BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

ATMOS ENERGY CORPORTATION	)	
	)	**DOCKET NO. U-XXXXX**
ex parte	)	

In Re: Application of Atmos Energy Corporation for Renewal of Rate Stabilization Clause Rider

DIRECT TESTIMONY

OF

MATTHEW HOWARD

FEBRUARY 2, 2026

SUBMITTED ON BEHALF OF

ATMOS ENERGY CORPORATION

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PRE-FILED TESTIMONY OF MATTHEW HOWARD

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND AFFILIATION.

A. My name is Matthew R. Howard. I am a Director at ScottMadden, Inc. My business address is 1 Speen Street, Suite 150, Framingham, Massachusetts 01701.

Q. ON WHOSE BEHALF ARE YOU SUBMITTING THIS TESTIMONY?

A. I am submitting this direct testimony on behalf of Atmos Energy Corporation's Louisiana operations ("Atmos Energy" or the "Company")[1] before the Louisiana Public Service Commission (the "Commission").

Q. PLEASE DESCRIBE YOUR QUALIFICATIONS AND EDUCATIONAL BACKGROUND.

A. I offer expert testimony on behalf of investor-owned utilities on rate of return issues, including return on equity ("ROE"),[2] capital structure, and cost of debt. I have also authored and co-authored several fair market valuation reports on behalf of municipalities and investor-owned utilities. On behalf of the American Gas Association ("AGA"), I assist in the calculation of the AGA Gas Index, which serves as the benchmark against which the performance of the American Gas Index Fund ("AGIF") is measured on a monthly basis. The AGA Gas Index and AGIF are a market capitalization weighted index and mutual fund, respectively, comprised of the common stocks of the publicly traded corporate members of the AGA.

[1] As used in my testimony, "Atmos Energy Corporation" refers to the entirety of Atmos Energy Corporation, which operates in eight states, and "Atmos Energy" or the "Company" refers to Atmos Energy Corporation's Louisiana operations.

[2] Also referred to throughout this testimony as cost of common equity.

I am a member of the Society of Utility and Regulatory Financial Analysts ("SURFA"). In May 2022, I was awarded the professional designation "Certified Rate of Return Analyst" by SURFA, which is based on education, experience, and the successful completion of a comprehensive written examination.

I am also a member of the National Association of Certified Valuation Analysts ("NACVA") and was awarded the professional designation "Certified Valuation Analyst" by NACVA in 2024.

I hold a Bachelor's degree in Psychology from the University of Colorado at Boulder, and received a Master of Business Administration degree from Babson College, with honors, and a concentration in Finance.

My educational background and regulatory experience are attached as Appendix A.

II. PURPOSE AND OVERVIEW OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. In this docket, it is my understanding that Atmos Energy is requesting a renewal of its Rate Stabilization Clause ("RSC") tariff for a period of three years, with a weighted cost of capital calculation in the tariff that incorporates the Company's currently authorized ROE of 9.80 percent. The primary purpose of my testimony is to evaluate the reasonableness of the Company's proposal to renew its RSC at its current authorized ROE. I also evaluate the Company's request to renew its RSC at its currently authorized capital structure.

Q. HAVE YOU PREPARED EXHIBITS SUPPORTING YOUR RECOMMENDATIONS?

A. Yes. I have prepared Exhibit No. MRH-1, consisting of Schedules MRH-1 through MRH-7.

III. SUMMARY

Q. WHAT ARE YOUR RECOMMENDATIONS IN THIS PROCEEDING?

A. Given the analyses and discussion below, Atmos Energy's requested ROE of 9.80 percent is a conservative measure of the required ROE at this time. The Company's requested capital structure is consistent with the capital structures maintained by a proxy group of publicly traded companies comparable in risk to Atmos Energy's operations (the "Utility Proxy Group"). The overall rate of return is summarized on page 1 of Schedule MRH-1 and in Table 1 below:

Table 1: Summary of Overall Rate of Return[3]

Description	Percent Total Capital	Cost Rate	Weighted Cost Rate
Long-Term Debt	42.00%	4.13%	1.74%
Common Equity	58.00%	9.80%	5.68%
Total	100.00%		7.42%

The Company's requested overall rate of return is based on the overall rate of return approved in the Company's most recent RSC filing. In addition to requesting a continuation of an ROE of 9.80 percent, both the cost of long-term debt and capital structure are updated to reflect actual values, with the capital structure subject to a common equity cap of 58.00 percent as approved in the Company's most recent RSC filing.

Q. PLEASE SUMMARIZE YOUR ASSESSMENT OF THE APPROPRIATE ROE FOR ATMOS ENERGY.

A. My assessment of the appropriate cost of common equity for Atmos Energy is guided in part by the regulatory principles established in Bluefield Waterworks & Imp. Co. v. Public

[3] Attachment MRH-1, page 1.

Service Commission of W. Va., 262 U.S. 679 (1923) ("Bluefield") and Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944) ("Hope"). As discussed in depth below, Bluefield and Hope establish the legal standard that a utility's return should provide it the opportunity to earn a return similar to enterprises of comparable risk. To ensure the recommended cost of common equity reflects enterprises of comparable risk, it is necessary to look to the market data of the Utility Proxy Group. However, the Utility Proxy Group is not identical to Atmos Energy. Therefore, it is necessary to reflect any Company-specific risks not captured by the Utility Proxy Group.

Q. **HOW DID YOU APPLY THE REGULATORY STANDARDS DESCRIBED ABOVE IN ASSESSING THE APPROPRIATE COST OF COMMON EQUITY FOR ATMOS ENERGY?**

A. I applied the Discounted Cash Flow ("DCF") model, the Capital Asset Pricing Model ("CAPM"), and the Risk Premium Model ("RPM") (as discussed below) to the market data of the Utility Proxy Group. The results of these analyses are summarized in Table 2 below:

Table 2: Summary of ROE Results[4]

	Equal Weighted Beta Coefficients		*Value Line* Beta Coefficients	
Constant Growth Discounted Cash Flow[5]	10.46%	10.54%	10.46%	10.54%
Capital Asset Pricing Model[6]	11.18%	11.16%	12.59%	12.58%
Risk Premium Model	11.15%		11.44%	
Recommended Range Prior to the Application of Company-Specific Adjustments	10.45% - 11.45%			
Size Premium	0.05%			
Credit Risk Adjustment	-0.07%			
Flotation Cost Adjustment	0.04%			
Recommended Range Applicable to Atmos Energy	10.45% - 11.45%			

Based on the model results, I determined the appropriate ROE for the Utility Proxy Group to be in the range of 10.45 percent to 11.45 percent, prior to any Company-specific adjustments. I then applied a size premium of 0.05 percent and a credit risk adjustment of -0.07 percent, which account for Atmos Energy's smaller size and less risky credit rating, respectively, relative to the Utility Proxy Group. I then made a flotation cost adjustment of 0.04 percent, which reflects Atmos Energy Corporation's cost of issuing equity. After considering the Company-specific adjustments, I determined that the ROE range applicable to Atmos Energy remains from 10.45 percent to 11.45 percent.

As Table 2 demonstrates, in determining the applicable ROE range for Atmos Energy, I relied on multiple analytical models. This reflects two important considerations: (1) it is impossible to know with absolute certainty which methods or approaches best reflect market and economic conditions and investor sentiment at any one point in time;

[4] Schedule MRH-1.
[5] Mean and median results, respectively.
[6] Average of mean and median results based on current and projected interest rates, respectively.

and (2) the indicated results of the models represent the range of opportunity costs for utility equity investors. Because of these considerations, it is necessary to carefully consider the range of results, as the results for individual companies or each specific model are likely to vary. Given the factors discussed above and the results presented in Table 2, the Company's requested ROE of 9.80 percent is a conservative estimate of the cost of common equity but should be approved by the Commission.

IV. GENERAL PRINCIPLES

Q. WHAT REGULATORY PRINCIPLES GUIDE THE DETERMINATION OF AN ROE TO BE INCLUDED IN THE FAIR RATE OF RETURN?

A. As established in *Bluefield* and *Hope,* the fair rate of return, including the cost of common equity, should provide the utility an opportunity to earn returns comparable to other investments with similar risk, at a level sufficient to assure investors that the enterprise will maintain its financial integrity. Because utilities compete for capital with other firms of comparable risk, the return authorized by the regulatory process should provide the utility with the ability to attract capital at a reasonable cost.

In addition, the return should enable the utility to fulfill its obligation to always provide safe and reliable service. Specifically, in *Hope*, the U.S. Supreme Court noted:

> The rate-making process under the Act, i.e., the fixing of 'just and reasonable' rates, involves a balancing of the investor and the consumer interests. Thus we stated in the Natural Gas Pipeline Co. case that 'regulation does not insure [sic] that the business shall produce net revenues.' But such considerations aside, the investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to

assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.[7]

Q. PLEASE COMMENT ON THE FORWARD-LOOKING NATURE OF RATE-MAKING AND THE COST OF COMMON EQUITY IN GENERAL.

A. The Commission will set Atmos Energy's rates effective on a going-forward basis, as rates are designed to recover costs that the Company will incur in the future. These future costs include the cost of capital. The cost of common equity is also forward-looking, as the return (i.e., cost) required by investors reflects an investment's future risk.

Q. WHY DID YOU USE MULTIPLE ANALYTICAL MODELS TO DETERMINE THE APPROPRIATE ROE FOR ATMOS ENERGY?

A. Because it is difficult, if not impossible, to determine which model/models best reflect investor sentiment at any one time. Unlike the costs of debt or preferred stock, which are generally contractually defined, the cost of common equity is not directly observable in the market. To estimate the investor required ROE then, analysts must use financial and economic models that incorporate market data. As noted above, however, no model is perfect, and all models have strengths and weaknesses. At any one time, one model might better represent the investor required ROE than another, but it is nearly impossible to make that determination. Therefore, the use of multiple models is preferable to the selection of any single model at any one point in time.

The use of multiple models is also well supported in financial literature, as is the need to apply judgment in assessing those models and their results. For example, Morin[8] states:

[7] *Hope*, 320 U.S. 591 at 603.

[8] Dr. Roger A. Morin is Emeritus Professor of Finance at the College of Business Administration, Georgia State University, and Distinguished Professor of Finance for Regulated Industry at the Center for the Study of Regulated

> Each methodology requires the exercise of considerable judgment on the reasonableness of the assumptions underlying the methodology and on the reasonableness of the proxies used to validate a theory. The inability of the DCF model to account for changes in relative market valuation, discussed below, is a vivid example of the potential shortcomings of the DCF model when applied to a given company. Similarly, the inability of the CAPM to account for variables that affect security returns other than beta tarnishes its use.
>
> No one individual method provides the necessary level of precision for determining a fair return, but each method provides useful evidence to facilitate the exercise of an informed judgment. Reliance on any single method or preset formula is inappropriate when dealing with investor expectations because of possible measurement difficulties and vagaries in individual companies' market data.[9]

Based on the above, the use of multiple analytical models, as well as the application of careful judgment, should be used to determine the appropriate ROE for Atmos Energy.

Q. IS IT IMPORTANT THAT THE AUTHORIZED RETURN ON COMMON EQUITY REFLECT THE RISKS APPLICABLE TO ATMOS ENERGY ON A "STAND-ALONE" BASIS?

A. Yes. The stand-alone regulatory principle treats each utility as its own company, meaning the authorized return must reflect the risks applicable to Atmos Energy's Louisiana operations. This is true regardless of the source of invested funds. All investors, whether it be a parent entity or an external investor, will assess opportunities based on whether the expected return provides adequate compensation given the perceived risks. Doing otherwise is inconsistent with rational decision-making and financial theory.

Industry at Georgia State University. Dr. Morin has published four widely-used treatises on regulatory finance: Utilities' Cost of Capital, Regulatory Finance, New Regulatory Finance, and more recently, Modern Regulatory Finance. Dr. Morin is a leading expert witness in matters of corporate finance, and has appeared as an expert witness in some 200 cases before some 50 federal and provincial/state regulatory boards in the United States, Canada, and abroad, including the Federal Energy Regulatory Commission and the Federal Communications Commission.

[9] Roger A. Morin, Modern Regulatory Finance, PUR Books 2021, at 476. ("Morin")

Because a regulated division must still compete for capital, even from a parent entity, it is important that division be authorized a return commensurate with the risks involved in the operations of the stand-alone entity.

V. PROXY GROUP SELECTION

Q. PLEASE DESCRIBE ATMOS ENERGY'S LOUISIANA OPERATION.

A. Atmos Energy's Louisiana operations provide natural gas distribution services to over 363,000 customers and is an operating division of Atmos Energy Corporation. Atmos Energy Corporation operates in eight states, serves over 3.4 million gas customers,[10] and is publicly traded on The New York Stock Exchange under the symbol ATO. The Company is owned by Atmos Energy Corporation and is not traded separately from Atmos Energy Corporation.

Q. PLEASE DESCRIBE THE SELECTION PROCESS FOR YOUR UTILITY PROXY GROUP.

A. As noted above, the determination of the cost of common equity is a comparative analysis requiring a group of comparable companies that generally reflect the risks of Atmos Energy. Applying the selection criteria below provides a group of companies that reflect Atmos Energy, while allowing for an assessment of risk using market data. As such, I have selected my Utility Proxy Group based on the following criteria:

i) The natural gas distribution utilities must be covered by *Value Line Investment Survey's ("Value Line")* Standard Edition (November 21, 2025);

ii) The natural gas distribution utilities must have a *Value Line*-reported Beta coefficient;

[10] Atmos Energy Corporation, 2025 SEC Form 10-K, at 4.

iii) The natural gas distribution utilities must have an earnings growth projection from at least one of the following sources: Zacks, *Value Line*, or Standard & Poor's ("S&P") Capital IQ;

iv) Any natural gas distribution utility that recently cut or suspended dividend payments was excluded;

v) Any natural gas distribution utility that is currently a party to a merger or significant transaction was excluded; and

vi) Any natural gas distribution utility that did not derive either 60.00 percent or greater of operating income, or 60.00 percent or greater of total assets attributable to, regulated natural gas distribution utility operations in the most recent fiscal year was excluded.

The following seven companies met these criteria: Atmos Energy Corporation, Chesapeake Utilities Corporation, New Jersey Resources Corporation, NiSource Inc., Northwest Natural Holding Company, ONE Gas, Inc. ("OGS"), and Southwest Gas Holdings, Inc.

VI. CAPITAL STRUCTURE

Q. WHAT CAPITAL STRUCTURE RATIO DOES THE COMPANY PROPOSE IN RENEWING ITS RSC?

Q. The Company is proposing to use actual capital structure with a cap of 58.00 percent common equity as is currently approved.

Q. IS THE COMPANY'S PROPOSED CAPITAL STRUCTURE CONSISTENT WITH THE CAPITAL STRUCTURES MAINTAINED BY THE UTILITY PROXY GROUP?

A. Yes. The Utility Proxy Group's average common equity ratios over the last eight quarters, at the holding company level, range from 37.56 percent to 60.54 percent.[11] At the operating subsidiary level, that ratio ranges from 48.11 percent to 60.54 percent.[12] In both instances, Atmos Energy's proposed common equity ratio which is not to exceed 58.00 percent, is consistent with the ranges maintained by the Utility Proxy Group.

Q. COST OF COMMON EQUITY ESTIMATION

Q. PLEASE SUMMARIZE YOUR COST OF COMMON EQUITY ANALYSIS.

A. The cost of common equity reflects the return investors require to make an equity investment in a given enterprise. In making that determination, investors are guided by the financial principle that the return required must compensate for their perceived level of risk, with greater risk requiring a greater return.[13] That level of risk is ultimately reflected in the market prices investors are willing to pay. Thus, multiple analytical models have been developed to estimate the relationship between investors' perception of risk and the return they require to bear that risk. Because regulation acts as a substitute for marketplace competition, the assessment of the appropriate ROE must look to the capital markets in which investors make their pricing decisions. Therefore, in my determination of the appropriate ROE for Atmos Energy, I have applied three financial models that are described and generally accepted in academic literature[14] and commonly applied in

[11] Schedule MRH-2, page 1.
[12] Schedule MRH-2, page 2.
[13] *See, e.g.*, Morin, at 27-29.
[14] *See, e.g.*, Morin, at 477-478.

regulatory proceedings: The DCF, the CAPM, and the RPM. I discuss each of these models and their results in more detail below.

Lastly, because the Utility Proxy Group is comparable, but not identical, in risk to Atmos Energy, I examined the applicable risk adjustments based on Atmos Energy's size and credit risk, respectively, relative to the Utility Proxy Group. I also made an adjustment to reflect the costs of issuing common stock (i.e., flotation costs).

A. CONSTANT GROWTH DISCOUNTED CASH FLOW MODEL

Q. PLEASE DESCRIBE THE CONSTANT GROWTH DCF MODEL.

A. The DCF is based on the theory that the price of a stock is dependent on the present value of the future cash-flows for the company in question. In conducting my DCF analysis, I applied the constant growth DCF, which takes the following form:

$$k = \frac{D_0\,(1+g)}{P} + g \quad \text{Equation [1]}$$

where:

K = the required Return on Common Equity;

D_0 = the annualized Dividend Per Share;

P = the current stock price; and

g = the *expected* growth rate.

Q. PLEASE DESCRIBE THE DIVIDEND YIELD YOU USED IN YOUR APPLICATION OF THE DCF MODEL.

A. The unadjusted dividend yields are based on each Utility Proxy Group company's annualized dividends per share as of December 1, 2025, divided by the 30-day average closing market prices for the period ending December 1, 2025. However, because dividends are paid periodically throughout the year, as opposed to continuously, an

adjustment must be made to the dividend yield.[15] Further, because utilities increase their quarterly dividend at various times during the year, it is a reasonable assumption to reflect one-half of the annual dividend growth rate in the dividend yield component. This adjustment is applied in Column [4] of Schedule MRH-3.

Q. WHY DO YOU RELY ON A 30-DAY AVERAGE STOCK PRICE TO CALCULATE YOUR DIVIDEND YIELDS?

A. Because anomalous events can affect the stock price on any particular trading day, it is important to use an averaging period that mitigates the effects of any such events, while also accounting for current market conditions. A 30-day average reasonably accomplishes this objective.

Q. PLEASE DESCRIBE THE GROWTH RATES USED IN YOUR CONSTANT GROWTH DCF.

A. Because the ROE is forward-looking in nature, it is important that the models and their inputs reflect the use of forward-looking data. As such, I relied on the five-year earnings per share ("EPS") growth estimates as published by *Value Line*, Zacks, and S&P Capital IQ, all three of which are widely available to investors.

Q. WHY IS IT APPROPRIATE TO USE PROJECTED EPS GROWTH RATES IN THE DCF MODEL?

A. Over the long run, a utility's dividends, cash flow, or book value cannot grow without a corresponding growth in earnings. Specifically, over time, if a utility's earnings do not grow commensurately with dividends or cash flow then it will be forced to rely on alternative sources of cash, primarily depreciation. Because depreciation reflects the level

[15] *See, e.g.,* Myron J. Gordon and Eli Shapiro, *Capital Equipment Analysis: The Required Rate of Profit*, School of Industrial Management, Massachusetts Institute of Technology, at 106.

of capital expenditures (or replacements) necessary to maintain a safe and reliable system, the utility will ultimately face a shortfall in its ability to both maintain dividends and capital expenditures if earnings growth is not maintained. In addition, any earnings not paid out as dividends or allocated to capital expenditures will be recorded as retained earnings, which increases book value. As such, book value, dividends, and cash flow are all dependent on earnings growth.

Accordingly, earnings growth is the appropriate measure of growth moving forward, and more specifically, the use of projected earnings growth based on analysts' forecasts. It is well supported in academic research that analyst earnings forecasts are reflected in the market. For example, research by Harris notes that "a growing body of knowledge shows that analysts' earnings forecasts are indeed reflected in stock prices."[16] Further, Vander Weide and Carleton have demonstrated that earnings growth projections have a statistically significant relationship to stock valuation levels.[17] As such, the use of analyst projected earnings growth rates are appropriate for use as the growth component of the DCF.

Q. WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF ANALYSIS?

A. My constant growth DCF analysis results in a mean estimated cost of common equity of 10.46 percent, and a median estimated cost of common equity of 10.54 percent, as shown on Schedule MRH-3.

[16] Robert S. Harris, *Using Analysts' Growth Forecasts to Estimate Shareholder Required Rate of Return*, Financial Management (Spring 1986), at 59.

[17] James H. Vander Weide and Willard T. Carleton, *Investor Growth Expectations: Analysts vs. History*, The Journal of Portfolio Management (Spring 1988), at 81. The Vander Weide and Carleton study was updated in 2004 under the direction of Dr. Vander Weide. The results of the updated study were consistent with the original study's conclusions.

B. CAPITAL ASSET PRICING MODEL

Q. PLEASE DESCRIBE THE CAPM.

A. The CAPM is a risk premium-based method of estimating the cost of common equity, where the ROE is determined by adding a risk premium to an estimate of the risk-free rate. The risk premium is defined as the difference between the return required to invest in the broad market, less the risk-free rate ($r_m - r_f$). This is commonly referred to as the Market Risk Premium ("MRP") and is discussed in more detail below. The CAPM is defined as:

$$K_e = r_f + B(r_m - r_f) \quad \text{Equation [2]}$$

where:

k = the required market ROE for a security;

β = the Beta coefficient of that security;

rf = the risk-free rate of return; and

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

According to the underlying theory of the CAPM, unsystematic risk can be diversified away, meaning investors should only be compensated for systematic risk. Systematic, or non-diversifiable risk, is measured by the Beta coefficient ("β"), which is defined as:

$$\beta_j = \frac{\sigma_j}{\sigma_m} x\, \rho_{j,m} \quad \text{Equation [3]}$$

Where σ_j is the standard deviation of returns for company "*j*," σ_m is the standard deviation of returns for the broad market (as measured, for example, by the S&P 500 Index ("S&P 500")), and $\rho_{j,m}$ is the correlation of returns between company *j* and the broad market. The Beta coefficient therefore represents both relative volatility (i.e., the standard

deviation) of returns, and the correlation in returns between the subject company and the overall market.

Q. HAVE YOU ALSO RELIED ON AN ALTERNATIVE FORM OF THE CAPM?

A. Yes. In addition to relying on the traditional CAPM as defined in Equation [2] above, I also relied on the empirical CAPM ("ECAPM"). The ECAPM reflects the reality that, although the results of numerous studies support the notion that the Beta coefficient is related to security returns, the empirical Security Market Line ("SML") described by the CAPM formula is not as steeply sloped as the predicted SML. Morin[18] states:

> With few exceptions, the empirical studies agree that … low-beta securities earn returns somewhat higher than the CAPM would predict, and high-beta securities earn less than predicted.
>
> * * *
>
> Therefore, the empirical evidence suggests that the expected return on a security is related to its risk by the following approximation:
>
> $$K = R_F + x\,\beta(R_M - R_F) + (1-x)\,\beta(R_M - R_F)$$
>
> where x is a fraction to be determined empirically. The value of x that best explains the observed relationship Return = 0.0829 + 0.0520 β is between 0.25 and 0.30. If x = 0.25, the equation becomes:
>
> $$K = R_F + 0.25(R_M - R_F) + 0.75\,\beta(R_M - R_F)$$

Considering the theoretical and practical support, I relied on both the CAPM and ECAPM and applied the inputs described below in both forms.

[18] Morin, at 207, 221.

1. RISK-FREE RATE

Q. HOW DID YOU CALCULATE THE RISK-FREE RATES IN YOUR CAPM ANALYSIS?

A. The risk-free rates applied in my CAPM analyses are based on: (1) a current, 30-day average yield on 30-year Treasury bonds (4.66 percent); and (2) a projected 30-year Treasury yield based on projections from *Blue Chip Financial Forecasts* ("*Blue Chip*") for the six quarters ending with the first-calendar quarter of 2027, and for the periods 2027-2031 and 2032-2036 (4.60 percent).[19]

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

A. Because equity investments are assumed to continue into perpetuity, the appropriate risk-free rate selected should ideally match the life of the underlying investment. Therefore, it is appropriate to rely on 30-year Treasury yields as the risk-free rate in the CAPM.

Q. DID YOU APPLY BOTH A CURRENT AND PROJECTED MEASURE OF THE RISK-FREE RATE IN YOUR CAPM ANALYSIS?

A. Yes, I relied on both current and projected measures of 30-year Treasury yields because the extent to which current interest rates may be better estimators of future interest rates than analyst expectations can vary. Therefore, using both current and projected interest rates best captures the range of expected risk-free rates.[20]

[19] Schedule MRH-5, pages 1 and 2, Column [3]; Sources: Bloomberg, *Blue Chip Financial Forecasts*, Vol. 44, No. 12, December 1, 2025 at 2 and 14.
[20] *See,* Morin, at 202.

2. BETA COEFFICIENTS

Q. WHAT BETA COEFFICIENTS DID YOU USE IN YOUR CAPM ANALYSIS?

A. I relied on Beta coefficients provided by *Value Line* and Bloomberg Professional ("Bloomberg"), as shown on page 4 of Schedule MRH-4. Both sources adjust their calculated Beta coefficients to reflect the tendency of Beta coefficients to regress to the market mean of 1.00. While *Value Line* relies on five years of weekly returns, Bloomberg relies on two years of weekly returns.

Q. SHOULD BLOOMBERG BETA COEFFICIENTS BE VIEWED WITH CAUTION AT THIS TIME?

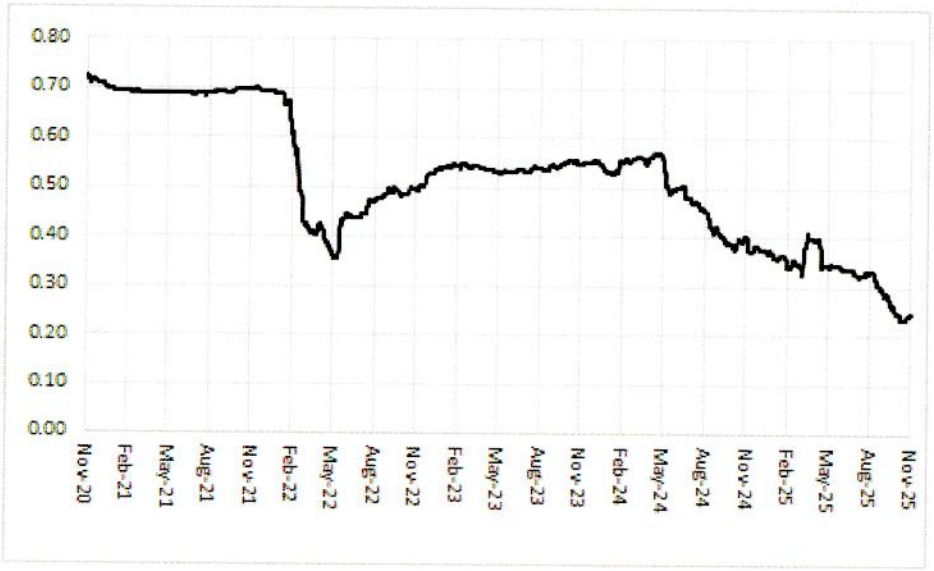
A. Yes. In short, Bloomberg Beta coefficients do not entirely measure the market risks attributable to the Utility Proxy Group currently. Bloomberg Beta coefficients currently reflect a meaningful divergence in the correlation between the returns of the Utility Proxy Group and the Standard & Poors' 500 Index ("S&P 500"). Because correlations between the S&P 500 and the Utility Proxy Group increase substantially during market distress, the defensive qualities usually associated with low Beta coefficient stocks are not applicable to the Utility Proxy Group. Affording too much weight to results that incorporate Bloomberg Beta coefficients skews investors' assessment of the market risk of the Utility Proxy Group.

Q. HOW ARE BLOOMBERG BETA COEFFICIENTS CALCULATED?

A. Beta coefficients are the product of the relative volatility and correlation between the subject company and the chosen market index. Bloomberg Beta coefficients use the S&P 500 as the market index and are calculated over a two-year period based on weekly returns.

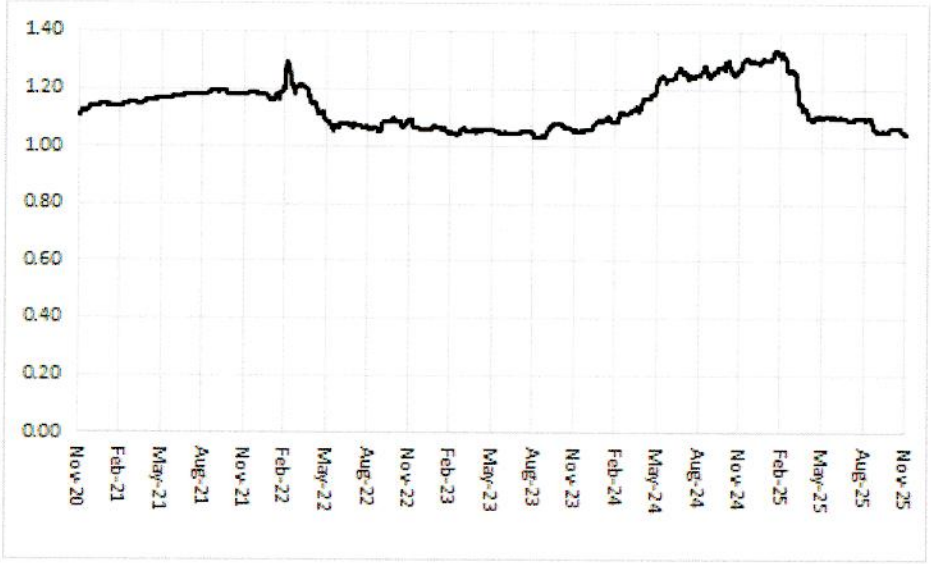
Charts 1 and 2 below graph the correlation and relative volatility, respectively, between the Utility Proxy Group and the S&P 500.

Chart 1: Weekly Two-Year Rolling Correlation Between the Utility Proxy Group and the S&P 500 Since October 2020[21]



21 Source: S&P Capital IQ.

Chart 2: Weekly Two-Year Rolling Relative Volatility Between the Utility Proxy Group and the S&P 500 Since October 2020[22]



Q. PLEASE COMMENT ON HOW THE S&P 500 IMPACTS THE REFLECTION OF RISK OBSERVED IN THE BLOOMBERG BETA COEFFICIENTS.

A. The S&P 500 is a market-capitalization weighted index, meaning that the returns of a small subset of extremely large companies within the S&P 500 can have an outsized effect on the overall returns. Currently, the Magnificent 7 ("Mag7") companies[23] in the S&P 500 represent 34.86 percent of the total market capitalization of the S&P 500, indicating the returns of the S&P 500 are affected by a small concentration of companies.[24]

Specifically, the correlation in returns between the Utility Proxy Group and the Mag7 is 0.03, while the correlation between the Utility Proxy Group and the remaining 493 companies is 0.50. Because the Mag7 companies are not correlated with the Utility Proxy

[22] Source: S&P Capital IQ.
[23] The "Magnificent Seven" stocks are: (1) Apple, Inc.; (2) Amazon.com, Inc.; (3) Alphabet, Inc.; (4) Meta Platforms, Inc.; (5) Microsoft Corporation; (6) NVIDIA Corporation; and (7) Tesla, Inc.
[24] The percentage of S&P 500 market capitalization attributable to the Mag7 has increased by nearly 14.00 percent since January 2023.

Group, their concentration causes the correlation between the returns of the Utility Proxy Group and the S&P 500 to diverge, as shown in Chart 1 above. The impact of these diverging correlations is that Bloomberg Beta coefficients imply that the price movements of the Utility Proxy Group are not related to the overall market, as measured by the S&P 500. That is a misleading conclusion.

Q. WHY DOES THE DECREASE IN CORRELATION BETWEEN THE UTILITY PROXY GROUP AND THE S&P 500 RESULT IN A MISLEADING CONCLUSION AS TO THE MARKET RISK OF THE UTILITY PROXY GROUP?

A. The low Bloomberg Beta coefficients of the Utility Proxy Group lead to the conclusion that the Utility Proxy Group will not trade in line with the broad market during periods of significant volatility. That conclusion is not supported by observed relationships during times of significant volatility. During those periods, volatility and returns of the Utility Proxy Group are highly correlated to those of the market. Because of this, the required return for utility investors would increase. This can be observed by looking to the relationship between utilities and market indices.

Q. HAVE YOU CONDUCTED A STUDY OBSERVING THE CORRELATION BETWEEN UTILITIES AND MARKET INDICES?

A. Yes, I have. As shown in Table 3 below, I calculated the correlation coefficients of the price changes of several groups of utilities relative to the S&P 500, the Dow Jones Industrial Average ("DJIA"), and the New York Stock Exchange ("NYSE") from January 31, 2020 to April 30, 2020. The study evaluates the correlation coefficients for the following relationships:

- The price changes of the S&P 500 relative to the price changes of the Utility Proxy Group;
- The price changes of the S&P 500 relative to the price changes of the Dow Jones Utility Average ("DJU");
- The price changes of the S&P 500 relative to the price changes of the Utilities Select Sector SPDR Fund ("XLU);
- The price changes of the DJIA relative to the price changes of the Utility Proxy Group;
- The price changes of the DJIA relative to the price changes of the DJU;
- The price changes of the DJIA relative to the price changes of the XLU;
- The price changes of the NYSE relative to the price changes of the Utility Proxy Group;
- The price changes of the NYSE relative to the price changes of the DJU; and
- The price changes of the NYSE relative to the price changes of the XLU.

Table 3: Calculation of Correlation Coefficients for Utility Groups Relative to Market Indices from February 2020 through April 2020[25]

Group	S&P 500	DJIA	NYSE
Utility Proxy Group	87.02%	85.67%	86.11%
DJU	88.26%	87.75%	88.19%
XLU	88.32%	87.36%	87.95%

As shown on Table 3, utility stocks traded in tandem with market indices during the early 2020 market dislocation.

I have also observed these same relationships for the period encompassing the Great Recession (December 2007 to June 2009), correlations between these same groups were similar, as shown on Table 4, below:

Table 4: Calculation of Correlation Coefficients for Utility Groups Relative to Market Indices from December 2007 to June 2009[26]

Group	S&P 500	DJIA	NYSE
Utility Proxy Group	81.77%	81.91%	80.92%
DJU	81.57%	82.13%	82.15%
XLU	78.36%	78.59%	79.18%

This increasing correlation between utilities and the market during periods of market distress is not surprising. As Morningstar explained, during volatile markets there is often little distinction in returns across assets or portfolios. That is, "correlations go to 1."[27] A direct consequence of increased correlations during market distress is higher Beta

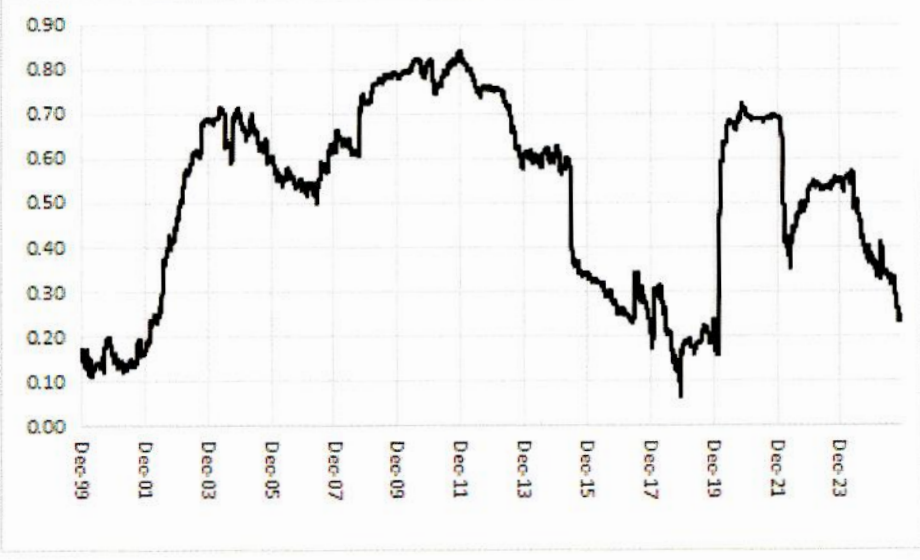
[25] Source: S&P Global Market Intelligence.
[26] Source: S&P Global Market Intelligence.
[27] Morningstar, *Correlations Going to 1: Amid Market Collapse, U.S. Stock Fund Factors Show Little Differentiation*, March 6, 2020.

coefficients, capital losses, and ultimately higher investor-required returns for utilities. However, Bloomberg Beta coefficients currently do not accurately capture this reality.

Q. WHAT ARE YOUR OBSERVATIONS ON THE RELATIONSHIP BETWEEN THE UTILITY PROXY GROUP AND THE S&P 500 OVER A LONGER TIMEFRAME?

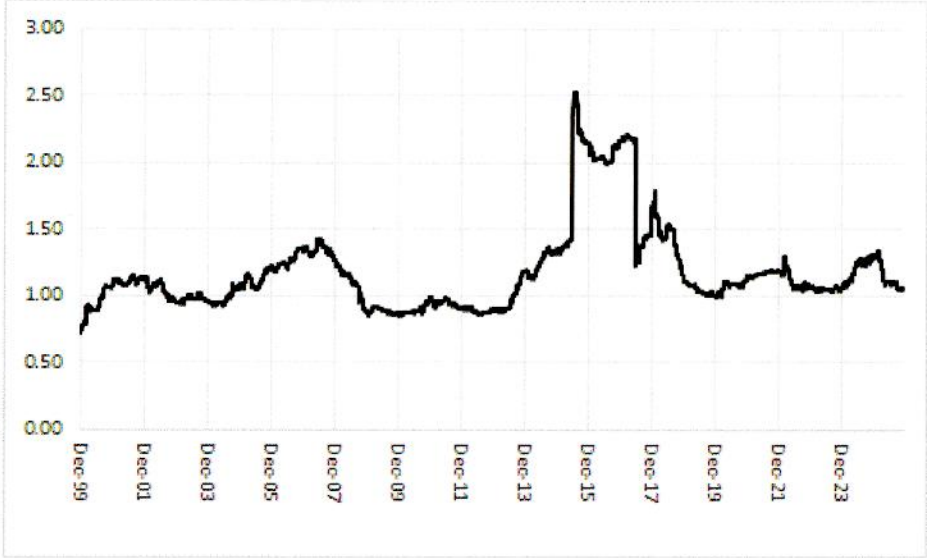
A. Charts 3 and 4 below present the correlation and relative volatility, respectively, between the Utility Proxy Group and the S&P 500 dating back to December 1999, approximately the last 25 years.

Chart 3: Weekly Two-Year Rolling Correlation Between the Utility Proxy Group and the S&P 500 Since December 1999[28]



[28] Source: S&P Capital IQ.

Chart 4: Weekly Two-Year Rolling Relative Volatility Between the Utility Proxy Group and the S&P 500 Since December 1999[29]



There are several key observations to be gleaned from Charts 3 and 4. It confirms the data presented in Tables 3 and 4 that correlations between the Utility Proxy Group and the S&P 500 strengthen during periods of market distress (Chart 3). It also demonstrates that over the last 25 years the proxy group has generally had a higher level of volatility relative to the market (i.e., the relative volatility was above 1.0 for most of the historical period) (Chart 4).

Q. DO *VALUE LINE* BETA COEFFICIENTS CAPTURE A MORE ACCURATE VIEW OF THE MARKET RISK ATTRIBUTABLE TO THE UTILITY PROXY GROUP AT THIS TIME?

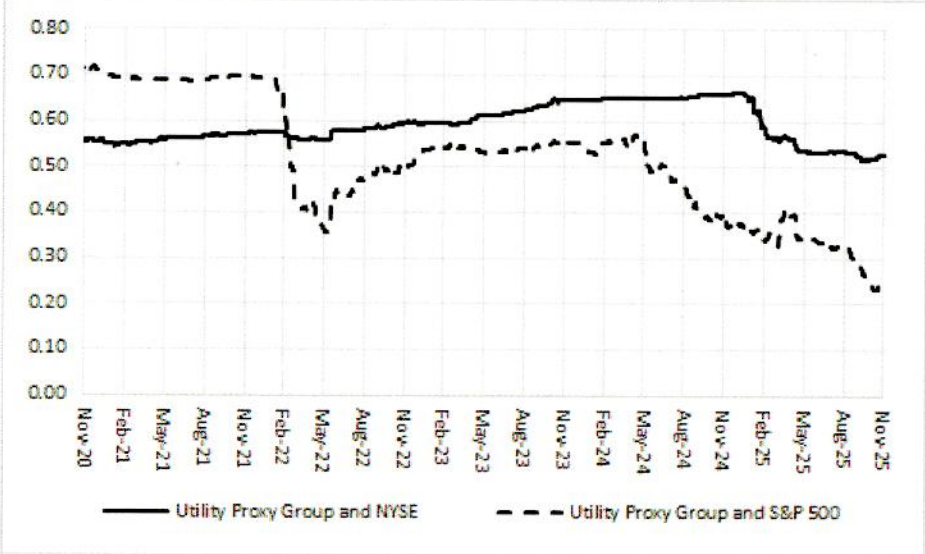
A. Yes. *Value Line* Beta coefficients are calculated using the NYSE, based on a five-year period of weekly returns. Because *Value Line* Beta coefficients are measured over a longer

[29] Source: S&P Capital IQ.

time frame, it smooths out any short-term distortions caused by the concentration of the Mag7.

Charts 5 below compares the two-year correlation between the returns of the Utility Proxy Group and the S&P 500 (i.e., as used in the calculations of Bloomberg Beta coefficients) and the five-year correlation between the returns of the Utility Proxy Group and the NYSE (i.e., as used in the calculations of Value Line Beta coefficients) since October 2020.

Chart 5: Rolling Weekly Five-Year Correlation Between the Utility Proxy Group and the NYSE and Rolling Weekly Two-Year Correlations Between the Utility Proxy Group and the S&P 500[30]



As Chart 5 demonstrates, the correlation as measured against the NYSE over a five-year period mitigates the potential of investors misinterpreting the relationship between the market and the Utility Proxy Group.

30 Source: S&P Capital IQ.

Q. PLEASE SUMMARIZE YOUR POSITION AS IT RELATES TO THE BETA COEFFICIENTS IN YOUR ANALYSES.

A. Bloomberg Beta coefficients do not accurately reflect the market risk applicable to the Utility Proxy Group. Specifically, Bloomberg Beta coefficients skew investors risk assessment for the Utility Proxy Group, especially during periods of market volatility. To better reflect the risk of the Utility Proxy Group, in addition to the results of the CAPM based on both Bloomberg and *Value Line* Beta coefficients, I have also presented the results of my CAPM exclusively relying on the *Value Line* Beta coefficients. While I do not recommend the strict elimination of the results that incorporate Bloomberg Beta coefficients, the above discussion demonstrates that those results should be viewed with caution.

3. MARKET RISK PREMIUM

Q. PLEASE DESCRIBE YOUR APPROACH TO ESTIMATING THE MRP.

A. As noted above, the MRP, $(r_m - r_f)$ in Equation [2] above, reflects the additional return, or premium, investors require to invest in the broad market over that of a risk-free security. Estimating the MRP therefore requires an estimated market return. My estimated MRP is based on four expectational measures of the market required return, which reflects the forward-looking nature of the cost of capital: (1) a S&P 500 market return based on data from Bloomberg; (2) a S&P 500 market return based on data from *Value Line*; (3) a S&P 500 market return based on data from S&P Capital IQ; and (4) a market return based on alternative data as published in *Value Line's* Summary & Index. The three S&P 500-based expectational measures were averaged to derive an S&P 500 market return estimate, which was then averaged with the *Value Line* Summary & Index market return estimate.

Subtracting the respective risk-free rates from that average results in the applicable MRPs for my CAPM analysis.[31]

Q. PLEASE DESCRIBE YOUR MARKET RETURN ESTIMATES BASED ON THE S&P 500 COMPANIES.

A. The first three market return estimates are based on a market capitalization-weighted ROE, which I calculated by applying the constant growth DCF model to the companies in the S&P 500. I derived three separate estimates using this approach, relying on expected dividend yields and forecasted earnings growth rates from Bloomberg, *Value Line*, and S&P Capital IQ, respectively, applying the one-half growth rate assumption described above. Market capitalizations for the S&P 500 companies were also sourced from Bloomberg, *Value Line*, and S&P Capital IQ, respectively.

This approach resulted in market return estimates of 18.96 percent, 16.42 percent, and 18.64 percent based on data from Bloomberg, *Value Line*, and S&P Capital IQ, respectively, which I averaged resulting in a market return estimate of 18.01 percent.

Q. PLEASE DESCRIBE YOUR MARKET RETURN ESTIMATE BASED ON *VALUE LINE'S* SUMMARY & INDEX.

A. The fourth estimate is based on the application of the average three- to five-year median market price appreciation potential for the seven weeks ended December 5, 2025,[32] as published by *Value Line*, plus an average of the median estimated dividend yield for the common stocks of the 1,700 firms covered by *Value Line's* Standard Edition, also for the seven weeks ended December 5, 2025. This approach resulted in a market return estimate of 11.54 percent.

[31] Schedule MRH-4, pages 1 and 2, Column [4].
[32] Consistent with the time frame used in my DCF analysis.

Q. WHAT MARKET RETURN DID YOU APPLY IN THE CAPM ANALYSES?

A. I relied on an average market return estimate of 14.77 percent,[33] which is the average of the S&P 500 market return estimate of 18.01 percent and the *Value Line* Summary & Index market return estimate of 11.54 percent.

4. CAPM RESULTS

Q. WHAT ARE THE RESULTS OF YOUR CAPM ANALYSES?

A. The results of my CAPM analyses are shown in Tables 5 and 6 below, and on pages 1 and 2 of Schedule MRH-4, respectively.

Table 5: Summary of CAPM Results – Equal Weighted Beta Coefficients[34]

	CAPM	ECAPM	Average
Current Risk Free-Rate (4.66%)			
Mean	10.75%	11.75%	11.25%
Median	10.58%	11.63%	11.10%
Projected Risk Free-Rate (4.60%)			
Mean	10.72%	11.74%	11.23%
Median	10.55%	11.61%	11.08%

[33] Schedule MRH-5, page 3 (*see also*, Column [2] of pages 1 and 2 of Schedule MRH-5).
[34] Schedule MRH-5, page 1.

Table 6: Summary of CAPM Results – *Value Line* Beta Coefficients[35]

	CAPM	ECAPM	Average
Current Risk Free-Rate (4.66%)			
Mean	12.32%	12.93%	12.62%
Median	12.25%	12.88%	12.56%
Projected Risk Free-Rate (4.60%)			
Mean	12.30%	12.92%	12.61%
Median	12.23%	12.87%	12.55%

C. RISK PREMIUM MODEL

Q. PLEASE DESCRIBE THE RPM.

A. The RPM is based on the theory of risk and return (i.e., that investors require greater returns for bearing greater risk). The RPM specifically reflects the fact that equity shareholders are subordinate to debt holders and are last in line to any claims on a company's assets or earnings. As such, equity shareholders require a premium to compensate for that added risk. In other words, equity investors require an Equity Risk Premium ("ERP") to invest in common stock relative to the return they would have otherwise earned by investing in a debt instrument of a company with comparable risk.

Q. PLEASE SUMMARIZE YOUR APPLICATION OF THE RPM.

A. In applying the RPM, one must calculate an ERP, or ERPs, derived from debt and equity of corresponding risk. Those ERPs are then added to a representative bond yield to determine the RPM-based ROE. As such, in determining an RPM-based ROE, I relied on current and projected measures of debt, which are added to several ERP measures to ultimately develop an RPM-based ROE.

[35] Schedule MRH-5, page 2.

Q. WHAT MEASURES OF DEBT WERE APPLIED IN YOUR RPM?

A. In this case, I applied debt instruments based on: (1) a current, 30-day average yield on Moody's Ratings ("Moody's") utility bond yield that corresponds with the average proxy group credit rating; and (2) the corresponding projected Moody's utility bond yield, derived from *Blue Chip*'s projections for the six quarters ending with the first-calendar quarter of 2027, and for the periods 2027-2031 and 2032-2036.

Q. HOW DID YOU DETERMINE THE UTILITY PROXY GROUP'S CREDIT RATING?

A. To capture the long-term credit ratings representative of the regulated operations of each Utility Proxy Group company, I reviewed the credit ratings from both S&P and Moody's for each of the operating subsidiaries to the extent available. As presented in Schedule MRH-5, page 4, the resulting Moody's and S&P long-term issuer ratings for the Utility Proxy Group are A3 and A-, respectively.[36]

Q. HOW HAVE YOU CALCULATED CURRENT AND PROJECTED MOODY'S BOND YIELDS APPLICABLE TO THE UTILITY PROXY GROUP?

A. I began with current bond yields based on a 30-day average Moody's A2 utility bond yield (5.56 percent) and a 30-day average Moody's Baa2 utility bond yield (5.77 percent), as reported by Bloomberg, shown on Schedule MRH-5, page 3, Columns [2] and [4], respectively. Next, because the Utility Proxy Group's average Moody's long-term rating is A3 as noted above, it is necessary to adjust the A2 utility bond yield upward by one-third (0.07 percent) of the spread between the recent Moody's Baa2 utility bond yield and A2

[36] Schedule MRH-5, page 4. Reflects the average rating for the Utility Proxy Group based on numerically weighted ratings as shown on page 5 of Schedule MRH-5.

utility bond yield (0.20 percent).[37] This results in a current Moody's A3 utility bond yield of 5.63 percent (*see* Table 7 below).[38]

Table 7: Derivation of Current Moody's A3 Utility Bond Yield[39]

Current Moody's A2 Utility Bond Yield	5.56%
Adjustment to Reflect Current A3 Utility Bond Yield	0.07%
Current Moody's A3 Utility Bond Yield	5.63%

Because I am not aware of any published projections for Moody's A3 utility bond yield, I began with a projection of Moody's Aaa corporate bond yields (5.18 percent),[40] as published by *Blue Chip*. I then calculated the spread between Moody's A2 utility and Aaa corporate bond yields (0.36 percent),[41] based on the 30-day average Moody's Aaa corporate bond yields (5.20 percent) and the 30-day average Moody's A2 utility bond yields (5.56 percent), as reported by Bloomberg and shown on Schedule MRH-5, page 3, Columns [1] and [2], respectively. I then applied the spread between Moody's A2 utility bond yields and Moody's Aaa corporate bond yields (0.36 percent)[42] to the forecasted Moody's Aaa corporate bond yield (5.18 percent),[43] which resulted in a projected Moody's A2 utility bond yield of 5.54 percent.[44] As above, it is necessary to adjust the projected Moody's A2 utility bond yield upwards by one-third of the recent spread between the Moody's Baa2 and A2 utility bond yields (0.07 percent), resulting in a projected Moody's A3 utility bond yields of 5.61 percent (see Table 8 below).[45]

[37] Schedule MRH-5, page 3, Column [5].
[38] Schedule MRH-5, page 3, Column [8].
[39] Schedule MRH-5, page 3.
[40] Schedule MRH-5, page 3, Column [6].
[41] Schedule MRH-5, page 3, Column [3].
[42] Schedule MRH-5, page 3, Column [3].
[43] Schedule MRH-5, page 3, Column [6].
[44] Schedule MRH-5, page 3, Column [7].
[45] Schedule MRH-5, page 3, Column [9].

Table 8: Derivation of Projected Moody's A3 Utility Bond Yield[46]

	Utility Proxy Group
Projected Moody's Aaa Corporate Bond Yield	5.18%
Adjustment to Reflect Projected A2 Utility Bond Yield	0.36%
Projected Moody's A2 Utility Bond Yield	5.54%
Adjustment to Reflect Projected A3 Utility Bond Yields	0.07%
Projected A3 Utility Bond Yield	5.61%

Q. PLEASE SUMMARIZE THE UTILITY BOND YIELDS THAT YOU APPLIED IN YOUR RISK PREMIUM ANALYSIS.

A. The Moody's utility bond yields I applied in my RPM are summarized in Table 9 below.

Table 9: Current and Projected Moody's A3 Utility Bond Yields[47]

Current Moody's A3 Utility Bond Yields	5.63%
Projected Moody's A3 Utility Bond Yields	5.61%

Q. HOW DID YOU CALCULATE THE EQUITY RISK PREMIUM APPLICABLE TO THE PROXY GROUP?

A. Because the cost of capital is expectational in nature, I calculated three expectational measures of the ERP. The first two measures are based on the application of the DCF and CAPM to the S&P 500 Utilities index. The third measure estimates the ERP using previously authorized returns for natural gas distribution utilities from 1980 through November 2025.

[46] Schedule MRH-5, page 3.
[47] Schedule MRH-5, page 3.

Q. WHY DID YOU RELY ON THE S&P 500 UTILITIES INDEX IN CALCULATING TWO OF YOUR ERP MEASURES?

A. The S&P 500 Utilities index is comprised of the companies within the S&P 500 which are classified as utilities. As such, in assessing the equity risk premium for utility equity over utility debt, one can capture a broad measure of the required equity risk premium through a broad-based utility index, such as the S&P 500 Utilities index. Because utility bond yields reflect a broad array of risks, it is practical to use a correspondingly broad set of companies to reflect the incremental common equity risks relative to the Moody's utility bond yields. As such, the use of the S&P 500 Utilities index is appropriate.

Q. HOW HAVE YOU APPLIED THE S&P 500 UTILITIES INDEX IN CALCULATING YOUR EQUITY RISK PREMIUM?

A. I applied a market capitalization-weighted DCF and CAPM to the market data of each utility in the S&P 500 Utilities index. Although the S&P 500 Utilities index is comprised solely of utilities, to match its return an investor would necessarily have to allocate their funds in accordance with the specific market weights of the component utilities.[48]

Q. HOW DID YOU APPLY THE DCF TO THE S&P 500 UTILITIES INDEX IN CALCULATING AN EXPECTED ERP?

A. I derived an expected DCF return using the same approach applied in determining the expected market return in my CAPM analyses, using data from Bloomberg, *Value Line*, and S&P Capital IQ. The resulting DCF returns for the S&P 500 Utilities Index were 11.53

[48] Investors have the ability to purchases the Utilities Select Sector SPDR® Fund (NYSE: XLU) which seeks to provide an effective representation of the utilities sector of the S&P 500 Index, and although an investment in the XLU would achieve approximately the same outcome, an investor still would have to determine the required return for the XLU based on the market capitalization weighted estimates.

percent (Bloomberg), 12.20 percent (*Value Line*), and 11.79 percent (S&P Capital IQ), as shown on page 7 of Schedule MRH-5.[49] The average of those three results is 11.84 percent.

Q. HOW DID YOU APPLY THE CAPM TO THE S&P 500 UTILITIES INDEX IN CALCULATING AN EXPECTED ERP?

A. I calculated the CAPM-based return for the S&P 500 Utilities Index in the same manner as applied to the Utility Proxy Group, with the exception being that I derived a market capitalization-weighted Beta coefficient based on the S&P 500 Utilities Index companies. The S&P 500 Utilities index's average market capitalization-weighted Beta coefficient is 0.71,[50] based on Bloomberg (0.58) and *Value Line* (0.84). The indicated equity returns for the S&P 500 Utilities Index using the CAPM are 12.24 percent and 12.22 percent based on current and projected interest rates, respectively, as shown on Schedule MRH-5, page 8.[51]

I also calculated a CAPM-based return for the S&P Utilities Index based solely on a market capitalization weighted Beta coefficients from *Value Line* (0.84).[52] The CAPM indicated equity returns for the S&P Utilities Index using only *Value Line* Beta coefficients are 13.37 percent and 13.36 percent based on current and projected interest rates, respectively, as shown on Schedule MRH-5, page 9.[53]

[49] Because the S&P 500 Utilities Index-derived DCF and CAPM reflect market capitalization weighted averages it is not practical to calculate a median result.
[50] Schedule MRH-5, page 8, Column [1].
[51] Results are based on average of CAPM and ECAPM.
[52] Schedule MRH-5, page 9, Column [1].
[53] The proceeding tables in this section contain the results based on both CAPM using an equal weighted Beta coefficient and *Value Line* Beta coefficient as labeled and applicable.

Q. DID YOU APPLY THE MOODY'S UTILITY BOND YIELD APPLICABLE TO THE RATING OF THE S&P 500 UTILITIES INDEX IN CALCULATING THE RESPECTIVE ERPS?

A. Yes, I did. As noted above, because the risk premium reflects the premium equity investors require over the return on debt of similar corresponding risk, it is appropriate to apply the market capitalization-weighted Moody's long-term credit rating for the S&P 500 Utilities Index (A3) in deriving both the DCF- and CAPM-derived ERPs based on the S&P 500 Utilities Index. I described the determination of the current and projected Moody's A3 utility bond yields earlier in my direct testimony.

Q. WHAT IS YOUR CONCLUSION OF THE ERPS APPLICABLE TO THE S&P 500 UTILITIES INDEX?

A. Applying the DCF and CAPM-based equity returns for the S&P 500 Utilities index and the corresponding Moody's A3 utility bond yields, I derived the following ERP estimates as shown in Table 10, below:

Table 10: Summary of DCF and CAPM-Derived Equity Risk Premium for the S&P 500 Utilities Index[54]

	Equal Weighted Beta Coefficients		*Value Line* Beta Coefficients	
	Current Yields	Projected Yields	Current Yields	Projected Yields
Average DCF-Derived S&P 500 Utilities Index Return	11.84%	11.84%	11.84%	11.84%
Moody's A3 Utility Bond Yield	5.63%	5.61%	5.63%	5.61%
Equity Risk Premium	6.21%	6.23%	6.21%	6.23%
CAPM-Derived S&P 500 Utilities Index Return	12.24%	12.22%	13.37%	13.36%
Moody's A3 Utility Bond Yield	5.63%	5.61%	5.63%	5.61%
Equity Risk Premium	6.61%	6.61%	7.74%	7.75%

[54] Schedule MRH-5, page 7 (DCF), page 8 (equal weighted Beta coefficient CAPM), and page 9 (*Value Line* Beta coefficient CAPM).

Averaging the ERPs based on current and projected yields ultimately results in ERPs applicable to the S&P 500 Utilities index, when applying equal weighted Beta coefficients, of 6.41 percent and 6.42 percent, respectively, and 6.97 percent and 6.99 percent, respectively, when applying only *Value Line* Beta Coefficients, as shown in Table 11, below.[55]

Table 11: S&P 500 Utilities Index-Derived Equity Risk Premium[56]

	Equal Weighted Beta Coefficients		*Value Line* Beta Coefficients	
	Current Yields	Projected Yields	Current Yields	Projected Yields
DCF-Derived S&P 500 Utilities Index Equity Risk Premium	6.21%	6.23%	6.21%	6.23%
CAPM-Derived S&P 500 Utilities Index Equity Risk Premium	6.61%	6.61%	7.74%	7.75%
Average	6.41%	6.42%	6.97%	6.99%

Q. PLEASE DISCUSS THE USE OF AUTHORIZED RETURNS FOR NATURAL GAS DISTRIBUTION UTILITIES IN CALCULATING AN ERP.

A. Using previously authorized returns is an appropriate and important measure available to investors, as previously authorized returns reflect the market conditions and forward-looking investor required returns at the time those returns were authorized. The relationship between authorized return ERPs and utility bond yields therefore reflects the relationship between forward-looking ERPs and the corresponding interest rates over time. Applying that relationship to current and projected utility bond yields produces forward-looking ERP measures. The relationship between forward-looking ERP data and interest rates is both statistically significant and inverse (i.e., as interest rates increase, the ERP decreases, and

[55] Schedule MRH-5, page 6
[56] Schedule MRH-5, page 6.

vice versa), which is consistent with the well-documented financial literature on the subject.[57]

Q. PLEASE EXPLAIN YOUR CALCULATION OF THE EQUITY RISK PREMIUM BASED ON PREVIOUSLY AUTHORIZED RETURNS FOR NATURAL GAS DISTRIBUTION UTILITIES.

A. Page 10 of Schedule MRH-5 presents the results of a regression analysis of 1,368 authorized returns for natural gas distribution utilities from 1980 through November 2025. Subtracting the available monthly Moody's A3 utility bond yield[58] as of the date of the order from the authorized ROE, I was able to determine the applicable ERP. Using ERPs as the dependent variable and the Moody's A3 utility bond yields as the independent variable, I performed a linear regression to estimate the ERP applicable to the current and projected Moody's A3 utility bond yields described above. The current and projected Moody's A3 utility bond yields of 5.63 percent and 5.61 percent, respectively, produce ERP estimates of 4.65 percent and 4.66 percent, respectively.

Q. PLEASE SUMMARIZE THE ERP ESTIMATES YOU APPLY IN THE RPM.

A. As shown in Table 12, below, my analyses produce average ERP estimates of 5.53 percent and 5.54 percent, and 5.81 percent and 5.83 percent, as applicable to current and projected

[57] *See, e.g.*, Robert S. Harris and Felicia C. Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts*, Financial Management, Summer 1992, at 63-70; Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *The Risk Premium Approach to Measuring a Utility's Cost of Equity*, Financial Management, Spring 1985, at 33-45; and Farris M. Maddox, Donna T. Pippert, and Rodney N. Sullivan, *An Empirical Study of Ex Ante Risk Premiums for the Electric Utility Industry*, Financial Management, Autumn 1995, at 89-95.

[58] Calculated as the Moody's A2 utility bond yield plus one-third the spread of the Moody's Baa2/A2 utility bond yields as of the date of the order. Reflects the monthly Moody's A3 utility bond yield available on the date of the order. Prior to approximately the year 2000, Moody's utility bond yields were only available on a monthly basis, and in order to maintain consistency throughout the analysis, I have applied monthly yields for the period subsequent to the year 2000 as well. The use of Moody's A3 utility bond yields is consistent with the long-term Moody's rating of the Utility Proxy Group.

Moody's A3 utility bond yields, respectively (results based on equal weighted Beta coefficients and *Value Line* Beta coefficients, respectively).

Table 12: Summary of Equity Risk Premium Estimates[59]

	Equal Weighted Beta Coefficients		*Value Line* Beta Coefficients	
	Current Moody's A3 Utility Yields	Projected Moody's A3 Utility Yields	Current Moody's A3 Utility Yields	Projected Moody's A3 Utility Yields
S&P 500 Utilities Index	6.41%	6.42%	6.97%	6.99%
Regression Analysis of Authorized ROEs	4.65%	4.66%	4.65%	4.66%
Average	5.53%	5.54%	5.81%	5.83%

Q. WHAT ARE THE RESULTS OF YOUR RISK PREMIUM MODEL?

A. The results of my RPM can be found on Schedule MRH-5, page 1. When the average ERPs of 5.53 percent and 5.54 percent based in part on equal weighted Beta coefficients are added to their respective current and projected A3 utility bond yields of 5.63 percent and 5.61 percent, it produces RPM-derived ROEs of 11.16 percent and 11.15 percent, respectively. Averaging those estimates results in an average RPM ROE estimate of 11.15 percent.

Similarly, when the average ERPs of 5.81 percent and 5.83 percent based in part on *Value Line* Beta coefficients are added to their respective current and projected Baa1 utility bond yields of 5.63 percent and 5.61 percent, it produces RPM-derived ROEs of 11.44 percent and 11.43 percent, respectively. Averaging those estimates results in an average RPM ROE estimate of 11.44 percent.

[59] Schedule MRH-5, page 2.

Table 13: Summary of Equity Risk Premium Results[60]

	Equal Weighted Beta Coefficients		*Value Line* Beta Coefficients	
	Current Moody's A3 Utility Yield	Projected Moody's A3 Utility Yield	Current Moody's A3 Utility Yield	Projected Moody's A3 Utility Yield
Average Equity Risk Premium	5.53%	5.54%	5.81%	5.83%
Utility Bond Yield	5.63%	5.61%	5.63%	5.61%
Return on Equity	11.14%	11.15%	11.44%	11.43%
Risk Premium Derived Return on Equity	11.15%		11.44%	

D. SUMMARY OF THE COST OF COMMON EQUITY RESULTS APPLICABLE TO THE UTILITY PROXY GROUP

Q. PLEASE SUMMARIZE THE RESULTS OF YOUR COST OF COMMON EQUITY MODELS AS APPLIED TO THE UTILITY PROXY GROUP.

A. As shown in Table 14 below, applying the multiple cost of common equity models to the market data of the Utility Proxy Group results in an indicated ROE range of 10.45 percent to 11.45 percent.

[60] Schedule MRH-5, page 1.

Table 14: Summary of ROE Results Applicable to the Utility Proxy Group[61]

	Equal Weighted Beta Coefficients		*Value Line* Beta Coefficients	
Constant Growth Discounted Cash Flow[62]	10.46%	10.54%	10.46%	10.54%
Capital Asset Pricing Model[63]	11.18%	11.16%	12.59%	12.58%
Risk Premium Model	11.15%		11.44%	
Indicated Range Prior to the Application of Company-Specific Adjustments	10.45% - 11.45%			

As noted above, the Utility Proxy Group does not fully reflect the risks of Atmos Energy. Therefore, it is necessary to conduct a relative risk analysis between Atmos Energy and the Utility Proxy Group to determine whether additional adjustments need to be made to determine the Company's indicated ROE. One must also account for flotation costs.

VII. ADDITIONAL RISK FACTORS AND ADJUSTMENTS

A. SIZE PREMIUM

Q. PLEASE EXPLAIN THE BASIS FOR ADJUSTING AN INDICATED ROE BASED ON SIZE OF THE UTILITY.

A. Size affects business risk. Because smaller companies are less able to handle fluctuations in revenues, expenses, and capital outlays than larger companies, significant events or unexpected capital needs could have more serious consequences for smaller companies compared to larger, more diverse companies. For example, a smaller company that loses several large customers, or requires significant expenditures, ultimately has fewer options

[61] Schedule MRH-1.
[62] Mean and median results, respectively.
[63] Average of mean and median results based on current and projected interest rates, respectively.

to generate returns on its investments compared to a larger company with a broad and diverse customer base. As such, investors in smaller companies require an increased return to compensate for this additional risk.

That size is an additional risk factor has also been well documented in financial literature. For example, Kroll notes:

> The size effect is based on the empirical observation that companies of smaller size are associated with greater risk and, therefore, have greater cost of capital. The "size" of a company is one of the most important risk elements to consider when developing cost of equity capital estimates for use in valuing a business simply because size has been shown to be a predictor of equity returns. In other words, there is a significant (negative) relationship between size and historical equity returns - as size decreases, returns tend to increase, and vice versa.[64]

***

Despite many criticism of the size effect, it continues to be observed in data sources.

For example, Eugene Brigham states:

> A number of researchers have observed that portfolios of small-firms (sic) have earned consistently higher average returns than those of large-firm stocks; this is called the "small-firm effect." On the surface, it would seem to be advantageous to the small firms to provide average returns in a stock market that are higher than those of larger firms. In reality, it is bad news for the small firm; what the small-firm effect means is that the capital market demands higher returns on stocks of small firms than on otherwise similar stocks of the large firms.[65]

It is clear from the above that the market requires additional compensation for investing in smaller firms. Therefore, Atmos Energy's size relative to the Utility Proxy Group should be considered in determining the Company's ROE.

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[64] Kroll, Cost of Capital Navigator: U.S. Cost of Capital Module, Size as a Predictor of Returns, at 1 (emphasis in original).

[65] Eugene F. Brigham, Fundamentals of Financial Management, Fifth Edition (The Dryden Press, 1989), at 623 (emphasis added).

Q. HOW DID YOU CALCULATE THE ESTIMATED MARKET CAPITALIZATION FOR ATMOS ENERGY?

A. Because Atmos Energy is not a separately traded entity (as opposed to Atmos Energy Corporation), it is necessary to estimate an implied stand-alone market capitalization for the Company. To do so, I applied the median market-to-book ("M/B") ratio for the Utility Proxy Group of 1.94 to Atmos Energy's Louisiana operation's implied common equity of $784.6 million.[66] Applying the Utility Proxy Group M/B ratio to that amount results in an implied market capitalization of $1.524 billion.[67]

Q. WHAT IS THE APPLICABLE SIZE PREMIUM FOR ATMOS ENERGY?

A. In its *Cost of Capital Navigator*, Kroll calculates the size premium for deciles of market capitalizations relative to the S&P 500. As shown on Schedule MRH-6, as of December 1, 2025, the median market capitalization of the Utility Proxy Group is approximately $4.919 billion, which corresponds to the 5th decile, or a size premium of 0.74 percent, based on Kroll's market capitalization data.[68] The implied market capitalization for Atmos Energy as noted earlier is approximately $1.524 billion, which falls within the 7th decile and corresponds to a size premium of 1.19 percent. The difference between those size premiums is 0.45 percent (1.19 percent – 0.74 percent).

[66] Schedule MRH-6; calculated as Atmos Energy's rate base multiplied by Atmos Energy's common equity ratio.
[67] Schedule MRH-6.
[68] Schedule MRH-6.

Q. HAVE YOU APPLIED A SIZE PREMIUM OF 0.45 PERCENT IN YOUR RECOMMENDATION?

A. No. As noted above, I conservatively applied a size premium of 0.05 percent when estimating the Company's cost of equity, which accounts for Atmos Energy's smaller size relative to the Utility Proxy Group.

B. CREDIT RISK

Q. PLEASE SUMMARIZE YOUR CREDIT RISK ADJUSTMENT.

A. Atmos Energy Corporation's long-term credit ratings are A2 and A- from Moody's and S&P, respectively, which are less risky overall than the average long-term ratings for the Utility Proxy Group of A3 and A-, respectively.[69] Although long-term ratings do not directly translate to common equity risks, the indicated business and financial risks based on the credit ratings reflect a lesser degree of general risk facing Atmos Energy Corporation, relative to the Utility Proxy Group. As such, I adjusted the Utility Proxy Group's indicated ROE downward to reflect this lower degree of risk.

In deriving the appropriate credit risk adjustment, I relied on Moody's A2 and Baa2 utility bond yields as I am not aware of any published Moody's A3 utility bond yields. The necessary downward adjustment for an A2 rating relative to an A3 rating is one-third of the spread between the 30-day average Moody's A2 utility bond yields and the 30-day average Moody's Baa2 utility bond yields (0.20 percent),[70] resulting in a 0.07 percent[71] downward adjustment.

[69] Source of Information: S&P Capital IQ.
[70] Schedule MRH-5, page 3, column [5].
[71] 0.07% = 1/3 * 0.20%.

C. FLOTATON COST ADJUSTMENT

Q. WHAT ARE FLOTATION COSTS?

A. Flotation costs are the costs associated with the sale of new issuances of common stock. Flotation costs include the underwriting firm's compensation for distributing the shares, direct fees such as filing and legal expenses, and market pressure (i.e., downward pressure on the stock due to the increased supply of shares). Flotation costs reflect the fact that for every dollar a company raises through the issuance of debt or common stock, the company ultimately receives less than one full dollar.

Q. WHY IS IT IMPORTANT TO ACCOUNT FOR FLOTATION COSTS IN THE AUTHORIZED RETURN?

A. Flotation costs are a permanent loss of investment to the utility and should be accounted for. When any company, including a utility, issues common stock, flotation costs are incurred for legal, accounting, printing fees and the like. For each dollar of issuing market price, a small percentage is expensed and is permanently unavailable for investment in utility rate base. Morin notes:

> The costs of issuing these securities are just as real as operating and maintenance expenses or costs incurred to build utility plants, and fair regulatory treatment must permit recovery of these costs....
>
> The simple fact of the matter is that common equity capital is not free....[Flotation costs] must be recovered through a rate of return adjustment.72

In other words, if a company issues stock at $1.00 with 5.00 percent in flotation costs, it nets $0.95 in investment. Assuming the investor in that stock requires a 10 percent

[72] Morin, at 329.

return on his or her invested $1.00 (i.e., a return of $0.10), the company needs to earn approximately 10.50 percent on its invested $0.95 to receive a $0.10 return.

Q. CAN FLOTATION COSTS BE DIRECTLY EXPENSED OR AMORTIZED LIKE DEBT ISSUANCE EXPENSES?

A. While it may be possible to directly expense flotation costs for common equity when they occur, this unfairly burdens current customers as the benefits gained from raising capital extend indefinitely. Similarly, because the capital raised through an equity issuance has no predetermined maturity, it is not possible to amortize those expenses.

Q. HOW DID YOU CALCULATE THE FLOTATION COST ADJUSTMENT?

A. I modified the DCF calculation to provide a dividend yield that would reimburse investors for issuance costs in accordance with the method cited in literature by Brigham and Daves, as well as by Morin. The flotation cost adjustment recognizes the actual costs of issuing equity that were incurred by Atmos Energy Corporation in issuances since 2016. Based on the issuance costs shown on page 1 of Schedule MRH-7, an adjustment of 0.04 percent to the indicated return for the Utility Proxy Group is required to reflect the flotation costs applicable to Atmos Energy.

Q. WHAT IS THE INDICATED RANGE OF ROES APPLICABLE TO ATMOS ENERGY AFTER YOUR COMPANY-SPECIFIC ADJUSTMENTS?

A. After considering the 0.05 percent size premium, the negative 0.07 percent credit risk adjustment, and the 0.04 percent flotation cost adjustment, the indicated ROE range applicable to Atmos Energy ranges from 10.45 percent to 11.45 percent.

VIII. SUMMARY AND CONCLUSION

Q. WHAT IS YOUR CONCLUSION REGARDING ATMOS ENERGY'S PROPOSED ROE?

A. Given the discussion above and the results from the analyses, the Company's requested ROE of 9.80 percent is a conservative measure of the investor required ROE at this time and should be approved by the Commission.

Q. WHAT IS YOUR CONCLUSION REGARDING ATMOS ENERGY'S PROPOSED CAPITAL STRUCTURE?

A. The Company's requested capital structure consisting of actual capital structure not to exceed 58.00 percent common equity is consistent with the capital structures maintained by the Utility Proxy Group and should be approved by the Commission.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

ATMOS ENERGY CORPORATION **DOCKET NO. _____**
ex parte

In Re: Application of Atmos Energy Corporation for Renewal of Rate Stabilization Clause Rider.

AFFIDAVIT

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF MIDDLESEX

I, Matthew Howard, Director at ScottMadden, Inc., being duly sworn, do hereby state that all representations contained in Atmos Energy's Application for Renewal of Rate Stabilization Clause Rider are true and accurate to the best of my knowledge, information, and belief.

Matthew Howard

Sworn and subscribed to before me this 30th day of January, 2026.

NOTARY PUBLIC

My Commission expires: March 2, 2029

MICHELLE JORDAN
MY COMMISSION EXPIRES
MAR 2 2029
COMMONWEALTH OF MASSACHUSETTS
NOTARY PUBLIC

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MANAGEMENT CONSULTANTS

Appendix A - Resume & Testimony Listing of:
Matthew R. Howard, CRRA, CVA
Director

Summary

Matthew is an experienced consultant, a Certified Rate of Return Analyst (CRRA), and a Certified Valuation Analyst (CVA). Matthew joined ScottMadden in 2017 and has provided written testimony as an expert witness on several occasions regarding rate of return. He has also authored and co-authored valuation reports on several occasions and provided primary support on numerous occasions. In addition, he has extensive experience working across a variety of regulatory matters, having supported over 100 proceedings and filings. Matthew earned a B.A. in psychology from the University of Colorado and an M.B.A. with honors, concentrating in finance, from Babson College. Matthew also has experience managing funds for Babson College's endowment and conducting investment research at an investment advisory during a summer internship.

Areas of Specialization

- Return on Equity
- Valuation
- Capital Structure
- Rates and Regulation

Recent Assignments

- Provided expert testimony on the cost of capital for ratemaking purposes before state utility regulatory agencies.
- Authored valuation report on behalf of investor-owned utility for regulatory filing purposes.
- Provides ongoing primary support across various regulatory proceedings on the cost of capital.

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Appendix A - Resume & Testimony Listing of:
Matthew R. Howard, CRRA, CVA
Director

EXPERT WITNESS TESTIMONY LISTING

Sponsor Company	Date Filed	Docket No.	Subject Matter
Arizona Corporation Commission			
Cactus State Utility Operating Company, LLC	10/2024	WS-21155A-24-0219	Rate of Return
Colorado Public Utilities Commission			
Atmos Energy Corporation	12/2025	25AL-0499G	Rate of Return
Hawaii Public Utilities Commission			
Aqua Puhi LLC dba Puhi Sewer & Water Co.	06/2025	2025-0213	Rate of Return
Princeville Utilities Company, Inc.	05/2025	2025-0172	Rate of Return
Launiupoko Water Company, Inc.	12/2023	2023-0465	Rate of Return
Kansas Corporation Commission			
Atmos Energy Corporation	09/2022	23-ATMG-359-RTS	Return on Equity, Capital Structure
Kentucky Public Service Commission			
Bluegrass Water Utility Operating Company, LLC	12/2025	2025-00354	Rate of Return
Louisiana Public Service Commission			
Utilities Inc. of Louisiana	09/2025	U-37704	Return on Equity
Atmos Energy Corporation	01/2023	U-36658	Return on Equity
Maine Public Utilities Commission			
The Maine Water Company	03/2025	2024-00291	Return on Equity
The Maine Water Company	07/2023	2023-00065	Return on Equity
Maryland Public Service Commission			
Maryland Water Service	03/2024	Case No. 9729	Return on Equity
Maryland Water Service	09/2021	Case No. 9671	Return on Equity
Michigan Public Service Commission			
Alpena Power Company	06/2021	Case No. U-21045	Rate of Return
New Jersey Board of Public Utilities			
Aqua New Jersey, Inc.	01/2024	WR24010067	Rate of Return
Pennsylvania Public Utilities Commission			
Community Utilities of Pennsylvania, Inc.	11/2023	R-2023-3043804; R-2023-3042805	Rate of Return
Virginia State Corporation Commission			
Massanutten Public Service Corporation	01/2024	PUR-2024-00017	Rate of Return
Atmos Energy Corporation	06/2023	PUR-2023-00008	Return on Equity

PRIMARY TESTIMONY SUPPORT EXPERIENCE

Sponsor Company	Date Filed	Docket No.	Subject Matter
Regulatory Commission of Alaska			
ENSTAR Natural Gas Company	08/2022	Docket No. TA334-4	Rate of Return
Alberta Utilities Commission			
AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	02/2023	Proceeding ID. 27084	Return on Equity, Capital Structure
AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	01/2020	Proceeding ID. 24110	Return on Equity, Capital Structure

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Appendix A - Resume & Testimony Listing of:
Matthew R. Howard, CRRA, CVA
Director

Sponsor Company	Date Filed	Docket No.	Subject Matter
Arizona Corporation Commission			
EPCOR Water Arizona, Inc.	06/2024	WS-01303A-24-0130	Rate of Return
Arizona Water Company	05/2024	W-01445A-24-0117	Rate of Return
Foothills Water & Sewer, LLC	10/2023	WS-21182A-23-0292	Rate of Return and Fair Value Rate Base
EPCOR Water Arizona Inc	08/2022	WS-01303A-22-0236	Return on Equity
EPCOR Water Arizona Inc	06/2020	WS-01303A-20-0177	Return on Equity
Arizona Water Company – Western Group	12/2019	W-01445A-19-0278	Return on Equity
Southwest Gas Corporation	05/2019	G-01551A-19-0055	Return on Equity
Arkansas Public Service Commission			
Southwestern Electric Power Company	07/2021	Docket No. 20-070-U	Return on Equity
CenterPoint Energy Resources Corp.	05/2021	Docket No. 21-004-U	Return on Equity
Entergy Arkansas, LLC	11/2020	Docket No. 16-036-FR	Return on Equity
Southwestern Electric Power Company	02/2019	Docket No. 19-008-U	Return on Equity
Liberty Utilities (Pine Bluff Water) Inc.	10/2018	Docket No. 18-027-U	Return on Equity
California Public Utilities Commission			
Southwest Gas Corporation	08/2019	Docket No. A-19-08-015	Return on Equity, Capital Structure
Colorado Public Utilities Commission			
Atmos Energy Corporation	08/2022	Proceeding No. 22AL-0348G	Return on Equity
District of Columbia Public Service Commission			
Washington Gas Light Company	01/2020	Formal Case No. 1162	Return on Equity
Potomac Electric Power Company	05/2019	Formal Case No. 1156	Return on Equity
Federal Energy Regulatory Commission			
LS Power Grid California, LLC	10/2020	Docket No. ER21-195-000	Return on Equity
LS Power Grid New York Corporation I	12/2019	Docket No. ER20-716-000	Return on Equity
Duke Energy Progress, LLC	11/2019	Docket No. EL20-4-000	Respond to Compliant Testimony Regarding Return on Equity
Florida Public Service Commission			
Utilities, Inc. of Florida	06/2020	Docket No. 20200139	Return on Equity
Hawaii Public Utilities Commission			
Launiupoko Irrigation Co., Inc.	12/2020	Docket No. 2020-0217	Return on Equity, Capital Structure
Kansas Corporation Commission			
Empire District Electric Company	02/2019	19-EPDE-223-RTS	Return on Equity
Kentucky Public Service Commission			
Atmos Energy Corporation	07/2022	Case No. 2022-00222	Return on Equity
Louisiana Public Service Commission			
Southwestern Electric Power Company	12/2020	Docket No. U-35441	Return on Equity
Maryland Public Service Commission			
Washington Gas Light Company	04/2019	Case No. 9605	Return on Equity
Potomac Edison Company	08/2018	Case No. 9490	Return on Equity
Massachusetts Department of Public Utilities			
NSTAR Electric Company d/b/a Eversource Energy	11/2018	DPU 18-76/DPU 18-77/DPU 18-78	Response to Direct Testimony by Attorney General Witness regarding Remuneration Rate Section 83C

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Appendix A - Resume & Testimony Listing of:
Matthew R. Howard, CRRA, CVA
Director

Sponsor Company	Date Filed	Docket No.	Subject Matter
Michigan Public Service Commission			
Indiana Michigan Power Company	06/2019	Case No. U-20359	Return on Equity
SEMCO Energy Gas Company	05/2019	Case No. U-20479	Return on Equity
Mississippi Public Service Commission			
Great River Utility Operating Co.	07/2022	Docket No. 2022-UN-86	Rate of Return
Missouri Public Service Commission			
Confluence Rivers Utility Operating Company, Inc.	01/2023	Case No. WR-2023-0006/SR-2023-0007	Rate of Return
Spire Missouri Inc.	12/2020	Case No. GR-2021-0108	Return on Equity
Nevada Public Utilities Commission			
Southwest Gas Corporation	02/2020	Docket No. 20-02023	Return on Equity
New Jersey Board of Public Utilities			
Middlesex Water Company	*05/2023*	Docket No. WR23050292	Rate of Return
North Carolina Utilities Commission			
Old North State Water Co., Inc.	06/2024	Docket No. W-1300, Sub 100	Rate of Return
Piedmont Natural Gas Company, Inc.	04/2019	Docket No. G-9, Sub 743	Return on Equity
Aqua North Carolina, Inc.	07/2018	Docket No. W-218, Sub 497	Return on Equity
Oklahoma Corporation Commission			
Empire District Electric Company	03/2019	Cause No. PUB 201800133	Return on Equity
Pennsylvania Public Utility Commission			
Borough of Ambler	06/2022	R-2022-3031704	Rate of Return
Citizens' Electric Company of Lewisburg	05/2022	R-2022-3032369	Rate of Return
Valley Energy Company	05/2022	R-2022-3032300	Rate of Return
Vicinity Energy Philadelphia, Inc.	04/2021	R-2021-3024060	Rate of Return
Tennessee Public Utility Commission			
CSWR – Texas Utility Operating Company, LLC	02/2023	Docket No. 54565	Rate of Return
Public Utility Commission of Texas			
Oncor Electric Delivery Company LLC	05/2022	Docket No. 53601	Return on Equity
Southwestern Electric Power Company	10/2020	Docket No. 51415	Rate of Return
CenterPoint Energy Houston Electric LLC	02/2019	Docket No. 49421	Return on Equity
Entergy Texas, Inc.	05/2018	Docket No. 48371	Return on Equity
Texas Railroad Commission			
Atmos Pipeline – Texas, a Division of Atmos Energy Corporation	05/2023	OS-23-00013758	Return on Equity
EPCOR Gas Texas Inc.	06/2020	GUD 10988	Return on Equity, Capital Structure, Cost of Debt
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	10/2019	GUD 10920	Return on Equity, Capital Structure, Cost of Debt
Atmos Energy Corporation – Mid-Tex Division	10/2018	GUD 10779	Return on Equity, Capital Structure
Atmos Energy Corporation – West Texas Division	06/2018	GUD 10743	Return on Equity
Atmos Energy Corporation – Mid-Texas Division	06/2018	GUD 10742	Return on Equity
Virginia State Corporation Commission			

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Appendix A - Resume & Testimony Listing of:
Matthew R. Howard, CRRA, CVA
Director

Sponsor Company	Date Filed	Docket No.	Subject Matter
Aqua Virginia, Inc.	07/2023	PUR-2023-00073	Rate of Return

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Appendix A - Resume & Testimony Listing of:
Matthew R. Howard, CRRA, CVA
Director

VALUATION REPORT FILINGS

Sponsor Company	Date	Assets Valued	Subject Matter
CSWR-Texas Utility Operating Company, LLC	01/2024	Patterson Water Supply, LLC	Authored valuation report for Sale, Transfer, or Merger Filing in Texas.
Texas Water Utilities, LP	10/2023	NextEra Water Texas, LLC	Authored valuation report for Sale, Transfer, or Merger Filing in Texas.
CSWR-Texas Utility Operating Company, LLC	03/2023	Thompson Water and Construction, Inc.	Authored valuation report for Sale, Transfer, or Merger Filing in Texas.
Artesian Water Resources	12/2022	Water Operations	Co-authored valuation report for internal purposes
Aqua Pennsylvania, Inc.	09/2022	Wastewater Operations	Co-authored valuation report, which will be a part of an Act 12 Filing
Towamencin Township	09/2022	Wastewater Operations	Co-authored valuation report for inclusion in a fair market value filing
Borough of Shenandoah	08/2022	Water Operations	Co-authored valuation report for inclusion in a fair market value filing
CSWR-Texas Utility Operating Company, LLC	04/2022	North Orange Water & Sewer, LLC	Authored valuation report for Sale, Transfer, or Merger Filing in Texas.
Confidential	02/2022	Electric Distribution System	Co-authored valuation report for Internal purposes
Confidential	10/2021	Water Operations	Co-authored valuation report for Internal purposes
Confidential	10/2021	Water & Wastewater Operations	Co-authored valuation report for Internal purposes
City of York, PA	06/2021	Wastewater Operations	Co-authored valuation report, which will be a part of an Act 12 Filing
Aqua New Jersey, Inc.	05/2021	Confidential Water and Wastewater Operations in NJ	Co-authored valuation report for internal purposes
Aqua New Jersey, Inc.	05/2021	Confidential Water and Wastewater Operations in NJ	Co-authored valuation report for internal purposes
Aqua Ohio, Inc.	05/2021	Confidential Water Operations in OH	Co-authored valuation report for internal purposes
Aqua Pennsylvania, Inc.	04/2021	Confidential Wastewater Operations in PA	Co-authored valuation report for internal purposes
Artesian Water Company, Inc.	01/2021	Wastewater Operations for Delaware City, DE	Co-authored valuation report for internal purposes
EPCOR Distribution and Transmission, Inc., Alberta Canada	12/2020	Fiber Optic Cable Assets	Co-authored valuation report for Internal purposes
EPCOR Distribution and Transmission, Inc., Alberta Canada	12/2020	Duct Bank Assets	Co-authored valuation report for Internal purposes
Artesian Water Company, Inc.	06/2020	Wastewater Operations for Town of Frankford, DE	Co-authored valuation report for internal purposes

Atmos Energy Corporation
Table of Contents
Supporting Schedules Accompanying the Direct Testimony of
Matthew R. Howard

Atmos Energy Corporation
Cost of Capital Summary

Type of Capital	Ratio [1]	Cost Rate		Weighted Cost Rate
Long-Term Debt	42.00%	4.13%	[1]	1.73%
Common Equity	58.00%	9.80%	[1]	5.68%
Total	100.00%			7.42%

Notes:
[1] Company requested.

Atmos Energy Corporation
Summary of Cost of Common Equity Analysis

	Equal Weighted Beta Coefficients				Value Line Beta Coefficients			
Discounted Cash Flow Model [1]	10.46%		10.54%		10.46%		10.54%	
Capital Asset Pricing Model	11.18%	[2]	11.16%	[3]	12.59%	[4]	12.58%	[5]
Risk Premium Model	11.15%		[6]		11.44%		[7]	
Recommended Range Prior to the Application of Company-Specific Factors	10.45% - 11.45%							
Size Premium	0.05%						[8]	
Credit Risk Adjustment	-0.07%						[9]	
Flotation Cost Adjustment	0.04%						[10]	
Recommended Range Applicable to Atmos Energy	10.45% - 11.45%							

Notes:

[1] Schedule MRH-3, mean and median results, respectively.
[2] Page 1 of Schedule MRH-4; average of mean and median results based on current interest rates.
[3] Page 1 of Schedule MRH-4; average of mean and median results based on projected interest rates.
[4] Page 2 of Schedule MRH-4; average of mean and median results based on current interest rates.
[5] Page 2 of Schedule MRH-4; average of mean and median results based on projected interest rates.
[6] Page 1 of Schedule MRH-5; average of results based on current and projected utility bond yields.
[7] Page 1 of Schedule MRH-5; average of results based on current and projected utility bond bields.
[8] Adjustment to reflect the Company's greater risk due to its smaller size relative to the Utility Proxy Group as detailed in Mr. Howard's Direct Testimony.
[9] Company-specific risk adjustment to reflect Atmos Energy's lower credit risk due to its higher long-term credit rating relative to the Utility Proxy Group as detailed in Mr. Howard's Direct Testimony.
[10] Schedule MRH-7.

Atmos Energy Corporation
Range of Capital Structures for the Past Eight Quarters for the
Proxy Group of Seven Natural Gas Distribution Companies

Common Equity Ratio

Company	2025 Q3	2025 Q2	2025 Q1	2024 Q4	2024 Q3	2024 Q2	2024 Q1	2023 Q4	8Q average ending Q2 2025
Atmos Energy Corporation	60.17%	60.01%	60.93%	60.27%	60.77%	61.01%	60.94%	60.22%	60.54%
Cheseapeake Utilities Corporation	50.02%	53.12%	52.16%	51.05%	52.11%	51.04%	50.66%	49.88%	51.26%
New Jersey Resources Corporation	41.01%	43.87%	44.39%	42.54%	41.46%	41.51%	42.91%	40.75%	42.31%
NiSource Inc.	38.16%	35.82%	38.42%	38.93%	37.99%	37.67%	39.81%	33.70%	37.56%
Northwest Natural Holding Company	38.99%	39.57%	39.51%	44.75%	46.27%	46.08%	46.02%	44.89%	43.26%
ONE Gas, Inc.	56.61%	59.29%	59.29%	58.66%	56.12%	59.38%	59.44%	50.53%	57.42%
Southwest Gas Holdings, Inc.	52.36%	45.00%	44.72%	43.96%	43.58%	40.40%	41.43%	41.14%	44.07%
								Minimum	37.56%
								Maximum	60.54%

Long-Term Debt Ratio

Company	2025 Q3	2025 Q2	2025 Q1	2024 Q4	2024 Q3	2024 Q2	2024 Q1	2023 Q4	8Q average ending Q2 2025
Atmos Energy Corporation	39.83%	39.99%	39.07%	39.73%	39.23%	38.99%	39.06%	39.78%	39.46%
Cheseapeake Utilities Corporation	49.98%	46.88%	47.84%	48.95%	47.89%	48.96%	49.34%	50.12%	48.74%
New Jersey Resources Corporation	58.99%	56.13%	55.61%	57.46%	58.54%	58.49%	57.09%	59.25%	57.69%
NiSource Inc.	61.84%	64.18%	61.58%	61.07%	62.01%	62.33%	60.19%	57.16%	61.30%
Northwest Natural Holding Company	61.01%	60.43%	60.49%	55.25%	53.73%	53.92%	53.98%	55.11%	56.74%
ONE Gas, Inc.	43.39%	40.71%	40.71%	41.34%	43.88%	40.62%	40.56%	49.47%	42.58%
Southwest Gas Holdings, Inc.	47.64%	55.00%	55.28%	56.04%	56.42%	59.60%	58.57%	58.86%	55.93%
								Minimum	39.46%
								Maximum	61.30%

Source: S&P Capital IQ; Company Filings

Atmos Energy Corporation
Range of Capital Structures for the Past Eight Quarters for the
Proxy Group of Seven Natural Gas Distribution Companies at the Operating Company Level

Common Equity Ratio

Company	2025 Q3	2025 Q2	2025 Q1	2024 Q4	2024 Q3	2024 Q2	2024 Q1	2023 Q4	8Q average ending Q2 2025
Atmos Energy Corporation	60.17%	60.01%	60.93%	60.27%	60.77%	61.01%	60.94%	60.22%	60.54%
Cheseapeake Utilities Corporation	50.02%	53.12%	52.16%	51.05%	52.11%	51.04%	50.66%	49.88%	51.26%
New Jersey Natural Gas Company	54.21%	57.19%	56.33%	54.87%	53.62%	55.08%	56.84%	53.98%	55.26%
NiSource Inc.	38.16%	35.82%	38.42%	38.93%	37.99%	37.67%	39.81%	33.70%	37.56%
Northwest Natural Gas Company	52.22%	52.63%	52.61%	49.23%	47.19%	48.08%	48.44%	47.46%	49.73%
ONE Gas, Inc.	56.61%	59.29%	59.29%	58.66%	56.12%	59.38%	59.44%	50.53%	57.42%
Southwest Gas Corporation	48.87%	48.82%	48.89%	47.83%	47.43%	47.78%	47.97%	47.28%	48.11%
								Minimum	37.56%
								Maximum	60.54%

Long-Term Debt Ratio

Company	2025 Q3	2025 Q2	2025 Q1	2024 Q4	2024 Q3	2024 Q2	2024 Q1	2023 Q4	8Q average ending Q2 2025
Atmos Energy Corporation	39.83%	39.99%	39.07%	39.73%	39.23%	38.99%	39.06%	39.78%	39.46%
Cheseapeake Utilities Corporation	49.98%	46.88%	47.84%	48.95%	47.89%	48.96%	49.34%	50.12%	48.74%
New Jersey Natural Gas Company	45.79%	42.81%	43.67%	45.13%	46.38%	44.92%	43.16%	46.02%	44.74%
NiSource Inc.	61.84%	64.18%	61.58%	61.07%	62.01%	62.33%	60.19%	57.16%	61.30%
Northwest Natural Gas Company	47.78%	47.37%	47.39%	50.77%	52.81%	51.92%	51.56%	52.54%	50.27%
ONE Gas, Inc.	43.39%	40.71%	40.71%	41.34%	43.88%	40.62%	40.56%	49.47%	42.58%
Southwest Gas Corporation	51.13%	51.18%	51.11%	52.17%	52.57%	52.22%	52.03%	52.72%	51.89%
								Minimum	39.46%
								Maximum	61.30%

Source: S&P Capital IQ; Company Filings

Atmos Energy Corporation
Constant Growth Discounted Cash Flow Model

Utility Proxy Group	Ticker	[1] Annualized Dividend	[2] Average Stock Price	[3] Dividend Yield	[4] Expected Dividend Yield	[5] Zacks Projected EPS Growth Rate	[6] Value Line Projected EPS Growth Rate	[7] S&P Capital IQ Projected EPS Growth Rate	[8] Average Projected EPS Growth Rate	[9] Indicated ROE	
Atmos Energy Corporation	ATO	$4.00	$175.22	2.28%	2.37%	8.00%	8.50%	7.49%	8.00%	10.37%	
Chesapeake Utilities Corporation	CPK	$2.74	$133.63	2.05%	2.14%	NA	8.00%	9.15%	8.58%	10.71%	
New Jersey Resources Corporation	NJR	$1.90	$46.23	4.11%	4.26%	NA	6.50%	7.90%	7.20%	11.46%	
NiSource Inc.	NI	$1.12	$43.21	2.59%	2.70%	7.90%	8.00%	8.18%	8.03%	10.72%	
Northwest Natural Holding Company	NWN	$1.97	$47.42	4.15%	4.28%	NA	6.50%	5.67%	6.08%	10.36%	
ONE Gas, Inc.	OGS	$2.68	$81.98	3.27%	3.36%	6.20%	4.50%	6.66%	5.79%	9.15%	
Southwest Gas Holdings, Inc.	SWX	$2.48	$80.59	3.08%	3.27%	13.30%	NA	12.24%	12.77%	16.05%	[10]
Mean				3.08%	3.20%	8.85%	7.00%	8.18%	8.06%	10.46%	
Median				3.08%	3.27%	7.95%	7.25%	7.90%	8.00%	10.54%	

Notes:
[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 30-trading day average as of December 1, 2025
[3] Equals [1] / [2]
[4] Equals [3] x (1 + 0.5 x [8])
[5] Source: Zacks
[6] Source: Value Line
[7] Source: S&P Capital IQ
[8] Equals Average([5], [6], [7])
[9] Equals [4] + [8]
[10] Results were excluded from final mean and median as it is more than two standard deviations from the proxy group's mean.

Atmos Energy Corporation
Capital Asset Pricing Model - Equal Weighted Beta Coefficients
Utility Proxy Group

Company	Ticker	[1] Average Beta Coefficient	[2] Average Market Return	[3] Current Risk-Free Rate	[4] Market Risk Premium	[5] CAPM	[6] ECAPM	[7] Average of CAPM and ECAPM
Atmos Energy Corporation	ATO	0.58	14.77%	4.66%	10.11%	10.54%	11.60%	11.07%
Chesapeake Utilities Corporation	CPK	0.53	14.77%	4.66%	10.11%	9.98%	11.17%	10.58%
New Jersey Resources Corporation	NJR	0.56	14.77%	4.66%	10.11%	10.37%	11.47%	10.92%
NiSource Inc.	NI	0.69	14.77%	4.66%	10.11%	11.67%	12.44%	12.06%
Northwest Natural Holding Company	NWN	0.60	14.77%	4.66%	10.11%	10.72%	11.74%	11.23%
ONE Gas, Inc.	OGS	0.59	14.77%	4.66%	10.11%	10.58%	11.63%	11.10%
Southwest Gas Holdings, Inc.	SWX	0.66	14.77%	4.66%	10.11%	11.38%	12.23%	11.80%
Mean						10.75%	11.75%	11.25%
Median						10.58%	11.63%	11.10%

Company	Ticker	Average Beta Coefficient	Average Market Return	Projected Risk-Free Rate	Market Risk Premium	CAPM	ECAPM	Average of CAPM and ECAPM
Atmos Energy Corporation	ATO	0.58	14.77%	4.60%	10.17%	10.52%	11.58%	11.05%
Chesapeake Utilities Corporation	CPK	0.53	14.77%	4.60%	10.17%	9.95%	11.15%	10.55%
New Jersey Resources Corporation	NJR	0.56	14.77%	4.60%	10.17%	10.34%	11.45%	10.89%
NiSource Inc.	NI	0.69	14.77%	4.60%	10.17%	11.65%	12.43%	12.04%
Northwest Natural Holding Company	NWN	0.60	14.77%	4.60%	10.17%	10.70%	11.72%	11.21%
ONE Gas, Inc.	OGS	0.59	14.77%	4.60%	10.17%	10.55%	11.61%	11.08%
Southwest Gas Holdings, Inc.	SWX	0.66	14.77%	4.60%	10.17%	11.36%	12.21%	11.78%
Mean						10.72%	11.74%	11.23%
Median						10.55%	11.61%	11.08%

Notes:
[1] Source: Page 4 of this Schedule.
[2] Source: Page 3 of this Schedule.
[3] Current: 30-day average 30-year Treasury yield as of December 1, 2025 from Bloomberg Professional;
Projected: Blue Chip Financial Forecasts Vol. 44, No. 12, December 1, 2025 at 2 for the six quarters ending Q1 2027 and at 14 for the periods 2027-2031 and 2032-2036.
[4] Equals [2] - [3]
[5] Equals [4] x [1] + [3]
[6] Equals (([4] x [1]) x 0.75) + ([4] x 0.25)) + [3]
[7] = Average [5], [6].

Atmos Energy Corporation
Capital Asset Pricing Model - Value Line Beta Coefficients
Utility Proxy Group

Company	Ticker	[1] Value Line Beta Coefficient	[2] Average Market Return	[3] Current Risk-Free Rate	[4] Market Risk Premium	[5] CAPM	[6] ECAPM	[7] Average of CAPM and ECAPM
Atmos Energy Corporation	ATO	0.75	14.77%	4.66%	10.11%	12.25%	12.88%	12.56%
Chesapeake Utilities Corporation	CPK	0.70	14.77%	4.66%	10.11%	11.74%	12.50%	12.12%
New Jersey Resources Corporation	NJR	0.75	14.77%	4.66%	10.11%	12.25%	12.88%	12.56%
NiSource Inc.	NI	0.85	14.77%	4.66%	10.11%	13.26%	13.64%	13.45%
Northwest Natural Holding Company	NWN	0.75	14.77%	4.66%	10.11%	12.25%	12.88%	12.56%
ONE Gas, Inc.	OGS	0.75	14.77%	4.66%	10.11%	12.25%	12.88%	12.56%
Southwest Gas Holdings, Inc.	SWX	0.75	14.77%	4.66%	10.11%	12.25%	12.88%	12.56%
Mean						12.32%	12.93%	12.62%
Median						12.25%	12.88%	12.56%

Company	Ticker	Value Line Beta Coefficient	Average Market Return	Projected Risk-Free Rate	Market Risk Premium	CAPM	ECAPM	Average of CAPM and ECAPM
Atmos Energy Corporation	ATO	0.75	14.77%	4.60%	10.17%	12.23%	12.87%	12.55%
Chesapeake Utilities Corporation	CPK	0.70	14.77%	4.60%	10.17%	11.72%	12.48%	12.10%
New Jersey Resources Corporation	NJR	0.75	14.77%	4.60%	10.17%	12.23%	12.87%	12.55%
NiSource Inc.	NI	0.85	14.77%	4.60%	10.17%	13.25%	13.63%	13.44%
Northwest Natural Holding Company	NWN	0.75	14.77%	4.60%	10.17%	12.23%	12.87%	12.55%
ONE Gas, Inc.	OGS	0.75	14.77%	4.60%	10.17%	12.23%	12.87%	12.55%
Southwest Gas Holdings, Inc.	SWX	0.75	14.77%	4.60%	10.17%	12.23%	12.87%	12.55%
Mean						12.30%	12.92%	12.61%
Median						12.23%	12.87%	12.55%

Notes:
[1] Source: Page 4 of this Schedule.
[2] Source: Page 3 of this Schedule.
[3] Current: 30-day average 30-year Treasury yield as of December 1, 2025 from Bloomberg Professional;
Projected: Blue Chip Financial Forecasts Vol. 44, No. 12, December 1, 2025 at 2 for the six quarters ending Q1 2027 and at 14 for the periods 2027-2031 and 2032-2036.
[4] Equals [2] - [3]
[5] Equals [4] x [1] + [3]
[6] Equals (([4] x [1]) x 0.75) + ([4] x 0.25)) + [3]
[7] = Average [5], [6]

Atmos Energy Corporation
Market Returns

S&P 500 Market DCF - Bloomberg	18.96% [1]
S&P 500 Market DCF - Value Line	16.42% [2]
S&P 500 Market DCF - S&P Capital IQ	18.64% [3]
Average S&P 500 Market DCF	18.01%
Market DCF - Value Line Summary & Index	11.54% [4]
Average Market Return	14.77%

Notes:

[1] Based on the application of a market capitalization weighted Constant Growth DCF to the individual companies within the S&P 500 using data from Bloomberg Professional.

[2] Based on the application of a market capitalization weighted Constant Growth DCF to the individual companies within the S&P 500 using data from Value Line.

[3] Based on the application of a market capitalization weighted Constant Growth DCF to the individual companies within the S&P 500 using data from S&P Capital IQ.

[4] Based on the application of the average three-to-five-year median market price appreciation by Value Line for the seven weeks ended December 5, 2025 plus an average of the median estimated dividend yield of the 1,700 firms covered by Value Line's Standard Edition.

Atmos Energy Corporation
Bloomberg and Value Line Beta Coefficients

Company	Ticker	[1] Bloomberg	[2] Value Line
Atmos Energy Corporation	ATO	0.41	0.75
Chesapeake Utilities Corporation	CPK	0.35	0.70
New Jersey Resources Corporation	NJR	0.38	0.75
NiSource Inc.	NI	0.54	0.85
Northwest Natural Holding Company	NWN	0.45	0.75
ONE Gas, Inc.	OGS	0.42	0.75
Southwest Gas Holdings, Inc.	SWX	0.58	0.75
Mean		0.45	0.76

Notes:
[1] Source: Bloomberg Professional
[2] Source: Value Line

Atmos Energy Corporation
Risk Premium Summary

	Equal Weighted Beta Coefficients			Value Line Beta Coefficients		
	Current Moody's A3 Utility Bond Yield	Projected Moody's A3 Utility Bond Yield		Current Moody's A3 Utility Bond Yield	Projected Moody's A3 Utility Bond Yield	
Average Equity Risk Premium	5.53%	5.54%	[1]	5.81%	5.83%	[1]
Utility Bond Yield	5.63%	5.61%	[2]	5.63%	5.61%	[2]
Return on Equity	11.16%	11.15%		11.44%	11.43%	
Average	11.15%			11.44%		

Notes:
[1] Page 2 of this Schedule.
[2] Page 3 of this Schedule.

Atmos Energy Corporation
Summary of Equity Risk Premium Estimates

Equity Risk Premium Applicable to the Utility Proxy Group	Equal Weighted Beta Coefficients: Current Moody's A3 Utility Bond Yield	Equal Weighted Beta Coefficients: Projected Moody's A3 Utility Bond Yield		Value Line Beta Coefficients: Current Moody's A3 Utility Bond Yield	Value Line Beta Coefficients: Projected Moody's A3 Utility Bond Yield	
Predicted Risk Premium Based on the S&P Utilities Index	6.41%	6.42%	[1]	6.97%	6.99%	[1]
Predicted Risk Premium Based on Regression Analysis of Natural Gas Utility Rate Cases 1980 - 2025	4.65%	4.66%	[2]	4.65%	4.66%	[2]
Average	5.53%	5.54%		5.81%	5.83%	

Notes:
[1] Page 6 of this Schedule.
[2] Page 10 of this Schedule.

Atmos Energy Corporation
Moody's Bond Yields

[1] Current Moody's Aaa Corporate Bond Yield	[2] Current Moody's A2 Utility Bond Yield	[3] Moody's A2 Utility/Aaa Corporate Spread	[4] Current Moody's Baa2 Utility Bond Yield	[5] Moody's Baa2 Utility/A2 Utility Spread
5.20%	5.56%	0.36%	5.77%	0.20%

[6] Projected Moody's Aaa Corporate Bond Yield	[7] Projected Moody's A2 Utility Bond Yield	[8] Current Moody's A3 Utility Bond Yield	[9] Projected Moody's A3 Utility Bond Yield
5.18%	5.54%	5.63%	5.61%

Notes:
[1] Source: Bloomberg Professional; 30-Day Average as of December 1, 2025
[2] Source: Bloomberg Professional; 30-Day Average as of December 1, 2025
[3] = [2] - [1]
[4] Source: Bloomberg Professional; 30-Day Average as of December 1, 2025
[5] = [4] - [2]
[6] Projected: Blue Chip Financial Forecasts Vol. 44, No. 12, December 1, 2025 at 2 and 14 for the six quarters ending Q1 2027, and the periods 2027-2031 and 2032-2036.
[7] = [6] + [3]
[8] = [2] + [5] / 3
[9] = [7] + [5] / 3

Atmos Energy Corporation
Moody's and S&P Issuer Ratings - Utility Proxy Group

Company	Ticker	Moody's [1]	Numerical Weighting [2]	S&P [1]	Numerical Weighting [2]
Atmos Energy Corporation	ATO	A2	6.00	A-	7.00
Chesapeake Utilities Corporation	CPK	WR	6.50	NR	NA
New Jersey Resources Corporation	NJR	A1	5.00	NR	NA
NiSource Inc.	NI	Baa1	8.00	BBB+	8.00
Northwest Natural Holding Company	NWN	Baa1	8.00	A+	5.00
ONE Gas, Inc.	OGS	A3	7.00	A-	7.00
Southwest Gas Holdings, Inc.	SWX	Baa1	8.00	BBB+	8.00
Proxy Rating		A3	6.93	A-	7.00

Notes:
[1] Source: S&P Global Market Intelligence; Moody's Investor Services
Ratings are the average of each company's utility operating subsidiaries.
[2] From page 5 of this Schedule.

Numerical Assignment for Moody's and Standard & Poor's Bond Ratings

Moody's Bond Rating	Numerical Bond Weighting	Standard & Poor's Bond Rating
Aaa	1	AAA
Aa1	2	AA+
Aa2	3	AA
Aa3	4	AA-
A1	5	A+
A2	6	A
A3	7	A-
Baa1	8	BBB+
Baa2	9	BBB
Baa3	10	BBB-
Ba1	11	BB+
Ba2	12	BB
Ba3	13	BB-
B1	14	B+
B2	15	B
B3	16	B-

Atmos Energy Corporation
Summary of Equity Risk Premium Estimates Based on the S&P Utilities Index

Equity Risk Premium	Equal Weighted Beta Coefficients: Current Moody's Utility Bond Yield	Equal Weighted Beta Coefficients: Projected Moody's Utility Bond Yield		Value Line Beta Coefficients: Current Moody's Utility Bond Yield	Value Line Beta Coefficients: Projected Moody's Utility Bond Yield	
Predicted Risk Premium Based on Constant Growth DCF Applied to S&P Utilities Index	6.21%	6.23%	[1]	6.21%	6.23%	[1]
Predicted Risk Premium Based on CAPM Applied to S&P Utilities Index	6.61%	6.61%	[2]	7.74%	7.75%	[3]
S&P Utilities Index Derived Risk Premium Based on Moody's A3 Rating	6.41%	6.42%		6.97%	6.99%	

Notes:
[1] Page 7 of this Schedule.
[2] Page 8 of this Schedule.
[3] Page 9 of this Schedule.

Atmos Energy Corporation
S&P Utilities Index DCF-Derived Equity Risk Premium

Ex-Ante Return	
S&P Utilities Index DCF - Bloomberg	11.53% [1]
S&P Utilities Index DCF - Value Line	12.20% [2]
S&P Utilities Index DCF - S&P Capital IQ	11.79% [3]
Average	11.84% [4]
Current Moody's A3 Utility Bond Yield	5.63% [5]
Projected Moody's A3 Utility Bond Yield	5.61% [6]
Risk Premium over Current Moody's A3 Utility Bond Yield	6.21% [7]
Risk Premium over Projected Moody's A3 Utility Bond Yield	6.23% [8]

Notes:

[1] Based on the application of a market capitalization weighted Constant Growth DCF to the individual companies within the S&P Utilities Index using data from Bloomberg Professional.

[2] Based on the application of a market capitalization weighted Constant Growth DCF to the individual companies within the S&P Utilities Index using data from Value Line.

[3] Based on the application of a market capitalization weighted Constant Growth DCF to the individual companies within the S&P Utilities Index using data from S&P Capital IQ Pro.

[4] Average of [1], [2], [3]

[5] From page 3 of this Schedule; Column [8]

[6] From page 3 of this Schedule; Column [9]

[7] = [4] - [5]

[8] = [4] - [6]

Atmos Energy Corporation
S&P Utilities Capital Asset Pricing Model Dervied Equity Risk Premium

Company	[1] Average Beta Coefficient	[2] Average Market Return	[3] Risk-Free Rate	[4] Market Risk Premium	[5] Return on the S&P Utilities Index Based on CAPM	[6] Return on the S&P Utilities Index Based on ECAPM	[7] Average
S&P Utilities Index - Current Risk-Free Rate	0.71	14.77%	4.66%	10.11%	11.87%	12.60%	12.24%
S&P Utilities Index - Projected Risk-Free Rate	0.71	14.77%	4.60%	10.17%	11.86%	12.58%	12.22%

Current Moody's A3 Utility Bond Yield	5.63%	[8]
Projected Moody's A3 Utility Bond Yield	5.61%	[9]
Risk Premium over Current Moody's A3 Utility Bond Yield	6.61%	[10]
Risk Premium over Projected Moody's A3 Utility Bond Yield	6.61%	[11]

Notes:
[1] Average of weighted Beta coefficients for the S&P Utilities Index based on data from Bloomberg Professional and Value Line.
[2] Source: Page 3 of Schedule MRH-4.
[3] Source: Page 1 of Schedule MRH-4.
[4] Equals [2] - [3]
[5] Equals [4] x [1] + [3]
[6] Equals (([4] x [1]) x 0.75) + ([4] x 0.25)) + [3]
[7] Average [5], [6]
[8] From page 3 of this Schedule; Column [8]
[9] From page 3 of this Schedule; Column [9]
[10] = Average indicated return on the S&P Utilities Index ([7]) based on current risk-free rate minus current Moody's A3 utility bond yield ([8])
[11] = Average indicated return on the S&P Utilities Index ([7]) based on projected risk-free rate minus projected Moody's A3 utility bond yield ([9])

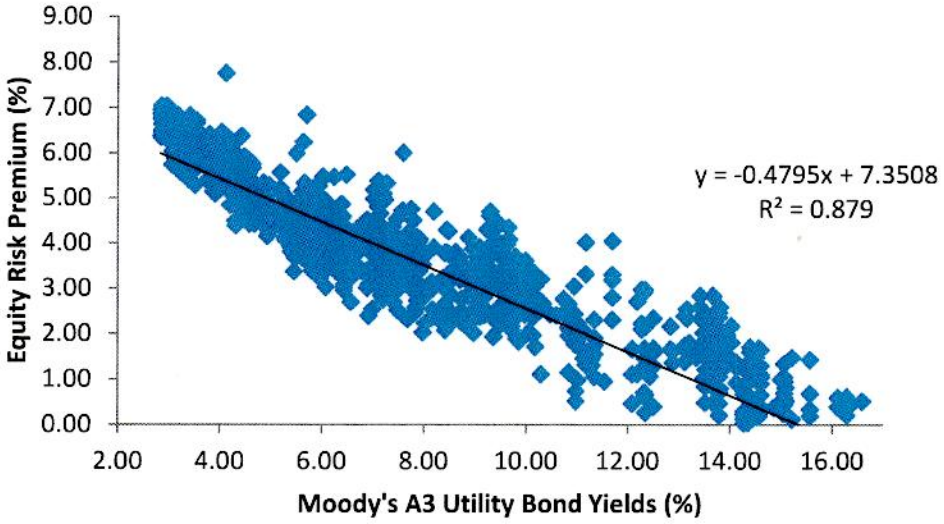
Atmos Energy Corporation
S&P Utilities Capital Asset Pricing Model Dervied Equity Risk Premium

Company	[1] Value Line Beta Coefficient	[2] Average Market Return	[3] Risk-Free Rate	[4] Market Risk Premium	[5] Return on the S&P Utilities Index Based on CAPM	[6] Return on the S&P Utilities Index Based on ECAPM	[7] Average
S&P Utilities Index - Current Risk-Free Rate	0.84	14.77%	4.66%	10.11%	13.17%	13.57%	13.37%
S&P Utilities Index - Projected Risk-Free Rate	0.84	14.77%	4.60%	10.17%	13.16%	13.56%	13.36%

Current Moody's A3 Utility Bond Yield	5.63%	[8]
Projected Moody's A3 Utility Bond Yield	5.61%	[9]
Risk Premium over Current Moody's A3 Utility Bond Yield	7.74%	[10]
Risk Premium over Projected Moody's A3 Utility Bond Yield	7.75%	[11]

Notes:
[1] Average of weighted Beta coefficients for the S&P Utilities Index based on data from Value Line.
[2] Source: Page 3 of Schedule MRH-4.
[3] Source: Page 1 of Schedule MRH-4.
[4] Equals [2] - [3]
[5] Equals [4] x [1] + [3]
[6] Equals (([4] x [1]) x 0.75) + ([4] x 0.25)) + [3]
[7] Average [5], [6]
[8] From page 3 of this Schedule; Column [8]
[9] From page 3 of this Schedule; Column [9]
[10] = Average indicated return on the S&P Utilities Index ([7]) based on current risk-free rate minus current Moody's A3 utility bond yield ([8])
[11] = Average indicated return on the S&P Utilities Index ([7]) based on projected risk-free rate minus projected Moody's A3 utility bond yield ([9])

Atmos Energy Corporation
Risk Premium Based on Authorized Returns 1980 - 2025



	[1] Constant	[2] Slope	[3] Moody's A3 Utility Bond Yield	[4] Equity Risk Premium
Current Moody's A3 Utility Bond Yield	7.3508 %	-0.4795 %	5.63 %	4.65 %
Projected Moody's A3 Utility Bond Yield	7.3508 %	-0.4795 %	5.61 %	4.66 %

Notes:
[1] Constant derived from a linear regression of equity risk premiums and monthly Moody's A3 utility bond yields; equity risk premium calculated as authorized ROEs for natural gas distribution utilities less monthly Moody's A3 utility bond yields available on date of order.
[2] Slope derived from a linear regression of equity risk premiums and monthly Moody's A3 utility bond yields; equity risk premium calculated as authorized ROEs for natural gas distribution utilities less monthly Moody's A3 utility bond yields available on date of order.
[3] Source: Page 3 of this Schedule; Columns [8], [9]
[4] = [1] + ([2] x [3])

Source: Regulatory Research Associates.

Atmos Energy Corporation
Small Size Premium

	[1] ($Mil)
Atmos Energy Corporation	$784.60
Median Market to Book for Utility Proxy Group	1.94
Atmos Energy Corporation Implied Market Cap	$1,523.89

Company Name	Ticker	[2] Market Cap ($Mil)	[3] Market to Book Ratio
Atmos Energy Corporation	ATO	$28,201.8	2.09
Chesapeake Utilities Corporation	CPK	$3,154.0	2.07
New Jersey Resources Corporation	NJR	$4,647.2	1.94
NiSource Inc.	NI	$20,555.8	2.26
Northwest Natural Holding Company	NWN	$1,911.4	1.37
ONE Gas, Inc.	OGS	$4,918.9	1.55
Southwest Gas Holdings, Inc.	SWX	$5,802.8	1.47
Median		$4,918.90	1.94

	Market Capitalization ($Mil) [4]		
Decile	Low	High	Size Premium
1	$ 47,156.530	$ 3,522,211.140	-0.01%
2	$ 20,191.220	$ 46,949.060	0.33%
3	$ 9,937.940	$ 20,178.360	0.49%
4	$ 6,196.710	$ 9,937.350	0.50%
5	$ 3,948.050	$ 6,181.270	0.74%
6	$ 2,481.780	$ 3,946.150	1.00%
7	$ 1,422.890	$ 2,464.500	1.19%
8	$ 731.190	$ 1,417.450	0.88%
9	$ 304.620	$ 729.920	1.73%
10	$ 1.110	$ 304.480	4.47%
Proxy Group Size Premium		$ 4,918.901	0.74%
7th Decile Size Premium		$ 1,523.892	1.19%
Difference from Proxy Group			0.45%

Notes:
[1] Rate Base Multiplied by Common Equity Ratio
[2] Source: Bloomberg Professional, 30-day average
[3] Source: Bloomberg Professional, 30-day average
[4] Source: Kroll 2025 Cost of Capital Navigator

Atmos Energy Corporation
Derivation of the Flotation Cost Adjustment to the Cost of Common Equity

Equity Issuances and Flotation Costs for FY 2016 - 2025

Fiscal Year	Transaction (1)	[Column 1] Shares Issued	[Column 2] Average Offering Price per Share	[Column 3] Net Proceeds per Share (2)	[Column 4] Gross Equity Issue before Costs	[Column 5] Total Net Proceeds	[Column 6] Total Flotation Costs (3)	[Column 7] Flotation Cost Percentage (4)
2025	At the Market Equity Offering	5,931,289	$ 118.0199	$ 117.7653	$ 700,009,856	$ 698,500,000	$ 1,509,856	0.22%
2024	At the Market Equity Offering	6,401,469	$ 117.2233	$ 117.1606	$ 750,401,394	$ 750,000,000	$ 401,394	0.05%
2023	At the Market Equity Offering	7,272,261	$ 112.7133	$ 111.0946	$ 819,680,535	$ 807,908,920	$ 11,771,616	1.44%
2022	At the Market Equity Offering	7,907,883	$ 100.0634	$ 98.3843	$ 791,290,027	$ 778,011,289	$ 13,278,738	1.68%
2021	At the Market Equity Offering	6,130,875	$ 101.5775	$ 99.0072	$ 622,758,775	$ 607,000,833	$ 15,757,941	2.53%
2020	At the Market Equity Offering	6,101,916	NA	NA	$ 632,630,269	$ 625,894,599	$ 6,735,669	1.06%
2019	At the Market Equity Offering	5,390,836	$ 92.7500	$ 91.6555	$ 500,000,000	$ 494,100,000	$ 5,900,000	1.18%
2018	At the Market Equity Offering	4,558,404	$ 87.7500	$ 86.6751	$ 400,000,000	$ 395,100,000	$ 4,900,000	1.23%
2017	At the Market Equity Offering	1,303,494	$ 76.7169	$ 75.7963	$ 100,000,000	$ 98,800,000	$ 1,200,000	1.20%
2016	At the Market Equity Offering	1,360,756	$ 73.4886	$ 72.4597	$ 100,000,000	$ 98,600,000	$ 1,400,000	1.40%
					$ 5,416,770,855	$ 5,353,915,641	$ 62,855,214	1.16%

Flotation Cost Adjustment

	Average Dividend Yield	Average Projected EPS Growth Rate	Adjusted Dividend Yield	Average DCF Cost Rate Unadjusted for Flotation (5)	DCF Cost Rate Adjusted for Flotation (6)	Flotation Cost Adjustment (7)
Proxy Group of Seven Natural Gas Distribution Companies	3.08 %	7.28 %	3.19 %	10.47 %	10.51 %	0.04 %

Source of Information: Atmos Energy Corporation SEC Form 10-Ks, Company-Provided Data

Notes provided on page 2 of this Schedule.

Atmos Energy Corporation
Notes to Accompany the
Derivation of the Flotation Cost Adjustment to the Cost of Common Equity

(1) Atmos Energy Corporation SEC Filings, Company-provided.

(2) Column 5 ÷ Column 1.

(3) Column 4 - Column 5.

(4) Column 6 ÷ Column 4.

(5) Using the average growth rate from Schedule MRH-3.

(6) Adjustment for flotation costs based on adjusting the average DCF constant growth cost rate in accordance with the following:

$$K = \frac{D(1+0.5g)}{P(1-F)} + g,$$

where g is the growth factor and F is the percentage of flotation costs.

(7) Flotation cost adjustment of 0.04% equals the difference between the flotation adjusted average DCF cost rate of 10.51% and the unadjusted average DCF cost rate of 10.47% of the Utility Proxy Group.

Sources of Information:

Company SEC Filings; Company-Provided