MONTANA-DAKOTA UTILITIES CO.
BEFORE THE WYOMING PUBLIC SERVICE COMMISSION
DOCKET NO. 30013-415-GR-24
PREPARED DIRECT TESTIMONY OF
ANN E. BULKLEY

Q1. Please state your name and business address.

A1. My name is Ann E. Bulkley. My business address is One Beacon Street, Suite 2600, Boston, Massachusetts 02108. I am a Principal at The Brattle Group ("Brattle"), a consulting firm that advises clients on regulatory finance and ratemaking issues.

Q2. On whose behalf are you submitting this testimony?

A2. I am submitting this direct testimony before the Wyoming Public Service Commission ("Commission") on behalf of Montana-Dakota Utilities Co, which is a wholly-owned subsidiary of MDU Resources Group, Inc. ("MDU"). My testimony addresses the regulated natural gas utility operations of Montana-Dakota Utilities Co. within Wyoming ("Montana-Dakota" or the "Company").

Q3. Please describe your background and professional experience in the energy and utility industries.

A3. I hold a Bachelor's degree in Economics and Finance from Simmons College and a Master's degree in Economics from Boston University, and have more than 25 years of experience consulting to the energy industry. I have provided testimony regarding financial matters, including the cost of capital, before numerous regulatory agencies. I have advised energy and utility clients on a wide range of financial and economic issues, with primary concentrations in valuation and utility rate matters. Many of these

assignments have included the determination of the cost of capital for valuation and ratemaking purposes. A summary of my professional and educational background is presented in Exhibit No.___ (AEB-2), Schedule 1.

I. PURPOSE AND OVERVIEW OF DIRECT TESTIMONY

Q4. What is the purpose of your direct testimony?

A4. The purpose of my direct testimony is to present evidence and provide a recommendation regarding Montana-Dakota's return on equity ("ROE") for its natural gas utility operations to be used for ratemaking purposes. I also address the appropriateness of the Company's proposed capital structure. My analyses and recommendations are supported by the data presented in Exhibit No. ___(AEB-2), Schedules 2 through 13, which were prepared by me or under my direction.

Q5. Please provide a brief overview of the analyses that support your ROE recommendation.

A5. I have estimated the market-based cost of equity by applying traditional estimation methodologies to a proxy group of comparable utilities, including the constant growth form of the Discounted Cash Flow ("DCF") model, the Capital Asset Pricing Model ("CAPM"), the Empirical Capital Asset Pricing Model ("ECAPM"), and a Bond Yield Risk Premium ("BYRP" or "Risk Premium") analysis. My recommendation also takes into consideration the business and regulatory risk of the Company relative to the proxy group, and the Company's proposed capital structure as compared with the capital structures of the operating utilities of the proxy group companies. While I do not make specific adjustments

to my ROE recommendation for these factors, I do consider them in the aggregate when determining where my recommended ROE falls within the range of the analytical results.

Q6. How is the remainder of your direct testimony organized?

A6. The remainder of my direct testimony is organized as follows:

- Section II provides a summary of my analyses and conclusions.
- Section III reviews the regulatory guidelines pertinent to the development of the cost of capital.
- Section IV discusses current and projected capital market conditions and the effect of those conditions on the Company's cost of equity.
- Section V explains my selection of the proxy group.
- Section VI describes my cost of equity analyses and the basis for my recommended ROE in this proceeding.
- Section VII provides a discussion of specific regulatory, business, and financial risks that have a direct bearing on the ROE to be authorized for the Company in this case.
- Section VIII provides an assessment of the reasonableness of the Company's proposed capital structure.
- Section IX presents my conclusions and recommendations.

II. SUMMARY OF ANALYSIS AND CONCLUSIONS

Q7. Please summarize the key factors that you consider your analyses and upon which you base your recommended ROE.

A7. My analyses and recommendations consider the following:

- The United States ("U.S.") Supreme Court's *Hope* and *Bluefield* decisions established the standards for determining a fair and reasonable authorized ROE for public utilities, including consistency of the allowed return with the returns of other businesses having similar risk, adequacy of the return to provide access to capital

and support credit quality, and the requirement that the result lead to just and reasonable rates.[1]

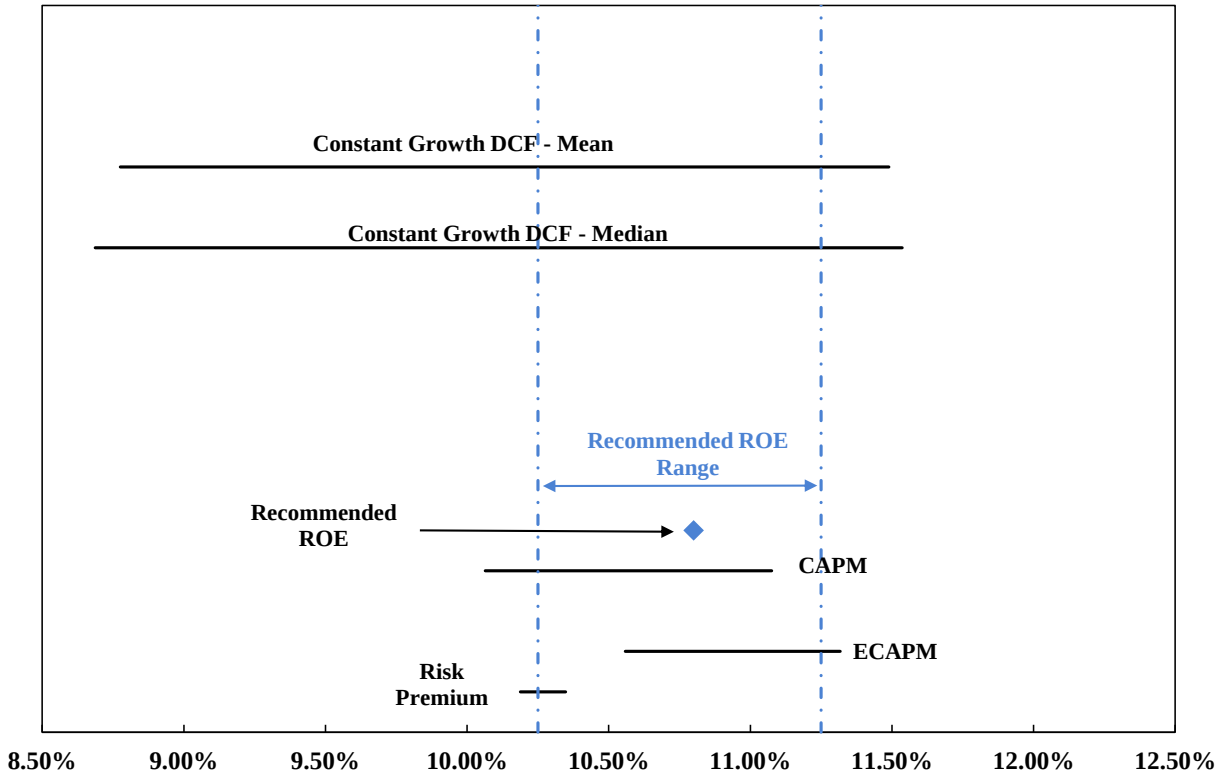
- The effect of current and prospective capital market conditions on the cost of equity estimation models and on investors' return requirements.
- The results of several analytical approaches that provide estimates of the Company's cost of equity. Because the Company's authorized ROE should be a forward-looking estimate over the period during which the rates will be in effect, these analyses rely on forward-looking inputs and assumptions (*e.g.*, projected analyst growth rates in the DCF model, forecasted risk-free rate and market risk premium in the CAPM analysis.)
- Although the companies in my proxy group are generally comparable to Montana-Dakota, each company is unique, and no two companies have the exact same business and financial risk profiles. Accordingly, I consider the Company's regulatory, business, and financial risks relative to a proxy group of comparable companies in determining where the Company's ROE should fall within the reasonable range of analytical results to appropriately account for any residual differences in risk.

Q8. What are the results of the models that you have used to estimate the market-based cost of equity for Montana-Dakota?

A8. Figure 1 summarizes the range of results produced by the cost of equity analyses.

[1] Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944) ("Hope"); Bluefield Waterworks & Improvement Co., v. Public Service Commission of West Virginia, 262 U.S. 679 (1923) ("Bluefield").

Figure 1: Summary of Cost of Equity Analytical Results



As shown, the range of results across all methodologies is wide. While it is common to consider multiple models to estimate the cost of equity, it is particularly important when the range of results varies considerably across methodologies. As a result, my ROE recommendation considers the range of results of analyses, as well as the company-specific risk factors and current and prospective capital market conditions expected during the time when rates set in this case would be in effect.

Q9. What is your recommended ROE for the Company in this proceeding?

A9. Considering the analytical results of the market-based cost of equity models, current and prospective capital market conditions and the Company's regulatory, business, and financial risk relative to the proxy group, I conclude that an ROE in the range of 10.25

percent to 11.25 percent is reasonable, and within that range, I recommend an ROE of 10.80 percent.

Q10. Is the Company's requested capital structure reasonable?

A10. The Company's proposed equity ratio of 50.177% percent is well within the range of the actual capital structures of the utility operating subsidiaries of the proxy group companies and is below the average of the proxy group. Further, the Company's proposed equity ratio is reasonable considering that credit rating agencies have identified in their outlook for the utility sector significant risks such as elevated interest rates and inflation, record levels of capital spending, and the need to fund capital spending in a credit supportive manner.

III. REGULATORY GUIDELINES

Q11. Please describe the principles that guide the establishment of the cost of capital for a regulated utility.

A11. The U.S. Supreme Court's precedent-setting *Hope* and *Bluefield* cases established the standards for determining the fairness or reasonableness of a utility's allowed ROE. Among the standards established by the Court in those cases are: (1) consistency with other businesses having similar or comparable risks; (2) adequacy of the return to support credit quality and access to capital; and (3) the principle that the result reached, as opposed to the methodology employed, is the controlling factor in arriving at just and reasonable rates. [2]

[2] *Bluefield*, 262 U.S. at 692-93; *Hope*, 320 U.S. at 603.

Q12. Has the Commission provided similar guidance in establishing the appropriate return on common equity?

A12. Yes. In Docket No. 20000-ER-03-198, PacifiCorp's 2003 rate case, the Commission stated that:

> Consistent with the discretion given to the Commission in examining cases and reaching a just result (discussed generally, *infra*), there are no precise bases in Wyoming law to guide the Commission in determining a utility's rate of return on equity. Therefore, the Commission must apply its informed judgment to all of the evidence in the case. In this traditional rate-base rate-of-return case, the Commission must determine the cost of capital, and we are guided by the earnings and capital attraction standards of *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U. S. 679 (1923); and *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U. S. 391 (1944); accepted in Wyoming in *In re Northern Utilities*, 70 Wyo. 275, 249 P.2d 769 (Wyo. 1952). A public utility remains entitled to rates which will permit it a reasonable opportunity to earn a return on its investment properly reflecting the risk of the business and which will reasonably preserve the financial soundness of the company and allow it to raise the capital needed to provide service in the public interest. Having said that, we also acknowledge that the measurement of the required level of return is not a matter of simple mathematics but is a matter requiring judgment and the employment of discretion. The United States Supreme Court, in *Hope*, *supra*, noted that a "just and reasonable end result" is the desired outcome and that it is the end reached, rather than the method employed in achieving it, that should control.[3]

This guidance is in accordance with the *Hope* and *Bluefield* decisions and the principles that I have employed to estimate the cost of equity and recommend and ROE for the Company, including the principle that an allowed rate of return must be sufficient to enable regulated companies like Montana-Dakota to attract capital on reasonable terms.

[3] In the Application of PacifiCorp for a Retail Electric Utility Rate Increase of $41.8 Million Per Year, Docket No. 20000-ER-03-198 (Record No. 8310), Order at 13 (Feb. 28, 2004).

Q13. Why is it important for a utility to have a reasonable opportunity to earn a return that is adequate to attract capital at reasonable terms?

A13. An ROE that is adequate to attract capital at reasonable terms enables the Company to continue to provide safe, reliable gas service while maintaining its financial integrity. The authorized return should be commensurate with returns expected elsewhere in the market for investments of equivalent risk. If it is not, debt and equity investors will seek alternative investment opportunities for which the expected return reflects the perceived risks, thereby inhibiting the Company's ability to attract capital at reasonable cost, which negatively affects customers.

Q14. Is a utility's ability to attract capital also affected by the ROEs that are authorized for other utilities?

A14. Yes. Utilities compete directly for capital with other investments of similar risk, which include other electric, natural gas, and water utilities nationally. Therefore, the ROE authorized for a utility sends an important signal to investors regarding whether there is regulatory support for financial integrity, dividends, growth, and fair compensation for business and financial risk within that jurisdiction generally, and for that utility particularly. The cost of capital represents an opportunity cost to investors. If higher returns are available elsewhere for other investments of comparable risk over the same time-period, investors have an incentive to direct their capital to those alternative investments. Thus, an authorized ROE significantly below authorized ROEs for other utilities can inhibit the utility's ability to attract capital for investment.

While Montana-Dakota is committed to investing the required capital to provide safe and reliable service, because Montana-Dakota is a wholly-owned subsidiary of MDU, the

Company competes with the other MDU subsidiaries for discretionary investment capital. In determining how to allocate its finite discretionary capital resources, it would be reasonable for MDU to consider the authorized ROE of each of its subsidiaries.

Q15. What is the standard for setting the ROE in any jurisdiction?

A15. The stand-alone ratemaking principle is a foundation of jurisdictional ratemaking. This principle requires that the rates that are charged in any operating jurisdiction be for the costs incurred in that jurisdiction. The stand-alone ratemaking principle ensures that customers in each jurisdiction only pay for the costs of the service provided in that jurisdiction, which is not influenced by the business operations in other operating companies. Consistent with this principle, the cost of equity analysis is performed for an individual operating company as a stand-alone entity. As such, I have evaluated the investor-required return for Montana-Dakota's gas operations in Wyoming.

Q16. Does the fact that the Company is a subsidiary of MDU, a publicly-traded company, affect your analysis?

A16. No. In this proceeding, consistent with the stand-alone ratemaking principle, it is appropriate to establish the cost of equity for the Company, not its publicly-traded entity, MDU. More importantly, however, it is appropriate to establish a cost of equity and capital structure that provide the Company the ability to attract capital on reasonable terms on a stand-alone basis and within MDU.

Q17. Are the regulatory framework, the authorized ROE, and equity ratio important to the financial community?

A17. Yes. The regulatory framework is one of the most important factors in investors' assessments of risk. Specifically, the authorized ROE and equity ratio for regulated utilities is very important for determining the degree of regulatory support for reinforcing a utility's creditworthiness and financial stability in the jurisdiction. To the extent authorized returns in a jurisdiction are lower than the returns that have been authorized more broadly, such actions are considered by both debt and equity investors in the overall risk assessment of the regulatory jurisdiction in which the company operates.

Q18. What are your conclusions regarding regulatory guidelines?

A18. The ratemaking process is premised on the principle that, in order for investors and companies to commit the capital needed to provide safe and reliable utility services, a utility must have a reasonable opportunity to recover the return of, and the market-required return on, its invested capital. Accordingly, the Commission's order in this proceeding should establish rates that provide the Company with a reasonable opportunity to earn an ROE that is adequate to attract capital at reasonable terms and sufficient to ensure its financial integrity. It is important for the ROE authorized in this proceeding to take into consideration current and projected capital market conditions, as well as investors' expectations and requirements for both risks and returns. Because utility operations are capital-intensive, regulatory decisions should enable the utility to attract capital at reasonable terms under a variety of economic and financial market conditions. Providing the opportunity to earn a market-based cost of capital supports the financial integrity of the Company, which is in the interest of both customers and shareholders.

IV. CAPITAL MARKET CONDITIONS

Q19. Why is it important to analyze capital market conditions?

A19. The models used to estimate the cost of equity rely on market data and thus the results of those models can be affected by prevailing market conditions at the time the analysis is performed. While the ROE established in a rate proceeding is intended to be forward-looking, the analyst uses current and projected market data, including stock prices, dividends, growth rates, and interest rates, in the cost of equity estimation models to estimate the investor-required return for the subject company.

Analysts and regulatory commissions recognize that current market conditions affect the results of the cost of equity estimation models. As a result, it is important to consider the effect of the market conditions on these models when determining an appropriate range for the ROE, and the ROE to be used for ratemaking purposes for a future period. If investors do not expect current market conditions to be sustained in the future, it is possible that the cost of equity estimation models will not provide an accurate estimate of investors' required return during that rate period. Therefore, it is important to consider projected market data to estimate the return for that forward-looking period.

Q20. Do changes in capital market conditions since the Company's last rate proceeding indicate an increase in the cost of equity?

A20. Yes. Changes in core inflation and long-term bond yields since the Company's last rate proceeding demonstrates an increase in the cost of equity since that time. As shown in Figure 2, short-term and long-term interest rates as well as core inflation have increased substantially since the Commission adopted the settlement which include an authorized ROE of 9.35 percent in the Company's last rate proceeding in 2020. For example, long-

term interest rates have increased by more than 230 basis points. While inflation has declined from its peak in 2022, it remains above the level at the time of the last rate proceeding and the Federal Reserve's target of 2 percent.

Figure 2: Change in Market Conditions Since Company's Last Rate Case[4]

Docket	Date	Federal Funds Rate	30-Day Avg 30 Year Treasury Bond Yield	Core Inflation Rate	Auth'd ROE
Decision - Docket No. 30013-351-GR-19	2020-03-17	0.25%	1.76%	2.10%	9.35%
Current	2024-09-30	4.83%	4.07%	3.26%	
Change since Docket No. 30013-351-GR-19 (Decision)		4.58%	2.31%	1.16%	

Q21. What has the level of inflation been over the past few years?

A21. As shown in Figure 3, core inflation increased steadily beginning in early 2021, rising from 1.40 percent in January 2021 to a high of 6.64 percent in September 2022, which was the largest 12-month increase since 1982.[5] Since that time, while core inflation has declined in response to the Federal Reserve's monetary policy, it continues to remain significantly above the Federal Reserve's target level of 2.0 percent.

In addition, I also considered the ratio of unemployed persons per job opening, which was 0.9 in August 2024 (the most recent data available at the time of writing) and has been consistently below 1.0 since April 2021, despite the Federal Reserve's accelerated policy

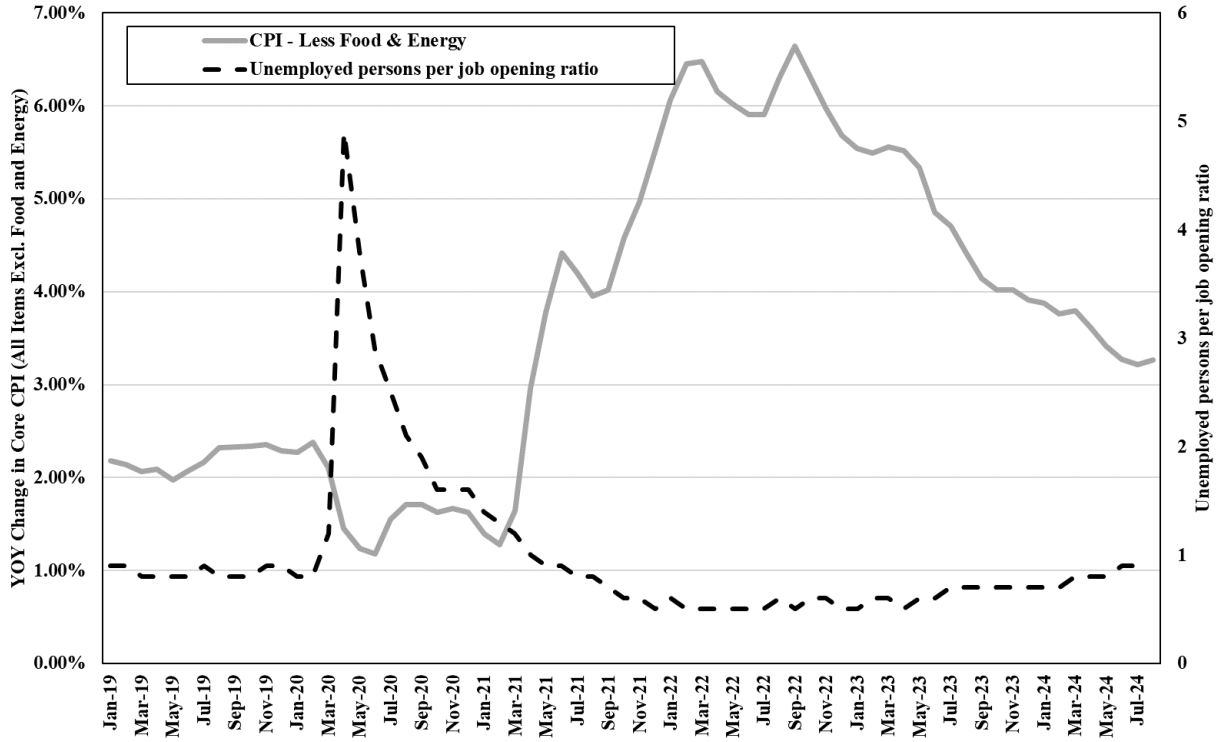
[4] St. Louis Federal Reserve Bank; Bureau of Labor Statistics.

[5] *Bloomberg,* Pickert, Reade, "Core US Inflation Rises to 40-Year High, Securing Big Fed Hike", October 13, 2022.

Figure 3presents the year-over-year ("YOY") change in core inflation, as measured by the Consumer Price Index ("CPI") excluding food and energy prices as published by the Bureau of Labor Statistics. I considered core inflation because it is the preferred inflation indicator of the Federal Reserve for determining the direction of monetary policy. Core inflation is preferred by the Federal Reserve because it removes the effect of food and energy prices, which can be highly volatile.

normalization. This indicates sustained strength in the labor market. Given the Federal Reserve's dual mandate of maximum employment and price stability, the strength in the labor market allowed the federal reserve to focus on the priority of reducing inflation and pursue the necessary restrictive monetary policy needed to reduce inflation.

Figure 3: Core Inflation and Unemployed Persons-to-Job Openings, January 2019 to August 2024[6]



Q22. What policy actions has the Federal Reserve enacted to respond to increased inflation?

A22. The dramatic increase in inflation prompted the Federal Reserve to pursue an aggressive normalization of monetary policy, removing the accommodative policy programs used to mitigate the economic effects of COVID-19. Between the March 2022 Federal Open

[6] Bureau of Labor Statistics.

Market Committee ("FOMC") meeting and the July 2023 FOMC meeting, the Federal Reserve increased the target federal funds rate through a series of increases from a range of 0.00 – 0.25 percent to a range of 5.25 percent to 5.50 percent. As discussed below, in light of the progress on reducing inflation and the balancing of the dual mandate, the Federal Reserve lowered the federal funds rate by 50 basis points at its September 2024 meeting to a range of 4.75 percent to 5.00 percent.

Q23. Did the yields on long-term government bonds increase in response to inflation and the Federal Reserve's normalization of monetary policy?

A23. Yes. As the Federal Reserve substantially increased the federal funds rate in response to increased levels of inflation that persisted for longer than originally projected, longer-term interest rates increased. As shown in Figure 4, since the Federal Reserve's December 2021 meeting, the yield on 10-year Treasury bonds has increased by over 230 basis points, increasing from 1.47 percent on December 15, 2021 to 3.81 percent at the end of September 2024.

Figure 4: 10-Year Treasury Bond Yield, Janaury 2021 through September 30, 2024[7]

Q24. What is the expected path of monetary policy over the near-term?

A24. While over the past two years the risks associated with inflation have far exceeded the risks associated with the labor market, Chairman Powell's current view is that the risks associated with both inflation and the labor market have become more balanced given the effectiveness of restrictive monetary policy in combatting inflation. The Federal Reserve cut the interest rate by 50 basis points and Chairman Powell noted "with an appropriate recalibration of our policy stance, strength in the labor market can be maintained in a context of moderate growth and inflation moving sustainably down to 2 percent."[8] This will help to achieve the Federal Reserve's dual mandate of maximum employment and

[7] S&P Capital IQ Pro.

[8] Transcript of Chair Powell's Press Conference, September 18, 2024.

price stability with the 50 basis points cut in the interest rate. Chairman Powell also noted that while there was a 50 basis point reduction in the fed funds rate at the September FOMC meeting they "are not on any preset course" and will "continue to make our decisions meeting to meeting."[9] Chairman Powell noted the timing and pace of any further rate reductions will depend on "incoming data, the evolving outlook and the balance of risks."[10] Chairman Powell further explained that reducing the federal funds rate too quickly could hinder the progress on inflation while too slowly could unduly weaken the economic activity, leading the FOMC to conclude that they will carefully assess incoming data before making any further decisions on policy rate changes.

Q25. Has there been additional macroeconomic data since the rate cut in September 2024?

A25. Yes. The September 2024 jobs report indicated that U.S. job gains increased by the most in six months and the unemployment rate fell to 4.1 percent. Reuters noted that this data points to a resilient economy that likely does not need the Federal Reserve to deliver large interest rate cuts for the rest of this year.[11]

Q26. What are expectations for the yields on long-term government bonds?

A26. Economists consider the expected policy of the Federal Reserve in the development of their forecasts of long-term government bond yields and, prior to the FOMC's decision to reduce the federal funds rate at the September 2024 meeting, had projected a decrease in the federal funds rate. For example, *Blue Chip Financial Forecasts* provides a forecast of both the federal funds rate and the yield on the 30-year Treasury bond. In the most recent

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[9] *Id.*

[10] *Id.*

[11] *Reuters*, Mutikani, Lucia, "Blowout US employment report reinforces economy's resilience.", October 4, 2024.

published *Blue Chip Financial Forecasts* report, economists projected the federal funds rate to decline from 4.6 percent in Q4/2024 to 3.3 percent in Q1/2026.[12] However, economists' consensus estimate of the yield on the 30-year Treasury bond is expected to remain relatively stable over the same time period. The yield on the 30-year Treasury bond as reported by *Blue Chip Financial Forecasts* is expected to range from 4.1 percent in Q4/2024 to 4.0 percent in Q1/2026.[13] Therefore, economists, who consider the expected policy of the Federal Reserve, expect the yield on the 30-year Treasury bond to remain elevated over the near-term.

Q27. What are your conclusions regarding the effect of current market conditions on the cost of equity for the Company?

A27. Due to their effect on the estimated cost of equity, it is important that current and projected market conditions be considered in setting the forward-looking ROE in this proceeding. As shown in Figure 2, long-term interest rates are higher as compared to the Company's last rate proceeding. Further, while the FOMC decreased the federal funds rate at its September 2024 meeting, economists have considered the expected path of monetary policy and are forecasting interest rates to remain at elevated levels during the period that the Company's rates will be in effect. As a result, the cost of equity is directionally higher than at the time that the Commission authorized the ROE in the Company's 2019 rate proceeding.

[12] *Blue Chip Financial Forecasts*, Vol. 43, No. 10, October 1, 2024, at 2.

[13] *Id.*

V. PROXY GROUP SELECTION

Q28. Please provide a brief profile of Montana-Dakota.

A28. Montana-Dakota is a wholly owned subsidiary of MDU. The Company provides natural gas service to approximately 20,300 customers in 9 communities in Wyoming.[14] As of December 31, 2023, the Company's net utility natural gas plant in Wyoming was approximately $24.99 million.[15] In addition, the Company had total natural gas sales in Wyoming in 2023 of approximately 2.8 million dth.[16] Wyoming accounted for approximately 2 percent of MDU's total natural gas retail sales revenue in 2023.[17] Montana-Dakota Utilities Co. currently has an investment-grade long-term rating of BBB+ (Outlook: Negative) from S&P and BBB+ (Outlook: Stable) from Fitch.[18]

Q29. Why have you used a group of proxy companies to estimate the cost of equity for Montana-Dakota?

A29. In this proceeding, the cost of equity is being estimated for a natural gas utility company that is not itself publicly traded. Because the cost of equity is a market-based concept and the Company's operations do not make up the entirety of a publicly traded entity, it is necessary to establish a group of companies that is both publicly traded and comparable to the Company in certain fundamental business and financial respects to serve as its "proxy" for purposes of estimating the cost of equity.

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[14] Montana-Dakota Utilities Co., W.P.S.C Tariff No. 2, Natural Gas Service, Effective Date March 1, 2020.
[15] Data provided by Company.
[16] Montana-Dakota Utilities Co. 2023 Annual Report to the Wyoming Public Service Commission at 38.
[17] MDU Resources Group, Inc., Form 2023 SEC Form 10-K at 15.
[18] S&P Global Ratings, November 23, 2024 and Fitch Ratings, August 9, 2024.

Even if the Company was a publicly-traded entity, it is possible that transitory events could bias its market value over a given period. A significant benefit of using a proxy group is that it moderates the effects of unusual events that may be associated with any one company. The proxy companies used in my analyses all possess a set of operating and risk characteristics that are substantially comparable to the Company, and thus provide a reasonable basis to estimate the appropriate cost of equity for the Company.

Q30. How did you select the companies included in your proxy group?

A30. I began with the group of 9 companies that *Value Line* classifies as Natural Gas Distribution Utilities and applied the following screening criteria to select companies that:

- pay consistent quarterly cash dividends, because such companies cannot be analyzed using the constant growth DCF model;
- have investment grade long-term issuer ratings from S&P and/or Moody's;
- have positive long-term earnings growth forecasts from at least two utility industry equity analysts;
- derive more than 70.00 percent of their total operating income from regulated operations;
- derive more than 60.00 percent of regulated operating income from gas distribution operations; and,
- were not parties to a merger or transformative transaction during the analytical periods relied on.

Q31. What is the composition of your proxy group?

A31. The screening criteria discussed above is shown in Exhibit No.___(AEB-2), Schedule 3 and results in a proxy group consisting of the companies shown in Figure 5.

Figure 5: Proxy Group

Company	Ticker
Atmos Energy Corporation	ATO
NiSource Inc.	NI
Northwest Natural Gas Company	NWN
ONE Gas, Inc.	OGS
Southwest Gas Corporation	SWX
Spire, Inc.	SR

VI. COST OF EQUITY ESTIMATION

Q32. Please briefly discuss the ROE in the context of a regulated utility.

A32. The rate of return for a regulated utility is the weighted average cost of capital, in which the costs of the individual sources of capital are weighted by their respective proportion (*i.e.*, book values) in the utility's capital structure. The ROE is the cost rate applied to the equity capital in calculating the rate of return. While the costs of debt and preferred stock can be directly observed, the cost of equity is market-based and, therefore, must be estimated based on observable market data when establishing the ROE.

Q33. How is the required cost of equity determined?

A33. The required cost of equity is estimated by using analytical techniques that rely on market-based data to quantify investor expectations regarding equity returns, adjusted for certain incremental costs and risks. Informed judgment is then applied to determine where the company's cost of equity falls within the range of results produced by multiple analytical techniques. The key consideration in determining the cost of equity is to ensure that the methodologies employed reasonably reflect investors' views of the financial markets in general, as well as the subject company (in the context of the proxy group), in particular.

Q34. What methods did you use to estimate the cost of equity for the Company in this proceeding?

A34. I consider the results of the constant growth form of the DCF model, the CAPM, the ECAPM, and a BYRP analysis. A reasonable cost of equity estimate appropriately considers alternative methodologies and the reasonableness of their individual and collective results.

Q35. Is it important to use more than one analytical approach?

A35. Yes. Because the cost of equity is not directly observable, it must be estimated based on both quantitative and qualitative information. When faced with the task of estimating the cost of equity, analysts and investors are inclined to gather and evaluate as much relevant data as reasonably can be analyzed. Several models have been developed to estimate the cost of equity, and I use multiple approaches to estimate the cost of equity. As a practical matter, however, all of the models available for estimating the cost of equity are subject to limiting assumptions or other methodological constraints. Consequently, many well-regarded finance texts recommend using multiple approaches when estimating the cost of equity. For example, Copeland, Koller, and Murrin[19] suggest using the CAPM and Arbitrage Pricing Theory model, while Brigham and Gapenski[20] recommend the CAPM, DCF, and BYRP approaches.

Further, each model relies on different assumptions, certain of which better reflect current and projected market conditions at different times. For example, the CAPM and ECAPM

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[19] Tom Copeland, Tim Koller and Jack Murrin, *Valuation: Measuring and Managing the Value of Companies* (3rd ed. 2000), at 214.

[20] Eugene Brigham and Louis Gapenski, *Financial Management: Theory and Practice* (7th ed. 1994), at 341.

analyses rely directly on interest rates as an assumption in the models and therefore may more directly reflect the market conditions expected when the Company's rates are in effect. Accordingly, it is important to use multiple analytical approaches to ensure that the cost of equity results reflect market conditions that are expected during the period that the Company's rates will be in effect.

A. Constant Growth DCF Model

Q36. Please describe the DCF approach.

A36. The DCF approach is based on the theory that a stock's current price represents the present value of all expected future cash flows. In its most general form, the DCF model is expressed as follows:

$$P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + ... + \frac{D_\infty}{(1+k)^\infty} \qquad [1]$$

Where P_0 represents the current stock price, D1…D∞ are all expected future dividends, and k is the discount rate, or required COE. Equation [1] is a standard present value calculation that can be simplified and rearranged into the following form:

$$k = \frac{D_0(1+g)}{P_0} + g \qquad [2]$$

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

Q37. What assumptions are required for the constant growth DCF model?

A37. The constant growth DCF model requires the following assumptions: (1) a constant growth rate for earnings and dividends; (2) a stable dividend payout ratio; (3) a constant price-to-earnings ratio; and (4) a discount rate greater than the expected growth rate. To the extent that any of these assumptions are violated, considered judgment and/or specific adjustments should be applied to the results.

Q38. What market data did you use to calculate the dividend yield in your constant growth DCF model?

A38. The dividend yield in my constant growth DCF model is based on the proxy companies' current annual dividend and average closing stock prices over the 30-, 90-, and 180-trading days as of September 30, 2024.

Q39. Why did you use three averaging periods for stock prices?

A39. In my constant growth DCF model, I use an average of recent trading days to calculate the term P_0 in the DCF model to ensure that the cost of equity is not skewed by anomalous events that may affect stock prices on any given trading day. The averaging period should also be reasonably representative of expected capital market conditions over the long term.

Q40. Did you make any adjustments to the dividend yield to account for periodic growth in dividends?

A40. Yes. Because utility companies tend to increase their quarterly dividends at different times throughout the year, it is reasonable to assume that dividend increases will be evenly distributed over calendar quarters. Given that assumption, it is reasonable to apply one-half of the expected annual dividend growth rate for purposes of calculating the expected

dividend yield component of the DCF model. This adjustment ensures that the expected first-year dividend yield is, on average, representative of the coming twelve-month period, and does not overstate the aggregated dividends to be paid during that time.

Q41. Why is it important to select appropriate measures of long-term growth in applying the DCF model?

A41. In its constant growth form, the DCF model (*i.e.*, Equation [2] shown previously) assumes a single long-term growth rate in perpetuity. In order to reduce the long-term growth rate to a single measure, one must assume that the dividend payout ratio remains constant and that earnings per share ("EPS"), dividends per share, and book value per share all grow at the same constant rate. However, over the long run, dividend growth can only be sustained by earnings growth, meaning earnings are the fundamental driver of a company's ability to pay dividends. Therefore, projected EPS growth is the appropriate measure of a company's long-term growth. In contrast, changes in a company's dividend payments are based on management decisions related to cash management and other factors. For example, a company may decide to retain earnings rather than pay out a portion of those earnings to shareholders through dividends. Therefore, dividend growth rates are less likely than earnings growth rates to accurately reflect investor perceptions of a company's growth prospects. Accordingly, I have incorporated a number of sources of long-term EPS growth rates into the constant growth DCF model.

Q42. What sources of long-term growth rates did you rely on in your constant growth DCF model?

A42. My constant growth DCF model incorporates three sources of long-term projected EPS growth rates: (1) *Zacks Investment Research* (*Zacks*); (2) Yahoo! Finance; and (3) *Value Line*.

Q43. How do you calculate the range of results for the constant growth DCF models?

A43. I calculate the low-end result for the constant growth DCF model using the minimum growth rate of the three sources (*i.e*., the lowest of the *Zacks*, Yahoo! Finance, and *Value Line* projected EPS growth rates) for each of the proxy group companies. I use a similar approach to calculate a high-end result, using the maximum growth rate of the three sources for each proxy group company. Lastly, I also calculate results using the average EPS growth rate from all three sources for each proxy group company.

Q44. Please summarize the results of your constant growth DCF analyses.

A44. Exhibit No.___(AEB-2), Schedule 4 and Figure 6 summarize the results of the constant growth DCF models.

Figure 6: Summary of Constant Growth DCF Results

	Minimum Growth Rate	Average Growth Rate	Maximum Growth Rate
Mean Results:			
30-Day Avg. Stock Price	8.59%	9.87%	11.30%
90-Day Avg. Stock Price	8.79%	10.06%	11.50%
180-Day Avg. Stock Price	8.95%	10.23%	11.66%
Average	8.78%	10.05%	11.49%
Median Results:			
30-Day Avg. Stock Price	8.48%	9.83%	11.33%
90-Day Avg. Stock Price	8.72%	10.05%	11.57%
180-Day Avg. Stock Price	8.86%	10.17%	11.71%
Average	8.69%	10.02%	11.54%

B. CAPM Analysis

Q45. Please briefly describe the Capital Asset Pricing Model.

A45. The CAPM is a risk premium approach that estimates the cost of equity for a given security as a function of a risk-free return plus a risk premium to compensate investors for the non-diversifiable or "systematic" risk of that security.[21] This second component is the product of the market risk premium and the beta coefficient, which measures the relative riskiness of the security being evaluated.

The CAPM is defined by four components, each of which must theoretically be a forward-looking estimate:

$$K_e = r_f + \beta(r_m - r_f) \quad [3]$$

Where:

[21] Systematic risk is the risk inherent in the entire market or market segment, which cannot be diversified away using a portfolio of assets. Unsystematic risk is the risk of a specific company that can, theoretically, be mitigated through portfolio diversification.

K_e = the required market ROE;

β = the beta coefficient of an individual security;

r_f = the risk-free rate of return; and

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

In this specification, the term ($r_m - r_f$) represents the market risk premium. According to the theory underlying the CAPM, because unsystematic risk can be diversified away, investors should only be concerned with systematic or non-diversifiable risk. Systematic risk is measured by beta, which is a measure of the volatility of a security as compared to the market as a whole. Beta is defined as:

$$\beta = \frac{Covariance\ (r_e, r_m)}{Variance\ (r_m)} \qquad [4]$$

Variance (r_m) represents the variance of the market return, which is a measure of the uncertainty of the general market. *Covariance* (r_e, r_m) represents the covariance between the return on a specific security and the general market, which reflects the extent to which the return on that security will respond to a given change in the general market return. Thus, beta represents the risk of the security relative to the general market.

Q46. What risk-free rate did you use in your CAPM analyses?

A46. I rely on three sources for my estimate of the risk-free rate: (1) the current 30-day average yield on 30-year U.S. Treasury bonds, which is 4.07 percent;[22] (2) the average projected 30-year U.S. Treasury bond yield for the first quarter of 2025 through the first quarter of

[22] S&P IQ Pro, as of September 30, 2024.

2026, which is 4.02 percent;[23] and (3) the average projected 30-year U.S. Treasury bond yield for 2026 through 2030, which is 4.30 percent.[24]

Q47. What beta coefficients did you use in your CAPM analysis?

A47. As shown in Exhibit No.___(AEB-2), Schedule 5, I use the beta coefficients for the proxy group companies as reported by *Bloomberg* and *Value Line*. The beta coefficients reported by *Bloomberg* are calculated using ten years of weekly returns relative to the S&P 500 Index. The beta coefficients reported by *Value Line* are calculated based on five years of weekly returns relative to the New York Stock Exchange Composite Index. Additionally, as shown in Exhibit No.___(AEB-2), Schedule 5, I also considered an additional CAPM analysis that relies on the long-term average utility beta coefficient for the companies in my proxy group from 2013 through 2023, which are presented in Exhibit No.___(AEB-2), Schedule 6.

Q48. How do you estimate the market risk premium in the CAPM?

A48. I estimate the market risk premium as the difference between the implied expected equity market return and the risk-free rate. As shown in Exhibit No.___(AEB-2), Schedule 7, the expected market return is calculated using the constant growth DCF model discussed previously as applied to the companies in the S&P 500 Index. Based on an estimated market capitalization-weighted dividend yield of 1.52 percent and a weighted long-term growth rate of 10.45 percent, the estimated required market return for the S&P 500 Index as of September 30, 2024 is 12.04 percent.

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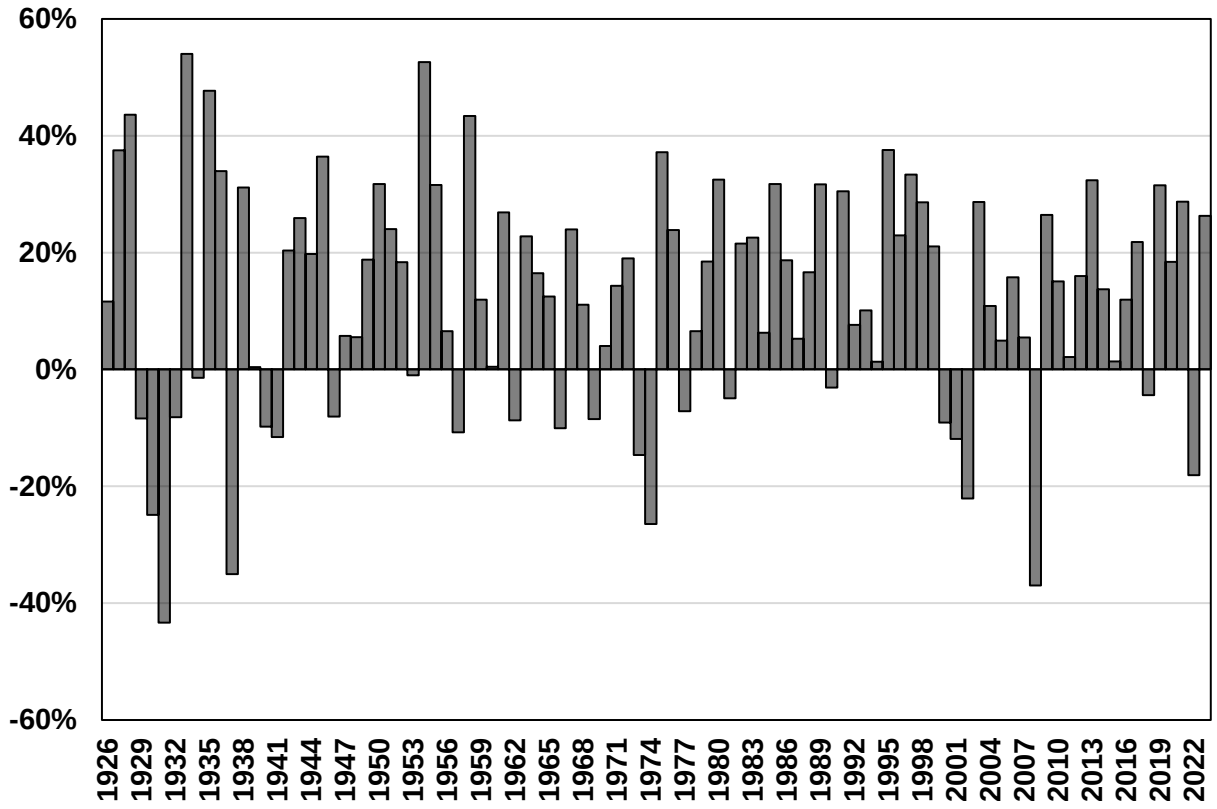
[23] *Blue Chip Financial Forecasts*, Vol. 43, No. 10, October 1, 2024, at 2.

[24] *Blue Chip Financial Forecasts*, Vol. 43, No. 6, May 31, 2024, at 14.

Q49. How does the expected market return compare to observed historical market returns?

A49. As show in Figure 7, given the range of annual equity returns that have been observed over the past century, a current expected market return of 12.04 percent is reasonable. In 52 out of the past 98 years (or approximately 53 percent of observations), the realized equity market return was at least 12.04 percent or greater.

Figure 7: Realized U.S. Equity Market Returns (1926–2023)[25]



Q50. Did you consider another form of the CAPM in your analysis?

A50. Yes. I have also considered the results of an ECAPM in estimating the cost of equity for the Company.[26] The ECAPM calculates the product of the adjusted beta coefficient and the market risk premium and applies a weight of 75.00 percent to that result. The model then applies a 25.00 percent weight to the market risk premium without any effect from the beta coefficient. The results of the two calculations are summed, along with the risk-free rate, to produce the ECAPM result, as noted in Equation [5] below:

[25] Depicts total annual returns on large company stocks, as reported in the 2022 *Kroll* SBBI Yearbook for 1926-2022 and from S&P Capital IQ Professional for 2023.

[26] *See, e.g.*, Roger A. Morin, *New Regulatory Finance*, Public Utilities Reports, Inc., June 1, 2006, at 189.

$$k_e = r_f + 0.75\beta(r_m - r_f) + 0.25(r_m - r_f) \quad [5]$$

Where:

k_e = the required market ROE;

β = adjusted beta coefficient of an individual security;

r_f = the risk-free rate of return; and,

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

The ECAPM addresses the tendency of the "traditional" CAPM to underestimate the cost of equity for companies with low beta coefficients such as regulated utilities. In that regard, the ECAPM is not redundant to the use of adjusted betas in the traditional CAPM, but rather it recognizes the results of academic research indicating that the risk-return relationship is different (in essence, flatter) than estimated by the CAPM, meaning that the CAPM underestimates the cost of equity for companies with a beta less than 1.0 and overestimates the cost of equity for companies with a beta greater than 1.0.[27]

Consistent with my CAPM, my application of the ECAPM uses the forward-looking market risk premium estimates, the three yields on 30-year Treasury securities noted earlier as the risk-free rate, and the current *Bloomberg*, current *Value Line*, and long-term *Value Line* beta coefficients.

Q51. What are the results of your CAPM and ECAPM analyses?

A51. The results of my CAPM and ECAPM analyses are summarized in Figure 8, as well as presented in Exhibit No.___(AEB-2), Schedule 5.

[27] *Id.*, at 191.

Figure 8: CAPM and ECAPM Results

	30-Year Treasury Bond Yield		
	Current 30-Day Avg	Near-Term Projected	Longer-Term Projected
CAPM:			
Current *Value Line* Beta	11.05%	11.04%	11.07%
Current Bloomberg Beta	10.15%	10.13%	10.20%
Long-term Avg. *Value Line* Beta	10.08%	10.06%	10.13%
ECAPM:			
Current *Value Line* Beta	11.30%	11.29%	11.32%
Current Bloomberg Beta	10.62%	10.61%	10.66%
Long-term Avg. *Value Line* Beta	10.57%	10.56%	10.61%

C. BYRP Analysis

Q52. Please describe your BYRP analysis.

A52. In general terms, this approach is based on the fundamental principle that equity investors bear the residual risk associated with equity ownership and therefore require a premium over the return they would have earned as bondholders. In other words, because returns to equity holders have greater risk than returns to bondholders, equity holders require a higher return for that incremental risk. Thus, risk premium approaches estimate the cost of equity as the sum of the equity risk premium and the yield on a particular class of bonds. In my analysis, I use actual authorized returns for natural gas utilities as the historical measure of the cost of equity to determine the risk premium.

Q53. What is the fundamental relationship between the equity risk premium and interest rates?

A53. It is important to recognize both academic literature and market evidence indicating that the equity risk premium (as used in this approach) is inversely related to the level of interest rates (*i.e.*, as interest rates increase, the equity risk premium decreases, and vice versa).

Consequently, it is important to develop an analysis that: (1) reflects the inverse relationship between interest rates and the equity risk premium; and (2) relies on recent and expected market conditions. The analysis presented in Exhibit No.___(AEB-2), Schedule 8 establishes that relationship using a regression of the risk premium as a function of Treasury bond yields. When the authorized ROEs serve as the measure of required equity returns and the long-term Treasury bond yield is defined as the relevant measure of interest rates, the risk premium is the difference between those two points.[28]

Q54. Is the BYRP analysis relevant to investors?

A54. Yes. Investors are aware of authorized ROEs in other jurisdictions and they consider those awards as a benchmark for a reasonable level of equity returns for utilities of comparable risk operating in other jurisdictions. Because my BYRP analysis is based on authorized ROEs for utility companies relative to corresponding Treasury yields, it provides relevant information to assess the return expectations of investors in the current interest rate environment.

Q55. What did your BYRP analysis reveal?

A55. As shown in Figure 9, from January 1980 through September 2024, there was a strong negative relationship between risk premia and interest rates. To estimate that relationship, I conducted a regression analysis using the following equation:

$$RP = a + b(T) \qquad [6]$$

[28] *See e.g.,* S. Keith Berry, "Interest Rate Risk and Utility Risk Premia during 1982-93*," Managerial and Decision Economics*, Vol. 19, No. 2, March 1998 (the author used a similar methodology, including using authorized ROEs as the relevant data source, and came to similar conclusions regarding the inverse relationship between risk premia and interest rates). *See also*, Robert S. Harris, "Using Analysts' Growth Forecasts to Estimate Shareholder Required Rates of Return," *Financial Management*, Spring 1986, at 66.

Where:

RP = Risk Premium (difference between allowed ROEs and the yield on 30-year U.S. Treasury bonds)

a = intercept term

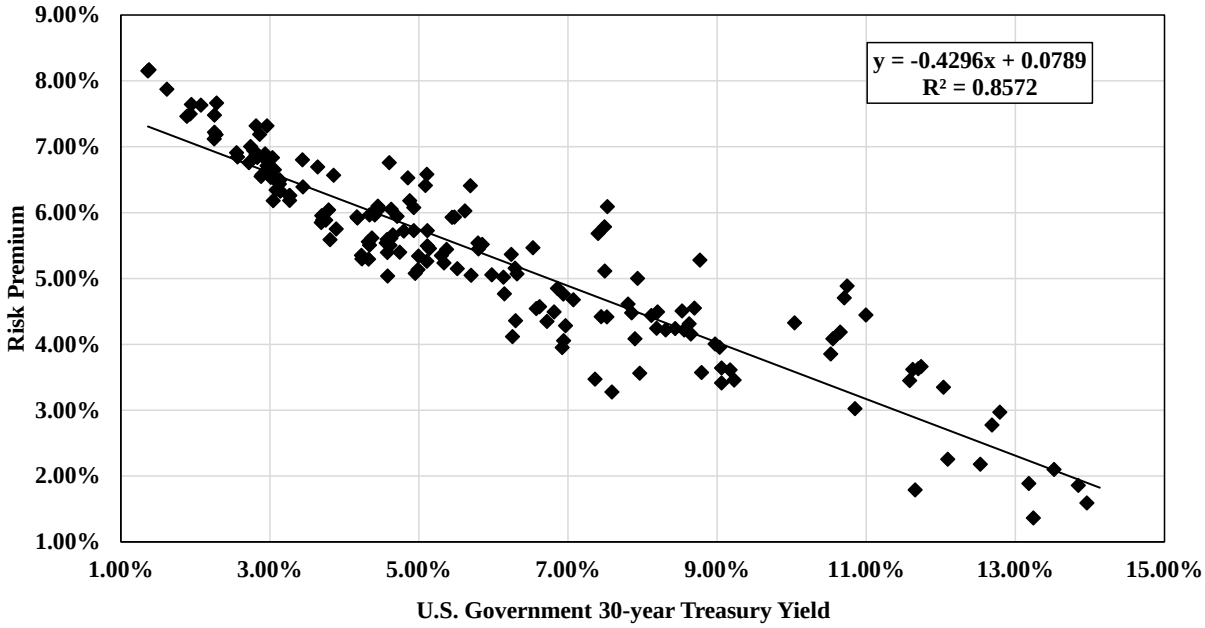
b = slope term

T = 30-year U.S. Treasury bond yield

Data regarding authorized ROEs were derived from the natural gas utility rate cases over this period as reported by RRA.[29] The equation's coefficients are statistically significant at the 99.00 percent level.

[29] The data was screened to eliminate limited issue rider cases, transmission cases, and cases that were silent with respect to the authorized ROE.

Figure 9: Risk Premium Regression Analysis



Q56. What are the results of your BYRP analysis?

A56. Figure 10 presents the results of my BYRP analysis, which is also presented in more detail in Exhibit No. ___(AEB-2), Schedule 8.

Figure 10: BYRP Results

	30-Year Treasury Bond Yield		
	Current 30-Day Avg	Near-Term Projected	Longer-Term Projected
Bond Yield Risk Premium	10.22%	10.19%	10.35%

Q57. How did the results of the BYRP inform your recommended ROE for Montana-Dakota?

A57. I have considered the results of the BYRP analysis in setting my recommended ROE for Montana-Dakota. As noted above, investors consider the ROE determination by a regulator when assessing the risk of that company as compared to utilities of comparable

risk operating in other jurisdictions. The BYRP analysis takes into account this comparison by estimating the return expectations of investors based on the current and past ROE awards of natural gas utilities across the U.S.

VII. REGULATORY AND BUSINESS RISKS

Q58. Do the results of the cost of equity analyses alone provide an appropriate estimate of the cost of equity for the Company?

A58. No. These results provide only a range of the appropriate estimate of the Company's cost of equity. Several additional factors must be considered when determining where the Company's cost of equity falls within the range of analytical results. These risk factors, discussed below, should be considered with respect to their overall effect on the Company's risk profile relative to the proxy group.

A. Small Size Risk

Q59. Is there a risk to a firm associated with small size?

A59. Yes. Both the financial and academic communities have long accepted the proposition that the cost of equity for small firms is subject to a "size effect." While empirical evidence of the size effect often is based on studies of industries other than regulated utilities, utility analysts also have noted the risk associated with small market capitalizations. Specifically, an analyst for Ibbotson Associates noted:

> For small utilities, investors face additional obstacles, such as a smaller customer base, limited financial resources, and a lack of diversification

across customers, energy sources, and geography. These obstacles imply a higher investor return.[30]

Q60. How does the smaller size of a utility affect its business risk?

A60. In general, smaller companies are less able to withstand adverse events that affect their revenues and expenses. The impact of weather variability, the loss of large customers to bypass opportunities, or the destruction of demand as a result of general macroeconomic conditions or fuel price volatility will have a proportionately greater impact on the earnings and cash flow volatility of smaller utilities. Similarly, capital expenditures for non-revenue producing investments, such as system maintenance and replacements, will put proportionately greater pressure on customer costs, potentially leading to customer attrition or demand reduction. Taken together, these risks affect the return required by investors for smaller companies.

Q61. How does Montana-Dakota's natural gas operations in Wyoming compare in size to the companies in the proxy group companies?

A61. The Company's natural gas distribution operations are substantially smaller than the median for the proxy group companies in terms of market capitalization. While Montana-Dakota is not publicly-traded on a stand-alone basis, as shown on Exhibit No.___(AEB-2), Schedule 9, Montana-Dakota's common equity based on its proposed test year rate base and equity ratio is substantially smaller than the median market capitalization of the proxy group companies.

[30] Michael Annin, "Equity and the Small-Stock Effect," *Public Utilities Fortnightly*, October 15, 1995.

Q62. How did you estimate the size premium for Montana-Dakota?

A62. Given this relative size information, it is possible to estimate the impact of size on the cost of equity for the Company using *Kroll* Cost of Capital Navigator data that estimates the stock risk premia based on the size of a company's market capitalization.[31] As shown in Exhibit No.___(AEB-2), Schedule 9, the median market capitalization of the proxy group is approximately $4.43 billion, which corresponds to the fifth decile of *Kroll's* market capitalization data.[32] Based on *Kroll's* analysis, that decile corresponds to a size premium of 0.95 percent (*i.e.*, 95 basis points). In comparison, Montana-Dakota's common equity of approximately $15.02 million falls within the tenth decile, which corresponds to a size premium of 4.70 percent (*i.e.*, 470 basis points). The difference between the size premium for the Company and the size premium for the proxy group is 375 basis points (*i.e.*, 4.70 percent minus 0.95 percent).

Q63. Have utility companies been included in the *Kroll* size premium study conducted?

A63. Yes. For example, as shown in Exhibit 7.2 of the *Kroll* (formerly *Duff & Phelps*) 2019 Valuation Handbook, OGE Energy Corp. had the largest market capitalization of the companies contained in the fourth decile, which indicates that *Kroll* has included utility companies in its size risk premium study.[33]

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[31] *Kroll*, Cost of Capital Navigator – Size Premium: Annual data as of 12/21/2023.

[32] *Id*.

[33] *Kroll*, Valuation Handbook: Guide to Cost of Capital, 2019, Exhibit 7.2.

Q64. Is the size premium applicable to companies in regulated industries such as natural gas utilities?

A64. Yes. For example, Zepp (2003) provided the results of two studies that showed evidence of the required risk premium for small water utilities. The first study, which was conducted by the Staff of the California Public Utilities Commission, computed proxies for beta risk using accounting data from 1981 through 1991 for 58 water utilities and concluded that smaller water utilities had greater risk and required higher returns on equity than larger water utilities.[34] The second study examined the differences in required returns over the period of 1987 through 1997 for two large and two small water utilities in California. As Zepp (2003) showed, the required return for the two small water utilities calculated using the DCF model was on average 99 basis points higher than the two larger water utilities.[35]

Additionally, Chrétien and Coggins (2011) studied the CAPM and its ability to estimate the risk premium for the utility industry, and in particular subgroups of utilities.[36] The article considered the CAPM, the Fama-French three-factor model, and a model similar to the ECAPM, which as previously discussed, I have also considered in estimating the cost of equity for the Company. In the study, the Fama-French three-factor model explicitly included an adjustment to the CAPM for risk associated with size. As Chrétien and Coggins (2011) show, the beta coefficient on the size variable for the U.S. natural gas

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[34] Thomas M. Zepp, "Utility Stocks and the Size Effect—Revisited," *The Quarterly Review of Economics and Finance*. Vol. 43, No. 3, 2003, at 578-582.

[35] *Id*.

[36] Stéphane Chrétien and Frank Coggins, "Cost Of Equity For Energy Utilities: Beyond The CAPM," *Energy Studies Review*, Vol. 18, No. 2, 2011.

utility group was positive and statistically significant indicating that small size risk was relevant for regulated natural gas utilities.[37]

Q65. Have regulators in other jurisdictions made a specific risk adjustment to the cost of equity results based on a company's small size?

A65. Yes. For example, in Order No. 15, the Regulatory Commission of Alaska ("RCA") concluded that Alaska Electric Light and Power Company ("AEL&P") was riskier than the proxy group companies due to small size as well as other business risks. The RCA did "not believe that adopting the upper end of the range of ROE analyses in this case, without an explicit adjustment, would adequately compensate AEL&P for its greater risk." [38] Thus, the RCA awarded AEL&P an ROE of 12.875 percent, which was 108 basis points above the highest cost of equity estimate from any model presented in the case.[39] Similarly, the RCA has also noted that small size, as well as other business risks such as its substantial transmission assets, weather risk, alternative rate mechanisms, gas supply risk, geographic isolation and economic conditions, increased the risk of ENSTAR Natural Gas Company.[40] Ultimately, the RCA concluded that:

> Although we agree that the risk factors identified by ENSTAR increase its risk, we do not attempt to quantify the amount of that increase. Rather, we take the factors into consideration when evaluating the remainder of the record and the recommendations presented by the parties. After applying our reasoned judgment to the record, we find that 11.875% represents a fair ROE for ENSTAR.[41]

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[37] *Id.*

[38] Regulatory Commission of Alaska, Docket No. U-10-29, Order No. 15, September 2, 2011, at 37.

[39] *Id.*, at 32 and 37.

[40] Regulatory Commission of Alaska, Docket No. U-16-066, Order No. 19, September 22, 2017, at 50-52.

[41] Ibid.

Additionally, the Minnesota Public Utilities Commission ("Minnesota PUC") authorized an ROE for Otter Tail Power Company ("Otter Tail") above the mean DCF results as a result of multiple factors, including Otter Tail's small size. The Minnesota PUC stated:

> The record in this case establishes a compelling basis for selecting an ROE above the mean average within the DCF range, given Otter Tail's unique characteristics and circumstances relative to other utilities in the proxy group. These factors include the company's relatively smaller size, geographically diffuse customer base, and the scope of the Company's planned infrastructure investments.[42]

Finally, in Opinion Nos. 569 and 569-A, the Federal Energy Regulatory Commission ("FERC") adopted a size premium adjustment in its CAPM estimates for electric utilities. In those decisions, the FERC noted that "the size adjustment was necessary to correct for the CAPM's inability to fully account for the impact of firm size when determining the cost of equity."[43]

Q66. How have you considered the smaller size of Montana-Dakota in your recommendation?

A66. While I have estimated the effect of Montana-Dakota's small size on the ROE, I am not proposing a specific adjustment for this risk factor. Rather, I have considered the small size of Montana-Dakota's natural gas operations in Wyoming, along with the other risk factors present for the Company, in determining where, within the range of analytical results, my recommended ROE for the Company should fall.

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[42] Order in Docket No. E017/GR-15-1033, In the Matter of the Application of Otter Tail Power Company for Authority to Increase Rates for Electric Service in the State of Minnesota (May 1, 2017) at 55.

[43] *Ass'n. of Businesses Advocating Tariff Equity, et. al., v. Midcontinent Indep. Sys. Operator, Inc., et. al.*, 171 FERC ¶ 61,154 (2020), at ¶ 75. The U.S. Court of Appeals recently vacated FERC Order No. 569 decisions that related to its risk premium model and remanded the case to FERC to reopen the proceedings. However, in its decision, the Court did not reject FERC's inclusion of the size premium to estimate the CAPM. (*See*, United States Court of Appeals Case No. 16-1325, Decision No. 16-1325, August 9, 2022 at 20).

B. Flotation Cost

Q67. What are flotation costs?

A67. Flotation costs are the costs associated with the sale of new issues of common stock. These costs include out-of-pocket expenditures for preparation, filing, underwriting, and other issuance costs.

Q68. Why is it important to consider flotation costs in the allowed ROE?

A68. A regulated utility must have the opportunity to earn an ROE that is both competitive and compensatory to attract and retain new investors. To the extent that a company is denied the opportunity to recover prudently incurred flotation costs, actual returns will fall short of expected (or required) returns, thereby diluting equity share value.

Q69. Are flotation costs part of the utility's invested costs or part of the utility's expenses?

A69. Flotation costs are part of the invested costs of the utility, which are properly reflected on the balance sheet under "paid in capital." They are not current expenses, and, therefore, are not reflected on the income statement. Rather, like investments in rate base or the issuance costs of long-term debt, flotation costs are incurred over time. As a result, the great majority of a utility's flotation cost is incurred prior to the test year but remains part of the cost structure that exists during the test year and beyond, and as such, should be recognized for ratemaking purposes. Therefore, it is irrelevant whether an issuance occurs during the test year or is planned for the test year because failure to allow recovery of past flotation costs may deny Montana-Dakota the opportunity to earn its required rate of return in the future.

Q70. Can you provide an example of why a flotation cost adjustment is necessary to compensate investors for the capital they have invested?

A70. Yes. Suppose MDU Resources issues stock with a value of $100, and an equity investor invests $100 in MDU Resources in exchange for that stock. Further suppose that, after paying the flotation costs associated with the equity issuance, which include fees paid to underwriters and attorneys, among others, MDU Resources ends up with only $97 of issuance proceeds, rather than the $100 the investor contributed. MDU Resources invests that $97 in plant used to serve its customers, which becomes part of rate base. Absent a flotation cost adjustment, the investor will thereafter earn a return on only the $97 invested in rate base, even though she contributed $100. Making a small flotation cost adjustment gives the investor a reasonable opportunity to earn the authorized return, rather than the lower return that results when the authorized return is applied to an amount less than what the investor contributed.

Q71. Is the date of MDU Resources' last issued common equity important in the determination of flotation costs?

A71. No. As shown in Exhibit No.___(AEB-2), Schedule 10, MDU Resources closed on equity issuances of approximately $58 million and $54 million (for a total of 4.7 million shares of common stock) in November 2002 and February 2004, respectively. The vintage of the issuance, however, is not particularly important because the investor suffers a shortfall in every year that she should have a reasonable opportunity to earn a return on the full amount of capital that she has contributed. Returning to my earlier example, the investor who contributed $100 is entitled to a reasonable opportunity to earn a return on $100 not only in the first year after the investment, but in every subsequent year in which she has the

$100 invested. Leaving aside depreciation, which is dealt with separately, there is no basis to conclude that the investor is entitled to earn a return on $100 in the first year after issuance, but thereafter is entitled to earn a return on only $97. As long as the $100 is invested, the investor should have a reasonable opportunity to earn a return on the entire amount.

Q72. Is the need to consider flotation costs eliminated because Montana-Dakota is a wholly-owned subsidiary of MDU?

A72. No. Although Montana-Dakota is a wholly-owned subsidiary of MDU, it is appropriate to consider flotation costs because wholly-owned subsidiaries receive equity capital from their parent and provide returns on the capital that roll up to the parent, which is designated to attract and raise capital based upon the returns of those subsidiaries. To deny recovery of issuance costs associated with the capital that is invested in the subsidiaries ultimately penalizes the investors that fund the utility operations and could inhibit the utility's ability to obtain new equity capital at a reasonable cost.

Q73. Is the need to consider flotation costs recognized by the academic and financial communities?

A73. Yes. The need to reimburse shareholders for the lost returns associated with equity issuance costs is recognized by the academic and financial communities in the same spirit that investors are reimbursed for the costs of issuing debt. This treatment is consistent with the philosophy of a fair rate of return. According to Dr. Shannon Pratt:

> Flotation costs occur when new issues of stock or debt are sold to the public. The firm usually incurs several kinds of flotation or transaction costs, which reduce the actual proceeds received by the firm. Some of these are direct out-of-pocket outlays, such as fees paid to underwriters, legal expenses, and

> prospectus preparation costs. Because of this reduction in proceeds, the firm's required returns on these proceeds equate to a higher return to compensate for the additional costs. Flotation costs can be accounted for either by amortizing the cost, thus reducing the cash flow to discount, or by incorporating the cost into the cost of capital. Because flotation costs are not typically applied to operating cash flow, one must incorporate them into the cost of capital.[44]

Q74. How did you calculate the flotation costs for MDU Resources?

A74. My flotation cost calculation is based on the costs of issuing equity that were incurred by MDU Resources in its two most recent common equity issuances. That flotation cost percentage is then applied to the proxy group in the DCF analysis to estimate the impact on the cost of equity associated with flotation costs. As shown in Exhibit No.___(AEB-2), Schedule 10, based on the flotation costs previously incurred by MDU, the average impact on the proxy group's cost of equity is 15 basis points (*i.e.*, 0.15 percent).

Q75. Do your final cost of equity results include an adjustment for flotation cost recovery?

A75. No. While the final ROE results do not incorporate an explicit adjustment for flotation costs, similar to the small size premium, I have considered the effect of flotation costs, along with the other risk factors present for the Company, in determining where, within the range of analytical results, my recommended ROE for the Company should fall.

C. Capital Expenditures

Q76. What are the Company's projected capital expenditure requirements over the next few years?

A76. As of December 31, 2023, the Company had net utility plant of approximately $24.99 million, and the Company currently projects capital expenditures for 2025 through 2029 of

[44] Shannon P. Pratt, *Cost of Capital Estimation and Applications* (2nd ed. 2002), at 220-221.

approximately $35 million,[45] which represent approximately 139 percent of its current net utility plant.

Q77. How do Montana-Dakota's capital expenditure requirements compare to those of the proxy group companies?

A77. As shown Exhibit No.___(AEB-2), Schedule 11, I have calculated the ratio of expected capital expenditures to net utility plant for Montana-Dakota and each of the companies in the proxy group by dividing each company's projected capital expenditures for the period from 2025 through 2029 by its total net utility plant as of December 31, 2023. As shown, Montana-Dakota's ratio of capital expenditures as a percentage of net utility plant is substantially higher than the median for the proxy group companies, and in fact, is the highest amongst the proxy group companies.

Q78. How is the Company's risk profile affected by their substantial capital expenditure requirements?

A78. As with any utility faced with substantial capital expenditure requirements, the Company's risk profile may be adversely affected in two significant and related ways: (1) the heightened level of investment increases the risk of under-recovery or delayed recovery of the invested capital; and (2) an inadequate return would put downward pressure on key credit metrics.

[45] Data provided by the Company.

Q79. Do credit rating agencies recognize the risks associated with significant capital expenditures?

A79. Yes. From a credit perspective, the additional pressure on cash flows associated with high levels of capital expenditures exerts corresponding pressure on credit metrics and, therefore, credit ratings. To that point, S&P explains the importance of regulatory support for a significant amount of capital projects:

> When applicable, a jurisdiction's willingness to support large capital projects with cash during construction is an important aspect of our analysis. This is especially true when the project represents a major addition to rate base and entails long lead times and technological risks that make it susceptible to construction delays. Broad support for all capital spending is the most credit-sustaining. Support for only specific types of capital spending, such as specific environmental projects or system integrity plans, is less so, but still favorable for creditors. Allowance of a cash return on construction work-in-progress or similar ratemaking methods historically were extraordinary measures for use in unusual circumstances, but when construction costs are rising, cash flow support could be crucial to maintain credit quality through the spending program. Even more favorable are those jurisdictions that present an opportunity for a higher return on capital projects as an incentive to investors.[46]

Recently, S&P evaluated the capital expenditure trends in the utility sector, noting that the balance between operating with negative discretionary cash flow from operations offset by reliable access to capital markets for financing may be tested through ever-increasing capital expenditure requirements as a result of the transformation of the energy sector through the focus on low/no carbon generation, electrification, and the replacement of aging infrastructure:

> Some companies have been unable to support financial metrics consistent with former ratings as their discretionary cash flow deteriorated. This trend was a significant contributor to the sector seeing the median rating decline to 'BBB+' from 'A-' for the first time in 2022. What is less clear is whether

[46] S&P Global Ratings, "Assessing U.S. Investor-Owned Utility Regulatory Environments," August 10, 2016, at 7.

> or not management teams will take steps to forestall another step down in credit quality as high capital outlays persist. So far in 2023, we have not seen evidence that equity issuance is keeping pace with debt issuance to fill ever-deepening discretionary cash flow shortfalls, but time will tell.
>
> …..
>
> Despite the improvement in the economic outlook, we expect inflation, high interest rates, higher capital spending, and the strategic decision by many companies to operate with only minimal financial cushion from their downgrade thresholds to continue to pressure the industry's credit quality. We are cautious about the durability of the current stable ratings outlook given persistently high capital spending that now supports a trend of deterioration in discretionary cash flow. Without a commensurate focus on balance sheet preservation through equity support of discretionary cash flow deficits, limited financial cushions could give rise to another round of negative rating actions. The question then comes back to management priorities and financial policy decisions, or utilities may be faced with another step down in the median ratings. [47]

Therefore, to the extent that Montana-Dakota's rates do not permit the opportunity to recover its capital investments on a regular and timely basis, the Company will face increased recovery risk and thus increased pressure on its credit metrics.

Q80. Does the Company currently have a capital tracking mechanism to recover the costs associated with its capital expenditures plan between rate cases?

A80. No. Montana-Dakota currently has not requested approval to recover capital investment costs between rate cases utilizing a capital tracking mechanism. Therefore, Montana-Dakota depends entirely on rate case filings for capital cost recovery. However, significant capital programs like Montana-Dakota's generally receive cost recovery through infrastructure and capital trackers. As shown in Exhibit No.___(AEB-2), Schedule 12,

[47] S&P Global Ratings, "Record CapEx Fuels Growth Along With Credit Risk For North American Investor-Owned Utilities," September 12, 2023, at 5, 7-8.

approximately 71 percent of the companies in the proxy group currently have mechanisms for some form of capital cost recovery in place.

Q81. What are your conclusions regarding the effect of the Company's capital spending requirements on its risk profile and cost of capital?

A81. Since Montana-Dakota has the most significant projected capital expenditure program relative to net utility plant of the proxy group over the next five years, and unlike a number of the operating subsidiaries of the proxy group does not currently have a capital tracking mechanism, this results in a risk profile for the Company that is greater than that of the proxy group, all else being equal.

D. Regulatory Risk

Q82. How does the regulatory environment affect investors' risk assessments?

A82. The ratemaking process is premised on the principle that, for investors and companies to commit the capital needed to provide safe and reliable utility service, the subject utility must have the opportunity to recover the return of, and the market-required return on, invested capital. Regulatory commissions recognize that because utility operations are capital intensive, their decisions should enable the utility to attract capital at reasonable terms, and that doing so balances the long-term interests of investors and customers. Utilities must finance their operations and thus require the opportunity to earn a reasonable return on their invested capital to maintain their financial profiles. The Company is no exception. Therefore, the regulatory environment is one of the most important factors considered in both debt and equity investors' risk assessments.

From the perspective of debt investors, the authorized return should enable the utility to generate the cash flow needed to meet its near-term financial obligations, make the capital investments needed to maintain and expand its systems, and maintain the necessary levels of liquidity to fund unexpected events. This financial liquidity must be derived not only from internally-generated funds, but also by efficient access to capital markets. Moreover, because fixed income investors have many investment alternatives, even within a given market sector, a utility's financial profile must be adequate on a relative basis to ensure its ability to attract capital under a variety of economic and financial market conditions.

Equity investors require that the authorized return be adequate to provide a risk-comparable return on the equity portion of the utility's capital investments. Because equity investors are the residual claimants on the utility's cash flows (*i.e.*, the equity return is subordinate to interest payments), they are particularly concerned with the strength of regulatory support and its effect on future cash flows.

Q83. Do credit rating agencies consider regulatory risk in establishing a company's credit rating?

A83. Yes. Both S&P and Moody's consider the overall regulatory framework in establishing credit ratings. Moody's establishes credit ratings based on four key factors: (1) regulatory framework; (2) the ability to recover costs and earn returns; (3) diversification; and (4) financial strength, liquidity and key financial metrics. Of these criteria, regulatory framework and the ability to recover costs and earn returns are each given a broad rating

factor of 25.00 percent. Therefore, Moody's assigns regulatory risk a 50.00 percent weighting in the overall assessment of business and financial risk for regulated utilities.[48]

S&P also identifies the regulatory framework as an important factor in credit ratings for regulated utilities, stating: "we assess regulatory advantage because the influence of the regulatory framework and regime is of critical importance. It defines the environment in which a utility operates and has a significant bearing on a utility's financial performance."[49] S&P identifies four specific factors that it uses to assess the credit implications of the regulatory jurisdictions of investor-owned regulated utilities: (1) regulatory stability; (2) tariff-setting procedures and design; (3) financial stability; and (4) regulatory independence and insulation.[50]

Q84. How does the regulatory environment in which a utility operates affect its access to and cost of capital?

A84. The regulatory environment can significantly affect both the access to and cost of capital in several ways. First, the proportion and cost of debt capital available to utility companies are influenced by the rating agencies' assessment of the regulatory environment. As noted by Moody's, "[u]tility rates are set in a political/regulatory process rather than a competitive or free-market process; thus, the regulatory framework is a key determinant of the credit quality of a utility."[51] Moody's further highlighted the relevance of a stable and predictable regulatory environment to a utility's credit quality, noting: "[t]he regulatory

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[48] Moody's Investors Service, Rating Methodology: Regulated Electric and Gas Utilities, August 6, 2024, at 2.

[49] Standard & Poor's Global Ratings, "Sector-Specific Corporate Methodology," April 4, 2024, at 147.

[50] *Id*.

[51] Moody's Investors Service, Rating Methodology: Regulated Electric and Gas Utilities, August 6, 2024, at 8.

framework is important because it provides the basis for decisions that affect utilities, including rate-setting as well as the consistency and predictability of regulatory decision-making."[52]

Q85. Have you conducted an analysis to compare the cost recovery mechanisms of Montana-Dakota to the cost recovery mechanisms approved in the jurisdictions in which the companies in your proxy group operate?

A85. Yes. I have evaluated the regulatory framework in Wyoming based on three factors that are important in terms of providing a regulated utility a reasonable opportunity to earn its authorized ROE: (1) test year convention (*i.e.*, forecast vs. historical); (2) use of rate design or other mechanisms that mitigate volumetric risk and stabilize revenue; and (3) prevalence of capital cost recovery between rate cases. Each are described below and are summarized in Exhibit No.___(AEB-2), Schedule 12 and are summarized below.

Test Year Convention: Montana-Dakota uses a historical test year adjusted for known and measurable changes in Wyoming, while 50.0 percent of the utility operating subsidiaries of the companies in the proxy group use either fully forecasted or partially forecasted test years. Forecast test years have been relied on for several years and produce cost estimates that are more reflective of future costs, which results in more accurate recovery of incurred costs and mitigates the regulatory lag associated with historical test years. As Lowry, Hovde, Getachew, and Makos explain in their 2010 report, *Forward Test Years for US Electric Utilities*:

> This report provides an in depth discussion of the test year issue. It includes the results of empirical research which explores why the unit costs of

[52] *Id*.

> electric IOUs are rising and shows that utilities operating under forward test years realize higher returns on capital and have credit ratings that are materially better than those of utilities operating under historical test years. The research suggests that shifting to a future test year is a prime strategy for rebuilding utility credit ratings as insurance against an uncertain future.[53]

Volumetric Risk: Montana-Dakota has protection against volumetric risk in Wyoming through customer charges that recover a high percentage of the Company's fixed cost. By comparison, approximately 92 percent of the utility operating subsidiaries of the proxy group companies have some form of revenue stabilization through either decoupling, formula-based rates, and/or straight-fixed variable rate design that allow them to break the link between customer usage and revenues.

Capital Cost Recovery: As noted previously, Montana-Dakota does not have a capital tracking mechanism to recover capital investment costs between rate cases. However, approximately 71 percent of the utility operating subsidiaries of the proxy group companies have some form of capital cost recovery mechanism.

Q86. What is the effect on Montana-Dakota of having relatively fewer timely cost recovery mechanisms?

A86. The lack of timely cost recovery mechanisms can result in regulatory lag. Regulatory lag occurs when a regulated utility is not able to recover its just and reasonable costs of providing service to customers on a timely basis. Regulatory lag is reflected in a utility's financial performance through earnings attrition, which is the inability of the utility to earn

[53] M.N. Lowry, D. Hovde, L. Getachew, and M. Makos, Forward Test Years for US Electric Utilities, prepared for Edison Electric Institute, August 2010, at 1.

its authorized ROE due to delays in the recovery of allowable costs that have been incurred to provide regulated service to customers.

Q87. Is there evidence that Montana-Dakota has been unable to earn its authorized ROE?

A87. Yes. As shown in Figure 11, Montana-Dakota's natural gas operations in Wyoming has significantly under-earned its authorized ROE in the last five years. Over this period, the average earned ROE on the Company's natural gas operations in Wyoming was 3.08 percent, as compared with the average authorized ROE of 9.38 percent, for an average under-earning of 558 basis points per year. Further, comparing the Company's actual earned equity return in 2023 to the yield on the 30-year Treasury bonds shown in Figure 2, demonstrates that the earned return to equity investors is currently lower than the return on risk-free investments.

Figure 11: Montana-Dakota's Earned vs. Authorized ROE (2019-2023)

	Earned ROE	Authorized ROE	Earnings Differential (bps)
2019	2.167%	9.50%	-733
2020	4.231%	9.35%	-512
2021	6.702%	9.35%	-265
2022	5.194%	9.35%	-416
2023	0.721%	9.35%	-863
Average	**3.803%**	**9.38%**	**-558**

Q88. What are your conclusions regarding the perceived risks related to the regulatory environment in Wyoming?

A88. Both Moody's and S&P have identified the supportiveness of the regulatory environment as an important consideration in developing their overall credit ratings for regulated utilities. Considering the regulatory adjustment mechanisms of the Company relative to

the proxy group, many of the companies in the proxy group have more timely cost recovery between rate proceedings than Montana-Dakota has in Wyoming. Moreover, the Company has significantly under-earned its authorized ROE in each of the last five years. For these reasons, I conclude that Montana-Dakota has greater than average regulatory risk relative to the proxy group.

VIII. CAPITAL STRUCTURE

Q89. Is the capital structure of the Company an important consideration in the determination of the appropriate ROE?

A89. Yes. The equity ratio is the primary indicator of financial risk for a regulated utility. All else equal, a higher debt ratio increases the risk to investors. Specifically, for debt holders, higher debt ratios result in a greater portion of the available cash flow being required to meet debt service, thereby increasing the risk associated with the payments on debt. The result of increased risk is a higher interest rate. Further, the incremental risk of a higher debt ratio is more significant for common equity shareholders, whose claim on the cash flow of the Company is secondary to debt holders. Therefore, the greater the debt service requirement, the less cash flow is available for common equity holders.

Q90. What is the Company's proposed capital structure?

A90. The Company proposes to establish a capital structure consisting of 50.177 percent common equity, 44.735 percent long-term debt and 5.088 percent short-term debt.

Q91. Did you conduct any analysis to determine if this requested equity ratio was reasonable?

A91. Yes. I compared the Company's proposed capital structure relative to the actual capital structures of the utility operating subsidiaries of the companies in the proxy group. The cost of equity is estimated based on the return that is derived from companies in the proxy group that are deemed to be comparable in risk to the Company; however, those companies must be publicly-traded in order to apply the cost of equity models. The operating utility subsidiaries of the proxy group companies are most risk-comparable to the Company, and thus it is reasonable to look to the average capital structure of the operating utilities of the proxy group to benchmark the equity ratios for the Company. Specifically, I have calculated the average proportion of common equity, long-term debt, preferred equity, and short-term debt for the most recent three years for each of the utility operating subsidiaries of the proxy group companies. As shown on Exhibit No.___(AEB-2), Schedule 13, the common equity ratios for operating subsidiaries of the proxy group companies over the past three years ranged from 45.22 percent to 60.03 percent, with an average of 52.26 percent. Therefore, Montana-Dakota's proposed equity ratio is well within the range of equity ratios for the utility operating subsidiaries of the proxy group companies, and, in fact, is below the average.

Q92. Are there other factors to be considered in setting the Company's capital structure?

A92. Yes, there are other factors that should be considered in setting the Company's capital structure, namely the challenges that the credit rating agencies have highlighted as placing pressure on the credit metrics for utilities.

For example, while Moody's recently revised its outlook for the utility sector from "negative" to "stable", Moody's continues to note that high interest rates and increased capital spending will place pressure on credit metrics. Thus, Moody's highlights constructive regulatory outcomes that promote timely cost recovery as a key factor in supporting utility credit quality. [54]

S&P also recently revised its outlook for the industry; however, S&P downgraded its outlook from stable to negative.[55] S&P noted that for the fifth consecutive year it expects downgrades will exceed upgrades with the industry facing significant risks over the near-term as a result of physical risks due to climate change, increased levels of capital spending and cash-flow deficits that are not being "funded in a sufficiently credit supportive manner".[56] In regard to the effect of increased capital spending, S&P noted:

> The industry's capital spending remains at record levels, supporting initiatives for safety, reliability, energy transition, and growth. We consider these trends long term and expect that capital spending will only continue to increase over this decade.
>
> Accordingly, cash flow deficits have increased, pressuring the industry's credit quality. For 2024, our base case assumes that the industry will fund its approximate $85 billion of cash flow deficits with about $40 billion in asset sales and equity issuance.
>
> For 2023, the industry's actual equity issuance was considerably below our expectations, resulting in a weakening of financial performance and credit quality. If this trend persists, credit quality will again likely experience pressure in 2024.[57]

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[54] Moody's Investors Service, Outlook, "Outlook turns stable on low prices and credit-supportive regulation," September 7, 2023.

[55] S&P Global Ratings, "Rising Risks: Outlook For North American Investor-Owned Regulated Utilities Weakens, February 14, 2024.

[56] *Id* at 4.

[57] *Id.* at 6-8.

Fitch Ratings ("Fitch") has stated that it is maintaining a "deteriorating outlook" on the U.S. utility sector in 2024 based on elevated capital spending and continuing higher interest rates that place pressure on credit metrics. Fitch notes that bill affordability will remain a major issue for the industry that could affect future regulatory outcomes, and that while it expects authorized ROEs to start trending up with the increase in interest rates, albeit with a lag, given the uncertain macroeconomic environment and bill pressure on customers, the lag could be longer than in previous cycles.[58]

The credit ratings agencies' continued concerns over the negative effects of inflation, higher interest rates, and increased capital expenditures underscore the importance of maintaining adequate cash flow metrics for the Company in the context of this proceeding.

Q93. Will the capital structure and ROE authorized in this proceeding affect the Company's access to capital at reasonable rates?

A93. Yes. The level of earnings authorized by the Commission directly affects the Company's ability to fund its operations with internally-generated funds. Both bond investors and rating agencies expect a significant portion of ongoing capital investments to be financed with internally-generated funds. In addition, it is important to recognize that because a utility's investment horizon is very long, investors require the assurance of a sufficiently high return to satisfy the long-term financing requirements of the assets placed into service. Those assurances, which often are measured by the relationship between internally-generated cash flows and debt (or interest expense), depend quite heavily on the capital

[58] FitchRatings, "North American Utilities, Power & Gas Outlook 2024," December 6, 2023.

structure. As a consequence, both the ROE and capital structure are very important to debt and equity investors, particularly given the capital market conditions discussed previously.

IX. CONCLUSION AND RECOMMENDATION

Q94. What is your conclusion regarding a fair ROE for Montana-Dakota?

A94. Figure 12 summarizes the results of my cost of equity analyses. Based on these results, the qualitative analyses presented in my Direct Testimony, the business and financial risks of Montana-Dakota compared to the proxy group, and current and prospective conditions in capital markets, it is my view that an ROE of 10.80 percent is reasonable and would fairly balance the interests of customers and shareholders.

Figure 12: Summary of Analytical Results

Constant Growth DCF

	Minimum Growth Rate	Average Growth Rate	Maximum Growth Rate
Mean Results:			
30-Day Avg. Stock Price	8.59%	9.87%	11.30%
90-Day Avg. Stock Price	8.79%	10.06%	11.50%
180-Day Avg. Stock Price	8.95%	10.23%	11.66%
Average	8.78%	10.05%	11.49%
Median Results:			
30-Day Avg. Stock Price	8.48%	9.83%	11.33%
90-Day Avg. Stock Price	8.72%	10.05%	11.57%
180-Day Avg. Stock Price	8.86%	10.17%	11.71%
Average	8.69%	10.02%	11.54%

CAPM / ECAPM / Bond Yield Risk Premium

	30-Year Treasury Bond Yield		
	Current 30-Day Avg	Near-Term Projected	Longer-Term Projected
CAPM:			
Current *Value Line* Beta	11.05%	11.04%	11.07%
Current Bloomberg Beta	10.15%	10.13%	10.20%
Long-term Avg. *Value Line* Beta	10.08%	10.06%	10.13%
ECAPM:			
Current *Value Line* Beta	11.30%	11.29%	11.32%
Current Bloomberg Beta	10.62%	10.61%	10.66%
Long-term Avg. *Value Line* Beta	10.57%	10.56%	10.61%
Bond Yield Risk Premium	10.22%	10.19%	10.35%

Q95. What is your conclusion regarding the Company's proposed capital structure?

A95. The Company's proposed capital structure consisting of 50.177 percent common equity, 44.735 percent long-term debt, and 5.088 percent short-term debt is reasonable when compared to the capital structures of the companies in the proxy group. Further, considering the impact of current and projected market conditions on the cash flows of

utilities as raised by the credit rating agencies, the Company's proposed capital structure is reasonable and should be adopted for ratemaking purposes.

Q96. Does this conclude you direct testimony?

A96. Yes.