

PUC DOCKET NO. 58964

BEFORE THE PUBLIC UTILITY COMMISSION OF TEXAS

**APPLICATION OF
TEXAS-NEW MEXICO POWER COMPANY
FOR AUTHORITY TO CHANGE RATES**

**PREPARED DIRECT TESTIMONY
OF
ADRIEN M. MCKENZIE, CFA**

**ON BEHALF OF
TEXAS-NEW MEXICO POWER COMPANY**

NOVEMBER 14, 2025

**DIRECT TESTIMONY OF
ADRIEN M. MCKENZIE, CFA
TABLE OF CONTENTS**

I.	INTRODUCTION	1
	A. Overview	1
	B. Summary and Conclusions	3
II.	RETURN ON EQUITY FOR TNMP	4
	A. Importance of Financial Strength	5
	B. Conclusions and Recommendations	9
III.	FUNDAMENTAL ANALYSES.....	11
	A. Texas-New Mexico Power Company, Inc.....	11
	B. Outlook for Capital Costs	13
IV.	COMPARABLE RISK PROXY GROUP.....	22
	A. Determination of the Proxy Group.....	23
	B. Relative Risks of the Utility Group and TNMP	24
	C. Capital Structure	30
V.	CAPITAL MARKET ESTIMATES	35
	A. Economic Standards	36
	B. Discounted Cash Flow Analysis	41
	C. Capital Asset Pricing Model	50
	D. Empirical Capital Asset Pricing Model.....	55
	E. Utility Risk Premium	57
	F. Expected Earnings Approach.....	60
VI.	NON-UTILITY BENCHMARK	63

**DIRECT TESTIMONY OF
ADRIEN M. MCKENZIE, CFA
LIST OF EXHIBITS**

<u>Exhibit</u>	<u>Description</u>
AMM-1	Qualifications of Adrien M. McKenzie
AMM-2	ROE Analysis—Summary of Results
AMM-3	Regulatory Mechanisms
AMM-4	Capital Structure
AMM-5	DCF Model—Utility Group
AMM-6	br + sv Growth Rate
AMM-7	CAPM
AMM-8	ECAPM
AMM-9	Utility Risk Premium
AMM-10	Expected Earnings Approach
AMM-11	Implied ROE—Docket No. 48401
AMM-12	DCF Model—Non-Utility Group

1 present filing, I consider and rely upon discussions with corporate
2 management, publicly available financial reports and prior regulatory filings
3 relating to TNMP. I also review information relating generally to current capital
4 market conditions and specifically to investor perceptions, requirements, and
5 expectations for TNMP's utility operations. These sources, coupled with my
6 experience in the fields of finance and utility regulation, have given me a
7 working knowledge of the issues relevant to investors' required return for
8 TNMP, and they form the basis of my analyses and conclusions.

9 **Q. How is your testimony organized?**

10 A. First, I summarize my conclusions and recommendations, giving special
11 attention to the importance of financial strength and the implications of
12 regulatory mechanisms and other risk factors. I also comment on the
13 reasonableness of TNMP's proposed capital structure.

14 Next, I briefly review TNMP's operations and finances. I then discuss
15 current conditions in the capital markets and their implications in evaluating a
16 just and reasonable return for the Company. Next, I explain the development
17 of the proxy group of utilities used as the basis for my quantitative analyses.
18 With this as a background, I discuss well-accepted quantitative analyses to
19 estimate the current cost of equity for the proxy group of electric utilities. These
20 include the discounted cash flow ("DCF") model, the Capital Asset Pricing
21 Model ("CAPM"), an Empirical form of the CAPM ("ECAPM"), an equity risk
22 premium approach based on allowed equity returns, and reference to expected

1 earned rates of return for utilities, which are all methods that are commonly
2 relied on in regulatory proceedings.

3 Based on the results of my analyses, I evaluate a fair ROE for TNMP.
4 My evaluation takes into account the specific risks for the Company's electric
5 operations in Texas and TNMP's requirements for financial strength. Finally,
6 consistent with the fact that utilities must compete for capital with firms outside
7 their own industry, I corroborate my utility quantitative analyses by applying the
8 DCF model to a group of low-risk non-utility firms.

9 **B. Summary and Conclusions**

10 **Q. What is your recommended ROE of TNMP?**

11 A. I apply the DCF, CAPM, ECAPM, risk premium, and expected earnings
12 analyses to a proxy group of electric utilities with the results being summarized
13 on Exhibit AMM-2. As shown there, based on the results of my analysis, I
14 recommend a cost of equity range for the Company of 9.9% to 10.9%. It is my
15 conclusion that the 10.4% midpoint of this range represents a just and
16 reasonable cost of equity that is adequate to compensate TNMP's investors,
17 while maintaining the Company's financial integrity and ability to attract capital
18 on reasonable terms.

19 **Q. Do fundamental financial principles and capital market trends justify a
20 significant increase to TNMP's authorized ROE?**

21 A. Yes. Because investors evaluate investments against available alternatives,
22 the cost of equity and the cost of long-term debt are inextricably linked. The
23 Supreme Court recognized in *Bluefield* that, "A rate of return may be

1 reasonable at one time and become too high or too low by changes affecting
2 opportunities for investment, the money market and business conditions
3 generally.”¹ As my testimony documents, long-term bond yields climbed
4 dramatically beginning in 2022 and investors anticipate that these increases
5 will be sustained. This provides direct evidence that the cost of equity to TNMP
6 has also risen significantly. My evaluation reflects trends in observable capital
7 market data and the results of my analyses, both of which support a material
8 increase to TNMP’s allowed ROE.

9 **Q. What did you conclude regarding the reasonableness of TNMP’s capital**
10 **structure?**

11 A. Considering both the specific risks faced by TNMP and other industry
12 guidelines, I conclude that the Company’s investor-supplied capital structure is
13 reasonable considering industry benchmarks and the importance of
14 maintaining TNMP’s financial strength to meet the capital requirements of its
15 customers.

16 **II. RETURN ON EQUITY FOR TNMP**

17 **Q. What is the purpose of this section?**

18 A. This section presents my conclusions regarding the fair ROE applicable to
19 TNMP’s jurisdictional electric utility operations. I also describe the relationship
20 between ROE and preservation of a utility’s financial integrity and the ability to
21 attract capital. Finally, I discuss the reasonableness of the Company’s capital
22 structure request in this case.

¹ *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm’n*, 262 U.S. 679 (1923) (“*Bluefield*”).

1 **A. Importance of Financial Strength**

2 **Q. What is the role of the ROE in setting a utility's rates?**

3 A. The ROE is the cost of attracting and retaining common equity investment in
4 the utility's physical plant and assets. This investment is necessary to finance
5 the asset base needed to provide utility service. Investors commit capital only
6 if they expect to earn a return on their investment commensurate with returns
7 available from alternative investments with comparable risks. Moreover, a just
8 and reasonable ROE is integral in meeting sound regulatory economics and
9 the standards set forth by the U.S. Supreme Court. The *Bluefield* case set the
10 standard against which just and reasonable rates are measured:

11 A public utility is entitled to such rates as will permit it to earn a
12 return on the value of the property which it employs for the
13 convenience of the public equal to that generally being made at
14 the same time and in the same general part of the country on
15 investments in other business undertakings which are attended
16 by corresponding risks and uncertainties. . . . The return should
17 be reasonable, sufficient to assure confidence in the financial
18 soundness of the utility, and should be adequate, under efficient
19 and economical management, to maintain and support its credit
20 and enable it to raise money necessary for the proper discharge
21 of its public duties.²

22 The *Hope* case expanded on the guidelines as to a reasonable ROE,
23 reemphasizing the Supreme Court's findings in *Bluefield* and establishing that
24 the rate-setting process must produce an end-result that allows the utility a
25 reasonable opportunity to recover its capital costs. The Court stated:

26 From the investor or company point of view it is important that
27 there be enough revenue not only for operating expenses but also
28 for the capital costs of the business. These include service on
29 the debt and dividends on the stock. . . . By that standard, the

² *Bluefield*.

1 return to the equity owner should be commensurate with returns
2 on investments in other enterprises having corresponding risks.
3 That return, moreover, should be sufficient to assure confidence
4 in the financial integrity of the enterprise, so as to maintain credit
5 and attract capital.³

6 In summary, the Supreme Court's findings in *Hope* and *Bluefield*
7 established that a just and reasonable ROE must be sufficient to 1) fairly
8 compensate the utility's investors, 2) enable the utility to offer a return adequate
9 to attract new capital on reasonable terms, and 3) maintain the utility's financial
10 integrity. These standards should allow the utility to fulfill its obligation to
11 provide reliable service while meeting the needs of customers through
12 necessary system replacement and expansion, but the Supreme Court's
13 requirements can only be met if the utility has a reasonable opportunity to
14 actually earn its allowed ROE.

15 Although the *Hope* and *Bluefield* decisions did not establish a particular
16 method to be followed in fixing rates (or in determining the allowed ROE),⁴
17 these and subsequent cases enshrined the importance of an end result that
18 meets the opportunity cost standard of finance. Under this doctrine, the
19 required return is established by investors in the capital markets based on
20 expected returns available from comparable risk investments. Coupled with
21 modern financial theory, which has led to the development of formal risk-return
22 models (e.g., DCF and CAPM), practical application of the *Bluefield* and *Hope*
23 standards involves the independent, case-by-case consideration of capital

³ *Fed. Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) ("*Hope*").

⁴ *Id.* at 602 (finding, "the Commission was not bound to the use of any single formula or combination of formulae in determining rates." and, "[I]t is not theory but the impact of the rate order which counts.").

1 market data in order to evaluate an ROE that will produce a balanced and fair
2 end result for investors and customers.

3 **Q. Throughout your testimony you refer to the concepts of “financial**
4 **strength,” “financial integrity,” and “financial flexibility.” Would you**
5 **briefly describe what you mean by these terms?**

6 A. These terms are generally synonymous and refer to the utility’s ability to attract
7 and retain the capital that is necessary to provide service at reasonable cost,
8 consistent with the Supreme Court standards for a sufficient ROE. TNMP’s
9 plans call for a continuation of capital investments to preserve and enhance
10 service reliability for its customers. The Company must generate adequate
11 cash flow from operations to fund these requirements and maintain access to
12 capital from external sources.

13 Rating agencies and potential debt investors tend to place significant
14 emphasis on maintaining strong financial metrics and credit ratings that support
15 access to debt capital markets under reasonable terms. This emphasis on
16 financial metrics and credit ratings is shared by equity investors who also focus
17 on cash flows, capital structure, and liquidity, much like debt investors.

18 **Q. What part does regulation play in ensuring that TNMP has access to**
19 **capital under reasonable terms and on a sustainable basis?**

20 A. Regulatory signals heavily influence how investors assess risk for utilities.
21 Investors recognize that constructive regulation is a key ingredient in
22 supporting utility credit ratings and financial integrity. Security analysts study
23 commission orders and regulatory policy statements to advise investors about

1 where to commit capital. As Moody's Investors Service ("Moody's") noted, "The
2 regulatory framework is important because it provides the basis for decisions
3 that affect utilities, including rate-setting as well as consistency and
4 predictability of regulatory decision-making."⁵ Similarly, S&P Global Ratings
5 ("S&P") has observed that, "Regulatory advantage is the most heavily weighted
6 factor when S&P Global Ratings analyzes a regulated utility's business risk
7 profile."⁶ The Value Line Investment Survey ("Value Line") summarizes these
8 sentiments:

9 As we often point out, the most important factor in any utility's
10 success, whether it provides electricity, gas, or water, is the
11 regulatory climate in which it operates. Harsh regulatory
12 conditions can make it nearly impossible for the best run utilities
13 to earn a reasonable return on their investment.⁷

14 In addition, the ROE set by regulators impacts investor confidence in not
15 only the jurisdictional utility, but also in the ultimate parent company that is the
16 entity that actually issues common stock.

17 **Q. Are there affordability and reliability benefits to customers from**
18 **enhancing the utility's financial flexibility?**

19 A. Yes. Providing an ROE that is sufficient to maintain TNMP's ability to attract
20 capital under reasonable terms, even in times of financial and market stress, is
21 not only consistent with the economic requirements embodied in the U.S.

⁵ Moody's Investors Service, *Rating Methodology*, Regulated Electric and Gas Utilities (Aug. 6, 2024).

⁶ S&P Global Ratings, *Assessing U.S. Investors-Owned Utility Regulatory Environments*, RatingsExpress (Aug. 10, 2016).

⁷ Value Line Investment Survey, *Water Utility Industry* (Jan. 13, 2017) at p. 1780.

1 Supreme Court's *Hope* and *Bluefield* decisions, but it is also in customers' best
2 interests.

3 Because investors demand a high return for assuming greater risk, an
4 erosion in the utility's credit standing leads directly to higher borrowing costs,
5 as well as a higher required return on equity capital.⁸ This additional return is
6 further magnified during periods of turmoil in capital markets, when risk spreads
7 may widen significantly.⁹ Thus, authorizing a fair ROE and providing the utility
8 a reasonable opportunity to actually earn this return also lowers the cost of
9 borrowing and maintains access to the capital necessary to provide service.
10 As a result, customers enjoy the benefits that come from ensuring that the utility
11 has the financial wherewithal to take whatever actions are required to ensure
12 safe and reliable service.

13 **B. Conclusions and Recommendations**

14 **Q. What are your findings regarding the fair ROE for TNMP?**

15 A. Considering the economic requirements necessary to support continuous
16 access to capital under reasonable terms and the results of my analysis, I
17 recommend a 10.4% ROE for TNMP, which is consistent with the case-specific
18 evidence presented in my testimony. The bases for my conclusion are
19 summarized below:

⁸ For example, the average yield spread between utility bonds rated Baa and A-rated bonds was 19 basis points over the six-months ended August 2025.

⁹ In March 2009 the yield spread between utility bonds rated Baa and A-rated bonds rose to 158 basis points, almost an eight-fold increase over the level during the six month period ending August 2025.

- 1 • In order to reflect the risks and prospects associated with electric
2 utility operations, my analyses focused on a proxy group of
3 twenty-eight publicly traded electric utilities of comparable risk.
- 4 • Because investors' required return on equity is unobservable and
5 no single method should be viewed in isolation, I applied the DCF,
6 CAPM, ECAPM, and risk premium methods to estimate a just and
7 reasonable ROE for TNMP, as well as referencing the expected
8 earnings approach.
- 9 • As summarized in Exhibit AMM-2, considering the results of these
10 analyses, and giving less weight to extremes at the high and low
11 ends of the range, I conclude that the cost of equity for the Utility
12 Group falls in the 9.9% to 10.9%.¹⁰
- 13 • My ROE recommendation for TNMP is the midpoint of this range,
14 or 10.4%.

15 **Q. What other evidence supports a significant increase from the 9.65% ROE**
16 **currently authorized for TNMP?**

17 A. Table 1 shows that since TNMP's current ROE was set, bond yields have risen
18 significantly, indicating higher investor return requirements on long-term
19 capital. After adjusting for current financial market conditions, the 9.65% ROE
20 currently approved for TNMP would be substantially higher. The detailed
21 calculations supporting this conclusion are presented on Exhibit AMM-11. The
22 average yield on Baa-rated utility bonds during the pendency of Docket No.
23 48401 was 4.80%, versus 6.07% for the six months ending August 2025.
24 Adding the adjusted risk premium of 4.31% to the six-month average Baa-rated
25 utility bond yield in August 2025 of 6.07% results in an implied cost of equity of

¹⁰ This ROE range does not consider issuance costs associated with the sale of common stock. Flotation costs are legitimate business expenses and the lack of an upward adjustment to account for them further supports the reasonableness of my recommended ROE range.

1 10.38% for TNMP in today's capital markets. This benchmark calculation
2 supports the reasonableness of my 10.4% ROE recommendation for TNMP.

3 **Q. Your testimony also presents DCF results for a select group of non-utility**
4 **firms. Does this analysis support your conclusions?**

5 A. Yes. As shown on page 3 of Exhibit AMM-12, the cost of equity indicated for a
6 group of low-risk firms in the competitive sector of the economy falls in the
7 10.1% to 12.3% range. While I did not base my recommendations on these
8 results, they confirm that an ROE of 10.4% falls in a reasonable range to
9 maintain TNMP's financial integrity, provide a return commensurate with
10 investments of comparable risk, and support the Company's ability to attract
11 capital.

12 **III. FUNDAMENTAL ANALYSES**

13 **Q. What is the purpose of this section?**

14 A. This section briefly reviews the operations and finances of TNMP. As a
15 predicate to my quantitative analyses, it examines conditions in the capital
16 markets and the general economy. An understanding of the fundamental
17 factors driving the risks and prospects of utilities is essential in developing an
18 informed opinion of investors' expectations and requirements that are the basis
19 of a fair ROE.

20 **A. Texas-New Mexico Power Company, Inc.**

21 **Q. Briefly describe TNMP and its utility operations.**

22 A. Headquartered in Lewisville, Texas, TNMP is a wholly-owned subsidiary of
23 TXNM Energy, Inc. ("TXNM"). The Company provides electricity transmission

1 and distribution service to approximately 275,000 consumers in three non-
2 contiguous service territories in Texas. Apart from serving retail customers,
3 TNMP also provides transmission and distribution services at regulated rates
4 to various Retail Electricity Providers that, in turn, provide retail electric service
5 to consumers within TNMP's service territory. TNMP owns approximately
6 1,022 miles of electric transmission lines and operates fully within the control
7 area of the Electric Reliability Council of Texas ("ERCOT"). During 2024, sales
8 to residential customers accounted for approximately 35% of total revenues,
9 with 29% from commercial customers, 6% from industrial consumers, 27% from
10 electric transmission, and 2% from other sources. At December 31, 2024,
11 TNMP's total assets amounted to approximately \$3.6 billion, with annual
12 electric operating revenues totaling approximately \$592 million.

13 **Q. Where does TNMP obtain the capital used to finance its investment in**
14 **electric utility infrastructure?**

15 A. As a wholly-owned subsidiary of TXNM, the Company obtains common equity
16 capital solely from its parent, whose common stock is publicly traded on the
17 New York Stock Exchange. In addition to capital supplied by TXNM, the
18 Company also issues debt securities directly under its own name.

19 **Q. What credit ratings have been assigned to TNMP?**

20 A. TNMP has issuer credit ratings from Moody's and S&P of Baa1 and BBB+,
21 respectively.

22 **Q. Does TNMP anticipate the need for capital going forward?**

1 A. Yes. TNMP's plans call for significant incremental capital investments related
2 to maintaining and modernizing the grid to allow for the integration of additional
3 generating resources, improved customer reliability, greater system efficiency
4 and enhanced resilience and wildfire mitigation. TNMP is projecting that capital
5 spending will total approximately \$4.8 billion over the five-year period ending
6 2030, which is 2.3 times the amount spent over the five years ending 2024.
7 This amount implies significant financial pressure in light of the fact that the
8 Company's existing rate base is approximately \$2.8 billion. Along with these
9 system enhancements, the Company remains obligated to repay maturing
10 long-term debt. Continued support for TNMP's financial integrity and flexibility
11 will be instrumental in attracting the capital necessary to fund its capital projects
12 in an effective manner.

13 **B. Outlook for Capital Costs**

14 **Q. Please summarize current economic and capital market conditions.**

15 A. Following the economic contraction stemming from the COVID-19 pandemic in
16 2020, U.S. real Gross Domestic Product ("GDP") improved significantly in
17 2021, with GDP growing at a pace of 5.7%.¹¹ Economic growth was more
18 subdued in subsequent years, falling in a range of 2.5% to 2.9% between 2022
19 and 2024.¹² More recently, real GDP grew at an annual rate of -0.5% and 3.3%

¹¹ U.S. Dep't of Commerce, Bureau of Economic Analysis, <https://www.bea.gov/news/2022/gross-domestic-product-fourth-quarter-and-year-2021-second-estimate> (last visited Sep. 13, 2025).

¹² U.S. Dep't of Commerce, Bureau of Economic Analysis, <https://www.bea.gov/sites/default/files/2025-05/gdp1q25-2nd.pdf> (last visited Sep. 13, 2025).

1 in the first and second quarters of 2025, respectively.¹³ Meanwhile, the
2 employment rate edged higher in August 2025 to 4.3%.¹⁴

3 The underlying risk and price pressures associated with the COVID-19
4 pandemic were overshadowed by a dramatic increase in global uncertainties
5 following Russia's invasion of Ukraine in February 2022. Geopolitical risks
6 have been compounded by the resurgence of conflict in the Middle East. Apart
7 from disrupting global trade, the potential for escalation has prompted concerns
8 over potential constraints to crude oil supplies and resulting supply-side price
9 shocks that could reignite inflation and further dampen economic growth.

10 Stimulative monetary and fiscal policies, coupled with supply-chain
11 disruptions and rapid price rises in the energy and commodities markets, led to
12 increasing concern that inflation would remain significantly above the Federal
13 Reserve's longer-run benchmark of 2%. Consumer Price Index ("CPI") inflation
14 peaked in June 2022 at 9.1%, its highest level since November 1981. CPI
15 inflation has moderated significantly since then, but increased somewhat to
16 2.9% in August 2025,¹⁵ which exceeds the Federal Reserve's 2.0% target. The
17 so-called "core" price index, which excludes more volatile energy and food
18 costs, rose at an annual rate of 3.1% in August 2025.¹⁶ Inflation as measured

¹³ U.S. Dep't of Commerce, Bureau of Economic Analysis, <https://www.bea.gov/news/2025/gross-domestic-product-2nd-quarter-2025-second-estimate-and-corporate-profits-preliminary> (last visited Sep. 13, 2025).

¹⁴ News Release, U.S. Dep't of Labor, Bureau of Labor Statistics, *The Employment Situation—August 2025* (Sep. 5, 2025), <https://www.bls.gov/news.release/pdf/empst.pdf> (last visited Sep. 13, 2025).

¹⁵ U.S. Dep't of Labor, Bureau of Labor Statistics, *Consumer Price Index Summary* (Sep. 11, 2025), <https://www.bls.gov/news.release/cpi.nr0.htm> (last visited Sep. 13, 2025).

¹⁶ *Id.*

1 by the Personal Consumption Expenditures price index ticked up to 2.6% in
2 July 2025, or 2.9% after excluding more volatile food and energy costs.¹⁷

3 The investment community has expressed growing concern that rising
4 import tariffs and the potential for severe disruptions to global commerce may
5 reignite inflation and lead to economic recession. Oscillating trade war
6 developments have also precipitated an erosion of consumer confidence. In
7 July 2025, the University of Michigan consumer sentiment index, which
8 measures consumer expectations about current and future economic
9 conditions, remained about 16% below December 2024 and well below its
10 historical average,¹⁸ demonstrating relative consumer pessimism. Investors
11 continue to face the prospect of heightened market volatility as capital markets
12 respond to these uncertainties.

13 **Q. Have these developments impacted the risks faced by utilities and their**
14 **investors?**

15 A. Yes. In February 2024, S&P revised its outlook for the utility sector to
16 “negative,” noting that:

17 Credit quality for North American investor-owned regulated
18 utilities has weakened over the past four years, with downgrades
19 outpacing upgrades by more than three times. We expect
20 downgrades to again surpass upgrades in 2024 for the fifth
21 consecutive year.¹⁹

¹⁷ Bureau of Economic Analysis, *Personal Income and Outlays, May 2025*, BEA 25-36 (Aug. 29, 2025), <https://www.bea.gov/news/2025/personal-income-and-outlays-july-2025> (last visited Sep. 13, 2025).

¹⁸ University of Michigan, *Surveys of Consumers* (Jul. 18, 2025), <https://data.sca.isr.umich.edu/> (last visited Aug. 26, 2025).

¹⁹ S&P Global Ratings, *Rising Risks: Outlook For North American Investor-Owned Regulated Utilities Weakens*, Criteria Corporates (Feb. 14, 2024).

1 In July 2024, S&P affirmed its negative outlook, citing rising physical
2 risks, as well as weakening financial measures due to “record-breaking capital
3 spending” and cash flow deficits, and noting “the industry’s high percentage of
4 companies ... that operate with only minimal financial cushion from their
5 downgrade threshold.”²⁰ Meanwhile, Moody’s cautioned that widening cash
6 flow deficits in the utility industry were placing increasing negative pressure on
7 financial credit metrics, concluding that credit pressure “will likely continue to
8 lead to negative rating actions if not sufficiently mitigated.”²¹

9 Utilities are also exposed to supply chain risk and procurement cost
10 management associated with increasing tariff barriers to trade. In 2024, China
11 accounted for over 50% of low-voltage transformer imports, while Mexico is the
12 largest trading partner for medium and high-voltage transformers.²² Utilities in
13 the U.S. also rely heavily on imports from China, Canada, and Mexico for
14 breakers and switchgear. Wood Mackenzie, a global data and analytics
15 provider for the energy industry, noted that:

16 This critical path aspect of transmission and distribution projects
17 has already faced tremendous security of supply and cost
18 pressure the past five years with increased competition for the
19 materials with the rise of renewables and transmission &
20 distribution construction, increased storm response and volatile
21 metals markets. . . . The additional cost pressure from tariffs
22 coupled with supply pressure via new electric generation assets
23 to support AI data centres, and a shift of federal investments from

²⁰ S&P Global Ratings, *Regulated Utilities: Credit risks are rising*, Industry Credit Outlook Update – North America (Jul. 18, 2024).

²¹ Moody’s Investors Service, *Electric and Gas Utilities – US*, Sector In-Depth (Oct. 24, 2024).

²² Wood MacKenzie, *Navigating the impact of President Trump’s tariffs on utility supply chains* (Jan. 16, 2025). <https://www.woodmac.com/news/opinion/the-impact-of-proposed-tariffs-on-utility-supply-chains/> (last visited Mar. 17, 2025).

1 renewables builds to T&D infrastructure may exacerbate what the
2 last five years have been.²³

3 Apart from contributing to higher prices for materials and equipment,
4 supply chain disruptions and shortages have the potential to delay necessary
5 construction and maintenance of utility infrastructure. S&P concluded that tariff
6 policies will contribute to financial volatility and weakened investor confidence
7 in the utility sector over the medium to long-term.²⁴

8 **Q. Are there benchmarks available for general changes in capital costs?**

9 A. Yes. Although the cost of equity is not observable, a number of market
10 benchmarks provide a gauge for the direction of capital costs, including
11 required returns on common stocks. Yields on 30-year Treasury bonds are
12 generally accepted as a guide to the risk-free rate. While yields on long-term
13 Treasury bonds can be impacted by monetary policy (e.g., quantitative easing)
14 or a flight to safety in times of turmoil, they provide an observable benchmark
15 for underlying trends in capital costs. Similarly, utility bonds are actively traded
16 in the debt markets and the resulting yields offer a touchstone for the direction
17 and magnitude of the return utilities must offer to attract capital. Although not
18 specific to long-term capital costs, the target range for the Federal Funds rate
19 established by the Federal Reserve is also widely followed by investors as a
20 metric for monetary policies and underlying capital market conditions.

21 Finally, while there is no single expected inflation rate that applies to all
22 financial assets, investors' long-term inflation expectations can be inferred from

²³ *Id.*

²⁴ S&P Global Ratings, *Navigating Tariffs' Credit Implications Across Asset Classes*, Comments (Jun. 17, 2025).

1 the published yields on Treasury Inflation Protected Securities (“TIPS”).
 2 Whereas yields on conventional Treasury bonds must compensate investors
 3 for any expected erosion in purchasing power due to inflation, buyers of TIPS
 4 need not worry about future inflation, because the principal and interest
 5 payments are both indexed to inflation. As a result, the yield difference
 6 between conventional and inflation-protected Treasuries of a given maturity
 7 provides a gauge of the future inflation rate expected by market participants.

8 **Q. Do these benchmarks indicate that the cost of equity has increased since**
 9 **the Commission approved TNMP’s existing 9.65% ROE in 2018?**²⁵

10 A. Yes. Table AMM-1 illustrates the changes in key capital cost indicators that
 11 have taken place since TNMP’s existing ROE was established, with every
 12 indicator showing an increase.

13 **TABLE AMM-1**
 14 **CAPITAL MARKET BENCHMARKS**

<u>Series</u>	<u>2018</u>	<u>August 2025</u>	<u>Change (bps)</u>
10-Year Treasury Bonds	2.91%	4.26%	135
30-Year Treasury Bonds	3.11%	4.87%	176
Baa Utility Bonds	4.67%	5.98%	131
Prime Loan Rate	4.90%	7.50%	260
Federal Funds Rate	1.78%	4.38%	260
TIPS Implied Inflation	2.10%	2.27%	17

Source: <https://fred.stlouisfed.org>; Moody's Credit Trends.

²⁵ Public Utility Commission of Texas, Docket No. 48401, Order (Dec. 20, 2018).

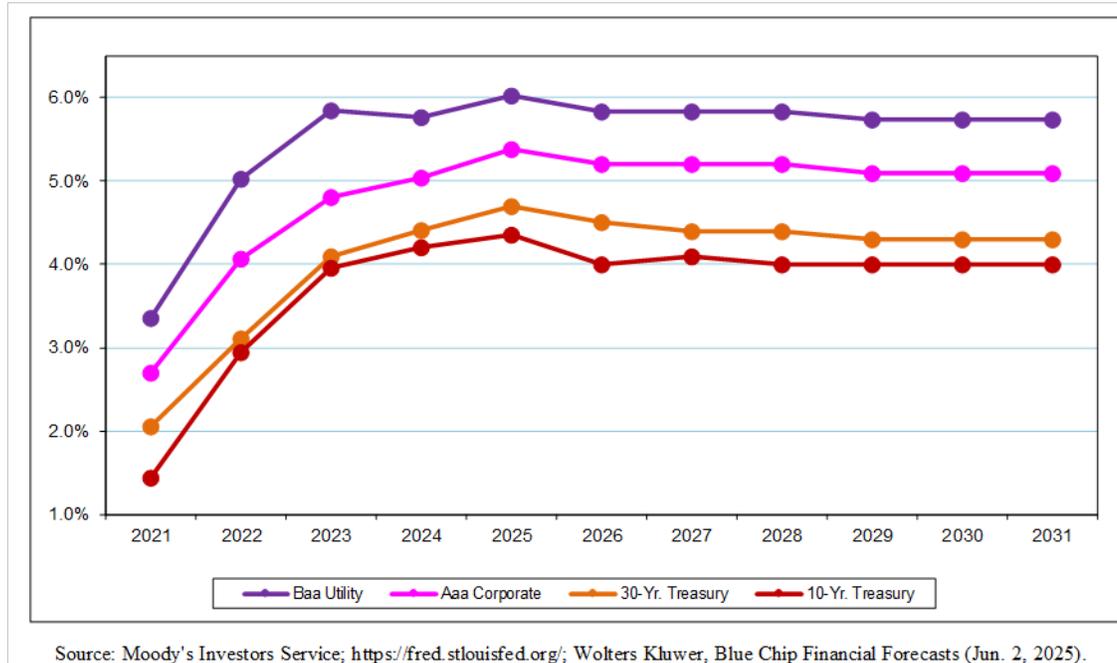
1 As shown above, trends in bond yields since 2018 document a
2 substantial increase in the returns on long-term capital demanded by investors.
3 With respect to Baa-rated utility bonds, the average yield in August 2025 is over
4 130 basis points above the level prevailing during 2018, while 30-year Treasury
5 bond yields have increased 176 basis points. The Prime Rate and the midpoint
6 of the Federal Reserve's target range for the Federal Funds rate have both
7 increased by 260 basis points, while the expected long-term inflation rate has
8 increased 17 basis points.

9 **Q. Do investors anticipate that these higher bond yields will be sustained?**

10 A. Yes. As illustrated in Figure AMM-1 below, the most recent long-term
11 consensus projections from top economists published by Blue Chip Financial
12 Forecasts document that long-term bond yields are expected to remain
13 elevated when compared to recent historical levels.

1
2

**FIGURE AMM-1
PROJECTED INTEREST RATES**



3 This evidence shows that long-term capital costs—including the ROE—
 4 have increased substantially, and that investors expect these higher capital
 5 costs to be sustained at least through 2031.

6 **Q. The Federal Reserve lowered the target range for the Federal Funds rate**
 7 **several times in 2024, and again at its meetings in September and October**
 8 **2025. Does this change your conclusion that the cost of equity has**
 9 **increased significantly in recent years?**

10 **A.** No. Bond yields embody the market's expectations of future events, including
 11 Federal Reserve monetary policy and inflation trends. For example, a
 12 Reuters.com article on the day of the Federal Reserve's September 2024 rate
 13 action confirmed that it, along with future cuts to the federal funds rate, were
 14 anticipated:

1 The U.S. central bank on Wednesday kicked off an anticipated
2 series of interest rate cuts with a larger-than-usual half-
3 percentage-point reduction that Federal Reserve Chair Jerome
4 Powell said was meant to show policymakers' commitment to
5 sustaining a low unemployment rate now that inflation has
6 eased.²⁶

7 In response to the more recent September 2025 rate cuts, Guy Lebas, the Chief
8 Fixed Income Strategist at Janney Capital Management, observed, “This was
9 about as close to expectations as humanly possible (and) basically what was
10 baked into markets ahead of time.”²⁷ Meanwhile, Uto Shinohara, Senior
11 Investment Strategist at Mesirow Currency Management, confirmed that “the
12 Fed delivered a widely expected rate cut” in October 2025, but also highlighted
13 that “another move in December is far from certain.”²⁸ Similarly, the forecasts
14 of leading economists presented in Figure AMM-1 also consider expectations
15 for future changes in Federal Reserve monetary policies.

16 Long-term interest rates and capital cost are also influenced by a host
17 of considerations beyond the Federal Funds rate, which is an overnight lending
18 rate between banks. For example, Moody’s noted the potential for higher
19 broad-based tariffs on imports and deficit-financed tax cuts to “result in some
20 combination of higher inflation and interest rates.”²⁹ There is no indication that

²⁶ Reuters.com, *Fed unveils oversized rate cut as it gains 'greater confidence' about inflation* (Sep. 19, 2024), <https://www.reuters.com/markets/rates-bonds/with-feds-rate-cut-hand-debate-swirls-over-how-big-move-2024-09-18/> (last visited Sep. 3, 2025) (emphasis added).

²⁷ Reuters.com, *Instant View: Analysts react after Fed cuts interest rates by quarter of a percentage point* (Sep. 17, 2025), <https://www.reuters.com/business/view-fed-lowers-rates-by-quarter-point-powell-says-was-risk-management-cut-2025-09-17/> (last visited Sep. 23, 2025) (emphasis added).

²⁸ Reuters.com, *Instant View: Fed delivers expected rate cut; Powell says December rate cut not assured* (Oct. 29, 2025), <https://www.reuters.com/business/view-fed-delivers-expected-rate-cut-nods-limits-data-during-shutdown-2025-10-29/> (last visited Oct. 30, 2025).

²⁹ Moody’s Investors Service, *Trump Take Two (Take Two)*, Economic View (Nov. 19, 2024).

1 the impact of any future cuts in the Federal Funds rate would erase the
2 significant increase in key interest rate benchmarks documented in Table AMM-
3 1.

4 **Q. What do these trends indicate regarding a fair ROE for TNMP?**

5 A. The upward move in interest rates suggests that long-term capital costs—
6 including the cost of equity—have increased significantly in recent years.
7 Exposure to higher interest rates, inflation, and capital expenditure
8 requirements also reinforce the importance of buttressing TNMP’s credit
9 standing. Considering the potential for financial market instability, competition
10 with other investment alternatives, and investors’ sensitivity to risk exposures
11 in the utility industry, credit strength is a key ingredient in maintaining access
12 to capital at reasonable cost.

13 If the upward shift in investors’ risk perceptions and required rates of
14 return for long-term capital is not incorporated in the allowed ROE, the results
15 will fail to meet the comparable earnings standard that is fundamental in
16 determining the cost of capital. From a more practical perspective, failing to
17 provide investors with the opportunity to earn a rate of return commensurate
18 with TNMP’s risks will weaken its financial integrity and undermine its ability to
19 attract necessary capital.

20 **IV. COMPARABLE RISK PROXY GROUP**

21 **Q. What is the purpose of this section of your testimony?**

22 A. This section explains the basis of the proxy group of publicly traded companies
23 I use to estimate the cost of equity, examines alternative objective indicators of

1 investment risk for these firms, and compares the investment risks applicable
2 to TNMP with my reference group.

3 **A. Determination of the Proxy Group**

4 **Q. How do you implement quantitative methods to estimate the cost of
5 common equity for TNMP?**

6 A. Evaluating the cost of common equity using quantitative methods requires
7 observable capital market data, such as stock prices and beta values. Even
8 for a firm with publicly traded stock, the cost of common equity can only be
9 estimated and the results of quantitative models inherently include some
10 degree of error. The accepted approach to increase confidence in the results
11 is to apply quantitative methods to a proxy group of publicly traded companies
12 that investors regard as risk comparable. The results of the analysis on the
13 sample of companies are relied upon to establish a range of reasonableness
14 for the cost of equity for the specific company at issue.

15 **Q. How do you identify the proxy group of electric utilities used in your
16 analysis?**

17 A. To reflect the risks and prospects associated with TNMP's jurisdictional electric
18 operations, I begin with the following criteria to identify a proxy group of utilities:

- 19 1. Included in the Electric Utility Industry groups compiled by Value
20 Line.
- 21 2. Paid common dividends over the past six months and have not
22 announced a dividend cut since that time.
- 23 3. No ongoing involvement in a major merger or acquisition that would
24 distort quantitative results.
- 25 4. Assigned a Value Line Safety Rank of "1", "2", or "3."
- 26 5. Assigned a Value Line Financial Strength Rating of "B+" or higher.

1 In addition, my analysis also considered credit ratings from Moody's and
2 S&P in evaluating relative risk. Specifically, I excluded any companies with
3 ratings more than one "notch" higher or lower than TNMP's issuer credit ratings
4 of Baa1 and BBB+ assigned by Moody's and S&P, respectively. These criteria
5 result in a proxy group composed of twenty-eight companies, which I refer to
6 as the "Utility Group."

7 **B. Relative Risks of the Utility Group and TNMP**

8 **Q. How do you evaluate investors' risk perceptions for the Utility Group**
9 **relative to TNMP?**

10 A. My evaluation of relative risk considers five published benchmarks that are
11 widely relied on in the investment community—credit ratings from Moody's and
12 S&P, along with Value Line's Safety Rank, Financial Strength Rating, and beta
13 values. Credit ratings are assigned by independent rating agencies for the
14 purpose of providing investors with a broad assessment of the creditworthiness
15 of a firm. Ratings generally extend from triple-A (the highest) to D (in default).
16 Other symbols (e.g., "+" or "-") are used to show relative standing within a
17 category. Because the rating agencies' evaluation includes all of the factors
18 normally considered important in assessing a firm's relative credit standing,
19 corporate credit ratings provide a broad, objective measure of overall
20 investment risk that is readily available to investors. Widely cited in the
21 investment community and referenced by investors, credit ratings are also
22 frequently used as a primary risk indicator in establishing proxy groups to
23 estimate the cost of common equity.

1 Although credit ratings provide the most widely referenced benchmark
2 for investment risks, the quality rankings published by Value Line provide an
3 important and objective assessment of relative risks that are considered by
4 investors in forming their expectations and measure the risks associated with
5 common stocks. Value Line's primary risk indicator is its Safety Rank, which
6 ranges from "1" (Safest) to "5" (Riskiest). This overall risk measure is intended
7 to capture the total risk of a stock and incorporates elements of stock price
8 stability and financial strength. Given that Value Line is perhaps the most
9 widely available source of investment advisory information, its Safety Rank
10 provides useful guidance regarding the risk perceptions of investors.

11 The Financial Strength Rating is designed as a guide to overall financial
12 strength and creditworthiness, with the key inputs including financial leverage,
13 business volatility measures, and company size. Value Line's Financial
14 Strength Ratings range from "A++" (strongest) down to "C" (weakest) in nine
15 steps. These objective, published indicators incorporate consideration of a
16 broad spectrum of risks, including financial and business position, relative size,
17 and exposure to firm-specific factors.

18 Finally, beta measures a utility's stock price volatility relative to the
19 market as a whole and reflects the tendency of a stock's price to follow changes
20 in the market. A stock that tends to respond less to market movements has a
21 beta less than 1.00, while stocks that tend to move more than the market have
22 betas greater than 1.00. Beta is the only relevant measure of investment risk
23 under modern capital market theory and is widely cited in academics and in the

1 investment industry as a guide to investors' risk perceptions. Moreover, in my
 2 experience Value Line is the most widely referenced source for beta in
 3 regulatory proceedings. As noted in *New Regulatory Finance*:

4 Value Line is the largest and most widely circulated independent
 5 investment advisory service, and influences the expectations of a
 6 large number of institutional and individual investors. ... Value
 7 Line betas are computed on a theoretically sound basis using a
 8 broadly based market index, and they are adjusted for the
 9 regression tendency of betas to converge to 1.00.³⁰

10 **Q. How do the overall risks of your proxy group compare to TNMP?**

11 A. Table AMM-2 compares the Utility Group to the Company across the five key
 12 risk indicators discussed above. Because TNMP has no publicly traded
 13 common stock, the Value Line risk measures shown reflect those published for
 14 its parent, TXNM:

15 **TABLE AMM-2**
 16 **COMPARISON OF RISK INDICATORS**

	<u>Credit Ratings</u>		<u>Value Line</u>		
			<u>Safety</u>	<u>Financial</u>	
	<u>Moody's</u>	<u>S&P</u>		<u>Rank</u>	<u>Strength</u>
Utility Group	Baa2	BBB+	2	A	0.77
TNMP	Baa1	BBB+	2	A+	0.65

17 The average Moody's credit rating corresponding to the Utility Group is
 18 one notch lower than the Baa1 rating assigned to TNMP, with the average S&P
 19 rating for the Utility Group being identical to the Company. The Value Line
 20 Safety Rank corresponding to TNMP is also equal to the average for the Utility
 21 group. Meanwhile, the Company's Financial Strength and beta measures

³⁰ Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports (2006) at 71.

1 suggest somewhat less risk than the averages for the Utility Group. Considered
2 together, a comparison of these objective measures, which incorporate a broad
3 spectrum of risks, including financial and business position, relative size, and
4 exposure to company specific factors, indicates that investors would likely
5 conclude that the overall investment risks for TNMP are generally comparable
6 to those of the firms in the Utility Group.

7 **Q. Would investors also consider the implications of regulatory**
8 **mechanisms in evaluating TNMP's relative risks?**

9 A. Yes. Decoupling mechanisms, cost trackers, and future test years have
10 become increasingly prevalent in the industry in recent years, along with
11 alternatives to traditional ratemaking such as formula rates and multi-year rate
12 plans. In its most recent review of adjustment clauses published in its *RRA*
13 *Regulatory Focus* report ("RRA"), S&P Global Market Intelligence noted that:

14 More recently and with greater frequency, commissions have
15 approved mechanisms that permit the costs associated with the
16 construction of new generation or delivery infrastructure to be
17 used, effectively including these items in rate base without the
18 need for a full rate case. In some instances, these mechanisms
19 may even provide the utilities a cash return on construction work
20 in progress.

21 . . . [C]ertain types of adjustment clauses are more prevalent than
22 others. For example, those that address electric fuel and gas
23 commodity charges are in place in all jurisdictions. Also, about
24 two-thirds of all utilities have riders in place to recover costs
25 related to energy efficiency programs, and roughly half of the
26 utilities have some type of decoupling mechanism in place.³¹

27 **Q. What regulatory mechanisms have been approved for TNMP?**

³¹ S&P Global Market Intelligence, *Adjustment Clause: A state-by-state overview*, RRA Regulatory Focus (Jul. 18, 2022).

1 A. TNMP operates under regulatory mechanisms that allow for recovery of capital
2 invested in transmission and distribution projects without having to file a
3 general rate case. In addition, the Commission has approved riders that allow
4 the Company to recover amounts related to energy efficiency and third-party
5 transmission costs, with the cost of advanced meters being recovered through
6 base rates.

7 **Q. Do the regulatory mechanisms approved for TNMP set it apart from other**
8 **firms operating in the utility industry?**

9 A. No. A broad array of adjustment mechanisms is also available to the
10 companies in my proxy group of electric utilities. As shown on Exhibit AMM-3,
11 the companies in the Utility Group operate under a wide variety of cost
12 adjustment mechanisms, including future test years, multi-year and formula
13 rate plans, and revenue decoupling mechanisms. The proxy utilities also
14 benefit from adjustment clauses to include new capital investment without
15 requiring a traditional rate case and to recover costs of environmental
16 compliance measures, as well as riders for energy conservation programs and
17 transmission-related charges.

18 **Q. Considered together, what do these characteristics imply with respect to**
19 **TNMP's risks relative to other utilities?**

20 A. Proxy group results can provide a meaningful foundation to evaluate the cost
21 of equity for a utility of average risk, which is appropriate for TNMP in this case.
22 As demonstrated above, the risks faced by TNMP's common equity investors
23 are comparable to the credit ratings and other risk measures referenced to

1 establish the proxy group. Additionally, the regulatory mechanisms available
2 to TNMP do not provide a reasonable basis to distinguish the Company's risk
3 from that of the Utility Group. As a result, the Utility Group provides a
4 reasonable basis on which to apply conventional financial models to estimate
5 the cost of equity, and the results are directly applicable to a common equity
6 investment in TNMP.

7 **Q. On May 18, 2025 TXNM entered into an agreement to be acquired by**
8 **Blackstone Infrastructure Partners, L.P., which is a wholly owned affiliate**
9 **of Blackstone, Inc. ("Blackstone"). Does the proposed merger have any**
10 **implications for the TNMP's risks relative to your proxy group?**

11 A. No. The evaluation of a fair ROE for TNMP's electric utility operations is not
12 predicated on the source of the equity capital or the ownership structure of
13 upstream entities. This is consistent with accepted principles of finance and
14 regulatory standards. The cost of capital depends on the use of the funds and
15 not the source of the funds. The fair ROE corresponding to any investment is
16 dictated by the risk of that investment, not by the source of the financing. The
17 appropriate return must reflect the utility's risks, regardless of the identity of the
18 investor.

19 As the Supreme Court noted in *FPC v. Hope Natural Gas Co.*, "the return
20 to the equity owner should be commensurate with returns on investments in
21 other enterprises having corresponding risks."³² At the time of the rate case at
22 issue in the Supreme Court's decision, Hope was a subsidiary of Standard Oil

³² *Hope*.

1 Company of New Jersey (the predecessor of ExxonMobil). The standard of a
2 fair rate of return articulated in the *Hope* case did not relate to the parent, but
3 to the utility. *Hope* was the entity that undertook the utility obligations and the
4 benchmark for the adequacy of returns was the end result for the utility, not for
5 Standard Oil. Similarly, the Federal Energy Regulatory Commission (“FERC”) has
6 concluded that “[t]he rate of return to a [utility] should not depend on who
7 owns the [utility], nor on how that owner, whether a holding company or
8 individual stockholders, financed its investment.”³³

9 As Moody’s recently noted in affirming TNMP’s ratings following the
10 acquisition announcement, the risks of TXNM’s utility subsidiaries “are driven
11 by their respective regulatory constructs in New Mexico and Texas as well as
12 their corresponding financial profiles.”³⁴ Blackstone’s proposed acquisition of
13 TXNM Energy has no direct bearing on the risks associated with TNMP’s
14 electric utility operations or on the selection of a proxy group.

15 **C. Capital Structure**

16 **Q. What is the role of capital structure in setting a utility’s rate of return?**

17 A. Capital structure reflects the mix of capital—debt, preferred securities, and
18 common equity—used to finance a utility’s assets. The proportions of the total
19 capitalization attributable to each source of capital are typically used to weight
20 the costs of investor-supplied capital in calculating an overall rate of return.

³³ *Williams Nat. Gas Co.*, 80 FERC ¶ 61,158, at p. 61,682 (1997).

³⁴ Moody’s Investors Service, *TXNM Energy, Inc., Update following acquisition announcement*, Credit Opinion (Jun. 24, 2025). Similarly, S&P also affirmed TNMP’s standalone credit ratings following the acquisition announcement. S&P Global Ratings, *TXNM Energy Inc. ‘BBB’ Rating Affirmed On Acquisition By Blackstone Infrastructure, Outlook Stable*, Research Update (May 19, 2025).

1 **Q. How do companies determine an appropriate capital structure for their**
2 **operations?**

3 A. There are many considerations in the capital structure decision. In general, the
4 goal is to employ the mix of capital that minimizes the weighted average cost
5 of capital. Given the interplay between costs of debt and equity, the impact of
6 taxes, bankruptcy costs, and the level of business risks, determining a firm's
7 optimal capital structure is an imprecise exercise. In practice, capital structure
8 decisions must be made by combining managements' judgment, numerical
9 analysis, and considering investors' risk perceptions.

10 It is generally accepted that the norms established by comparable firms
11 provide a valid benchmark to evaluate a reasonable capital structure for a utility.
12 The capital structure maintained by other utilities should reflect their collective
13 efforts to finance themselves so as to minimize capital costs while preserving
14 their financial integrity and ability to attract capital. Moreover, these industry
15 capital structures should also incorporate the requirements of investors (both
16 debt and equity), as well as the influence of regulators.

17 **Q. What common equity ratio is implicit in TNMP's capital structure?**

18 A. TNMP's capital structure is presented in the direct testimony of Company
19 witness Sabrina Greinel. As summarized in her testimony, the common equity
20 ratio that the Company is using in this case to calculate rates is 47.54%.

21 **Q. What are the relevant industry benchmarks to consider in evaluating**
22 **TNMP's capital structure?**

1 A. Because this proceeding focuses on the ROE for the regulated utility operations
2 of TNMP, the capital structures of other regulated utility operating companies
3 provide a consistent basis of comparison. Pages 1 through 3 of Exhibit AMM-
4 4 display capital structure data for the group of utility operating companies
5 owned by the firms in the Utility Group. As shown there, common equity ratios
6 for these utilities ranged from 43.1% to 63.0% and averaged 52.1%. Sixty-
7 three of these seventy-one operating companies maintained common equity
8 ratios that exceed the 47.54% applicable to TNMP.

9 **Q. Does TNMP's common equity ratio fall within the range of equity ratios**
10 **maintained by the companies in the utility group?**

11 A. Yes. As shown on page 4 of Exhibit AMM-4, common equity ratios for the Utility
12 Group ranged from a low of 33.8% to a high of 63.9% at year-end 2024. Also
13 shown on page 3 of Exhibit AMM-4, Value Line expects common equity ratios
14 for the Utility Group to range between 35.5% and 57.5% over its three-to-five
15 year forecast horizon.

16 **Q. Do ongoing economic and capital market uncertainties also influence the**
17 **appropriate capital structure for TNMP?**

18 A. Yes. Financial flexibility plays a crucial role in ensuring the wherewithal of a
19 utility to meet funding needs, and utilities with higher financial leverage may be
20 foreclosed or have limited access to additional borrowing, especially during
21 times of financial market stress. As Moody's observed:

22 Utilities are among the largest debt issuers in the corporate
23 universe and typically require consistent access to capital
24 markets to assure adequate sources of funding and to maintain
25 financial flexibility. During times of distress and when capital

1 markets are exceedingly volatile and tight, liquidity becomes
2 critically important because access to capital markets may be
3 difficult.³⁵

4 More recently, Moody's emphasized that the utility sector "is likely to continue
5 to generate negative free cash flow and credit quality is likely to suffer unless
6 utilities fund this negative free cash flow appropriately with a balance of debt
7 and equity financing."³⁶

8 S&P confirmed the financial challenges associated with funding
9 heightened investment in the utility sector, noting that, "[a] high percentage of
10 companies are operating with only minimal financial cushion from our
11 downgrade threshold," and noted that these pressures "led to downgrades
12 outpacing upgrades for the fifth consecutive year."³⁷

13 As a result, TNMP's capital structure must maintain adequate equity to
14 preserve the flexibility necessary to maintain continuous access to capital even
15 during times of unfavorable energy or financial market conditions.

16 **Q. What other factors do investors consider in their assessment of a**
17 **company's capital structure?**

18 A. Utilities, including TNMP, are facing significant capital investment plans in order
19 to continue to provide reliable service to their customers. Coupled with the

³⁵ Moody's Investors Service, *FAQ on credit implications of the coronavirus outbreak*, Sector Comment (Mar. 26, 2020).

³⁶ Moody's Investors Service, *Regulate Electric and Gas Utilities – US, Rising capital expenditures will require higher annual equity funding*, Sector In-Depth (Nov. 8, 2023).

³⁷ S&P Global Ratings, *North American Regulated Utilities, Capex and climate change pressure credit quality*, Industry Credit Outlook 2025 (Jan. 14, 2025).

1 potential for turmoil in capital markets, this warrants a stronger balance sheet
2 to deal with an uncertain environment. As S&P noted:

3 Because of the industry's continued robust capital spending, we
4 expect that [the] industry will continue to generate negative
5 discretionary cash flow. This requires that the industry has
6 consistent access to the capital markets to finance capital
7 spending and dividends requirements.³⁸

8 More recently, S&P noted that high cash flow deficits "could harm
9 financial performance if not funded in a credit-supportive manner."³⁹ Similarly,
10 Moody's noted that higher interest rates and the pressure of maintaining credit
11 metrics while funding capital investments were leading to greater reliance on
12 common equity.⁴⁰ Moody's concluded that the utility sector "is likely to continue
13 to generate negative free cash flow and credit quality is likely to suffer unless
14 utilities fund this negative free cash flow appropriately with a balance of debt
15 and equity financing."⁴¹

16 In addition, the investment community also considers the impact of other
17 considerations, such as leases, purchased power agreements, and
18 postretirement benefit and asset retirement obligations in its evaluation of a
19 utility's financial standing. Considering the magnitude of the Company's
20 ongoing infrastructure investments, a conservative financial profile is warranted

³⁸ S&P Global Ratings, *For The First Time Ever, The Median Investor-Owned Utility Ratings Falls To The 'BBB' Category*, Ratings Direct (Jan. 20, 2022).

³⁹ S&P Global Ratings, *North American Regulated Utilities, Capex and climate change pressure credit quality*, Industry Credit Outlook 2025 (Jan. 14, 2025).

⁴⁰ Moody's Investors Service, *Regulated Electric and Gas Utilities – US: Rising capital expenditures will require higher annual equity funding*, Sector In-Depth (Nov. 8, 2023).

⁴¹ *Id.*

1 to maintain continuous access to capital under reasonable terms, even during
2 times of adverse capital market conditions.

3 **Q. What does this evidence suggest with respect to TNMP's capital**
4 **structure?**

5 A. TNMP's capital structure is consistent with industry benchmarks, although the
6 Company's requested common equity ratio of 47.54% falls below the average
7 maintained by other utility operating companies. While industry averages
8 provide one benchmark for comparison, each firm must select its capitalization
9 based on the risks and prospects it faces, as well as its specific needs to access
10 the capital markets. The Company's capital structure reflects the need to
11 address the funding of ongoing capital expenditures and support TNMP's
12 financial integrity and access to capital on reasonable terms. Based on this
13 evidence and considering the importance of maintaining the Company's
14 financial strength and credit standing, I conclude that TNMP's capital structure
15 represents a reasonable mix of capital sources from which to calculate the
16 overall rate of return.

17 **V. CAPITAL MARKET ESTIMATES**

18 **Q. What is the purpose of this section of your testimony?**

19 A. This section presents capital market estimates of the cost of equity. First, I
20 address the concept of the cost of common equity, along with the risk-return
21 tradeoff principle fundamental to capital markets. I then describe the
22 quantitative analyses I conducted to estimate the cost of common equity for the
23 Utility Group.

A. Economic Standards

1
2 **Q. What fundamental economic principle underlies the cost of equity**
3 **concept?**

4 A. The concept of the cost of equity is based on the tenet that investors are risk
5 averse. In capital markets where relatively risk-free assets are available (e.g.,
6 U.S. Treasury securities), investors will hold riskier assets only if they are
7 offered an additional return, or risk premium, above the rate of return on a risk-
8 free asset. Because all assets compete for investor funds, riskier assets must
9 offer a higher expected rate of return than safer assets to induce investors to
10 invest and hold them.

11 Given this risk-return tradeoff, the required rate of return (k) from an
12 asset (i) can generally be expressed as:

$$k_i = R_f + RP_i$$

14 where: R_f = Risk-free rate of return, and
15 RP_i = Risk premium required to hold riskier asset i .

16 Thus, the required rate of return for a particular asset at any time is a function
17 of: (1) the yield on risk-free assets, and (2) the asset's relative risk, with
18 investors demanding correspondingly larger risk premiums for bearing greater
19 risk.

20 **Q. Is there evidence that the risk-return tradeoff principle operates in the**
21 **capital markets?**

22 A. Yes. The risk-return tradeoff can be documented in the debt markets, where
23 required rates of return can be directly inferred from market data and where
24 generally accepted measures of risk exist. Comparing the observed yields on

1 government securities, which are considered free of default risk, to the yields
2 on bonds of various rating categories demonstrates that the risk-return tradeoff
3 does, in fact, exist.

4 **Q. Does the risk-return tradeoff observed with fixed income securities**
5 **extend to common stocks and other assets?**

6 A. Yes. It is widely accepted that the risk-return tradeoff extends to all assets.
7 Documenting the risk-return tradeoff for assets other than fixed income
8 securities, however, is complicated by two factors. First, there is no standard
9 measure of risk applicable to all assets. Second, for most assets, including
10 common stock, required rates of return cannot be observed. Nevertheless,
11 there is every reason to believe that investors demonstrate risk aversion in
12 deciding whether to hold common stocks and other assets, just as when
13 choosing among fixed-income securities.

14 **Q. Is this risk-return tradeoff limited to differences between firms?**

15 A. No. The risk-return tradeoff principle applies not only to investments in different
16 firms, but also to different securities issued by the same firm. The securities
17 issued by a utility vary considerably in risk because they have different
18 characteristics and priorities. The last investors in line are common
19 shareholders. They share in the net earnings, if any, that remain after all other
20 claimants have been paid. As a result, the rate of return that investors require
21 from a utility's common stock, the most junior and riskiest of its securities, must
22 be considerably higher than the yield offered by the utility's senior, long-term
23 debt.

1 **Q. What are the challenges in determining a just and reasonable ROE for a**
2 **utility?**

3 A. The actual return investors require is not directly observable. Different
4 methodologies have been developed to estimate investors' expected return on
5 capital, but these theoretical tools produce a range of estimates based on
6 different assumptions and inputs. The DCF method, which is frequently
7 referenced and relied on by regulators, is only one theoretical approach to
8 evaluate the return investors require. There are a number of other accepted
9 methodologies for estimating the cost of equity and the ranges produced by
10 these approaches can vary widely.

11 **Q. Is it customary to consider the results of multiple approaches when**
12 **evaluating a just and reasonable ROE?**

13 A. Yes. Financial analysts and regulators routinely consider the results of
14 alternative approaches in evaluating a fair ROE. No single method can be
15 regarded as failsafe, with all approaches have advantages and shortcomings.
16 As FERC has noted, "[t]he determination of rate of return on equity starts from
17 the premise that there is no single approach or methodology for determining
18 the correct rate of return."⁴² Similarly, a publication of the Society of Utility and
19 Regulatory Financial Analysts concluded that:

20 Each model requires the exercise of judgment as to the
21 reasonableness of the underlying assumptions of the
22 methodology and on the reasonableness of the proxies used to
23 validate the theory. Each model has its own way of examining
24 investor behavior, its own premises, and its own set of
25 simplifications of reality. Each method proceeds from different

⁴² *Northwest Pipeline Co.*, Opinion No. 396-C, 81 FERC ¶ 61,036 at 4 (1997).

1 fundamental premises, most of which cannot be validated
2 empirically. Investors clearly do not subscribe to any singular
3 method, nor does the stock price reflect the application of any one
4 single method by investors.⁴³

5 As this treatise observed, “no single model is so inherently precise that
6 it can be relied on solely to the exclusion of other theoretically sound models.”⁴⁴

7 Similarly, *New Regulatory Finance* concluded that:

8 There is no single model that conclusively determines or
9 estimates the expected return for an individual firm. Each
10 methodology possesses its own way of examining investor
11 behavior, its own premises, and its own set of simplifications of
12 reality. Each method proceeds from different fundamental
13 premises that cannot be validated empirically. Investors do not
14 necessarily subscribe to any one method, nor does the stock
15 price reflect the application of any one single method by the price-
16 setting investor. There is no monopoly as to which method is
17 used by investors. In the absence of any hard evidence as to
18 which method outdoes the other, all relevant evidence should be
19 used and weighted equally, in order to minimize judgmental error,
20 measurement error, and conceptual infirmities.⁴⁵

21 Thus, while the DCF model is a recognized approach to estimating the
22 ROE, it is not without shortcomings and does not otherwise eliminate the need
23 to ensure that the “end result” is fair. The Indiana Utility Regulatory
24 Commission has recognized this principle:

25 There are three principal reasons for our unwillingness to place a
26 great deal of weight on the results of any DCF analysis. One is.
27 . . . the failure of the DCF model to conform to reality. The second
28 is the undeniable fact that rarely if ever do two expert witnesses
29 agree on the terms of a DCF equation for the same utility – for
30 example, as we shall see in more detail below, projections of
31 future dividend cash flow and anticipated price appreciation of the
32 stock can vary widely. And, the third reason is that the

⁴³ David C. Parcell, *The Cost of Capital – A Practitioner’s Guide*, Society of Utility and Regulatory Financial Analysts (2010) at 84.

⁴⁴ *Id.*

⁴⁵ Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 429.

1 unadjusted DCF result is almost always well below what any
2 informed financial analysis would regard as defensible, and
3 therefore require an upward adjustment based largely on the
4 expert witness's judgment. In these circumstances, we find it
5 difficult to regard the results of a DCF computation as any more
6 than suggestive.⁴⁶

7 More recently, FERC recognized the potential for any application of the DCF
8 model to produce unreliable results.⁴⁷

9 As this discussion indicates, considering results from alternative
10 approaches reduces the potential for error associated with any single
11 quantitative method. Just as investors inform their decisions using a variety of
12 methodologies, my evaluation of a fair ROE for TNMP considers the results of
13 multiple financial models.

14 **Q. Does the fact that TNMP is a subsidiary of TXNM alter these fundamental**
15 **standards?**

16 A. No. Although TNMP has no publicly traded common stock and TXNM is
17 TNMP's only shareholder, this does not change the standards governing the
18 determination of a just and reasonable ROE. Ultimately, the common equity
19 that is required to support TNMP's utility operations must be raised in the
20 capital markets, where investors consider TNMP's ability to offer a rate of return
21 that is competitive with other risk-comparable alternatives. TNMP must
22 compete with other investment opportunities, both external and internal.
23 Unless there is a reasonable expectation that investors will have the
24 opportunity to earn returns commensurate with the underlying risks, capital will

⁴⁶ *Ind. Michigan Power Co.*, Cause No. 38728, 116 PUR4th, 1, 17-18 (IURC 8/24/1990).

⁴⁷ *Coakley v. Bangor Hydro-Elec. Co.*, Opinion No. 531, 147 FERC ¶ 61,234 at P 41 (2014).

1 be allocated elsewhere, TNMP's financial integrity will be weakened, and
2 investors will demand a higher rate of return. TNMP's ability to offer a
3 reasonable ROE is a necessary ingredient in ensuring that customers continue
4 to enjoy economical rates and reliable service.

5 **Q. What does this discussion imply with respect to estimating the ROE for a**
6 **utility?**

7 A. Although the cost of equity cannot be observed directly, it is a function of the
8 returns available from other investment alternatives and the risks of the
9 investment. Because it is not readily observable, the cost of equity for a
10 particular utility must be estimated by analyzing information about capital
11 market conditions generally, assessing the relative risks of the company
12 specifically, and employing alternative quantitative methods that focus on
13 investors' required rates of return. These methods typically attempt to infer
14 investors' required rates of return from stock prices, interest rates, or other
15 capital market data.

16 **B. Discounted Cash Flow Analysis**

17 **Q. How is the DCF model used to estimate the cost of common equity?**

18 A. DCF models assume that the price of a share of common stock is equal to the
19 present value of the expected cash flows (i.e., future dividends and stock price)
20 that will be received while holding the stock, discounted at investors' required

1 rate of return. Rather than developing annual estimates of cash flows into
2 perpetuity, the DCF model can be simplified to a “constant growth” form:⁴⁸

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

3
4 where: k_e = Cost of equity;
5 D_1 = Expected dividend per share in the coming year;
6 P_0 = Current price per share; and,
7 g = Investors’ long-term growth expectations.

8 This constant growth form of the DCF model recognizes that the rate of
9 return to stockholders consists of two parts: 1) dividend yield (D_1/P_0); and 2)
10 growth (g). In other words, investors expect to receive a portion of their total
11 return in the form of current dividends and the remainder through price
12 appreciation.

13 **Q. What steps are required to apply the constant growth DCF model?**

14 A. The first step is to determine the expected dividend yield (D_1/P_0) for the firm in
15 question. This is usually calculated based on an estimate of dividends to be
16 paid in the coming year divided by the current price of the stock. The second,
17 and more controversial, step is to estimate investors’ long-term growth
18 expectations (g) for the firm. The final step is to add the firm’s dividend yield
19 and estimated growth rate to arrive at an estimate of its cost of common equity.

20 **Q. How do you determine the dividend yields for the Utility Group?**

⁴⁸ The constant growth DCF model is dependent on a number of strict assumptions, which in practice are never met. These include a constant growth rate for both dividends and earnings; a stable dividend payout ratio; the discount rate exceeds the growth rate; a constant growth rate for book value and price; a constant earned rate of return on book value; no sales of stock at a price above or below book value; a constant price-earnings ratio; a constant discount rate (*i.e.*, no changes in risk or interest rate levels and a flat yield curve); and all the above extend to infinity. Nevertheless, the DCF method provides a workable and practical approach to estimate investors’ required return that is widely referenced in utility ratemaking.

1 A. I rely on Value Line's estimates of dividends to be paid by each of these utilities
2 over the next twelve months as D_1 . This annual dividend is then divided by a
3 30-day average stock price for each utility to arrive at the expected dividend
4 yield. The expected dividends, stock prices, and resulting dividend yields for
5 the firms in the Utility Group are presented on page 1 of Exhibit AMM-5. As
6 shown there, dividend yields for the firms in the Utility Group ranged from 2.3%
7 to 5.3% and averaged 3.5%.

8 **Q. What is the next step in applying the constant growth DCF model?**

9 A. The next step is to evaluate long-term growth expectations, or " g ", for the firm
10 in question. In constant growth DCF theory, earnings, dividends, book value,
11 and market price are all assumed to grow in lockstep, and the growth horizon
12 of the DCF model is infinite. But implementing the DCF model is not a
13 theoretical exercise; it is an attempt to replicate the mechanism investors used
14 to arrive at observable stock prices. A wide variety of techniques can be used
15 to derive growth rates, but the only " g " that matters in applying the DCF model
16 is the forward-looking expectations of real-world investors.

17 **Q. What are investors most likely to consider in developing their long-term**
18 **growth expectations?**

19 A. In the case of utilities, dividend growth rates are not likely to provide a
20 meaningful guide to investors' current growth expectations. Utility dividend
21 policies reflect the need to accommodate business risks and investment
22 requirements in the industry, as well as potential uncertainties in the capital

1 markets. As a result, dividend growth in the utility industry generally lags
2 growth in earnings as utilities conserve financial resources.

3 A measure that plays a pivotal role in determining investors' long-term
4 growth expectations is future trends in earnings per share ("EPS"), which
5 provide the source for future dividends and ultimately support share prices.
6 The importance of earnings in evaluating investors' expectations and
7 requirements is well accepted in the investment community, and surveys of
8 analytical techniques relied on by professional analysts indicate that growth in
9 earnings is far more influential than trends in dividends per share ("DPS").

10 The availability of projected EPS growth rates is also key to investors
11 relying on this measure as compared to future trends in DPS. Apart from Value
12 Line, investment advisory services do not generally publish comprehensive
13 DPS growth projections, and this scarcity of dividend growth rates relative to
14 the abundance of earnings forecasts attests to their relative influence. The fact
15 that securities analysts focus on EPS growth, and that DPS growth rates are
16 not routinely published, indicates that projected EPS growth rates are likely to
17 provide a superior indicator of the future long-term growth expected by
18 investors.

19 **Q. Do the growth rate projections of security analysts also consider**
20 **historical trends?**

21 A. Yes. Professional security analysts study historical trends extensively in
22 developing their projections of future earnings. To the extent there is any useful

1 information in historical patterns, that information is incorporated into analysts'
2 growth forecasts.

3 **Q. What are security analysts currently projecting in the way of growth for**
4 **the firms in the proxy group?**

5 A. The EPS growth projections for each of the firms in the Utility Group reported
6 by Value Line, IBES,⁴⁹ and Zacks Investment Research (“Zacks”) are displayed
7 on page 2 of Exhibit AMM-5.

8 **Q. How else are investors’ expectations of future long-term growth**
9 **prospects sometimes estimated when applying the constant growth DCF**
10 **model?**

11 A. In constant growth theory, growth in book equity will be equal to the product of
12 the earnings retention ratio (one minus the dividend payout ratio) and the
13 earned rate of return on book equity. Furthermore, if the earned rate of return
14 and the payout ratio are constant over time, growth in earnings and dividends
15 will be equal to growth in book value. Despite the fact that these conditions are
16 never met in practice, this “sustainable growth” approach may provide a rough
17 guide for evaluating a firm’s growth prospects.

18 The sustainable growth rate is calculated by the formula, $g = br + sv$,
19 where “b” is the expected retention ratio, “r” is the expected earned return on
20 equity, “s” is the percent of common equity expected to be issued annually as
21 new common stock, and “v” is the equity accretion rate. Under DCF theory, the
22 “sv” factor is a component of the growth rate designed to capture the impact of

⁴⁹ Formerly I/B/E/S International, Inc., IBES growth rates are now compiled and published by LSEG.

1 issuing new common stock at a price above, or below, book value. The
2 sustainable, “br+sv” growth rates for each firm in the proxy group are
3 summarized on page 2 of Exhibit AMM-5, with the underlying details being
4 presented on Exhibit AMM-6.

5 The sustainable growth rate analysis shown in Exhibit AMM-6
6 incorporates an “adjustment factor” because Value Line’s reported returns are
7 based on year-end book values. Since earnings is a flow over the year while
8 book value is determined at a given point in time, the measurement of earnings
9 and book value are distinct concepts. It is this fundamental difference between
10 a flow (earnings) and point estimate (book value) that makes it necessary to
11 adjust to mid-year in calculating the ROE. Given that book value will increase
12 or decrease over the year, using year-end book value (as Value Line does)
13 understates or overstates the average investment that corresponds to the flow
14 of earnings. To address this concern, earnings must be matched with a
15 corresponding representative measure of book value, or the resulting ROE will
16 be distorted. The adjustment factor determined in Exhibit AMM-6, is solely a
17 means of converting Value Line’s end-of-period values to an average return
18 over the year, and the formula for this adjustment is supported in recognized
19 textbooks and has been adopted by other regulators.⁵⁰

20 **Q. Are there significant shortcomings associated with the “br+sv” growth**
21 **rate?**

⁵⁰ See, Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 305-306; *Coakley v. Bangor Hydro-Elec. Co.*, 122 FERC ¶ 61,265 at n.12 (2008).

1 A. Yes. First, in order to calculate the sustainable growth rate, it is necessary to
2 develop estimates of investors' expectations for four separate variables;
3 namely, "b", "r", "s", and "v." Given the inherent difficulty in forecasting each
4 parameter and estimating the expectations of investors, the potential for
5 measurement error is significantly increased when using four variables, as
6 opposed to referencing a direct projection for EPS growth. Second, empirical
7 research in the finance literature indicates that sustainable growth rates are not
8 as significantly correlated to measures of value, such as share prices, as are
9 analysts' EPS growth forecasts.⁵¹ The "sustainable growth" approach is
10 included for completeness, but evidence indicates that analysts' forecasts
11 provide a superior and more direct guide to investors' growth expectations.
12 Accordingly, I give less weight to cost of equity estimates based on $br+sv$
13 growth rates in evaluating the results of the DCF model.

14 **Q. What cost of common equity estimates were implied for the Utility Group**
15 **using the DCF model?**

16 A. After combining the dividend yields and respective growth projections for each
17 utility, the resulting cost of common equity estimates are shown on page 3 of
18 Exhibit AMM-5.

19 **Q. In evaluating the results of the constant growth DCF model, is it**
20 **appropriate to eliminate illogical estimates?**

21 A. Yes. It is essential that the cost of equity estimates produced by quantitative
22 methods pass fundamental tests of reasonableness and economic logic.

⁵¹ Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 307.

1 Accordingly, DCF estimates that are implausibly low or high should be
2 eliminated.

3 **Q. How do you evaluate DCF estimates at the low end of the range?**

4 A. I base my evaluation of DCF estimates at the low end of the range on the
5 fundamental risk-return tradeoff, which holds that investors will only take on
6 more risk if they expect to earn a higher rate of return to compensate them for
7 the greater uncertainty. Because common stocks lack the protections
8 associated with an investment in long-term bonds, a utility's common stock
9 imposes far greater risks on investors. As a result, the rate of return that
10 investors require from a utility's common stock is considerably higher than the
11 yield offered by senior, long-term debt. Consistent with this principle, DCF
12 results that are not sufficiently higher than the yield available on less risky utility
13 bonds must be eliminated.

14 **Q. Have similar tests been applied by other regulators?**

15 A. Yes. FERC has noted that adjustments are justified where applications of the
16 DCF approach and other methods produce illogical results. FERC evaluates
17 low-end DCF results against observable yields on long-term public utility debt
18 and has recognized that it is appropriate to eliminate estimates that do not
19 sufficiently exceed this threshold.⁵² FERC's current practice is to exclude low-
20 end cost of estimates that fall below the six-month average yield on Baa-rated

⁵² See, *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569, 169 FERC ¶ 61,129 at PP 387, 388 (2019).

1 utility bonds, plus 20% of the CAPM market risk premium.⁵³ In addition, FERC
2 also excludes estimates that are “irrationally or anomalously high.”⁵⁴

3 **Q. Do you exclude any estimates at the low or high end of the range of DCF**
4 **results?**

5 A. Yes. As highlighted on page 3 of Exhibit AMM-5, I remove nine low-end DCF
6 cost of equity estimates ranging from 5.7% to 7.5% because they do not
7 sufficiently exceed observable yields on long-term public utility bonds. I also
8 eliminate a single high-end DCF estimate of 18.0%. After removing these
9 illogical values, the lower end of the DCF results is set by a cost of equity
10 estimate of 7.7% and the upper end is established by a cost of equity estimate
11 of 12.4%. While a 12.4% cost of equity estimate exceeds the remaining values,
12 low-end DCF estimates in the 7.7% range are assuredly far below investors’
13 required rate of return. Taken together and considered along with the balance
14 of the results, the remaining values provide a reasonable basis on which to
15 frame the range of plausible DCF estimates and evaluate investors’ required
16 rate of return.

17 **Q. What ROE estimates are implied by your DCF results for the Utility**
18 **Group?**

⁵³ Based on the six-month average yield at August 2025 of 6.07% and the 7.3% market risk premium shown on Exhibit AMM-7, this implies a current low-end threshold of approximately 7.5%.

⁵⁴ *Ass’n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569-A, 171 FERC ¶ 61,154 at P 152 (2020).

1 A. As shown on page 3 of Exhibit AMM-5 and summarized in Table AMM-3,
 2 application of the constant growth DCF model results in the following ROE
 3 estimates:

4 **TABLE AMM-3**
 5 **DCF RESULTS – UTILITY GROUP**

<u>Growth Rate</u>	<u>Average</u>
Value Line	9.8%
IBES	10.5%
Zacks	10.3%
br + sv	9.0%

6 **C. Capital Asset Pricing Model**

7 **Q. Please describe the CAPM.**

8 A. The CAPM is a theory of market equilibrium that measures risk using the beta
 9 coefficient. Assuming investors are fully diversified, the relevant risk of an
 10 individual asset (e.g., common stock) is its volatility relative to the market as a
 11 whole, with beta reflecting the tendency of a stock's price to follow changes in
 12 the market. A stock that tends to respond less to market movements has a
 13 beta less than 1.0, while stocks that tend to move more than the market have
 14 betas greater than 1.0. The CAPM is mathematically expressed as:

15
$$R_j = R_f + \beta_j(R_m - R_f)$$

16 where: R_j = required rate of return for stock j;
 17 R_f = risk-free rate;
 18 R_m = expected return on the market portfolio; and,
 19 β_j = beta, or systematic risk, for stock j.

20 Under the CAPM formula above, a stock's required return is a function
 21 of the risk-free rate (R_f), plus a risk premium that is scaled to reflect the relative

1 volatility of a firm's stock price, as measured by beta (β). Like the DCF model,
2 the CAPM is an *ex-ante*, or forward-looking model based on expectations of
3 the future. As a result, to produce a meaningful estimate of investors' required
4 rate of return, the CAPM must be applied using estimates that reflect the
5 expectations of actual investors in the market, not with backward-looking,
6 historical data.

7 **Q. Why is the CAPM a relevant approach to evaluate the cost of equity for**
8 **TNMP?**

9 A. The CAPM approach (which also forms the foundation of the ECAPM)
10 generally is considered the most widely referenced method for estimating the
11 cost of equity among academicians and professional practitioners, with the
12 pioneering researchers of this method receiving the Nobel Prize in 1990.
13 Because this is the dominant model for estimating the cost of equity outside the
14 regulatory sphere, the CAPM (and ECAPM) provides important insight into
15 investors' required rate of return for utility stocks.

16 **Q. How do you apply the CAPM to estimate the ROE?**

17 A. Application of the CAPM to the proxy group is based on a forward-looking
18 estimate for investors' required rate of return from common stocks presented
19 in Exhibit AMM-7. To capture the expectations of today's investors in current
20 capital markets, the expected market rate of return is estimated by conducting
21 a DCF analysis on the dividend paying firms in the S&P 500.

22 The dividend yield for each firm is obtained from Value Line, and the
23 growth rate is equal to the average of the EPS growth projections from IBES,

1 Value Line, and Zacks, with each firm's dividend yield and growth rate being
2 weighted by its proportionate share of total market value. After removing
3 companies with growth rates that were negative or greater than 20%, the
4 weighted average of the projections for the individual firms implies an average
5 growth rate over the next five years of 10.6%. Combining this average growth
6 rate with a year-ahead dividend yield of 1.5% results in a current cost of
7 common equity estimate for the market as a whole (R_m) of 12.1%. Subtracting
8 a 4.8% risk-free rate based on the average yield on 30-year Treasury bonds for
9 the six month period ending August 2025 produced a market equity risk
10 premium of 7.3%.

11 **Q. What beta values do you use?**

12 A. As indicated earlier in my discussion of risk measures for the proxy group, I
13 relied on the beta values reported by Value Line, which in my experience is the
14 most widely referenced source for beta in regulatory proceedings.

15 **Q. What else should be considered in applying the CAPM?**

16 A. Financial research indicates that the CAPM does not fully account for observed
17 differences in rates of return attributable to firm size. Accordingly, a
18 modification is required to account for this size effect. As explained by
19 Morningstar:

20 One of the most remarkable discoveries of modern finance is the
21 finding of a relationship between firm size and return. On
22 average, small companies have higher returns than large ones.
23 . . . The relationship between firm size and return cuts across the
24 entire size spectrum; it is not restricted to the smallest stocks.⁵⁵

⁵⁵ Morningstar, *2015 Ibbotson S&P 500 Classic Yearbook*, at 99.

1 According to the CAPM, the expected return on a security should consist
2 of the riskless rate, plus a premium to compensate for the systematic risk of the
3 particular security. The degree of systematic risk is represented by the beta
4 coefficient. The need for the size adjustment arises because differences in
5 investors' required rates of return that are related to firm size are not fully
6 captured by beta. To account for this, researchers have developed size
7 premiums that need to be added to account for the level of a firm's market
8 capitalization in determining the CAPM cost of equity.⁵⁶ Accordingly, my CAPM
9 analyses also incorporated an adjustment to recognize the impact of size
10 distinctions, as measured by the market capitalization for the firms in the Utility
11 Group.

12 **Q. What is the basis for the size adjustment?**

13 A. The size adjustment required in applying the CAPM is based on the finding that
14 after controlling for risk differences reflected in beta, the CAPM overstates
15 returns to companies with larger market capitalizations and understates returns
16 for relatively smaller firms. The size adjustments utilized in my analysis are
17 sourced from Kroll, which now publishes the well-known compilation of capital
18 market series originally developed by Professor Roger G. Ibbotson of the Yale
19 School of Management. Calculation of the size adjustments involve the
20 following steps:

21 1. Divide all stocks traded on the NYSE, NYSE MKT, and NASDAQ
22 indices into deciles based on their market capitalization.

⁵⁶ Originally compiled by Ibbotson Associates and published in their annual yearbook entitled, *Stocks, Bonds, Bills and Inflation*, these size premia are now developed by Kroll and presented in its *Cost of Capital Navigator*.

- 1 2. Using the average beta value for each decile, calculate the implied
2 excess return over the risk-free rate using the CAPM.
- 3 3. Compare the calculated excess returns based on the CAPM to the
4 actual excess returns for each decile, with the difference being the
5 increment of return that is related to firm size, or “size adjustment.”

6 *New Regulatory Finance* observed that “small market-cap stocks
7 experience higher returns than large market-cap stocks with equivalent betas,”
8 and concluded that “the CAPM understates the risk of smaller utilities, and a
9 cost of equity based purely on a CAPM beta will therefore produce too low an
10 estimate.”⁵⁷ As FERC has recognized, “[t]his type of size adjustment is a
11 generally accepted approach to CAPM analyses.”⁵⁸

12 **Q. Is this size adjustment related to the relative size of TNMP as compared**
13 **with the proxy group?**

14 A. No. I am not proposing to apply a general size risk premium in evaluating a
15 just and reasonable ROE for the Company, and my recommendation does not
16 include any adjustment related to the relative size of TNMP. Rather, this size
17 adjustment is specific to the CAPM and merely corrects for an observed
18 inability of the beta measure to fully reflect the risks perceived by investors for
19 the firms in the proxy group.

20 **Q. What is the implied ROE for the Utility Group using the CAPM approach?**

21 A. As shown on Exhibit AMM-7, the CAPM approach implies an average ROE for
22 the Utility Group of 10.8%.

⁵⁷ Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports, Inc. (2006) at 187.

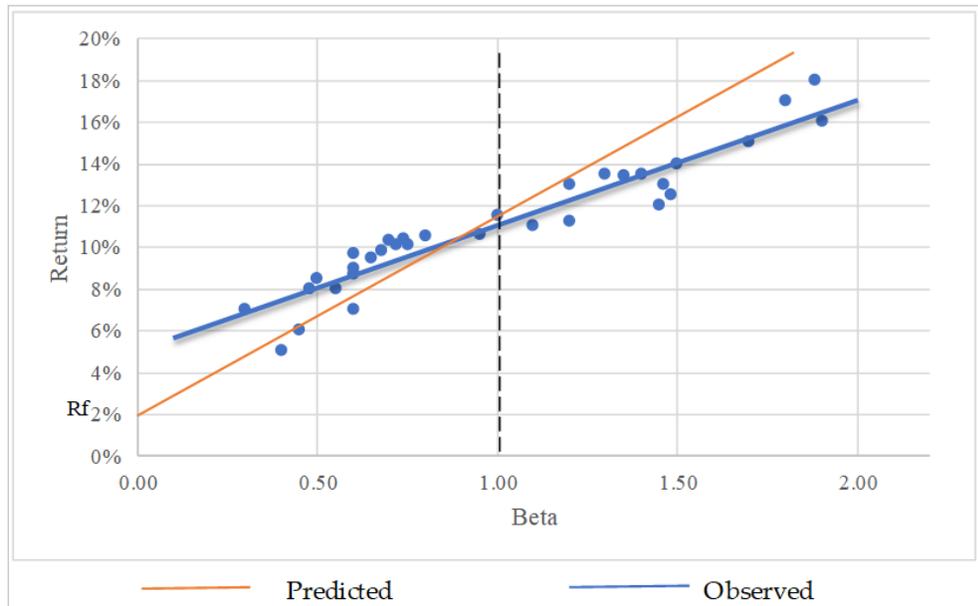
⁵⁸ *Coakley v. Bangor Hydro-Elec. Co.*, Opinion No. 531-B, 150 FERC ¶ 61,165 at P 117 (2015).

D. Empirical Capital Asset Pricing Model

Q. How does the ECAPM approach differ from traditional applications of the CAPM?

A. Empirical tests of the CAPM have shown that low-beta securities earn returns somewhat higher than the CAPM would predict, and high-beta securities earn less than predicted. In other words, the CAPM tends to overstate the actual sensitivity of the cost of capital to beta, with low-beta stocks tending to have higher returns and high-beta stocks tending to have lower risk returns than predicted by the CAPM. This is illustrated in Figure AMM-2:

**FIGURE AMM-2
CAPM – PREDICTED VS. OBSERVED RETURNS**



Because the betas of utility stocks, including those in the proxy group, are generally less than 1.0, this implies that cost of equity estimates based on the traditional CAPM would understate the cost of equity. This empirical finding

1 is widely reported in the finance literature, as summarized in *New Regulatory*
2 *Finance*:

3 As discussed in the previous section, several finance scholars
4 have developed refined and expanded versions of the standard
5 CAPM by relaxing the constraints imposed on the CAPM, such
6 as dividend yield, size, and skewness effects. These enhanced
7 CAPMs typically produce a risk-return relationship that is flatter
8 than the CAPM prediction in keeping with the actual observed
9 risk-return relationship. The ECAPM makes use of these
10 empirical relationships.⁵⁹

11 Based on a review of the empirical evidence, *New Regulatory Finance*
12 concluded the expected return on a security is represented by the following
13 formula:

$$14 \quad R_j = R_f + 0.25(R_m - R_f) + 0.75[\beta_j(R_m - R_f)]$$

15 Like the CAPM formula presented earlier, the ECAPM represents a stock's
16 required return as a function of the risk-free rate (R_f), plus a risk premium. In
17 the formula above, this risk premium is composed of two parts: (1) the market
18 risk premium ($R_m - R_f$) weighted by a factor of 25%, and (2) a company-specific
19 risk premium based on the stock's relative volatility [$\beta_j(R_m - R_f)$] weighted by
20 75%. This ECAPM equation, and its associated weighting factors, recognizes
21 the observed relationship between standard CAPM estimates and the cost of
22 capital documented in the financial research, and corrects for the understated
23 returns that would otherwise be produced for low beta stocks.

24 **Q. What cost of equity is indicated by the ECAPM?**

⁵⁹ Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports (2006) at 189.

1 A. My application of the ECAPM is based on the same forward-looking market
2 rate of return, risk-free rates, and beta values discussed earlier in connection
3 with the CAPM. As shown on Exhibit AMM-8, applying the forward-looking
4 ECAPM approach to the firms in the Utility Group results in an average cost of
5 equity estimate of 11.2%.

6 **E. Utility Risk Premium**

7 **Q. Briefly describe the risk premium method.**

8 A. The risk premium method extends the risk-return tradeoff observed with bonds
9 to estimate investors' required rate of return on common stocks. The cost of
10 equity is estimated by first determining the additional return investors require
11 to forgo the relative safety of bonds and to bear the greater risks associated
12 with common stock, and then adding this equity risk premium to the current
13 yield on bonds. Like the DCF model, the risk premium method is capital market
14 oriented. However, unlike DCF models, which indirectly impute the cost of
15 equity, risk premium methods directly estimate investors' required rate of return
16 by adding an equity risk premium to observable bond yields.

17 **Q. Is the risk premium approach a widely accepted method for estimating**
18 **the cost of equity?**

19 A. Yes. This method is routinely referenced by the investment community and in
20 academia and regulatory proceedings and provides an important tool in
21 estimating a just and reasonable ROE for TNMP.

22 **Q. How do you implement the risk premium method?**

1 A. Estimates of equity risk premiums for utilities are based on surveys of
2 previously authorized ROEs. Authorized ROEs presumably reflect regulatory
3 commissions' best estimates of the cost of equity, however determined, at the
4 time they issued their final order. Such ROEs should represent a balanced and
5 impartial outcome that considers the need to maintain a utility's financial
6 integrity and ability to attract capital. Moreover, allowed returns are an
7 important consideration for investors and have the potential to influence other
8 observable investment parameters, including credit ratings and borrowing
9 costs. Thus, when considered in the context of a complete and rigorous
10 analysis, this data provides a logical and frequently referenced basis for
11 estimating equity risk premiums for regulated utilities.

12 **Q. How do you calculate the equity risk premium based on allowed returns?**

13 A. The ROEs authorized for electric utilities by regulatory commissions across the
14 U.S. are compiled by RRA. On page 2 of Exhibit AMM-9, the average yield on
15 public utility bonds is subtracted from the average allowed ROE for electric
16 utilities to calculate equity risk premiums for each year between 1974 and
17 2024.⁶⁰ As shown there, over this period these equity risk premiums for electric
18 utilities average 3.90%, and the yields on public utility bonds average 7.74%.

19 **Q. What capital market relationship must be considered when implementing**
20 **the risk premium method?**

21 A. Equity risk premiums are not constant and tend to move inversely with interest
22 rates. In other words, when interest rate levels are relatively high, equity risk

⁶⁰ My analysis encompasses the entire period for which published data is available.

1 premiums narrow, and when interest rates are relatively low, equity risk
2 premiums widen. The implication of this inverse relationship is that the cost of
3 equity does not move as much as, or in lockstep with, interest rates.
4 Accordingly, for a 1% increase or decrease in interest rates, the cost of equity
5 may only rise or fall some fraction of 1%. When implementing the risk premium
6 method, adjustments are required to incorporate this inverse relationship if the
7 current interest rate is different from the average interest rate over the study
8 period.

9 Current bond yields are lower than those prevailing over the risk
10 premium study periods. Given that equity risk premiums move inversely with
11 interest rates, these lower bond yields also imply an increase in the equity risk
12 premium. In other words, higher required equity risk premiums offset the
13 impact of declining interest rates on the ROE.

14 **Q. Is this inverse relationship confirmed by published financial research?**

15 A. Yes. The inverse relationship between equity risk premiums and interest rates
16 has been widely reported in the financial literature. As summarized by *New*
17 *Regulatory Finance*:

18 Published studies by Brigham, Shome, and Vinson (1985), Harris
19 (1986), Harris and Marston (1992, 1993), Carleton, Chambers,
20 and Lakonishok (1983), Morin (2005), and McShane (2005), and
21 others demonstrate that, beginning in 1980, risk premiums varied
22 inversely with the level of interest rates – rising when rates fell
23 and declining when rates rose.⁶¹

⁶¹ Roger A. Morin, *New Regulatory Finance*, Pub. Utils. Reports (2006) at 128.

1 confidence in the financial integrity of a firm and its ability to attract capital. This
2 expected earnings approach is consistent with the economic underpinnings for
3 a just and reasonable rate of return established by the U.S. Supreme Court in
4 *Bluefield* and *Hope*. Moreover, it avoids the complexities and limitations of
5 capital market methods and instead focuses on the returns earned on book
6 equity, which are readily available to investors.

7 **Q. What economic premise underlies the expected earnings approach?**

8 A. The expected earnings approach is based on the concept that investors
9 compare each investment alternative with the next best opportunity. If the utility
10 is unable to offer a return similar to that available from other opportunities of
11 comparable risk, investors will become unwilling to supply the capital on
12 reasonable terms. For existing investors, denying the utility an opportunity to
13 earn what is available from other similar risk alternatives prevents them from
14 earning their opportunity cost of capital. This outcome would violate the *Hope*
15 and *Bluefield* standards and undermine the utility's access to capital on
16 reasonable terms.

17 **Q. How is the expected earnings approach typically implemented?**

18 A. The traditional comparable earnings test identifies a group of companies that
19 are believed to be comparable in risk to the utility. The actual earnings of those
20 companies on the book value of their investment are then compared to the
21 allowed return of the utility. While the traditional comparable earnings test is
22 implemented using historical data taken from the accounting records, it is also
23 common to use projections of returns on book investment, such as those

1 published by recognized investment advisory publications (e.g., Value Line).
2 Because these returns on book value equity are analogous to the allowed
3 return on a utility's rate base, this measure of opportunity costs results in a
4 direct, "apples to apples" comparison.

5 **Q. What other consideration supports reference to expected returns on book**
6 **value?**

7 A. Regulators do not set the returns that investors earn in the capital markets,
8 which are a function of dividend payments and fluctuations in common stock
9 prices, both of which are outside their control. Regulators can only establish
10 the allowed ROE, which is applied to the book value of a utility's investment in
11 rate base, as determined from its accounting records. This is analogous to the
12 expected earnings approach, which measures the return that investors expect
13 the utility to earn on book value. As a result, the expected earnings approach
14 provides a meaningful guide to ensure that the allowed ROE is similar to what
15 other utilities of comparable risk will earn on invested capital. This expected
16 earnings test does not require theoretical models to indirectly infer investors'
17 perceptions from stock prices or other market data. As long as the proxy
18 companies are similar in risk, their expected earned returns on invested capital
19 provide a direct benchmark for investors' opportunity costs that is independent
20 of fluctuating stock prices, market-to-book ratios, debates over DCF growth
21 rates, or the limitations inherent in any theoretical model of investor behavior.

22 **Q. What ROE is indicated for TNMP based on the expected earnings**
23 **approach?**

1 A. For the firms in the Utility Group, the year-end returns on common equity
2 projected by Value Line over its forecast horizon are shown on Exhibit AMM-
3 10. As I explained earlier in my discussion of the br+sv growth rates used in
4 applying the DCF model, Value Line's returns on common equity are calculated
5 using year-end equity balances, which understates the average return earned
6 over the year.⁶³ Accordingly, these year-end values were converted to average
7 returns using the same adjustment factor discussed earlier and developed on
8 Exhibit AMM-6. As shown on Exhibit AMM-10, Value Line's projections
9 suggest an average ROE of 11.2% for the Utility Group.

10 VI. NON-UTILITY BENCHMARK

11 **Q. What is the purpose of this section of your testimony?**

12 A. This section presents the results of my DCF analysis applied to a group of low-
13 risk firms in the competitive sector, which I refer to as the "Non-Utility Group."
14 I do not rely on this analysis directly to arrive at my recommended ROE range
15 of reasonableness; however, it is my opinion that this is a relevant
16 consideration in evaluating a fair ROE for the Company.

17 **Q. Do utilities have to compete with non-regulated firms for capital?**

18 A. Yes. The cost of capital is an opportunity cost based on the returns that
19 investors could realize by putting their money in other alternatives. The total
20 capital invested in utility stocks is only a small fraction of total common stock
21 investment, and there is an abundance of alternatives available to investors.

⁶³ For example, to compute the annual return on a passbook savings account with a beginning balance of \$1,000 and an ending balance of \$5,000, the interest income would be divided by the average balance of \$3,000. Using the \$5,000 balance at the end of the year would understate the actual return.

1 Utilities must compete for capital, not just against firms in their own industry,
2 but with other investment opportunities of comparable risk. This understanding
3 is consistent with modern portfolio theory, which assumes that rational
4 investors will hold a diverse portfolio of stocks and not just companies in a
5 single industry.

6 **Q. Is it consistent with the *Bluefield* and *Hope* cases to consider investors’**
7 **required ROE for non-utility companies?**

8 A. Yes. The cost of equity capital in the competitive sector of the economy
9 underpins utility ROEs because regulation purports to serve as a substitute for
10 the actions of competitive markets. The Supreme Court has recognized that it
11 is the degree of risk, not the nature of the business, which is relevant in
12 evaluating an allowed ROE for a utility. The *Bluefield* case refers to “business
13 undertakings attended with comparable risks and uncertainties.” It does not
14 restrict consideration to other utilities. Similarly, the *Hope* case states:

15 By that standard the return to the equity owner should be
16 commensurate with returns on investments in other enterprises
17 having corresponding risks.⁶⁴

18 As in the *Bluefield* decision, there is nothing to restrict “other enterprises” solely
19 to the utility industry.

20 **Q. What criteria do you apply to develop the Non-Utility Group?**

21 A. My comparable risk proxy group was composed of thirty-seven United States
22 companies followed by Value Line that:

23 1. pay common dividends;

⁶⁴ *Hope*.

1 published growth estimates are representative of the consensus expectations
2 reflected in common stock prices.

3 **Q. What are the results of your DCF analysis for the Non-Utility Group?**

4 A. I apply the DCF model to the Non-Utility Group using the same analysts' EPS
5 growth projections described earlier for the Utility Group, with the results being
6 presented on page 3 of Exhibit AMM-12. As summarized in Table AMM-5, after
7 eliminating illogical values, application of the constant growth DCF model
8 results in the following cost of equity estimates:

9 **TABLE AMM-5**
10 **DCF RESULTS – NON- UTILITY GROUP**

<u>Growth Rate</u>	<u>Average</u>
Value Line	12.3%
IBES	10.4%
Zacks	10.1%

11 As discussed earlier, reference to the Non-Utility Group is consistent
12 with established regulatory principles. Required returns for utilities should be
13 in line with those of nonutility firms of comparable risk operating under the
14 constraints of free competition. Because the actual cost of equity is
15 unobservable, and DCF results inherently incorporate a degree of error, cost of
16 equity estimates for the Non-Utility Group provide an important benchmark in
17 evaluating a just and reasonable ROE for TNMP.

18 **Q. Does this conclude your Direct Testimony?**

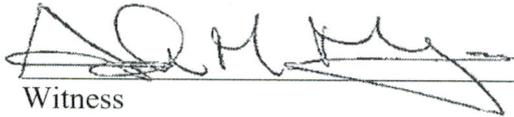
19 A. Yes, it does.

AFFIDAVIT

STATE OF TEXAS §
 §
COUNTY OF TRAVIS §

BEFORE ME, the undersigned authority, on this day personally appeared Adrien M. McKenzie, who, upon proving his identity to me and by me being duly sworn, deposes and states the following:

“My name is Adrien M. McKenzie. I am of legal age, a resident of the State of Texas, and have never been convicted of a felony. I certify that the foregoing testimony, offered by me on behalf of Texas-New Mexico Power Company, is true and correct and based upon my personal knowledge and experience.”



Witness

* * * * *

SWORN TO AND SUBSCRIBED before me, Notary Public, on this 6th day of NOVEMBER 2025, to certify which witness my hand and seal of office.

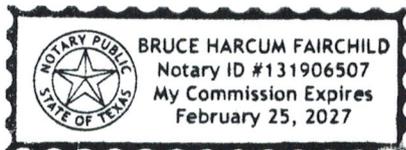


NOTARY PUBLIC in and for the
State of Texas

Printed Name: BRUCE H. FAIRCHILD

My Commission expires: 2/25/27

Notary ID# 131906507



SEAL:

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Adrien M. McKenzie. My business address is 3907 Red River Street, Austin, Texas 78751.

Q. PLEASE STATE YOUR OCCUPATION.

A. I am a principal in FINCAP, Inc., a firm engaged primarily in financial, economic, and policy consulting in the field of public utility regulation.

Q. PLEASE DESCRIBE YOUR QUALIFICATIONS AND EXPERIENCE.

A. I received B.A. and M.B.A. degrees with a major in finance from The University of Texas at Austin and hold the Chartered Financial Analyst (CFA[®]) designation. Since joining FINCAP in 1984, I have participated in consulting assignments involving a broad range of economic and financial issues, including cost of capital, cost of service, rate design, economic damages, and business valuation. I have extensive experience in economic and financial analysis for regulated industries, and in preparing and supporting expert witness testimony before courts, regulatory agencies, and legislative committees throughout the U.S. and Canada. I have personally sponsored direct and rebuttal testimony in more than 200 proceedings filed with the Federal Energy Regulatory Commission ("FERC") and regulatory agencies in Alaska, Arkansas, Colorado, District of Columbia, Florida, Hawaii, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Montana, Nebraska, New Mexico, Ohio, Oklahoma, Oregon, South Dakota, Texas, Virginia, Washington, West Virginia, and Wyoming. My testimony has addressed the establishment of risk-comparable proxy groups, the application of alternative quantitative methods, and the consideration of regulatory standards and policy objectives in

establishing a fair rate of return on common equity for regulated electric, gas, and water utility operations. In connection with these assignments, my responsibilities have included critically evaluating the positions of other parties and preparation of rebuttal testimony, representing clients in settlement negotiations and hearings, and assisting in the preparation of legal briefs.

FINCAP was formed in 1979 as an economic and financial consulting firm serving clients in both the regulated and competitive sectors. FINCAP conducts assignments ranging from broad qualitative analyses and policy consulting to technical analyses and research. The firm's experience is in the areas of public utilities, valuation of closely-held businesses, and economic evaluations (e.g., damage and cost/benefit analyses). Prior to joining FINCAP, I was employed by an oil and gas firm and was responsible for operations and accounting. I am a member of the CFA Institute. A resume containing the details of my qualifications and experience is attached below.

ADRIEN M. McKENZIE

FINCAP, INC.
 Financial Concepts and Applications
Economic and Financial Counsel

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 Austin, Texas 78751
 (512) 923-2790
 amm.fincap@outlook.com

Summary of Qualifications

Adrien McKenzie has over 35 years of experience in economic and financial analysis for regulated industries, and in preparing and supporting expert witness testimony before regulatory agencies, courts, and legislative committees throughout the U.S. and Canada. Assignments have included a broad range of economic and financial issues, including cost of capital, cost of service, rate design, economic damages, and business valuation. Mr. McKenzie holds the Chartered Financial Analyst (CFA®) designation and earned an MBA in finance from the University of Texas at Austin.

Employment

President
 FINCAP, Inc.
 (June 1984 to June 1987)
 (April 1988 to present)

Economic consulting firm specializing in regulated industries and valuation of closely-held businesses. Assignments have involved electric, gas, telecommunication, and water/sewer utilities, with clients including utilities, consumer groups, municipalities, regulatory agencies, and cogenerators. Areas of participation have included rate of return, revenue requirements, rate design, tariff analysis, avoided cost, forecasting, and negotiations. Develop cost of capital analyses using alternative market models for electric, gas, and telephone utilities. Prepare pre-filed direct and rebuttal testimony, participate in settlement negotiations, respond to interrogatories, evaluate opposition testimony, and assist in the areas of cross-examination and the preparations of legal briefs. Other assignments have involved preparation of technical reports, valuations, estimation of damages, industry studies, and various economic analyses in support of litigation.

Manager,
 McKenzie Energy Company
 (Jan. 1981 to May. 1984)

Responsible for operations and accounting for firm engaged in the management of working interests in oil and gas properties.

Education

M.B.A., Finance,
University of Texas at Austin
(Sep. 1982 to May. 1984)

Program included coursework in corporate finance, accounting, financial modeling, and statistics. Received Dean's Award for Academic Excellence and Good Neighbor Scholarship.

Professional Report: *The Impact of Construction Expenditures on Investor-Owned Electric Utilities*

B.B.A., Finance,
University of Texas at Austin
(Jan. 1981 to May 1982)

Electives included capital market theory, portfolio management, and international economics and finance. Elected to Beta Gamma Sigma business honor society. Dean's List 1981-1982.

Simon Fraser University,
Vancouver, Canada and University
of Hawaii at Manoa, Honolulu,
Hawaii
(Jan. 1979 to Dec 1980)

Coursework in accounting, finance, economics, and liberal arts.

Professional Associations

Received Chartered Financial Analyst (CFA®) designation in 1990.

Member – CFA Institute.

Bibliography

“A Profile of State Regulatory Commissions,” A Special Report by the Electricity Consumers Resource Council (ELCON), Summer 1991.

“The Impact of Regulatory Climate on Utility Capital Costs: An Alternative Test,” with Bruce H. Fairchild, *Public Utilities Fortnightly* (May 25, 1989).

Presentations

“ROE at FERC: Issues and Methods,” *Expert Briefing on Parallels in ROE Issues between AER, ERA, and FERC*, Jones Day (Sydney, Melbourne, and Perth, Australia) (April 15, 2014).

Cost of Capital Working Group eforum, Edison Electric Institute (April 24, 2012).

“Cost-of-Service Studies and Rate Design,” General Management of Electric Utilities (A Training Program for Electric Utility Managers from Developing Countries), Austin, Texas (October 1989 and November 1990 and 1991).

Representative Assignments

- Mr. McKenzie has prepared and sponsored prefiled testimony submitted in over 200 regulatory proceedings.
- In addition to filings before regulatory agencies in Alaska, Arkansas, Colorado, District of Columbia, Florida, Hawaii, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Montana, Nebraska, New Mexico, Ohio, Oklahoma, Oregon, South Dakota, Texas, Virginia, Washington, West Virginia, and Wyoming, Mr. McKenzie has considerable expertise in preparing expert analyses and testimony before the Federal Energy Regulatory Commission.
- Evaluation of fair rate of return on equity for electric, gas, water, sewer, and telephone utilities, as well as natural gas pipelines.
- Analysis of capital structure issues for regulated utilities.
- Developing cost of service, cost allocation, and rate design studies.
- Design and development of explanatory models for nuclear plant capital costs in connection with prudency reviews.
- Analysis of avoided cost pricing for cogenerated power.
- Application of econometric models to analyze the impact of anti-competitive behavior, theft of trade secrets, and estimate lost profits.
- Valuation of closely-held businesses.

ROE ANALYSIS

Exhibit AMM-2

Page 1 of 1

SUMMARY OF RESULTS

Method	Result
DCF	
Value Line	9.8%
IBES	10.5%
Zacks	10.3%
Internal br + sv	9.0%
CAPM	10.8%
ECAPM	11.2%
Utility Risk Premium	10.8%
Expected Earnings	11.2%
ROE Recommendation	
Cost of Equity Range	9.9% -- 10.9%
Recommended ROE	10.4%

UTILITY GROUP

Company	Type of Cost Recovery Mechanism (a)										Other Regulatory Mechanisms (a)		
	Fuel/ Purch	Bad Debt	Environ- Pension	Energy Efficiency/ Conservation	Other (b)	Gener- ation	Distri- bution	Trans- mission	Renewables	Decoupling/ Multi-Yr Plans/ Formula Rates	Earn Sharing/ Perf-Based Rates	Future Test Year	
1 Alliant Energy	✓	✓	✓	--	✓	✓	--	--	✓	✓	✓	✓	
2 Ameren Corp.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3 American Electric Power	✓	✓	--	✓	✓	✓	--	✓	✓	✓	--	✓	
4 Avista Corp.	✓	--	--	--	✓	✓	--	--	✓	✓	✓	--	
5 Black Hills Corp.	✓	--	--	✓	✓	✓	--	--	✓	✓	--	--	
6 CenterPoint Energy	✓	✓	✓	✓	✓	✓	--	✓	✓	✓	✓	✓	
7 CMS Energy Corp.	✓	--	✓	--	✓	✓	--	--	--	--	✓	✓	
8 Consolidated Edison	D	--	✓	✓	✓	✓	--	--	--	✓	✓	✓	
9 Dominion Energy	✓	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
10 DTE Energy Co.	✓	--	--	--	✓	✓	--	--	--	✓	--	✓	
11 Duke Energy Corp.	✓	✓	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	
12 Entergy Corp.	✓	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
13 Eversource Energy	✓	✓	--	--	✓	✓	✓	✓	✓	✓	--	--	
14 Exelon Corp.	✓	--	✓	✓	✓	✓	--	✓	✓	✓	✓	✓	
15 Exelon Corp.	D	✓	✓	✓	✓	✓	--	✓	✓	✓	✓	✓	
16 IDACORP, Inc.	✓	--	--	--	✓	✓	--	--	--	--	✓	✓	
17 NextEra Energy, Inc.	✓	--	--	✓	✓	✓	✓	--	--	✓	--	✓	
18 NorthWestern Energy Grp.	✓	--	--	--	--	✓	✓	--	--	--	--	--	
19 OGE Energy Corp.	✓	--	✓	--	✓	✓	--	--	✓	--	✓	✓	
20 Otter Tail Corp.	✓	--	--	--	✓	✓	✓	--	✓	✓	✓	✓	
21 Pinnacle West Capital	✓	--	--	✓	✓	✓	✓	--	✓	✓	--	--	
22 Portland General Elec.	✓	--	--	✓	--	✓	--	--	✓	✓	--	✓	
23 PPL Corp.	✓	--	✓	✓	✓	✓	--	✓	✓	--	✓	✓	
24 Pub Sv Enterprise Grp.	D	✓	✓	✓	✓	✓	--	✓	✓	✓	✓	✓	
25 Sempra Energy	✓	✓	--	✓	✓	✓	✓	✓	✓	✓	--	✓	
26 Southern Company	✓	--	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	
27 WEC Energy Group	✓	✓	✓	--	--	--	--	--	--	--	✓	✓	
28 Xcel Energy Inc.	✓	--	✓	--	✓	✓	✓	✓	✓	✓	--	✓	
Total	25	10	14	17	25	27	12	14	21	21	20	16	20

(a) From most recent SEC Form 10-K Reports and Investor Presentations (as provided on each company's website under Investor Relations).
Data from S&P Global Market Intelligence, *RRA State Regulatory Evaluations Quarterly Update* (Dec. 2024) also used to supplement the Future Test Year findings.

(b) See Exhibit AMM-3 pages 5-6.

D - Delivery-only utility.

UTILITY GROUP OPERATING COS.

Company	State	Type of Cost Recovery Mechanism (a)										Other Regulatory Mechanisms (a)			
		Fuel/ Purch	Bad Power Debt	Environ- Pension	Energy Efficiency/ Conservation	Gener- Other (b)	Distri- bution	Trans- mission	Renewables	Decoupling/ Multi-Yr Plans/ Formula Rates	Earn Sharing/ Perf-Based Rates	Future Test Year			
1 ALLIANT ENERGY CORP.															
Interstate Power & Light Co.	IA	✓	--	✓	--	✓	✓	--	--	✓	--	✓	✓	✓	
Wisconsin Power & Light Co.	WI	✓	✓	✓	--	✓	--	--	--	✓	--	--	✓	✓	
2 AMEREN CORP.															
Ameren Illinois Co.	IL	D	✓	--	✓	✓	--	--	--	✓	✓	✓	✓	✓	
Union Electric Co.	MO	✓	--	✓	--	✓	✓	✓	✓	--	✓	--	--	--	
3 AMERICAN ELECTRIC POWER															
Southwestern Electric Power Co.	AR	✓	--	--	✓	✓	✓	--	✓	✓	✓	✓	--	✓	
Indiana Michigan Power Co.	IN	✓	--	--	✓	✓	--	--	✓	✓	✓	--	--	✓	
Kentucky Power Co.	KY	✓	--	--	✓	✓	✓	--	--	--	--	--	--	--	
Southwestern Electric Power Co.	LA	✓	--	--	--	✓	✓	--	✓	✓	✓	✓	--	--	
Indiana Michigan Power Co.	MI	✓	--	--	--	✓	--	--	✓	✓	✓	--	--	✓	
Ohio Power Co.	OH	D	✓	--	--	--	✓	--	✓	✓	✓	✓	--	✓	
Public Service Co. of Oklahoma	OK	✓	--	--	--	✓	--	--	--	--	✓	--	--	--	
Kingsport Power Co.	TN	✓	--	--	✓	--	✓	--	✓	✓	--	--	--	✓	
AEP Texas Inc.	TX	D	--	--	--	✓	--	--	✓	✓	✓	✓	--	--	
Southwestern Electric Power Co.	TX	✓	--	--	--	✓	--	--	✓	✓	--	--	--	--	
Appalachian Power Co.	VA	✓	--	--	✓	✓	--	--	✓	✓	✓	--	--	--	
Appalachian Pwr. Co./Wheeling Pwr.	WV	✓	--	--	✓	✓	✓	--	✓	✓	✓	--	--	--	
4 AVISTA CORP.															
Alaska Electric Light & Power Co.	AK	✓	--	--	--	--	--	--	--	--	--	--	--	--	
Avista Corp.	ID	✓	--	--	--	--	✓	--	--	--	--	✓	--	--	
Avista Corp.	WA	✓	--	--	--	✓	✓	--	--	--	--	✓	--	--	
5 BLACK HILLS CORP.															
Colorado Electric	CO	✓	--	--	--	✓	✓	--	--	✓	✓	--	--	--	
South Dakota Electric	SD	✓	--	--	✓	--	--	--	--	✓	--	--	--	--	
Wyoming Electric	WY	✓	--	--	--	✓	--	--	--	✓	--	--	--	--	
6 CENTERPOINT ENERGY															
Southern Indiana Gas & Electric Co.	IN	✓	--	--	✓	✓	--	--	✓	✓	✓	✓	✓	--	
CenterPoint Energy Houston Electric	TX	D	✓	✓	--	✓	✓	--	✓	✓	--	--	--	--	
7 CMS ENERGY															
Consumers Energy Co.	MI	✓	--	✓	--	✓	✓	--	--	--	--	--	✓	✓	
8 CONSOLIDATED EDISON															
ConEd Co. of New York Inc.	NY	D	--	✓	✓	✓	✓	--	--	--	✓	✓	--	✓	
Orange & Rockland Utilities Inc.	NY	D	--	✓	✓	✓	--	--	--	--	✓	✓	--	✓	
9 DOMINION ENERGY															
Virginia Electric & Power Co.	NC	✓	--	--	✓	✓	--	--	--	--	--	✓	✓	--	
Dominion Energy South Carolina	SC	✓	--	✓	✓	✓	✓	✓	--	--	--	✓	✓	--	
Virginia Electric & Power Co.	VA	✓	--	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
10 DTE ENERGY CO.															
DTE Electric Co.	MI	✓	--	--	--	✓	✓	--	--	--	✓	--	✓	✓	

UTILITY GROUP OPERATING COS.

Company	State	Type of Cost Recovery Mechanism (a)										Other Regulatory Mechanisms (a)			
		Fuel/ Purch	Bad Power Debt	Environ- Pension	Energy Efficiency/ Conservation	Other (b)	Gener- ation	Distri- bution	Trans- mission	Renewables	Decoupling/ Multi-Yr Plans/ Formula Rates	Earn Sharing/ Perf-Based Rates	Future Test Year		
11 DUKE ENERGY															
Duke Energy Florida LLC	FL	✓	--	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Duke Energy Indiana LLC	IN	✓	--	--	✓	✓	--	✓	✓	✓	✓	--	--	✓	✓
Duke Energy Kentucky Inc.	KY	✓	--	--	✓	✓	--	--	--	--	--	--	--	✓	✓
Duke Energy Carolinas LLC	NC	✓	--	--	--	✓	--	--	--	--	--	✓	✓	--	--
Duke Energy Progress LLC	NC	✓	--	--	--	✓	--	--	--	--	--	✓	✓	--	--
Duke Energy Ohio Inc.	OH	D	✓	--	--	✓	✓	--	✓	✓	--	✓	✓	--	✓
Duke Energy Progress LLC	SC	✓	--	--	--	✓	--	--	--	--	--	✓	✓	--	--
Duke Energy Carolinas LLC	SC	✓	--	--	--	✓	--	--	--	--	--	✓	✓	--	--
12 ENTERGY CORP.															
Entergy Arkansas LLC	AR	✓	--	✓	--	✓	--	✓	--	✓	--	✓	✓	--	✓
Entergy New Orleans LLC	LA	✓	--	✓	✓	✓	--	✓	✓	✓	--	✓	✓	--	✓
Entergy Louisiana LLC	LA	✓	--	✓	✓	--	✓	✓	✓	✓	✓	✓	✓	--	--
Entergy Mississippi LLC	MS	✓	--	✓	--	--	✓	✓	✓	✓	--	✓	✓	✓	✓
Entergy Texas Inc.	TX	✓	--	✓	--	--	✓	✓	✓	✓	--	--	--	--	--
13 EVERGY, INC.															
Evergy Kansas Central Inc.	KS	✓	--	--	--	✓	✓	✓	✓	✓	--	--	--	--	--
Evergy Kansas South Inc.	KS	✓	--	--	--	✓	--	✓	✓	--	--	--	--	--	--
Evergy Metro Inc.	KS	✓	--	--	--	✓	✓	✓	✓	✓	--	--	--	--	--
Evergy Metro Inc.	MO	✓	--	--	--	✓	✓	--	--	✓	--	--	--	--	--
Evergy Missouri West Inc.	MO	✓	--	--	--	✓	✓	--	--	--	--	--	--	--	--
14 EVERSOURCE ENERGY															
Connecticut Light and Power Co.	CT	D	--	--	✓	✓	✓	--	✓	✓	✓	✓	✓	--	--
NSTAR Electric Co.	MA	D	--	✓	--	✓	✓	--	✓	✓	✓	✓	✓	✓	--
Public Service Co. of New Hampshire	NH	✓	--	--	✓	✓	✓	--	✓	✓	--	--	--	--	--
15 EXELON CORP.															
Delmarva Power & Light Co.	DE	D	--	--	--	✓	✓	--	✓	✓	✓	--	--	--	✓
Potomac Electric Power Co.	DC	D	--	--	--	✓	✓	--	✓	✓	--	✓	✓	--	✓
Commonwealth Edison Co.	IL	D	✓	✓	✓	✓	✓	--	✓	✓	✓	✓	✓	✓	✓
Baltimore Gas & Electric Co.	MD	D	--	--	--	✓	✓	--	--	✓	--	✓	✓	--	✓
Delmarva Power & Light Co.	MD	D	--	--	--	✓	--	--	--	✓	--	✓	✓	--	✓
Potomac Electric Power Co.	MD	D	--	--	--	✓	✓	--	--	✓	--	✓	✓	--	✓
Atlantic City Electric Co.	NJ	D	✓	--	--	✓	✓	--	✓	✓	--	✓	✓	--	--
PECO Energy Co.	PA	D	--	--	--	✓	--	--	✓	✓	--	--	--	--	✓
16 IDACORP															
Idaho Power Co.	ID	✓	--	--	--	✓	✓	--	--	--	--	✓	✓	--	--
Idaho Power Co.	OR	✓	--	--	--	✓	--	--	--	--	--	--	--	--	✓
17 NEXTERA ENERGY															
Florida Power & Light Co.	FL	✓	--	--	✓	✓	✓	✓	--	--	✓	✓	✓	--	✓
18 NORTHWESTERN ENERGY GRP.															
NorthWestern Energy	MT	✓	--	--	--	--	✓	--	--	--	--	--	--	--	--
NorthWestern Energy	SD	✓	--	--	--	--	✓	✓	--	--	--	--	--	--	--

UTILITY GROUP OPERATING COS.

Company	State	Type of Cost Recovery Mechanism (a)										Other Regulatory Mechanisms (a)			
		Fuel/ Purch	Bad Power Debt	Environ- Pension	Energy Efficiency/ Conservation	Other (b)	Gener- ation	Distri- bution	Trans- mission	Renewables	Decoupling/ Multi-Yr Plans/ Formula Rates	Earn Sharing/ Perf-Based Rates	Future Test Year		
19 OGE ENERGY CORP.															
Oklahoma Gas & Electric Co.	AR	✓	--	--	--	--	--	--	--	✓	--	✓	--	--	
Oklahoma Gas & Electric Co.	OK	✓	--	✓	--	✓	✓	--	--	✓	--	✓	✓	--	
20 OTTER TAIL CORP.															
Otter Tail Power Co.	MN	✓	--	--	--	✓	✓	✓	--	✓	✓	✓	--	✓	
Otter Tail Power Co.	ND	✓	--	--	--	--	✓	✓	--	✓	✓	--	✓	✓	
Otter Tail Power Corp.	SD	✓	--	--	--	✓	--	✓	--	✓	--	--	✓	--	
21 PINNACLE WEST CAPITAL															
Arizona Public Service Co.	AZ	✓	--	--	✓	✓	✓	✓	--	✓	✓	✓	--	--	
22 PORTLAND GENERAL ELECTRIC															
Portland General Electric Co.	OR	✓	--	--	✓	--	✓	--	--	✓	✓	--	--	✓	
23 PPL CORP.															
Kentucky Utilities Co.	KY	✓	--	--	✓	✓	✓	--	--	--	--	--	--	✓	
Louisville Gas & Electric Co.	KY	✓	--	--	✓	✓	✓	--	--	--	--	--	--	✓	
PPL Electric Utilities Corp.	PA	D	--	--	--	✓	✓	--	✓	✓	--	✓	✓	✓	
Rhode Island Electric	RI	D	--	✓	--	✓	✓	--	✓	✓	--	✓	✓	✓	
24 PUB SV ENTERPRISE GRP.															
Public Service Electric & Gas Co.	NJ	D	✓	✓	✓	✓	✓	--	✓	✓	✓	✓	--	✓	
25 SEMPRA ENERGY															
San Diego Gas & Electric Co.	CA	✓	✓	--	✓	✓	✓	✓	✓	✓	✓	✓	--	✓	
Oncor Electric Delivery Co.	TX	D	--	--	--	--	--	--	✓	✓	--	--	--	--	
26 SOUTHERN CO.															
Alabama Power Co.	AL	✓	--	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Georgia Power Co.	GA	✓	--	--	✓	✓	✓	--	--	--	--	--	--	✓	
Mississippi Power Co.	MS	✓	--	--	✓	✓	✓	✓	✓	✓	--	✓	✓	--	
27 WEC ENERGY GROUP															
Wisconsin Electric Power Co.	WI	✓	✓	--	--	--	--	--	--	--	--	--	✓	✓	
Wisconsin Public Service Corp.	WI	✓	✓	--	--	--	--	--	--	--	--	--	✓	✓	
28 XCEL ENERGY, INC.															
Public Service Co. of Colorado	CO	✓	--	✓	--	✓	✓	--	✓	✓	✓	✓	--	✓	
Northern States Power Co. - Minnesota	MN	✓	--	✓	--	✓	✓	--	✓	✓	✓	✓	--	✓	
Southwestern Public Service Co.	NM	✓	--	✓	--	✓	✓	--	✓	--	✓	--	--	✓	
Northern States Power Co. - Minnesota	ND	✓	--	--	--	--	--	--	--	✓	✓	✓	--	✓	
Northern States Power Co. - Minnesota	SD	✓	--	--	--	--	--	✓	--	--	--	✓	--	--	
Southwestern Public Service Co.	TX	✓	--	✓	--	✓	✓	✓	✓	✓	--	--	--	--	
Northern States Power Co. - Wisconsin	WI	✓	--	✓	--	✓	✓	--	--	--	--	✓	--	✓	
Total		91	70	11	23	32	73	57	24	43	59	36	49	24	47

(a) From most recent SEC Form 10-K Reports and Investor Presentations (as provided on each company's website under Investor Relations).
Data from S&P Global Market Intelligence, *RRA State Regulatory Evaluations Quarterly Update* (Dec. 2024) also used to supplement the Future Test Year findings.

(b) See Exhibit AMM-3 pages 5-6.

D - Delivery-only utility.

NOTE (b) - OTHER RECOVERY MECHANISMS

Company	State	Description
1 ALLIANT ENERGY CORP. Interstate Power & Light Co.	IA	Tax benefit rider
2 AMEREN CORP. Union Electric Co.	MO	Ad valorem tax
3 AMERICAN ELECTRIC POWER Southwestern Electric Power Co.	AR	Vegetation management
Kentucky Power Co.	KY	Decommissioning rider
Southwestern Electric Power Co.	LA	Vegetation management
Ohio Power Co.	OH	Vegetation management
Kingsport Power Co.	TN	Vegetation management
Appalachian Pwr. Co./Wheeling Pwr. Co.	WV	Vegetation management
4 AVISTA CORP. Avista Corp.	ID	Wildfire resiliency, insurance
Avista Corp.	WA	Wildfire resiliency, insurance
5 BLACK HILLS CORP. Colorado Electric	CO	EV program, energy assistance benefit charge
6 CENTERPOINT ENERGY CenterPoint Energy Houston Electric LLC	TX	Temporary emergency electric energy facilities, system restoration cost
7 CMS ENERGY Consumers Energy Co.	MI	Decommissioning cost
8 CONSOLIDATED EDISON Consolidated Edison Co. of New York Inc.	NY	Electric vehicles/charging stations, ad valorem tax, variable-rate debt
9 DOMINION ENERGY Dominion Energy South Carolina	SC	Relicensing/decommissioning
Virginia Electric & Power Co.	VA	Coastal Virginia Offshore Wind project, relicensing/decommissioning
10 DTE ENERGY CO. DTE Electric Co.	MI	Decommissioning cost
11 DUKE ENERGY Duke Energy Florida LLC	FL	Storm damage
Duke Energy Ohio Inc.	OH	Storm damage
12 ENTERGY CORP. Entergy Louisiana LLC	LA	Resilience plan, tax adjustment mechanism
Entergy Mississippi LLC	MS	Storm damage, ad valorem tax, vegetation
Entergy Texas Inc.	TX	Rate case expenses, advanced metering system
13 EVERGY, INC. Evergy Kansas Central Inc.	KS	Ad valorem tax
Evergy Metro Inc.	KS	Ad valorem tax
Evergy Metro Inc.	MO	Ad valorem tax
Evergy Missouri West Inc.	MO	Ad valorem tax
14 EVERSOURCE ENERGY Connecticut Light and Power Co.	CT	System benefits
NSTAR Electric Co.	MA	Low income customer discounts, vegetation management, storm restoration, advanced metering infrastructure, EV infrastructure
Public Service Co. of New Hampshire	NH	System benefits, vegetation management, ad valorem tax, storm costs, pole plant adjustment mechanism
15 EXELON CORP. Delmarva Power & Light Co.	DE	Storm damage
Potomac Electric Power Co.	DC	Storm damage
Commonwealth Edison Co.	IL	Storm damage
Baltimore Gas & Electric Co.	MD	Storm damage
Potomac Electric Power Co.	MD	Storm damage
Atlantic City Electric Co.	NJ	Storm damage, societal benefits
16 IDACORP Idaho Power Co.	ID	Accumulated Deferred ITC annual utilization
17 NEXTERA ENERGY Florida Power & Light Co.	FL	Storm protection plan clause

NOTE (b) - OTHER RECOVERY MECHANISMS

Company	State	Description
18 NORTHWESTERN ENERGY GRP.		
NorthWestern Energy	MT	Ad valorem tax
NorthWestern Energy	SD	Ad valorem tax
19 OGE ENERGY CORP.		
Oklahoma Gas & Electric Co.	OK	ITC rider
20 OTTER TAIL CORP.		
Otter Tail Power Co.	MN	Advanced metering initiative
Otter Tail Power Co.	ND	Advanced metering initiative
21 PINNACLE WEST CAPITAL		
Arizona Public Service Co.	AZ	Tax expense adjustor, Four Corners Court Resolution Surcharge (federally mandated emissions controls)
22 PORTLAND GENERAL ELECTRIC		
Portland General Electric Co.	OR	Wildfire automatic adjustment clause, storm costs
23 PPL CORP.		
Kentucky Utilities Co.	KY	Retired Asset Recovery
Louisville Gas & Electric Co.	KY	Retired Asset Recovery
PPL Electric Utilities Corp.	PA	Smart meters, storm recovery
Rhode Island Electric	RI	Storm cost
24 PUB SV ENTERPRISE GRP.		
Public Service Electric & Gas Co.	NJ	Storm costs, electric vehicle program
25 SEMPRA ENERGY		
San Diego Gas & Electric Co.	CA	Insurance premiums, wildfire mitigation, advanced metering initiative
26 SOUTHERN CO.		
Alabama Power Co.	AL	Storm damage
Georgia Power Co.	GA	Municipal franchise fees
Mississippi Power Co.	MS	Ad valorem tax, property damage
27 XCEL ENERGY, INC.		
Public Service Co. of Colorado	CO	Ad valorem tax, Comanche Units 1&2 retirement costs, transportation electrification
Northern States Power Co. - Minnesota	MN	Ad valorem tax
Southwestern Public Service Co.	NM	Transportation electrification
Southwestern Public Service Co.	TX	Advanced metering initiative, rate case expenses

ELECTRIC GROUP OPERATING SUBSIDIARIES

	Operating Company	Debt	Preferred	Common Equity
1	ALLIANT ENERGY CORP.			
	Interstate Power & Light	47.8%	0.0%	52.2%
	Wisconsin Power & Light	45.1%	0.0%	54.9%
2	AMEREN CORP.			
	Ameren Illinois Co.	44.2%	0.4%	55.4%
	Union Electric Co.	49.2%	0.5%	50.3%
3	AMERICAN ELEC PWR			
	AEP Texas, Inc.	56.9%	0.0%	43.1%
	Appalachian Power Co.	49.6%	0.0%	50.4%
	Indiana Michigan Power Co.	50.7%	0.0%	49.3%
	Kentucky Power Co.	55.1%	0.0%	44.9%
	Kingsport Power Co.	47.0%	0.0%	53.0%
	Ohio Power Co.	48.9%	0.0%	51.1%
	Public Service Co. of Oklahoma	51.5%	0.0%	48.5%
	Southwestern Electric Pwr Co.	50.5%	0.0%	49.5%
	Wheeling Power Co.	55.3%	0.0%	44.7%
4	AVISTA CORP.			
	Avista Corp.	50.0%	0.0%	50.0%
	Alaska Electric Light & Power	37.0%	0.0%	63.0%
5	BLACK HILLS CORP.			
	Black Hills Power (South Dakota Elec.)	47.2%	0.0%	52.8%
	Cheyenne Light Fuel & Power (Wyo Elec.)	53.8%	0.0%	46.2%
	Black Hills/Colorado Electric Utility Co	50.0%	0.0%	50.0%
6	CENTERPOINT ENERGY			
	Centerpoint Energy Houston Electric	53.8%	0.0%	46.2%
7	CMS ENERGY			
	Consumers Energy Co.	51.6%	0.2%	48.3%
8	CONSOLIDATED EDISON			
	Consolidated Edison of NY	54.0%	0.0%	46.0%
	Orange & Rockland	52.2%	0.0%	47.8%
	Rockland Electric	0.0%	0.0%	100.0%
9	DOMINION ENERGY			
	Virginia Electric & Power	45.0%	0.0%	55.0%
	Dominion Energy South Carolina	46.9%	0.0%	53.1%
10	DTE ENERGY CO.			
	DTE Electric Co.	50.9%	0.0%	49.1%
11	DUKE ENERGY			
	Duke Energy Carolinas	49.5%	0.0%	50.5%
	Duke Energy Florida	48.5%	0.0%	51.5%
	Duke Energy Indiana	46.5%	0.0%	53.5%
	Duke Energy Ohio	43.3%	0.0%	56.7%
	Duke Energy Progress	51.1%	0.0%	48.9%
	Duke Energy Kentucky	45.7%	0.0%	54.3%

ELECTRIC GROUP OPERATING SUBSIDIARIES

	Operating Company	Debt	Preferred	Common Equity
12	ENTERGY CORP.			
	Entergy Arkansas Inc.	53.4%	0.0%	46.6%
	Entergy Louisiana LLC	46.0%	0.0%	54.0%
	Entergy Mississippi Inc.	50.2%	0.0%	49.8%
	Entergy New Orleans Inc.	51.3%	0.0%	48.7%
	Entergy Texas Inc.	51.5%	0.6%	47.9%
13	EVERGY, INC.			
	Evergy Metro	48.8%	0.0%	51.2%
	Evergy Kansas Central	46.4%	0.0%	53.6%
14	EVERSOURCE ENERGY			
	Connecticut Light & Power	43.3%	1.0%	55.7%
	NSTAR Electric Co.	42.3%	0.4%	57.4%
	Public Service Co. of New Hampshire	43.2%	0.0%	56.8%
15	EXELON CORP.			
	Atlantic City Electric Co.	50.1%	0.0%	49.9%
	Baltimore Gas & Electric Co.	47.8%	0.0%	52.2%
	Commonwealth Edison Co.	45.1%	0.0%	54.9%
	Delmarva Power and Light	49.8%	0.0%	50.2%
	PECO Energy Co.	46.4%	0.0%	53.6%
	Potomac Electric Power Co.	49.6%	0.0%	50.4%
16	IDACORP			
	Idaho Power Co.	49.9%	0.0%	50.1%
17	NEXTERA ENERGY			
	Florida Power & Light	38.3%	0.0%	61.7%
18	NORTHWESTERN ENERGY GROUP			
	NorthWestern Corp.	50.3%	0.0%	49.7%
	NorthWestern Energy Public Svc Corp.	48.3%	0.0%	51.7%
19	OGE ENERGY CORP.			
	Oklahoma G&E	46.6%	0.0%	53.4%
20	OTTER TAIL CORP.			
	Otter Tail Power Co.	45.0%	0.0%	55.0%
21	PINNACLE WEST CAPITAL			
	Arizona Public Service Co.	47.2%	0.0%	52.8%
22	PORTLAND GENERAL ELECTRIC			
	Portland General Electric	54.4%	0.0%	45.6%
23	PPL CORP.			
	Kentucky Utilities Co.	41.6%	0.0%	58.4%
	Louisville Gas & Electric Co.	43.0%	0.0%	57.0%
	PPL Electric Utilities Corp.	43.7%	0.0%	56.3%
24	PUB SV ENTERPRISE GRP			
	Pub Service Electric & Gas Co.	44.8%	0.0%	55.2%

ELECTRIC GROUP OPERATING SUBSIDIARIES

Operating Company	Debt	Preferred	Common Equity
25 SEMPRA ENERGY			
San Diego Gas & Electric	48.8%	0.0%	51.2%
Oncor Electric Delivery	47.7%	0.0%	52.3%
26 SOUTHERN CO.			
Alabama Power Co.	46.0%	0.0%	54.0%
Georgia Power Co.	43.7%	0.0%	56.3%
Mississippi Power Co.	44.8%	0.0%	55.2%
27 WEC ENERGY GROUP			
Wisconsin Electric Power Co.	41.5%	0.3%	58.1%
Wisconsin Public Service Corp.	45.6%	0.0%	54.4%
28 XCEL ENERGY, INC.			
Northern States Power Co. (MN)	46.6%	0.0%	53.4%
Northern States Power Co. (WI)	46.8%	0.0%	53.2%
Public Service Co. of Colorado	44.8%	0.0%	55.2%
Southwestern Public Service Co.	45.8%	0.0%	54.2%
Minimum (b)	37.0%	0.0%	43.1%
Maximum (b)	56.9%	1.0%	63.0%
Average (b)	47.8%	0.0%	52.1%

(a) SEC Form 10-K Annual Reports and FERC Form 1 Reports.

(b) Excludes Rockland Electric Co.

UTILITY GROUP

Company	At Year-end 2024 (a)			Value Line Projected (b)		
	Debt	Preferred	Common Equity	Debt	Preferred	Common Equity
1 Alliant Energy	58.4%	0.0%	41.6%	52.0%	0.0%	48.0%
2 Ameren Corp.	58.9%	0.0%	41.1%	51.0%	0.5%	48.5%
3 American Elec Pwr	61.2%	0.0%	38.8%	57.5%	0.0%	42.5%
4 Avista Corp.	50.7%	0.0%	49.3%	46.0%	0.0%	54.0%
5 Black Hills Corp.	54.2%	0.0%	45.8%	55.5%	0.0%	44.5%
6 CenterPoint Energy	65.7%	0.0%	34.3%	59.0%	0.0%	41.0%
7 CMS Energy Corp.	65.4%	0.9%	33.8%	63.0%	1.0%	36.0%
8 Consolidated Edison	52.9%	0.0%	47.1%	52.5%	0.0%	47.5%
9 Dominion Energy	56.5%	1.4%	42.1%	60.0%	1.0%	39.0%
10 DTE Energy Co.	65.3%	0.0%	34.7%	61.0%	0.0%	39.0%
11 Duke Energy Corp.	61.2%	0.7%	38.1%	61.0%	1.0%	38.0%
12 Entergy Corp.	64.5%	0.5%	35.0%	63.5%	0.0%	36.5%
13 Eversource Energy	55.5%	0.0%	44.5%	53.5%	0.0%	46.5%
14 Exelon Corp.	62.5%	0.0%	37.5%	64.5%	0.0%	35.5%
16 IDACORP, Inc.	47.9%	0.0%	52.1%	45.0%	0.0%	55.0%
17 NextEra Energy, Inc.	54.5%	0.0%	45.5%	58.0%	0.0%	42.0%
18 NorthWestern Energy Grp.	51.2%	0.0%	48.8%	50.5%	0.0%	49.5%
19 OGE Energy Corp.	52.1%	0.0%	47.9%	50.0%	0.0%	50.0%
20 Otter Tail Corp.	36.1%	0.0%	63.9%	42.5%	0.0%	57.5%
21 Pinnacle West Capital	56.4%	0.0%	43.6%	55.0%	0.0%	45.0%
22 Portland General Elec.	56.0%	0.0%	44.0%	58.0%	0.0%	42.0%
23 PPL Corp.	54.0%	0.0%	46.0%	49.5%	0.0%	50.5%
24 Pub Sv Enterprise Grp.	56.7%	0.0%	43.3%	56.0%	0.0%	44.0%
25 Sempra	47.2%	1.3%	51.5%	57.0%	1.0%	42.0%
26 Southern Company	63.4%	0.0%	36.6%	63.0%	0.0%	37.0%
27 WEC Energy Group	60.0%	0.1%	39.9%	55.5%	0.0%	44.5%
28 Xcel Energy Inc.	59.3%	0.0%	40.7%	61.0%	0.0%	39.0%
Minimum	36.1%	0.0%	33.8%	42.5%	0.0%	35.5%
Maximum	65.7%	1.4%	63.9%	64.5%	1.0%	57.5%
Average	56.9%	0.2%	43.0%	55.8%	0.2%	44.0%

(a) SEC Form 10-K Annual Report.

(b) The Value Line Investment Survey (Jul. 18, Aug. 8 and Sep. 5, 2025).

DIVIDEND YIELD

		(a)	(b)	
	Company	Price	Dividends	Yield
1	Alliant Energy	\$ 65.32	\$ 2.03	3.1%
2	Ameren Corp.	\$ 100.97	\$ 2.85	2.8%
3	American Elec Pwr	\$ 111.97	\$ 3.80	3.4%
4	Avista Corp.	\$ 37.13	\$ 1.96	5.3%
5	Black Hills Corp.	\$ 59.57	\$ 2.70	4.5%
6	CenterPoint Energy	\$ 38.21	\$ 0.88	2.3%
7	CMS Energy Corp.	\$ 72.68	\$ 2.17	3.0%
8	Consolidated Edison	\$ 101.57	\$ 3.50	3.4%
9	Dominion Energy	\$ 60.26	\$ 2.67	4.4%
10	DTE Energy Co.	\$ 138.54	\$ 4.41	3.2%
11	Duke Energy Corp.	\$ 122.90	\$ 4.26	3.5%
12	Entergy Corp.	\$ 89.24	\$ 2.40	2.7%
13	Evergy Inc.	\$ 71.78	\$ 2.72	3.8%
14	Eversource Energy	\$ 65.20	\$ 3.09	4.7%
15	Exelon Corp.	\$ 44.42	\$ 1.52	3.4%
16	IDACORP, Inc.	\$ 125.20	\$ 3.44	2.7%
17	NextEra Energy, Inc.	\$ 72.80	\$ 2.39	3.3%
18	NorthWestern Energy Grp.	\$ 55.85	\$ 2.66	4.8%
19	OGE Energy Corp.	\$ 45.07	\$ 1.71	3.8%
20	Otter Tail Corp.	\$ 81.59	\$ 2.10	2.6%
21	Pinnacle West Capital	\$ 90.90	\$ 3.64	4.0%
22	Portland General Elec.	\$ 42.26	\$ 2.14	5.1%
23	PPL Corp.	\$ 36.41	\$ 1.08	3.0%
24	Pub Sv Enterprise Grp.	\$ 85.50	\$ 2.60	3.0%
25	Sempra	\$ 81.78	\$ 2.65	3.2%
26	Southern Company	\$ 93.95	\$ 2.94	3.1%
27	WEC Energy Group	\$ 108.45	\$ 3.57	3.3%
28	Xcel Energy Inc.	\$ 72.81	\$ 2.35	3.2%
	Average			3.5%

(a) Average of closing prices for 30 trading days ended Sep. 5, 2025.

(b) The Value Line Investment Survey, Summary & Index (Sep. 5, 2025).

GROWTH RATES

Company	(a)	(b)	(c)	(d)
	Earnings Growth			br+sv
	V Line	IBES	Zacks	Growth
1 Alliant Energy	6.0%	6.4%	6.6%	5.8%
2 Ameren Corp.	6.5%	8.9%	7.9%	7.9%
3 American Elec Pwr	6.5%	6.7%	6.4%	5.7%
4 Avista Corp.	5.5%	6.9%	5.8%	3.2%
5 Black Hills Corp.	3.5%	5.3%	5.3%	4.2%
6 CenterPoint Energy	7.0%	8.6%	7.8%	5.9%
7 CMS Energy Corp.	8.5%	7.3%	7.5%	6.7%
8 Consolidated Edison	6.0%	5.5%	6.4%	4.3%
9 Dominion Energy	6.0%	n/a	13.6%	4.9%
10 DTE Energy Co.	4.5%	6.9%	7.0%	6.4%
11 Duke Energy Corp.	6.0%	6.7%	6.6%	4.1%
12 Entergy Corp.	3.0%	9.7%	9.5%	3.9%
13 Evergy Inc.	7.5%	6.0%	5.7%	3.7%
14 Eversource Energy	5.5%	5.2%	5.6%	4.9%
15 Exelon Corp.	6.0%	6.0%	6.3%	4.9%
16 IDACORP, Inc.	6.0%	8.0%	8.2%	4.7%
17 NextEra Energy, Inc.	8.5%	8.4%	7.9%	7.9%
18 NorthWestern Energy Grp.	4.5%	n/a	6.9%	3.2%
19 OGE Energy Corp.	6.5%	5.6%	6.3%	4.4%
20 Otter Tail Corp.	4.5%	n/a	n/a	5.7%
21 Pinnacle West Capital	5.0%	2.2%	2.1%	4.2%
22 Portland General Elec.	6.5%	3.5%	3.4%	4.2%
23 PPL Corp.	7.5%	7.8%	7.7%	4.3%
24 Pub Sv Enterprise Grp.	7.0%	8.5%	7.2%	5.2%
25 Sempra	5.0%	n/a	7.0%	5.3%
26 Southern Company	6.5%	7.3%	6.8%	8.6%
27 WEC Energy Group	6.0%	n/a	7.0%	4.7%
28 Xcel Energy Inc.	7.0%	8.8%	7.8%	5.4%

(a) The Value Line Investment Survey (Jul. 18, Aug. 8 and Sep. 5, 2025).

(b) IBES growth rates from LSEG, as provided by www.fidelity.com (Sep. 1, 2025).

(c) www.zacks.com (retrieved Sep. 3, 2025).

(d) See Exhibit AMM-6.

COST OF EQUITY ESTIMATES

	(a)	(a)	(a)	(a)
Company	V Line	IBES	Zacks	br+sv Growth
1 Alliant Energy	9.1%	9.5%	9.7%	8.9%
2 Ameren Corp.	9.3%	11.7%	10.7%	10.7%
3 American Elec Pwr	9.9%	10.1%	9.8%	9.1%
4 Avista Corp.	10.8%	12.2%	11.1%	8.5%
5 Black Hills Corp.	8.0%	9.8%	9.8%	8.8%
6 CenterPoint Energy	9.3%	10.9%	10.1%	8.3%
7 CMS Energy Corp.	11.5%	10.3%	10.5%	9.7%
8 Consolidated Edison	9.4%	8.9%	9.8%	7.7%
9 Dominion Energy	10.4%	n/a	18.0%	9.3%
10 DTE Energy Co.	7.7%	10.1%	10.2%	9.6%
11 Duke Energy Corp.	9.5%	10.2%	10.0%	7.5%
12 Entergy Corp.	5.7%	12.4%	12.1%	6.6%
13 Eversource Energy	11.3%	9.8%	9.5%	7.5%
14 Exelon Corp.	10.2%	9.9%	10.3%	9.7%
15 IDACORP, Inc.	9.4%	9.4%	9.8%	8.3%
16 NextEra Energy, Inc.	8.7%	10.7%	10.9%	7.5%
17 NorthWestern Energy Grp.	11.8%	11.7%	11.2%	11.2%
18 OGE Energy Corp.	9.3%	n/a	11.6%	7.9%
19 Otter Tail Corp.	10.3%	9.4%	10.1%	8.2%
20 Pinnacle West Capital	7.1%	n/a	n/a	8.3%
21 Portland General Elec.	9.0%	6.2%	6.1%	8.2%
22 PPL Corp.	11.6%	8.6%	8.5%	9.3%
23 Pub Sv Enterprise Grp.	10.5%	10.8%	10.6%	7.3%
24 Sempra	10.0%	11.5%	10.2%	8.3%
25 Southern Company	8.2%	n/a	10.3%	8.5%
26 WEC Energy Group	9.6%	10.4%	9.9%	11.8%
27 Xcel Energy Inc.	9.3%	n/a	10.2%	8.0%
28	10.2%	12.0%	11.0%	8.6%
Average (b)	9.8%	10.5%	10.3%	9.0%

(a) Sum of dividend yield (Exhibit AMM-5, p. 1) and respective growth rate (Exhibit AMM-5, p. 2).

(b) Excludes highlighted values.

BR+SV GROWTH RATE

Exhibit AMM-6

Page 1 of 2

UTILITY GROUP

	<u>Company</u>	(a)	(a)	(a)	(b)	(c)	(d)	(e)	(f)	(g)		<u>br + sv</u>	
		<u>2029</u>			<u>Adjustment</u>			<u>"sv" Factor</u>					
		<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>	<u>b</u>	<u>r</u>	<u>Factor</u>	<u>Adjusted r</u>	<u>br</u>	<u>s</u>	<u>v</u>	<u>sv</u>	
1	Alliant Energy	\$4.25	\$2.43	\$31.90	42.8%	13.3%	1.0156	13.5%	5.8%	0.0005	0.5600	0.03%	5.8%
2	Ameren Corp.	\$6.60	\$3.57	\$52.65	45.9%	12.5%	1.0217	12.8%	5.9%	0.0332	0.6026	2.00%	7.9%
3	American Elec Pwr	\$7.30	\$4.31	\$60.90	41.0%	12.0%	1.0119	12.1%	5.0%	0.0138	0.5404	0.75%	5.7%
4	Avista Corp.	\$3.10	\$2.20	\$36.00	29.0%	8.6%	1.0163	8.8%	2.5%	0.0185	0.3455	0.64%	3.2%
5	Black Hills Corp.	\$5.00	\$3.10	\$56.00	38.0%	8.9%	1.0267	9.2%	3.5%	0.0273	0.2774	0.76%	4.2%
6	CenterPoint Energy	\$2.30	\$1.05	\$21.75	54.3%	10.6%	1.0283	10.9%	5.9%	0.0008	0.4882	0.04%	5.9%
7	CMS Energy Corp.	\$5.00	\$3.00	\$32.50	40.0%	15.4%	1.0191	15.7%	6.3%	0.0066	0.6750	0.44%	6.7%
8	Consolidated Edison	\$7.00	\$4.24	\$77.55	39.4%	9.0%	1.0259	9.3%	3.7%	0.0164	0.3669	0.60%	4.3%
9	Dominion Energy	\$4.25	\$2.67	\$37.25	37.2%	11.4%	1.0229	11.7%	4.3%	0.0122	0.4679	0.57%	4.9%
10	DTE Energy Co.	\$9.25	\$5.15	\$63.10	44.3%	14.7%	1.0114	14.8%	6.6%	(0.0030)	0.6176	-0.18%	6.4%
11	Duke Energy Corp.	\$8.00	\$5.00	\$76.50	37.5%	10.5%	1.0187	10.7%	4.0%	0.0018	0.4333	0.08%	4.1%
12	Entergy Corp.	\$4.20	\$3.00	\$43.45	28.6%	9.7%	1.0302	10.0%	2.8%	0.0246	0.4394	1.08%	3.9%
13	Evergy Inc.	\$5.00	\$3.25	\$47.50	35.0%	10.5%	1.0054	10.6%	3.7%	0.0000	0.4571	0.00%	3.7%
14	Eversource Energy	\$5.90	\$3.70	\$52.00	37.3%	11.3%	1.0267	11.6%	4.3%	0.0132	0.4526	0.60%	4.9%
15	Exelon Corp.	\$3.40	\$1.95	\$29.75	42.6%	11.4%	1.0099	11.5%	4.9%	-	0.5042	0.00%	4.9%
16	IDACORP, Inc.	\$7.10	\$4.20	\$72.25	40.8%	9.8%	1.0200	10.0%	4.1%	0.0139	0.4648	0.65%	4.7%
17	NextEra Energy, Inc.	\$5.10	\$3.22	\$36.00	36.9%	14.2%	1.0462	14.8%	5.5%	0.0376	0.6400	2.41%	7.9%
18	NorthWestern Energy Grp	\$4.35	\$2.80	\$53.55	35.6%	8.1%	1.0186	8.3%	2.9%	0.0108	0.2067	0.22%	3.2%
19	OGE Energy Corp.	\$2.95	\$1.79	\$26.25	39.3%	11.2%	1.0083	11.3%	4.5%	(0.0011)	0.3824	-0.04%	4.4%
20	Otter Tail Corp.	\$4.75	\$2.36	\$44.25	50.3%	10.7%	1.0081	10.8%	5.4%	0.0059	0.4636	0.28%	5.7%
21	Pinnacle West Capital	\$6.45	\$4.00	\$70.20	38.0%	9.2%	1.0263	9.4%	3.6%	0.0163	0.4026	0.65%	4.2%
22	Portland General Elec.	\$4.00	\$2.58	\$42.25	35.5%	9.5%	1.0287	9.7%	3.5%	0.0267	0.2958	0.79%	4.2%
23	PPL Corp.	\$2.40	\$1.40	\$23.45	41.7%	10.2%	1.0171	10.4%	4.3%	(0.0000)	0.4138	0.00%	4.3%
24	Pub Sv Enterprise Grp.	\$5.25	\$3.24	\$42.25	38.3%	12.4%	1.0282	12.8%	4.9%	0.0063	0.5553	0.35%	5.2%
25	Sempra	\$6.20	\$3.28	\$60.40	47.1%	10.3%	1.0288	10.6%	5.0%	0.0072	0.3960	0.29%	5.3%
26	Southern Company	\$5.60	\$3.10	\$32.25	44.6%	17.4%	1.0108	17.6%	7.8%	0.0125	0.6514	0.81%	8.6%
27	WEC Energy Group	\$6.90	\$4.59	\$46.75	33.5%	14.8%	1.0090	14.9%	5.0%	(0.0043)	0.6661	-0.28%	4.7%
28	Xcel Energy Inc.	\$5.00	\$3.00	\$43.70	40.0%	11.4%	1.0283	11.8%	4.7%	0.0142	0.5006	0.71%	5.4%

UTILITY GROUP

	(a)	(a)	(h)	(a)	(a)	(h)	(i)	(a)	(a)		(j)	(a)	(a)	(i)
	2024			2029			Chg	2024				Common Shares		
<u>Company</u>	<u>Eq Ratio</u>	<u>Tot Cap</u>	<u>Com Eq</u>	<u>Eq Ratio</u>	<u>Tot Cap</u>	<u>Com Eq</u>	<u>Equity</u>	<u>High</u>	<u>Low</u>	<u>Avg.</u>	<u>M/B</u>	<u>2024</u>	<u>2029</u>	<u>Growth</u>
1 Alliant Energy	44.7%	\$15,681	\$7,009	48.0%	\$17,070	\$8,194	3.2%	\$80.0	\$65.0	\$72.5	2.273	256.69	257.00	0.02%
2 Ameren Corp.	45.3%	\$25,432	\$11,521	48.5%	\$29,500	\$14,308	4.4%	\$145.0	\$120.0	\$132.5	2.517	266.93	285.00	1.32%
3 American Elec Pwr	42.4%	\$67,528	\$28,632	42.5%	\$75,900	\$32,258	2.4%	\$145.0	\$120.0	\$132.5	2.176	532.90	550.00	0.63%
4 Avista Corp.	49.0%	\$5,292	\$2,593	54.0%	\$5,650	\$3,051	3.3%	\$65.0	\$45.0	\$55.0	1.528	80.04	85.00	1.21%
5 Black Hills Corp.	43.5%	\$7,752	\$3,372	44.5%	\$9,900	\$4,406	5.5%	\$90.0	\$65.0	\$77.5	1.384	69.84	77.00	1.97%
6 CenterPoint Energy	34.3%	\$31,063	\$10,655	41.0%	\$34,500	\$14,145	5.8%	\$50.0	\$35.0	\$42.5	1.954	651.73	653.00	0.04%
7 CMS Energy Corp.	34.0%	\$23,536	\$8,002	36.0%	\$26,900	\$9,684	3.9%	\$115.0	\$85.0	\$100.0	3.077	298.80	302.00	0.21%
8 Consolidated Edison	47.1%	\$46,613	\$21,955	47.5%	\$59,900	\$28,453	5.3%	\$135.0	\$110.0	\$122.5	1.580	346.60	365.00	1.04%
9 Dominion Energy	40.5%	\$64,778	\$26,235	39.0%	\$84,600	\$32,994	4.7%	\$80.0	\$60.0	\$70.0	1.879	852.00	880.00	0.65%
10 DTE Energy Co.	38.2%	\$29,328	\$11,203	39.0%	\$32,200	\$12,558	2.3%	\$190.0	\$140.0	\$165.0	2.615	207.17	206.00	-0.11%
11 Duke Energy Corp.	38.9%	\$126,467	\$49,196	38.0%	\$156,100	\$59,318	3.8%	\$155.0	\$115.0	\$135.0	1.765	776.00	780.00	0.10%
12 Entergy Corp.	36.0%	\$41,917	\$15,090	36.5%	\$55,915	\$20,409	6.2%	\$85.0	\$70.0	\$77.5	1.784	429.58	460.00	1.38%
13 Evergy Inc.	48.5%	\$21,250	\$10,306	46.5%	\$23,400	\$10,881	1.1%	\$100.0	\$75.0	\$87.5	1.842	229.98	230.00	0.00%
14 Eversource Energy	36.5%	\$41,221	\$15,046	37.5%	\$52,400	\$19,650	5.5%	\$110.0	\$80.0	\$95.0	1.827	366.61	380.00	0.72%
15 Exelon Corp.	39.5%	\$65,918	\$26,057	35.5%	\$81,000	\$28,755	2.0%	\$70.0	\$50.0	\$60.0	2.017	1005.00	1005.00	0.00%
16 IDACORP, Inc.	52.2%	\$6,385	\$3,333	55.0%	\$7,400	\$4,070	4.1%	\$150.0	\$120.0	\$135.0	1.869	53.96	56.00	0.74%
17 NextEra Energy, Inc.	40.9%	\$122,486	\$50,097	42.0%	\$189,400	\$79,548	9.7%	\$115.0	\$85.0	\$100.0	2.778	2057.00	2200.00	1.35%
18 NorthWestern Energy Gr	51.4%	\$5,555	\$2,855	49.5%	\$6,950	\$3,440	3.8%	\$80.0	\$55.0	\$67.5	1.261	61.32	64.00	0.86%
19 OGE Energy Corp.	49.2%	\$9,727	\$4,786	50.0%	\$10,400	\$5,200	1.7%	\$50.0	\$35.0	\$42.5	1.619	200.90	200.20	-0.07%
20 Otter Tail Corp.	58.5%	\$2,288	\$1,338	57.5%	\$2,525	\$1,452	1.6%	\$95.0	\$70.0	\$82.5	1.864	41.83	42.50	0.32%
21 Pinnacle West Capital	45.6%	\$14,813	\$6,755	45.0%	\$19,525	\$8,786	5.4%	\$135.0	\$100.0	\$117.5	1.674	119.10	125.00	0.97%
22 Portland General Elec.	45.0%	\$8,424	\$3,791	42.0%	\$12,025	\$5,051	5.9%	\$70.0	\$50.0	\$60.0	1.420	109.34	120.00	1.88%
23 PPL Corp.	49.1%	\$29,726	\$14,595	50.5%	\$34,280	\$17,311	3.5%	\$45.0	\$35.0	\$40.0	1.706	738.03	738.00	0.00%
24 Pub Sv Enterprise Grp.	45.9%	\$35,078	\$16,101	44.0%	\$48,500	\$21,340	5.8%	\$105.0	\$85.0	\$95.0	2.249	498.00	505.00	0.28%
25 Sempra	48.3%	\$62,800	\$30,332	42.0%	\$96,300	\$40,446	5.9%	\$120.0	\$80.0	\$100.0	1.656	650.63	665.00	0.44%
26 Southern Company	36.8%	\$84,373	\$31,049	37.0%	\$93,500	\$34,595	2.2%	\$105.0	\$80.0	\$92.5	2.868	1096.00	1120.00	0.43%
27 WEC Energy Group	44.3%	\$27,362	\$12,121	44.5%	\$29,800	\$13,261	1.8%	\$155.0	\$125.0	\$140.0	2.995	317.68	315.43	-0.14%
28 Xcel Energy Inc.	41.7%	\$46,838	\$19,531	39.0%	\$66,500	\$25,935	5.8%	\$100.0	\$75.0	\$87.5	2.002	574.37	595.00	0.71%

- (a) The Value Line Investment Survey (Jul. 18, Aug. 8 and Sep. 5, 2025).
(b) "b" is the retention ratio, computed as (EPS-DPS)/EPS.
(c) "r" is the rate of return on book equity, computed as EPS/BVPS.
(d) Computed using the formula $2 \times (1 + 5\text{-Yr. Change in Equity}) / (2 + 5 \text{ Yr. Change in Equity})$.
(e) Product of average year-end "r" for 2029 and Adjustment Factor.
(f) Product of change in common shares outstanding and M/B Ratio.
(g) Computed as $1 - B/M$ Ratio.
(h) Product of total capital and equity ratio.
(i) Five-year rate of change.
(j) Average of High and Low expected market prices divided by 2029 BVPS.

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Company	(a) (b) (c)			(d)		(e)		(f)		
	Market Return (R_m)			Risk-Free	Risk	Unadjusted	Market	Size	Adjusted	
	Div Yield	Proj. Growth	$R_{(m)}$	Rate	Premium	Beta	CAPM	Cap	Adjustment	CAPM
1 Alliant Energy	1.5%	10.6%	12.1%	4.8%	7.3%	0.75	10.3%	\$17,000	0.49%	10.8%
2 Ameren Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	0.75	10.3%	\$27,200	0.33%	10.6%
3 American Elec Pwr	1.5%	10.6%	12.1%	4.8%	7.3%	0.65	9.5%	\$60,400	-0.01%	9.5%
4 Avista Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	0.75	10.3%	\$3,100	1.00%	11.3%
5 Black Hills Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	0.85	11.0%	\$4,100	0.74%	11.7%
6 CenterPoint Energy	1.5%	10.6%	12.1%	4.8%	7.3%	0.85	11.0%	\$24,600	0.33%	11.3%
7 CMS Energy Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	0.70	9.9%	\$21,600	0.33%	10.2%
8 Consolidated Edison	1.5%	10.6%	12.1%	4.8%	7.3%	0.65	9.5%	\$36,400	0.33%	9.9%
9 Dominion Energy	1.5%	10.6%	12.1%	4.8%	7.3%	0.80	10.6%	\$49,500	-0.01%	10.6%
10 DTE Energy Co.	1.5%	10.6%	12.1%	4.8%	7.3%	0.80	10.6%	\$28,700	0.33%	11.0%
11 Duke Energy Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	0.65	9.5%	\$91,400	-0.01%	9.5%
12 Entergy Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	0.75	10.3%	\$39,800	0.33%	10.6%
13 Evergy Inc.	1.5%	10.6%	12.1%	4.8%	7.3%	0.75	10.3%	\$16,500	0.49%	10.8%
14 Eversource Energy	1.5%	10.6%	12.1%	4.8%	7.3%	0.85	11.0%	\$23,900	0.33%	11.3%
15 Exelon Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	0.75	10.3%	\$46,700	0.33%	10.6%
16 IDACORP, Inc.	1.5%	10.6%	12.1%	4.8%	7.3%	0.70	9.9%	\$6,300	0.50%	10.4%
17 NextEra Energy, Inc.	1.5%	10.6%	12.1%	4.8%	7.3%	0.90	11.4%	\$147,000	-0.01%	11.4%
18 NorthWestern Energy Grp.	1.5%	10.6%	12.1%	4.8%	7.3%	0.75	10.3%	\$3,200	1.00%	11.3%
19 OGE Energy Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	0.85	11.0%	\$9,100	0.50%	11.5%
20 Otter Tail Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	0.90	11.4%	\$3,600	1.00%	12.4%
21 Pinnacle West Capital	1.5%	10.6%	12.1%	4.8%	7.3%	0.75	10.3%	\$10,700	0.49%	10.8%
22 Portland General Elec.	1.5%	10.6%	12.1%	4.8%	7.3%	0.75	10.3%	\$4,500	0.74%	11.0%
23 PPL Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	0.80	10.6%	\$26,400	0.33%	11.0%
24 Pub Sv Enterprise Grp.	1.5%	10.6%	12.1%	4.8%	7.3%	0.85	11.0%	\$43,400	0.33%	11.3%
25 Sempra	1.5%	10.6%	12.1%	4.8%	7.3%	0.90	11.4%	\$48,500	-0.01%	11.4%
26 Southern Company	1.5%	10.6%	12.1%	4.8%	7.3%	0.70	9.9%	\$104,000	-0.01%	9.9%
27 WEC Energy Group	1.5%	10.6%	12.1%	4.8%	7.3%	0.65	9.5%	\$34,400	0.33%	9.9%
28 Xcel Energy Inc.	1.5%	10.6%	12.1%	4.8%	7.3%	0.70	9.9%	\$39,200	0.33%	10.2%
Average										10.8%

(a) Weighted average for dividend-paying stocks in the S&P 500 based on data from www.valueline.com (retrieved Aug. 31, 2025).

(b) Average of weighted average earnings growth rates from IBES, Value Line, and Zacks for dividend-paying stocks in the S&P 500 based on data from LSEG, as provided by www.fidelity.com (retrieved Aug. 31, 2025), www.valueline.com (retrieved Aug. 31, 2025), and www.zacks.com (retrieved Aug. 31, 2025). Eliminated growth rates that were greater than 20%, as well as all negative values.

(c) Average yield on 30-year Treasury bonds for six-months ending Aug. 2025 based on data from <https://fred.stlouisfed.org/>.

(d) The Value Line Investment Survey, Summary & Index (Sep. 5, 2025).

(e) The Value Line Investment Survey (Jul. 18, Aug. 8 and Sep. 5, 2025).

(f) Kroll, 2024 CRSP Deciles Size Premium, Cost of Capital Navigator (2025).

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Company	Market Return (R _m)											Unadjusted ECAPM	Market Cap	Size Adjustment	ECAPM Result	
	(a)		(b)	(c)		(d)		(e)	(d)		(f)					(g)
	Div Yield	Proj. Growth	Cost of Equity	Risk-Free Rate	Risk Premium	Unadjusted Weight	RP ¹	Beta	Adjusted Weight	RP ²	Total RP					Unadjusted ECAPM
1 Alliant Energy	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.75	75%	4.1%	5.9%	10.7%	\$17,000	0.49%	11.2%	
2 Ameren Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.75	75%	4.1%	5.9%	10.7%	\$27,200	0.33%	11.1%	
3 American Elec Pwr	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.65	75%	3.6%	5.4%	10.2%	\$60,400	-0.01%	10.2%	
4 Avista Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.75	75%	4.1%	5.9%	10.7%	\$3,100	1.00%	11.7%	
5 Black Hills Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.85	75%	4.7%	6.5%	11.3%	\$4,100	0.74%	12.0%	
6 CenterPoint Energy	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.85	75%	4.7%	6.5%	11.3%	\$24,600	0.33%	11.6%	
7 CMS Energy Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.70	75%	3.8%	5.7%	10.5%	\$21,600	0.33%	10.8%	
8 Consolidated Edison	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.65	75%	3.6%	5.4%	10.2%	\$36,400	0.33%	10.5%	
9 Dominion Energy	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.80	75%	4.4%	6.2%	11.0%	\$49,500	-0.01%	11.0%	
10 DTE Energy Co.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.80	75%	4.4%	6.2%	11.0%	\$28,700	0.33%	11.3%	
11 Duke Energy Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.65	75%	3.6%	5.4%	10.2%	\$91,400	-0.01%	10.2%	
12 Entergy Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.75	75%	4.1%	5.9%	10.7%	\$39,800	0.33%	11.1%	
13 Evergy Inc.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.75	75%	4.1%	5.9%	10.7%	\$16,500	0.49%	11.2%	
14 Eversource Energy	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.85	75%	4.7%	6.5%	11.3%	\$23,900	0.33%	11.6%	
15 Exelon Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.75	75%	4.1%	5.9%	10.7%	\$46,700	0.33%	11.1%	
16 IDACORP, Inc.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.70	75%	3.8%	5.7%	10.5%	\$6,300	0.50%	11.0%	
17 NextEra Energy, Inc.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.90	75%	4.9%	6.8%	11.6%	\$147,000	-0.01%	11.5%	
18 NorthWestern Energy Gr	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.75	75%	4.1%	5.9%	10.7%	\$3,200	1.00%	11.7%	
19 OGE Energy Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.85	75%	4.7%	6.5%	11.3%	\$9,100	0.50%	11.8%	
20 Otter Tail Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.90	75%	4.9%	6.8%	11.6%	\$3,600	1.00%	12.6%	
21 Pinnacle West Capital	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.75	75%	4.1%	5.9%	10.7%	\$10,700	0.49%	11.2%	
22 Portland General Elec.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.75	75%	4.1%	5.9%	10.7%	\$4,500	0.74%	11.5%	
23 PPL Corp.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.80	75%	4.4%	6.2%	11.0%	\$26,400	0.33%	11.3%	
24 Pub Sv Enterprise Grp.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.85	75%	4.7%	6.5%	11.3%	\$43,400	0.33%	11.6%	
25 Sempra	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.90	75%	4.9%	6.8%	11.6%	\$48,500	-0.01%	11.5%	
26 Southern Company	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.70	75%	3.8%	5.7%	10.5%	\$104,000	-0.01%	10.4%	
27 WEC Energy Group	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.65	75%	3.6%	5.4%	10.2%	\$34,400	0.33%	10.5%	
28 Xcel Energy Inc.	1.5%	10.6%	12.1%	4.8%	7.3%	25%	1.8%	0.70	75%	3.8%	5.7%	10.5%	\$39,200	0.33%	10.8%	
Average																11.2%

- (a) Weighted average for dividend-paying stocks in the S&P 500 based on data from www.valueline.com (retrieved Aug. 31, 2025).
- (b) Average of weighted average earnings growth rates from IBES, Value Line, and Zacks for dividend-paying stocks in the S&P 500 based on data from LSEG, as provided by www.fidelity.com (retrieved Aug. 31, 2025), www.valueline.com (retrieved Aug. 31, 2025), and www.zacks.com (retrieved Aug. 31, 2025). Eliminated growth rates that were greater than 20%, as well as all negative values.
- (c) Average yield on 30-year Treasury bonds for six-months ending Aug. 2025 based on data from https://fred.stlouisfed.org/.
- (d) Roger A. Morin, *New Regulatory Finance*, Pub. Util. Reports, Inc. (2006) at 190.
- (e) www.moody.com (retrieved Sep. 2, 2025).
- (f) www.spglobal.com (retrieved Sep. 2, 2025).
- (g) Kroll, 2024 CRSP Deciles Size Premium, Cost of Capital Navigator (2025).

COST OF EQUITY ESTIMATE

Current Equity Risk Premium

(a) Avg. Yield over Study Period	7.74%
(b) Average Utility Bond Yield	<u>5.90%</u>
Change in Bond Yield	-1.84%
(c) Risk Premium/Interest Rate Relationship	<u>-0.4212</u>
Adjustment to Average Risk Premium	0.78%
(a) Average Risk Premium over Study Period	<u>3.90%</u>
Adjusted Risk Premium	4.68%

Implied Cost of Equity

(b) Baa Utility Bond Yield	6.07%
Adjusted Equity Risk Premium	<u>4.68%</u>
Risk Premium Cost of Equity	10.75%

- (a) Exhibit AMM-9, page 2.
- (b) Average bond yield on all utility bonds and 'Baa' subset for six-months ending Aug. 2025 based on data from Moody's Investors Service at www.credittrends.com.
- (c) Exhibit AMM-9, page 3.

UTILITY RISK PREMIUM

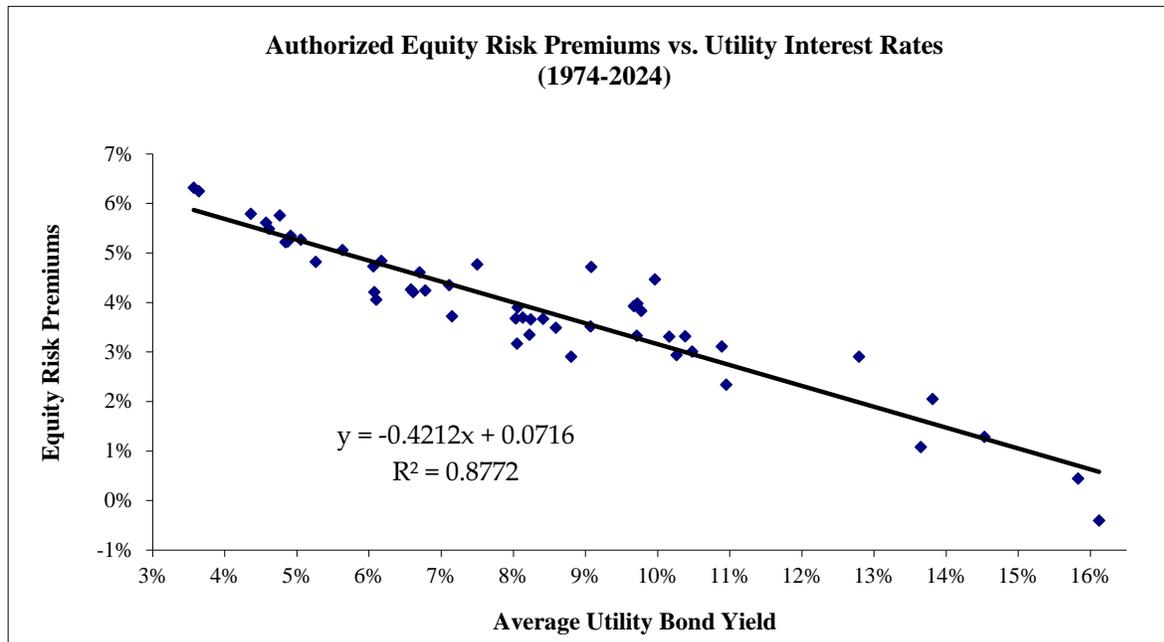
AUTHORIZED RETURNS

	(a)	(b)		(a)	(b)		
Year	Allowed ROE	Average Utility Bond Yield	Risk Premium	Year	Allowed ROE	Average Utility Bond Yield	Risk Premium
1974	13.10%	9.27%	3.83%	2000	11.58%	8.09%	3.49%
1975	13.20%	9.88%	3.32%	2001	11.07%	7.72%	3.35%
1976	13.10%	9.17%	3.93%	2002	11.21%	7.53%	3.68%
1977	13.30%	8.58%	4.72%	2003	10.96%	6.61%	4.35%
1978	13.20%	9.22%	3.98%	2004	10.81%	6.20%	4.61%
1979	13.50%	10.39%	3.11%	2005	10.51%	5.67%	4.84%
1980	14.23%	13.15%	1.08%	2006	10.34%	6.08%	4.26%
1981	15.22%	15.62%	-0.40%	2007	10.32%	6.11%	4.21%
1982	15.78%	15.33%	0.45%	2008	10.37%	6.65%	3.72%
1983	15.36%	13.31%	2.05%	2009	10.52%	6.28%	4.24%
1984	15.32%	14.03%	1.29%	2010	10.29%	5.56%	4.73%
1985	15.20%	12.29%	2.91%	2011	10.19%	5.13%	5.06%
1986	13.93%	9.46%	4.47%	2012	10.02%	4.26%	5.76%
1987	12.99%	9.98%	3.01%	2013	9.82%	4.55%	5.27%
1988	12.79%	10.45%	2.34%	2014	9.76%	4.41%	5.35%
1989	12.97%	9.66%	3.31%	2015	9.60%	4.37%	5.23%
1990	12.70%	9.76%	2.94%	2016	9.60%	4.11%	5.49%
1991	12.54%	9.21%	3.33%	2017	9.68%	4.07%	5.61%
1992	12.09%	8.57%	3.52%	2018	9.56%	4.34%	5.22%
1993	11.46%	7.56%	3.90%	2019	9.65%	3.86%	5.79%
1994	11.21%	8.30%	2.91%	2020	9.39%	3.07%	6.32%
1995	11.58%	7.91%	3.67%	2021	9.39%	3.14%	6.25%
1996	11.40%	7.74%	3.66%	2022	9.58%	4.76%	4.82%
1997	11.33%	7.63%	3.70%	2023	9.66%	5.60%	4.06%
1998	11.77%	7.00%	4.77%	2024	<u>9.78%</u>	<u>5.57%</u>	<u>4.21%</u>
1999	10.72%	7.55%	3.17%	Average	11.64%	7.74%	3.90%

(a) S&P Global Market Intelligence, *Major Rate Case Decisions*, RRA Regulatory Focus; *UtilityScope Regulatory Service*, Argus. Data for "general" rate cases (excluding limited-issue rider cases) beginning in 2006 (the first year such data presented by RRA).

(b) Moody's Investors Service.

REGRESSION RESULTS



EXPECTED EARNINGS APPROACH

Exhibit AMM-10

Page 1 of 1

UTILITY GROUP

	(a)	(b)	(c)
Company	Expected Return on Common Equity	Adjustment Factor	Adjusted Return on Common Equity
1 Alliant Energy	12.0%	1.0156	12.2%
2 Ameren Corp.	10.0%	1.0217	10.2%
3 American Elec Pwr	11.0%	1.0119	11.1%
4 Avista Corp.	8.5%	1.0163	8.6%
5 Black Hills Corp.	8.5%	1.0267	8.7%
6 CenterPoint Energy	10.5%	1.0283	10.8%
7 CMS Energy Corp.	15.5%	1.0191	15.8%
8 Consolidated Edison	9.0%	1.0259	9.2%
9 Dominion Energy	11.5%	1.0229	11.8%
10 DTE Energy Co.	12.5%	1.0114	12.6%
11 Duke Energy Corp.	10.5%	1.0187	10.7%
12 Entergy Corp.	9.5%	1.0302	9.8%
13 Evergy Inc.	10.0%	1.0054	10.1%
14 Eversource Energy	11.5%	1.0267	11.8%
15 Exelon Corp.	10.0%	1.0099	10.1%
16 IDACORP, Inc.	10.0%	1.0200	10.2%
17 NextEra Energy, Inc.	14.0%	1.0462	14.6%
18 NorthWestern Energy Grp.	8.0%	1.0186	8.1%
19 OGE Energy Corp.	13.0%	1.0083	13.1%
20 Otter Tail Corp.	11.5%	1.0081	11.6%
21 Pinnacle West Capital	9.0%	1.0263	9.2%
22 Portland General Elec.	9.5%	1.0287	9.8%
23 PPL Corp.	9.5%	1.0171	9.7%
24 Pub Sv Enterprise Grp.	12.5%	1.0282	12.9%
25 Sempra	10.5%	1.0288	10.8%
26 Southern Company	14.5%	1.0108	14.7%
27 WEC Energy Group	13.0%	1.0090	13.1%
28 Xcel Energy Inc.	11.0%	1.0283	11.3%
Average	10.9%		11.2%

(a) The Value Line Investment Survey (Jul. 18, Aug. 8 and Sep. 5, 2025).

(b) Adjustment to convert year-end return to an average rate of return from Exhibit AMM-6.

(c) (a) x (b).

IMPLIED ROE

Exhibit AMM-11

Page 1 of 1

DOCKET NO. 48401

1	Filed Date	5/30/2018
1	Order Date	12/20/2018
1	Approved ROE	9.65%
2	Average Baa Utility Yield	<u>4.80%</u>
3	Implied Risk Premium	4.85%
4	Baa Utility Bond Yield	<u>6.07%</u>
5	Change in Bond Yield	1.27%
6	Risk Premium/Interest Rate Relationship	<u>-0.4212</u>
7	Adjustment to Risk Premium	-0.53%
8	Adjusted Risk Premium	4.31%
9	Adjusted ROE	10.38%

- 1 Public Utility Commission of Texas, Docket No. 48401, Order (Dec. 20, 2018).
- 2 Average yield on Baa utility bonds over the duration of the proceeding from Moody's Credit
- 3 (1) - (2).
- 4 Average Baa utility bond yield for six-months ending Aug. 2025 based on data from Moody's Investors Service at www.credittrends.com.
- 5 (4) - (2).
- 6 Exhibit AMM-9 at page 3.
- 7 (5) x (6).
- 8 (3) + (7).
- 9 (4) + (8).

DIVIDEND YIELD

			(a)	(b)	
	Company	Industry Group	Price	Dividends	Yield
1	Abbott Labs.	Med Supp Non-Invasive	\$130.68	\$ 2.36	1.8%
2	AbbVie Inc.	Drug	\$202.54	\$ 6.56	3.2%
3	Amdocs Ltd.	IT Services	\$86.46	\$ 2.11	2.4%
4	Amgen	Biotechnology	\$291.95	\$ 9.84	3.4%
5	AptarGroup	Packaging & Container	\$142.57	\$ 1.88	1.3%
6	Automatic Data Proc.	Human Resources	\$303.80	\$ 6.16	2.0%
7	Bristol-Myers Squibb	Drug	\$46.87	\$ 2.48	5.3%
8	Cboe Global Markets	Brokers & Exchanges	\$244.05	\$ 2.52	1.0%
9	Church & Dwight	Household Products	\$93.58	\$ 1.18	1.3%
10	Cisco Systems	Telecom. Equipment	\$68.36	\$ 1.67	2.4%
11	CME Group	Brokers & Exchanges	\$274.51	\$ 5.00	1.8%
12	Coca-Cola	Beverage	\$69.36	\$ 2.04	2.9%
13	Colgate-Palmolive	Household Products	\$84.86	\$ 2.08	2.5%
14	Costco Wholesale	Retail Store	\$958.92	\$ 5.20	0.5%
15	Gallagher (Arthur J.)	Financial Svcs. (Div.)	\$295.97	\$ 2.60	0.9%
16	Gen'l Dynamics	Aerospace/Defense	\$317.13	\$ 6.00	1.9%
17	Hershey Co.	Food Processing	\$183.47	\$ 5.68	3.1%
18	Home Depot	Retail Building Supply	\$395.28	\$ 9.20	2.3%
19	Honeywell Int'l	Diversified Co.	\$219.07	\$ 4.52	2.1%
20	Hormel Foods	Food Processing	\$27.93	\$ 1.16	4.2%
21	Illinois Tool Works	Machinery	\$261.04	\$ 6.44	2.5%
22	Int'l Business Mach.	Computer Software	\$246.21	\$ 7.20	2.9%
23	Johnson & Johnson	Drug	\$174.01	\$ 5.20	3.0%
24	Kimberly-Clark	Household Products	\$131.24	\$ 5.04	3.8%
25	Marsh & McLennan	Financial Svcs. (Div.)	\$205.43	\$ 3.43	1.7%
26	McDonald's Corp.	Restaurant	\$308.23	\$ 7.35	2.4%
27	McKesson Corp.	Med Supp Non-Invasive	\$688.46	\$ 3.20	0.5%
28	Mondelez Int'l	Food Processing	\$63.09	\$ 1.88	3.0%
29	PepsiCo, Inc.	Beverage	\$145.99	\$ 5.72	3.9%
30	Procter & Gamble	Household Products	\$155.63	\$ 4.23	2.7%
31	Realty Income Corp.	REIT	\$57.91	\$ 3.30	5.7%
32	Republic Services	Environmental	\$234.53	\$ 2.32	1.0%
33	Roper Tech.	Computer Software	\$534.85	\$ 3.56	0.7%
34	Travelers Cos.	Insurance (Prop/Cas.)	\$267.74	\$ 4.40	1.6%
35	Verizon Communic.	Telecom. Services	\$43.63	\$ 2.75	6.3%
36	Walmart Inc.	Retail Store	\$99.51	\$ 0.94	0.9%
37	Waste Management	Environmental	\$228.58	\$ 3.30	1.4%
					2.4%

(a) Average of closing prices for 30 trading days ended Sep. 5, 2025.

(b) The Value Line Investment Survey, *Summary & Index* (Sep. 5, 2025).

GROWTH RATES

	Company	Ticker	(a)	(b)	(c)
			Earnings Growth		
			V Line	IBES	Zacks
1	Abbott Labs.	ABT	6.90%	10.10%	10.24%
2	AbbVie Inc.	ABBV	17.60%	16.20%	12.94%
3	Amdocs Ltd.	DOX	6.55%	8.70%	8.85%
4	Amgen	AMGN	25.75%	5.40%	5.46%
5	AptarGroup	ATR	7.75%	8.30%	8.29%
6	Automatic Data Proc.	ADP	12.25%	n/a	10.00%
7	Bristol-Myers Squibb	BMJ	3.90%	74.00%	3.00%
8	Cboe Global Markets	CBOE	11.50%	10.90%	13.77%
9	Church & Dwight	CHD	4.75%	5.40%	6.98%
10	Cisco Systems	CSCO	5.00%	7.60%	7.16%
11	CME Group	CME	12.00%	5.60%	4.95%
12	Coca-Cola	KO	4.00%	6.30%	6.46%
13	Colgate-Palmolive	CL	5.00%	4.90%	5.23%
14	Costco Wholesale	COST	26.00%	8.80%	8.95%
15	Gallagher (Arthur J.)	AJG	11.50%	11.50%	n/a
16	Gen'l Dynamics	GD	23.00%	11.60%	10.72%
17	Hershey Co.	HSY	12.40%	-10.20%	7.00%
18	Home Depot	HD	23.35%	5.10%	7.02%
19	Honeywell Int'l	HON	16.00%	8.40%	8.39%
20	Hormel Foods	HRL	2.15%	6.90%	3.13%
21	Illinois Tool Works	ITW	14.25%	1.70%	4.46%
22	Int'l Business Mach.	IBM	14.00%	6.70%	5.84%
23	Johnson & Johnson	JNJ	12.95%	7.00%	7.23%
24	Kimberly-Clark	KMB	9.50%	6.70%	5.42%
25	Marsh & McLennan	MMC	13.25%	8.00%	8.31%
26	McDonald's Corp.	MCD	18.50%	7.70%	7.95%
27	McKesson Corp.	MCK	57.00%	12.50%	13.52%
28	Mondelez Int'l	MDLZ	4.45%	2.50%	4.37%
29	PepsiCo, Inc.	PEP	10.50%	3.40%	4.93%
30	Procter & Gamble	PG	8.00%	5.20%	5.42%
31	Realty Income Corp.	O	1.75%	22.70%	3.07%
32	Republic Services	RSG	10.75%	9.10%	9.37%
33	Roper Tech.	ROP	26.00%	8.00%	10.50%
34	Travelers Cos.	TRV	28.50%	4.90%	4.05%
35	Verizon Communic.	VZ	5.35%	2.30%	2.76%
36	Walmart Inc.	WMT	4.00%	8.40%	8.00%
37	Waste Management	WM	9.65%	10.50%	10.81%

(a) www.valueline.com (retrieved Sep. 13, 2025).

(b) LSEG I/B/E/S Estimates, as provided by fidelity.com (retrieved Sep. 13, 2025).

(c) www.zacks.com (retrieved Sep. 13, 2025).

DCF COST OF EQUITY ESTIMATES

	(a)	(b)	(c)
Company	V Line	IBES	Zacks
1 Abbott Labs.	8.7%	11.9%	12.0%
2 AbbVie Inc.	20.8%	19.4%	16.2%
3 Amdocs Ltd.	9.0%	11.1%	11.3%
4 Amgen	29.1%	8.8%	8.8%
5 AptarGroup	9.1%	9.6%	9.6%
6 Automatic Data Proc.	14.3%	n/a	12.0%
7 Bristol-Myers Squibb	9.2%	79.3%	8.3%
8 Cboe Global Markets	12.5%	11.9%	14.8%
9 Church & Dwight	6.0%	6.7%	8.2%
10 Cisco Systems	7.4%	10.0%	9.6%
11 CME Group	13.8%	7.4%	6.8%
12 Coca-Cola	6.9%	9.2%	9.4%
13 Colgate-Palmolive	7.5%	7.4%	7.7%
14 Costco Wholesale	26.5%	9.3%	9.5%
15 Gallagher (Arthur J.)	12.4%	12.4%	n/a
16 Gen'l Dynamics	24.9%	13.5%	12.6%
17 Hershey Co.	15.5%	-7.1%	10.1%
18 Home Depot	25.7%	7.4%	9.3%
19 Honeywell Int'l	18.1%	10.5%	10.5%
20 Hormel Foods	6.3%	11.1%	7.3%
21 Illinois Tool Works	16.7%	4.2%	6.9%
22 Int'l Business Mach.	16.9%	9.6%	8.8%
23 Johnson & Johnson	15.9%	10.0%	10.2%
24 Kimberly-Clark	13.3%	10.5%	9.3%
25 Marsh & McLennan	14.9%	9.7%	10.0%
26 McDonald's Corp.	20.9%	10.1%	10.3%
27 McKesson Corp.	57.5%	13.0%	14.0%
28 Mondelez Int'l	7.4%	5.5%	7.3%
29 PepsiCo, Inc.	14.4%	7.3%	8.8%
30 Procter & Gamble	10.7%	7.9%	8.1%
31 Realty Income Corp.	7.4%	28.4%	8.8%
32 Republic Services	11.7%	10.1%	10.4%
33 Roper Tech.	26.7%	8.7%	11.2%
34 Travelers Cos.	30.1%	6.5%	5.7%
35 Verizon Communic.	11.7%	8.6%	9.1%
36 Walmart Inc.	4.9%	9.3%	8.9%
37 Waste Management	11.1%	11.9%	12.3%
Average (b)	12.3%	10.4%	10.1%

(a) Sum of dividend yield (p. 1) and respective growth rate (p. 2).

(b) Excludes highlighted figures.

APPLICATION OF TEXAS-NEW MEXICO POWER COMPANY
FOR AUTHORITY TO CHANGE RATES

WORKPAPERS FOR
THE DIRECT TESTIMONY OF
ADRIEN MCKENZIE

TNMP Witness Adrien McKenzie has no supporting workpapers for his direct testimony.