BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the Matter of the Application of Kansas Gas Service, a Division of ONE Gas, Inc. for Adjustment of its Natural Gas Rates in the State of Kansas	**Docket No. 24-KGSG-610-RTS**

DIRECT TESTIMONY

PREPARED BY

Adam H. Gatewood

UTILITIES DIVISION

KANSAS CORPORATION COMMISSION

July 1, 2024

Contents

Q. Would you please state your name and business address?

A. My name is Adam H. Gatewood. My business address is 1500 Southwest Arrowhead Road, Topeka, Kansas, 66604.

Q. Who is your employer, and what is your title?

A. I am a Senior Managing Financial Analyst in the Utilities Division of the Kansas Corporation Commission.

Q. What is your educational and professional background?

A. I graduated from Washburn University with a B.A. in Economics in 1987 and a Masters of Business Administration in 1995. I have filed testimony on cost of capital and related financial issues before the Commission in more than 160 proceedings involving liquids pipelines, water utility services, electric utilities, and natural gas distribution utilities. I have also filed testimony on cost of capital issues before the Federal Energy Regulatory Commission (**FERC**) in natural gas pipeline and electric transmission dockets.

Q. What issues are you testifying to in this Docket?

A. I am testifying to rate of return (**ROR**) that include capital structure and allowed return on equity (**ROE**) issues related to setting a revenue requirement for Kansas Gas Service (**KGS**) in this docket.

Q. Are you sponsoring any adjustments?

A. My analysis includes an update to Section 7 of KGS's application from the

September 30, 2023, test year to reflect costs and account balances on April 30, 2024.[1] The update noted a slight, less than one percentage point increase in KGS's equity ratio. My analysis and recommendations for KGS rely on the updated balances to be consistent with Staff's test-year updates.

Executive Summary

Q. Please summarize your findings.

A. I recommend the Commission set KGS's revenue requirement using an ROR of 7.53%, which contains an ROE of 9.60% and a cost of debt of 4.40%. If the Commission determines an ROE of something other than 9.60% is appropriate, then I recommend the Commission stay within the 9.30% to 9.90% range.

Table: Staff's Proposed Rate of Return

Staff Proposed Rate of Return for
Kansas Gas Service, Division of OneGas, Inc.
Based on Section 7 Updated to April 30, 2024

	Weight	Cost	Weighted Cost
Long-term Debt	39.79%	4.40%	1.75%
Common Equity	60.21%	9.60%	5.78%
			7.53%

Sources: Section 7, Direct Testimon of Mark W. Smith & Dr. Bruce Fairchild and KCC Data Request 154

This compares to KGS's filed position of a 7.88% ROR, shown in the following

[1] The Application for 24-KGSG-610-RTS is based on a test year of September 30, 2023. KGS's capital structure and cost of debt is sponsored by Mark W. Smith with an update from September 30, 2023, to December 31, 2023. KGS's response to KCC Staff Data Request 154 updates capital Section 7 of the Application to reflect account balances and costs as of April 30, 2024.

table.

Table: KGS's Requested Rate of Return

Kansas Gas Service Division of OneGas, Inc.
Rate of Return in Section 7 of Application
Test Year Ended September 30, 2023
Capital Structure as of December 31, 2023

	Weight	Cost	Weighted Cost
Long-term Debt	40.42%	4.40%	1.78%
Common Equity	59.58%	10.25%	6.11%
			7.88%

Sources: Section 7, Direct Testimony of Mark W. Smith & Dr. Bruce Fairchild

Q. Does your recommendation for a 9.60% allowed ROE and a range of 9.30% to 9.90% allow for the annual performance-based rate-making adjustment (APBR) mechanism advocated by KGS witness Janet L. Buchanan?

A. My recommendation for a 9.60% allowed ROE and the related range assumes the Commission rejects the APBR mechanism requested by KGS. Staff Witness Chad Unrein, Chief of Accounting and Financial Analysis, concludes that the APBR is not necessary for KGS to earn a reasonable return that is in line with its earnings in its other jurisdictions. If the Commission accepts the APBR mechanism, it should adopt an allowed ROE of 9.00%, which is consistent with the average for the low-end of the results from Staff's capital asset pricing models (**CAPM**) and discounted cash flow (**DCF**) models. The low end is reasonable as it recognizes the shift in risks from shareholders to consumers that comes with reducing regulatory lag for KGS.

Q. How did you conclude that 9.60% is a reasonable return on equity for KGS?

A. My recommendation of 9.60% and the range of 9.30% to 9.90% are based on data from the current capital markets applied to accepted financial models and inputs to those models consistent with those used in past rate cases before this Commission. The results of my analysis are summarized in the following table. The results summarized in this table do not reflect the totality of my analysis.

Table: Summary of Staff's Allowed ROE Estimates

Summary of Staff's Allowed ROE Estimates
24-KGSG-610-RTS

Discounted Cash Flow Analyses	Mean	Low	High
Two-Stage Growth DCF Model:			
Based on the Average of Short-Term Growth Forecasts & Long-Term nGDP Forecasts	9.05%	8.69%	9.40%
Internal Rate of Return or Multi-Stage DCF Analysis:			
Using Short-Term Growth EPS Growth & Long-Term nGDP Forecast	8.85%	7.49%	9.74%
Capital Asset Pricing Models			
Based on Historical Return Data, gathered from 1928 - 2023, Reported at Damodaran On-Line			
Historic Arithmetic Returns	10.89%	10.55%	11.91%
Historic Geometeric Returns	9.48%	9.22%	10.26%
Based on Forecasted Return Data:			
J.P. Morgan Asset Management	7.75%	7.51%	8.47%
BlackRock	6.90%	6.72%	7.43%
Kroll, Inc. Forecasted Risk Premium	9.68%	9.41%	10.51%

An ROE estimate is a range, not a specific point, and a range that can only be estimated using several different financial models. It is necessary to pick a specific point within that range to calculate a revenue requirement. I did not rely on a formula or single

model to support my recommendation. Instead, I took a holistic view of my DCF, CAPM analyses, and observations of the debt and equity capital markets. The models provide a considerable amount of information on changes in equity investors' required return as it compares to changes in interest rates since the decision in the recent gas local distribution company (**LDC**) rate cases in Kansas filed by KGS 18-KGSG-560-RTS (**18-560**), Atmos Energy 23-ATMG-359-RTS (**19-359**), Black Hills Energy 21-BHCG-480-RTS (**21-480**) as well as, the last rate case before the Commission 23-EKCE-775-RTS (**23-775**).

Looking strictly at the results of the financial models, the average result of all the models is 8.94%, and the average result of their highest observations is 9.67%. Within that discounted cash flow model average, two observations are above 10.00%. In contrast, the average for all observations is 9.05%, and the average of the highest observations is still only 9.40%. At the same time, the results of Staff's forward-looking capital asset pricing models are below 9.70%.

Staff believes it is important that its recommendations embody consistency across rate cases while accurately reflecting changes in global capital costs. Since the 2008 Global Financial Crisis (**GFC**), jurisdictional utilities that have had their allowed ROEs set by this Commission resulted in an average risk premium over the reported yield of BBB/Baa-rated public utility bonds of about 474 basis points, thus providing shareholders a return on the equity capital that is considerably greater than the required

return on long-term debt of similarly situated utilities.[2]

When virtually all measures of capital costs declined between 2010 and 2021, the risk premiums resulting from Staff's recommendations grew to levels that could justify allowed ROE recommendations *well below* those advocated by Staff. Even with that, Staff's recommendations were some of the lowest recommendations in the nation while still balancing the interests of consumers and stockholders. Over time, recommendations by other commissions' staff and allowed ROEs granted by commissions trended lower. The historically low results of the financial models can be attributed to historically low risk-free returns and low yields across the bond market, which were a consequence of the zero-interest-rate-policies (**ZIRP**) implemented to stimulate the economy after the GFC and then to an even greater extent during the Global Pandemic. Central Banks worldwide ended virtually all elements of ZIRP in 2022, and those policy changes are now reflected in the securities prices of public utilities.

The trend in historically high premiums over risk-free investments was apparent nationally in commission-determined ROEs.[3] Research by Rode and Fischbeck concluded that risk premiums associated with allowed returns granted by commissions could not be justified by merely applying capital market data to the financial models that regulators traditionally relied on in rate cases. These researchers observed the reluctance of commissions and utilities to set or accept allowed returns below the 10%

[2] Value-Line Investment Survey Selection and Opinion, Selected Yields; weekly reporting of yields on A/A and Baa/BBB rated public utility bonds.
[3] Regulated Equity Returns: a Puzzle; Energy Policy; David C. Rode and Paul S. Fischbeck; 133, 2019.

threshold even though capital costs were falling, and economic models justified breaching the 10% threshold. Staff witnessed the same behavior in Kansas after the GFC.

Table: History of Commission Determined Allowed ROEs

Commission Determined Allowed ROEs -- Kansas Utilities

Company	Docket	Order Date	Requested ROE	Ordered ROE	Baa/BBB Utility Bond Yield	Risk Premium
Atmos Energy Corp.	19-ATMG-525-RTS	2/24/2020	10.25%	9.10%	3.92%	5.18%
Kansas City Power & Light	15-KCPE-116-RTS	9/10/2015	10.30%	9.30%	4.80%	4.50%
Atmos Energy Corp.	14-ATMG-320-RTS	9/4/2014	10.53%	9.10%	4.45%	4.65%
Kansas City Power & Light	12-KCPE-764-RTS	12/13/2012	10.40%	9.50%	4.21%	5.29%
Kansas City Power & Light	10-KCPE-415-RTS	11/22/2010	10.75%	10.00%	5.94%	4.06%
Westar Energy Inc.	05-WSEE-981-RTS	12/28/2005	11.50%	10.00%		
Westar Energy Inc.	01-WSRE-436-RTS	7/25/2001	12.75%	11.02%		
Kansas Gas Service Co.	193,305-U	4/15/1996	12.00%	10.50%		
					Average	4.74%

Sources: S&P Capital IQ, reports on Kansas rate cases

Value-Line Investment Survey, Selection and Opinion; Yields on Utility Bonds (25/30 year) Baa/BBB rated

A risk premium recognizes the economic reality that the additional risks associated with equity capital mean that stockholders demand a higher return than bondholders. When I prepared this analysis, a 9.60% ROE was a 368 basis point premium over the yield of BBB/Baa-rated Utility Bonds.[4] The following table provides the risk premiums from Staff's recommendations over the past decade.

[4] 9.60% ROE – 5.92% Yield on Baa/BBB Utility Bond = 3.68% risk premium as of Value-Line reported yields for May 20, 2024.

Table: Risk Premiums of Recent Electric & Gas Dockets

Risk Premium of Recent Electric and Gas Dockets
24-KGSG-610-RTS

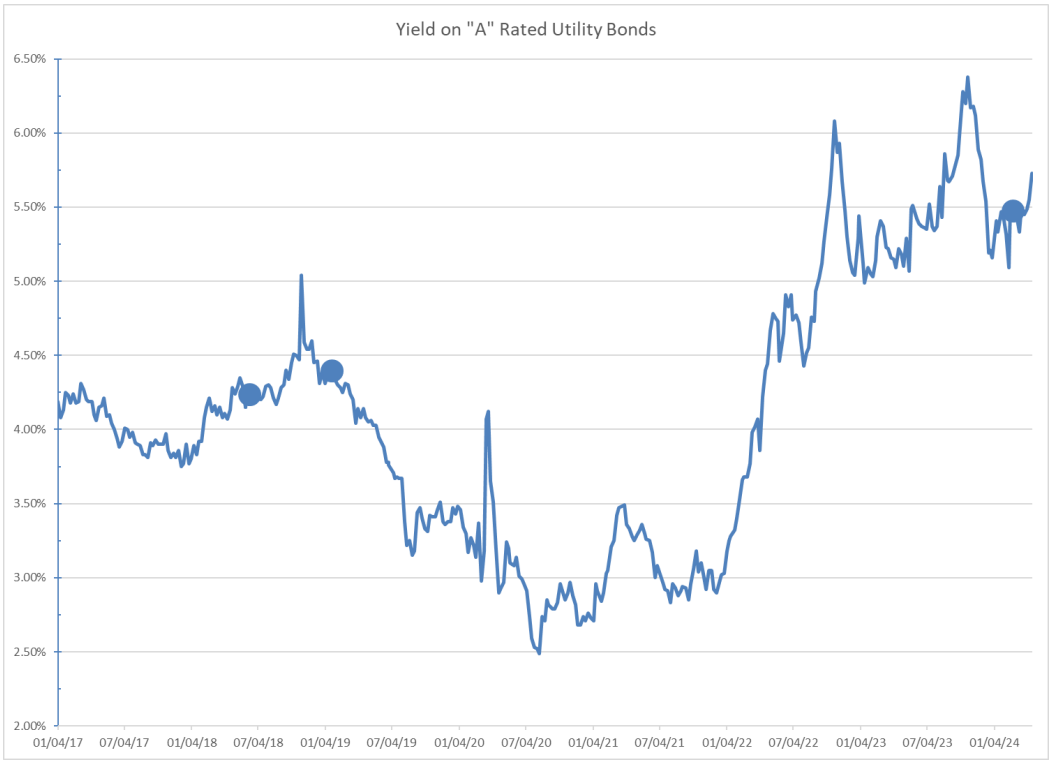
Docket	Testimony Date	Company	Equity Ratio	Staff Recmmd	*BBB/Baa Utility Bond yld.	Resulting Rp
14-BHCG-502-RTS	9/12/2014	Black Hills Corp Ks Gas	50.34%	9.00%	4.45%	4.55%
15-KCPE-116-RTS	5/11/2015	Kansas City Power & Ligh	50.48%	9.25%	4.62%	4.63%
15-WSEE-115-RTS	7/9/2015	Westar Energy	53.12%	9.25%	4.69%	4.56%
16-KGSG-491-RTS	9/7/2016	Kansas Gas Service	55.00%	8.75%	4.05%	4.70%
16-ATMG-079-RTS	12/21/2016	Atmos Energy	56.12%	9.10%	4.74%	4.36%
18-KCPE-095-MER	1/29/2018	Kansas City Power & Ligh	*	9.30%	4.18%	5.12%
18-WSEE-328-RTS	6/11/2018	Westar Energy	51.24%	9.30%	4.61%	4.69%
18-KCPE-480-RTS	9/12/2018	Kansas City Power & Ligh	49.09%	9.30%	4.66%	4.64%
18-KGSG-560-RTS	10/29/2018	Kansas Gas Service	55.00%	9.15%	4.96%	4.19%
19-EPDE-223-RTS	5/13/2019	Empire District Electric Co	51.65%	9.30%	4.37%	4.93%
19-ATMG-525-RTS	10/31/2019	Atmos Energy	56.32%	9.10%	3.78%	5.32%
21-BHCG-418-RTS	9/10/2021	Black Hills Corp Ks Gas		9.20%	3.17%	6.03%
23-ATMG-359-RTS	1/17/2023	Atmos Energy		9.50%	5.32%	4.18%
23-EKCE-775-RTS	8/29/2023	Evergy, Inc.	48.50%	9.30%	5.94%	3.36%
		Average Risk Premium from Recent Gas & Electric Dockets				**4.66%**

* Yield on Baa/BBB Utility Bonds reported by Value-Line Investment Survey at date of Staff's testimony

Q. Is the change in interest rates since KGS's last rate case in 18-560 the key driver underlying your recommendation for a higher allowed return?

A. It is a central issue; my recommendation in this docket reflects investors' required return in the current capital market environment; interest rates provide one means to observe those changes. KGS's 18-560 rate case was filed on June 29, 2018, and the final order was issued on February 5, 2019; during that period, the average yield on "A" rated utility bonds was 4.38% while at the time, KGS filed the current application that yield was 5.44% as illustrated in the following chart.

Graph: Yield on "A" Rated Utility Bonds 2017 - 2024



The increase in interest rates is an issue in determining an appropriate allowed ROE for KGS in this docket, although it is not the sole measure of changes in capital costs. During an economic cycle, the cost of debt and equity generally move in the same direction but seldom in lock-step. In this economic cycle, there has been a more significant increase in debt costs than we have observed with the cost of equity for utilities. This is an important observation for the Commission to consider as it evaluates how much KGS's required ROE has changed since the 18-560 docket with KGS and the 23-ATMG-359-RTS (**23-359**) docket involving Atmos Energy. The cost of equity measures has increased, but not to the degree as the observed interest rates.

Another benchmark measuring capital costs is the dividend yields observed among

natural gas LDC utilities. The following table shows the changes in the average dividend yield of Staff's proxy groups used in recent dockets and bond yields for the same periods. Dividend yields reflect the annual dividend paid to stockholders by the utility divided by the utility's common stock price. In the 18-560 docket, the dividend yield of the proxy group was 2.91% as compared to the current average dividend yield of 4.48%; the higher dividend yields are the result of a decline in stock prices of the proxy group, lower stock prices raise the cost of equity capital.

Table: Comparison of Dividend Yields Across Recent Gas LDC Cases

Comparison of Dividend Yields Across Recent LDC Cases
24-KGSG-610-RTS

Docket	Study Period		*Dividend Yield	**Bond Yield
18-KGSG-560-RTS	9/25/2017	9/17/2018	2.91%	4.08%
19-ATMG-525-RTS	9/17/2018	8/31/2019	3.51%	4.07%
21-BHCG-418-RTS	2/8/2021	8/2/2021	3.88%	3.20%
23-ATMG-359-RTS	6/6/2022	12/5/2022	3.61%	5.10%
24-KGSG-610-RTS	11/5/2023	5/9/2024	4.48%	5.54%

*Average dividend yield during study period for Staff's proxy group
**Average yield on A rated utility during study period

This is the first rate case since the decline in utility stock prices began in late 2023; thus, coupled with the rise in interest rates, it marks a turning point from the persistent decline in capital costs that began with the ZIRP era of monetary policy stimulus that started in 2009.

Q. Why are the dividend yield observations a gauge of changes in the cost of equity?

A. The dividend yield is a direct measure of the discount rate equity investors apply to a stream of income from the common stock of a public utility. The dividend yield is KGS's annual dividend per share divided by its stock price. Dividends paid by utility companies are stable and generally increase each year at a sustainable rate. The annual dividend yield is a significant portion of shareholders' annual return from a public utility company. Investors anticipate changes in the capital markets, adjusting the price they are willing to pay for the stream of dividends via the price they are willing to pay for the stock. The importance of the dividend yield in assessing investors' required return is underscored by its prominent role in the discounted cash flow model.

KGS

Q. Describe KGS.

A. KGS is the largest provider of natural gas services in Kansas, with about 640,000 customers in 340 communities. It reports total gross revenues of $768,000,000 in Kansas.

Table: KGS Operating Statistics

	Avg Customer Count	MCF Sold	Operating Revenue
Residential	591,928	40,243,596	$ 552,488,270
Commercial & Industrial	50,468	12,521,605	$ 145,326,330
Total KS to Ultimate Consumers	642,397	52,794,950	$ 699,218,948
Transportation	5,670	66,897,957	$ 64,766,786
Gas Utility Kansas Supplemental 2023 Annual; p.12			

KGS is a division of ONE Gas, Inc. and is wholly dependent on ONE Gas for financial and operational resources. In its 2023 Form 10-K, ONE Gas summarizes its business in these paragraphs.[5]

ITEM 1. BUSINESS

OUR BUSINESS

ONE Gas, Inc. is incorporated under the laws of the state of Oklahoma. Our common stock is listed on the NYSE under the trading symbol "OGS," and is included in the S&P MidCap 400 Index. We are a 100-percent regulated natural gas distribution utility, headquartered in Tulsa, Oklahoma, and one of the largest publicly traded natural gas utilities in the United States. We are the successor to the company founded in 1906 as Oklahoma Natural Gas Company, which became ONEOK, Inc. (NYSE: OKE) in 1980. On January 31, 2014, ONE Gas officially separated from ONEOK, Inc.

We provide natural gas distribution services to approximately 2.3 million customers and are the largest natural gas distributor in Oklahoma and Kansas and the third largest in Texas, in terms of customers. We primarily serve residential, commercial and transportation customers in all three states. Our largest natural gas distribution markets in terms of customers are Oklahoma City and Tulsa, Oklahoma; Kansas City, Wichita and Topeka, Kansas; and Austin and El Paso, Texas. Our three divisions, Oklahoma Natural Gas, Kansas Gas Service and Texas Gas Service, distribute natural gas to approximately 89 percent, 71 percent and 13 percent of the natural gas distribution customers in Oklahoma, Kansas and Texas, respectively.

ONE Gas, Inc. is publicly traded, with institutions holding 95% of its outstanding common stock. The largest holders are BlackRock, Inc., holding 13.46%, Vanguard Group, Inc., 11.55%, and State Street Global Advisors, Inc., 5.68%.[6] On May 2, 2024, ONE Gas common stock traded at $65.09 per share, resulting in a market capitalization of $3.67 billion (stock price multiplied by the number of shares outstanding) and an enterprise value of $6.72 billion (market capitalization plus book value of debt). Value-Line Investment Survey ranks ONE Gas as a "mid-cap," meaning its market capitalization is in the middle of the field compared to all other companies covered by Value-Line's research.[7] ONE Gas is rated A- by S&P Global Ratings and A3 by Moody's Investor Services, which is indicative of its low level of business and financial risk. ONE Gas's bond ratings are well within the "investment grade" rating, indicating a very high likelihood of ONE Gas bondholders receiving timely interest and principal

[5] Form 10-K, ONE Gas, Inc. 2023; p. 7.
[6] ONE Gas, Inc. reported by S&P Capital IQ.
[7] Value-Line Investment Survey places ONE Gas, Inc.'s market capitalization at $3.5 billion and labels it a "mid-cap" as a means to rank its size relative to all other publicly traded stocks. Value-Line Investment Survey; Company Report on ONE Gas, Inc. February 23, 2024.

payments. When compared to the population of publicly traded utilities, ONE Gas's bond rating is above the average.

Q. How has ONE Gas performed as an investment?

A. The common stock prices of all public utilities declined from their peak levels in late 2022. The total return for ONE Gas from February 3, 2014, when it began trading, is 162% compared to 152% for the S&P 500 Utilities Index and 229% for the S&P 500 Index.[8] In the past nine months, ONE Gas's stock price and S&P 500 Utilities Index have declined significantly, brought on by the macroeconomic events of higher inflation and interest rates. These events and investors' reactions do not reflect utility management's abilities or regulators' decisions; instead, they reflect a broad shift in investor sentiment in response to macroeconomic events.

Q. How have ONE Gas earnings and dividends grown historically?

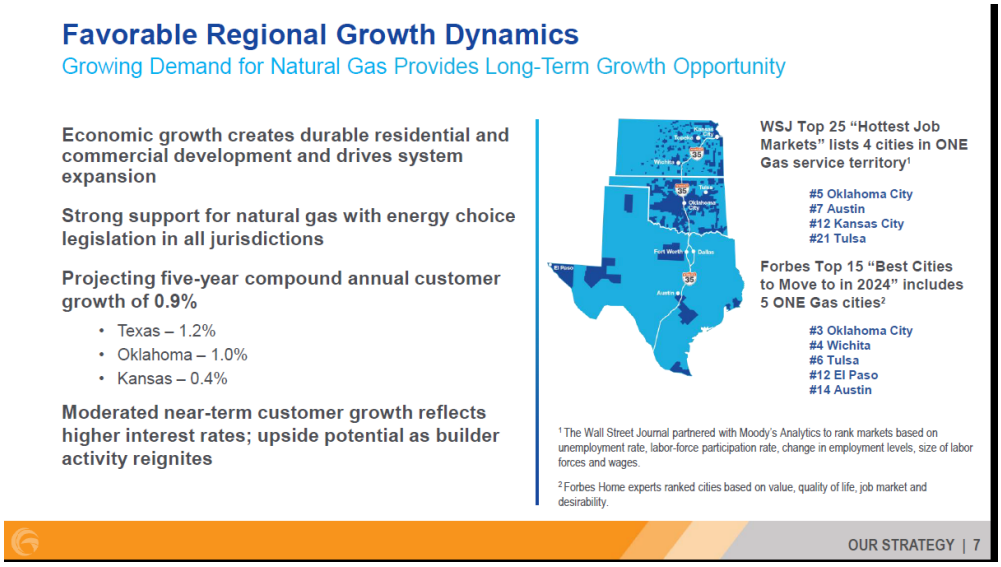
A. From 2015 through 2023, ONE Gas's earnings per share (**EPS**) grew at an annual rate of 8.0%, and its dividends per share (**DPS**) at an annual rate of 10%. Over the next five years, ONE Gas management informs investors to expect annual EPS growth of 4% to 6% and annual DPS growth of 1% to 2%.[9]

Q. Is the economy of KGS's service territory healthy?

A. Yes, by any measure, the Kansas economy and the portion that KGS serves is healthy

[8] Total return data from S&P Capital IQ Pro, January 1, 2014 through May 1, 2024.
[9] ONE Gas Investor Update, March 2024; Delivering Reliable & Affordable Energy; p. 17.

and growing. Granted, volume use per KGS customer has declined and will likely continue to decline, but that is a fact throughout the natural gas distribution industry including the proxy companies Dr. Fairchild and I rely on. The next section of my analysis addresses the national economy, and in that section, I note the resilience of the U.S. economy; the KGS territory has shown comparable resilience. I agree with the sentiments expressed by Dr. Fairchild, "(t)he financial results of LDCs are also heavily dependent on general economic conditions, not only in terms of the overall activity of business, but also in the growth of households and use per customer."[10] Kansas has a strong economy, with unemployment at 2.8% compared to 4.0% nationally and GDP growth of 4.3% compared to 2.5% nationally.[11] [12] ONE Gas's presentations to investors highlight the desirability of two large cities in its territory.[13]



[10] 24-KGSG-610-RTS, Fairchild Direct, p.8, Lines 1-4.
[11] U.S. Bureau of Labor Statistics; https://www.bls.gov/charts/state-employment-and-unemployment/state-unemployment-rates-map.htm
[12] GDP rate of change 2022 to 2023, reported by U.S. Bureau of Economic Analysis.
[13] ONE Gas Investor Update; June 2024; p.7.

These economic statistics encompass historic data of the territory. Going forward, adjacent to KGS's territory, construction has started on a major lithium battery plant. Though not in KGS's service territory, this is a major project in the region that will benefit KGS as the employment base expands.

Macro-Economic Environment & Investor Expectations

Q. Is it necessary for the Commission to forecast the economy to determine a reasonable return?

A. I have advised the Commission that determining a fair and reasonable allowed return does *not* require it to make an independent forecast of the economy's future or even adopt a specific perspective on the economy's direction. The focus of setting a fair and reasonable allowed return is on the *investors'* required return, which is a product of the *investors'* expectations for the economy, not that of any utility commission. Investors' expectations for the economy are captured within the Commission's cost of capital decision, provided the Commission's decision is based on market-derived data such as current stock prices, interest rates, and other market data that conveys investors' outlook for the economy. It is unnecessary, and likely counterproductive, for regulators to second-guess the capital markets. It is a well-accepted premise that our capital markets are efficient, where investors factor all available information into their decisions to buy and sell debt and equity securities. Those decisions establish the prices that are used in cost of capital analyses. Furthermore, rational, profit-maximizing investors are forward-looking. Accordingly, investors incorporate their forecasts of the economy into their decisions in their best attempt to maximize returns.

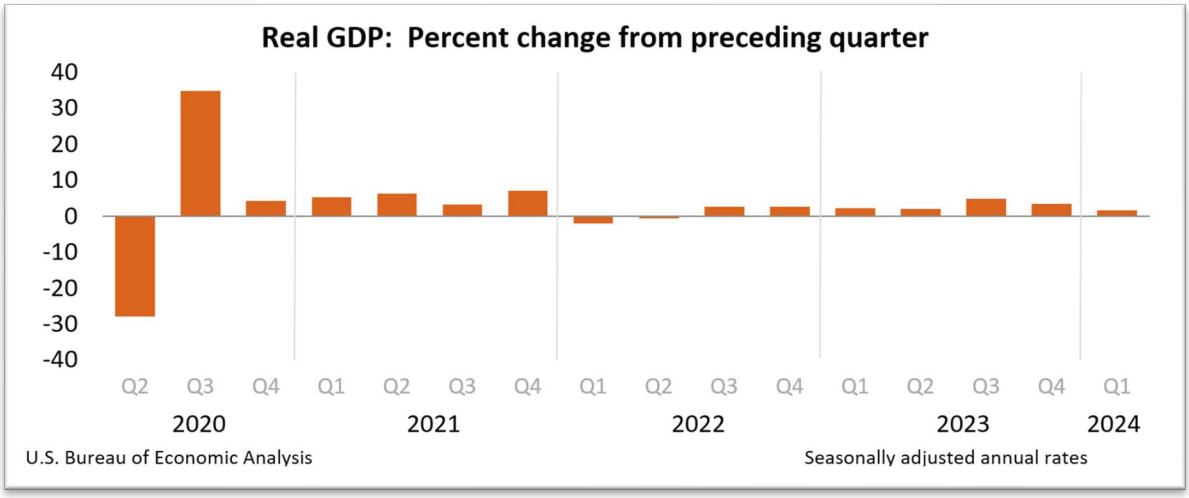
Q. Do you believe the Commission benefits from some discussion of economic forecast when setting allowed returns?

A. Yes, particularly in the wake of the global events of the past few years that saw unprecedented levels of fiscal and monetary stimulus by governments across the globe, which began with the Covid-19 pandemic in early 2020, followed by the Russian/Ukrainian war in February of 2022, as these events shaped the current global economy. The effects of these actions began to appear in the first quarter of 2020; U.S. real gross domestic product (**GDP**) experienced a -5.1% growth from the previous quarter, followed by a record -31.2% growth in the second quarter. That steep decline in real GDP was historic, as was the 33.8% rebound in real GDP growth in the third quarter of 2020 as the economy began to reopen. On an annual basis, real GDP grew at -2.20% in 2020, 5.80% in 2021, 1.90% in 2022, and 2.50% in 2023.[14] Forecasts are growth of 2.10% in 2024 and 1.50% in 2025.[15]

[14] Bureau of Economic Analysis, https://www.bea.gov/sites/default/files/2021-07/gdp2q21_adv.pdf

[15] The Conference Board Economic Forecast for the US Economy, December 14, 2022; https://www.conference-board.org/research/us-forecast#:~:text=This%20outlook%20is%20associated%20with,percent%20year%2Dover%2Dyear.

Graph: Quarterly Changes in Real GDP 2022 - 2024



After the recovery in 2021, U.S. real GDP growth declined in each of the first and second quarters of 2022, -0.9% and -1.60%, respectively. Two consecutive quarters of negative real GDP growth are often regarded as the start of a recession, although this occurrence was not deemed to be a recession due in part to a robust labor market despite the declines in economic activity.[16] Aggregate real GDP output recovered to pre-pandemic output levels by the second quarter of 2021.

[16] Past economic cycles may be viewed at https://www.nber.org/research/business-cycle-dating.

Graph: Real GDP 2006 - 2024

Unemployment has returned to historically low levels, very near that just prior to the 2020 pandemic-induced recession; in May 2024, the rate was reported at 4.00%.

Graph: U.S. Unemployment 1948 - 2024

The Federal Reserve Bank Open Market Committee's (**FOMC**) action on interest rates attracts more headlines than any other part of the Federal Reserve's policy statements. In March of 2022, FOMC began raising the target rate of the Federal Funds, a short-term interest rate, while taking steps to roll back quantitative easing policies to raise longer-term interest rates. Both of these steps work toward reducing economic activity to bring demand and supply of goods and services back into balance, thereby reducing

inflationary pressures in the economy. In 2022, the FOMC raised the Federal Funds rate by 375 basis points, including an unprecedented four increases of 75 basis points.[17] Throughout the post-COVID economic volatility, the FOMC members have consistently advocated for a target of 2.00% inflation and 2.00% real GDP growth over the long run. These targets were in place for several years before the pandemic, and FOMC members' economic projections indicate they expect to meet those by 2025.[18]

Q. Does the risk of persistent inflation demand that the Commission provide KGS a premium or risk adder to compensate investors?

A. No, having recently experienced a brief, severe recession related to a global pandemic, supply chain disruptions caused by the worldwide pandemic and war in Europe, and several quarters of high inflation, as well as lingering levels of inflation well above the FOMC's 2.0% target, investors are aware of the risks a potential recession poses to corporate profits and the broad economy. We know that financial markets are efficient, so it is likely that persistent inflation, the FOMC's response with higher interest rates, and tighter monetary policy are the primary causes for the decline in utility stock prices. Investors constantly assess and reassess these risks and price securities accordingly; those prices are inputs to the CAPM and DCF analyses. Thus, these risks and the decline in utility stock prices are captured in my study of the proxy group, and no explicit adjustment is warranted. Relying on current data captures investors' required

[17] https://www.federalreserve.gov/monetarypolicy/openmarket.htm

[18] Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assumptions of projected appropriate monetary policy, March 2024; https://www.federalreserve.gov/monetarypolicy/fomcprojtabl20240320.htm

return for putting their capital at risk.

Staff's Cost of Equity Analysis

Q. Please summarize the results of your cost of equity analysis.

A. Staff recommends the Commission authorize a 9.60% ROE with a range of 9.30% to 9.90%. The table below summarizes the cost of equity estimates from my study in this Docket. I relied on a discounted cash flow (**DCF**) model, a multi-stage form of the DCF model known as an internal rate of return (**IRR**) analysis, and the capital asset pricing model (**CAPM**). These are the models I typically use to estimate a utility's required return on equity. The results in this table are based on capital markets data taken from the six months of November 6, 2023, through May 9, 2024.

Table: Summary of Staff's Allowed ROE Estimates

Summary of Staff's Allowed ROE Estimates
24-KGSG-610-RTS

Discounted Cash Flow Analyses	Mean	Low	High
Two-Stage Growth DCF Model:			
Based on the Average of Short-Term Growth Forecasts & Long-Term nGDP Forecasts	9.05%	8.69%	9.40%
Internal Rate of Return or Multi-Stage DCF Analysis:			
Using Short-Term Growth EPS Growth & Long-Term nGDP Forecast	8.85%	7.49%	9.74%
Capital Asset Pricing Models			
Based on Historical Return Data, gathered from 1928 - 2023, Reported at Damodaran On-Line			
Historic Arithmetic Returns	10.89%	10.55%	11.91%
Historic Geometeric Returns	9.48%	9.22%	10.26%
Based on Forecasted Return Data:			
J.P. Morgan Asset Management	7.75%	7.51%	8.47%
BlackRock	6.90%	6.72%	7.43%
Kroll, Inc. Forecasted Risk Premium	9.68%	9.41%	10.51%

Q. For a point of comparison, will you please summarize the return on equity decisions made by this Commission and other Commissions across the country?

A. The first table below contains the allowed return on equity decisions made by this Commission in litigated rate cases. As a point of reference to the prevailing capital markets at that time, I included the yield on the Baa/BBB-rated public utility bonds as of the month of the Commission's decision.

Table: Commission Determined Allowed ROEs

Commission Determined Allowed ROEs -- Kansas Utilities

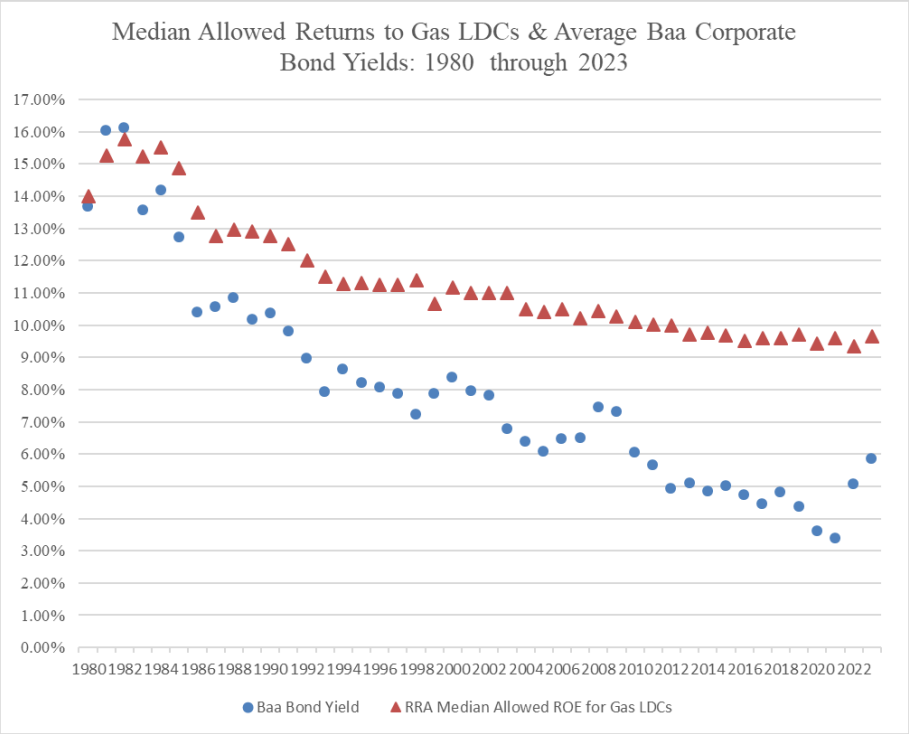
Company	Docket	Order Date	Requested ROE	Ordered ROE	Baa/BBB Utility Bond Yield	Risk Premium
Atmos Energy Corp.	19-ATMG-525-RTS	2/24/2020	10.25%	9.10%	3.92%	5.18%
Kansas City Power & Light	15-KCPE-116-RTS	9/10/2015	10.30%	9.30%	4.80%	4.50%
Atmos Energy Corp.	14-ATMG-320-RTS	9/4/2014	10.53%	9.10%	4.45%	4.65%
Kansas City Power & Light	12-KCPE-764-RTS	12/13/2012	10.40%	9.50%	4.21%	5.29%
Kansas City Power & Light	10-KCPE-415-RTS	11/22/2010	10.75%	10.00%	5.94%	4.06%
Westar Energy Inc.	05-WSEE-981-RTS	12/28/2005	11.50%	10.00%		
Westar Energy Inc.	01-WSRE-436-RTS	7/25/2001	12.75%	11.02%		
Kansas Gas Service Co.	193,305-U	4/15/1996	12.00%	10.50%		
					Average	4.74%

Sources: S&P Capital IQ, reports on Kansas rate cases

Value-Line Investment Survey, Selection and Opinion; Yields on Utility Bonds (25/30 year) Baa/BBB rated

The following chart is broader in both the time and reporting scope. It indicates the median return on equity granted in fully litigated rate cases nationwide from 1980 through 2023. As a point of reference to the prevailing capital markets, I included the average yield to maturity of Baa corporate bonds reported by Moody's Analytics.

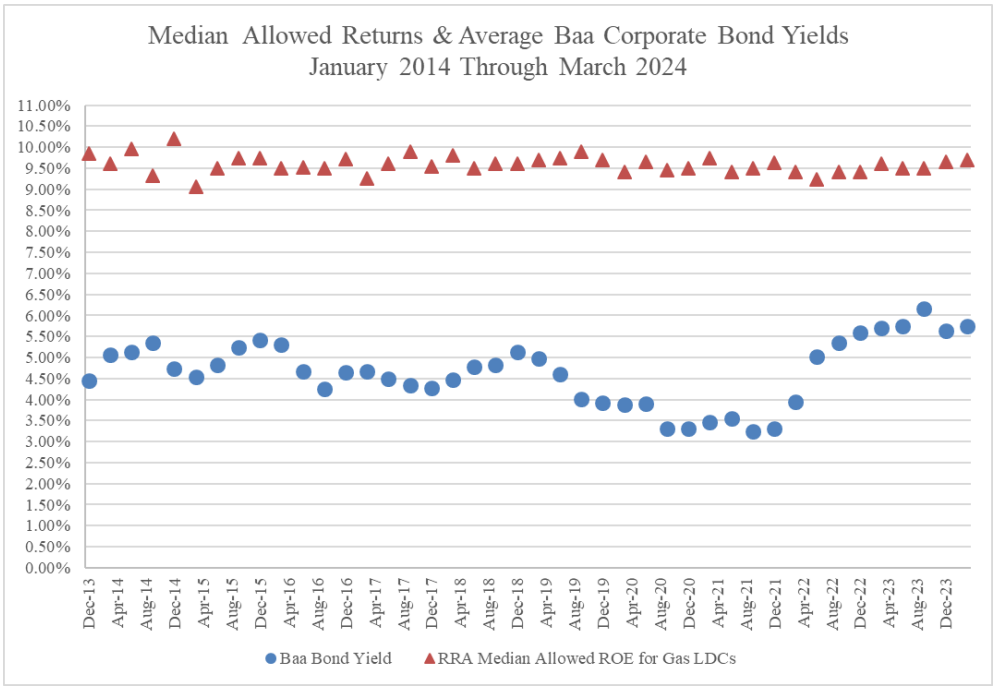
Graph: Allowed Returns Granted to Gas LDCs & Bond Yields 1980 - 2024



The following chart highlights the last decade, from January 2014 through March 2024. Compared to the decline seen in the chart of the long-term perspective, the past eight years show a plateau in the median allowed return granted and a decrease in interest rates until late 2021. In writing this testimony in May 2024, current interest rates on utility debt are at a level last seen in 2007. As a point of reference, KGS's 18-560 rate case was filed on October 29, 2018, with the order issued on February 8, 2019; at those points, interest rates on public utility debt were 5.45% and 4.68%, respectively.[19]

[19] In this paragraph the benchmark interest rates I refer to are the Baa/BBB rated Public Utility Bonds tracked by Value-Line Investment Survey.

Graph: Allowed Returns Granted to Gas LDCs & Bond Yields 2014 - 2024



In 2023, the median allowed ROE granted to natural gas LDCs was 9.60%; in the first quarter of 2024, it was 9.70%.[20]

Q. How does Staff's recommendation compare to the returns available on other investments?

A. The following table shows Staff's recommendation of a 9.60% ROE, which allows investors a risk premium over less risky debt investments detailed in the table. These income-producing securities are considered alternatives to investments in utility stocks because, like utility stocks, bonds offer stable valuations and higher current income relative to the equity market. Risk premiums vary over time and across market

[20] S&P Capital IQ, Rate Case Statistics.

conditions; thus, no absolute benchmark risk premium sets a reasonable return on equity at a given interest rate, nor has the Commission set a definitive spread over bond yields.

Table: Staff's Risk Premium Based on a 9.60% Allowed ROE

Staff's Risk Premium Over Fixed Income Yields
Based on a 9.60% Allowed ROE
Fixed Income Yield Observations November 2023 through May 2024
24-KGSG-610-RTS

	30 Year (1) Treasury Bond	Utility Bonds (2) A/A
Nov 2023	4.72%	6.00%
Dec 2023	4.20%	5.35%
Jan 2024	4.25%	5.41%
Feb 2024	4.36%	5.35%
Mar 2024	4.37%	5.43%
Apr 2024	4.65%	5.65%
May 2024	4.62%	5.62%
	4.45%	5.54%

KCC Staff's Recommended ROE	9.60%
Average Yield on 30 Year Treasury Bond	4.45%
Equity Risk Premium Over the 30-Year Treasury Bond Yield	5.15%

KCC Staff's Recommended ROE	9.60%
Average Yield on "A" Rated Utility Bonds	5.54%
Equity Risk Premium Over "A" Utility Bond Yield	4.06%

1) Board of Governors of the Federal Reserve System, 30-Year Treasury Constant Maturity (Federal Reserve Bank of St. Louis, Release H.15)
2) Yield on A Rated Public Utility Bonds 25 to 30 Maturity Reported weekly in Value-Line Investment Survey, Selection & Opinion Section

Standards for a Just & Reasonable Rate of Return

Q. What standards should commissions consider when authorizing a rate of return?

A. The standards for setting a just and reasonable rate of return require that, to be

reasonable, the allowed return must reflect the risks associated with an equity investment in the utility. For the allowed return to be in that reasonable range, it must compensate for those added risks while capturing a fair proportion of consumer benefits. The allowed ROE is best described as the forward-looking discount rate necessary to induce equity investors to commit capital to the enterprise. Standards used to gauge the fairness and reasonableness of an allowed ROE have been stated by courts as the result of appeals of decisions issued by regulatory agencies. Financial analysts and policymakers rely on the courts' decisions to estimate the appropriate cost of capital. The opinions do not articulate precisely how to estimate or model a reasonable cost of capital. Instead, the decisions provide critical questions for policymakers and analysts to consider in determining a reasonable return for a regulated utility.

In general, United States Supreme Court decisions state that returns granted to regulated public utilities should (1) be commensurate with returns on investments of similar risk, (2) be sufficient to assure the financial integrity of the utility under efficient economic management, and (3) change over time with changes in the money market and business conditions.[21] An important takeaway from these decisions is that the United States Supreme Court has afforded regulatory agencies significant latitude in establishing an appropriate ROR and ROE for a utility. The Kansas Supreme Court has recognized and followed this body of law.[22] This Commission has noted this fact

[21] *Smyth v. Ames*, 169 U.S. 466 (1898); *Wilcox v. Consolidated Gas Co*., 212 U.S. 19, 48-49 (1909); *Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n*, 262 U.S. 679, 692-93 (1923); *Federal Power Comm'n v. Hope Nat. Gas Co.*, 320 U.S. 591, 603 (1944).

[22] *Kansas Gas & Elec. Co. v. State Corp. Comm'n*, 239 Kan. 483, 491, 720 P. 2d 1063, 1072 (1986).

in Orders issued in previous dockets.[23]

Q. Will you please discuss how financial analysts apply the standards established by the Courts?

A. For an allowed ROE to meet the legal standards, the return should be as specific as possible to the utility in question. Financial analysts achieve this goal by analyzing the utility in question when it is possible to do so and a proxy group of similarly situated utilities.

There are several court cases that, as a group, are viewed as the keystone to measuring the adequacy of a utility's allowed return. The earliest of these decisions go back to an era when it was not only the "rate of return" at issue but also the fundamental measurement of the investment in the utility enterprise, commonly referred to as rate base. This is less of an issue today as regulators, utility management, and investors readily accept historic depreciated value as the measure of investment to estimate the value of a utility's rate base (as opposed to reproduction cost or market value). The Court's decision in *Bluefield* addressed both rate base and ROR.[24] Treatises on rate of return for public utilities, such as The Cost of Capital – A Practitioner's Guide, agree that *Bluefield* lays out the four standards for a fair return:

1) *Comparable Earnings* – a utility is entitled to a return similar to that being earned by other enterprises with similar risks but not as high as those earned by highly profitable or speculative

[23] Order: 1) Addressing Prudence; 2) Approving Application, in Part; & 3) Ruling on Pending Requests, Docket No. 10-KCPE-415-RTS, November 22, 2010, 37-38.
[24] *Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n*, 262 U.S. 679, 692-93 (1923).

ventures;

2) *Financial Integrity* – a utility is entitled to a return level reasonably sufficient to assure financial soundness;

3) *Capital Attraction* – a utility is entitled to a return sufficient to support its credit and raise capital; and

4) *Changing Level of Returns* – a fair return can change along with economic conditions and capital markets.[25]

As a financial analyst formulating rate of return recommendations for our state Commission, I take from *Bluefield* that the Court requires a rate Order that allows a utility an opportunity to earn a return consistent with the utility's risk profile and consistent with observations in the capital markets. The Court's decision in *Hope,*[26] like that in *Bluefield,* dealt with the valuation of the rate base and the rate of return on that rate base. For the rate of return, the Court in *Hope* affirmed the four standards in *Bluefield.*

Capital Structure & Cost of Debt

Q. What is the capital structure requested by KGS to calculate its revenue requirement?

[25] The Cost of Capital – A Practitioner's Guide by David C. Parcell, Prepared for the Society of Utility and Regulatory Financial Analysts, 1997, pp. 3-13 to 3-14.

[26] *Federal Power Comm'n. v. Hope Nat. Gas Co.*, 320 U.S. 591, 603 (1944). "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 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. The conditions under which more or less might be allowed are not important here. Nor is it important to this case to determine the various permissible ways in which any rate base on which the return is computed might be arrived at. For we are of the view that the end result in this case cannot be condemned under the Act as unjust and unreasonable from the investor or company viewpoint."

A. KGS's requested capital structure is the company's consolidated capital structure as of December 31, 2023. Witness Mark W. Smith, Vice President and Treasurer of ONE Gas sponsors the capital structure and cost of debt. Section 7 of the Application contains the details of the ROR, capital structure calculations, and specific debt issues in the cost of debt.

Table: KGS Requested ROR, Capital Structure, and Cost of Debt

Kansas Gas Service Division of OneGas, Inc.
Rate of Return in Section 7 of Application
Test Year Ended September 30, 2023
Consolidated Capital Structure as of December 31, 2023

	Weight	Cost	Weighted Cost
Long-term Debt	40.42%	4.40%	1.78%
Common Equity	59.58%	10.25%	6.11%
			7.88%

Sources: Section 7, Direct Testimony of Mark W. Smith & Dr. Bruce Fairchild

The test year for this rate case ended September 30, 2023. Mr. Smith updated ONE Gas's capital structure to December 31, 2023, to reflect debt issued after the test year and remove debt related to winter storm Uri, which matures in March 2024.

Q. Does Staff agree with Mr. Smith's post-test-year adjustments?

A. Yes, Mr. Smith made changes to the capital structure occurring after the test year. Staff routinely looks beyond the test year to capture measurable changes to the capital structure so that the capital structure used to set the revenue requirement better reflects

the Applicant's current capitalization. Staff's ROR contains capital structure updates to April 30, 2024, balances.

Q. Does KGS's Kansas operations issue its own debt and equity to the public?

A. No, it does not. The rate base serving Kansas consumers is funded with debt and equity that ONE Gas Corporation obtains through the capital markets or from profits it chooses to retain.

Q. Please discuss the capital structure you rely on to calculate KGS's ROR.

A. I believe KGS and Staff are in general agreement on the methodology to establish the capital structure and cost of debt, and both should be calculated using the capital structure of ONE Gas Corporation. Staff's capital structure contains updates to April 30, 2024, consistent with the update period applied by KCC Staff auditors. The April 30, 2024, update resulted in a very small increase in common equity.

Table: Staff Proposed ROR, Capital Structure, and Cost of Debt Updated to April 30, 2024

Staff Proposed Rate of Return for
Kansas Gas Service, Division of OneGas, Inc.
Based on Section 7 Updated to April 30, 2025

	Weight	Cost	Weighted Cost
Long-term Debt	39.79%	4.40%	1.75%
Common Equity	60.21%	9.60%	5.78%
			7.53%

Sources: Section 7, Direct Testimon of Mark W. Smith & Dr. Bruce Fairchild and KCC Data Request 154

Q. Does the capital structure include the Winter Weather Event Uri debt?

A. Uri related debt is not included in the capital structure. KGS issued securitization bonds to finance Uri related costs, and those securities are not included in KGS's cost of debt; securitization bonds are recovered from consumers through a monthly charge pursuant to authority granted by the Commission in Dockets 21-KGSG-322-GIG and 22-KGSG-466-TAR.

Proxy Group of Natural Gas Distribution Companies

Q. Why is it necessary to select a proxy group?

A. As discussed earlier, the legal standards underlying a reasonable allowed return require that it is commensurate with the risks of the company. A proxy group that is facing similar risks as KGS will provide vital information for establishing a range for a reasonable allowed return.

Q. How did you select a proxy group for your cost of equity analysis?

A. I began with the publicly traded natural gas distribution companies and combination gas and electric utilities followed by Value-Line Investment Survey, which consists of Atmos Energy (**ATO**), Chesapeake Utilities (**CPK**), New Jersey Resources (**NJR**), NiSource Inc. (**NI**), Northwest Natural (**NWN**), ONE Gas, Inc. (**OGS**), Southwest Gas (**SWX**), Spire Inc. (**SR**), and UGI Corp. (**UGI**). Black Hills Corporation (**BKH**) is the only publicly traded company followed by Value-Line as a combination gas and electric utility that exhibits significant investment and earnings in the natural gas distribution industry to be considered a potential proxy company.

I screened this group of ten companies to arrive at a proxy group (**Staff's Proxy Group**) similar in risk to KGS and suitable for the analysis using financial models.

- First, no recent announcements of an acquisition, merger, or asset divestiture. This screen eliminates SWX, which has agreed to divest certain nonutility assets to appease an activist shareholder. It also eliminated CPK as it agreed to acquire gas distribution assets from NextEra Energy. The acquisition was announced in September 2023 and closed in December 2023. Although the transaction is complete, it is unclear if analysts' earnings growth estimates fully encompass the acquisition as it is a proportionally large increase in its rate base and customer count; the regulated utility net plant increased by 30% and customer base by 50%, a transformative acquisition by either metric.
- Second, the companies had to exhibit stable dividends with no reductions during the past year. The remaining companies pass this screen.
- Third, the companies had to exhibit investment-grade bond ratings by the major rating agencies. The remaining companies pass this screen.
- Fourth, I reviewed each company's revenue, net income, and asset percentage derived from natural gas utility operations. I applied a threshold of 50% to begin the review, as that level seems to highlight a natural break among the companies in that industry. Using that threshold on the remaining companies eliminated UGI.
- Last, I verified that financial analysts forecast positive earnings and dividend growth for each of the seven remaining companies.

The following table summarizes the screening process and indicates which companies are used in Dr. Fairchild's analysis.

Table: Staff's Proxy Group Selection Process

Staff Proxy Group Selection Process
24-KGSG-610-RTS

Proxy Group			1	2	3	4	5	6	7	8	9
					Stable	Stable	Ratings		Nat. gas ops. as a % of business		
KGS	Staff				Data	Dividends	Moody's	S&P	Rev	Income	Assets
✓	✓	Atmos Energy	ATO	✓	✓	A1	A-	96%	66%	96%
	✓	Black Hills Energy, Corp	BKH	✓	✓	Baa2	BBB+	64%	NA	NA
✓	X	Chesapeake Utilities	CPK	X	✓			48%	NA	NA
✓	✓	New Jersey Resources	NJR	✓	✓	A1		52%	50%	68%
✓	✓	NiSource, Inc.	NI	✓	✓	Baa2	BBB+	68%	NA	58%
✓	✓	Northwest Natural	NWN	✓	✓	A+		95%	100%	100%
✓	✓	ONE Gas, Inc.	OGS	✓	✓	A-	A3	96%	100%	100%
	X	Southwest Gas	SWX	X	✓	Baa2	BBB-	46%	NA	78%
✓	✓	Spire Inc.	SR	✓	✓	Baa2	A-	92%	92%	82%
	X	UGI Corp.	UGI	✓	✓	A3		21%	NA	37%
	✓	**Pass**								
	X	**Fail**								

1 & 2	Publicly traded natural gas distribution companies followed by Value-Line Investment Survey
3	One year of financial data with no announcements of a merger, significant acquisition, or asset divestiture
4	No dividend reductions in past year
5 & 6	Bond ratings by Moody's and S&P, "investment grade" proxy group is Moody's Baa1 or S&P BBB- and higher
7, 8 & 9	Natural gas distribution segment revenues, income and assets as a portion of total company operations in 2023
*	Proxy groups selected by Staff and KGS possess positive earnings growth rates for the next three to five years.

Sources: Value-Line Investment Survey and S&P Global Market Intelligence

Q. How does Staff's Proxy Group compare to the proxy group selected by Dr. Fairchild for KGS's analysis?

A. Staff and KGS rely on the same proxy group except for BKH, which is in Staff's group but was not considered by KGS, and CPK, which KGS included and Staff excluded because of its recent acquisition. We have six proxy companies in common. My analysis of Dr. Fairchild's recommendation as it compares to my own indicates that proxy company selection is not the driver of the difference in our recommendations, as the primary cause goes to the growth estimates we use in our respective financial analyses.

The following table summarizes four risk measures for the Staff's Proxy Group members. Notable in this table is that OGS has a lower degree of financial risk than the average of Staff's Proxy Group and less financial risk than each member except ATO based on the equity ratio reported and projected by Value-Line; KGS's relatively high equity ratio means that it has less interest expense burden as a fixed cost. The bond rating and Value-Line Financial Strength Rating[27] incorporate capital structure and other broader measures of financial and business risks. These broader measures encompass financial and business risks and indicate that the OGS and Staff's proxy companies are comparable.

Table: Risk Profile Comparison of Staff's Proxy Group Members

Risk Profile Comparison of Proxy Group Members
24-KGSG-610-RTS

		Equity Ratio						
		Actual	Value-Line Forecasts			Bond Rating	Value-Line Financial	Beta
		2023	2024	2025	'27 - '29	Moody's/S&P	Strength	Coef.
Atmos Energy, Corp.	ATO	60.0%	60.0%	60.0%	60.0%	A1/A-	A+	0.85
Black Hills Energy, Corp	BKH	45.5%	45.5%		46.0%	Baa2/BBB+	B++	1.00
New Jersey Resources	NJR	41.8%	42.5%	43.0%	45.0%	A1/na	A	0.95
NiSource, Inc.	NI	35.0%	35.0%	35.0%	37.5%	Baa2/BBB+	B++	0.90
Northwest Natural	NWN	46.0%	47.5%	47.5%	50.0%	A+/na	A	0.85
ONE Gas, Inc.	**OGS**	**58.0%**	**55.0%**	**55.0%**	**49.0%**	**A3/A-**	**B++**	**0.85**
Spire, Inc.	SR	41.3%	44.0%	44.0%	45.0%	Baa2/A-	B++	0.85
Average		**46.8%**	**47.1%**	**47.4%**	**47.5%**	**A3/A-**	**A to B++**	**0.89**
Min		**35.0%**	**35.0%**	**35.0%**	**37.5%**	**Baa2/BBB+**	**B++**	**0.85**
Max		**60.0%**	**60.0%**	**60.0%**	**60.0%**	**A1/A+**	**A+**	**1.00**
Median		**45.5%**	**45.5%**	**45.8%**	**46.0%**	**Baa1/BBB+**	**B++**	**0.85**

Sources: Value-Line Investment Survey February 23, 2024; Black Hills January 19, 2024; and S&P Market Intelligence

The following table quantifies the relative positions of credit and financial strength

[27] Financial Strength Rating: Value-Line classifies 1,700 companies' Financial Strength ratings from A++ to C, in nine step. The lowest grade is reserved for companies experiencing serious financial difficulty. Balance sheet leverage, business risk, the level of and direction of profits, cash flow, earned returns, cash, corporate size, and stock price, all contribute to a company's relative position on the scale. The amount of cash on hand, net of debt, is also an important consideration.

ratings. Based on in-depth analyses performed by Moody's and S&P, the group and OGS are firmly within the investment-grade spectrum.[28] Quantifying the ratings indicates that OGS is close to Staff's Proxy Group's average and median and, therefore, likely similar in risk. That finding does not change when OGS data is removed from Staff's Proxy Group average.[29]

[28] In financial analysis, the term investment-grade is more than an adjective; it is a term of art that conveys a low to moderate risk of the company defaulting on its debt repayment. Investment grade spans the highest rating of AAA down to BBB- by S&P and Aaa to Baa3 by Moodys. Below an investment-grade rating are ratings broadly referred to as "speculative". Certain investment vehicles, for example pensions and portfolios underlying insurance contracts, are limited to only holding bonds in the investment-grade spectrum. Losing an investment-grade rating can dramatically increase a utility's cost of borrowing and limit its access to new capital.

[29] Staff's Proxy Group rankings are based on the following scoring system.

*******Bond Rating******				Value Line Financial	
Moody		S&P		Strength Rating	
Aaa	20	AAA	20	A++	8
Aa1	19	AA+	19	A+	7
Aa2	18	AA	18	A	6
Aa3	17	AA-	17	B++	5
A1	16	A+	16	B+	4
A2	15	A	15	B	3
A3	14	A-	14	C++	2
Baa1	13	BBB+	13	C+	1
Baa2	12	BBB	12	C	0
Baa3	11	BBB-	11		

Table: Risk Ranking of Staff Proxy Group

	Proxy Group Ranking					
	Moody's		S&P		Value-Line	
ATO	A1	16	A-	14	A+	7
BKH	Baa2	12	BBB+	13	B++	5
NJR	A1	16	na		A	6
NI	Baa2	12	BBB+	13	B++	5
NWN	na		A+	16	A	6
OGS	**A3**	**14**	**A-**	**14**	**B++**	**5**
SR	Baa2	12	A-	14	B++	5
Average	**A3 to Baa1**	**13.67**	**A-**	**14.00**	**A to B++**	**5.57**
Min	**Baa2**	**12.00**	**BBB+**	**13.00**	**B++**	**5.00**
Max	**A1**	**16.00**	**A+**	**16.00**	**A+**	**7.00**
Median	**Baa1**	**13.00**	**BBB+**	**14.00**	**B++**	**5.00**

Q. Where do Staff's proxy companies provide natural gas distribution services?

A. The following table indicates the jurisdictions where each of KCC Staff's proxy companies operates; thus, they are subject to the policies of those states' regulatory commissions.

Table: Staff's Proxy Group - State Jurisdictions

KCC Proxy Group
24-KGSG-610-RTS

Proxy Group		States of Operation
Atmos Energy, Corp.	ATO	CO, KS, KY, TN, VA, LA, MS & TX
Black Hills Energy, Corp	BKH	AR, CO, IA, KS, NE & WY
New Jersey Resources	NJR	NJ
NiSource, Inc.	NI	OH, IN, PA, KY & MD
Northwest Natural	NWN	OR & WA
ONE Gas, Inc.	OGS	TX, OK & KS
Spire, Inc.	SR	AL, MO & MS

Source: S&P Capital IQ Pro (Regulatory Research Associates)

Each state commission is charged with setting policies that balance the interests of the LDC's investors and the consumers the LDC serves. Those policies, although details are unique from state to state, generally fall within a few broad categories reported by Regulatory Research Associates[30] (**RRA**): 1) recovery of commodity costs; 2) recovery of costs related to conservation programs; 3) whether if or to the extent that the LDC's revenue requirement is decoupled from its sales volume; and 4) whether the LDC can begin recovery of capital investment outside of a general rate case. Utilities, investors, state commissions, and Dr. Fairchild rely on data published by RRA as it is a longstanding company that reports on the public utility industry and the actions of their regulatory bodies.

Q. How do Staff's Proxy Group members' use of regulatory mechanisms compare to those used by KGS in Kansas?

The following tables summarize the mechanisms in place for each utility in the states where it operates; KGS's Kansas mechanisms are also in those tables.

Table: Summary of Regulatory Mechanisms of KGS & Staff's Proxy Group

Summary of Regulatory Mechanisms of KGS & Proxy Group
24-KGSG-610-RTS

				Decoupling		New capital	
		Gas Costs	Conserv. prog. exp.	Full	Partial	Delivery Infrastructure	Enviromental compliance
Kansas Gas Service Co. (KS)	OGS	Yes	No	No	Yes	Yes	No
Proxy Group Count	27	24	13	2	18	16	2
	% of Proxy Group	88.9%	48.1%	7.4%	66.7%	59.3%	7.4%

There are 27 observations related to Staff's Proxy Group members and the state

[30] Regulatory Research Associates is a public utility industry research service owned by Standard & Poors.

commissions that regulate them. Nearly 89% of those, including KGS, can pass through commodity costs, 67% operate with some form of partial decoupling, including KGS, and 59.3%, including KGS, can recover some level of their capital expenditures outside of a general rate case. KGS lacks a mechanism that recovers expenses of conservation programs, which 48% of observations have in place. In Staff's Proxy Group, there are only two observations of full decoupling, which completely separates the recovery of a revenue requirement from the volume of gas sold. KGS and 66.7% of the observations have partial decoupling in place; that commonly means that these LDCs are allowed some form of annual weather normalization adjustment. Partial decoupling is significant because weather is a primary cause of sales volumes deviating from the level used to set rates.

Table: Regulatory Mechanisms & Adjustment Clauses

S&P Global Market Intelligence

Use of adjustment clauses, as of June 2022													
						Decoupling				New capital			
State/Company	Ultimate parent ticker	Gas Costs		Conserv. prog. exp.		Full		Partial		Delivery Infrastructure		Environmental compliance	
ALABAMA													
Spire Alabama Inc.	SR	✓	*	--		--		✓	*	--		--	
Spire Gulf Inc.	SR	✓	*	--		--		✓	*	--		--	
ARKANSAS													
Black Hills Energy Arkansas Inc.	BKH	✓		✓		✓	*	--		✓	*	--	
COLORADO													
Black Hills Gas Distribution LLC	BKH	✓		✓		--		--		✓	*	--	
INDIANA													
Northern Indiana Public Service Co.	NI	✓		✓		--		--		✓	*	--	
IOWA													
Black Hills Iowa Gas Utility Co.	BKH	✓		✓		--		--		✓		--	
KANSAS													
Atmos Energy Corp.	ATO	✓		--	*	--		✓	*	✓	*	--	
Black Hills/Kansas Gas Utility Co.	BKH	✓		--	*	--		✓	*	✓	*	--	
Kansas Gas Service Co.	OGS	✓		--	*	--		✓	*	✓	*	--	
KENTUCKY													
Atmos Energy Corp.	ATO	✓		✓		--		✓	*	✓		--	
LOUISIANA PSC													
Atmos Energy Corp.	ATO	✓		--		--		✓	*	--		--	
MARYLAND													
Columbia Gas of Maryland Inc.	NI	✓		✓		--		✓	*	✓		--	
MISSISSIPPI													
Atmos Energy Inc.	ATO	✓		--		--		✓	*	✓		--	
MISSOURI													
Spire Missouri Inc.	SR	✓		--		--		✓	*	✓		--	
NEBRASKA													
Black Hills Nebraska Gas LLC	BKH	✓		--		--		--		✓		--	
NEW JERSEY													
New Jersey Natural Gas Co.	NJR	--	*	✓	*	✓	*	--		✓	*	✓	*
OHIO													
Columbia Gas of Ohio Inc.	NI	--	*	✓		--	*	--		✓	*	--	
OKLAHOMA													
Oklahoma Natural Gas Co.	OGS	✓		✓	*	--		✓	*	--		--	
OREGON													
Northwest Natural Gas Co.	NWN	✓		✓	*	--		✓	*	--		✓	*
PENNSYLVANIA													
Columbia Gas of Pennsylvania Inc.	NI	✓		--		--		✓	*	✓	*	--	
TENNESSEE													
Atmos Energy Inc.	ATO	✓		--		--		✓	*	--		--	
TEXAS RRC													
Atmos Energy Inc.	ATO	✓	*	--		--		✓	*	✓		--	
Texas Gas Service Co.	OGS	✓	*	--		--		✓	*	✓		--	
VIRGINIA													
Columbia Gas of Virginia Inc.	NI	✓		✓		--		✓	*	✓		--	
WASHINGTON													
Northwest Natural Gas Co.	NWN	✓		✓		--		--		--		--	
WYOMING													
Black Hills Wyoming Gas LLC	BKH	✓		✓		--		✓	*	✓		--	

Key:
✓ Adjustment clause exists for the company/state/operation.
* See text for further information.
-- Not applicable

Data as of June 2022.
Sources: Regulatory Research Associates, a group within S&P Global Commodity Insights

Q. Do these mechanisms reduce the risks of investing in natural gas LDCs?

A. Yes. These regulatory mechanisms serve to even out cash flow from variables like weather/temperature and commodity costs outside the LDC's control and provide the

LDC recovery of capital deployed, thus reducing regulatory lag. Commissions also recognize that regulatory mechanisms benefit all constituents by reducing the frequency of general rate cases. As cash flows are less volatile and regulatory lags are shortened, we could expect that investors view that as beneficial.

Q. Can you establish that KGS uses regulatory mechanisms comparable to those of Staff's Proxy Group?

A. Yes, I will repeat this table, as it indicates that KGS has regulatory mechanisms similar to those used by most of Staff's Proxy Group.

Summary of Regulatory Mechanisms of KGS & KCC Staff Proxy Group
24-KGSG-610-RTS

				Decoupling		New capital	
		Gas Costs	Conserv. prog. exp.	Full	Partial	Delivery Infrastructure	Enviromental compliance
Kansas Gas Service Co. (KS)	OGS	Yes	No	No	Yes	Yes	No
Proxy Group Count	27	24	13	2	18	16	2
	% of Proxy Group	88.9%	48.1%	7.4%	66.7%	59.3%	7.4%

To provide another view of RRA's data, I assigned a value to each category in RRA's report to compare KGS's use of regulatory mechanisms to that of Staff's Proxy Group. I assigned each category of the mechanisms one point, except for "full-decoupling," which I assigned two points to reflect the fact that full-decoupling protects the LDC's annual revenue from all variables that change sales volumes. Applying a numerical value to these observations is somewhat subjective, but doing so allows us to compare the use of these mechanisms among the 22 different jurisdictions.

This table summarizes the scores for each publicly traded company of Staff's Proxy

Group compared to KGS's score of three points. New Jersey Resources (**NJR**) is an outlier in this exercise, scoring five points, compared to the average of just over three points, because it benefits from full-decoupling and the other three regulatory mechanisms.

Table: Ranking Staff's Proxy Group's Use of Regulatory Mechanisms

Summary Scoring for Proxy Group Reg. Mechanisms

	Points	Obsv.	Avg.
Atmos Energy (ATO)	17	6	2.83
Black Hills Energy (BKH)	20	6	3.33
New Jersey Resources (NJR)	5	1	5.00
NiSource (NI)	16	5	3.20
N.W. Natural Gas (NWN)	6	2	3.00
OneGas, Inc. (OGS)	**9**	**3**	**3.00**
Spire (SR)	7	3	2.33
Group Avg. w/out OGS			3.28
KGS	**3**	**1**	**3.00**

The following table is Staff's work product developed from the RRA data. It shows the state-by-state score for each LDC in Staff's Proxy Group.

S&P Global Market Intelligence

Use of adjustment clauses, as of June 2022

POINT VALUE		**1**	**1**	**2**	**1**	**1**	**1**		
				Decoupling		**New capital**			
State/Company	Ultimate parent ticker	Gas Costs	Conserv. prog. exp.	Full	Partial	Delivery Infrastructure	Enviromental compliance	**Parent**	**Points**
ALABAMA									
Spire Alabama Inc.	SR	✓	--	--	✓	--	--	SR	2
Spire Gulf Inc.	SR	✓	--	--	✓	--	--	SR	2
ARKANSAS									
Black Hills Energy Arkansas Inc.	BKH	✓	✓	✓	--	✓	--	BKH	5
COLORADO									
Black Hills Gas Distribution LLC	BKH	✓	✓	--	--	✓	--	BKH	3
INDIANA									
Northern Indiana Public Service Co.	NI	✓	✓	--	--	✓	--	NI	3
IOWA									
Black Hills Iowa Gas Utility Co.	BKH	✓	✓	--	--	✓	--	BKH	3
KANSAS									
Atmos Energy Corp.	ATO	✓	--	--	✓	✓	--	ATO	3
Black Hills/Kansas Gas Utility Co.	BKH	✓	--	--	✓	✓	--	BKH	3
Kansas Gas Service Co.	OGS	✓	--	--	✓	✓	--	OGS	3
KENTUCKY									
Atmos Energy Corp.	ATO	✓	✓	--	✓	✓	--	ATO	4
LOUISIANA PSC									
Atmos Energy Corp.	ATO	✓	--	--	✓	--	--	ATO	2
MARYLAND									
Columbia Gas of Maryland Inc.	NI	✓	✓	--	✓	✓	--	NI	4
MISSISSIPPI									4
Atmos Energy Inc.	ATO	✓	--	--	✓	✓	--	ATO	3
MISSOURI									
Spire Missouri Inc.	SR	✓	--	--	✓	✓	--	SR	3
NEBRASKA									
Black Hills Nebraska Gas LLC	BKH	✓	--	--	--	✓	--	BKH	2
NEW JERSEY									
New Jersey Natural Gas Co.	NJR	--	✓	✓	--	✓	✓	NJR	5
OHIO									
Columbia Gas of Ohio Inc.	NI	--	✓	--	--	✓	--	NI	2
OKLAHOMA									
Oklahoma Natural Gas Co.	OGS	✓	✓	--	✓	--	--	OGS	3
OREGON									
Northwest Natural Gas Co.	NWN	✓	✓	--	✓	--	✓	NWN	4
PENNSYLVANIA									
Columbia Gas of Pennsylvania Inc.	NI	✓	--	--	✓	✓	--	NI	3
TENNESSEE									
Atmos Energy Inc.	ATO	✓	--	--	✓	--	--	ATO	2
TEXAS RRC									
Atmos Energy Inc.	ATO	✓	--	--	✓	✓	--	ATO	3
Texas Gas Service Co.	OGS	✓	--	--	✓	✓	--	OGS	3
VIRGINIA									
Columbia Gas of Virginia Inc.	NI	✓	✓	--	✓	✓	--	NI	4
WASHINGTON									
Northwest Natural Gas Co.	NWN	✓	✓	--	--	--	--	NWN	2
WYOMING									
Black Hills Wyoming Gas LLC	BKH	✓	✓	--	✓	✓	--	BKH	4

Key:
✓ Adjustment clause exists for the company/state/operation.
*** See text for further information.**
-- Not applicable

Data as of June 2022.

Sources: Regulatory Research Associates, a group within S&P Global Commodity Insights

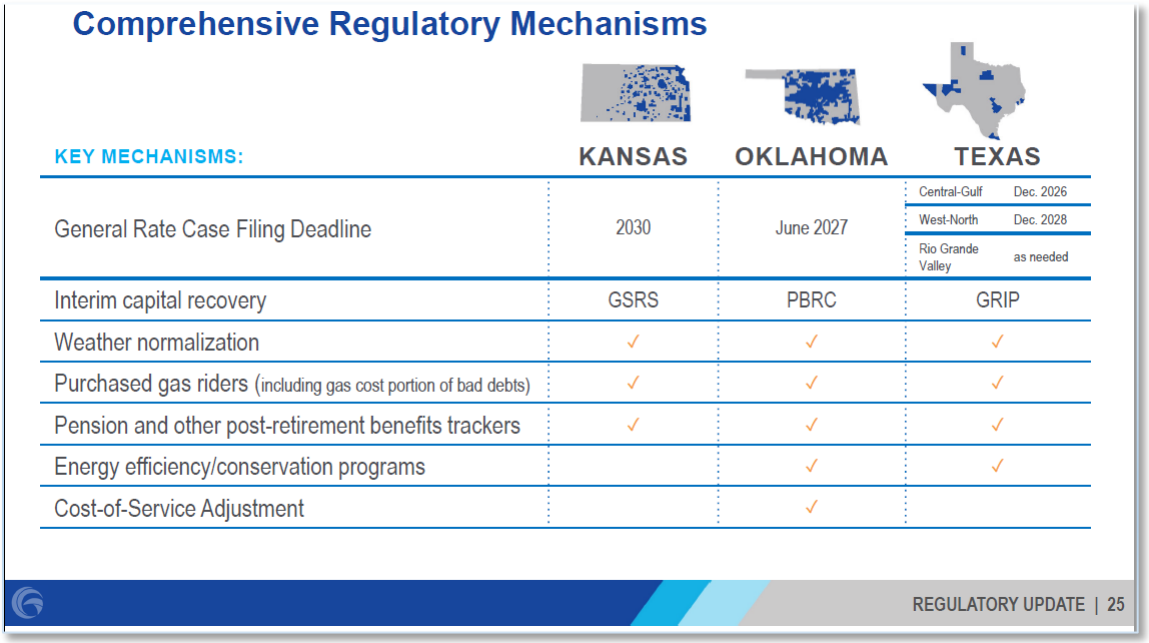
Summary of Regulatory Mechanisms of KGS & KCC Staff Proxy Group
24-KGSG-610-RTS

				Decoupling		New capital	
		Gas Costs	Conserv. prog. exp.	Full	Partial	Delivery Infrastructure	Enviromental compliance
Kansas Gas Service Co. (KS)	OGS	Yes	No	No	Yes	Yes	No
Proxy Group Count	27	24	13	2	18	16	2
% of Proxy Group		88.9%	48.1%	7.4%	66.7%	59.3%	7.4%

Based on RRA's reporting, I believe that KGS's operations are afforded regulatory mechanisms similar to those available to Staff's Proxy Group members.

Q. Does OGS inform investors of the regulatory mechanisms available to it in Kansas, Oklahoma, and Texas?

A. A slide in the presentation summarizes the regulatory mechanisms that OGS has in place in each jurisdiction.[31] KGS compares favorably to the other OGS business units. These regulatory mechanisms reduce regulatory lag and provide KGS with stable cash flow compared to operating without them. Kansas has also provided KGS with rate design policies that enable it to recover 56% of its fixed costs via its monthly fixed charge to customers.[32] The regulatory mechanisms that KGS has been granted in Kansas are relevant to its risk. The Commission should consider KGS's use of these regulatory mechanisms when determining KGS's allowed return.



[31] ONE Gas, Inc. Investor Update March 2024; p. 25.
[32] ONE Gas, Inc. Investor Update March 2024; p. 43.

Staff's Return on Equity Analysis

Q. How did you perform the cost of equity analysis?

A. I used CAPM and DCF models applied to the proxy group. This methodology is identical to those I applied in rate cases before the Commission over the past decade.

Q. Does the DCF model meet the legal standards discussed earlier in your testimony?

A. Yes. A cost of equity estimate derived from the DCF model can meet the legal standards discussed above if it incorporates current information from the capital markets via current stock prices and accurate data investors use to establish their discount rate. This market-based information ensures that cost of equity estimates evaluate investors' required rate of return (**ROR**) or discount rate that reflects the current economic environment.

The DCF model is a valuation model investors use to value investment vehicles such as real estate, bonds, equity securities, and investments involving regular, periodic cash flows. The notion of discounting a future receipt of cash back to the present to place a price or value on an investment goes back centuries.[33] The premise of the DCF model in the valuation of common stock is that investors determine the value of a company's common stock by discounting its future dividend payments back to the present at the investors' required ROR. An investor's required ROR is risk-sensitive and sensitive to the returns available on investments of comparable risk throughout the global capital

[33] The formal presentation of the DCF model as we use it today dates back to the 1930's in Irving Fisher's book: The Theory of Interest and John Burr Williams' 1938 text: The Theory of Investment Value. These two authors expressed the DCF model in modern economic terms.

markets. In other words, as the risk of the investment increases, so will the investors' required ROR. A higher required ROR decreases the present value of the stream of dividends that equates to the stock price. So, all other variables being equal, investors price the riskier of two common stocks lower because the dividends are discounted back to the present at a higher rate.

The form of the DCF model that regulatory agencies are accustomed to seeing is often referred to as the Gordon Growth Model, which is a model that values the security at the present value of a stream of cash flows (dividends) growing at a constant rate into perpetuity. The basic form of this DCF equation is:

$$P_0 = \frac{D_0(1+g)}{(Ke-g)}$$

Where:

P_0 = the value of the common stock or asset
D_0 = the current dividend of the stock or annual cash flow from the asset
g = the annual growth rate of the dividend or cash flow forever
Ke = cost of equity or required ROR for the stockholders

or

Stock Price = Annual Dividend / (Req'd ROR – Dividend Growth Rate)

This is the form of the equation commonly found in finance, investments, and asset valuation texts. Such texts are inclusive of both theory and practical application of the DCF model in utility regulatory settings.

Regulatory agencies responsible for setting rates and revenue requirements want to know the investors' required ROR, or Ke, in the equation. So, we solve the equation for that variable. The equation below shows the algebraic isolation of the investors'

required ROR. By isolating investors' required ROR in the equation, we can estimate it by knowing the stock's dividend yield and the annual dividend growth rate expected by investors. That form of the equation is:

$$Ke = \frac{D_0(1+g)}{P_0} + g$$

This equation is frequently written out as:

Req'd ROR = (Dividend/Current Stock Price) + Dividend Growth Rate

or

Req'd ROR = Dividend Yield + Dividend Growth Rate

Or as commonly abbreviated by regulatory agencies

Ke = y + g

Where: y = Dividend Yield
g = Expected Dividend Growth

Through a handful of inputs, the DCF model distills down to an equation that encapsulates a complex intellectual process performed by investors to arrive at a discount rate and valuation of the security. As with any equation that attempts to model behavior, it involves many assumptions.[34] Those assumptions are:

- Ke corresponds only to the specific stream of future dividends rather than earnings, and that constitutes the source of value;
- The discount rate (Ke) must exceed the growth rate (g);
- The constant growth rate will continue for an indefinite future;
- Investors require the same discount rate (Ke) each year; and
- There is no external financing.

Q. Why is it reasonable to accept these assumptions?

[34] The Cost of Capital—A Practitioner's Guide; David Parcell; Prepared for the Society of Utility and Regulatory Financial Analysts; 1997 ed; p.8-5.

A. The DCF model attempts to emulate investors' behavior; distilling human behavior into a handful of inputs demands simplifying assumptions. The question becomes whether the assumptions are so contrary to investors' behavior in the real world that the model output becomes meaningless or illogical. I do not believe the assumptions of the DCF model are contrary to investor behavior. Furthermore, I do not know of any regulatory agency that has dismissed the DCF model for being contrary to human behavior. Moreover, there are methods to evaluate whether an output falls outside of the realm of reasonableness. For example, the output can be compared with the returns available on other investments, such as long-term corporate bonds, a routine screen in such analyses.

Discounted Cash Flow Model

Q. How did you calculate the dividend yield (y) component of the DCF model?

A. The dividend yield (y) is the easier of the two components to measure as it is easily observable in daily stock price reports. It is calculated by dividing the stock's annual dividend payment by its market price per share.

Q. What is the source of the dividend information?

A. Historic and current dividend information is easily obtained from subscription services such as Value-Line and non-subscription services such as YahooFinance. The DCF model requires a forward-looking dividend payment. The current year's dividend payment is often increased by the forecasted growth rate for the next year. Instead of forecasting, I obtained the 2025 forecasted dividend per share information from the

Value-Line Investment Survey. The Value-Line reports for each company in Staff's Proxy Group are attached as Schedule AHG-1. I obtained the stock prices for the dividend yields from YahooFinance. I used stock price observations from November 6, 2023, through May 9, 2024, for this analysis. The stock prices for each proxy company appear on Schedule AHG-2. The following table shows the range of dividend yields observed for Staff's Proxy Group during that time period.

Table: Dividend Yields of Staff's Proxy Group

Dividend Yields Measured November 5, 2023 through May 9, 2024
24-KGSG-610-RTS

		1	2	3	4	5
		DPS	Stock Prices		Dividend Yield	
		2025	Min	Max	Min	Max
Atmos Energy, Corp.	ATO	$ 3.46	$110.40	$ 121.46	2.85%	3.13%
Black Hills Energy, Corp	BKH	$ 2.70	$ 48.27	$ 57.16	4.72%	5.59%
New Jersey Resources	NJR	$ 1.76	$ 39.44	$ 45.87	3.84%	4.46%
NiSource, Inc.	NI	$ 1.12	$ 24.61	$ 29.17	3.84%	4.55%
Northwest Natural	NWN	$ 1.96	$ 34.95	$ 40.52	4.84%	5.61%
ONE Gas, Inc.	OGS	$ 2.68	$ 55.50	$ 66.52	4.03%	4.83%
Spire, Inc.	SR	$ 3.16	$ 56.36	$ 66.48	4.75%	5.61%
				Average	**2.85%**	**5.61%**
					4.48%	

1) 2025 Dividends per Share Forecasted by Value-Line Investment Survey (Feb 23 ,2024)
2) Minimum 6 month price observed from November 5, 2023 throuhg May 9, 2024
3) Maximum 6 month price observed from Nov 5, 2023 through May 9,2024
4) Minimum dividend yield available from time period
5) Maximum dividend yield available from time period

The dividend yields in this table are the minimum and maximum yields observed during the pricing period based on the dividends that investors could expect to receive in 2025.

Forecasted Growth Rates for the DCF Model

Q. What is the importance of the second component, the growth rate (g), in the DCF

equation?

A. The "g" represents the anticipated annual growth rate in cash flows that investors expect to receive through dividends from the stock. This is a challenging and contentious issue in a DCF analysis for two reasons. First, it is a critical element in the DCF model or any form of a discounted cash flow analysis because the growth rate has a one-for-one effect on the required return produced by the model. All other factors being equal, a higher growth rate results in a higher return on equity for the utility. Second, it is subjective due to uncertainty about future earnings, dividends, and the economy. As I discussed earlier in my testimony, the core disagreement with Dr. Fairchild's allowed DCF model and CAPM analysis directly relates to the data he relies on to estimate growth. The growth rates are the primary point of contention in determining the allowed ROE in rate cases before this Commission.

Q. How did you estimate the growth rate in the DCF model?

A. I relied on short-term and long-term growth forecasts, which investors apply to value common stocks. The appropriate growth estimate to use in the DCF model is expected by the market and factored into investors' analyses to estimate stock prices. Earnings per share growth forecasts are commonly incorporated into the DCF model and are generally accepted as a reasonable proxy for dividend growth. Investment firms that publish growth forecasts typically publish three to five-year annual growth estimates for earnings. Value-Line Investment Survey also provides dividend growth rate forecasts; it is the only publication that I am aware of that does so. Three to five years is as far into the future as analysts forecast for a company. There are several sources

for earnings growth estimates. My analysis incorporates short-term forecasts published by Value-Line Investment Survey, FactSet, as reported through S&P Capital IQ, and Thomson-Reuters (formerly known as Institutional Brokers Estimation Service or I/B/E/S), reported through YahooFinance.

Q. How do investors estimate the dividend growth rate beyond the three to five-year horizon of the short-term growth forecasts?

A. For the long-term perspective of potential growth, investors rely on forecasts of the broad economy as measured by annual changes forecasted for the nation's GDP. There are sources for long-term growth estimates of this country's GDP that extend out more than 20 years. Academic texts and investment professionals use GDP forecasts to inform of the potential long-term growth of corporate dividend payments.

GDP refers to the market value of all final goods and services produced within a country in a given period. Nominal GDP (**nGDP**) measures goods and services that *include* the effects of price changes—better known as inflation. Inflation must be included in our forecast because the DCF analysis is interested in the nominal required return. That is to say, investors' expectations of inflation are contained in their required return. Remember that the "headline" GDP reported in the media is *real* GDP, which is nGDP *minus* the inflation experienced over the measurement period.

Q. Is it a widely accepted practice in securities valuation to use nGDP growth estimates in the DCF model?

A. Yes, in the federal regulatory arena, similar to the responsibilities of the KCC, FERC

uses nGDP to estimate the cost of equity because it is consistent with investor behavior. FERC has reviewed the issue of long-term growth estimates used in DCF models. It took stakeholder comments, including state commissions, customers, investment bankers, and interstate pipeline companies.[35] Testimony from these parties made it clear that long-term estimates of nGDP are a common component of valuation analyses conducted by investment professionals. From that proceeding, FERC concluded that long-term growth estimates of nGDP should be the estimate of long-term growth in the DCF models used to estimate required returns for interstate pipeline companies because that is consistent with investor behavior.[36] In June 2014, FERC concluded that the same methodology should be used in setting the required returns for electric transmission companies. However, FERC has revised the weighting of the nGDP growth occasionally.[37]

Q. Is there academic support for this issue?

A. Academic research has shown that nGDP growth forecasts are an essential input to valuation studies because the analyst must consider whether a company's annual earnings can grow as fast as or even faster than the broad economy. In two of his books devoted to asset valuation, Dr. Aswath Damodaran discusses the nature of a stable growth rate for DCF models.[38] He argues for viewing nominal economic growth as the

[35] Transcript from Technical Conference held on January 23, 2008, FERC Docket PL07-2-000.
[36] Policy Statement, FERC Docket PL07-2-000 (April 17, 2008); FERC Opinion No. 486, FERC Docket RP04-274 (Oct. 19, 2006).
[37] Opinion No. 531, June 19, 2014, 147 FERC 61,234, para 36.
[38] Investment Valuation: Tools and Techniques for Determining the Value of Any Asset, 2nd Edition and Damodaran on Valuation: Security Analysis for Investment and Corporate Finance, 2nd Edition.

absolute maximum when using a stable-growth model, such as the DCF model we are using:

> The stable growth rate cannot exceed the growth rate of the economy in which a firm operates, but it can be lower. There is nothing that prevents us from assuming that mature firms will become a smaller part of the economy and it may, in fact, be the more reasonable assumption to make. Note that the growth rate of an economy reflects the contributions of both young, higher growth firms and mature, stable growth firms. If the former grow at a rate much higher than the growth rate of the economy, the latter have to grow at a rate that is lower. [39]

> The growth rate of a company cannot be greater than that of the economy but it can be less. Firms can become smaller over time relative to the economy. Thus, even though the cap on the growth rate may be the nominal growth rate of the economy, analysts may use growth rates much lower than this value for individual companies.[40]

It is worth noting that Professor Damodaran cites the nGDP growth projection as a *ceiling* for long-term growth in most valuation studies. Certainly, some companies and industries will exceed the average for some time, but even for those, rapid growth cannot continue forever.

Q. Does the view that nGDP growth is a ceiling on long-term earnings growth exist outside of academia?

A. Yes, valuation analysts carefully consider the long-run growth rates used to value assets because using an incorrect growth estimate will lead to incorrectly valuing an asset.

[39] Investment Valuation: Tools and Techniques for Determining the Value of Any Asset, 2nd Edition, Aswath Damodaran, p. 148.

[40] Damodaran on Valuation: Security Analysis for Investment and Corporate Finance, 2nd Edition, Aswath Damodaran, p.159.

Institutions directly involved in asset valuation and asset management that apply valuation models to analyze potential acquisition and merger transactions recognize that estimates of firm-specific growth are a driver to the value of an asset; overstating growth would cause a model to overestimate the value of the asset which would result in an economic loss to the investor. These experts also warn of a ceiling to earnings growth rates as being no more than that of broad economic growth:

> Growth rate: Few companies can be expected to grow faster than the economy for long periods. The best estimate is probably the expected long-term rate of consumption growth for the industry's products, plus inflation.[41]

The following quote from J.P. Morgan Asset Management (**JPMAM**) addresses the macro or economy-wide measures of profits. JPMAM's analysis is consistent with the firm-specific view expressed by asset valuation experts. JPMAN warns that analysts must be aware of the forecasted growth rates applied in valuation models and how those growth forecasts comport with broad measures of forecasted economic growth:

> One common mistake is to assume that earnings and dividends received by investors can grow in line with—or even in excess of—overall economic growth (GDP) in perpetuity. Granted, it is almost a truism that aggregate earnings must grow at the same pace as the overall economy in the very long run; otherwise, profits would eventually outstrip the size of the entire economy or dwindle to an insignificant share of it. But not all of this earnings growth accrues to existing shareholders. On the contrary, a large portion of economic growth comes from the birth of new enterprises. Some commentators suggest (for example, Bernstein and Arnott, 2003; Cornell, 2010) that new enterprises account for more than half of GDP growth in the U.S., while

[41] Valuation: Measuring and Managing the Value of Companies, Tim Koller, Mark Goedhart, and David Wessels, McKinsey & Co; 4th ed. P. 275.

> in some rapidly developing economies new enterprises may account for the lion's share of overall economic growth.[42]

Both Peter L. Bernstein and Robert D. Arnott, referenced in the quote, have published in peer-reviewed academic journals and books on investment strategy and built their careers in asset management and investment strategy. Their research suggests that relying on GDP as the long-term growth estimate could be *overly* optimistic. Research by William J. Bernstein and Robert Arnott warns practitioners that a portion of nGDP growth is created by new enterprises and that portion of nGDP growth does not contribute to the earnings growth of existing enterprises and results in earnings growing at a rate substantially lower than nGDP.[43] Specific to dividend growth expectations, Robert Arnott and Peter L. Bernstein, in their look at more than one hundred years of financial market returns and growth, found, "The history of dividend growth shows no evidence that dividends can ever grow materially faster than per capita GDP. Indeed, they almost always grow more slowly."

Professional investment managers apply the same principles. JPMAM describes how they arrive at their equity market assumptions:[44]

> Our framework begins with underlying economic activity—real GDP growth plus inflation—which we believe ultimately drives earnings growth

[42] Long-term Capital Market Return Assumptions: 2015 Estimates and Thinking Behind the Numbers, J.P. Morgan Asset Management, p. 25, https://am.jpmorgan.com/us/institutional/ltcmra

[43] Earnings Growth: The Two Percent Dilution, William J. Bernstein and Robert D. Arnott, Financial Analysts Journal, September/October 2003, pp 47-55.
What Risk Premium Is "Normal"?, Robert D. Arnott and Peter L. Bernstein; Financial Analysts Journal, March/April 2002, p.72.

[44] "Long-Term Capital Market Assumptions: 2014 Assumptions and the Thinking Behind the Numbers"; J.P. Morgan Asset Management, p. 50; http://www.jpmorganinstitutional.com/pages/jpmorgan/am/ia/research_and_publications/long-term_capital_market

in the long run.

Thus, it becomes clear that the linkage between expected economic growth and the growth potential of corporate earnings and dividends is more than just an academic principle in finance; professional money managers accept the relationship between GDP growth and corporate earnings growth when forming their long-run forecasts.

Q. Do you believe this evidence justifies incorporating long-run nGDP growth forecasts into the cost of equity analyses of utility companies?

A. Yes, it requires that we do so because we have to ascertain the discount rate investors apply to the future cash flows from an investment in the proxy group of natural gas companies. It is not a discount rate spanning merely three to five years, as Dr. Fairchild has built into his analyses; the time horizon of the DCF model is perpetuity, far beyond the three to five-year horizon of analysts' earnings growth forecasts. Therefore, the Commission should emulate investors' analytical practices as closely as possible to determine investors' discount rates or required returns. As noted above, investment professionals include a long-run growth forecast for the general economy when applying the DCF, and that measure of macroeconomic growth serves as the upper bounds of a firm-specific analysis. Therefore, the Commission should consider the same information when estimating a utility's required return.

Q. How did you estimate long-run nGDP growth?

A. I relied on several widely available sources: the long-run nGDP forecasts of the Energy Information Agency (**EIA**), the Congressional Budget Office (**CBO**), and the Social

Security Administration (**SSA**). The average of these forecasts composes the long-run growth estimate in the DCF analysis.

Table: Long-Term Forecasts of nGDP Growth

Nominal GDP Estimates

Energy Information Agency (EIA) 2022 - 2050	4.29%
Congressional Budget Office Long-term Outlook 2023 - 2053	3.78%
Soc Sec Admin (SSA) OADSI Trustees Report 2022 - 2098	4.09%
Average	4.05%

Sources:
EIA Annual Energy Outlook 2023
An Update to the Economic Outlook: 2023-2053; CBO, July 2023
OADSI Trustees Report Office of the Chief Actuary, Table V.B1-V.B2 (2023)

DCF Results

A. Please discuss the results of your DCF analysis.

Q. The results of my DCF analysis appear in the following table. I have set out the foundations for the DCF analysis in the previous pages, and in this section, I will discuss the specific information that I relied on for the DCF model and interpret the results.

Table: Discounted Cash Flow Analysis

Discounted Cash Flow Analysis
24-KGSG-610-RTS

		1	2	3	4	5
		Dividend Yields		Growth	DCF Estimated	
		Min	Max	Rate	Required Return	
Atmos Energy, Corp.	ATO	2.85%	3.13%	5.64%	8.49%	8.77%
Black Hills Energy, Corp	BKH	4.72%	5.59%	3.55%	8.27%	9.14%
New Jersey Resources	NJR	3.84%	4.46%	4.76%	8.60%	9.22%
NiSource, Inc.	NI	3.84%	4.55%	5.59%	9.43%	10.14%
Northwest Natural	NWN	4.84%	5.61%	3.80%	8.64%	9.41%
ONE Gas, Inc.	OGS	4.03%	4.83%	3.90%	7.93%	8.73%
Spire, Inc.	SR	4.75%	5.61%	4.76%	9.51%	10.36%
			Average of each column		**8.69%**	**9.40%**
			Average of all observations		**9.05%**	

1) 2025 Dividend divided by maximum price observed from Nov 11, 2023 - May 9, 2024
2) 2025 Dividend divided by minimum price observed Nov 11, 2023 - May 9, 2024
3) Forecasted growth
4) Low-end estimate = col 1 + col 3
5) High-end estimate = col 2 + col 3

Pricing data was gathered from YahooFinance for each of the proxy companies from the time period November 11, 2023, through May 9, 2024, on a weekly basis. The low dividend yields are computed using the projected 2025 annual dividend rate divided by the average of the weekly high prices.

Q. How did you arrive at a growth rate for each proxy company?

A. The growth rate is the average of the short-term growth rates[45] and the long-run forecast

[45] For each proxy company, I gathered three short-run, three to five-year growth forecasts for earnings and dividend from Value-Line Investment Survey; as well as analysts' earnings growth projections by Thomson Financial Network (I/B/E/S) reported by YahooFinance. I/B/E/S aggregates analysts' earnings forecasts and reports the mean of those estimates. FactSet is a service similar to I/B/E/S in that they aggregate analysts' forecasts and publishes the mean and median of estimates. FactSet data was obtained through S&P Global Market Intelligence.

of nGDP of 4.05%. The following table summarizes all of the observed growth forecasts, both historical and forecasted.

Table: Historical and Forecasted Growth Rates of Staff's Proxy Group

Growth Rate Summary
24-KGSG-610-RTS

		1	2	3	4	5	6	7	8	9	10	11
		Value-Line Historic Data				Forecasted Growth Rates						DCF
		Earnings Growth		Dividend Growth		Value Line		IBES	FactSet	Short-run	Long-term	Growth
		10 Year	5 Year	10 Year	5 Year	EPS	DPS	EPS	EPS	Average	nGDP	Rate
Atmos Energy, Corp.	ATO	9.50%	9.00%	7.00%	8.50%	7.00%	7.50%	7.40%	7.00%	7.23%	4.05%	5.64%
Black Hills Energy, Corp	BKH	7.50%	4.00%	5.00%	6.00%	3.50%	4.00%	0.70%	4.00%	3.05%	4.05%	3.55%
New Jersey Resources	NJR	5.00%	2.50%	6.50%	6.50%	5.00%	5.00%	6.00%	5.87%	5.47%	4.05%	4.76%
NiSource, Inc.	NI	1.50%	15.00%	-0.50%	3.50%	9.50%	4.50%	7.40%	7.13%	7.13%	4.05%	5.59%
Northwest Natural	NWN	-1.00%	2.50%	1.50%	0.50%	6.50%	0.50%	2.80%	4.40%	3.55%	4.05%	3.80%
ONE Gas, Inc.	OGS		6.00%		8.00%	4.00%	3.00%	5.00%	3.00%	3.75%	4.05%	3.90%
Spire, Inc.	SR	5.00%	3.00%	5.00%	5.50%	4.50%	4.50%	6.36%	6.50%	5.47%	4.05%	4.76%
	Min	-1.00%	2.50%	-0.50%	0.50%	3.50%	0.50%	0.70%	3.00%	3.05%		3.55%
	Max	9.50%	15.00%	7.00%	8.50%	9.50%	7.50%	7.40%	7.13%	7.23%		5.64%
	Mean	**4.58%**	**6.00%**	**4.08%**	**5.50%**	**5.71%**	**4.14%**	**5.09%**	**5.41%**	**5.09%**		**4.57%**

Columns: 1) - 6) Historic 5 & 10 Year & Forecasted 2027- 2029 growth rates as reported by Value-Line in February 23, 2024 and April 14, 2024
Historic data is not used in DCF calculations it is for comparative purposes only.
7) 5-year forecasted annual earnings per share growth rate. Consensus forecasts gatherd by Thomson-Reuters (aka I/B/E/S) and reported at Yahoo!Finance on May 9, 2024
8) Long-term (3-5 year) forecasted annual earnings per share growth rate. Consensus forecasts gathered by FactSet and reported at S&P Global Market Intelligence on May 9, 2024
9) Average of 3 to 5-year forecasted annual growth rates (columns 5 through 9).
10) Long-term forecasted nominal GDP growth rate
11) Average of short-term and long-term growth rates.

Q. How is the long-run nGDP forecast applied in your DCF analysis?

A. The long-run nGDP growth forecast of 4.05% is averaged with the short-run growth forecasts. In my DCF analysis, I give equal weight to short-run and long-run growth forecasts; the weighting is debatable. At FERC, in both natural gas pipeline and electric transmission rate cases, the short-run growth is afforded a three-quarters weighting, and the nGDP forecast a one-quarter weighting. In recent years, FERC has changed that weight from two-thirds to three-quarters. Whatever weighting an analyst applies between the short-term and long-term growth forecasts, the analysis needs to be constructed to distinguish between the growth potential of each time horizon.

Internal Rate of Return (IRR) Analysis

Q. Please discuss the internal rate of return (IRR) analysis you performed.

A. An IRR analysis of an investment is a form of a DCF analysis, only with a more complex equation than the Gordon Growth Model we applied in the previous section. In the IRR analysis, we can apply the five-year growth forecasts to only the next five years of dividends, with the remaining years growing at the long-run nGDP forecasted growth rate of 4.05%. In the age of spreadsheets, a multi-stage DCF or the IRR equation is not much harder to manage than the single-stage dividend yield plus growth DCF model. The IRR model allows us to apply the growth forecasts to their respective forecast periods; the IRR model provides important information to policymakers because it recognizes the respective time spans of both the short-run (three to five-year earnings growth) and long-run (nGDP growth rate) forecasts. The full output of the IRR calculations appears in Schedule AHG-3; the following table summarizes the results.

Table: Internal Rate of Return Summary

Internal Rate of Return (IRR)
24-KGSG-610-RTS

Atmos Energy, Corp.	7.49%
Black Hills Energy, Corp	9.27%
New Jersey Resources	8.57%
NiSource, Inc.	8.88%
Northwest Natural	9.44%
ONE Gas, Inc.	8.60%
Spire, Inc.	9.74%
Mean	8.85%
Min	7.49%
Max	9.74%

In the IRR model, short-term growth forecasts are given much less weight than in the previous DCF analysis: five years of a several hundred-year time horizon or five percent, as opposed to a weighting of 50 percent that I applied in the two-stage DCF model. As a result of the greater weighting of the long-term growth estimate, the average for the proxy group in the IRR analysis is 65 basis points lower than the two-stage DCF results.

Capital Asset Pricing Model (CAPM) Analysis

Q. Why do you incorporate a capital asset pricing model (CAPM) analysis in your analysis?

A. The CAPM, like the DCF equation, is one of the cornerstone financial and valuation models. For example, every merger and acquisition analysis performed by an investment banker involving a Kansas utility has incorporated a CAPM analysis as a critical component of the valuation process. The CAPM is an important tool of finance

because it explains the positive relationship between risk and ROR required by investors.[46] It is appealing to regulators because it meets the legal standards I discussed above, as it can be structured to incorporate current data from the financial markets and the unique risks of the utility in question to provide an estimate of the return required by investors to take on risk above that of the risk-free return on long-term U.S. government bonds.

Ke = Rf + Beta (Rm - Rf) or
Ke = Rf + Beta (Rp)

Where:

Ke =	required return on equity
Rf =	return on a risk-free security
Rm =	an expected return from the market as a whole, such as the S&P 500 Index
Rp =	risk premium available to investors through purchasing common stocks instead of risk-free securities, calculated as Rm - Rf
Beta =	volatility of the security's or portfolio's return relative to the volatility of the market's return with the market beta equal to 1.0

Return on a Risk-Free Security (Rf)

The Rf estimate is the interest rate investors believe represents a riskless return. Although it is a simple concept, the answer is not universally agreed upon. It is widely accepted that a debt instrument issued by the U.S. Government is risk-free, so it is a question of what time horizon an investor should look at as a risk-free vehicle. An investment in U.S. Treasury Bonds is risk-free if the investor holds it until maturity, in which case the investor is certain to collect the interest payments regardless of changes in the bond's price. My CAPM analyses look at the yields and returns of long-term U.S. Treasury Bonds as representative of risk-free to ultra-low-risk investment returns

[46] The theoretical support for the CAPM is the work done by Harry Markowitz ("Portfolio Selection," Journal of Finance, March, 1952). W.F. Sharpe added the concept of a risk-free rate of return to the Markowitz model ("A Simplified Model of Portfolio Analysis," Management Science, January, 1963).

available to investors. The risk-free instrument chosen will have an effect on the results of the CAPM analysis. Whichever instrument an analyst selects, it should be used consistently in the equation and analysis.

Beta

The beta coefficient measures the volatility of the return earned by the utility's stock relative to the volatility of the returns earned by the broader equity market. The broad equity market is measured using the S&P 500 Index or a similar broad equities index. This measure provides a look at the risk and volatility of a stock relative to other investments. A stock with a beta of 1.00 has exhibited returns equally as volatile as the broad market, while a stock with a beta of 0.5 has exhibited returns half as volatile as the market.

Rm

Rm is the expected return on the stock market as measured by a broad market index such as the S&P 500. It represents the total return consisting of the index's price change plus dividends earned for the year. An Rm can be developed using historical or forecasted data; Staff's CAPM analyses look at both.

Rp

Rp is the risk premium, which is the difference between investors' expected return from the stock market and their expected return from the risk-free investment. The risk premium is written as Rm-Rf. The market return and the risk-free return should be taken from the same time period to accurately measure the additional return investors require to take on the risk of common stocks over the risk-free investment over that

forecasted or historic period. The risk premium is calculated from the expected return on the market (Rm) and the risk-free rate of return (Rf).

Q. Does the CAPM meet the *Hope-Bluefield* legal standards discussed earlier in your testimony?

A. Yes, a cost of equity estimate derived from the CAPM meets those legal standards if the model incorporates current information from the capital markets that investors rely on to evaluate investment options. This market-based information ensures the cost of equity estimates evaluate investors' required rate of return or discount rate that reflects the current economic environment. The CAPM analysis includes the expected returns in the broad equity market, the return available on risk-free investment vehicles, and the beta coefficient.

Q. Please discuss your CAPM analysis.

A. I took two approaches to the CAPM analysis commonly found in both cost of capital studies in regulatory and asset-valuation arenas. The approaches are distinct perspectives of the securities market, and analysts use both approaches to make investment decisions. One approach offers a perspective of capital costs using purely historic measures of returns from the stock and bond markets. The second incorporates forecasted returns on the broad equity market indexes and government fixed-income securities published by institutional investment services. The difference in the two approaches highlights the difference in returns earned in the past relative to the returns institutional investors expect going forward. The average based on historic returns on

equity capital is higher, 9.48% to 10.89%, compared to forecasted returns of 6.90% to 9.68%.

Both forms of my CAPM analysis incorporate the high, low, and average beta coefficients observed in the proxy group. Value-Line reports that the proxy group of natural gas utilities has an average beta coefficient of 0.90, ranging from 0.85 to 1.05. ONE Gas has a beta of 0.85.

Table: Staff's Proxy Group Beta Coefficients, a measure of relative risk

Staff Proxy Group
Beta Coefficients, a measure of relative risk

Atmos Energy, Corp.	ATO	0.85
Black Hills Energy, Corp	BKH	1.05
New Jersey Resources	NJR	0.95
NiSource, Inc.	NI	0.90
Northwest Natural	NWN	0.85
ONE Gas, Inc.	OGS	0.85
Spire, Inc.	SR	0.85
Source:Value-Line Feb 23, 2024 & April 2024		
	Average	**0.90**
	Minimum	**0.85**
	Maximum	**1.05**

Notably, the beta coefficients of gas and electric companies have increased over the past five years. Staff's analysis and recommendation capture the increase in the relative risk of utility stocks. Staff filed cost of capital testimony in Docket 19-ATMG-525-RTS with data gathered in late 2019, before the COVID-19 pandemic and recession; at that time, beta coefficients were lower than we see today. The turbulence in the stock market that occurred in the early months of the pandemic resulted in significantly higher beta coefficients for the natural gas distribution companies. In addition to the

market volatility of 2020, in 2023, utility stock prices fell as interest rates increased, and that fall also contributed to the higher beta coefficients. It is important to rely on the current beta coefficients as that reflects the market volatility that investors recently experienced and thus likely will continue to weigh on investors' decision-making.

Q. Please describe your forecasted CAPM analyses.

A. For the forecasted CAPM analyses, I obtained forecasts of long-run returns for common equity and U.S. Treasury Bonds from three distinct sources: J.P. Morgan Asset Management (**JPMAM**); BlackRock Investments (**BlackRock**); and Kroll Corporation (**Kroll**) (formerly, Duff & Phelps). BlackRock and JPMAM have more than $11 trillion of assets under management with individual and institutional clients worldwide. Other asset managers like Vanguard Group, which has over $8 trillion in assets under management, have similar expectations for long-term returns. Thus, it is reasonable to assume their published forecasts influence investors' expectations beyond just their own client base, which has a large base of influence. JPMAM and BlackRock each annually publish their views of long-run (more than 15 years) returns available of numerous asset classes. Their respective forecasts are similar, though not identical; they provide a range for long-run returns on asset classes by the largest asset management companies. As a third input of projected returns, I looked to Kroll, which is a global provider of advisory and asset valuation services to the financial industry and corporations.

Table: Summary of Market Returns Used in Staff's CAPM Studies

Summary of Market Returns Used in CAPM Studies	
Forecasted Market Return 2024	
J.P. Morgan	8.78%
Black Rock	6.40%
Kroll, Inc. (May 2024)	10.25%
Historic Market Returns 1928-2023	
Arithmetic Returns	11.66%
Geometric Returns	9.80%
Reported by Damadoran Online https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html	

Q. How is JPMAM data applied to the CAPM analysis?

A. For this CAPM analysis, we are interested in JPMAM's forecasted returns on U.S. common stock and U.S. Treasury Bonds to establish the expected return for the market. JPMAM publishes 10 to 15-year forecasts of expected returns on dozens of investment asset classes in its annual publication, the Long Term Capital Market Return Assumptions (**LTCMRA**).[47] JPMAM forecasts an annual return on common stocks of 8.78%.[48] Following the calculations and inputs through the CAPM equation in line 2 of the following table, the forecasted return on a risk-free investment, 10-year U.S.

[47] J.P. Morgan Asset Management, Long-term Capital Market Return Assumptions, 2024 Edition, J.P. Morgan Asset Management (published October of 2023) www.jpmorganinstitutional.com/pages/jpmorgan/am/ia/research_and_publications/long-term_capital_market

[48] The 8.78% expected market return is the average of J.P. Morgan's expected returns on small, mid, and large sized stocks.

JPMAM Forcasted Returns 2024	
Small cap	9.07%
Mid cap	9.08%
Large cap	8.19%
Average	**8.78%**

Treasury Bonds, is subtracted from the expected return on common stocks, resulting in a risk premium of 3.95%. This risk premium is the additional return necessary to induce investors to take on the added risk associated with common stocks over the risk-free investment in a U.S. Treasury Bond. The beta coefficient is applied to the risk premium to ascertain how much of a risk premium is necessary for investors to take on the risks of investing in utility stocks instead of the risk-free U.S. Treasury Bond.

Table: CAPM Incorporating J.P. Morgan Asset Management Forecasts

Capital Asset Pricing Model -- Forecasted Risk Premium
Using Forecasted Market Returns & Treasury Bond Yields
24-KGSG-610-RTS

		Low Beta	High Beta	Avg Beta
1) Forecasted Returns on Common Stocks		8.78%	8.78%	8.78%
2) Forecasted Total Return on 10-Year T-Bonds	-	3.95%	3.95%	3.95%
3) Equity Risk Premium		4.83%	4.83%	4.83%
4) Beta Coefficient	X	0.85	1.05	0.90
5) Beta Adjusted Risk Premium		4.11%	5.07%	4.35%
6) Forecasted Yield on 10-Year T-Bonds	+	3.40%	3.40%	3.40%
7) For Cost of Equity		7.51%	8.47%	7.75%

1) Forecasted 10 to 15-year annual arithmetic return on stocks
J.P. Morgan Asset Management, 2024 Edition.
2) Forecasted 10 to 15-year annual arithmetic return on intermediate term
U.S. Government bonds by J.P. Morgan Asset Management 2024 Edition.
3) Resulting risk premium (1-2).
4) Beta coefficient published by Value-Line Investment Survey
5) Row 3 x Row 4 = asset specific risk premium.
6) Forecasted yield on 10-Year U.S. Treasury bonds forecasted by
J.P. Morgan Asset Management, 2024 Edition (page 10).
7) Forecasted cost of equity capital row 5 + row 6.

Sources:
J.P. Morgan Asset Management, Long-term Capital Market Return Assumptions,
2024 Edition, J.P. Morgan Asset Management

The expected risk-free yield of 3.40% forecasted by JPMAM is added to the beta-specific risk premium to arrive at the cost of equity for the given beta coefficients of

0.85 and 1.05.

As the next table shows, a CAPM analysis that incorporates BlackRock's long-term return projections is modestly lower than those published by JPMAM.

Table: CAPM Incorporating BlackRock Investments Forecasts

Capital Asset Pricing Model -- Forecasted Risk Premium
Forecasted Market Returns & Treasury Bond Yields
by BlackRock Investments
24-KGSG-610-RTS

		Low Beta	High Beta	Avg Beta
1) Forecasted Returns on Common Stocks		6.40%	6.40%	6.40%
2) Forecasted Total Return on 10+ Year U.S. T-Bonds	-	2.85%	2.85%	2.85%
3) Equity Risk Premium		3.55%	3.55%	3.55%
4) Beta Coefficients of Proxy Group	x	0.85	1.05	0.90
5) Beta Adjusted Risk Premium		3.02%	3.73%	3.20%
6) Forecasted Yield on 10-Year T-Bonds	+	3.70%	3.70%	3.70%
7) Cost of Equity		6.72%	7.43%	6.90%

1) Forecasted 25-year annual geometeric returns on U.S. common stocks; February 2024
2) Forecasted 25-year annual geometeric return on intermediate term Treasury bonds
3) Resulting risk premium (1-2)
4) Beta coefficient published by Value-Line Investment Survey
5) Proxy Group risks premium
6) Forecasted yield available on cash by BlackRock
7) Forecasted cost of equity capital row 5 + row 6.

Sources:
https://www.blackrockblog.com/blackrock-capital-markets-assumptions/

Q. What is the third data source used in the forward-looking CAPM analyses?

A. I relied on data published by Kroll, a global financial services company. Specific to cost of capital estimation, Kroll provides forward-looking estimates of an equity risk premium (**ERP**) and a risk-free return. As in the previous CAPM equations, the ERP plus the risk-free return equates to the expected return on common stocks. Kroll

develops its own forecast of the risk-free return. The beta coefficient of the particular asset (in this case, Staff's Proxy Group) is applied to the ERP, and the product is added to the risk-free rate of return. As capital markets change, Kroll adjusts its ERP and risk-free return estimates. Currently, Kroll recommends a risk-free rate of 3.50% as a long-term view of risk-free investment returns with the caveat to use the spot yield on 20-year U.S. Treasury Bonds if it is greater than 3.50%; at this time, it is 4.73% so that is used in my analysis.

Table: CAPM Incorporating Kroll, Inc.'s Forecasts

Capital Asset Pricing Model -- Kroll Forecasted Risk Premium
Using Forecasted Market Returns & Treasury Bond Yields
24-KGSG-610-RTS

		Low Beta	High Beta	Avg Beta
1) Kroll U.S. ERP		5.50%	5.50%	5.50%
2) Beta Coefficient	x	0.85	1.05	0.90
3) Proxy Group Risk Premium		4.68%	5.78%	4.95%
4) Kroll U.S. Risk-Free Rate of Return*	+	4.73%	4.73%	4.73%
5) Proxy Group Cost of Equity		9.41%	10.51%	9.68%

1) Kroll U.S. Equity Risk Premium as of June 13, 2023
2) Beta coefficient range of proxy group reported by Value-Line.
3) Resulting risk premium for proxy group (1-2).
4) Kroll U.S. Risk-Free Rate of Return 20 Year Treasury Bond May 9, 2024
5) Forecasted Cost of Equity Range for Proxy Group

Kroll recommends a risk-free rate of the higher of 3.50% OR spot market yield on 20-Year U.S. Treasury Bond. At May 9, 2024; spot yield was 4.73% (Federal Reserve H.15)
Sources:
https://www.kroll.com/-/media/kroll-images/pdfs/kroll-increases-us-risk-free-rate.pdf
https://www.federalreserve.gov/releases/h15/

What is very apparent is that the models from all three of these sources project that future returns on equity capital will be lower than the long-run historic returns

discussed in the next section. JPMAM and BlackRock's views of lower future returns relative to historic returns are virtually universally accepted across the investment banking and asset management industry.

Q. Does the historic CAPM corroborate the findings of your forecasted CAPM analyses?

A. Only to a degree the CAPM results using historical data from 1928 through 2023 are greater than those found with the three scenarios using forecasted return. I prepared two historical perspectives of returns: arithmetic and geometric. Arithmetic average returns are the mean or average of the annual returns, which is common when people refer to an average. The geometric average is the compound return earned over a span of time in question, in this instance, 1928 through 2023. These two return measures differ because of the volatility in annual returns on each asset class (common stocks and U.S. Treasury bonds). The greater the volatility in annual growth, the greater the difference between arithmetic and geometric averages for those observations. In applying the CAPM, neither measure of returns reigns supreme, as academic papers have argued which view accurately portrays the past. Both methods offer a perspective of historical returns; the arithmetic average represents a year, and the geometric average is the average annual growth over a time span. Both averages are widely reported or easily calculated from publicly available data.

Table: CAPM Incorporating Historical Data, 1928 - 2023

Capital Asset Pricing Model -- Historic Risk Premium
Based on Historic Arithmetic Risk Premiums
from 1928 to 2023
24-KGSG-610-RTS

		Low Beta	High Beta	Average Beta
1) Total Returns on Common Stocks		11.66%	11.66%	11.66%
2) Total Return on Government Bonds	-	4.86%	4.86%	4.86%
3) Resulting Risk Premium		6.80%	6.80%	6.80%
4) Beta Coefficient	x	0.85	1.05	0.90
5) Risk Premium		5.78%	7.14%	6.12%
6) Historic Yield on Government Bonds	+	4.77%	4.77%	4.77%
7) Forecasted Cost of Equity Based on Historic Returns		10.55%	11.91%	10.89%

1) Historic returns on common stocks 1928-2023
2) Historic returns on intermediate-term government bonds 1928-2023
3) Resulting risk premium (1-2)
4) Beta coefficient published by Value-Line Investment Survey
5) Row 3 x Row 4 = Asset Specific Risk Premium
6) Historic year-end yield on intermediate-term government bonds 1928-2023
7) Forecasted cost of equity capital, row 5 + row 6

Sources: Damodaran Online
http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html
& Value-Line Investment Survey.

Capital Asset Pricing Model -- Historic Risk Premium
Based on Historic Geometric Risk Premiums
from 1928 to 2023
24-KGSG-610-RTS

		Low Beta	High Beta	Average Beta
1) Total Returns on Common Stocks		9.80%	9.80%	9.80%
2) Total Return on Government Bonds	-	4.57%	4.57%	4.57%
3) Resulting Risk Premium		5.23%	5.23%	5.23%
4) Beta Coefficient	x	0.85	1.05	0.90
5) Risk Premium		4.45%	5.49%	4.71%
6) Historic Yield on Government Bonds	+	4.77%	4.77%	4.77%
7) Forecasted Cost of Equity Based on Historic Returns		9.22%	10.26%	9.48%

1) Historic returns on common stocks 1928-2023
2) Historic returns on intermediate-term government bonds 1928-2023
3) Resulting risk premium (1-2)
4) Beta coefficient published by Value-Line Investment Survey
5) Row 3 x Row 4 = Asset Specific Risk Premium
6) Historic year-end yield on intermediate-term government bonds 1928-2023
7) Forecasted cost of equity capital, row 5 + row 6

Sources: Damodaran Online
http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html
& Value-Line Investment Survey.

If we rely on purely historic data, regardless of whether it is based on arithmetic or geometric returns, we are assuming that certain trends, particularly economic growth, observed in the past 90 years will continue at the historical level. It is well established that the U.S. economy is projected to grow slower than that experienced in the past. The projected growth rate is 4.05% over the next 30 years compared to the historic growth rate of 6.10%.[49] Beyond the change in economic growth, there is some issue

Historic
Nominal GDP (Billion $'s)

1929	$	104.60
2023	$	27,360.90
Annual Growth Rate		**6.10%**

Source: Bureau of Economic Analysis
www.bea.gov

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with measuring those historic returns. There is evidence that these frequently-quoted historic returns do not present a complete picture in part due to the beginning period that is often used in the calculation.[50] The simple step of beginning the measurement period in the 1920s raises questions about whether the time period is representative of all of modern-era securities trading. Regardless of whether the 1920s is an appropriate point for measuring historical returns, historical returns are widely reported and frequently referred to in discussions of capital markets and potential returns. Some well-regarded financial publications focus solely on this era of historical data and how to apply it in cost of capital studies. Thus, measurements from this time period influence expectations despite warnings surrounding historic economic growth rates and market returns. I agree that historical data is often cited and studied, but it has significant limitations, and policymakers should give it only light consideration in their final decision.

Rebuttal of Dr. Fairchild's Proposed 10.25% Allowed ROE

Q. Does Staff agree with Dr. Fairchild's proposed ROE?

A. Staff's primary disagreement with Dr. Fairchild's proposal for a 10.25% allowed ROE stems from the earnings and dividend growth rate estimates he applies in his CAPM and DCF models. His estimates, which are higher than what could reasonably be expected in the long run, lead to unreasonably high ROE estimates. My disagreements with Dr. Fairchild are primarily focused on specific inputs related to growth rate estimates in his financial models, a point that has been a topic of discussion in various

[50] McQuarrie, Edward F, "The Myth of 1926: How Much Do We Know Long-Term Returns on U.S. Stocks?" The Journal of Investing; Winter 2009, p. 96.

commissions over the past decade. By adjusting Dr. Fairchild's presumed growth rates to align with those consistent with investors' expectations, his ROE estimates are brought closer to those supported by Staff's analysis.

Q. Why do you disagree with the growth rates Dr. Fairchild uses in his analyses?

Dr. Fairchild's reliance on three-to-five-year earnings growth rate estimates as proxies for investors' long-run growth forecasts is a key point of contention. This approach significantly impacts the results of his CAPM and DCF models, leading to an overstatement of investors' required returns for natural gas utilities and the broad stock market indexes central to his CAPM analysis. His overstatement of earnings growth rates is a departure from the fundamental principles outlined in the Hope and Bluefield decisions, which stipulate that allowed returns must be commensurate with investments of comparable risk. By inflating the utility's earnings growth expectations, Dr. Fairchild's analysis inflates the ROE estimate to a level more suitable for a higher-risk investment.

Q. Did you summarize the impact of his growth rates on the ROE estimates?

A. I estimate that Dr. Fairchild's growth rate assumptions in his DCF and CAPM cause him to overestimate the results of those models by about 90 basis points.

Q. Concerning Dr. Fairchild's DCF analysis, how would you summarize your disagreement with his recommendations?

A. With respect to the DCF model, the growth rate is the primary point of disagreement. As I point out in my discussion of the DCF model, the growth rate estimate must reflect

a long-run view of the economy because, as I discussed earlier, that is consistent with investors' practice.

Q. Why is Dr. Fairchild's sole reliance on analysts' three to five-year earnings growth rate forecasts wrong?

A. These short-term growth rates do not reflect the long-run growth rate expectations that investors use to value common stocks of public utilities. Three-to-five-year earnings growth forecasts are demonstrably higher than investors expect to continue in the long run. As I discussed earlier, investors incorporate long-run growth forecasts in their valuation analyses, while Dr. Fairchild's analyses assume those three-to-five-year earnings growth rates continue in perpetuity. Using the higher short-term growth rates as a surrogate for long-term growth results in his CAPM and DCF models overstate the required ROE for his proxy group. It is well established and accepted in finance that there is a link between the economic growth of the broad economy and the long-term growth of corporate earnings; thus, it is reasonable to assume investors incorporate long-run economic growth assumptions in their decisions.[51] Three-to-five-year earnings growth forecasts are the only growth estimates he includes in his analysis. In contrast, my analysis incorporates short-run earnings growth forecasts from the same sources and the long-run view that the growth rate of the broad economy constrains a firm's earnings growth.

[51] Linking GDP Growth and Equity Returns, Monthly Insights from the Office of the Chairman, Goldman Sachs Asset Management, Jim O'Neill; May 2011. I cited one source in this footnote, there are several additional sources referenced in my discussion of Staff's DCF model.

Q. Does Dr. Fairchild explain why he does not incorporate long-run growth estimates in his analyses?

A. On page 28 of his Direct Testimony, Dr. Fairchild opines that historically, EPS and DPS growth rates of his proxy group have exceeded that of GDP, and, in his opinion, investors expect that to continue.[52] He reached this conclusion by comparing historical proxy company growth rates and GDP growth from 2008 through 2023 to forecasts for both growth rates from 2023 through 2028.[53] Looking at fifteen years historically and five years prospectively is a short span of U.S. economic history from which he can draw a conclusion, particularly given the vast amount of academic and investment analysis that contradicts his opinion.

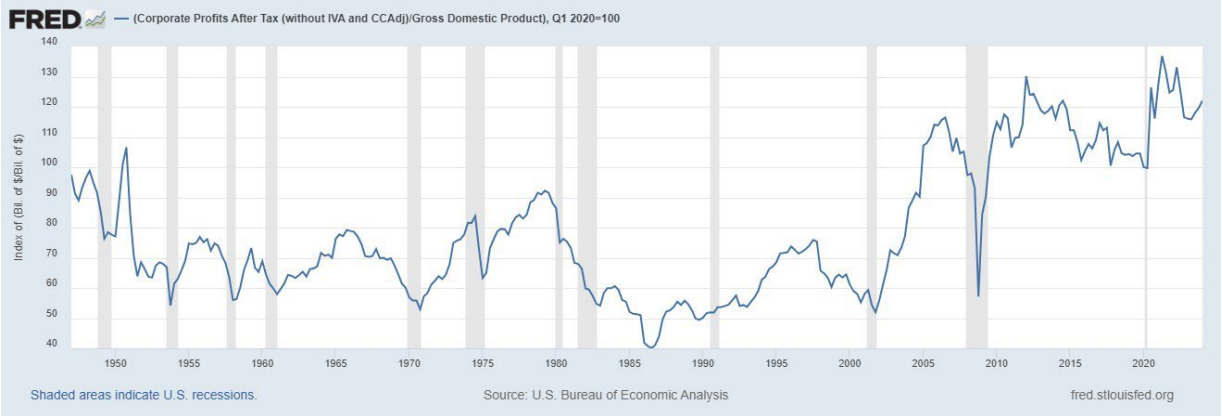
Q. Is there evidence that nGDP growth is an essential consideration for investors?

A. Yes, investment professionals widely support that broad economic growth, measured by nominal GDP, is considered a ceiling for long-term earnings growth. There is also the fact that if corporate profits, which are a part of national income and gross domestic product, grow much more than the aggregate economy, corporate profits become an ever larger portion of GDP, a phenomenon that has not occurred. The history of corporate profits as a percentage of GDP shown in the following graph illustrates that no discernable long-term trend supports Dr. Fairchild's position earnings will

[52] Direct Testimony of Bruce H. Fairchild on Behalf of Kansas Gas Service; 24-KGSG-610-RTS; March 1, 2024; p.28, lines 10-20.
[53] Response to KCC Data Request 143 by Dr. Bruce Fairchild and Exhibits BHF-2.

indefinitely grow at one and half times the rate of the entire economy and become an ever larger portion of GDP.

Graph: Corporate Profits as a Component of GDP, 1946 - 2024



Q. What is your estimate of how much Dr. Fairchild's sole reliance on three to five-year forecasted earnings growth rates overstates the ROE?

A. Dr. Fairchild's DCF analysis results show an average growth rate of 5.50% to 6.50%.[54] Incorporating Staff's long-run estimate of nominal GDP (nGDP) growth of 4.05% weighted equally with his growth rate range results in a growth estimate of 4.85% to 5.32, around 90 basis points lower. As the growth estimate in the DCF model has a one-for-one effect on the result, Dr. Fairchild overstates the necessary allowed return for the proxy group by 90 basis points to 9.06%, similar to Staff's DCF analysis.

Rebuttal of Dr. Fairchild's CAPM Analysis

Q. Does Dr. Fairchild's CAPM analyses rely on short-term earnings growth rates?

[54] Fairchild Direct p.28

A. Yes, the results of his CAPM analysis, like that of his DCF model, overstate the ROE necessary for KGS because of his sole reliance on three-to-five-year earnings growth. Dr. Fairchild applies the CAPM in two analyses: one using historical data and one using forecasted data. A summary of the data, calculations, and results appears in his exhibit BHF-5. Dr. Fairchild's CAPM relies on a DCF analysis to estimate the expected return on the market, the Rm variable of the CAPM formula. The result of his reliance on the three-to-five-year earnings growth forecasts is an expected return on the market (Rm) of 11.95%, a forecast for the broad equity market that is much greater than those published by experienced asset managers. The following is a table of expected returns published by asset managers that collectively manage trillions of dollars in assets. The enormous difference between the expected returns of asset managers and his estimate should have given Dr. Fairchild pause, or at least he should have provided some rationale for proceeding to use his own.

Table: Dr. Fairchild's Market Forecast is Far Higher Than Investors Expect

Dr. Fairchild's Expected Return Compared to Institutional Investors' Expected Returns	
Forecasted Market Return 2024	
J.P. Morgan	8.78%
Black Rock	6.40%
Kroll, Inc. (May 2024)	10.25%
Dr. Fairchild's Expected Market Return	**11.95%**

Dr. Fairchild's CAPM is built on the assumption that corporate earnings will grow at an annual rate of 10.10%, two and half times the annual growth rate expected of nGDP of 4.05%, and even greater than the 90-year historical growth rate of 6.10%. Dr. Fairchild does not attempt to explain why his growth estimate for earnings is reasonable even though it is so far above that of the national economy. Arriving at an earnings growth estimate that applies in perpetuity much greater than broad economic growth should cause an analyst to question that earnings forecast.

Q. Are there other issues in Dr. Fairchild's CAPM analyses that cause him to overestimate KGS's required ROE?

A. Yes, I disagree with the application of small company or market capitalization risk premium adders that Dr. Fairchild applies to his CAPM analysis, which increases his cost of equity estimates by 93 basis points. Mr. Smith attempts a similar argument in his testimony.[55] Dr. Fairchild applies this adjustment, alleging that historical data has shown that small companies (as measured by market capitalization) have earned higher returns than predicted by the CAPM. His 93 basis point upward adjustment relies solely on historical data. There is overwhelming evidence that professionals and institutional money managers do not expect a small company risk premium to occur in the future, and some doubt if it ever did in the past.

Q. Why has Staff opposed "small company premiums"?

A. Staff opposes this type of adjustment because there is evidence that any such premium

[55] Direct Testimony of Mark W. Smith; 24-KGSG-610-RTS; p. 31.

measured in historical market data was an error. Second, if the premium did exist in the past, there is considerable doubt whether it can persist in the future. Empirical research by Tyler Shumway and Vincent A. Warther concluded that no such size premium has ever existed; instead, the data used to calculate the premium does not accurately measure the returns of small-cap stocks.[56] These researchers determined the historical data understates the negative impact of stock delisting. Stocks are delisted from exchanges when they merge or are acquired by other companies. When delisting occurs under those circumstances, the annual return for the newly merged or acquired company continues to be calculated and tracked as part of the market indexes. These positive events do not create a problem for measuring returns, as the entity continues to exist with pricing data reported going forward from the delisting date, just under a different name. Stocks are also delisted when their share price falls below a minimum set by the exchange where they trade or if they enter bankruptcy. When these adverse events occur, those companies' stocks cease to trade on exchanges, and there ceases to be pricing data that captures the full extent of the price decline that continues after delisting from the exchange. Eventually, the company may disappear, which causes a 100% loss for its investors, which is not captured in the historical data. Research has found that historical returns data have not accurately tracked or estimated investors' losses due to these adverse events.

These adverse events occur almost exclusively with small companies; thus, the delisting bias has inflated their historical returns. The failure to accurately track or

[56] The Delisting Bias in CRSP's Nasdaq Data and Its Implications for the Size Effect, Tyler Shumway and Vincent A. Warther, The Journal of Finance, vol. LIV, No. 6, December 1999, pp. 2361-2378.

estimate adverse events has created the appearance that small companies experience higher returns than the shareholders' actual returns. So, it is not that smaller companies have consistently earned a higher return than larger companies; the problem has been with the data used to compute the historic returns experienced by small companies.

Even if Dr. Fairchild wants to trust that a premium existed in the historical data, there is a question of whether it can accurately be applied prospectively. Author and professor of finance at New York University Aswath Damodaran does not use or advocate a small capitalization premium in valuation studies because little research supports it. In Professor Damodaran's view, the research finds that a small-cap premium can be detected in historical data from 1928 through 2014; that premium is best described as 1) fragile as it barely meets the threshold of statistical significance; and 2) volatile over history seeming to have dissipated after 1981.[57]

Q. What is the extent of the "small company risk premium"?

A. Dr. Fairchild argues for a 93 basis point premium added to its ROE calculations from his CAPM analysis; removing the premium lowers his CAPM estimate by 93 basis points to 10.48% to 10.91%.[58]

Rebuttal to Dr. Fairchild's Utility Risk Premium

Q. Do you agree with Dr. Fairchild's Utility Risk Premium analysis?

[57] The Small Cap Premium; Where is the Beef?; Musings on the Markets: My not-so-profound thoughts about valuation, corporate finance and the news of the day; Saturday, April 11 2015. http://aswathdamodaran.blogspot.com/

[58] Exhibit BHF-5.

A. I disagree with using this type of analysis in setting allowed returns because it has several flaws that cast doubt on the applicability of the results to any specific utility. Although the data provides an interesting perspective of regulatory and economic history, I recommend the Commission disregard it in setting the allowed return for several reasons: *first*, the primary data is not derived in the competitive capital markets by decision makers that have capital at risk; *second*, there is no control for risk specific to each rate case decision; *third*, it is not a comprehensive measure of ROEs used to set revenue requirements because many outcomes are not reported, and *fourth*, the information was gathered over a unique period of precipitously falling interest rates that are unlikely to be repeated. To my knowledge, the Commission has never relied on this approach to set an allowed return.

Q. Please describe Dr. Fairchild's Utility Risk Premium study.

A. Dr. Fairchild builds his Utility Risk Premium from quarterly data of allowed returns granted to gas distribution utilities by regulatory commissions from 1980 through 2023 and the yield of public utility bonds. He obtains the quarterly data on allowed returns from S&P Market Intelligence to derive a risk premium regulators have granted to natural gas utilities over the prevailing yields on utility bonds at the time of the rate case decision.

Q. Regarding your first objection to Dr. Fairchild's Risk Premium methodology, why do you contend it is not based on data derived from the competitive financial markets?

A. The primary data in the study is the allowed return adopted by public utility commissions in rate cases from 1980 through 2023; it is not market-based data. Competitive financial markets are universally considered highly efficient in that the reported prices reflect the actions of a willing buyer and a willing seller of a security acting on the available information. The allowed ROEs granted by utility commissions do not embody the decisions of countless market participants. Instead, utility commissioners are not taking an economic position in the securities but instead making a public policy ruling and are not taking a financial risk through a purchase or sale of stock when they set a return. I do not doubt that those commissions' decisions were their best efforts to reach a reasonable decision balancing diverse interests. Still, those are not pricing decisions made in the capital markets.

Q. Why do you state that the reported returns granted by various commissions do not provide a complete picture of history?

A. Not all allowed returns on equity used to establish a revenue requirement are reported; some agreements remain silent. It is impossible to know if those missing data points skew the results. The amount of missing data points is noteworthy. Nationally, from 1980 through 2024, there were 1,673 gas distribution rate cases; 374, or 23% of those, did not report an allowed ROE. In Kansas, for that same period, there were 36 natural gas distribution rate cases; 19 or 53% of those had no allowed ROE stated.[59] Thus,

[59] Results of SPMI/RRA database of rate case history for natural gas distribution companies from 1980 through April 30, 2024 removing all observations for "limited-issue riders".

many cases setting natural gas distribution revenue requirements during this period had no reported return on equity information.

Q. Why do you contend there is no control for risk in the data?

A. Dr. Fairchild gathers the allowed returns on equity data on all natural gas dockets without screening for the risk of the underlying gas utilities. There is no way to know how the utilities' risk in those cases compares to that of KGS, notably, their use of regulatory mechanisms compared to those KGS has in place. This data is the result of commissions' decisions weighing not only the cost of equity analyses filed in the dockets but also all of the other elements and nuances of the rate case that is before them, elements that may or may not exist in this docket; for example the presence or absence of tracking mechanisms. We cannot know for sure because we do not know how the risk of the gas utilities in those historic rate cases compares to KGS's risk. The Commission needs to be cautious in using this sort of risk premium study because it does not comport with the framework set out in the *Hope* and *Bluefield* decisions, as there is no comparison of the risk of the natural gas utilities in that historical data to the risk of KGS or ONE Gas today.

Q. Have regulatory policies evolved since 1980 and altered the industry's risk profile?

A. Yes, I believe it has changed over these 42 years, and Dr. Fairchild's risk premium analysis fails to recognize these changes in the industry. Merely using an interest rate relationship to allowed returns does not account for changes in risk associated with rate

design, and trackers/riders/pass-through mechanisms have evolved over the past four decades. These mechanisms lower utilities' risk by shifting risk to the consumer and reducing regulatory lag.

Finally, the Commission should also consider that the data was gathered from a unique period (1980 to 2024) when capital costs declined substantially and consistently, with only a few brief upticks during those decades. This measurement period began in the early 1980s when capital costs were the highest in over a century.

Graph: Yield on Corporate Bonds, 1980 - 2024

The following chart provides a long-term view of interest rates through the yield on Moody's Aaa Corporate Bonds; the trend in interest rates on this instrument indicates the general trend in capital costs over the past century.

Graph: Yield on Corporate Bonds, 1920 - 2024

Dr. Fairchild's Comparable Earnings Method

Q. Dr. Fairchild applies a comparable earnings method to estimate KGS's required return. Is this a reasonable methodology to arrive at an estimate?

A. The comparable earnings analysis is not a reasonable method of estimating investors' required return because it does not meet the *Hope* and *Bluefield* standards. The Commission should disregard it. The inputs to this analysis are not derived from competitive financial markets (such as purchasing a stock or bond at an exchange at a market-determined price). This data is purely accounting or book return information based on historic levels of equity in the enterprise and the amount of earnings calculated from specific accounting rules, neither of which reflect the actions of investors in the capital markets as they react to changes in the economy and potential returns from alternative investments.

Dr. Fairchild is relying on data from the Value-Line Investment Survey's projected return on the book value of the utilities' equity capital, implying that the return on book value is analogous to a utility commission granting an allowed return on the book value

of a utility's rate base. This is incorrect because investors cannot invest in a utility at the book value of its equity; all of Dr. Fairchild's proxy companies trade at market prices well above their book value. On average, Dr. Fairchild's proxy group trades at 1.58 times their book value.[60] To my knowledge, the Commission has never relied on this approach to set an allowed return. I recommend that the Commission not place any weight on the Comparable Earnings analysis because it is inconsistent with the tenets of the *Hope* and *Bluefield* decisions.

Q. Does that conclude your testimony?

A. Yes.

[60] Market Price to Book Value multiple reported by S&P Market Intelligence on April 30, 2024; Atmos Energy (ATO) 1.58; Chesapeake Utilities (CPK) 1.88; New Jersey Resources (NJR) 2.07; NiSource (NI) 1.90; Northwestern Natural Gas (NWN) 1.12; ONE Gas (OGS) 1.31; Spire (SR) 1.20

Stocks of a number of companies in *Value Line's* Natural Gas Utility Industry have been fairly rangebound since our last report in November. But that should come as no surprise, given that historical price movements of this typically defensive sector have tended to be on the steady side. It's also important to mention that the big draw here is these equities' reliable, healthy amounts of dividend income (which are sufficiently covered by corporate earnings). What's more, at recent quotations, 3- to 5-year capital appreciation potential for some of the stocks in our universe looks decent, resulting in solid total return possibilities.

Natural Gas Prices

Natural gas quotations have weakened significantly over the past few months reflecting, among other factors, heightened production levels and mild winter weather. Although this scenario does not augur well for companies that produce this commodity, regulated utility units generally benefit. That's partially because diminished gas pricing tends to lead to lower prices for customers, which may bring down bad-debt expense. Moreover, there is an increased possibility that homeowners will convert from alternative fuel sources, such as propane or oil, to natural gas. (At present, it's estimated that roughly half of all households in the United States use natural gas.) It should be mentioned, however, that nonregulated operations (discussed below) tend to underperform when gas pricing is at subdued levels.

Nonregulated Businesses

Some of our industry participants have dedicated substantial resources to the nonregulated arena, which includes pipelines and energy marketing & trading services, and we see this trend continuing in the future. Indeed, these units offer opportunities for utilities to diversify their revenue streams. Also, the fact that nonregulated segments can provide potential upside to earnings per share is notable, since the return on equity is limited by the regulatory state commissions (generally in the 9%-11% range) on the regulated divisions.

Interest Rates

In January, the Federal Reserve announced that it would keep interest rates steady while waiting to see if additional actions were necessary to combat inflation, which has eased some during the past year but remains elevated. (The central bank has been engaged in its fastest rate-increase cycle since the 1980s.) So, this raises the question, "How does a rising interest rate environment affect the participants in the Natural Gas Utility Industry?" One way is by increasing borrowing costs, an especially important factor because these companies tend to maintain substantial levels of debt. Furthermore, rising interest rates might make bonds more attractive to conservative, yield-oriented investors, the very ones who are typically drawn to utility stocks.

Attractive Payouts

The main appeal of utility equities is their dividends, which tend to be adequately covered by corporate profits.

INDUSTRY TIMELINESS: 66 (of 93)

(It's important to state that the Financial Strength ratings for more than half of the nine companies in our category are at least an A, and the lowest is a respectable B++.) At the time of this industry review, the average yield for the group was approximately 4.3%, nearly double the *Value Line* median of 2.2%. Standouts include *UGI Corp.*, *ONE Gas, Inc.*, *Northwest Natural Holding Co.*, and *Spire Inc.* When the financial markets experience heightened volatility (which seems to be more often the case these days), healthy dividend yields provide a measure of much-needed stability.

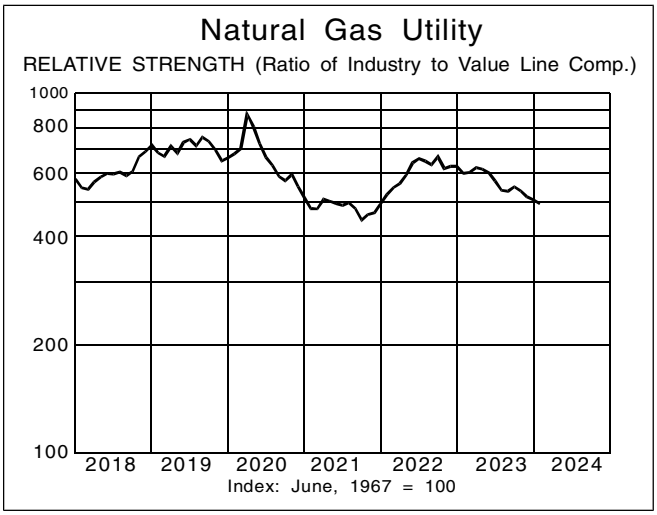
Prospects Out To Late Decade

We are optimistic, overall, about the industry's long-term operating performance. Natural gas should remain an abundant resource in the U.S., brought about partially by new technologies, so a shortage does not appear likely in the years ahead. Too, there are limited alternatives for the services the companies in this sector offer. Furthermore, it's a challenge for new entrants in the market, given such factors as the size of existing competitors and the substantial initial capital outlays that are required. Finally, the country's population, now numbering more than 330 million, should stay on a steady, upward course, which augurs well for future demand for utility services.

Conclusion

None of the equities in our Natural Gas Utility Industry stand out for Timeliness, at this juncture, besides *UGI Corp*. Nevertheless, they ought to be of interest to income-focused investors with a conservative orientation, given that these good-yielding issues boast high marks for Price Stability, and the majority are ranked 1 (Highest) or 2 (Above Average) for Safety. Consider, too, that there are some appealing choices for capital appreciation potential for both the 18-month horizon and over the pull to 2027-2029. As always, our subscribers are advised to carefully examine the following reports before committing funds.

Frederick L. Harris, III



ATMOS ENERGY CORP. NYSE-ATO

RECENT PRICE 114.00 | P/E RATIO 17.4 (Trailing: 18.6 Median: 20.0) | RELATIVE P/E RATIO 1.01 | DIV'D YLD 2.9% | VALUE LINE

TIMELINESS 4 Lowered 2/16/24
SAFETY 1 Raised 6/6/14
TECHNICAL 2 Raised 2/9/24
BETA .85 (1.00 = Market)

18-Month Target Price Range
Low-High **Midpoint (% to Mid)**
$98-$153 $126 (10%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	150	(+30%)	*10%*
Low	125	(+10%)	*6%*

Institutional Decisions

	1Q2023	2Q2023	3Q2023
to Buy	337	314	322
to Sell	258	281	280
Hld's(000)	131736	136508	137279

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
High:	47.4	58.2	64.8	82.0	93.6	100.8	115.2	121.1	105.3	123.0	125.3	118.9								
Low:	34.9	44.2	50.8	60.0	72.5	76.5	89.2	77.9	84.6	97.7	101.0	110.6								
	79.52	53.69	53.12	48.15	38.10	42.88	49.22	40.82	32.23	26.01	28.00	24.32	22.41	25.73	29.82	28.79	*26.75*	*27.85*	Revenues per sh [A]	*37.15*
	4.19	4.29	4.64	4.72	4.76	5.14	5.42	5.81	6.19	6.62	7.24	7.57	8.03	8.64	9.30	10.04	*10.75*	*11.55*	"Cash Flow" per sh	*13.65*
	2.00	1.97	2.16	2.26	2.10	2.50	2.96	3.09	3.38	3.60	4.00	4.35	4.72	5.12	5.60	6.10	*6.55*	*7.00*	Earnings per sh [AB]	*8.35*
	1.30	1.32	1.34	1.36	1.38	1.40	1.48	1.56	1.68	1.80	1.94	2.10	2.30	2.50	2.72	2.96	*3.22*	*3.46*	Div'ds Decl'd per sh [C] ■	*4.25*
	5.20	5.51	6.02	6.90	8.12	9.32	8.32	9.61	10.46	10.72	13.19	14.19	15.38	14.87	17.35	18.90	*18.70*	*19.00*	Cap'l Spending per sh	*20.00*
	22.60	23.52	24.16	24.98	26.14	28.47	30.74	31.48	33.32	36.74	42.87	48.18	53.95	59.71	66.85	73.20	*74.90*	*78.25*	Book Value per sh	*83.50*
	90.81	92.55	90.16	90.30	90.24	90.64	100.39	101.48	103.93	106.10	111.27	119.34	125.88	132.42	140.90	148.49	*155.00*	*158.00*	Common Shs Outst'g [D]	*175.00*
	13.6	12.5	13.2	14.4	15.9	15.9	16.1	17.5	20.8	22.0	21.7	23.2	22.3	18.8	19.3	18.7	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*16.5*
	.82	.83	.84	.90	1.01	.89	.85	.88	1.09	1.11	1.17	1.24	1.15	1.02	1.12	1.08			Relative P/E Ratio	*.90*
	4.8%	5.3%	4.7%	4.2%	4.1%	3.5%	3.1%	2.9%	2.4%	2.3%	2.2%	2.1%	2.2%	2.6%	2.5%	2.6%			Avg Ann'l Div'd Yield	*3.1%*
	4940.9	4142.1	3349.9	2759.7	3115.5	2901.8	2821.1	3407.5	4201.7	4275.4	*4145*	*4400*	Revenues ($mill) [A]	*6500*
	289.8	315.1	350.1	382.7	444.3	511.4	580.5	665.6	774.4	885.9	*1000*	*1100*	Net Profit ($mill)	*1475*
	39.2%	38.3%	36.4%	36.6%	27.0%	21.4%	19.5%	18.8%	9.1%	11.4%	*15.0%*	*16.0%*	Income Tax Rate	*25.0%*
	5.9%	7.6%	10.5%	13.9%	14.3%	17.6%	20.6%	19.5%	18.4%	20.7%	*24.1%*	*25.0%*	Net Profit Margin	*22.7%*
	44.3%	43.5%	38.7%	44.0%	34.3%	38.0%	40.0%	38.4%	37.9%	37.9%	*40.0%*	*40.0%*	Long-Term Debt Ratio	*40.0%*
	55.7%	56.5%	61.3%	56.0%	65.7%	62.0%	60.0%	61.6%	62.1%	62.1%	*60.0%*	*60.0%*	Common Equity Ratio	*60.0%*
	5542.2	5650.2	5651.8	6965.7	7263.6	9279.7	11323	12837	15180	17509	*19350*	*20600*	Total Capital ($mill)	*24350*
	6725.9	7430.6	8280.5	9259.2	10371	11788	13355	15064	17240	19607	*20700*	*21800*	Net Plant ($mill)	*25500*
	6.4%	6.6%	7.2%	6.4%	6.9%	6.1%	5.5%	5.5%	5.4%	5.5%	*6.5%*	*6.5%*	Return on Total Cap'l	*7.5%*
	9.4%	9.9%	10.1%	9.8%	9.3%	8.9%	8.5%	8.4%	8.2%	8.1%	*8.5%*	*9.0%*	Return on Shr. Equity	*10.0%*
	9.4%	9.9%	10.1%	9.8%	9.3%	8.9%	8.5%	8.4%	8.2%	8.1%	*8.5%*	*9.0%*	Return on Com Equity	*10.0%*
	4.7%	4.9%	5.1%	4.9%	4.8%	4.6%	4.4%	4.3%	4.2%	4.2%	*4.5%*	*4.5%*	Retained to Com Eq	*5.0%*
	50%	51%	50%	50%	48%	48%	49%	49%	49%	49%	*50%*	*50%*	All Div'ds to Net Prof	*50%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $7540.8 mill. **Due in 5 Yrs** $915.0 mill.
LT Debt $7529.3 mill. **LT Interest** $135.0 mill.
(LT interest earned: 8.3x; total interest coverage: 8.3x)
Leases, Uncapitalized Annual rentals $41.3 mill.

Pfd Stock None

Pension Assets-9/23 $502.4 mill.
Oblig. $431.6 mill.
Common Stock 150,839,709 shs.
as of 2/2/24

MARKET CAP: $17.2 billion (Large Cap)

CURRENT POSITION ($MILL.)	2022	2023	12/31/23
Cash Assets	51.6	15.4	278.3
Other	2996.1	870.4	1401.4
Current Assets	3047.7	885.8	1679.7
Accts Payable	496.0	336.1	416.7
Debt Due	2386.4	253.4	11.5
Other	720.2	763.1	742.3
Current Liab.	3602.6	1352.6	1170.5
Fix. Chg. Cov.	1238%	1059%	1080%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-4.0%	-.5%	*5.0%*
"Cash Flow"	6.5%	7.0%	*6.5%*
Earnings	9.5%	9.0%	*7.0%*
Dividends	7.0%	8.5%	*7.5%*
Book Value	9.5%	12.0%	*4.0%*

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) [A] Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2021	914.5	1319.1	605.6	568.3	3407.5
2022	1012.8	1649.8	816.4	722.7	4201.7
2023	1484.0	1541.0	662.7	587.7	4275.4
2024	1158.5	*1600*	*786.5*	*600*	*4145*
2025	*1225*	*1700*	*840*	*635*	*4400*

Fiscal Year Ends	EARNINGS PER SHARE [A B E] Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2021	1.71	2.30	.78	.37	5.12
2022	1.86	2.37	.92	.51	5.60
2023	1.91	2.48	.94	.80	6.10
2024	2.08	*2.53*	*1.06*	*.88*	*6.55*
2025	*2.21*	*2.65*	*1.17*	*.97*	*7.00*

Cal-endar	QUARTERLY DIVIDENDS PAID [C] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.575	.575	.575	.625	2.35
2021	.625	.625	.625	.68	2.56
2022	.68	.68	.68	.74	2.78
2023	.74	.74	.74	.805	3.03
2024	.805				

LEGENDS
36.50 x Dividends p sh
Relative Price Strength
Options: Yes
Shaded area indicates recession

Target Price Range 2027 2028 2029

200 160 100 80 60 50 40 30 20

Percent shares traded 24 16 8

% TOT. RETURN 1/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-0.5	3.7
3 yr.	38.3	20.4
5 yr.	31.0	63.1

BUSINESS: Atmos Energy Corporation is engaged primarily in the distribution and sale of natural gas to over three million customers through six regulated natural gas utility operations: Louisiana Division, West Texas Division, Mid-Tex Division, Mississippi Division, Colorado-Kansas Division, and Kentucky/Mid-States Division. Gas sales breakdown for fiscal 2023: 66.5%, residential; 28.0%, commercial; 3.8%, industrial; and 1.7% other. The company sold Atmos Energy Marketing, 1/17. Officers and directors own approximately .5% of common stock (12/23 Proxy). President and Chief Executive Officer: Kevin Akers. Incorporated: Texas. Address: Three Lincoln Centre, Suite 1800, 5430 LBJ Freeway, Dallas, Texas 75240. Telephone: 972-934-9227. Internet: www.atmosenergy.com.

Atmos Energy started fiscal 2024 with healthy bottom-line results. (The year concludes on September 30th.) First-quarter earnings per share of $2.08 were 9% higher than the $1.91 tally posted in fiscal 2023. That was made possible partly by positive rate-case outcomes. Diminished bad-debt expense helped, too. It should also be mentioned that the current-quarter figure was favorably impacted by legislation to reduce property-tax expenses in Texas. But increased depreciation expense and higher interest expense provided somewhat of an offset. Still, at this juncture, it appears that full-year profits will advance roughly 7%, to $6.55 per share, compared to fiscal 2023's $6.10 total. Regarding next year, share net stands to advance at a similar percentage rate, to $7.00, assuming additional widening of operating margins.

There's sufficient liquidity to satisfy various obligations for quite a while. When the December period ended, cash and equivalents sat at $278.3 million. Moreover, long-term debt looked reasonable (40% of total capital) and short-term commitments were minimal. Also, $3.1 billion in common stock and/or debt securities remained available for issuance (out of $5 billion) under a shelf registration statement expiring in March, 2026. Finally, the company had four undrawn revolving credit facilities aggregating $2.5 billion plus a $1.5 billion commercial paper program.

Prospects out to the end of the decade seem decent. Atmos Energy ranks as one of the nation's biggest natural gas-only distributors, with more than three million customers across several states, including Texas, Louisiana, and Mississippi. Furthermore, we believe the pipeline and storage segment has promising overall expansion opportunities, since it operates in one of the most-active drilling regions in the world. The solid balance sheet is another strength.

What about the stock? Capital appreciation potential over the 18-month span seems worthwhile. However, the dividend yield is lower than the average of *Value Line's* Natural Gas Utility Industry. Meanwhile, ATO shares are unfavorably ranked for Timeliness.

Frederick L. Harris, III February 23, 2024

(A) Fiscal year ends Sept. 30th. **(B)** Diluted shrs. Excl. nonrec. gains (loss): '10, 5¢; '11, (1¢); '18, $1.43; '20, 17¢. Excludes discontinued operations: '11, 10¢; '12, 27¢; '13, 14¢; '17, 13¢. Next earnings report due early May. **(C)** Dividends historically paid in early March, June, Sept., and Dec. ■ Div. reinvestment plan. Direct stock purchase plan avail. **(D)** In millions. **(E)** Qtrs may not add due to change in shrs outstanding.

Company's Financial Strength	A+
Stock's Price Stability	95
Price Growth Persistence	60
Earnings Predictability	100

BLACK HILLS CORP. NYSE-BKH

RECENT PRICE 54.50 | P/E RATIO 14.2 (Trailing: 13.9 Median: 18.0) | RELATIVE P/E RATIO 0.77 | DIV'D YLD 4.8% | VALUE LINE

TIMELINESS 3 Raised 12/1/23
SAFETY 3 Lowered 1/19/24
TECHNICAL 4 Lowered 3/22/24
BETA 1.05 (1.00 = Market)

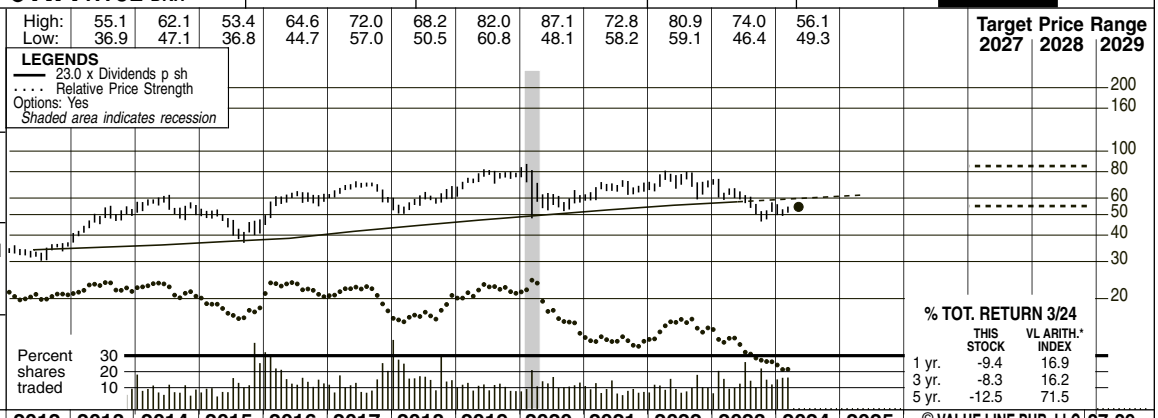
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$43-$85 $64 (15%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+55%)	*15%*
Low	55	(Nil)	*5%*

Institutional Decisions

	2Q2023	3Q2023	4Q2023
to Buy	164	162	200
to Sell	136	148	147
Hld's(000)	58479	58260	59277



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
26.03	32.58	33.29	28.96	26.55	28.67	31.20	25.48	29.47	31.38	29.24	28.22	27.02	30.11	38.60	34.18	*35.70*	*36.10*	Revenues per sh	*38.95*
2.95	5.41	4.88	4.01	5.59	5.93	6.25	5.67	6.28	7.15	6.61	7.02	7.41	7.41	7.85	7.76	*7.95*	*8.30*	"Cash Flow" per sh	*9.65*
.18	2.32	1.66	1.01	1.97	2.61	2.89	2.83	2.63	3.38	3.47	3.53	3.73	3.74	3.97	3.91	*3.90*	*4.10*	Earnings per sh [A]	*4.75*
1.40	1.42	1.44	1.46	1.48	1.52	1.56	1.62	1.68	1.81	1.93	2.05	2.17	2.29	2.41	2.50	*2.60*	*2.70*	Div'd Decl'd per sh [B] ■	*3.00*
8.51	8.90	12.04	10.03	7.90	7.97	8.92	8.90	8.89	6.09	7.62	13.31	12.22	10.47	9.14	8.15	*11.70*	*11.10*	Cap'l Spending per sh	*11.25*
27.19	27.84	28.02	27.53	27.88	29.39	30.80	28.63	30.25	31.92	36.36	38.42	40.79	43.05	45.31	47.15	*48.80*	*50.35*	Book Value per sh [C]	*55.75*
38.64	38.97	39.27	43.92	44.21	44.50	44.67	51.19	53.38	53.54	60.00	61.48	62.79	64.74	66.10	68.20	*70.00*	*72.00*	Common Shs Outst'g [D]	*75.00*
NMF	9.9	18.1	31.1	17.1	18.2	19.0	16.1	22.3	19.5	16.8	21.2	17.0	17.7	18.1	15.2	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*14.5*
NMF	.66	1.15	1.95	1.09	1.02	1.00	.81	1.17	.98	.91	1.13	.87	.96	1.05	.85			Relative P/E Ratio	*.80*
4.2%	6.2%	4.8%	4.6%	4.4%	3.2%	2.8%	3.5%	2.9%	2.7%	3.3%	2.7%	3.4%	3.5%	3.4%	4.2%			Avg Ann'l Div'd Yield	*4.4%*
1393.6	1304.6	1573.0	1680.3	1754.3	1734.9	1696.9	1949.1	2551.8	2331.3	*2500*	*2600*	Revenues ($mill)	*2920*
128.8	128.3	140.3	186.5	192.5	214.5	232.9	236.7	258.4	262.2	*270*	*290*	Net Profit ($mill)	*355*
33.7%	35.8%	25.1%	28.7%	19.2%	13.0%	12.2%	2.8%	8.5%	8.5%	*8.5%*	*8.5%*	Income Tax Rate	*8.5%*
2.4%	2.7%	5.3%	2.7%	1.4%	3.3%	2.5%	2.0%	2.4%	2.4%	*2.5%*	*2.5%*	AFUDC % to Net Profit	*2.5%*
47.9%	56.0%	66.5%	64.5%	57.5%	57.1%	57.9%	59.7%	54.6%	54.2%	*54.5%*	*55.0%*	Long-Term Debt Ratio	*56.0%*
52.1%	44.0%	33.5%	35.5%	42.5%	42.9%	42.1%	40.3%	45.4%	45.8%	*45.5%*	*45.0%*	Common Equity Ratio	*44.0%*
2643.6	3332.7	4825.8	4818.4	5132.4	5502.2	6089.5	6914.0	6602.3	7016.5	*7530*	*8030*	Total Capital ($mill)	*9525*
3239.4	3259.1	4469.0	4541.4	4854.9	5503.2	6019.7	6449.2	6797.9	7119.3	*7650*	*8150*	Net Plant ($mill)	*9775*
6.1%	4.9%	4.0%	5.2%	5.0%	4.9%	5.0%	4.5%	5.1%	4.9%	*4.5%*	*4.5%*	Return on Total Cap'l	*5.0%*
9.4%	8.8%	8.7%	10.9%	8.8%	9.1%	9.1%	8.5%	8.6%	8.2%	*8.0%*	*8.0%*	Return on Shr. Equity	*8.5%*
9.4%	8.8%	8.7%	10.9%	8.8%	9.1%	9.1%	8.5%	8.6%	8.2%	*8.0%*	*8.0%*	Return on Com Equity [E]	*8.5%*
4.3%	3.8%	3.3%	5.3%	3.9%	3.8%	3.8%	3.3%	3.4%	2.9%	*2.5%*	*3.0%*	Retained to Com Eq	*3.0%*
54%	57%	62%	52%	55%	58%	58%	61%	61%	64%	*67%*	*66%*	All Div'ds to Net Prof	*63%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $4401.2 mill. **Due in 5 Yrs** $1660.0 mill.
LT Debt $3801.2 mill. **LT Interest** $170.0 mill.
(Total Interest Coverage: 2.6x)
Leases, Uncapitalized Annual rentals $2.2 mill.

Pension Assets-12/22 $308.6 mill.
Oblig $348.1 mill.

Pfd Stock None

Common Stock 68,196,551 shs.
as of 1/31/24

MARKET CAP: $3.7 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2021	2022	2023
% Change Retail Sales (KWH)	+1.5	+3.4	+1.5
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Yearend (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	1078	1107	1101
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.0	+1.0	+.9
Fixed Charge Cov. (%)	259	281	254

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	2.0%	2.5%	*2.5%*
"Cash Flow"	4.0%	3.0%	*4.0%*
Earnings	7.5%	4.0%	*3.5%*
Dividends	5.0%	6.0%	*4.0%*
Book Value	5.0%	6.5%	*3.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	633.4	372.6	380.6	562.5	1949.1
2022	823.6	474.2	462.6	791.4	2551.8
2023	921.2	411.3	407.1	591.7	2331.3
2024	*940*	*450*	*460*	*650*	*2500*
2025	*975*	*470*	*480*	*675*	*2600*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.54	.40	.70	1.11	3.74
2022	1.82	.52	.54	1.11	3.97
2023	1.73	.35	.67	1.17	3.91
2024	*1.70*	*.40*	*.58*	*1.22*	*3.90*
2025	*1.75*	*.40*	*.65*	*1.30*	*4.10*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.535	.535	.535	.565	2.17
2021	.565	.565	.565	.595	2.29
2022	.595	.595	.595	.625	2.41
2023	.625	.625	.625	.625	2.50
2024	.65				

BUSINESS: Black Hills Corporation is a holding company for Black Hills Energy, which serves 222,340 electric customers in CO, SD, WY and MT, and 1.12 million gas customers in NE, IA, KS, CO, WY, and AR. Has coal mining sub. Acq'd utility ops. from Aquila 7/08; SourceGas 2/16. Discontinued gas marketing in '11; gas & oil E&P in '17. Electric rev. breakdown: residential, 34%; commercial, 39%; industrial, 24%; other, 3%. Generating sources: coal, 35%; gas, 26%; wind, 9%; purchased, 30%. Fuel costs: 38% of revs. '23 deprec. rate: 2.9%-3.5%. Has 2,874 employees. Chairman: Steven R. Mills. President & CEO: Linden R. Evans. Inc.: SD. Address: 7001 Mount Rushmore Rd., P.O. Box 1400, Rapid City, SD 57709-1400. Telephone: 605-721-1700. Internet: www.blackhillscorp.com.

Black Hills will likely post flat per-share profits this year. With the fourth-quarter financial release, management provided bottom-line targets for the year ahead. The company expects to earn $3.80-$4.00 a share in 2024. This reflects a 4% increase at the midpoint from 2023's initial in-house targeted range of $3.65-$3.85 a share. Ultimately Black Hills earned $0.16 above plan last year ($3.91 versus $3.75 at the midpoint) as a result of some one-off, non-operating items that aren't expected to repeat again.

Share dilution and regulatory lag are problematic for earnings-per-share growth. We're actually forecasting a rise in net profits this year, but because the cost of borrowing has gone up so much in recent years, it's become increasingly difficult for regulated utilities to sustain their share-earnings growth rates. On the one hand, there's no lack of capital investment projects to go after, but the payoff for company's such as Black Hills is not what it was previously. Because most utilities, including this equity, are down significantly from their highs of a few years ago, they are receiving less funds and suffering more dilution when floating equity to keep the balance sheet viable. Meanwhile, regulators are looking backwards to what borrowing costs were over the past number of years and are in turn setting authorized return on equity (ROE) levels that aren't reflective of today's market. Seeing the reality of that situation, BKH management lowered its long-term expected growth rate for earnings per share, to 4%-6% from 5%-7%, last year.

The company is filing for rate relief in key service areas. Black Hills received incremental revenue increases through the regulatory process last year. They secured an additional $13.9 million annually from the Wyoming gas jurisdiction in May. They also have a $20.2 million settlement agreement in place for Colorado gas, that's expected to gain final approval this quarter. A $44 million Arkansas gas request has been submitted and BKH is preparing to file rate cases for Iowa gas and Colorado electric shortly.

The main draw here for long-term investors is reliable dividend growth and an above-average yield.

Anthony J. Glennon *April 19, 2024*

(A) Diluted EPS. Excl. nonrec. gains/(losses): '15, ($3.54); '16, ($1.26); '17, 14¢; '18, $1.31; '19, (25¢); '20, (8¢); discont. ops.: '08, $4.12; '09, 7¢; '11, 23¢; '12, (16¢); '17, (31¢); '18, (12¢). Qtly. EPS may not sum to full year due to rounding. Next egs. report due early May. **(B)** Div'ds paid in early March, June, Sept., and Dec. ■ Div'd reinv. plan avail. **(C)** Incl. deferred chgs. and intagibles in '23: $23.64/sh. **(D)** In mill. **(E)** Rate base: Net orig. cost. Rate allowed on com. eq. in SD in '15: none specified; in CO in '17: 9.37%. Regulatory Climate: Average.

Company's Financial Strength	B++
Stock's Price Stability	85
Price Growth Persistence	35
Earnings Predictability	100

NEW JERSEY RES. NYSE-NJR

RECENT PRICE 42.13 | P/E RATIO 15.0 (Trailing: 18.3 Median: 17.0) | RELATIVE P/E RATIO 0.87 | DIV'D YLD 4.0% | VALUE LINE

TIMELINESS 5 Lowered 1/5/24
SAFETY 2 Lowered 4/17/20
TECHNICAL 4 Lowered 1/5/24
BETA .95 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$31-$51	$41 (-5%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	70	(+65%)	*16%*
Low	50	(+20%)	*8%*

Institutional Decisions

	1Q2023	2Q2023	3Q2023
to Buy	157	157	153
to Sell	133	156	163
Hld's(000)	73728	71570	69494

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
High:	23.8	32.1	34.1	38.9	45.4	51.8	51.2	44.7	44.4	51.4	55.8	45.8						
Low:	19.5	21.9	26.8	30.5	33.7	35.6	40.3	21.1	33.3	37.8	38.9	39.4						

LEGENDS
25 x Dividends p sh
Relative Price Strength
2-for-1 split 3/15
Options: Yes
Shaded area indicates recession

Target Price Range 2027 | 2028 | 2029

% TOT. RETURN 1/24

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-15.3	3.7
3 yr.	29.4	20.4
5 yr.	0.0	63.1

© VALUE LINE PUB. LLC

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	27-29
Revenues per sh [A]	45.37	31.17	32.05	36.30	27.08	38.38	44.40	32.09	21.90	26.28	33.24	29.01	20.39	22.71	30.38	20.12	*21.50*	*22.00*	*25.00*
"Cash Flow" per sh	1.81	1.58	1.63	1.70	1.86	1.93	2.73	2.52	2.46	2.68	3.72	2.99	3.30	3.36	3.86	4.22	*4.40*	*4.50*	*5.25*
Earnings per sh [B]	1.35	1.20	1.23	1.29	1.36	1.37	2.08	1.78	1.61	1.73	2.72	1.96	2.07	2.16	2.50	2.70	*2.80*	*2.90*	*3.50*
Div'ds Decl'd per sh [C]■	.56	.62	.68	.72	.77	.81	.86	.93	.98	1.04	1.11	1.19	1.27	1.36	1.45	1.56	*1.68*	*1.76*	*1.95*
Cap'l Spending per sh	.86	.90	1.05	1.13	1.26	1.33	1.52	3.76	4.15	3.80	4.39	5.83	4.65	5.42	6.50	5.13	*5.15*	*5.50*	*6.25*
Book Value per sh [D]	8.64	8.29	8.81	9.36	9.80	10.65	11.48	12.99	13.58	14.33	16.18	17.37	19.26	17.18	19.00	20.40	*22.30*	*23.65*	*27.00*
Common Shs Outst'g [E]	84.12	83.17	82.35	82.89	83.05	83.32	84.20	85.19	85.88	86.32	87.69	89.34	95.80	94.95	95.64	97.57	*100.00*	*100.00*	*100.00*
Avg Ann'l P/E Ratio	12.3	14.9	15.0	16.8	16.8	16.0	11.7	16.6	21.3	22.4	15.6	24.3	17.7	17.5	17.0	17.7	*Bold figures are Value Line estimates*		*17.0*
Relative P/E Ratio	.74	.99	.95	1.05	1.07	.90	.62	.84	1.12	1.13	.84	1.29	.91	.94	.98	1.02			*.95*
Avg Ann'l Div'd Yield	3.3%	3.5%	3.7%	3.3%	3.4%	3.7%	3.5%	3.1%	2.9%	2.7%	2.6%	2.5%	3.5%	3.6%	3.4%	3.3%			*4.0%*
Revenues ($mill) [A]							3738.1	2734.0	1880.9	2268.6	2915.1	2592.0	1953.7	2156.6	2906.0	1963.0	*2150*	*2200*	*2500*
Net Profit ($mill)							176.9	153.7	138.1	149.4	240.5	175.0	196.2	207.4	240.3	261.8	*280*	*290*	*350*
Income Tax Rate							30.2%	26.3%	15.5%	17.2%	--	--	NMF	10.3%	21.4%	15.8%	*22.0%*	*22.0%*	*22.0%*
Net Profit Margin							4.7%	5.6%	7.3%	6.6%	8.2%	6.7%	10.0%	9.6%	8.3%	13.3%	*13.0%*	*13.2%*	*14.0%*
Long-Term Debt Ratio							38.2%	43.2%	47.7%	44.6%	45.4%	49.8%	55.1%	57.0%	57.8%	58.2%	*57.5%*	*57.0%*	*55.0%*
Common Equity Ratio							61.8%	56.8%	52.3%	55.4%	54.6%	50.2%	44.9%	43.0%	42.2%	41.8%	*42.5%*	*43.0%*	*45.0%*
Total Capital ($mill)							1564.4	1950.6	2230.1	2233.7	2599.6	3088.9	4104.2	3793.0	4302.6	4758.8	*5250*	*5500*	*6000*
Net Plant ($mill)							1884.1	2128.3	2407.7	2609.7	2651.0	3041.2	3983.0	4213.5	4649.9	5022.1	*5150*	*5250*	*5550*
Return on Total Cap'l							12.1%	8.6%	6.9%	7.7%	10.1%	6.4%	5.6%	6.5%	5.6%	5.5%	*5.5%*	*5.5%*	*6.0%*
Return on Shr. Equity							18.3%	13.9%	11.8%	12.1%	16.9%	11.3%	10.6%	12.7%	13.2%	13.2%	*12.5%*	*12.5%*	*13.0%*
Return on Com Equity							18.3%	13.9%	11.8%	12.1%	16.9%	11.3%	10.6%	12.7%	13.2%	13.2%	*12.5%*	*12.5%*	*13.0%*
Retained to Com Eq							11.0%	7.0%	4.8%	5.0%	10.2%	4.6%	4.3%	5.6%	6.2%	5.6%	*5.0%*	*5.0%*	*5.5%*
All Div'ds to Net Prof							40%	50%	60%	59%	40%	59%	60%	56%	53%	57.8%	*60%*	*60%*	*56%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $3227.3 mill. **Due in 5 Yrs** $580 mill.
LT Debt $2739.0 mill. **LT Interest** $125 mill.
Incl. $9.3 mill. capitalized leases.
(Interest coverage: 3.3x)
Pension Assets-9/23 $405.0 mill.
Oblig. $493.7 mill.
Pfd Stock None

Common Stock 98,303,527 shs.
as of 2/2/24

MARKET CAP: $4.1 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2022	2023	12/31/23
Cash Assets	1.1	1.0	2.7
Other	755.0	531.1	675.3
Current Assets	756.1	532.1	678.0
Accts Payable	156.6	151.8	105.6
Debt Due	499.1	368.3	488.3
Other	448.5	286.5	368.1
Current Liab.	1104.2	806.6	962.0
Fix. Chg. Cov.	545%		

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-3.0%	-6.0%	*2.5%*
"Cash Flow"	7.0%	4.5%	*5.0%*
Earnings	5.0%	2.5%	*5.0%*
Dividends	6.5%	6.5%	*5.0%*
Book Value	7.5%	7.0%	*4.5%*

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) [A] Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2021	454.3	802.2	367.6	532.5	2156.6
2022	675.8	912.3	552.3	765.5	2906.0
2023	723.6	644.0	264.1	331.3	1963.0
2024	467.2	*850*	*450*	*382.8*	*2150*
2025	*680*	*770*	*460*	*290*	*2200*

Fiscal Year Ends	EARNINGS PER SHARE [A] [B] Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2021	.46	1.77	d.15	.07	2.16
2022	.69	1.36	d.04	.50	2.50
2023	1.14	1.16	.10	.30	2.70
2024	.74	*1.35*	*.05*	*.66*	*2.80*
2025	*.75*	*1.40*	*.05*	*.70*	*2.90*

Calendar	QUARTERLY DIVIDENDS PAID [C]■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.3125	.3125	.3125	.3325	1.27
2021	.3325	.3325	.3325	.3625	1.36
2022	.3625	.3625	.3625	.3625	1.45
2023	.39	.39	.39	.39	1.56
2024	.42				

BUSINESS: New Jersey Resources Corp. is a holding company providing retail/wholesale energy svcs. to customers in NJ, and in states from the Gulf Coast to New England, and Canada. New Jersey Natural Gas had 576,000 cust. at 9/30/23. Fiscal 2023 volume: 128 bill. cu. ft. (23% interruptible, 50% residential, commercial & firm transportation, 27% other). N.J. Natural Energy subsidiary provides unregulated retail/wholesale natural gas and related energy svcs. 2021 dep. rate: 2.8%. Has 1,350 empls. Off./dir. own less than 1% of common; BlackRock, 15.9%; Vanguard, 11.4% (12/23 Proxy). CEO, President & Director: Steven D. Westhoven. Incorporated: New Jersey. Address: 1415 Wyckoff Road, Wall, NJ 07719. Telephone: 732-938-1480. Web: www.njresources.com.

New Jersey Resources finished fiscal 2023 in good shape. (Fiscal years end September 30th.) Net financial earnings per share of $0.30 in the fiscal fourth quarter propelled the bottom line to $2.70 over the full year, an 8% advance. These metrics aligned exactly with our earlier forecasts; however, revenues were well below our targets due to falling natural gas prices, which are a cost that is largely passed through to customers directly. Notably, strong customer growth at the utility, expansion of Clean Energy Ventures, and the completion of the Adelphia Gateway Pipeline all contributed to the solid twelve-month performance.

Earnings were down to begin fiscal 2024. Share net landed at $0.74 in the December period, well short of our call for $1.10 and the year-earlier tally. Part of the reason for the particularly poor comparison is due to the effect of winter storm Elliot at the end of 2022, which boosted earnings by as much as $0.20 per share. As a result, the Energy Services segment in particular registered a $45 million decrease in net financial earnings, whereas the other segments combined for a $7 million increase, notably led by a $14 million improvement at Clean Energy Ventures.

The remainder of 2024 looks likely to generate growth. While we have left our profit target in place despite the first-quarter earnings miss, management has recently increased its guidance for fiscal 2024, now forecasting a range from $2.85 to $3.00 per share. Winter weather in January was the stated impetus for the increase, with Energy Services set to generate a boost from its Asset Management Agreements. Our forecast reflects earnings growth expectations of 4% this year, versus the target long-run average of 7% to 9% annual increases.

Our long-term outlook provides the basis for solid capital appreciation potential. New rates expected in fiscal 2025 should help deliver towards our targets. Meantime, the stock is ranked to underperform the broader market (Timeliness: 5, Lowest). Thus, patient investors may well find a more favorable entry point, from which to buy-and-hold, in the year ahead.

Earl B. Humes *February 23, 2024*

(A) Fiscal year ends Sept. 30th.
(B) Diluted earnings. Qtly. revenues and egs. may not sum to total due to rounding and change in shares outstanding. Next earnings report due early May.
(C) Dividends historically paid in early Jan., April, July, and October. ■ Dividend reinvestment plan available.
(D) Includes regulatory assets in 2023: $585 million, $6.00/share.
(E) In millions, adjusted for 3/15 split.

Company's Financial Strength	A
Stock's Price Stability	85
Price Growth Persistence	45
Earnings Predictability	60

NISOURCE INC. NYSE-NI

RECENT PRICE **25.63** | P/E RATIO **15.4** (Trailing: 16.3 Median: 21.0) | RELATIVE P/E RATIO **0.89** | DIV'D YLD **4.0%** | **VALUE LINE**

TIMELINESS 3 Lowered 12/29/23
SAFETY 2 Raised 2/23/24
TECHNICAL 3 Raised 2/23/24
BETA .90 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$23-$39	$31 (20%)

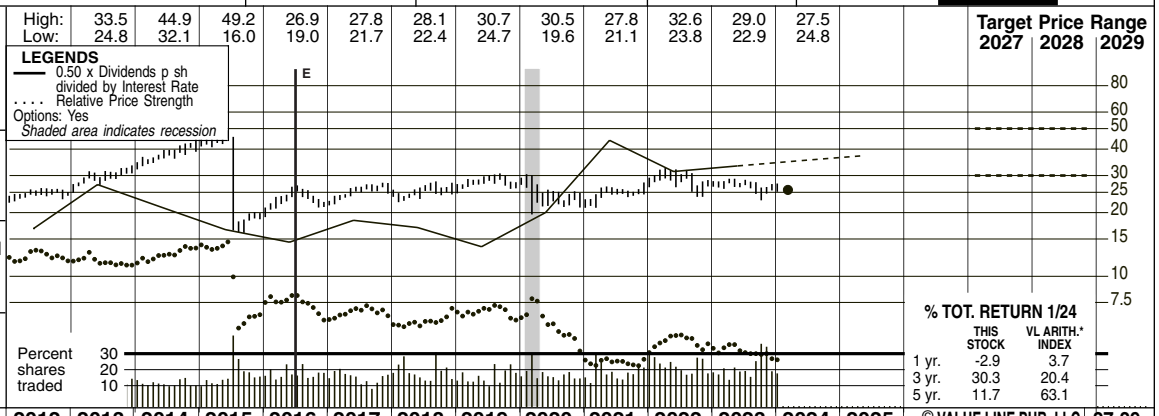
2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(+75%)	*18%*
Low	35	(+30%)	*10%*

Institutional Decisions

	1Q2023	2Q2023	3Q2023
to Buy	301	249	278
to Sell	201	256	234
Hld's(000)	387698	393166	394475

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
High:	33.5	44.9	49.2	26.9	27.8	28.1	30.7	30.5	27.8	32.6	29.0	27.5						
Low:	24.8	32.1	16.0	19.0	21.7	22.4	24.7	19.6	21.1	23.8	22.9	24.8						



																			© VALUE LINE PUB. LLC	27-29
32.36	24.02	22.99	21.33	16.31	18.04	20.47	14.58	13.90	14.46	13.74	13.63	11.95	12.09	14.23	***14.45***	***14.60***	***15.05***	Revenues per sh	***16.10***
3.32	2.96	3.19	2.98	3.13	3.41	3.60	2.27	2.71	2.07	2.86	3.17	3.15	3.26	3.47	***3.60***	***3.80***	***4.80***	"Cash Flow" per sh	***4.25***
1.34	.84	1.06	1.05	1.37	1.57	1.67	.63	1.00	.39	1.30	1.31	1.32	1.37	1.47	***1.60***	***1.70***	***1.85***	Earnings per sh [A]	***2.10***
.92	.92	.92	.92	.94	.98	1.02	.83	.64	.70	.78	.80	.84	.88	.94	1.00	***1.06***	***1.12***	Div'ds Decl'd per sh [B] ■	***1.20***
3.54	2.81	2.88	3.99	4.83	5.99	6.42	4.26	4.57	5.03	4.88	4.72	4.49	4.53	6.32	***7.95***	***7.00***	***6.50***	Cap'l Spending per sh	***6.75***
17.24	17.54	17.63	17.71	17.90	18.77	19.54	12.04	12.60	12.82	13.08	13.36	12.44	13.33	13.14	***19.45***	***20.00***	***20.50***	Book Value per sh [C]	***18.75***
274.26	276.79	279.30	282.18	310.28	313.68	316.04	319.11	323.16	337.02	372.36	382.14	391.76	404.30	411.10	***415.00***	***425.00***	***435.00***	Common Shs Outst'g [D]	***450.00***
12.1	14.3	15.3	19.4	17.9	18.9	22.7	37.3	23.2	NMF	19.3	21.3	18.7	18.0	19.6	***16.8***	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	***19.0***
.73	.95	.97	1.22	1.14	1.06	1.19	1.88	1.22	NMF	1.04	1.13	.96	.99	11.8	***.97***			Relative P/E Ratio	***1.05***
5.7%	7.6%	5.7%	4.5%	3.8%	3.3%	2.7%	3.5%	2.8%	2.8%	3.1%	2.9%	3.4%	3.6%	3.3%	3.7%			Avg Ann'l Div'd Yield	***3.0%***
6470.6	4651.8	4492.5	4874.6	5114.5	5208.9	4681.7	4899.6	5850.6	***6000***	***6200***	***6550***	Revenues ($mill)	***7250***
530.7	198.6	328.1	128.6	478.3	549.8	562.6	626.3	648.2	***665***	***725***	***805***	Net Profit ($mill)	***945***
36.9%	41.6%	35.7%	71.0%	19.7%	17.0%	18.3%	15.7%	17.2%	***19.0%***	***19.0%***	***19.0%***	Income Tax Rate	***19.0%***
--	--	--	--	--	--	--	2.0%	2.3%	***2.5%***	***2.5%***	***2.5%***	AFUDC % to Net Profit	***2.5%***
56.9%	60.7%	59.8%	63.5%	55.3%	56.8%	61.6%	56.9%	55.7%	***57.5%***	***57.5%***	***57.5%***	Long-Term Debt Ratio	***55.0%***
43.1%	39.3%	40.2%	36.5%	37.9%	36.9%	32.5%	33.5%	31.6%	***35.0%***	***35.0%***	***35.0%***	Common Equity Ratio	***37.5%***
14331	9792.0	10129	11832	12856	13843	14972	16131	17099	***19000***	***20000***	***21000***	Total Capital ($mill)	***22500***
16017	12112	13068	14360	15543	16912	16620	17882	19843	***22500***	***24500***	***25750***	Net Plant ($mill)	***28000***
5.3%	4.0%	5.0%	2.6%	5.1%	5.3%	5.0%	4.9%	3.8%	***3.5%***	***3.5%***	***4.0%***	Return on Total Cap'l	***4.0%***
8.6%	5.2%	8.1%	3.0%	8.3%	9.2%	9.8%	9.0%	9.3%	***8.0%***	***8.5%***	***9.0%***	Return on Shr. Equity	***9.5%***
8.6%	5.2%	8.1%	3.0%	9.6%	9.7%	10.4%	10.6%	12.0%	***10.0%***	***10.5%***	***11.0%***	Return on Com Equity	***11.0%***
3.4%	NMF	3.0%	NMF	4.0%	3.8%	3.8%	4.2%	4.0%	***3.5%***	***4.0%***	***4.5%***	Retained to Com Eq	***5.0%***
61%	NMF	63%	NMF	60%	64%	67%	64%	64%	***63%***	***62%***	***60%***	All Div'ds to Net Prof	***57%***

CAPITAL STRUCTURE as of 9/30/23
Total Debt $13258.0 mill. **Due in 5 Yrs** $2355 mill.
LT Debt $11011.3 mill. **LT Interest** $368 mill.
(Interest cov. earned: 5.8x) (59% of Cap'l)

Leases, Uncapitalized Annual rentals $8.0 mill.
Pension Assets-12/22 $1.4 bill. **Oblig.** $1.4 bill.

Pfd Stock $1547 mill. **Pfd Div'd** $55.1 mill.

Common Stock 413,415,441 shs.
as of 10/24/23
MARKET CAP: $10.6 billion (Large Cap)

CURRENT POSITION ($MILL.)	2021	2022	9/30/23
Cash Assets	85.2	40.8	56.0
Other	1835.6	2543.5	1759.4
Current Assets	1920.8	2584.3	1815.4
Accts Payable	697.8	899.5	648.2
Debt Due	618.1	1791.9	2246.7
Other	1430.3	1969.1	1500.5
Current Liab.	2746.2	4660.5	4395.4
Fix. Chg. Cov.	250%	255%	260%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '27-'29
Revenues	-5.0%	-3.5%	*5.5%*
"Cash Flow"	.5%	6.5%	*5.5%*
Earnings	1.5%	15.0%	*9.5%*
Dividends	-.5%	3.5%	*4.5%*
Book Value	-3.0%	.5%	*5.0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1545.6	986.0	959.4	1408.6	4899.6
2022	1873.3	1183.2	1089.5	1704.6	5850.6
2023	1966.0	1090.0	1027.4	***1916.6***	***6000***
2024	***2000***	***1125***	***1150***	***1925***	***6200***
2025	***2115***	***1190***	***1215***	***2030***	***6550***

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	.77	.13	.11	.39	1.37
2022	.75	.12	.10	.50	1.47
2023	.77	.11	.19	***.53***	***1.60***
2024	***.85***	***.15***	***.13***	***.57***	***1.70***
2025	***.90***	***.20***	***.15***	***.60***	***1.85***

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.21	.21	.21	.21	.84
2021	.22	.22	.22	.22	.88
2022	.235	.235	.235	.235	.94
2023	.25	.25	.25	.25	1.00
2024	.265				

BUSINESS: NiSource Inc. is a holding company for Northern Indiana Public Service Company (NIPSCO), which supplies electricity and gas to the northern third of Indiana. Customers: 479,185 electric in Indiana, 3,200,000 gas in Indiana, Ohio, Pennsylvania, Kentucky, Virginia, Maryland, through its Columbia subsidiaries. Revenue breakdown, 2022: electrical, 31%; gas, 69%; other, less than 1%. Generating sources, coal, 69.4%; purchased & other, 30.6%. 2022 reported depreciation rates: 3.1% electric, 2.3% gas. Has 7,304 employees. Chairman: Richard L. Thompson. President & Chief Executive Officer: Lloyd Yates. Incorporated: Indiana. Address: 801 East 86th Avenue, Merrillville, Indiana 46410. Telephone: 877-647-5990. Internet: www.nisource.com.

NiSource's stock offers good value to risk-averse income investors. The natural gas and electric utility company's shares moved sideways in the three months since our November review, as the broader U.S. equity markets pushed on to record highs. Utilities have underperformed as bond yields and growth sectors have drawn investors' attention. Further, inflationary costs and higher interest rates (both of which we think are likely to decrease), have pressured growth, hurting this stock's performance. Yet, these shares have reached a compelling risk-adjusted valuation in comparison to others in the sector. Considering the ongoing transition to renewable energy and building of sustainable energy infrastructure, we see a lot of potential upside to buy-and-hold strategies.

Blackstone, Inc.'s recent acquisition of a non-controlling stake in NIPSCO, a NiSource subsidiary, points to the value here. Blackstone's infrastructure unit purchased 19.9% of the electric and gas subsidiary for $2.16 billion in January. The cash will aid the company's ambitious clean energy transition and decarbonization programs; NIPSCO is planning to phase out its coal-fired power plants by 2028, whereas this sourced 75% of power production as recently as 2018.

The significant investment required to reach its sustainability goals will be a key driver of growth. Capital investments amounting to $16 billion are planned over the next five years, contributing to an expected rate-base increase of 8% to 10% per year, and a 6% to 8% annual increase in earnings per share. Execution on regulatory approvals has been a key strength.

All told, we expect growth to continue at a moderate pace through the next three to five years. The utility likely ended 2023 in good form, and earnings per share probably grew roughly 9%. Note: The company was scheduled to report its annual results as we went to press with this Issue. We think earnings are likely to increase by about 7% per year on average, while dividends may grow by 5% annually.

This issue's Safety rank has risen a notch, to 2 (above average). Likewise, the risk-adjusted upside is attractive.

Earl B. Humes *February 23, 2024*

(A) Dil. EPS. Excl. gains (losses) on disc. ops.: '08, ($1.14); '15, (30¢); '18, ($1.48). Next egs. report due early May. Qtl'y egs. may not sum to total due to rounding.
(B) Div'ds historically paid in mid-Feb., May, Aug., Nov. ■ Div'd reinv. avail.
(C) Incl. intang in '22: $1485.9 million, $3.61/sh.
(D) In mill.
(E) Spun off Columbia Pipeline Group (7/15)

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	20
Earnings Predictability	60

N.W. NATURAL NYSE-NWN

RECENT PRICE **36.62** | P/E RATIO **13.8** (Trailing: 13.3 Median: 24.0) | RELATIVE P/E RATIO **0.80** | DIV'D YLD **5.3%** | **VALUE LINE**

TIMELINESS 3 Raised 12/8/23
SAFETY 2 Raised 2/23/24
TECHNICAL 3 Raised 2/23/24
BETA .85 (1.00 = Market)

18-Month Target Price Range
Low-High **Midpoint (% to Mid)**
$33-$59 $46 (25%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	80	(+120%)	*24%*
Low	50	(+35%)	*12%*

Institutional Decisions

	1Q2023	2Q2023	3Q2023
to Buy	115	122	115
to Sell	102	123	110
Hld's(000)	26729	26926	27474

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
High:	46.6	52.6	52.3	66.2	69.5	71.8	74.1	77.3	56.8	57.6	52.4	40.3								
Low:	40.0	40.1	42.0	48.9	56.5	51.5	57.2	42.3	41.7	42.4	35.7	34.9								
	39.16	38.17	30.56	31.72	27.14	28.02	27.64	26.39	23.61	26.52	24.45	24.49	25.29	27.64	29.20	*31.10*	*30.25*	*30.75*	Revenues per sh	*31.25*
	5.31	5.20	5.18	5.00	4.94	5.04	5.05	4.91	4.93	1.04	5.28	5.15	5.69	6.17	5.71	*5.85*	*6.15*	*6.85*	"Cash Flow" per sh	*7.55*
	2.57	2.83	2.73	2.39	2.22	2.24	2.16	1.96	2.12	d1.94	2.33	2.19	2.30	2.56	2.54	*2.65*	*2.75*	*3.00*	Earnings per sh [A]	*3.25*
	1.52	1.60	1.68	1.75	1.79	1.83	1.85	1.86	1.87	1.88	1.89	1.90	1.91	1.92	1.93	1.94	*1.95*	*1.96*	Div'ds Decl'd per sh [B]■	*1.98*
	3.92	5.09	9.35	3.76	4.91	5.13	4.40	4.37	4.87	7.43	7.43	7.95	9.18	9.49	9.53	*9.00*	*9.25*	*9.50*	Cap'l Spending per sh	*10.00*
	23.71	24.88	26.08	26.70	27.23	27.77	28.12	28.47	29.71	25.85	26.41	28.42	29.05	30.04	33.08	*31.70*	*39.70*	*40.55*	Book Value per sh [D]	*38.70*
	26.50	26.53	26.58	26.76	26.92	27.08	27.28	27.43	28.63	28.74	28.88	30.47	30.59	31.13	35.53	*37.00*	*38.00*	*39.00*	Common Shs Outst'g [C]	*42.00*
	18.1	15.2	17.0	19.0	21.1	19.4	20.7	23.7	26.9	- -	26.6	30.9	25.0	19.5	19.6	*16.3*	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*20.0*
	1.09	1.01	1.08	1.19	1.34	1.09	1.09	1.19	1.41	- -	1.44	1.65	1.28	1.06	1.13	*.94*			Relative P/E Ratio	*1.10*
	3.3%	3.7%	3.6%	3.9%	3.8%	4.2%	4.1%	4.0%	3.3%	3.0%	3.0%	2.8%	3.3%	3.8%	3.9%	4.5%			Avg Ann'l Div'd Yield	*3.3%*
	754.0	723.8	676.0	762.2	706.1	746.4	773.7	860.4	1037.4	*1150*	*1150*	*1200*	Revenues ($mill)	*1250*
	58.7	53.7	58.9	d55.6	67.3	65.3	70.3	78.7	86.3	*98*	*105*	*115*	Net Profit ($mill)	*135*
	41.5%	40.0%	40.9%	- -	26.4%	16.2%	23.1%	25.8%	25.2%	*25.0%*	*25.0%*	*25.0%*	Income Tax Rate	*25.0%*
	7.8%	7.4%	8.7%	NMF	9.5%	8.8%	9.1%	9.1%	8.3%	*8.5%*	*9.1%*	*9.8%*	Net Profit Margin	*10.9%*
	44.8%	42.5%	44.4%	47.9%	48.1%	48.2%	49.2%	52.8%	51.5%	*54.0%*	*52.5%*	*52.5%*	Long-Term Debt Ratio	*50.0%*
	55.2%	57.5%	55.6%	52.1%	51.9%	51.8%	50.8%	47.2%	48.5%	*46.0%*	*47.5%*	*27.5%*	Common Equity Ratio	*50.0%*
	1389.0	1357.7	1529.8	1426.0	1468.9	1672.0	1748.8	1979.7	2421.6	*2550*	*2625*	*2750*	Total Capital ($mill)	*3250*
	2121.6	2182.7	2260.9	2255.0	2421.4	2438.9	2654.8	2871.4	3114.4	*3250*	*3400*	*3550*	Net Plant ($mill)	*3750*
	5.8%	5.5%	5.1%	NMF	5.8%	5.2%	5.2%	5.1%	3.6%	*4.0%*	*4.0%*	*4.5%*	Return on Total Cap'l	*4.0%*
	7.6%	6.9%	6.9%	NMF	8.8%	7.5%	7.9%	8.4%	7.3%	*7.5%*	*7.0%*	*7.5%*	Return on Shr. Equity	*8.5%*
	7.6%	6.9%	6.9%	NMF	8.8%	7.5%	7.9%	8.4%	7.3%	*7.5%*	*7.0%*	*7.5%*	Return on Com Equity	*8.5%*
	1.1%	.6%	.9%	NMF	2.1%	1.4%	1.7%	2.4%	2.1%	*2.0%*	*2.0%*	*3.0%*	Retained to Com Eq	*3.5%*
	85%	92%	87%	NMF	76%	82%	79%	71%	79%	*73%*	*70%*	*65%*	All Div'ds to Net Prof	*60%*

CAPITAL STRUCTURE as of 9/30/23
Total Debt $1686.3 mill. **Due in 5 Yrs** $713 mill.
LT Debt $1424.6 mill. **LT Interest** $75 mill.

(Total interest coverage: 1.9x)

Pension Assets-12/22 $300.0 mill.
Oblig. $413.4 mill.

Pfd Stock None

Common Stock 36,778,271 shares
as of 10/26/23

MARKET CAP $1.3 billion (Small Cap)

CURRENT POSITION ($MILL.)	2021	2022	9/30/23
Cash Assets	18.6	29.3	156.6
Other	418.7	714.9	350.8
Current Assets	437.3	744.2	507.4
Accts Payable	133.5	180.7	99.3
Debt Due	389.8	348.9	261.7
Other	201.5	369.1	229.1
Current Liab.	724.8	898.7	590.1
Fix. Chg. Cov.	335%	320%	275%

ANNUAL RATES (of change (per sh))	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '27-'29
Revenues	-2.5%	- -	*4.5%*
"Cash Flow"	1.0%	2.5%	*5.0%*
Earnings	-1.0%	2.5%	*6.5%*
Dividends	1.5%	.5%	*.5%*
Book Value	1.0%	.5%	*4.0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	315.9	148.9	101.5	294.1	860.4
2022	350.3	195.0	116.8	375.3	1037.4
2023	462.4	237.9	141.5	*308.2*	*1150*
2024	*445*	*220*	*130*	*355*	*1150*
2025	*465*	*230*	*135*	*370*	*1200*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.94	d.02	d.67	1.31	2.56
2022	1.80	.05	d.56	1.36	2.54
2023	2.01	.03	d.65	*1.26*	*2.65*
2024	*2.00*	*.05*	*d.65*	*1.35*	*2.75*
2025	*2.10*	*.05*	*d.60*	*1.45*	*3.00*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.4775	.4775	.4775	.48	1.91
2021	.48	.48	.48	.483	1.92
2022	.483	.483	.483	.485	1.93
2023	.485	.485	.485	.488	1.94
2024	.488				

BUSINESS: Northwest Natural Holding Co. distributes natural gas to 1,000 communities, 795,000 customers, in Oregon (88% of customers) and in southwest Washington state. Principal cities served: Portland and Eugene, OR; Vancouver, WA. Service area population: 3.7 mill. (77% in OR). Company buys gas supply from Canadian and U.S. producers; has transportation rights on Northwest Pipeline system. Owns local underground storage. Rev. breakdown: residential, 37%; commercial, 22%; industrial, gas transportation, 41%. Employs 1,258. BlackRock Inc. owns 17.3% of shares; Vanguard, 12.2%; Off./Dir., .95% (4/23 proxy). CEO: David H. Anderson. Inc.: Oregon. Address: 220 NW 2nd Ave., Portland, OR 97209. Tel.: 503-226-4211. Internet: www.nwnatural.com.

Northwest Natural stock offers good value for income-seeking accounts. The stock's price has fallen from highs of $77 a share in as few as four years, as the appeal of a steady income stream from utility companies has been overshadowed by the growth potential of other sectors and diminished by higher interest rates. Indeed, this sets the stage for what we believe is an attractive combination of stability and value. The stock's 5.3% dividend yield, well above the *Value Line* median, is a strong incentive which provides a solid foundation for future total return potential. While government bonds offer a similar value proposition with less risk, the idea that interest rates may well come down in the near future adds to the appeal of receiving this dividend. Furthermore, the current price-to-earnings ratio of 12.5 is notably low for the stock, and the the issue's Safety rank was recently raised a notch, to 2 (Above Average).

The company likely ended 2023 in good shape. Note: The company was scheduled to report its annual results shortly after we went to press with this Issue. Our conservative fourth-quarter outlook is influenced by mild El Nino year regional weather, and some inflationary pressure. Nonetheless, full-year share earnings likely rose a decent 4%, thanks largely to a strong first quarter. We expect earnings per share to advance anothe 4% in 2024, and 9% in 2025.

Resilient economic trends and sustainability initiatives underscore our earnings growth outlook. The company's service area ranks among the middle of the pack in economic and population growth trends, which contributes to our expectations for stability. The company's sustainability strategies are the main impetus for growth. Investments in this domain, including its expanding water business, and continual infrastructure hardening, should lead to rate-case execution and earnings increases ahead.

Risks are worth noting. Two key areas of concern are the possible banning of natural gas in new construction (a growing urban trend), and the increasing threat from wildfires in the region. Also, the stock's Earnings Predictability rank is quite low.

Earl B. Humes *February 23, 2024*

(A) Diluted earnings per share. Excludes nonrecurring items: '08, ($0.03); '09, $0.06; May not sum due to rounding. Next earnings report due in early May.

(B) Dividends historically paid in mid-February, May, August, and November.
■ Dividend reinvestment plan available.
(C) In millions.

(D) Includes intangibles. In 2022: $149 million, $4.20/share.

Company's Financial Strength	A
Stock's Price Stability	85
Price Growth Persistence	25
Earnings Predictability	15

ONE GAS, INC. NYSE-OGS

RECENT PRICE 62.45 | P/E RATIO 15.2 (Trailing: 15.2 Median: NMF) | RELATIVE P/E RATIO 0.88 | DIV'D YLD 4.2% | VALUE LINE

TIMELINESS 3 Raised 12/8/23
SAFETY 2 New 6/2/17
TECHNICAL 4 Lowered 2/9/24
BETA .85 (1.00 = Market)

18-Month Target Price Range

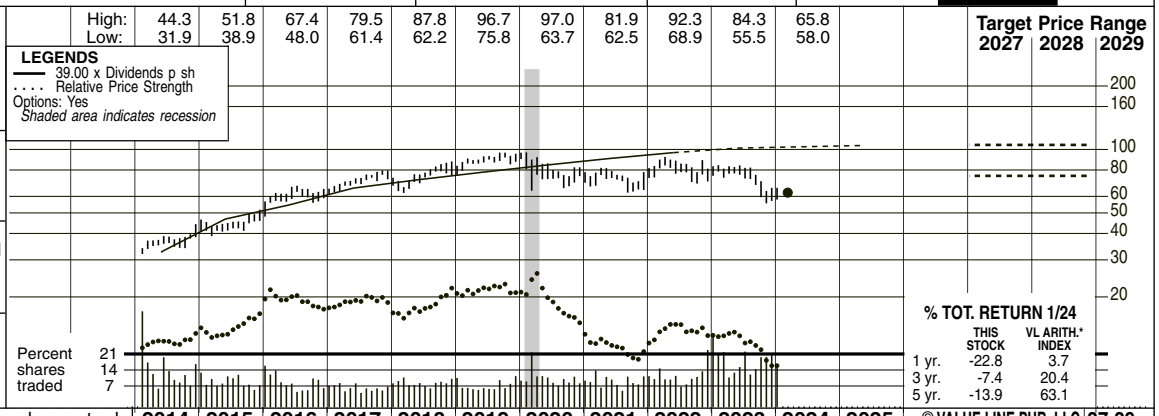
Low-High	Midpoint (% to Mid)
$52-$101	$77 (25%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	105	(+70%)	17%
Low	75	(+20%)	9%

Institutional Decisions

	1Q2023	2Q2023	3Q2023
to Buy	157	158	148
to Sell	133	133	153
Hld's(000)	51917	53044	51074



The shares of ONE Gas, Inc. began trading "regular-way" on the New York Stock Exchange on February 3, 2014. That happened as a result of the separation of ONEOK's natural gas distribution operation. Regarding the details of the spinoff, on January 31, 2014, ONEOK distributed one share of OGS common stock for every four shares of ONEOK common stock held by ONEOK shareholders of record as of the close of business on January 21. It should be mentioned that ONEOK did not retain any ownership interest in the new company.

CAPITAL STRUCTURE as of 9/30/23
Total Debt $2990.0 mill. **Due in 5 Yrs** $1250.0 mill.
LT Debt $1862.6 mill. **LT Interest** $115.0 mill.
(LT interest earned: 4.5x; total interest coverage: 4.5x)
Leases, Uncapitalized Annual rentals $6.5 mill.
Pfd Stock None
Pension Assets-12/22 $950.8 mill.
Oblig. $953.0 mill.
Common Stock 55,454,050 shs.
as of 10/23/23
MARKET CAP: $3.5 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2021	2022	9/30/23
Cash Assets	8.9	9.7	9.2
Other	2215.7	1207.9	555.2
Current Assets	2224.6	1217.6	564.4
Accts Payable	258.6	360.5	168.6
Debt Due	494.0	572.7	1127.4
Other	227.9	256.2	275.7
Current Liab.	980.5	1189.4	1571.7
Fix. Chg. Cov.	625%	540%	550%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '27-'29
Revenues	- -	6.5%	*10.0%*
"Cash Flow"	- -	6.0%	*9.0%*
Earnings	- -	6.0%	*4.0%*
Dividends	- -	8.0%	*3.0%*
Book Value	- -	4.0%	*4.5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	625.3	315.6	273.9	593.8	1808.6
2022	971.5	428.9	359.4	818.2	2578.0
2023	1032.1	398.1	335.8	*814*	*2580*
2024	*1040*	*415*	*360*	*825*	*2640*
2025	*1060*	*430*	*410*	*850*	*2750*

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2021	1.79	.56	.38	1.12	3.85
2022	1.83	.59	.44	1.23	4.08
2023	1.84	.58	.45	*1.28*	*4.15*
2024	*1.82*	*.57*	*.43*	*1.23*	*4.05*
2025	*1.87*	*.60*	*.48*	*1.25*	*4.20*

Calendar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.54	.54	.54	.54	2.16
2021	.58	.58	.58	.58	2.32
2022	.62	.62	.62	.62	2.48
2023	.65	.65	.65	.65	2.60
2024	.66				

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
	34.92	29.62	27.30	29.43	31.08	31.32	28.78	33.72	46.58	*46.50*	*47.55*	*49.55*	Revenues per sh	*70.15*
	4.52	4.82	5.43	5.96	6.32	6.96	7.36	7.71	8.13	*9.10*	*9.85*	*10.90*	"Cash Flow" per sh	*13.95*
	2.07	2.24	2.65	3.02	3.25	3.51	3.68	3.85	4.08	*4.15*	*4.05*	*4.20*	Earnings per sh A	*5.00*
	.84	1.20	1.40	1.68	1.84	2.00	2.16	2.32	2.48	2.60	*2.64*	*2.68*	Div'ds Decl'd per sh B■	*2.85*
	5.70	5.63	5.91	6.81	7.50	7.91	8.87	9.23	11.01	*11.75*	*11.95*	*12.15*	Cap'l Spending per sh	*12.60*
	34.45	35.24	36.12	37.47	38.86	40.35	42.01	43.81	46.69	*47.05*	*49.55*	*54.50*	Book Value per sh	*60.20*
	52.08	52.26	52.28	52.31	52.57	52.77	53.17	53.63	55.35	*55.50*	*55.50*	*55.50*	Common Shs Outst'g C	*57.00*
	17.8	19.8	22.7	23.5	23.1	25.3	21.7	18.9	19.9	*17.9*	*Bold figures are*		Avg Ann'l P/E Ratio	*18.0*
	.94	1.00	1.19	1.18	1.25	1.35	1.11	1.02	1.16	*1.00*	*Value Line*		Relative P/E Ratio	*1.00*
	2.3%	2.7%	2.3%	2.4%	2.5%	2.3%	2.7%	3.2%	3.1%	3.5%	*estimates*		Avg Ann'l Div'd Yield	*3.2%*
	1818.9	1547.7	1427.2	1539.6	1633.7	1652.7	1530.3	1808.6	2578.0	*2580*	*2640*	*2750*	Revenues ($mill)	*4000*
	109.8	119.0	140.1	159.9	172.2	186.7	196.4	206.4	221.7	*230*	*225*	*235*	Net Profit ($mill)	*285*
	38.4%	38.0%	37.8%	36.4%	23.7%	18.7%	17.5%	16.3%	17.3%	*15.5%*	*15.5%*	*16.0%*	Income Tax Rate	*20.0%*
	6.0%	7.7%	9.8%	10.4%	10.5%	11.3%	12.8%	11.4%	8.6%	*8.9%*	*8.5%*	*8.5%*	Net Profit Margin	*7.1%*
	40.1%	39.5%	38.7%	37.8%	38.6%	37.7%	41.5%	61.1%	50.7%	*42.0%*	*45.0%*	*45.0%*	Long-Term Debt Ratio	*51.0%*
	59.9%	60.5%	61.3%	62.2%	61.4%	62.3%	58.5%	38.9%	49.3%	*58.0%*	*55.0%*	*55.0%*	Common Equity Ratio	*49.0%*
	2995.3	3042.9	3080.7	3153.5	3328.1	3415.5	3815.7	6032.9	5246.2	*4500*	*5000*	*5500*	Total Capital ($mill)	*7000*
	3293.7	3511.9	3731.6	4007.6	4283.7	4565.2	4867.1	5190.8	5628.8	*6050*	*6425*	*6800*	Net Plant ($mill)	*8000*
	4.4%	4.7%	5.2%	5.8%	5.9%	6.4%	6.0%	3.9%	5.0%	*6.5%*	*6.0%*	*5.5%*	Return on Total Cap'l	*5.5%*
	6.1%	6.5%	7.4%	8.2%	8.4%	8.8%	8.8%	8.8%	8.6%	*9.0%*	*8.0%*	*8.0%*	Return on Shr. Equity	*8.5%*
	6.1%	6.5%	7.4%	8.2%	8.4%	8.8%	8.8%	8.8%	8.6%	*9.0%*	*8.0%*	*8.0%*	Return on Com Equity	*8.5%*
	3.7%	3.1%	3.5%	3.7%	3.7%	3.8%	3.7%	3.5%	3.4%	*3.5%*	*3.0%*	*3.0%*	Retained to Com Eq	*3.5%*
	40%	53%	52%	55%	56%	56%	58%	60%	60%	*63%*	*65%*	*63%*	All Div'ds to Net Prof	*57%*

BUSINESS: ONE Gas, Inc. provides natural gas distribution services to more than two million customers. There are three divisions: Oklahoma Natural Gas, Kansas Gas Service, and Texas Gas Service. The company purchased 165 Bcf of natural gas supply in 2022, compared to 164 Bcf in 2021. Total volumes delivered by customer (fiscal 2022): transportation, 57.3%; residential, 31.2%; commercial & industrial, 10.8%; other, .7%. ONE Gas has around 3,600 employees. BlackRock owns 12.6% of common stock; The Vanguard Group, 11.5%; State Street Corporation, 11.5%; officers and directors, 1.5% (4/23 Proxy). CEO: Robert S. McAnnally. Incorporated: Oklahoma. Address: 15 East Fifth Street, Tulsa, Oklahoma 74103. Telephone: 918-947-7000. Internet: www.onegas.com.

ONE Gas, Inc. probably had a lackluster performance in 2023. (Fourth-quarter numbers were not available when this report went to press.) Recall that during the first nine months, profits of $2.87 per share were only one cent higher than the previous year's $2.86 tally. This stemmed, to a certain degree, from a 12.5% increase in total operating expenses, which particularly reflected greater depreciation & amortization and operations & maintenance costs. Also, interest expense rose sharply. The number of diluted shares outstanding was somewhat higher, too. But the company's results were helped partly by new rates. Moreover, the effective income tax rate dropped. Nevertheless, it seems that full-year earnings per share were around $4.15. That would be quite close to 2022's $4.08 figure.

We anticipate another underwhelming showing in 2024. Although ONE Gas stands to enjoy the benefits of new rates and customer growth, they ought to be offset by heightened expenses (including employee-related and contractor costs, depreciation expense, and interest costs). So, the bottom line may only finish in the vicinity of $4.05 per share, modestly below our target for last year. But looking at 2025, a nearly 4% advance, to $4.20 a share, appears possible based to some extent on our assumption that the business climate is generally favorable.

The quarterly dividend was recently raised by a penny, to $0.66 a share. The company says that it plans to keep the average annual dividend growth rate between 1% and 2% through fiscal 2028. We believe that substantially slower increase, versus prior years, is partly because operating expenses should continue to climb as ONE Gas expands. In any event, the payout ratio out to the end of the decade ought to be manageable, in the 55% to 60% range.

There are some things to like about these shares. Capital gains potential over the 18-month span is significant. Upside possibilities during the 2027-2029 period are worthwhile, too. The solid dividend yield is another plus. Consider, also, the 2 (Above Average) Safety rank and high Price Stability mark of 90 out of 100.

Frederick L. Harris, III February 23, 2024

(A) Diluted EPS. Excludes nonrecurring gain: 2017, $0.06. Next earnings report due early May. Quarterly EPS figures for 2022 don't equal total due to rounding.

(B) Dividends historically paid in early March, June, Sept., and Dec. ■ Dividend reinvestment plan. Direct stock purchase plan.

(C) In millions.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	50
Earnings Predictability	100

SPIRE INC. NYSE-SR

RECENT PRICE **59.34** | P/E RATIO **14.5** (Trailing: 16.0 Median: 19.0) | RELATIVE P/E RATIO **0.84** | DIV'D YLD **5.2%** | **VALUE LINE**

TIMELINESS 3 Raised 2/16/24
SAFETY 2 Raised 6/20/03
TECHNICAL 4 Lowered 9/29/23
BETA .85 (1.00 = Market)

18-Month Target Price Range

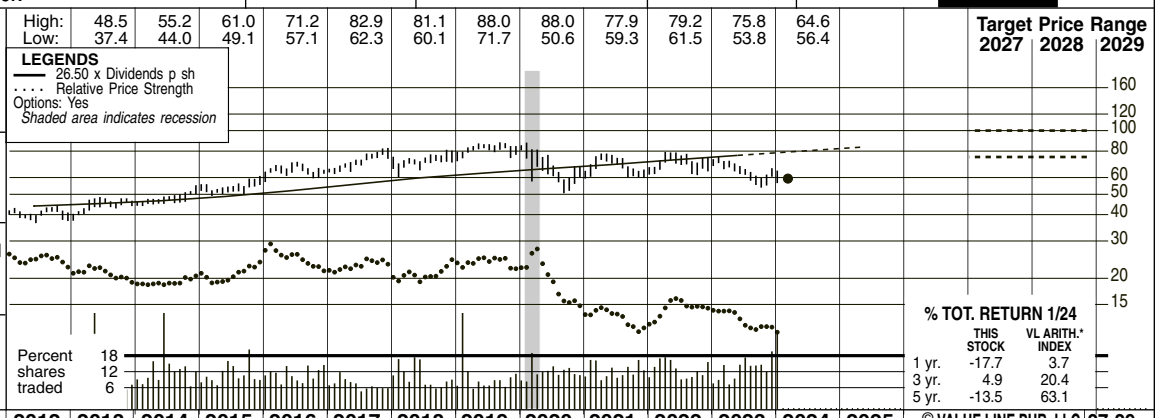
Low-High	Midpoint (% to Mid)
$50-$88	$69 (15%)

2027-29 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	100	(+70%)	*18%*
Low	75	(+25%)	*11%*

Institutional Decisions

	1Q2023	2Q2023	3Q2023
to Buy	128	142	131
to Sell	132	138	144
Hld's(000)	45090	46098	48374



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	© VALUE LINE PUB. LLC	27-29
100.44	85.49	77.83	71.48	49.90	31.10	37.68	45.59	33.68	36.07	38.78	38.30	35.96	43.24	41.88	50.12	*48.90*	*50.25*	Revenues per sh [A]	*57.25*
4.22	4.56	4.11	4.62	4.58	3.12	3.87	6.15	6.16	6.54	7.55	7.12	5.25	9.09	8.44	8.60	*9.05*	*9.65*	"Cash Flow" per sh	*11.00*
2.64	2.92	2.43	2.86	2.79	2.02	2.35	3.16	3.24	3.43	4.33	3.52	1.44	4.96	3.95	3.85	*4.10*	*4.50*	Earnings per sh [A B]	*5.50*
1.49	1.53	1.57	1.61	1.66	1.70	1.76	1.84	1.96	2.10	2.25	2.37	2.49	2.60	2.74	2.88	*3.02*	*3.16*	Div'ds Decl'd per sh [C ■]	*3.60*
2.57	2.36	2.56	3.02	4.83	4.00	3.96	6.68	6.42	9.08	9.86	16.15	12.37	12.09	10.52	12.45	*13.80*	*14.15*	Cap'l Spending per sh	*14.50*
22.12	23.32	24.02	25.56	26.67	32.00	34.93	36.30	38.73	41.26	44.51	45.14	44.19	46.74	49.08	50.29	*55.45*	*59.20*	Book Value per sh [D]	*66.05*
21.99	22.17	22.29	22.43	22.55	32.70	43.18	43.36	45.65	48.26	50.67	50.97	51.60	51.70	52.50	53.20	*55.50*	*56.50*	Common Shs Outst'g [E]	*62.00*
14.3	13.4	13.7	13.0	14.5	21.3	19.8	16.5	19.6	19.8	16.7	22.8	51.1	13.6	17.5	17.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*16.0*
.86	.89	.87	.82	.92	1.20	1.04	.83	1.03	1.00	.90	1.21	2.62	.73	1.01	1.00			Relative P/E Ratio	*.90*
3.9%	3.9%	4.7%	4.3%	4.1%	4.0%	3.8%	3.5%	3.1%	3.1%	3.1%	3.0%	3.4%	3.8%	4.0%	4.3%			Avg Ann'l Div'd Yield	*4.1%*
1627.2	1976.4	1537.3	1740.7	1965.0	1952.4	1855.4	2235.5	2198.5	2666.3	*2715*	*2840*	Revenues ($mill) [A]	*3550*
84.6	136.9	144.2	161.6	214.2	184.6	88.6	271.7	220.8	217.5	*230*	*255*	Net Profit ($mill)	*340*
27.6%	31.2%	32.5%	32.4%	- -	15.7%	12.3%	20.1%	21.1%	15.1%	*18.0%*	*19.0%*	Income Tax Rate	*24.0%*
5.2%	6.9%	9.4%	9.3%	10.9%	9.5%	4.8%	12.2%	10.0%	8.2%	*8.5%*	*9.0%*	Net Profit Margin	*9.6%*
55.1%	53.0%	50.9%	50.0%	45.7%	45.0%	49.0%	52.5%	51.2%	54.9%	*52.0%*	*52.0%*	Long-Term Debt Ratio	*51.0%*
44.9%	47.0%	49.1%	50.0%	54.3%	49.7%	46.1%	43.2%	44.6%	41.3%	*44.0%*	*44.0%*	Common Equity Ratio	*45.0%*
3359.4	3345.1	3601.9	3986.3	4155.5	4625.6	4946.0	5597.3	5777.0	6471.3	*7000*	*7600*	Total Capital ($mill)	*9100*
2759.7	2941.2	3300.9	3665.2	3970.5	4352.0	4680.1	5055.7	5370.4	5778.9	*6150*	*6530*	Net Plant ($mill)	*7675*
3.1%	5.1%	4.9%	5.0%	6.3%	5.1%	2.9%	5.8%	4.9%	4.8%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.5%*
5.6%	8.7%	8.2%	8.1%	9.5%	7.3%	3.5%	10.2%	7.8%	7.5%	*7.5%*	*7.5%*	Return on Shr. Equity	*8.5%*
5.6%	8.7%	8.2%	8.1%	9.5%	7.9%	3.2%	10.6%	8.0%	7.6%	*7.5%*	*7.5%*	Return on Com Equity	*8.5%*
1.5%	3.7%	3.3%	3.3%	4.7%	2.7%	NMF	5.1%	2.5%	1.9%	*1.5%*	*2.0%*	Retained to Com Eq	*2.5%*
73%	58%	59%	60%	51%	66%	NMF	54%	71%	76%	*79%*	*76%*	All Div'ds to Net Prof	*70%*

CAPITAL STRUCTURE as of 12/31/23
Total Debt $4752.3 mill. **Due in 5 Yrs**$2310.0 mill.
LT Debt $3247.8 mill. **LT Interest** $140.0 mill.
(Total interest coverage: 2.4x)

Leases, Uncapitalized Annual rentals $9.8 mill.
Pension Assets-9/23 $630.3 mill.
Oblig. $832.5 mill.
Pfd Stock $242.0 mill. **Pfd Div'd** $14.8 mill.
Common Stock 54,983,397 shs.
as of 1/29/24

MARKET CAP: $3.3 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2022	2023	12/31/23
Cash Assets	6.5	5.6	4.8
Other	1585.5	1071.3	1215.1
Current Assets	1592.0	1076.9	1219.9
Accts Payable	617.4	253.1	293.8
Debt Due	1318.7	1112.1	1504.5
Other	417.5	390.2	412.2
Current Liab.	2353.6	1755.4	2210.5
Fix. Chg. Cov.	393%	294%	310%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '27-'29
Revenues	-1.0%	4.5%	*4.0%*
"Cash Flow"	8.0%	5.0%	*4.0%*
Earnings	5.0%	3.0%	*4.5%*
Dividends	5.0%	5.5%	*4.5%*
Book Value	5.5%	3.5%	*5.5%*

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.)[A] Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2021	512.6	1104.9	327.8	290.2	2235.5
2022	555.4	880.9	448.0	314.2	2198.5
2023	814.0	1123.4	418.5	310.4	2666.3
2024	756.6	*1170*	*453.4*	*335*	*2715*
2025	*790*	*1235*	*465*	*350*	*2840*

Fiscal Year Ends	EARNINGS PER SHARE [A B F] Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2021	1.65	3.55	.03	d.26	4.96
2022	1.01	3.27	d.10	d.20	3.95
2023	1.66	3.33	d.48	d.66	3.85
2024	1.52	*3.34*	*d.30*	*d.46*	*4.10*
2025	*1.50*	*3.35*	*d.11*	*d.24*	*4.50*

Cal-endar	QUARTERLY DIVIDENDS PAID [C ■] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.6225	.6225	.6225	.6225	2.49
2021	.65	.65	.65	.65	2.60
2022	.685	.685	.685	.685	2.74
2023	.72	.72	.72	.72	2.88
2024	.755				

BUSINESS: Spire Inc., formerly known as the Laclede Group, Inc., is a holding company for natural gas utilities, which distributes natural gas across Missouri, including the cities of St. Louis and Kansas City, Alabama, and Mississippi. Has roughly 1.7 million customers. Acquired Missouri Gas 9/13, Alabama Gas Co 9/14. Utility therms sold and transported in fiscal 2023: 3.2 bill. Revenue mix for regulated operations: residential, 67%; commercial and industrial, 25%; transportation, 5%; other, 3%. Officers and directors own 2.9% of common shares; American Century Companies, 15.4% (12/23 proxy). Chairman: Edward Glotzbach; CEO: Steve Lindsey. Inc.: Missouri. Address: 700 Market Street, St. Louis, Missouri 63101. Tel.: 314-342-0500. Internet: www.spireenergy.com.

Spire began fiscal 2024 (ends September 30th) on a sour note. First-quarter earnings per share slipped 8.4%, to $1.52, versus last year's $1.66 total. This was due partly to the fact that, for both the Gas Marketing and Midstream divisions, fiscal 2023's very favorable market conditions were not repeated. But on the plus side, the Gas Utility unit had a better performance, supported by the benefit of new rates. We do anticipate unspectacular consolidated results for the second quarter. Still, since the company faces easier bottom-line comparisons during the second half, full-year share net stands to grow roughly 6%, to $4.10, relative to the fiscal 2023 figure of $3.85. Regarding next year, profits stand to advance around 10%, to $4.50 a share, as operating margins expand further.

Capital expenditures for this fiscal year are expected to be around $765 million. (That's 15.5% higher than the fiscal 2023 level of $662.5 million.) Funds are being deployed to such areas as infrastructure upgrades at the utilities and new business development initiatives. Management adds that it looks for total spending from fiscal 2024 through fiscal 2033 to be $7.2 billion. Assuming that the balance sheet stays in healthy condition, Spire ought to have little trouble accomplishing these objectives.

Business prospects out to 2027-2029 appear decent. The gas utilities boast 1.7 million customers in Mississippi, Alabama, and Missouri. Too, the other operations, particularly pipelines, hold promise. Additional expansionary projects and technological enhancements in customer service and elsewhere should help Spire, as well. Finally, acquisitions are plausible, given the adequate finances. To that end, the company just completed the purchase of the MoGas and Omega pipeline systems (both serving customers in Missouri) from CorEnergy Infrastructure Trust, Inc. for $177.6 million.

What about the stock? Its dividend yield compares nicely to those of other equities in *Value Line's* Natural Gas Utility Industry. Moreover, capital gains potential over the 18-month span and out to 2027-2029 looks decent. Meanwhile, the Timeliness rank sits at 3 (Average).

Frederick L. Harris, III February 23, 2024

(A) Fiscal year ends Sept. 30th. **(B)** Based on diluted shares outstanding. Excludes gain from discontinued operations: '08, 94¢. Next earnings report due late April. **(C)** Dividends paid in early January, April, July, and October. ■ Dividend reinvestment plan available. **(D)** Incl. deferred charges. In '23: $1,171.6 mill., $22.02/sh. **(E)** In millions. **(F)** Qtly. egs. may not sum due to rounding or change in shares outstanding.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	35
Earnings Predictability	45

Atmos Energy (ATO)

Date	High	Low	Close
11/6/2023	$ 114.99	$ 110.52	$ 111.41
11/13/2023	115.73	110.40	113.90
11/20/2023	113.50	110.50	112.00
11/27/2023	114.62	111.17	113.85
12/4/2023	115.33	112.96	113.46
12/11/2023	118.27	112.31	114.82
12/18/2023	115.67	113.03	114.91
12/25/2023	116.74	114.45	115.90
1/1/2024	118.75	115.67	117.98
1/8/2024	118.92	115.24	115.79
1/15/2024	115.88	111.16	113.08
1/22/2024	114.49	110.72	113.70
1/29/2024	115.90	112.65	113.77
2/5/2024	113.51	110.64	113.11
2/12/2024	114.59	110.46	113.95
2/19/2024	115.66	112.74	112.76
2/26/2024	113.56	111.02	112.73
3/4/2024	116.63	112.32	115.82
3/11/2024	117.24	113.82	114.55
3/18/2024	117.90	114.30	116.57
3/25/2024	119.05	114.75	118.87
4/1/2024	119.36	115.01	116.23
4/8/2024	117.26	113.23	113.99
4/15/2024	117.26	110.97	117.20
4/22/2024	118.85	116.15	116.93
4/29/2024	119.90	117.01	119.32
5/6/2024	120.79	118.75	120.59
5/9/2024	121.46	117.61	120.48
Mean	$ 116.85	$ 113.20	**$ 115.27**
Median	$ 116.68	$ 112.85	**$ 114.69**
Minimum		**$ 110.40**	
Maximum	**$ 121.46**		

Growth Estimates	
Yahoo (IBES)	7.40%
SPMI (Factset)	7.00%
Value-Line EPS	7.00%
Value-Line DPS	7.50%
2025 DPS	$ 3.46
Value-Line Yield	2.90%

Black Hills Corp (BKH)

Date	High	Low	Close
11/6/2023	$ 50.36	$ 48.32	$ 49.14
11/13/2023	52.39	48.27	51.67
11/20/2023	51.59	50.25	51.26
11/27/2023	53.50	50.66	53.46
12/4/2023	54.42	52.68	54.10
12/11/2023	57.16	53.31	54.62
12/18/2023	55.53	53.40	54.32
12/25/2023	54.65	53.38	53.95
1/1/2024	55.53	53.67	55.21
1/8/2024	56.06	53.45	53.49
1/15/2024	53.25	49.81	50.23
1/22/2024	51.87	49.87	50.80
1/29/2024	52.76	50.64	51.18
2/5/2024	51.80	49.34	51.62
2/12/2024	52.83	50.51	52.08
2/19/2024	53.00	51.49	52.32
2/26/2024	52.74	51.07	51.43
3/4/2024	53.89	51.19	53.84
3/11/2024	54.45	51.54	52.12
3/18/2024	52.76	51.52	52.25
3/25/2024	54.63	52.05	54.60
4/1/2024	54.75	53.13	53.74
4/8/2024	54.93	51.68	52.24
4/15/2024	54.14	50.73	54.00
4/22/2024	54.79	53.40	53.86
4/29/2024	56.55	54.13	55.77
5/6/2024	56.99	55.72	56.36
5/9/2024	57.16	55.96	57.06
Mean	$ 54.09	$ 51.83	**$ 53.10**
Median	$ 54.28	$ 51.53	**$ 53.48**
Minimum		**$ 48.27**	
Maximum	**$ 57.16**		

Growth Estimates	
Yahoo (IBES)	0.70%
SPMI (Factset)	4.00%
Value-Line EPS	3.50%
Value-Line DPS	4.00%
2025 DPS	$ 2.70
Value-Line Yield	4.80%

NiSource, Inc. (NI)

Date	High	Low	Close
11/6/2023	$ 25.35	$ 24.78	$ 25.00
11/13/2023	26.23	24.61	26.08
11/20/2023	26.23	25.62	26.10
11/27/2023	26.47	25.48	26.20
12/4/2023	26.75	25.92	26.30
12/11/2023	27.36	26.05	26.48
12/18/2023	26.71	25.89	26.25
12/25/2023	26.59	26.15	26.55
1/1/2024	27.13	26.35	27.04
1/8/2024	27.51	26.41	26.74
1/15/2024	26.67	25.43	25.60
1/22/2024	26.03	25.12	25.82
1/29/2024	26.48	25.30	25.60
2/5/2024	25.58	24.83	25.25
2/12/2024	26.08	24.80	25.90
2/19/2024	26.44	25.45	26.12
2/26/2024	26.21	25.59	26.13
3/4/2024	27.13	25.98	27.01
3/11/2024	27.27	26.04	26.50
3/18/2024	27.31	26.44	27.10
3/25/2024	27.72	26.88	27.66
4/1/2024	27.75	26.91	27.19
4/8/2024	27.68	26.95	27.07
4/15/2024	27.81	26.26	27.58
4/22/2024	28.25	27.47	27.94
4/29/2024	28.74	27.46	28.54
5/6/2024	29.17	28.38	28.72
5/9/2024	28.81	28.32	28.80
Mean	$ 27.05	$ 26.10	**$ 26.69**
Median	$ 26.94	$ 26.01	**$ 26.49**
Minimum		**$ 24.61**	
Maximum	**$ 29.17**		

Growth Estimates	
Yahoo (IBES)	7.40%
SPMI (Factset)	7.13%
Value-Line EPS	9.50%
Value-Line DPS	4.50%
2025 DPS	$ 1.12
Value-Line Yield	4.00%

New Jersey Resources (NJR)

Date	High	Low	Close
11/6/2023	$ 41.69	$ 40.84	$ 41.03
11/13/2023	43.30	40.59	43.01
11/20/2023	42.86	41.31	42.72
11/27/2023	43.09	41.61	43.00
12/4/2023	44.61	42.85	44.14
12/11/2023	45.87	43.13	43.67
12/18/2023	45.42	43.62	45.06
12/25/2023	45.20	44.36	44.58
1/1/2024	45.83	44.35	44.96
1/8/2024	45.06	42.80	42.93
1/15/2024	42.74	41.15	41.73
1/22/2024	42.93	41.53	41.54
1/29/2024	42.14	40.48	40.80
2/5/2024	41.72	39.44	41.28
2/12/2024	42.44	40.34	42.08
2/19/2024	42.63	41.09	41.42
2/26/2024	41.99	40.51	41.77
3/4/2024	43.34	41.39	43.02
3/11/2024	43.55	41.21	41.71
3/18/2024	42.31	41.08	42.05
3/25/2024	43.02	41.41	42.91
4/1/2024	43.25	42.17	42.78
4/8/2024	43.31	41.34	41.79
4/15/2024	43.39	40.62	43.36
4/22/2024	43.94	42.78	43.34
4/29/2024	45.08	42.96	44.70
5/6/2024	45.12	43.02	44.19
5/9/2024	44.43	43.89	44.19
Mean	$ 43.58	$ 41.85	**$ 42.85**
Median	$ 43.31	$ 41.40	**$ 42.92**
Minimum		**$ 39.44**	
Maximum	**$ 45.87**		

Growth Estimates	
Yahoo (IBES)	6.00%
SPMI (Factset)	5.87%
Value-Line EPS	5.00%
Value-Line DPS	5.00%
2025 DPS	$ 1.76
Value-Line Yield	4.00%

Northwest Natural Gas Holdings, Inc. (NWN)

Date	High	Low	Close
11/6/2023	$ 36.72	$ 35.72	$ 36.20
11/13/2023	37.97	35.74	37.22
11/20/2023	37.25	36.09	36.47
11/27/2023	37.33	36.06	37.30
12/4/2023	38.87	37.13	38.63
12/11/2023	40.52	37.93	38.43
12/18/2023	39.44	37.91	39.16
12/25/2023	39.35	38.57	38.94
1/1/2024	40.28	38.70	39.38
1/8/2024	39.66	38.08	38.43
1/15/2024	38.48	37.32	38.00
1/22/2024	39.60	38.29	38.73
1/29/2024	39.02	36.40	36.94
2/5/2024	36.79	34.95	35.13
2/12/2024	36.67	34.99	36.49
2/19/2024	39.77	35.60	35.85
2/26/2024	37.43	35.40	36.93
3/4/2024	37.99	36.78	37.70
3/11/2024	38.43	35.81	36.35
3/18/2024	36.75	35.76	35.89
3/25/2024	37.30	35.58	37.22
4/1/2024	37.37	36.11	36.41
4/8/2024	37.05	35.41	36.13
4/15/2024	37.77	35.25	37.68
4/22/2024	39.20	37.40	38.32
4/29/2024	39.19	37.70	38.63
5/6/2024	38.77	36.80	38.47
5/9/2024	38.61	38.11	38.37
Mean	$ 38.34	$ 36.63	**$ 37.48**
Median	$ 38.46	$ 36.26	**$ 37.49**
Minimum		**$ 34.95**	
Maximum	**$ 40.52**		

Growth Estimates	
Yahoo (IBES)	2.80%
SPMI (Factset)	4.40%
Value-Line EPS	6.50%
Value-Line DPS	0.50%
2025 DPS	$ 1.96
Value-Line Yield	5.30%

ONE Gas, Inc. (OGS)

Date	High	Low	Close
11/6/2023	$ 60.70	$ 59.66	$ 60.33
11/13/2023	62.44	59.49	61.68
11/20/2023	61.51	58.69	58.99
11/27/2023	59.84	55.50	59.74
12/4/2023	62.27	59.61	61.55
12/11/2023	65.81	59.97	63.23
12/18/2023	65.77	62.50	65.06
12/25/2023	65.54	63.48	63.72
1/1/2024	65.75	63.53	63.93
1/8/2024	64.56	60.34	60.80
1/15/2024	60.66	57.96	59.18
1/22/2024	62.31	59.30	61.34
1/29/2024	63.00	60.63	61.27
2/5/2024	60.91	58.19	60.85
2/12/2024	62.99	58.73	60.74
2/19/2024	61.63	57.74	59.34
2/26/2024	60.44	57.96	59.48
3/4/2024	63.64	59.34	63.13
3/11/2024	63.50	60.57	61.42
3/18/2024	63.70	61.13	62.41
3/25/2024	64.68	61.51	64.53
4/1/2024	64.64	62.67	63.72
4/8/2024	64.63	61.27	62.08
4/15/2024	64.62	60.27	64.39
4/22/2024	65.14	63.75	63.95
4/29/2024	66.52	63.60	65.45
5/6/2024	65.99	62.45	64.09
5/9/2024	64.59	63.71	64.30
Mean	$ 63.49	$ 60.48	**$ 62.17**
Median	$ 63.67	$ 60.31	**$ 61.88**
Minimum		**$ 55.50**	
Maximum	**$ 66.52**		

Growth Estimates	
Yahoo (IBES)	5.00%
SPMI (Factset)	3.00%
Value-Line EPS	4.00%
Value-Line DPS	3.00%
2025 DPS	$ 2.68
Value-Line Yield	4.20%

Spire Inc. (SR)

Date	High	Low	Close
11/6/2023	$ 57.74	$ 56.60	$ 56.92
11/13/2023	61.36	56.54	61.36
11/20/2023	61.15	59.59	60.73
11/27/2023	62.09	59.91	61.88
12/4/2023	64.15	61.53	62.88
12/11/2023	66.48	62.26	62.93
12/18/2023	64.66	62.39	63.78
12/25/2023	64.08	61.87	62.34
1/1/2024	64.64	62.09	62.70
1/8/2024	63.19	59.53	60.09
1/15/2024	60.09	57.60	58.79
1/22/2024	61.48	58.11	58.15
1/29/2024	59.49	56.36	59.00
2/5/2024	58.74	57.33	58.35
2/12/2024	60.22	56.99	59.42
2/19/2024	60.70	58.42	59.14
2/26/2024	59.81	57.94	59.61
3/4/2024	61.61	59.47	60.70
3/11/2024	61.36	59.22	59.59
3/18/2024	60.43	58.67	59.77
3/25/2024	61.68	58.96	61.37
4/1/2024	61.60	58.99	59.34
4/8/2024	60.64	57.90	58.66
4/15/2024	61.19	57.27	60.91
4/22/2024	62.39	60.36	61.40
4/29/2024	63.21	60.93	61.31
5/6/2024	62.09	61.06	61.58
5/9/2024	61.94	61.44	61.80
Mean	$ 61.72	$ 59.26	**$ 60.52**
Median	$ 61.54	$ 59.11	**$ 60.72**
Minimum		**$ 56.36**	
Maximum	**$ 66.48**		

Growth Estimates	
Yahoo (IBES)	6.36%
SPMI (Factset)	6.50%
Value-Line EPS	4.50%
Value-Line DPS	4.50%
2025 DPS	$ 3.16
Value-Line Yield	5.20%

Schedule AHG - 3
24-KGSG-610-RTS

Internal Rate of Return Analysis Summary
24-KGSG-610-RTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14
							Short-Term Growth EPS Growth				**Long-Term Growth Years 5 Through 250**		
	IRR	Average Price	ST Growth Estimate	LT Growth Estimate	2025 Dividends	2024 Year 0	2025 Year1	2026 Year2	2027 Year3	2028 Year4	2029 Year5	2030 Year6	Sum of 2031 through 2274 Year 7 through Year 250
Atmos Energy, Corp.	7.49%	$ 115.93	7.23%	4.05%	$3.46	($112.47)	$3.46	$3.71	$3.98	$4.27	$4.57	$4.76	$ 1,969,387.30
Black Hills Energy, Corp	9.27%	$ 52.72	3.05%	4.05%	$2.70	($50.02)	$2.70	$2.78	$2.87	$2.95	$3.04	$3.17	$1,311,072.06
New Jersey Resources	8.57%	$ 42.65	5.47%	4.05%	$1.76	($40.89)	$1.76	$1.86	$1.96	$2.06	$2.18	$2.27	$937,687.42
NiSource, Inc.	8.88%	$ 26.89	7.13%	4.05%	$1.12	($25.77)	$1.12	$1.20	$1.29	$1.38	$1.48	$1.54	$635,292.60
Northwest Natural	9.44%	$ 37.74	3.55%	4.05%	$1.96	($35.78)	$1.96	$2.03	$2.10	$2.18	$2.25	$2.34	$970,347.52
ONE Gas, Inc.	8.60%	$ 61.01	3.75%	4.05%	$2.68	($58.33)	$2.68	$2.78	$2.88	$2.99	$3.11	$3.23	$1,337,081.96
Spire, Inc.	9.74%	$ 61.42	5.47%	4.05%	$3.16	($58.26)	$3.16	$3.33	$3.51	$3.71	$3.91	$4.07	$1,683,415.52
Mean	8.85%												
Min	7.49%												
Max	9.74%												

Column 1) Proxy group
2) Internal rate of return calcuation which is the discount rate that equates the stock price paid to the stream of future dividends recieved
3) Mean of observed weekly high and low stock prices from Nov 6, 2023 through May 9, 2024
4) Average of short-term growth rates used in first 5 years
5) Long-term nGDP growth rate used beginning in year 6
6) 2025 dividends reported by Value-Line
7) Year 0 Cashflow; stock price less 2025 dividend
8 through 12) Annual cashflow growing at short-term growth rate
13 through 250) Annual cashflow growing at long-term growth rate

STATE OF KANSAS)
) ss.
COUNTY OF SHAWNEE)

VERIFICATION

Adam Gatewood, being duly sworn upon his oath deposes and states that he is a Senior Managing Financial Analyst for the Utilities Division of the Kansas Corporation Commission of the State of Kansas, that he has read and is familiar with the foregoing *Direct Testimony*, and attests that the statements contained therein are true and correct to the best of his knowledge, information and belief.

Adam Gatewood
Senior Managing Financial Analyst
State Corporation Commission of the
State of Kansas

Subscribed and sworn to before me this 26 day of June, 2024.

Notary Public

My Appointment Expires: 4/28/25

NOTARY PUBLIC - State of Kansas
ANN M. MURPHY
My Appt. Expires 4/28/25

CERTIFICATE OF SERVICE

24-KGSG-610-RTS

I, the undersigned, certify that a true and correct copy of the above and foregoing Testimony was served via electronic service on the 1st day of July, 2024, to the following:

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Ann Murphy

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