to its Commercial & Industrial, Small Interruptible  
13 and Large Interruptible customer classes’ rate structures. NSP proposes to add a  
14 Distribution Charge to its Residential rate structure. Regarding both class rate structures and  
15 class tariff charges proposals see Table 1 above.

<sup>23</sup> Direct Testimony of Dante Mugrace, Schedule DM-1.

<sup>24</sup> Hoschmiller Direct, page 9, Table 2.

<sup>25</sup> Exhibit KRP-3.

1 **Q. DO YOU HAVE ANY CRITICISMS OF THE PROPOSED RATE DESIGNS?**

2 A. My only criticism is that the class tariff charges are derived from NSP's proposed class  
3 revenue requirements. Table 5 shows my recommended class tariff charges based on the  
4 class revenue requirements in Table 4 above.

5 **Table 5: Recommended Class Tariff Rates<sup>26</sup>**

Residential (RC 401): 8.4% revenue increase with Delivery Service Charge unchanged at \$22.25/month and a new Distribution Charge of \$0.05507/therm;
Commercial and Industrial (RC 403, 410): 9.5% revenue increase with (a) Basic Service Charge unchanged of \$35.00/month and (b) Distribution Charge increased 37.54% from \$0.13581/therm to \$0.18944/therm;
Small Interruptible (RC 404): 16.1% revenue increase with (a) Basic Service Charge increased 25.0% from \$100.00/month to \$125.00/month and (b) Distribution Charge increased 60.7% from \$0.11065/therm to \$0.17779/therm;
Large Interruptible (RC 405): 11.0% revenue increase with (a) Basic Service Charge unchanged of \$275.00/month and (b) Distribution Charge increased 54.6% from \$0.07636/therm to \$0.11804/therm.

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7 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

8 A. Yes.

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<sup>26</sup> Exhibit KRP-3.

**Table 2: Comparison of Class Costs of Service Under Current Rates (\$000)**

Rate Class	NSP CCOSS		NSP CCOSS w/o Minimum Size		Increase (Decrease)
	Operating Income	Rate of Return	Operating Income	Rate of Return	
(A)	(B)	(C)	(D)	(E)	(F)
Residential	\$1,075	1.07%	\$2,215	2.86%	(\$3,451)
C&I Firm	\$4,213	6.63%	\$3,180	3.75%	\$4,051
Small Interruptible	\$318	30.28%	\$294	18.96%	(\$599)
Large Interruptible	\$628	24.32%	\$546	12.79%	(\$82)
Total	\$6,234	3.71%	\$6,234	3.71%	\$0

**Table 5: Tariff Rate Adjustments**

Rate Class	Billing Determinant	NSP Current Revenue	NSP Proposed Class Revenue	PSC Change to Class Revenue	Adjusted Class Revenue	PSC Proposed Rate
(A)	(B)	(C)	(D)	(E)	(F)	(G)
Residential Delivery Service	659,380	\$14,671,197	\$16,484,491	(\$1,813,294)	\$14,671,197	\$22.25
Residential Distribution	42,851,288		\$2,637,497	(\$277,818)	\$2,359,678	\$0.05507
C&I Firm DSC	79,903,103		\$14,913,914	\$223,234	\$15,137,149	\$0.18944
Small Interruptible DSC	4,974,676		\$723,766	\$160,664	\$884,429	\$0.17779
Large Interruptible DSC	15,649,711		\$1,773,125	\$74,214	\$1,847,339	\$0.11804

**Table 3: Comparison of Class Revenue Requirement Apportionment (\$000)**

Rate Class	NSP				PSC Corrected CCOSS		
	Current Revenue	Proposed Revenue	Increase (Decrease)	Percent Increase (Decrease)	Proposed Revenue	Increase (Decrease)	Percent Increase (Decrease)
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Residential	\$35,610	\$40,061	\$4,451	12.50%	\$38,611	\$3,001	8.43%
C&I Firm	\$45,208	\$48,471	\$3,263	7.22%	\$49,516	\$4,308	9.53%
Small Interruptible	\$2,472	\$2,662	\$190	7.69%	\$2,870	\$398	16.11%
Large Interruptible	\$6,700	\$7,242	\$542	8.09%	\$7,440	\$740	11.04%
Total	\$89,990	\$98,436	\$8,446	9.39%	\$98,437	\$8,447	9.39%

**Table 4: Comparison of Class Revenue Requirement Apportionment (\$000)**

Rate Class	NSP Proposed Revenue	PSC Proposed Revenue	Increase (Decrease)
(A)	(B)	(C)	
Residential	\$40,061	\$37,970	(\$2,091)
C&I Firm	\$48,471	\$48,694	\$223
Small Interruptible	\$2,662	\$2,823	\$161
Large Interruptible	\$7,242	\$7,316	\$74
Total	\$98,436	\$96,803	(\$1,633)

