BEFORE THE CORPORATION COMMISSION OF THE STATE OF OKLAHOMA

IN THE MATTER OF THE APPLICATION OF OKLAHOMA GAS AND ELECTRIC COMPANY FOR AN ORDER OF THE COMMISSION AUTHORIZING APPLICANT TO MODIFY ITS RATES, CHARGES, AND TARIFFS FOR RETAIL ELECTRIC SERVICE IN OKLAHOMA	)	CASE NO. PUD 2023-000087

RESPONSIVE TESTIMONY

OF

GEOFFREY M. RUSH

APRIL 26, 2024

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EXECUTIVE SUMMARY

On December 30, 2023, Oklahoma Gas & Electric ("OG&E" or "Company") filed an application for an adjustment in its rates and charges for retail electric service in the state of Oklahoma. The Public Utility Division ("PUD") of the Oklahoma Corporation Commission ("Commission") reviewed the Application, as well as the Direct Testimony and exhibits of Company witnesses Ann Bulkley and Charles Wallworth to understand the Company's position relating to recommendations on Cost of Capital and Capital Structure. PUD used three different models to estimate the Company's cost of equity. The Discounted Cash Flow ("DCF") Model, which resulted in a cost of equity estimate of 9.25%; the Capital Asset Pricing Model ("CAPM"), which resulted in cost of equity estimate of 8.86%; and, the Comparable Earnings Model ("CEM"), which resulted in a cost of equity estimate of 9.86%.

In Final Order No. 728277 in Case Number PUD 2021-00164, the Commission awarded OG&E a Return on Equity ("ROE") of 9.5%. PUD recognizes that drastic changes in ROE can impact the Company, its ratepayers, and its shareholders. To alleviate any perception of a destructive regulatory environment or bias toward any particular Investor-Owned Utility, PUD embraces the concept of gradualism and has endeavored to balance this concept with an appropriate ROE recommendation in this Case. Upon conclusion of its analysis in this Case, PUD makes the following recommendations:

1. An ROE of 9.30%, with a range of reasonableness between 8.86% - 9.86%.
2. A Weighted Average Cost of Capital ("WACC") of 7.23%.

3. No objection to OG&E's requested Capital Structure of 46.50% Debt and 53.50% Equity. Because the requested capital structure falls between a range of 40%-60% debt and 40%-60% equity, PUD believes the Company's requested capital structure is reasonable.

PUD believes these recommendations: (1) are reasonable and in the public interest; (2) adhere to the concept of gradualism; (3) are reasonable given OG&E's level of risk as a public utility; (4) are consistent with returns the Commission has recently awarded Empire District Electric Company and Public Service Company of Oklahoma; and (5) allow OG&E to maintain financial integrity and provide a fair balance between the Company's shareholders and the ratepayers.

INTRODUCTION

Q: Please state your name and your business address.

A: My name is Geoffrey M. Rush. My business address is Oklahoma Corporation Commission, Public Utility Division, Jim Thorpe Office Building, Room 580, 2101 North Lincoln Boulevard, Oklahoma City, Oklahoma 73105.

Q: Have you previously testified before the Commission and were your qualifications accepted?

A: Yes. I have previously testified before the Commission and my qualifications were accepted at that time.

Q: Where are you employed?

A: I am employed by the Public Utility Division of the Oklahoma Corporation Commission.

Q: How long have you been so employed?

A: I was employed by Liberty Utilities between October 1, 2022, and December 29, 2022. Otherwise, I have been employed by the Commission since March 2013.

PURPOSE AND PUD'S REVIEW PROCESS

Q: What is the purpose of this Responsive Testimony regarding OG&E's application for an adjustment in its rates and charges in Case No. PUD 2023-000087?

A: This Responsive Testimony is to present PUD's analysis and recommendations regarding OG&E's Cost of Capital and Capital Structure.

Q: Please explain PUD's review process in this Case.

A: PUD reviewed the Application, as well as the Direct Testimony and exhibits of Company witnesses Ann Bulkley and Charles Walworth to understand the Company's position relating to their recommendations on Cost of Capital and Capital Structure. PUD also performed a separate, independent analysis using the DCF, CAPM, and CEM Models. Each model is well established, widely used in utility regulation cases, and provides an appropriate range of reasonableness for PUD's final Cost of Capital recommendation. Details of the application of these models to this Case and an explanation of PUD's analysis are provided later in this testimony.

GENERAL CONCEPTS & LEGAL STANDARDS APPLICABLE TO THE CASE

Q: Please describe the general concept of the Cost of Capital.

A: The Cost of Capital refers to the weighted average cost of all types of securities issued by a utility including debt and equity. The cost of debt is determined by dividing total interest payments by the book value of outstanding debt. Interest payments are contractual, so calculating the cost of debt is generally simple and undisputed. Determining the cost of equity is more complex because, unlike the contractual cost of debt, there is no explicit cost of common equity. To determine the appropriate cost of equity, utilities must estimate the return on equity investors will require in exchange for the opportunity cost of placing their money in other investments. This return must include the risk that investors may realize a negative return on their investments. Once a firm has estimated the required return on equity, it can use that and the cost of debt to calculate the Weighted Average Cost of Capital ("WACC"). A competitive firm uses its WACC as the discount rate to determine the value of capital projects. However, because regulators act as a surrogate for competition, and use the WACC as the total rate of return on capital investments for the purpose of setting rates, the cost of equity is one of the most important variables for the Commission to set accurately.

Q: What is your understanding of the legal standards that govern the authorized rate of return for regulated utilities?

A: I am not an attorney, but I am familiar with legal standards regarding rate of return analysis established by cases before the United States Supreme Court ("the Court"):

1. *Wilcox v. Consolidated Gas Co.*[1] This case provided the definition of a "fair rate of return." In its decision, the Court determined that a fair rate of return consists of two elements – a return on invested capital and a return for risk. Specifically, the Court found that "the amount of risk in the business is a most important factor" in determining the appropriate authorized rate of return.
2. *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*[2] - In this case, the Court stated that "A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public [. . .] but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties."
3. *Federal Power Commission v. Hope Natural Gas Company*[3] – The Court expanded the guidelines established in *Bluefield* and stated: "From the investor or company point of view it is important that there be enough revenue not only for operating

[1] Wilcox v. Consolidated Gas Co., 212 U.S. 19 (1909)
[2] Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679, 692-693 (1923).
[3] Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944)

> 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, to maintain its credit and to attract capital."

The Court's decisions in *Wilcox*, *Hope*, and *Bluefield* established the primary standards that must be considered by regulators when determining a fair rate of return for public utilities which are:

- Corresponding Risk – Risk is the most important factor to consider when determining the required return on equity.
- Financial Integrity – A utility is entitled to a return level reasonably sufficient to assure financial soundness, a utility is entitled to a return similar to that being earned from other investments with the same level of risk, and a utility is entitled to a sufficient return to support its credit and raise capital.

PUD's review and analysis in this case aligns with these standards, and the models used in this Responsive Testimony have been widely accepted by Commissions throughout the country for many years.

RECENT COMMISSION ORDERS ISSUED IN OTHER STATES

Q: Please discuss the Minnesota Public Utilities Commission ruling with respect to Northern States Power – Minnesota ("NSP-M").[4]

A: In this case, the Minnesota Public Utilities Commission ultimately rejected the Administrative Law Judge's ("ALJ") recommendation of an 9.87% ROE, and instead awarded NSP-M an ROE of 9.25%. The Findings of Fact, Conclusions, and Order of the Minnesota Commission was filed July 17, 2023, and bears relevance to this Case. The ALJ's recommendation of a 9.87% ROE in that case was supported by the following rationale:[5]

1. The Commission had generally regarded the two-stage DCF methodology as the most relevant and most reliable method for determining an authorized return on Equity;[6]
2. The Company's and XLI's (aka Xcel Large Industrials) ROE Recommendations rely on a blend of models, including CAPM and Risk Premium, which have doubtful reliability for establishing a reasonable ROE;[7] and,
3. A reasonable ROE can be determined through an analytically rigorous method applied to a reasonable proxy group and it is not necessary to apply other adjustments, such as for relative risk. Doing so, the ALJ found, is more likely than not an exercise in false precision.[8]

To these points, the Commission ruled as follows.

[4] In The Matter of the Application of Northern States Power Company, d/b/a Xcel Energy, for Authority to Increase Rates for Electric Service in the State of Minnesota; MPUC Docket No. E-002/GR-21-630; Findings of Fact, Conclusions, and Order - Issued July 17, 2023
[5] Docket No. MPUC E-002-/GR-21-630 In the Matter of the Application of Northern States Power Company, d/b/a Xcel Energy, for Authority to Increase Rates for Electric Service in the State of Minnesota; Findings of Fact, Conclusions of Law, and Recommendations filed March 31, 2023
[6] *Id* at p. 141.
[7] *Id* at p. 144.
[8] *Id* at p.144.

1. The Commission concurred with the ALJ that there is no convincing basis on this record for departing from reliance on the two-growth DCF model;[9]
2. Taking into account the results of multiple data sets reasonably balance the risk to both ratepayers and the Company by avoiding over-compensating for high inflation while simultaneously protecting the Company's financial integrity;[10]
3. The Commission found value in the arguments made by Intervenors that investors faced lower levels of risk because of the regulatory tools used by the Company, which include riders.[11] The Minnesota Commission did reject the ALJ's recommended ROE of 9.87% and ultimately awarded NSP-M an ROE of 9.25%. In doing so, the Minnesota Commission appropriately provided a more well-rounded analysis by not only using multiple models but also by considering the low level of risk that NSP-M had when making its recommendation.

Q: Was the Minnesota Commission's decision to award NSP-M a 9.25% ROE unanimous?

A: No. The five Commissioners voted 3-2 to award NSP-M a 9.25% ROE. There are two things to note regarding the outcome of this vote:

1. Commission Chair Katie Sieben, one of the three Commissioners voting to award NSP-M an ROE of 9.25%, indicated in a press release: "We scrutinize every dollar to ensure Minnesotans only pay what is necessary"; and,
2. The two Commissioners who voted against awarding NSP-M a 9.25% ROE both

[9] In the Matter of the Application of Northern States, p. 89.
[10] *Id* at p.91.
[11] *Id* at p. 91.

supported awarding an ROE of 9.38%.[12]

Q: Discuss the Illinois Public Utilities Commission ruling about to Ameren Illinois.[13]

A: On December 14, 2023, the Illinois Public Utilities Commission issued its final order in that case. In its order, the Commission made three statements that are applicable to that Case as well as support the opinion of the Minnesota Commission in the NSP-M case:

1. The Illinois Commission found it had consistently approved the use of DCF and CAPM in determining the cost of common equity;[14]
2. Market based financial models and adjustments underlying the ROE awarded in that case were consistent with Illinois Commission practice and law;[15]
3. In estimating ROE, the Illinois Commission found it must consider not only the outputs of the financial models, but whether the authorized ROE satisfies the standards set forth in *Bluefield & Hope*.[16]

Q: How do the Commission rulings in Minnesota and Illinois relate to this case?

A: The language in each of the Final Orders entered in these cases indicate that both Commissions, looking at two completely different kinds of cases, reached similar decisions with respect to: (1) the usage of multiple models; and (2) incorporating market and risk-based factors into an analysis and award of ROE. The use of multiple models by the Illinois Commission when determining an appropriate ROE for Ameren Illinois validates

[12] S&P Capital IQ "Utility Commission majority sets below average return for Northern States Power" June 2, 2023
[13] Illinois Commerce Commission on Its Own Motion vs. Ameren Illinois Company d/b/a Ameren Illinois; Order Requiring Ameren Illinois Company to file an Initial Multi-Year Integrated Grid Plan and Initiating Proceeding to Determine Whether the Plan is Reasonable and Complies with the Public Utilities Act; Case No. 22-0487
[14] *Id* at p. 372.
[15] *Id* at p. 372.
[16] *Id* at p. 367.

the Minnesota Commission's decision to use multiple models when arriving at an appropriate ROE for NSP-M. Further, it is important to note that historically, this Commission has consistently utilized multiple models, and has considered market and risk-based factors when determining an appropriate ROE in the cases before them.

Q: Did PUD use multiple models in its analysis to estimate the cost of equity?

A: Yes. This Commission as well as the Minnesota and Illinois Commission have found, it is preferable to use multiple models when estimating the cost of equity because the return on equity required by investors depends on many factors. Different models consider different factors, and the results of any one model may contain some imprecision. By using multiple models, less weight is put on any individual model, and a more broadly reliable estimate of the true rate of return can be achieved.

Q: Does PUD believe that the reliance on multiple models should be disregarded?

A: No. As noted earlier, PUD believes that using multiple models arrives at a more broadly reliable estimate of the true rate of return. The use of appropriate and diverse models provides for detailed analysis allowing PUD to arrive at a Range of Reasonableness for the awarded ROE, and the results from each model were used in its ROE recommendation. Models such as the DCF and CAPM are important, as the factors and inputs that are used in determining outcomes of each of these models are derived from known, current and recorded data such as stock prices, dividends, beta coefficients, etc. However, the results from these models should only serve as a starting point in establishing a fair, just and reasonable ROE. The results of each model must be considered to establish a Range of

Reasonableness, and that focus as outlined in the *Wilcox, Hope and Bluefield* cases, should provide a significant weighting on any final recommended ROE. Moreover, the legal standards outlined above do not include guidelines regarding the specific models which must be used to estimate the Cost of Capital. Regulatory Commissions have consistently relied upon several different models, and the models utilized by PUD in this Case have all been widely used and accepted in regulatory proceedings for many years.

RISK

Q: What is the relationship between risk and return on equity?

A: According to the Supreme Court Cases discussed above, risk is one of the most important factors the Commission must consider when determining the authorized return on equity. The amount of risk in an investment is directly tied to the amount of return expected by investors for that investment. For investors to be willing to invest in a very risky company, they must be compensated with the opportunity for a very high return. On the other hand, if a company is a nearly riskless investment, the expected return will be much lower.

Q: What is the difference between company-specific risk and market risk?

A: Company-specific risk refers to impacts to a single company, and includes internal factors, such as operating and managerial factors, risk of default, and risk specifically affecting a single company. This type of risk can be minimized through diversification. Market risk refers to the risks which exist in the market and impact all companies to varying degrees. Market risk includes external factors, such as inflation risk, interest rate risk, and the risk of other events that may affect the entire market.

Q: How is market risk measured?

A: Market risk is determined by calculating the covariance between a single stock and an entire market portfolio. The result of this calculation is called "beta". Beta represents the risk of a particular company's stock in relation to the entire market. Utilities with a beta greater than one indicate they are more sensitive to market risk than the average stock. In contrast, utilities with a beta below one indicates they are less sensitive to market risk. Beta is an input used in the CAPM to help estimate the cost of equity.

Q: What is the typical beta for a public utility?

A: Because utility companies are extremely low risk, these types of stocks have very low betas, normally below one. The range of betas in the proxy group used for PUD's analysis in this Case are between 0.80 and 0.95.[17,18]

Q: Are public utilities, as defensive firms with low betas and low market risk, relatively insulated from overall market conditions?

A: Yes. Market risk affects all companies in the market, but it impacts utilities to a lesser degree. In addition to being considered low risk, utilities are also known as defensive companies, and are therefore relatively unaffected by changes in market conditions. When the economy is in a recession, ratepayers can be confident the utility company will continue to operate and maintain normal business operations, and investors can be confident utility stock prices will not widely fluctuate and can rely on their utility stocks as a stable piece of their overall investment portfolio. Because utilities, as defensive firms, experience little

[17] Direct Exhibit AEB-5 (P.1-3) range of beta = 0.80-0.95; (P.4-6) range of beta = 0.72-0.87; (P. 7-9) range of beta = 0.66-0.95.
[18] Direct Exhibit AEB-6 Average mean of historical data between 2013-2022 = 0.74

market risk and are relatively insulated from market conditions, this fact should be appropriately reflected in the Commission's allowed return.

Q: Do investors in utility company stock with low betas demand a smaller return than the average required return on the market?

A: Yes. This is the basic concept of the risk and return, the more risk an investor assumes, the larger return the investor will demand. So, if a particular stock is less risky than the market average, an investor holding that stock will demand a smaller return than the average return on the market. Since utilities are low-risk companies with low betas, the demanded return for utility stock is lower than that demanded on the overall market.

AWARDED RETURNS

Q: In recent years, have authorized ROEs for electric utilities declined nationally?

A: Yes. Although there has been an uptick in awarded ROEs in 2022 and 2023, awarded ROEs for electric utilities across the country have declined significantly over the past 14 years.[19]

[19] S&P Global Regulatory Research Associates, Rate Case Statistics.

Historic Electric Utility Rate Cases		
	Year	Authorized ROE
1	2009	10.52%
2	2010	10.37%
3	2011	10.29%
4	2012	10.17%
5	2013	10.03%
6	2014	9.91%
7	2015	9.85%
8	2016	9.77%
9	2017	9.74%
10	2018	9.60%
11	2019	9.66%
12	2020	9.44%
13	2021	9.38%
14	2022	9.54%
15	2023	9.60%

Since investment in utilities have a much lower risk than the rest of the market, PUD believes awarded ROE should continue to decline as Commissions continue to recognize the relatively low financial risk of investing in public utilities.

Q: Have the authorized ROEs for Oklahoma's Investor-Owned Utilities declined over recent years?

A: Yes and no. As shown in the table below, authorized returns for both Empire District Electric Company and Public Service Company of Oklahoma have decreased, while the authorized ROE for OG&E has remained unchanged at its current awarded ROE of 9.5%. It's important to note that while interest rates and inflation were at their lowest starting in 2020, the requested ROE by the Company was not reduced in those previous rate cases to accurately reflect the then current economic conditions. In fact, as evidenced by the chart below, rate cases filed by OG&E between 2015 to 2022 saw ROE requests remain within

a similar range between 9.90% to 10.5%

Oklahoma Investor-Owned Utilities			
Company	**Case**	**Requested ROE**	**Awarded ROE**
OG&E	2015-00273	10.25%	9.50%
OG&E	2017-00496	9.90%	9.50%
OG&E	2018-00140	9.90%	9.50%
OG&E	2021-00164	10.20%	9.50%
OG&E	2023-00087	10.50%	TBD
PSO	2015-00208	10.50%	9.50%
PSO	2017-00151	10.00%	9.30%
PSO	2018-00097	10.30%	9.40%
PSO	2021-00055	10.00%	9.40%
PSO	2022-00093	10.40%	9.30%
PSO	2023-00086	10.80%	TBD
Empire	2016-00468	9.90%	9.50%
Empire	2018-00133	10.20%	9.50%
Empire	2021-00163	10.00%	9.30%

Q: Describe the concept of gradualism in utility rate regulation.

A: Gradualism is the practice of implementing new rates, or any substantive changes in smaller increments over time to avoid dramatic increases all at once. This will aid ratepayers, the utility, or the market time to adapt to those changes.

Q: Why is gradualism important within the context of a utility Rate Case?

A: Gradualism is good for both the Company and for its customers. Through gradualism, utilities can recover investments in a steadier manner, and authorized rates can be implemented over time.

Q: Does the requested ROE of 10.50% fit the concept of gradualism?

No. The Company's request to increase its authorized ROE from 9.3% to 10.50% accounts for $51.3 million (approximately 15%)[20] of the Company's requested rate increase and does not fit the concept of gradualism. Because of OG&E's risk profile, movement to an authorized ROE of 9.3% is not only more in line with the concept of gradualism but would align OG&E's authorized ROE with its peers in Oklahoma, who are of similar risk.

Q: What is one potential reason for the request of a higher ROE?

A: Capital Investments. Two papers were published recently which offer a look at utility investments going forward.

1. Regulatory Research Associates' article published on November 8, 2023, indicate the following[21]:
   - Utility Investments are expected to be elevated over the next several years due to… demand to replace or modernize aging infrastructure.[22]
   - The investments will go toward upgrading aging transmission and distribution systems, new natural gas, solar and wind generation, and the deployment of new technologies, including smart meters, smart grid systems, cybersecurity measures, electric vehicle charging and battery storage. The significant level of spending is expected to serve as the basis for solid profit expansion in the sector for the foreseeable future.[23]
   - Spending is estimated at $27.2 billion in 2024.[24]

[20] Direct Testimony of Kimber L. Shoop, "Chart 1: Visual Depiction of Rate Increase Drivers" P. 15
[21] RRA Financial Focus "Utility Capital Expenditures Update" November 8, 2023
[22] S&P Global RRA Financial Focus: Utility Capital Expenditures Update P. 1
[23] *Id* P. 3, Lines 5-9
[24] *Id* P. 4, Lines 14-15

2. Through the Energy Institute at Haas, Karl Dunker Werner and Stephen Jarvis published a paper in August 2023. "They indicated that between 2020 and 2050, North and Central American investments in electricity transmission and distribution will likely amount to $1.6 trillion, with a further $1.7 trillion for electricity generation and storage".[25]

In its application, the Company indicated they have invested $987 million over the past two years on its power delivery system.[26] While these investments will be discussed in greater detail by PUD Witnesses Paul Alvarez and Dennis Stephens, the awarded return OG&E will ultimately be allowed to earn as profit on these investments will have a significant impact on customer bills. PUD believes that the Company's ability to invest in infrastructure and maintain a grid that provides safe and reliable service to customers is a necessity, but there must be an appropriate balance between those grid enhancements and ensuring that customers maintain affordable electric rates. Awarding a reasonable return, commensurate with the risk associated with an Investor-Owned Utility, is one way to achieve that balance.[27]

[25] Energy Institute at Haas "Rate of Return Regulation Revisited" Page 2
[26] Direct Testimony of Kimber Shoop P. 5, Lines 14-15
[27] Final Order No. 738571 in Case No. PUD 2022-000093 P. 7, Line 24-26

Q: Please summarize PUD's concerns with awarding OG&E an inappropriately high ROE.

A: PUD has a couple of concerns.

1. Profitability.

- In general, ROE is considered a gauge of a corporation's profitability and how efficient it is in generating profits. OG&E posted profits of $439.5 million in 2022, $350 million in 2021 and $339 million in 2020.[28] Most, if not all companies are attempting to weather this current economic and inflationary storm, however, it is without a doubt that a many of OG&E customers are failing to make ends meet. Nearly 32 percent of Oklahoman find it difficult to pay usual household expenses.[29] With Oklahoma experiencing an income poverty rate of 15.6 percent, Oklahoma is the 11th highest in the country.[30] Also, an article published in The Journal Record found Oklahoma ranks 11th among states with the most financial distress.[31] Attention to the Company's ratepayers can be achieved by reducing the awarded ROE, thereby decreasing the Company's requested increase by well over $50 million dollars, which is critical to balancing customer and investor interests.

2. Inflation.

- An article published through CNN in June 2023 indicated: "It's the 11th consecutive month that inflation has slowed, and it's a welcome reprieve from

[28] The Oklahoman published February 24, 2023
[29] U.S. Census Bureau Household Pulse Survey. "Standard Error Table 1. Difficulty Paying Usual Household Expenses in the Last Days, by Select Characteristics." Week 31 Household Pulse Survey: May 26 - June 7. U.S. Department of Commerce. 2021
30 United States Census Bureau. "American Community Survey (ACS)." 2021 American Community Survey. U.S. Department of Commerce, 2022.
31 McNutt, Kathryn, "Oklahoma ranks 11th among states with most financial distress." The Journal Record, November 30, 2023

the painful shock of persistently high inflation endured during the past two years. This time last year, that CPI print was more than double at 8.6%."[32]

- In its Findings of Fact, Conclusions, and Order issued on July 17, 2023, the Minnesota Public Utilities Commission noted "[a]nd while the Company declined to modify its recommended 10.20% return, it continued to emphasize the relevance of financial market conditions, both existing and expected, when setting the return-on-equity, noting that near the time the updated data was filed, the Federal Reserve cautioned that the longer inflation continued, the more likely that expectations of higher inflation could become entrenched. At that time, there was significant uncertainty about the direction, duration, and impact of inflation. But this sharp, upward trend in inflation has not continued into 2023; rather, inflation has declined since the highest point of inflation in June 2022, with more substantial declines in 2023. The economic outlook is now considerably better than it was in 2022.[33]
- An article published by the AP in August 2023 writes "Over the past year, inflation in the United States has tumbled from 9% all the way to 3%, softening most of the price pressures that have gripped the nation for more than two years."[34]
- However, an article published by CNBC on April 10, 2024, indicates that the Consumer Price Index ("CPI") rose 0.4% for the month, putting the 12-month

[32] CPI Report: US inflation is coming back down to Earth, June 13, 2023
[33] In the Matter of the Application of Northern States Power Company, dba Xcel Energy, for Authority to Increase Rates for Electric Service in the State of Minnesota; Findings of Fact, Conclusions, And Order issued July 17, 2023, in Docket No. E-002/GR-21-630 P. 90 "b. Changes in Market Conditions", Lines 4-12
[34] US inflation has steadily cooled, August 8, 2023

inflation rate at 3.5%, or 0.3 percentage points higher than February 2024.[35] Despite the uptick of inflation in 2024, inflation has cooled considerably from it's high of 9.1% in June 2022. The need for OG&E to request such a large ROE because of inflation, is no longer as legitimate of a reason.

THE PROXY GROUP

Q: What is the purpose of a proxy group?

A: The purpose of a proxy group is to help estimate the cost of equity of a particular firm and offers multiple benefits when analyzing Cost of Capital. One benefit to using a proxy group is a larger sample size, and the increased confidence in the results from a model due to that increased sample size. Second, it is better to assess the financial integrity of an individual company when comparing it to financially healthy companies. Finally, it is necessary to use a proxy group when estimating the cost of equity of a firm that is not publicly traded. This is because some of the primary models used to calculate the cost of equity rely on data from publicly traded firms, such as stock prices and dividends.

Q: What proxy group did PUD select for its analysis in this Case?

A: PUD chose to use the same proxy group as Company witness Ann Bulkley. Arguments can be made for the addition or removal of some firms from the proxy group; however, PUD believes that the results ultimately depend more on the underlying assumptions and the specific inputs used in the models rather than the firms chosen for the proxy group. Cost of Capital witnesses will almost certainly get different results for their cost of equity

[35] CNBC "Consumer Prices rose 3.5% from a year ago in March, more than expected" April 10, 2024

estimates using the same proxy group, and the addition of different or altered proxy groups only adds an unnecessary variable to the discussion. By removing this from the debate, the focus on the factors that drive the differences between PUD's and Ms. Bulkley's cost of equity estimation remain at the forefront.

DISCOUNTED CASH FLOW ANALYSIS

Q: Please describe the DCF model.

A: The DCF model is one of the oldest and most commonly used models to estimate the cost of common equity for public utilities. It is based on the "dividend discount model" which maintains that the value of a security is equal to the discounted present value of all future cash flows it generates, and relies on four assumptions:

1. Investors evaluate common stocks in the classical valuation framework (i.e., investors trade securities rationally and prices reflect their perceptions of value).
2. Investors discount the expected cash flows in every future period.
3. The (k) obtained from the DCF equation corresponds to that specific stream of future cash values alone.
4. Dividends, rather than earnings, constitute the source of value.

While there are several variations of the DCF model, PUD elected to use the Quarterly Approximation DCF model, which is designed to recognize the quarterly payment of dividends.

Q: What are the inputs used in the DCF model?

A: There are three inputs used in the DCF model: stock price (P_0), dividend (D_0), and growth rate (g). Stock prices and dividend payments are observed and known, while the growth rate must be estimated. The equation used for the Quarterly Approximation DCF model is shown below:

$$K = [1 + D_0/P_0]^4 (1 + g) - 1$$

Where K is the estimated cost of equity.

Q: How did PUD determine the stock price input used in the DCF Model?

A: For the stock price (P_0), a 30-day average of stock prices for each company in the proxy group was used. Analysts may choose to use a longer period for stock prices but according to the efficient market hypotheses, all information known at the time is contained in the current stock price,[36] and an old stock price contains outdated information. The stock prices used in PUD's DCF model are 30-day averages of the adjusted closing stock prices for each company in the proxy group. By using a 30-day average for the current stock price, any irregularities that may exist in a single stock price, such as abnormal price volatility, are removed.

Q: How did PUD determine the dividend input used in the DCF model?

A: PUD used the Quarterly Approximation DCF Model in its analysis, which assumes each company increases the dividend payments each quarter by $(1 + g)^{0.25}$. This expression can be described as the quarterly dividend growth rate, where the term (g) is the growth rate

[36] Bodie, Kane, and Marcus, *Investments*, Second Edition, 357.

and the exponential term "0.25" represents one quarter of the year. PUD used the most recent quarterly dividend per share reported by the Value Line Investment Survey as the dividend input in the DCF model.

Q: How did PUD determine the growth rate used in the DCF model?

A: While stock price and dividend payments are known values, and can easily be obtained, the growth rate must be estimated. The growth rate is the most contested input of the DCF model because there are several different types of rates which can be used by analysts to estimate the growth rate input. PUD believes that a combination of equally weighted historical and projected growth rates for each proxy company provides a more robust result, used this methodology in its analysis, and is discussed in more detail below. Because past performance is not indicative of future results, investors consider a wide variety of information from different sources, and it is reasonable to assume they consider both historical and projected growth rates in their analysis. All growth rates used by PUD were obtained from Value Line Investment Surveys.

Fundamental Growth Rate

The fundamental growth rate, or retention growth rate, is used because dividend growth is fundamentally based on retained earnings. Retained earnings provide for growth in equity, which provides for growth in a business, and ultimately the potential for increased dividend payments. In this way, the fundamental growth rate can serve to estimate future dividend growth. PUD used an equally weighted average of historical fundamental growth rates from the past five years and projected fundamental growth rates. PUD used an equally

weighted average of all three growth rates listed above as the input (g) for the DCF model.

Dividends per Share ("DPS") Growth Rate

DPS is a very commonly used growth rate for the DCF model. It is especially useful for utility companies because most utilities have stable earnings and pay dividends very consistently. PUD used an equally weighted average of historical DPS growth rates from the past five years and projected DPS growth rates.

Earnings per Share ("EPS") Growth Rate

EPS is also a very commonly used growth rate in DCF models because it directly affects a Company's ability to generate enough earnings to pay dividends. PUD used an equally weighted average of historical EPS growth rates from the past five years and projected EPS growth rates.

Q: What are the results of PUD's DCF model?

A: The Quarterly Approximation was used to estimate the cost of equity for each proxy company. Using the inputs as described above, the average DCF analysis from the 16 companies in the proxy group yielded a result of 9.25%. This result of 9.25% was considered in PUD's final cost of equity recommendation, along with the results of the other models employed.

CAPITAL ASSET PRICING MODEL ANALYSIS

Q: Please describe the CAPM.

A: The CAPM is a market-based model and is founded on the principle that investors demand higher returns for incurring additional risk. The CAPM estimates this required return, and relies on the following assumptions:

1. Investors are rational, risk-averse, and strive to maximize profit and terminal wealth.
2. Investors make choices based on risk and return. Return is measured by the mean returns expected from a portfolio of assets; risk is measured by the variance of these portfolio returns.
3. Investors have homogenous expectations of risk and return.
4. Investors have identical time horizons.
5. Information is freely and simultaneously available to investors.
6. There is a risk-free asset, and investors can borrow and lend unlimited amounts at the risk-free rate.
7. There are no taxes, transaction costs, restrictions on selling short, or other market imperfections; and
8. Total asset quality is fixed, and all assets are marketable and divisible.

Q: Does the CAPM satisfy the legal standards as set forth by the Court?

A: Yes. The CAPM directly considers the amount of risk associated with the investment in a particular utility. By considering the risk, it satisfies the Court's decisions in *Hope* and *Wilcox* when the Court said, "the amount of risk in the business is a most important factor"

in determining the appropriate authorized rate of return.[37] The Court also held that "the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks."[38] PUD believes that the CAPM is a very relevant model because it directly measures the risk and factors that are included in the cost of equity it estimates.

Q: What are the inputs used in the CAPM?

A: The inputs for the CAPM are the risk-free rate (R_f), the return on market (R_m) and the beta coefficient (β). The general form for the CAPM is as shown below:

$$K = R_f + \beta (R_m - R_f)$$

Where K is the cost of equity estimated by the model. $(R_m - R_f)$ when considered as a whole term, is known as the market risk premium; and it represents the required return on the overall market, less the risk-free rate. The inputs explained above are discussed in more detail below.

Q: What is the risk-free rate?

A: The risk-free rate (R_f) is the level of return investors can receive without assuming any risk. Although there is no truly riskless investment, PUD considers the risk-free rate as the bare minimum return that investors would be willing to take for the least risky security. Investors often use U.S. Treasury securities to represent the risk-free rate because it is accepted that those securities contain almost no default risk.

[37] *Wilcox v. Consolidated Gas Co.*, 212 U.S. 19 (1909), 48.
[38] *Federal Power Commission v. Hope Natural Gas Co*., 320 U.S. 591, 603 (1944).

Q: What did PUD use as the risk-free rate in its CAPM analysis?

A: PUD used a 30-day average of the 30-year U.S. Treasury Bond rate for two reasons. First, common stock for utilities is generally viewed as a long-term investment, and cash flows from dividends are assumed to last indefinitely. Second, shorter-term Treasury Securities are subject to greater volatility than longer-term Securities and can provide unreliable estimates. PUD's analysis concluded a risk-free rate of 4.26%.

Q: What is the beta coefficient?

A: As mentioned earlier, beta represents the risk of a particular security in relation to the entire market. A stock's beta is equal to the covariance of its returns with the returns on a portfolio of the entire market, divided by the portfolio's variance.

Q: What did PUD use for the beta coefficient in the CAPM analysis?

A: PUD used the beta for each company in the proxy group as reported in the Value Line Investment Survey. This beta is slightly adjusted by Value Line to account for the idea that betas tend to gravitate towards 1.0 over time.

Q: What is the market risk premium?

A: The market risk premium ("MRP") term ($R_m - R_f$) is the level of return above the risk-free rate expected by investors in exchange for investing in risky securities.

Q: What did PUD use to estimate the MRP?

A: PUD looked at two different sources when considering what MRP was appropriate for the CAPM analysis: (1) average implied Equity Risk Premium ("ERP"),[39] and (2) the 2021 IESE business school MRP survey. PUD used the average of these two values, which resulted in an MRP of 5.11%.

Q: What are the results of PUD's CAPM analysis?

A: Using the inputs and the equation as discussed above, PUD calculated the CAPM cost of equity for each of the 16 companies in the proxy group. The average CAPM cost of equity of the 16 proxy companies was 8.86%. This result was considered in PUD's final cost of equity recommendation, along with the results of the other models employed.

COMPARABLE EARNINGS ANALYSIS

Q: Please describe the CEM.

A: Unlike the DCF and CAPM which are market-based models, the CEM is an accounting-based model, and is based on the economic concept of opportunity cost. The CEM relies on averaging the actual earned return on equities of a sample of other utility companies.

Q: Would it be better to perform the CEM on a group of competitive firms?

A: Yes. In regulatory proceedings, a CEM analysis is performed on the same proxy group of companies used in the DCF and CAPM analysis. Because regulators act as a surrogate for competition, it would be ideal to perform this analysis on a group of competitive firms,

[39] Damodaran, Average implied ERP, 2018.

with similar risk profiles and business operations, as the company whose cost of equity is being estimated. However, analysts do not always perform the CEM analysis on a group of comparable competitive firms is because it is argued that competitive firms, which are truly comparable to utilities, do not exist.

Q: What are the results of the CEM?

A: PUD averaged the annual earned returns on equity for each of the 16 companies in the proxy group from the past five years. The average result of the CEM was 9.86% and was considered in PUD's final cost of equity recommendation, along with the results of the other models employed.

Q: What is PUD's recommended Return on Equity?

A: In Final Order No.728277 in Case Number PUD 2021-00164, the Commission awarded OG&E an ROE of 9.5%. PUD recognizes that drastic changes in ROE can impact the Company, its ratepayers, and its shareholders. In the attempt to alleviate any perception of a destructive regulatory environment or bias to any particular Investor-Owned Utility, PUD embraces the concept of gradualism, and endeavored to balance this concept with an appropriate ROE recommendation. PUD averaged the three models performed in its analysis, and in the interest of gradualism and degree of risk an Investor-Owned Utility holds, recommends an ROE of 9.30%, with a range of reasonableness between 8.86% - 9.86%. Based on the three models used in this analysis, PUD believes that its recommendation (1) adheres to the concept of gradualism, (2) is reasonable and in the public interest, (3) is consistent with the authorized returns the Commission has recently

awarded Empire District Electric Company and Public Service Company of Oklahoma, (4) is reasonable given OG&E's level of risk as a public utility, and (5) will allow OG&E to maintain financial integrity and provide a fair balance between the Company's shareholders and the ratepayers.

CAPITAL STRUCTURE

Q: Please describe the basic concept of a capital structure.

A: The capital structure refers to the way firms finance its operations through external financing. The primary sources of external financing or capital are long-term debt and common equity. Debt has a lower cost than equity because debt holders have first claim to their contractual interest payments. Equity holders have a lower priority to claims on company assets, and therefore they have higher risk.

Q: What is OG&E's requested capital structure in this Case?

A: OG&E's requested capital structure is weighted 46.5% debt and 53.5% equity.[40]

Q: What is PUD's recommended capital structure in this Case?

A: PUD believes that a balanced capital structure falls within a between a range of 40%-60% debt and 40%-60% equity. Because OG&E's requested capital structure is 46.5% debt and 53.5% equity, PUD believes the Company's requested capital structure is reasonable and does not object to the request in this Case.

[40] WP F-1 Weighted Average Cost of Capital.

Q: What is PUD's recommended Weighted Average Cost of Capital ("WACC")?

A: When PUD's recommended cost of equity and the Company's requested capital structure is updated, the resulting WACC is 7.23%. PUD's recommendation should be used as the rate of return for setting base rates in this Case.

RECOMMENDATION

Q: What is the Public Utility Division's ("PUD") recommendation to the Oklahoma Corporation Commission ("Commission") concerning Oklahoma Gas & Electric's ("OG&E") Cost of Capital?

A: After performing an analysis of OG&E's Cost of Capital, PUD requests the Commission accept the following recommendations:

1. PUD's recommended cost of equity of 9.30%, which is within a range of reasonableness between 8.86% and 9.86%.
2. PUD does not object to OG&E's requested capital structure of 46.50% debt and 53.50% equity. Because the requested capital structure falls between a range of 40%-60% debt and 40%-60% equity, PUD believes the Company's requested capital structure is reasonable.
3. PUD's recommended WACC is 7.23%.

I state, under penalty of perjury under the laws of Oklahoma, that the foregoing is true and correct to the best of my knowledge and belief.

Geoffrey M. Rush

Geoffrey M. Rush

Oklahoma Gas & Electric – Case No. PUD 2023-000087

LIST OF EXHIBITS

GMR-1	*Curriculum Vitae*

CERTIFICATE OF ELECTRONIC SERVICE

This is to certify that on the 26th day of April, 2024, a true and correct copy of the above and foregoing was electronically served via the Electronic Case Filing System to those on the Official Electronic Case Filing Service List, or via electronic mail to the following persons:

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