STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF NORTHERN INDIANA PUBLIC SERVICE COMPANY LLC PURSUANT TO IND. CODE §§ 8-1-2-42, 8-1-2-42.7 AND 8-1-2-61 FOR (1) AUTHORITY TO MODIFY ITS RETAIL RATES AND CHARGES FOR GAS UTILITY SERVICE THROUGH A PHASE IN OF RATES; (2) APPROVAL OF NEW SCHEDULES OF RATES AND CHARGES, GENERAL RULES AND REGULATIONS, AND RIDERS (BOTH EXISTING AND NEW); (3) APPROVAL OF A NEW SALES RECONCILIATION ADJUSTMENT MECHANISM; (4) APPROVAL OF REVISED GAS DEPRECIATION RATES APPLICABLE TO ITS GAS PLANT IN SERVICE; (5) APPROVAL OF NECESSARY AND APPROPRIATE ACCOUNTING RELIEF, INCLUDING BUT NOT LIMITED TO APPROVAL OF CERTAIN DEFERRAL MECHANISMS FOR PENSION, OTHER POST-RETIREMENT BENEFITS, AND LINE LOCATE EXPENSES; AND (6) TO THE EXTENT NECESSARY, APPROVAL OF ANY OF THE RELIEF REQUESTED HEREIN PURSUANT TO IND. CODE CH. 8-1-2.5.	)	**CAUSE NO. 45967**

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR'S

PUBLIC'S EXHIBIT NO. 8 – TESTIMONY OF OUCC WITNESS LEJA D. COURTER

January 31, 2024

Respectfully submitted,

____
Thomas R. Harper
Attorney No 16735-53
Deputy Consumer Counselor

NORTHERN INDIANA PUBLIC SERVICE COMPANY LLC
CAUSE NO. 45967
TESTIMONY OF OUCC WITNESS LEJA D. COURTER

I. INTRODUCTION

Q: Please state your name and business address.

A: My name is Leja D. Courter. My business address is 115 West Washington Street, Suite 1500 South, Indianapolis, IN 46204.

Q: By whom are you employed and in what capacity?

A: I am employed by the Indiana Office of Utility Consumer Counselor ("OUCC") as a Chief Technical Advisor. For a summary of my educational and professional experience, as well as my preparation for presenting testimony in this case, please see Appendix LDC-1 attached to my testimony. Appendix LDC-1 also includes the Discounted Cash Flow ("DCF") Model and Capital Asset Pricing Model ("CAPM") mechanics.

Q: What is the purpose of your testimony?

A: The purpose of my testimony is to support the OUCC's recommended 9.25% cost of equity ("COE") for Northern Indiana Public Service Company LLC ("NIPSCO" or "Petitioner"). I also will explain why Petitioner's recommended 10.7% COE is unreasonable.

Q: What are your recommendations in this Cause?

A: Based on the results of the DCF model, CAPM and macroeconomic analyses, I conclude a 9.25% COE is a reasonable and appropriate COE for NIPSCO. However, I also recommend NIPSCO's COE be reduced if the Indiana Utility Regulatory Commission ("Commission" or "IURC") grants NIPSCO's proposed Sales

Reconciliation Adjustment ("SRA") and/or requires NIPSCO's customers pay NIPSCO's proposed $2.2 million rate case expense. To further support the reasonableness of my proposed COE, I address Petitioner's COE methodologies and use of a non-utility proxy group.

Q: Please summarize your COE testimony.

A: My testimony begins by briefly describing NIPSCO's and the OUCC's proposed COEs. Then I review relevant macroeconomic trends, and more completely describe my DCF and CAPM analyses and results. Next, I review Petitioner's COE methods and explain why Petitioner's COE results should be rejected. Finally, I summarize my testimony and provide my COE recommendation.

I use both DCF and CAPM analyses to estimate Petitioner's COE. My DCF and CAPM analyses indicate a cost of equity range of 8.9% to 10.3%. I am recommending a COE of 9.25%. A 9.25% cost of common equity results in a weighted cost of capital of 6.71%. (Public's Exhibit No. 1, Attachment MHG-1, Schedule 8, page 1.)

Q: What is the OUCC's position on NIPSCO's proposed SRA?

A: As Dr. Dismukes testifies, the OUCC is opposed to NIPSCO's proposed SRA for a number of reasons.

Q: Would the proposed SRA have an impact on the COE?

A: If the proposed SRA is approved, then the Commission should recognize the fact the SRA further reduces NIPSCO's financial risk, and therefore, correspondingly, further reduce the COE.

Q: What is the OUCC's position on NIPSCO's proposed $2.2 million rate case expense?

A: For the reasons stated in Mr. Grosskopf's testimony, the OUCC is opposed to NIPSCO recovering $2.2 million rate case expense from its customers in this Cause.

Q: Would the recovery of $2.2 million rate case expense from NIPSCO's customers have an impact on COE?

A: If the Commission approves NIPSCO's request to recover NIPSCO's $2.2 million rate case from NIPSCO's customers, then the Commission should recognize this reduction in NIPSCO's financial risk, and therefore, correspondingly, further reduce the COE.

Q: Are you sponsoring any attachments in this proceeding?

A: Yes. I am sponsoring the following attachments.

- Attachment LDC-1: *Value Line* summary sheets.
- Attachment LDC-2: DCF Analysis – Gas LDC ("Local Distribution Company") group.
- Attachment LDC-3: DCF Analysis – Combination Utility group.
- Attachment LDC-4: CBO – The Budget and Economic Outlook: 2023 to 2033.
- Attachment LDC-5: CAPM Analysis – Gas LDC group.
- Attachment LDC-6: CAPM Analysis – Combination Utility group.
- Attachment LDC-7: Kroll Recommended Market Risk Premium.
- Attachment LDC-8: Federal Reserve Press Release, November 1, 2023.
- Attachment LDC-9: CBO Current View.
- Attachment LDC-10: Federal Reserve Press Release, December 13, 2023.

Q: To the extent you do not address a specific issue, item, or adjustment, should that be construed to mean you agree with Petitioner's proposal?

A: No. Not addressing a specific issue, item, or adjustment NIPSCO proposes does not indicate my agreement or approval. Rather, the scope of my testimony is limited to the specific items addressed herein.

II. NIPSCO'S PROPOSED COST OF EQUITY

Q: What is NIPSCO's current authorized cost of equity?

A: NIPSCO's current authorized rate of return is 9.85% and is a result of a settlement agreement approved in the Indiana Utility Regulatory Commission's Order in Cause No. 45621. *In re Northern Ind*, Cause No. 45621, Final Order p. 26 (Ind. Util. Regul. Comm'n Jul 27 2022.)

Q: What is NIPSCO's proposed COE?

A: NIPSCO witness Vincent V. Rea recommends a 10.7% COE. (Petitioner's Exhibit No. 13, page 5, line 11.)

Q: Why does your proposed COE differ from Petitioner's proposed COE?

A: My proposed 9.25% COE is less than Petitioner's estimated cost of equity due to Petitioner's inappropriate use of:

1) An excessive market return as a result of using an inflated growth rate,
2) CAPM size adjustment,
3) Inflated DCF results,
4) Empirical CAPM ("ECAPM"),
5) Risk Premium Method ("RPM") using the historical relationship between long-term utility yields and authorized returns on equity ("ROEs"), and
6) Non-regulated proxy group.

These factors produce unreasonably high cost of equity results which, for the reasons I discuss, should be disregarded.

Data on bond yields, dividend yields, inflation and economic growth do not support a 10.7% projected rate of return. Moreover, regulated public utilities tend to be less risky than the market, and are not comparable to the companies in

Petitioner's non-regulated group. Indiana's Transmission, Distribution, and Storage System Improvement Charge ("TDSIC") statute, Ind. Code 8-1-39, *et al.*, encourages and incentivizes utilities to spend money for capital investments. The growth of capital trackers, and operating and maintenance trackers, and the ability to readily amend plans, and further increase capital costs, have significantly reduced regulatory lag and expanded paths to recovery of capital investment - and all have reduced utility risk in Indiana. Also, Petitioner's proposed 10.7% rate of return would be higher than any COE awarded to an Indiana investor-owned gas, electric, water, or wastewater utility in more than a decade.

Q: What has the OUCC done to determine its recommended 9.25% COE is reasonable?

A: I reviewed Petitioner's proposed capital structure and overall cost of capital. (Petitioner's Exhibit No. 3, Attachment 3-A-S2, page 5; Attachment 3-B-S2, page 10.) I accepted Petitioner's proposed capital structure with 52.39% equity, 37.15% long-term debt, 0.60% customer deposits, 13.41% deferred income taxes, 0.04% post-retirement liability, prepaid pension asset (3.60%), and 0.00% post-1970 ITC. (*Id.*)

To estimate Petitioner's COE, I applied the DCF Model and the CAPM to the same Gas LDC and Combination Utility groups Petitioner used. My DCF and CAPM analyses indicate an 8.9% to 10.3% COE range. I am recommending a COE of 9.25%. Combined with Petitioner's capitalization percentages, my overall weighted cost of capital for NIPSCO is 6.71% as indicated on Public's Exhibit No. 1, Attachment MHG-1, Schedule 8, page 1.

In my DCF analysis I used *Value Line's* historical and forecasted growth rates in earnings per share ("EPS"), dividends per share ("DPS"), and book value per share ("BVPS") for the Gas LDC and Combination Utility groups. (Attachment LDC-1, pages 1-15.) I also used analysts' projected EPS from Yahoo Finance, Zacks and MarketWatch. (Attachment LDC-2, page 4; Attachment LDC-3, page 4.) I considered the Congressional Budget Office's ("CBO") long-term growth and inflation rates in the U.S. economy to produce a reasonable growth rate for NIPSCO. (Attachment LDC-4, page 9.)

In my CAPM analysis I reviewed 5, 10, 20, and 30-year Treasury bond rates. (Attachment LDC-5; Attachment LDC-6.) I reviewed the Value Line betas for the companies in the Gas LDC and Combination Utility groups. (Attachment LDC-1.) I also reviewed Kroll's and KPMG market risk premiums. (Attachment LDC-7; https://indialogue.io/clients/reports/public/5d9da61986db2894649a7ef2/5d9da63386db2894649a7ef5.)

III. MACROECONOMIC TRENDS

Q: Do macroeconomic factors influence the COE?

A: Yes. The most noteworthy of these factors are interest rates, economic growth, and inflation.

Q: How do inflation and interest rates influence COE estimates?

A: Anticipated inflation influences interest rates. Interest rates influence the COE. Interest rates are elevated, but stable. But, as indicated below, inflation is declining and forecasted inflation is expected to steadily decrease through 2033.

Q: Please explain the increase in interest rates over the past two years.

A: The Federal Reserve increased interest rates the past two years because of an improving economy and higher inflation. Real gross domestic product ("GDP") increased at a

4.9% annual rate in the third quarter of 2023. (Bureau of Economic Analysis, December 21, 2023.) (https://www.bea.gov/news/2023/gross-domestic-product-third-estimate-corporate-profits-revised-estimate-and-gdp) The increase in real GDP reflects increases in consumer spending, private inventory investment, exports, state and local government spending, federal government spending, and residential and nonresidential fixed investment. (*Id.*)

Q: What has the Federal Reserve said about the current economic situation?

A: Recent indicators suggest economic activity expanded at a strong pace in the third quarter of 2023. Job gains have moderated since earlier in the year but remain strong, and the unemployment rate has remained low. Inflation remains elevated but is declining. Tighter financial and credit conditions for households and businesses are likely to weigh on economic activity, hiring, and inflation. (Attachment LDC-8, page 1; Federal Reserve Press Release, November 1, 2023.)

Q; Has the Federal Reserve attempted to control inflation?

A: Yes. The Federal Reserve increased the discount rate multiple times in 2022 and 2023. But the Federal Reserve's actions on the discount rate only impact short-term rates. Long-term rates are more a function of expected economic growth and expected inflation.

Q: What is your assessment of forecasted inflation going forward?

A: I examined historical and projected rates of inflation from government sources, including the CBO. The CBO is not forecasting high inflation through 2033. The CBO's *The Budget and Economic Outlook: 2023 to 2033*, forecasts Core PCE ("Personal Consumption Expenditures") price inflation of 2.9% in 2024, 2.5% in 2025, 2.2% in 2026-2027, and 2.0% 2028-2033. (Attachment LDC-4, page 8.) The full report may be viewed at: https://www.cbo.gov/publication/58848. In December 2023, the CBO issued its Current View of the Economy from 2023 to 2025. The CBO revised its CORE PCE price inflation to 2.4% in 2024 and 2.3% in 2025. (Attachment LDC-9, page 2.)

Q: Are U.S. Treasury bond yields an influencing factor on the COE?

A: Yes. Bond yields are important factors influencing COE. Yields on U.S. Treasury Bonds are commonly used to establish the risk-free rate of return in the CAPM and other risk premium analyses. Changes in bond yields and interest rates affect investor expectations. Long-term 30-year Treasury bond yields have declined from a high of 5.09% on October 20 to 4.05% on December 22. (Attachment LDC-5, page 2.)

Q: Have you reviewed information from the Federal Reserve regarding inflation?

A: Yes. The Federal Open Market Committee ("FOMC") held a meeting on September 19-20, 2023. The meeting participants submitted their projections of the most likely outcomes for GDP and inflation for each year from 2023 to 2026. (https://www.federalreserve.gov/monetarypolicy/fomcprojtabl20230920.htm) The median projections for Core PCE inflation were: 3.7% in 2023, 2.6% for 2024, 2.3% for 2025, and 2.0% for 2026. (*Id*., Table 1.)

Q: What conclusions have you reached regarding the macroeconomic factors that influence COE?

A: Inflation expectations are decreasing for 2024 through 2026. Although interest rates continued increasing in 2023, the interest rate increases have stopped and are stabilized. On December 13, the FOMC stated: "The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run. In support of these goals, the Committee decided to maintain the target range of the federal funds rate at 5-1/4 to 5-1/2 percent." (Attachment LDC-10, page 1.) The Committee is strongly committed to returning inflation to its 2 percent objective. (*Id.*)

Q: Have you considered these macroeconomic factors when deriving your COE?

A: Yes. NIPSCO's new base rates will go into effect beginning in 2024. The 4.6% to 5.8% growth rate range, which I use in my Gas LDC group DCF analysis, is higher than the 3.5% nominal GDP growth rate the CBO forecasts for 2024. (Attachment LDC-9, page 2.) My 4.6% to 5.8% growth rate range is higher than the 4.3% CBO nominal GDP forecast for 2025. (*Id.*) Also, the 4.6% to 5.8% growth rate range is higher than the CBO's declining 4.5% to 3.7% growth rate forecasts for 2026-2033. (Attachment LDC-4, page 9.) The CBO's forecasted inflation, as measured by the Core PCE index, which excludes prices for food and energy, is 2.9% for 2024, and 2.5% or less for 2025 through 2033. (*Id.*). Consequently, my recommended 9.25% cost of equity is in line with current and projected economic conditions.

IV. PROXY GROUPS USED FOR THE OUCC'S COST OF EQUITY ANALYSES

Q: Can you apply the DCF model and CAPM directly to NIPSCO?

A: No. NIPSCO's stock is not publicly traded. As a result, much of the data that would be available for publicly traded companies is not available for NIPSCO. This fact makes it impractical to apply the DCF and CAPM directly to NIPSCO. Therefore, I calculated NIPSCO's COE based on a proxy group of publicly traded utility companies.

Q: Please describe how you derived the proxy groups for your DCF and CAPM analyses.

A: My Gas LDC group is comprised of the same five companies as Petitioner's Gas LDC proxy group. Petitioner outlined six selection criteria used for the Gas LDC group. (Petitioner's Exhibit No. 13, page 22, line 9 to page 23, line 3.) These selection criteria produced five gas utility companies: Atmos Energy Corp., NiSource Inc., Northwest Natural Gas Co., ONE Gas, Inc., and Spire, Inc. *(Id.*, page 23, lines 4-9.)

My Combination Utility group is comprised of the same ten companies in Petitioner's Combination Utility proxy group. Petitioner outlined seven selection criteria used to drive the Combination Utility group comprised of ten publicly traded gas and electric utility companies. (Petitioner's Exhibit No. 13, page 34, line 4 to page 35, line 10.) I do not have any objection to using the same companies in my analyses as comprise Petitioner's Gas LDC and Combination Utility Groups.

Q: Petitioner also used a third proxy group of eight companies described as the Non-Regulatory Group. Did your analyses include the companies in Petitioner's Non-Regulatory Group.

A: No. The risks are different. Air Products and Chemicals, Inc., Coca-Cola., Hershey Company, McCormick & Co., McDonald's, Mondelez International, PepsiCo, and Proctor and Gamble do not face the same risks as NiSource and the other gas and electric companies in the two other proxy groups.

The eight companies in the Non-Regulatory Group are international conglomerates. As an aside, Non-Regulatory Group is a misnomer. An alphabet of federal, state, and international laws regulates these companies. They may not be regulated by the same agencies and laws as the companies in the Gas LDC and Combination Utility groups, but the Non-Regulated are regulated.

An investor doesn't need an economics or law degree to discern that regulated utility companies have different risks than regulated non-utility companies. Utility companies have rates set by utility commissions. The eight companies in the Non-Regulatory Group set their prices on everchanging market conditions. The eight companies may have loyal customers. But they don't have captive utility customers. The eight companies are not monopolies with franchised service territories. The Non-Regulated companies do not have a multitude of tracker mechanisms for the quick recovery of capital and operating costs, which benefit Indiana's natural gas and electric utilities. For the foregoing reasons, my analyses do not include the companies in the regulated, non-utility group. Petitioner's non-utility group produces overstated cost of equity results, is not a relevant consideration in establishing a reasonable COE for NIPSCO, and the Commission should disregard it.

Q: Please describe your approach to estimate NIPSCO's COE.

A: I relied on the DCF model and CAPM analysis to estimate NIPSCO's COE.

V. DISCOUNTED CASH FLOW ANALYSIS

Q: Please describe DCF Analysis.

A: DCF analysis helps investors determine the appropriate price to pay for particular assets, such as utility stocks. According to the DCF model, the current stock price is equal to the discounted value of all future dividends investors expect to receive from investment in the firm. Therefore, stockholders' returns result from current as well as future dividends. The model has been adapted for regulatory proceedings to determine the cost of utility equity capital. The DCF model is a model which maintains the value (price) of any security or commodity is the discounted present value of all future cash flows. This discount rate equals the cost of capital with utility stocks and dividends as the relevant cash flows. A detailed description of the DCF mechanics is included in my Appendix LDC-1.

Q: Is the DCF model consistent with valuation techniques investment firms employ?

A: Yes. Virtually all investment firms use some form of the DCF model as a valuation technique.

Q: What factors should be considered when applying the DCF methodology?

A: Current economic conditions and other information available to investors must be considered to accurately estimate investors' expectations. This information is used to estimate the dividend yield and expected growth rate.

Q: What dividend yields have you reviewed?

A: I calculated the dividend yields for the Gas LDC and Combination Utility group companies using the most recent dividends listed on *Value Line* and derived an annual dividend. I then divided the annual dividend by the 30-day, 90-day, and 180-day stock prices obtained from MarketWatch to determine the dividend yields. These dividend yields are provided on Attachment LDC-2, page 2. The median dividend yields range from 3.6% to 4.3% for the Gas LDC companies. I used the higher end of that range, which is 4.2%. I used a forward dividend yield of 4.3% for the Gas LDC group. (*Id*., page 1.) This forward dividend yield calculation applies the "half year method." (*Id*., page 2.) I also calculated a forward dividend yield of 4.3% for the Combination Utility companies. (Attachment LDC-3, page 2.) These dividend yields are higher than Petitioner's 3.7% dividend yield for the Gas LDC group and 3.6% dividend yield for the Combination Utility Group. (Petitioner's Exhibit No. 13, Attachment 13-A, Schedule 4, pages 1-3; *Id*., Schedule 5, pages 1-3.)

Q: Please discuss the growth rate component of the DCF model.

A: This component is investors' expectation of the long-term dividend growth rate. Presumably, investors use some combination of historical and/or projected growth rates for earnings and dividends per share and for internal or book-value growth to assess long-term growth potential.

Q: What growth data have you reviewed for the Gas and Combination Utility groups?

A: I have reviewed *Value Line's* historical and projected growth rate estimates for EPS, DPS, and BVPS. (Attachment LDC-1, pages 1-15). Prudent investors will review both historical and projected growth rates for EPS and DPS. While EPS information is provided by more investment services, DPS is considered for prudent investors looking for long-term dividend growth. I also used the average EPS growth-rate forecasts of Wall Street as provided by Yahoo, Zacks, and MarketWatch. These services solicit earnings growth-rate projections from securities analysts and publish the means and medians of these forecasts.

Q: Please discuss historical growth in earnings and dividends.

A: Historical growth rates for EPS, DPS, and BVPS are readily available to investors, and are presumably important in forming expectations concerning future growth. Past growth performance may not completely reflect future growth potential. However, prudent investors are not going to ignore a company's past performance, and only review prospective growth rates. Prudent investors will review historical growth rates and the economic conditions at the time those growth rates were achieved, to determine whether the growth rates are an aberration or indicative of future growth potential. According to the DCF model, the expected return on a security is equal to the sum of the dividend yield and the expected long-term growth in dividends. Therefore, to best estimate the cost of common equity capital using the DCF model, it is necessary to assess long-term growth rate expectations.

Q: Please discuss the historical growth of the companies in the gas and combination utility groups, as provided by *Value Line*.

A: Attachment LDC-2, page 3, provides the 5- and 10-year historical growth rates for EPS, DPS, and BVPS for the Gas LDC companies, as published in *Value Line*. The median historical growth measures for EPS, DPS, and BVPS for the gas group range from 2.0% to 8.0%, with a 4.8% average. The median historical growth measures for EPS, DPS, and BVPS for the Combination Utility group range from 5.8% to 6.3%, with a 6.0% average. (Attachment LDC-3, page 3.)

Q; Please summarize *Value Line's* projected growth rates for the Gas LDC and Combination Utility group companies.

A: *Value Line's* EPS, DPS, and BVPS growth projections for the Gas LDC group are shown on Attachment LDC-2, page 3. The medians for projected growth range from 5.0% to 7.0%, with a 5.7% average of the medians. Value Line's growth projections for the Combination Utility group range from 4.0% to 6.0%, with a median average of 4.9%. (Attachment LDC-3, page 3.)

Q: Please assess growth rates for the Gas LDC and Combination Utility groups as measured by analysts' forecasts of expected EPS growth.

A: Yahoo Finance, Zacks, and MarketWatch publish analysts' long-term EPS growth rate forecasts for the Gas LDC group companies. These forecasts are provided on Attachment LDC-2, page 4. I provide both the mean and median growth rates for the Gas LDC group. I averaged the expected EPS growth rates from the three services for each company to arrive at an expected EPS growth rate for each company. The mean/median of analysts' projected EPS growth rates for the Gas LDC group is 5.8% / 5.6%. (*Id.*) The mean/median of analysts' projected EPS growth rates for the Combination Utility group is 4.8% / 4.9%. (Attachment LDC-3 page 4.)

Q: Please summarize your analysis of the Gas LDC and Combination Utility groups' historical and prospective growth.

A: Attachment LDC-2, page 5 summarizes the DCF growth rate indicators for the Gas LDC group. The historical growth rate for the Gas LDC group is 4.6%. The average of the projected EPS, DPS, and BVPS growth rates from *Value Line* is 5.7%. Wall Street analysts' mean and median projected EPS growth rates for the Gas LDC group are 5.8% and 5.6%. Therefore, the range of projected growth rates is 4.6% to 5.8%. Combined with a dividend yield of 4.3%, the DCF range for the Gas LDC group is 8.9% to 10.1%. (Attachment LDC-2, page 1.) The projected growth rates for the Combination Utility group range from 4.8% to 6.0%. Combined with a dividend yield of 4.3%, the DCF range for the Combination Utility group is 9.1% to 10.3%. (Attachment LDC-3, page 1.)

Q: Please describe the results of your growth calculations.

A: My DCF-derived equity cost rates for the Gas LDC and Combination Utility groups are summarized on Attachment LDC-2, page 1, Attachment LDC-3, page 1, and Table 1 below:

Table 1
DCF-Derived Cost of Equity

	Gas Group	**Combination Utility Group**
Dividend Yield	4.3%	4.3%
Dividend Growth	4.6% - 5.8%	4.8% - 6.0%
DCF Cost of Equity	**8.9% - 10.1%**	**9.1% - 10.3%**

VI. CAPITAL ASSET PRICING MODEL

Q: Please describe the CAPM.

A: The CAPM is another analysis frequently relied upon by this Commission to help determine a reasonable COE capital. The CAPM is a risk premium approach to gauging a firm's COE capital (K). According to the CAPM risk premium approach, the COE capital is the sum of the interest rate on a risk-free bond (Rf) and a risk premium (RP). The CAPM's underlying assumption is the stock market compensates investors for risk that cannot be eliminated by means of a diversified stock portfolio. A detailed description of the CAPM mechanics is included in my Appendix LDC-1.

The yield on long-term U.S. Treasury securities is normally used as Rf. In the CAPM, two types of risk are associated with a stock: firm-specific risk or unsystematic risk, and market or systematic risk, which is measured by a firm's beta (β). In other words, beta measures an asset's price volatility compared to the stock market. Rm represents the expected return on the stock market. According to the CAPM, the expected return on a company's stock, which is also the equity cost rate (K), is equal to:

$$K = Rf + \beta * (Rm - Rf)$$

Q: Please discuss Attachments LDC-5 and LDC-6.

A: Attachment LDC-5 provides the summary of my CAPM analysis for the Gas LDC group. Page 1 shows the results, and the following pages contain the supporting data. Attachment LDC-6 provides the summary of my CAPM analysis for the Combination Utility group. Page 1 shows the results, and the following pages contain the supporting data.

Q: Please discuss the risk-free interest rate (Rf).

A: The yield on long-term U.S. Treasury bonds is normally used as the risk-free rate of interest in the CAPM.

Q: What risk-free interest rate are you using in your CAPM?

A: I am using a 4.6% risk-free interest rate. As shown on page 2 of Attachments LDC-5 and LDC-6, the yield on 30-year U.S. Treasury bonds for the 13-week period indicated ranges from 4.00% to 5.09%. The mean during that period was 4.62%. I used a 13-week period because an average bond price is less susceptible to price variations than a price at a single point in time. A 13-week average bond price reflects a period short enough to contain data that reasonably reflects current market expectations. However, the period is not so short as to be susceptible to market price fluctuations that may not reflect the bond's long-term value. Typically, U.S. Treasury securities are used as a proxy for the risk-free rate because the full faith and credit of the U.S. government backs them. I used a risk-free rate of 4.6%, which is conservative since Treasury bond rates have steadily decreased since the beginning of November. (Attachment LDC-5, page 2.)

Q: What betas are you using in your CAPM?

A: I used the betas from *Value Line* for the Gas LDC group as indicated on Attachment LDC-5, page 3. My Value Line betas for the Combination Utility Group are contained on Attachment LDC-6, page 3. The mean of the betas for the Gas LDC group is 0.86. The mean of the betas for the Combination Utility group is 0.89.

Q: What is a market risk premium?

A: A market risk premium is the difference between the expected return on a market portfolio (Rm) and the risk-free rate (Rf). The risk-free rate is characterized by investing in safe fixed-income assets, such as long-term government bonds. A market risk premium represents the expected return of stocks above the risk-free rate.

Q: What market risk premium are you using in your CAPM?

A: I am using a 5.5% market risk premium. Kroll recommends a 5.5% market risk premium. (Attachment LDC-7, page 1.) KPMG recommends a 5.0% equity market risk premium at the following link: https://indialogue.io/clients/reports/public/5d9da61986db2894649a7ef2/5d9da63386db2894649a7ef5. I used Kroll's higher 5.5% equity market risk premium in my analysis.

Q: What cost of equity rate does your CAPM analysis indicate?

A: The results of my CAPM analysis for the Gas LDC and Combination Utility group are summarized on Attachments LDC-5, page 1, LDC-6, page 1, and Table 2 below.

Table 2
CAPM Formula: K = Rf + β (Rm – Rf)

	Gas Group	Combination Utility Group
Risk-Free Rate (Rf)	4.6%	4.6%
Beta (β)	0.86	0.89
Equity Risk Premium (Rm – Rf)	5.5%	5.5%
Equity Cost Rate (K)	**9.3%**	**9.5%**

VII. OUCC'S ESTIMATED COST OF EQUITY

Q: Please summarize the results of your COE analyses.

A: My DCF analysis indicates an 8.9% to 10.1% range for the Gas LDC group and a range of 9.1% to 10.3% for the Combination Utility group. My CAPM analysis indicates a 9.3% COE for the Gas LDC group and 9.5% COE for the Combination Utility group. Based on all the above, I recommend a 9.25% COE.

VIII. PETITIONER'S COST OF EQUITY ANALYSIS

Q: Please summarize Petitioner's COE analysis.

A: Petitioner's estimated COE is 10.7%. Petitioner's analysis uses a DCF model, a CAPM, Risk Premium Method ("RPM"), an Empirical CAPM ("ECAPM"), and a CAPM with size adjustment. (Petitioner's Exhibit No. 13, page 7, lines 1-7.) Petitioner applies these models to the Gas LDC, Combination Utility, and Non-Regulated Groups. (*Id*., page 6, lines 14-17.) Petitioner's COE range is 10.45% to 10.95% and Petitioner's proposed COE is 10.70%. (*Id*., page 5, lines 8-11.)

Q: Do you agree with all the models Petitioner uses to determine NIPSCO's COE?

A: No. I agree with using the CAPM and DCF models, without Petitioner's proposed adjustments to those models. For decades, the Commission has consistently and primarily used the DCF and CAPM models when setting utilities' COE. The COE testimonies that utilities, intervenors, and the OUCC file include the DCF and CAPM models. Petitioner presents other models in its testimony, but these models, as suggested by Petitioner, produce over-estimated costs of equity and, therefore, should be disregarded when determining a reasonable COE for Petitioner. As discussed below, there are several issues with the inputs, applications, and results of Petitioner's COE models.

IX. PETITIONER'S DCF ANALYSIS

Q: What are the issues with Petitioner's DCF analysis?

A: Petitioner's average DCF estimate for the Gas LDC Group ranged from 9.10% to 11.70%. (Petitioner's Exhibit No. 13, Attachment 13-A, Schedule 4, pages 1-2.) However, Petitioner's DCF analysis only includes EPS growth rates. As previously discussed, prudent investors also will evaluate DPS growth rates. As a result, Petitioner's DCF results are inflated even before Petitioner makes its other unnecessary adjustments.

Petitioner's flotation cost and market-to-book adjustments further inflate Petitioner's Gas LDC group DCF estimates. Petitioner calculates an "unadjusted" DCF estimate of 10.15%, and then adds a flotation cost adjustment of 7 basis points and a market value-book value adjustment of 28 basis points. The additional 35 basis points result in Petitioner's inflated DCF estimate of 10.5% for the Gas LDC group. (Petitioner's Exhibit No. 13, page 57, Table 6.)

The same adjustments described above inflate Petitioner's Combination Utility group DCF estimates. (Petitioner's Exhibit No. 13, Attachment 13-A, Schedule 5, pages 1-2.) Petitioner calculates an "unadjusted" DCF estimate of 9.6%, and then adds a flotation cost adjustment of 6 basis points and a market value-book value adjustment of 26 basis points. The additional 32 basis points result in Petitioner's inflated DCF estimate of 9.92% for the Combination Utility group. (*Id*., page 59, Table 7.)

Q: Is it appropriate to make flotation cost adjustments to the Gas LDC and Combination Utility groups' DCF estimates?

A: No. Petitioner's flotation cost adjustment is not based on the recovery of actual flotation costs incurred by NIPSCO. Petitioner calculates a flotation cost adjustment based on 33% of NIPSCO's common equity attributed to paid-in capital. (*Id*., Appendix D, page 5.) Although that capital may be paid-in by NiSource, there is no evidence the capital incurred flotation costs. NiSource receives dividends from its subsidiaries and can redistribute those funds to other subsidiaries, including NIPSCO. Also, NiSource can take lower cost debt issued to NiSource, then add those funds as paid-in capital on

NIPSCO's books and earn a higher equity return. Neither of these forms of paid-in capital result in a flotation cost to NIPSCO.

Petitioner references NiSource's sale of 8.625 million Series A Equity Units, which generated net proceeds of $835.5 million. (*Id.*, page 3, line 19 – page 4, line 1.) Petitioner asserts underwriting and issuance expenses were approximately 3.0% of the gross proceeds from the transaction. (*Id.*, page 4, line 3.) Petitioner also references NiSource issuing common stock under the "at-the-market" ("ATM") equity issuance program during the 2017-2022 period. (*Id.*, lines 4-7.) Petitioner asserts the fees for the "at-the-market" transactions approximated 1.0%. (*Id.*, lines 11-13.) Petitioner also asserts "that NiSource *may* once again commence equity issuances under the ATM program beginning in 2025 and thereafter." (*Id.*, lines 9-11, *emphasis added*.)

There is no evidence the proceeds from the Series A Equity Units or ATM issuances were distributed to NIPSCO, or that the flotation costs have not been recovered through intercompany transactions with NiSource Finance Corp. Therefore, Petitioner's flotation cost adjustment should be rejected.

Q: Is it appropriate to make a market-to-book adjustment to Petitioner's Gas LDC and Combination Utility groups' DCF estimates?

A: No. Petitioner asserts "To the extent that a book value based capital structure will be utilized in the rate-setting process, equity investors will expect an additional return premium to be compensated for the additional financial risk inherent within a book value capital structure." (Petitioner's Exhibit No. 13, Appendix C, page 2, lines 9-12.) Petitioner does not provide any evidence that reasonable investors actually buying equity securities require a market-to-book adjustment when analyzing utility stocks. Petitioner refers to "multiple academic studies" but provides no evidence these "multiple academic studies" are considered by utility stock investors. (*Id*., page 2, line 12 – page 3, line 14.)

Petitioner also asserts "on numerous occasions" the Pennsylvania Public Utility Commission has allowed upward adjustments to the cost of equity to recognize the difference in financial risk between market based capital structures and book value capital structures. (*Id*, page 3, line 18 – page 4, line 2.) However, Petitioner provides no citations to any of those cases. Regardless, I am not aware of any cases in which an IURC Order has specifically stated that such an upward adjustment is appropriate. Therefore, Petitioner's market-to-book adjustment should be rejected.

Q: Can Petitioner's DCF estimates be adjusted to more accurately reflect NIPSCO's COE?

A: Yes. Unlike the other analysts' services, *Value Line* also provides the DPS and BVPS along with the EPS. Utility investors don't only consider EPS when analyzing utility stocks. Otherwise, *Value Line* wouldn't bother publishing the DPS and BVPS. The median percentages for the *Value Line* projected EPS (7.0%), DPS (5.0%), and BVPS (5.0%) for the Gas LDC group are shown on Attachment LDC-2, page 3. The average of these three *Value Line* projected growth rates is 5.7%. Petitioner used a dividend yield of 3.7% when calculating the DCF estimate for the Gas LDC group. (Petitioner's Exhibit No. 13, Attachment 13-A, Schedule 4, page 1.) Using the *Value Line* projected growth rate of 5.7% growth rate along with Petitioner's 3.7% dividend yield results in a 9.4% DCF estimate for the Gas LDC group - rather than Petitioner's 11.2% *Value Line* proposal. (*Id*.)

Petitioner used a dividend yield of 3.6% when calculating the DCF estimate for the Combination Utility group. (*Id*., Schedule 5, page 1.) The median percentages for the *Value Line* projected EPS (6.0%), DPS (4.8%), and BVPS (4.0%) for the Combination Utility group are shown on Attachment LDC-3, page 3. Using the *Value Line* projected growth rate of 4.9% along with Petitioner's 3.6% dividend yield results in an 8.5% DCF estimate for the Combination Utility group – rather than Petitioner's 9.5% *Value Line* proposal. (*Id*.)

Q: Please summarize your comments on Petitioner's DCF analysis.

A: Petitioner has inflated its DCF estimates by inappropriately using flotation cost and market-to-book adders. Consequently, Petitioner's proposed DCF estimates are inflated, unreasonable, and should be rejected.

X. PETITIONER'S CAPM AND ECAPM ANALYSES

Q: Please describe Petitioner's CAPM analysis.

A: Petitioner developed its CAPM analysis using the average of projected and historical market risk premiums. (Petitioner's Exhibit No. 13, Attachment 13-A, Schedule 7, page 1.) For the *projected* market risk premium, Petitioner uses the S&P DCF market return of 12.44% based on a dividend yield of 1.71% and a projected growth rate of 10.73%. (*Id*.) The Value Line DCF market return of 12.65% is based on a dividend yield of 2.32% and a projected growth rate of 10.33%. (*Id*.) The average prospective market return is 12.55%. Petitioner subtracts a prospective risk-free rate of return of 3.76% to derive a prospective market risk premium of 8.79%. (*Id*.)

Petitioner calculated its *historical* market risk premium of 7.10% by subtracting the historical bond return of 4.90% from the historical average total market return of 12.0%. Petitioner then averages the historical and prospective market risk premiums to derive market risk premium of 7.94%, which is used in the CAPM analysis. (*Id.*)

Petitioner also utilized the Hamada beta-adjustment technique to the *Value Line* betas of 0.82 for the Gas LDC group and 0.85 for the Combination Utility group. (Petitioner's Exhibit 13, page 76, Table 9.) The readjusted betas are 0.846 for the Gas LDC group and 0.877 for the Combination Utility group. (*Id.*)

Petitioner uses the market risk premium of 7.94%, an adjusted beta of 0.846, and a projected 30-year Treasury yield of 3.76%, to derive a CAPM result of 10.48%. Then, Petitioner adds a size premium adjustment of 0.57% to derive a CAPM of 11.05% for the Gas LDC group. (Petitioner's Exhibit No. 13, Attachment 13-A, Schedule 7, page 2.) Petitioner follows a similar procedure to derive an 11.18% CAPM result for the Combination Utility group. (*Id.*, page 4.)

Q: Do you agree with Petitioner's CAPM analysis?

A: No. Petitioner's CAPM results are overstated because of inflated growth rates, adjusted betas, and size premiums. Petitioner's inflated growth rates of 10.73% and 10.33% result in a market risk premium of 7.94%. (*Id.*, pages 1, 2 and 4.) These inflated projected growth rates overstate by 300 basis points the *Value Line* projected growth rate of 7.5% for the Gas LDC group indicated on Petitioner's Exhibit No. 13, Attachment 13-A, Schedule 4, page 1. Petitioner's inflated projected growth rates on Petitioner's Exhibit No. 13, Attachment 13-A, Schedule 7, page 1, also result in a market risk premium of 7.94%, which is 244 basis points higher than the Kroll market risk premium of 5.5%. (Attachment LDC-7, page 1.)

Q: What is the impact of using the inflated projected growth rate?

A: Petitioner's inflated projected growth rate increases the market risk premium, which results in an unreasonably high CAPM COE result. Using Petitioner's *Value Line* projected 7.5% growth rate listed on Petitioner's Exhibit No. 13, Attachment 13-A, Schedule 4, page 1, changes Petitioner's DCF Market Return (S&P 500) on Schedule 7, page 1, from 12.44% to 9.21% (1.71% + 7.5%) and the DCF Market Return (Value Line) from 12.65% to 9.82% (2.32% + 7.5%). This changes Petitioner's Prospective Market Return (Average) on Schedule 7, page 1, from 12.55% to 9.52% (9.21% + 9.82% / 2). Subtracting Petitioner's prospective risk-free rate of 3.76% results in a prospective market risk premium of 5.76% (9.52% - 3.76%). A market risk premium of 5.76% is much closer to Kroll's 5.50% market risk premium.

Q: How does the corrected market risk premium of 5.76% affect Petitioner's CAPM COE result for the Gas LDC group?

A: Using the format on Petitioner's Schedule 7, page 2, Petitioner's corrected CAPM COE for the Gas LDC group would be 9.20%. Using the correct *Value Line* beta and removing the size premium adjustment results in a CAPM COE for the Gas LDC Group of 8.48%, as shown in Table 3 below.

Table 3

	With Adj. Beta Size Prem. Adj. (1)	**With *Value Line* Beta & No Size Adjustment (2)**
Indicated Market Risk Premium	5.76%	5.76%
Gas LDC Group Beta Coefficient	0.846	0.820
Gas LDC Group Risk Premium	4.87%	4.72%
Prospective Risk-Free Rate of Return	3.76%	3.76%
Traditional CAPM Result	**8.63%**	**8.48%**
Size Premium Adjustment	0.57%	0.00%
Implied Cost of Equity (CAPM with Size Adjustment)	**9.20%**	**8.48%**

Q: Did you prepare a similar CAPM COE calculation for the Combination Utility Group?

A: Yes. Using the format on Petitioner's Schedule 7, page 4, Petitioner's corrected CAPM COE for the Combination Utility Group would be 9.26%. Using the correct *Value Line* beta and removing the size premium adjustment results in a CAPM COE for the Combination Utility Group of 8.66%, as shown in Table 4 below.

Table 4

	With Adj. Beta Size Prem. Adj. (1)	**With *Value Line* Beta & No Size Adjustment** (2)
Indicated Market Risk Premium	5.76%	5.76%
Comb. Utility Group Beta Coefficient	0.877	0.850
Comb. Utility Group Risk Premium	5.05%	4.90%
Prospective Risk-Free Rate of Return	3.76%	3.76%
Traditional CAPM Result	**8.81%**	**8.66%**
Size Premium Adjustment	0.45%	0.00%
Implied Cost of Equity (CAPM with Size Adjustment)	**9.26%**	**8.66%**

Q: The corrected CAPM COE results above include Petitioner's proposed changes to the beta and a size premium adjustment. Do you agree with Petitioner's changes to the beta and inclusion of a size premium adjustment?

A: No, I do not. The second column in Tables 3 and 4 above reflect the correct CAPM COE for the Gas LDC and Combination Utility Group without the adjusted betas and no size premium adjustments.

Q: How did Petitioner derive the beta coefficient of 0.846 used in Schedule 7, page 2, and Table 3 above?

A: Petitioner started with the Gas LDCs *Value Line* beta of 0.82 and used the Hamada method to change the beta to 0.846. (Petitioner's Exhibit No. 13, page 76, Table 9.) Petitioner also used the Hamada method to change the Combination Utility group *Value Line* beta of 0.85 to 0.877 used in Schedule 7, page 4, and Table 4 above. (*Id.*)

Q: Has the Commission addressed the issue of size premium adjustments?

A: Yes. The Commission has found an application of Ibbotson's small company adjustment can ignore the fact that the risk of regulated utilities is not as great as small companies:

> We are familiar with the Ibbotson-derived 400 basis point small company risk premium used by Mr. Beatty. The rationale behind this approach is that, all other things being equal, the smaller the company, the greater the risk. However, to blindly apply this risk premium to Petitioner is to ignore the fact that Petitioner is a regulated utility. The risks from small size for a regulated water utility are not as great as those small companies facing competition in the open market.

In re South Haven Sewer, Cause No. 40398*,* Final Order, pp. 30-31 (Ind. Util. Regulatory Comm'n May 28, 1997.)

In an Indiana American Water Co. rate case order in Cause No. 43680, the Commission stated that regulated utilities have different risks than other small companies:

> The Commission rejects Petitioner's equity size premium adjustment because it cannot be directly applied to regulated water utilities. Regulated water utilities do not experience the same risks as other small companies.

In re Indiana-American Water, Cause No. 43680, Final Order, p. 47 (Ind. Util. Regulatory Comm'n Apr. 30, 2010.)

The Commission can apply the same rationale for rejecting equity size adjustments to the natural gas companies it regulates.

Q: What is the Hamada method?

A: Petitioner states: "In the utility regulatory setting, published betas must be adjusted to reflect the higher relative financial risk associated with a book value capital structure, which is typically utilized for rate-setting purposes." (*Id*., page 74, lines 5-7.)

Q: Do you agree the Hamada method is necessary to change the *Value Line* beta in this case?

A: No, and I am not aware of any IURC Orders that have specifically approved the use of the Hamada method to adjust a *Value Line* beta. Therefore, Petitioner's adjustment to the *Value Line* beta based on the Hamada method should be rejected.

Q: What evidence did Petitioner provide to support the size adjustment used in Schedule 7, pages 2 and 4, and reflected on Tables 3 and 4 above?

A: Petitioner states: "Multiple academic studies have advocated the use of a size-premium adjustment to the traditional CAPM." (Petitioner's Exhibit No. 13, page 77, lines 3-4.) Petitioner also referenced Kroll LLC's *Cost of Capital Navigator*. (*Id*., page 78, lines 2-6.) Petitioner states: "As reflected in the *Cost of Capital Navigator*, based upon an average market capitalization of $7.7 billion, the Gas LDC Group would be classified as a Decile 3 portfolio and assigned a size premium of 0.57 percent." (*Id*., lines 6-9.) Also, "Based on an average market capitalization of $18.2 billion, the Combination Utility Group would be classified as a Decile 2 portfolio and assigned an average size premium of 0.45 percent." (*Id*. lines 9-11.)

Q: Does the OUCC have a $1,200 annual subscription to Kroll LLC's *Cost of Capital Navigator*?

A: No. However, I did review and provide the *Value Line* reports for the Gas LDC group. (Attachment LDC-1, pages 1-5.) The *Value Line* reports indicate the following market capitalizations for the Gas LDC group: Atmos Energy - $16.5 billion (Large Cap);

NiSource - $10.3 billion (Large Cap); Northwest Natural - $1.3 billion (Small Cap); ONE Gas - $3.3 billion (Mid Cap); and Spire - $3.0 billion (Mid Cap). (*Id.*)

Atmos Energy and NiSource are considered Large Cap companies, and no size adjustment is necessary. NiSource has a market capitalization of $7 billion to $9 billion dollars greater than Northwest Natural, ONE Gas, and Spire, which are considered Small and Mid-Cap companies. Therefore, if any size adjustment is applied it should be *negative* and reduce the COE produced by Petitioner's CAPM analysis.

Q: Do you agree with Petitioner's ECAPM to estimate an appropriate COE for NIPSCO?

A: No. Petitioner's ECAPM suffers from the same projected growth rate issues I discussed above regarding Petitioner's CAPM analysis. In order to provide an accurate ECAPM analysis, I used the corrected 5.76% market risk premium.

Q: How does the corrected market risk premium of 5.76% affect Petitioner's ECAPM COE result for the Gas LDC group?

A: Using the format on Petitioner's Schedule 7, page 2, I corrected Petitioner's ECAPM COE for the Gas LDC group. Using the correct *Value Line* beta and removing the size premium adjustment results in a ECAPM COE for the Gas LDC group of 8.74%, as shown in Table 5 below.

Table 5

Prospective Risk-Free Rate of Return	3.76%
25% Weighting of Market Risk Premium (5.76% x .25)	1.44%
75% Weighting of Beta x Market Risk Premium (5.76% x 0.82 x .75)	3.54%
Implied Cost of Equity (ECAPM Model)	**8.74%**

Q: How does the corrected market risk premium of 5.76% affect Petitioner's ECAPM COE result for the Combination Utility group?

A: Using the format on Petitioner's Schedule 7, page 4, I corrected Petitioner's ECAPM COE for the Combination Utility group. Using the correct *Value Line* beta and removing the size premium adjustment results in an ECAPM COE for the Combination Utility group of 8.87%, as shown in Table 6 below.

Table 6

Prospective Risk-Free Rate of Return	3.76%
25% Weighting of Market Risk Premium (5.76% x .25)	1.44%
75% Weighting of Beta x Market Risk Premium (5.76% x 0.85 x .75)	3.67%
Implied Cost of Equity (ECAPM Model)	**8.87%**

Q: Has the Commission expressed an opinion on the use and results of an ECAPM approach?

A: Yes. The Commission has rejected the use of ECAPM in at least two previous Causes (Cause Nos. 40003 and 42359). In its Final Order in Cause No. 42359, the Commission affirmed its previous finding, the ECAPM is unreliable for ratemaking purposes:

> With respect to the ECAPM analysis performed by Dr. Morin we note that the Commission rejected this model in Cause No. 40003, and found that: "the Empirical CAPM is not sufficiently reliable for ratemaking purposes." Cause No. 40003 at 32. We went on to conclude that the ECAPM ". . . would adjust, in essence, future expectations with regard to investor perceptions of relative risks for further change which may occur years hence." The Commission concluded that ". . . we do not believe exercises in approximating future cost of capital are conducive to such precise estimation as the Empirical CAPM would suggest." Id. We find that nothing presented in this Cause has changed our prior determination that ECAPM is not sufficiently reliable for ratemaking purposes and hereby reject the model in this proceeding.

In re PSI Energy, Cause No. 42359, Final Order, p. 56 (Ind. Util. Regulatory Comm'n May 18, 2004.)

XI. PETITIONER'S UTILITY RISK PREMIUM ANALYSIS

Q: Please describe Petitioner's Risk Premium method.

A: Mr. Rea discusses Petitioner's risk premium analysis on pages 81-94 of his testimony and the results are indicated on his Schedule 8. Petitioner forecasted a bond yield of 5.65% for the Gas LDC and Combination Utility groups. (Petitioner's Exhibit No. 13, Attachment 13-A, Schedule 8, pages 1, 7.) Petitioner calculated the prospective bond yield using the forecasted "Aaa" rated corporate bond yield of 4.74% for 2024-2028. (*Id*., pages 1-2.) Petitioner then adds a 0.75% yield spread for the difference between the historical spread between "A" rated utility bond yields and Aaa-rated corporate bond yields (5.29% - 4.54%). (*Id*., pages 1, 3.) Next, Petitioner calculated a yield spread of 0.16% between "A" rated utility bonds and the "A-"/"Baa1" rating of the Gas LDC group. (*Id*., page 1, footnote 4, and page 3.)

Petitioner calculated a total market index equity risk premium of 5.80% for the Gas LDC group, which includes the inappropriate adjusted beta I discussed earlier. (*Id*., page 4.) Petitioner also calculated a total market index equity risk premium for the Combination Utility group of 6.01%. (*Id*., page 7.)

Petitioner calculated an historical public utility index equity risk premium of 4.57%. (*Id*., page 5.) Petitioner then subtracts its most recent 3-month average Moody's "A" rated utility yield of 5.29% from its DCF Market return on the S&P Utility Index of 9.46% to derive an implied equity risk premium of 4.17%. (*Id*., page 5.) The average of the historical and implied equity risk premiums is 4.37% (4.57% + 4.17% / 2). (*Id*.)

Petitioner added its prospective bond yield of 5.65% and average equity risk premium of 5.09% to derive a COE of 10.73% for the Gas LDC group. (*Id*., page 1.)

Petitioner added its prospective bond yield of 5.65% and average equity risk premium of 5.19% to derive a COE of 10.84% for the Combination Utility group. (*Id.*, page 7.)

Q: Does Petitioner's Risk Premium analysis produce an appropriate estimate of NIPSCO's COE?

A: No. The flaw in Petitioner's Risk Premium analysis is the same flaw contained in its CAPM analysis, which relates to the inflated growth rates used to derive the prospective market return of 12.55%. (Petitioner's Exhibit No. 13, Attachment 13-A, Schedule 7, page 1.) Petitioner started with the 12.55% prospective market return and subtracted a prospective "Aaa" rated corporate bond yield of 4.74% to derive its prospective equity risk premium of 7.81%.

Petitioner averaged the prospective equity risk premium of 7.81% with the historical equity risk premium of 5.90%. The result is 6.86%. (*Id.*, Schedule 8, page 4.) Petitioner then used an adjusted beta of 0.846 to derive an equity risk premium of 5.80% for the Gas LDC group. (*Id.*) The 5.80% was then carried forward to page 1 of Schedule 8 and averaged with the public utility index of 4.37% with a result of 5.09%. The equity risk premium amount of 5.09% was added to the prospective bond yield of 5.65% to produce Petitioner's Risk Premium COE of 10.73% for the Gas LDC group. (*Id.*)

Petitioner's Risk Premium calculation for the Combination Utility group uses the same prospective market return of 12.55% with the inflated growth rates and produces an inflated COE result of 10.84%. (*Id.*, pages 7-8.)

Q: Can you correct Petitioner's calculation to produce a reasonable Risk Premium COE?

A: Yes. I provide a corrected calculation for the Gas LDC group in Table 7 below. The corrected calculation for the Combination Utility group would be similar. When correcting Petitioner's CAPM and ECAPM estimates above, I used the *Value Line* growth rate of 7.5% instead of Petitioner's inflated growth rates. This changed Petitioner's Prospective Market Return (Average) on Schedule 7, page 1, from 12.55% to 9.52%. I use 9.52% to recalculate the prospective equity risk premium on Petitioner's Schedule 8, page 4.

Table 7

	Pet.	**OUCC**
Historical Equity Risk Premium – Total Market (3)	5.90%	5.90%
Prospective Annual Market Return (4)	12.55%	9.52%
Prospective "Aaa" Rated Corporate Bond Yield (5)	4.74%	4.74%
Prospective Equity Risk Premium – Total Market (6)	7.81%	4.78%
Indicated Equity Risk Premium – Total Market (7) (3+6/2)	6.86%	5.34%
Beta Coefficient (8)	0.846	0.820
Equity Risk Premium (9)	**5.80%**	**4.38%**

Q: What is the effect of using the corrected equity risk premium of 4.38% on Petitioner's Risk Premium COE?

A: Table 8, below, reflects the pertinent information from Petitioner's Schedule 8, page 1 to compare the difference using the corrected equity risk premium amount of 4.38%.

Table 8

	Pet.	OUCC
Prospective Bond Yield for Gas LDC Group (5)	5.65%	5.65%
Equity Risk Premium		
- Total Market Index Approach (6)	5.80%	4.38%
- Public Utility Index Approach (7)	4.37%	4.37%
Indicated Equity Risk Premium (8) (Line 6 + 7 / 2)	5.09%	4.38%
Indicated Cost of Equity – Gas LDC Group (9) (Line 5+8)	**10.73%**	**10.03%**

The corrected 10.03% Risk Premium COE is in line with the OUCC's DCF and CAPM recommendations. As indicated above, Petitioner's Risk Premium COE is inflated and should be rejected.

XII. SUMMARY AND RECOMMENDATIONS

Q: Please summarize your testimony on the DCF calculations for the Gas LDC and Combination Utility groups.

A: I calculated a 4.3% forward dividend yield for the Gas LDC group. I also performed calculations and analyses in which I concluded a range of 4.6% to 5.8% for the DCF growth rate, *g*, is reasonable. These estimates were made using historical and projected growth rates from *Value Line,* Zacks, Yahoo Finance, and MarketWatch, and economic growth data from the CBO. I considered both projected and historical data. My DCF calculations result in a DCF COE range of 8.9% to 10.1% for the Gas LDC group. My DCF COE range for the Combination Utility group is 9.1% to 10.3%.

Q: Please summarize your testimony on the CAPM calculations for the Gas LDC and Combination Utility groups.

A: Based on *Value Line* betas and using the same Gas LDC group as Petitioner, I calculated a 0.86 average beta for the Gas LDC group. (Attachment LDC-5, page 3.)

As the beta is less than 1.0, it also describes a relatively low-risk industry. I calculated a 4.6% risk-free rate based on a 13-week average of 30-Year Treasury Bonds. (*Id*., page 2.) I used Kroll's 5.5% equity risk premium. (Attachment LDC-7, page 1.) This results in a 9.3% CAPM COE for the Gas LDC group. I calculated a 9.5% CAPM COE for the Combination Utility Group.

Q: Please summarize your testimony on macroeconomic factors influencing cost of equity.

A: As discussed above, the most important macroeconomic factors influencing cost of equity are inflation and interest rates. Short-term inflation declined in 2023, and inflation is forecasted to steadily decline through 2033. Interest rates have stabilized and are not expected to increase in 2024.

Q: Please summarize your recommendation for NIPSCO's COE.

A: I recommend the Commission authorize a 9.25% COE for NIPSCO. However, I also recommend NIPSCO's COE be reduced if the Commission grants NIPSCO's proposed Sales Reconciliation Adjustment ("SRA") and/or requires NIPSCO's customers pay NIPSCO's $2.2 million proposed rate case expense.

Q: Does this conclude your testimony?

A: Yes.

APPENDIX LDC-1 TO TESTIMONY OF OUCC WITNESS LEJA D. COURTER

Q: Please describe your educational background and experience.

A: I graduated from Ball State University in Muncie, Indiana with Bachelor of Science degrees in Finance and Economics. I received my Juris Doctorate from the University of Dayton. In previous years, I have been engaged in the private practice of law, and I also served as an in-house counsel at Indiana Gas Company. I have been an attorney at the OUCC for over twenty years. I was the Director of the OUCC's Natural Gas Division for twelve years. I became a Chief Technical Advisor at the OUCC in December 2021. I am a Certified Rate of Return Analyst ("CRRA").

Q: Have you previously testified before the Indiana Utility Regulatory Commission?

A: Yes.

Q: Please describe the review and analysis you conducted to prepare your testimony.

A: I reviewed NIPSCO's petition, testimony, exhibits, and supporting documentation submitted in this Cause. I prepared and reviewed discovery requests, and reviewed NIPSCO's responses. I reviewed numerous financial reports and articles that discuss market returns. I reviewed the Final Order in NIPSCO's last base rate case, Cause No. 45621. I reviewed Commission Orders concerning cost of equity issues.

I. DISCOUNTED CASH FLOW ("DCF") ANALYSIS

A. Introduction to DCF Model

Q: Please describe the DCF model.

A: The DCF model is typically used by investors to determine the appropriate price to pay for a security. This model assumes the price of a security should be determined by its expected cash flows discounted by the company's cost of equity. On a one-year horizon, the price of a stock (P_0) is equal to the anticipated dividends paid during the year (D_1), plus the anticipated price of the stock at the end of the year (P_1) divided by one plus the company's cost of equity (k). In turn, this year's year-end price (P_1) is determined by next year's anticipated dividends (D_2) and next year's anticipated year-end price (P_2) divided by one plus the company's cost of equity (k).

Because investors may plan to hold securities for extended periods, the DCF equation can be restated for an infinite or unknown number of periods as follows:

$$P_0 = D_1/(k\text{-}g)$$

[Where the price of a security (P_0) equals the anticipated dividends paid over the current period (D_1) divided by the company's cost of equity (k) minus the expected growth rate of dividends (g)].

The company's cost of equity must be greater than its expected dividend growth rate for this model to be valid. By rearranging the model, the familiar DCF formula used in regulatory proceedings can be obtained.

$$k = (D_1/P_0) + g$$

[Where the cost of equity (k) equals the forward dividend yield (D1/P0) plus the expected growth rate in dividends per share (g). To estimate the cost of equity (k), the forward yield ($D1/P_0$) and the expected growth rate in dividends (g) must be estimated.]

B. <u>Dividend yield</u>

Q: How did you calculate the forward yields (D1/P0) in your analysis?

A: To calculate a forward yield (D_1/P_0), the current yield (D_0/P_0) must be calculated first. A company's current yield equals its current annual dividends (D_0) divided by its current stock price (P_0).

Q: How do you convert current yields (D_0/P_0) into forward yields (D_1/P_0)?

A: I use the following equation to convert a current yield to a forward yield:

$$D_1/P_0 = (D_0/P_0) * (1 + .5g)$$

For example, if Company N had a current dividend yield of 4.0% and an expected growth rate of 2%, I would multiply the 4% current dividend yield by 1 plus 2% or 1.01 (1% is one-half of the 2% expected growth rate). This results in a forward dividend yield of 4.04%, or an increase of 4 basis points over the current dividend yield.

Q: What dividend yields do you use in your DCF analyses?

A: Attachment LDC-2, page 2, and Attachment LDC-3, page 2, contain the average dividend yields for my Gas LDC and Combination Utility groups.

C. <u>Dividend growth rate</u>

Q: How did you estimate the long run dividend growth component (g) of the DCF model?

A: The DCF model assumes investors expect earnings per share (EPS), dividends per share (DPS), and book value per share (BVPS) to all grow at the constant long run growth rate (g). When the data is available, to estimate (g), I use both historical and forecasted growth rates of EPS, DPS, and BVPS. I use *Value Line* as my source of growth rates.

Q: What is your estimated long run dividend growth component (g) of the DCF model using *Value Line* growth rates in EPS, DPS, and BVPS?

A: My estimated growth rate for the Gas LDC group ranged between 4.6% and 5.8%. (Attachment LDC-2, pages 3-5.) My estimated growth rate for the Combination Utility group ranged between 4.8% and 6.0%. (Attachment LDC-3, pages 3-5.) To estimate growth for the *Value Line* data, I average the forecasted and historical growth rates of EPS, DPS, and BVPS.

Q: To estimate the dividend growth (g) for your DCF analysis, did you include negative growth rates or low growth rates?

A: Yes. Negative or low growth rates are not ignored by investors. While investors may not expect negative or low growth rates to occur (especially in perpetuity), if a company has experienced low historical growth rates or is forecasted to experience low growth rates, then those low growth rates are considered by and relevant to investors when they estimate a company's future growth rate. The purpose in estimating a growth rate in the DCF model is to infer the investor's long-term (perpetual) forecast in growth of the company. Relevant factors are not ignored. Also, one should consistently use or reject, both high positive growth rates and low positive growth rates. While growth rates as high as 15.0% or as low as negative 1.0% by themselves may not reflect investor expectations, neither should be ignored - or alternatively, both should be disregarded.

D. <u>DCF Model conclusions</u>

Q: What do you conclude from your DCF study?

A: The results of my DCF analysis for the Gas LDC group are a range of 8.9% to 10.1%. (Attachment LDC-2, page 1.) The results of my DCF analysis for the Combination Utility group are a range of 9.1% to 10.3%. (Attachment LDC-3, page 1.) My DCF analysis uses both historical and forecasted growth rates in EPS, DPS, and BVPS. It is based on a review of growth rates, and it is most consistent with prior Commission decisions on how to estimate a growth rate in a DCF analysis. As discussed above, analysts' forecasts of intermediate term growth rates in EPS may be optimistic and should not be used by themselves to estimate long-term growth (g) in a DCF analysis.

II. CAPITAL ASSET PRICING MODEL (CAPM) ANALYSIS

Q: Please describe your CAPM analysis.

A: The Capital Asset Pricing Model, or CAPM, is a form of risk premium analysis used to estimate the cost of capital. The CAPM is based on the premise that investors require a higher return for assuming additional risk. Total risk is divisible into two categories: systematic risk and unsystematic risk. Systematic risk is risk that affects the entire market, including inflation, monetary policy, fiscal policy, or politics. Unsystematic risk is risk unique to the company, and may include strikes, management errors, merger activity, or individual financing policy.

Investors can eliminate unsystematic risk through diversification. Because returns on individual securities of a portfolio do not usually move in the same direction at the same time, the total risk of a portfolio is less than the risk of the individual securities that make up the portfolio. The market does not compensate investors for assuming unsystematic risk because investors can eliminate unsystematic risk through diversification. Conversely, systematic risk, also referred to as market risk, cannot be eliminated through diversification. However, because investments will move with different relationships to the market, investors can form a portfolio to assume the amount of market risk they wish. An investor's required return depends on the market risk that the investor assumes.

Q: How is systematic (market) risk measured?

A: Beta is the measurement of an investment's relationship to the market. More specifically, beta measures an asset's price volatility compared to the stock market. The market has a beta of one. The market refers to the returns on all assets. It is difficult to measure the return on all assets. Therefore, analysts typically rely on a market index, such as the Standard & Poor's 500 Index, as a proxy for the market. Assets more volatile than the market will have a beta greater than one, and thus, are considered riskier than the market. Assets that are less volatile will have a beta less than one and are considered less risky than the market.

The CAPM formula can be stated as follows:

$$K = Rfc + \beta\ (Rm\text{-}Rf)$$

where,

K	Cost of Equity
Rfc	Current Risk-Free Rate of Return
β	Beta
Rm-Rf	Expected Market Equity Risk Premium
Rm	Market Equity Return
Rf	Risk Free Rate of Return

The return on an asset (K) equals the risk-free rate of return (Rfc) plus its beta (β) multiplied by the market equity risk premium (Rm - Rf). The market equity risk premium equals the market equity return minus the risk-free rate of return.

Q: Is the CAPM controversial?

A: The CAPM is typically more controversial and less reliable than the DCF model. Different applications of CAPM may result in vastly different cost of equity estimates. For example, the source of beta can influence the results of a CAPM analysis. If a market risk premium of 5.0% is used, a difference in beta of only 0.10 changes the results of a CAPM analysis by 50 basis points.

The method used to estimate the market risk premium can also be particularly controversial. An historical risk premium can be calculated, but a decision must be made between using a geometric mean or an arithmetic mean calculation. This decision is important because the use of the arithmetic mean can produce results that are over 140 basis points higher than the geometric mean. The geometric mean calculation is preferable over the arithmetic mean calculation because the geometric mean calculation more accurately measures the change in wealth over multiple periods. Selecting the appropriate period to calculate a historical risk premium is not only controversial, it also dramatically affects the results. When relying on a historical risk premium, the longest historical period for which accurate historical data exists should be used to estimate a risk premium.

Q: When calculating a market risk premium, do you use total returns or income returns?

A: I use total returns. Investors who buy long-term bonds (both risk-free and utility bonds) do not earn just income returns, but total returns. Therefore, a determination of the risk premium should be based on total returns for both equity and debt investments when estimating a risk premium. In Indiana American Water Company Inc.'s, Cause No. 42520, the Commission agreed with the testimony of Intervenor witness Michael Gorman that total returns and not income returns should be used to estimate an historical risk premium. The Order states:

> Another area of disagreement in the CAPM analysis is whether the model should use total returns or income returns. We find Mr. Gorman's analysis in this area to be most persuasive. The income return on Treasury bonds is simply the average of Treasury bond yield quotes over the historical period, and this yield quote does not measure the actual return investors earn by making investments in Treasury bonds. Investors simply cannot invest only in Treasury bond income returns. Rather, investors must take the risk of variations in bond prices before they invest in treasury bonds. Therefore the actual return experienced by investors in Treasury securities is measured by total return, not simply the income return. *In re Indiana-American Water Company, Inc.*, Cause No. 45520, Final Order p. 59 (Ind. Util. Regulatory Comm'n Nov. 18, 2004.)

B. <u>Risk-free rate of return</u>

Q: Is the risk-free rate of return also controversial?

A: Yes. Aside from the market risk premium controversy, financial analysts do not agree on the determination of the risk-free rate. Theoretically, the risk-free rate is the rate of return on a completely risk-free asset. In practice, analysts typically use yields on United State Treasury securities as a proxy for the risk-free rate.

Q; How did you estimate the risk-free rate?

A: I reviewed 30-Year Treasury bonds and reviewed market publications.

C. <u>Beta.</u>

Q: What source did you review to estimate beta?

A: I relied on *Value Line* as my source of beta. Based on *Value Line*, the Gas LDC group produces an average beta of 0.86. (Attachment LDC-5, page 3.) The Combination Utility group produces an average beta of 0.89. (Attachment LDC-6, page 3.)

D. <u>Conclusions on CAPM analysis</u>

Q: Please review the results of your CAPM analysis.

A: The cost of equity based on my CAPM analysis for the Gas LDC group is 9.3%. I used a risk-free rate of 4.6%, a beta of 0.86, and an equity risk premium of 5.5%.

(Attachment LDC-5, page 1.) The cost of equity based on my CAPM analysis for the Combination Utility group is 9.5%. I used a risk-free rate of 4.6%, a beta of 0.89, and an equity risk premium of 5.5%. (Attachment LDC-6, page 1.)

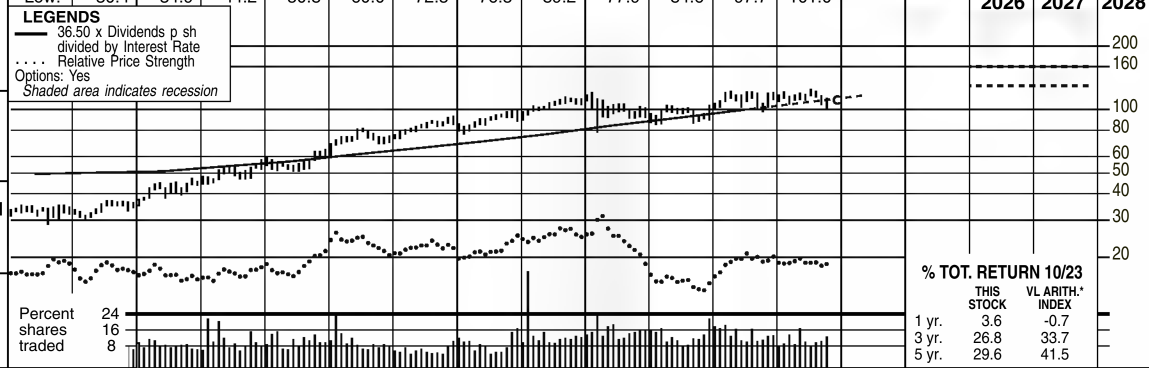
ATMOS ENERGY CORP. NYSE-ATO

RECENT PRICE 111.12 | P/E RATIO 17.1 (Trailing: 18.1 Median: 20.0) | RELATIVE P/E RATIO 1.12 | DIV'D YLD 3.0% | VALUE LINE

TIMELINESS 3 Raised 11/24/23
SAFETY 1 Raised 6/6/14
TECHNICAL 3 Lowered 11/10/23
BETA .85 (1.00 = Market)

High:	37.3	47.4	58.2	64.8	82.0	93.6	100.8	115.2	121.1	105.3	123.0	125.3
Low:	30.4	34.9	44.2	50.8	60.0	72.5	76.5	89.2	77.9	84.6	97.7	101.0

Target Price Range 2026 | 2027 | 2028



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$94-$159	$127 (15%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	160	(+45%)	12%
Low	130	(+15%)	7%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	345	337	314
to Sell	266	258	281
Hld's(000)	132007	131736	136508

% TOT. RETURN 10/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	3.6	-0.7
3 yr.	26.8	33.7
5 yr.	29.6	41.5

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
66.03	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	*28.50*	*30.95*	Revenues per sh A	*44.10*
4.14	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	*9.95*	*10.80*	"Cash Flow" per sh	*12.60*
1.94	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*	Earnings per sh AB	*7.85*
1.28	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*	Div'ds Decl'd per sh C■	*3.90*
4.39	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	*18.70*	*18.70*	Cap'l Spending per sh	*21.50*
22.01	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	*72.35*	*72.75*	Book Value per sh	*79.40*
89.33	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	*150.00*	*155.00*	Common Shs Outst'g D	*170.00*
15.9	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		Avg Ann'l P/E Ratio	*18.5*
.84	.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	*1.05*
4.2%	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	*2.7%*

CAPITAL STRUCTURE as of 6/30/23
Total Debt $6650.1 mill. **Due in 5 Yrs** $2900.0 mill.
LT Debt $6642.6 mill. **LT Interest** $125.0 mill.
(LT interest earned: 9.3x; total interest coverage: 9.3x)
Leases, Uncapitalized Annual rentals $43.1 mill.

Pfd Stock None

Pension Assets-9/22 $479.0 mill. **Oblig.** $449.5 mill.
Common Stock 148,462,481 shs. **as of 7/28/23**

MARKET CAP: $16.5 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
3886.3	4940.9	4142.1	3349.9	2759.7	3115.5	2901.8	2821.1	3407.5	4201.7	4275.4	*4800*	Revenues ($mill) A	*7500*
230.7	289.8	315.1	350.1	382.7	444.3	511.4	580.5	665.6	774.4	885.9	*985*	Net Profit ($mill)	*1325*
38.2%	39.2%	38.3%	36.4%	36.6%	27.0%	21.4%	19.5%	18.8%	9.1%	11.4%	*15.0%*	Income Tax Rate	*25.0%*
5.9%	5.9%	7.6%	10.5%	13.9%	14.3%	17.6%	20.6%	19.5%	18.4%	20.7%	*20.5%*	Net Profit Margin	*17.7%*
48.8%	44.3%	43.5%	38.7%	44.0%	34.3%	38.0%	40.0%	38.4%	37.9%	*38.0%*	*40.0%*	Long-Term Debt Ratio	*40.0%*
51.2%	55.7%	56.5%	61.3%	56.0%	65.7%	62.0%	60.0%	61.6%	62.1%	*62.0%*	*60.0%*	Common Equity Ratio	*60.0%*
5036.1	5542.2	5650.2	5651.8	6965.7	7263.6	9279.7	11323	12837	15180	*17500*	*18800*	Total Capital ($mill)	*22500*
6030.7	6725.9	7430.6	8280.5	9259.2	10371	11788	13355	15064	17240	*19600*	*20700*	Net Plant ($mill)	*25000*
5.9%	6.4%	6.6%	7.2%	6.4%	6.9%	6.1%	5.5%	5.5%	5.4%	*6.0%*	*6.5%*	Return on Total Cap'l	*7.0%*
8.9%	9.4%	9.9%	10.1%	9.8%	9.3%	8.9%	8.5%	8.4%	8.2%	*8.0%*	*8.5%*	Return on Shr. Equity	*10.0%*
8.9%	9.4%	9.9%	10.1%	9.8%	9.3%	8.9%	8.5%	8.4%	8.2%	*8.0%*	*8.5%*	Return on Com Equity	*10.0%*
4.0%	4.7%	4.9%	5.1%	4.9%	4.8%	4.6%	4.4%	4.3%	4.2%	*4.0%*	*4.5%*	Retained to Com Eq	*5.0%*
56%	50%	51%	50%	50%	48%	48%	49%	49%	49%	*49%*	*51%*	All Div'ds to Net Prof	*50%*

CURRENT POSITION ($MILL.)	2021	2022	6/30/23
Cash Assets	116.7	51.6	56.2
Other	2722.0	2996.1	832.7
Current Assets	2838.7	3047.7	888.9
Accts Payable	423.2	496.0	327.9
Debt Due	2400.5	2386.4	7.5
Other	686.7	720.2	698.9
Current Liab.	3510.4	3602.6	1034.3
Fix. Chg. Cov.	1457%	1238%	1250%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	-5.5%	-4.5%	*10.0%*
"Cash Flow"	6.5%	7.0%	*6.5%*
Earnings	9.0%	9.0%	*7.0%*
Dividends	6.5%	8.5%	*7.5%*
Book Value	9.0%	12.0%	*5.0%*

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) A Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2020	875.6	977.6	493.0	474.9	2821.1
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	*1525*	*1700*	*890*	*685*	*4800*

Fiscal Year Ends	EARNINGS PER SHARE A B E Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2020	1.47	1.95	.79	.53	4.72
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	*2.12*	*2.53*	*1.06*	*.84*	*6.55*

Cal-endar	QUARTERLY DIVIDENDS PAID C■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.525	.525	.525	.575	2.15
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	

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 2022: 63.7%, residential; 28.8%, commercial; 5.8%, industrial; and 1.7% other. The company sold Atmos Energy Marketing, 1/17. Officers and directors own approximately .5% of common stock (12/22 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.

Profits for Atmos Energy ought to advance, once again, in fiscal 2024 (which began on October 1st). We think that will be brought about partly by the distribution unit, aided by benefits of higher rates and an expanded customer base. Favorable weather would also help, given its effect on consumption levels. The pipeline and storage division stands to have a better showing, too. Though the company's effective income tax rate may climb, full-year earnings per share should grow around 7%, to $6.55, versus fiscal 2023's $6.10 figure. Concerning next year, the bottom line might climb at a similar percentage rate, to $7.00 per share, as operating margins widen further.

Capital spending for fiscal 2024 is expected to be around $2.9 billion. That is near the prior-year figure of $2.8 billion. Like fiscal 2023, a considerable amount of the resources are being utilized to enhance the safety and reliability of Atmos' natural gas distribution and transmission systems. Management adds that it projects total capital expenditures from fiscal 2024 through fiscal 2028 to be roughly $17 billion. A substantial portion of the investments will continue to be deployed to where they are currently. Assuming that finances stay healthy, the company should have little trouble achieving those goals.

Good things appear to be in store over the 3- to 5-year horizon. Atmos Energy ranks as one of the country's largest natural gas-only distributors, with more than three million customers across several states, including Texas, Louisiana, and Mississippi. Also, 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 sound balance sheet is another plus.

The quarterly common stock dividend was raised 8.8%, to $0.805 a share. Furthermore, we anticipate additional steady hikes in the distribution out to 2026-2028. The payout ratio over that span ought to be reasonable, around 50% or so.

What about the equity? Capital gains potential over the 18-month span looks worthwhile. But the dividend yield is lower than the average of *Value Line's* Natural Gas Utility Industry.

Frederick L. Harris, III November 24, 2023

(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 Feb. (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.

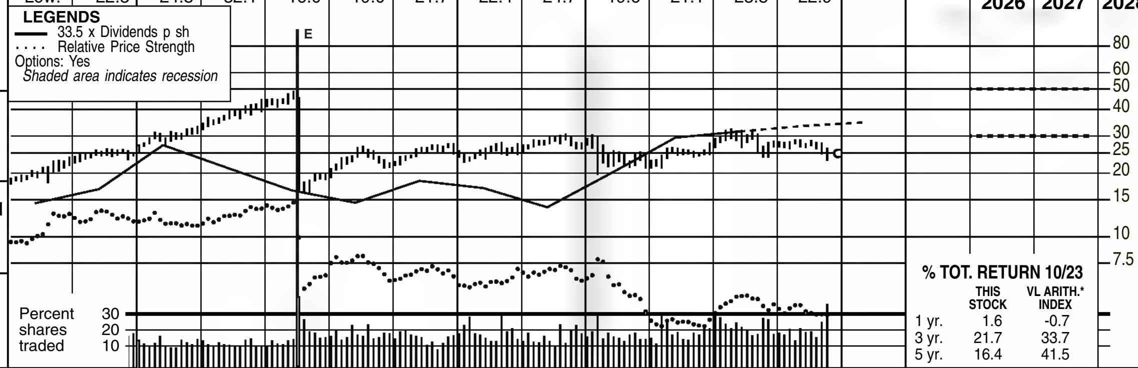
Company's Financial Strength	A+
Stock's Price Stability	95
Price Growth Persistence	60
Earnings Predictability	100

NISOURCE INC. NYSE-NI

RECENT PRICE 24.81 | P/E RATIO 14.4 (Trailing: 15.8, Median: 21.0) | RELATIVE P/E RATIO 0.94 | DIV'D YLD 4.2% | VALUE LINE

TIMELINESS 1 Raised 11/10/23
SAFETY 3 Lowered 3/19/21
TECHNICAL 3 Raised 11/3/23
BETA .90 (1.00 = Market)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
High:	26.2	33.5	44.9	49.2	26.9	27.8	28.1	30.7	30.5	27.8	32.6	29.0
Low:	22.3	24.8	32.1	16.0	19.0	21.7	22.4	24.7	19.6	21.1	23.8	22.9



18-Month Target Price Range

Low-High: $21-$39 — Midpoint (% to Mid): $30 (20%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	50	(+100%)	21%
Low	30	(+20%)	9%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	315	301	249
to Sell	214	201	256
Hld's(000)	387502	387698	393166

% TOT. RETURN 10/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	1.6	-0.7
3 yr.	21.7	33.7
5 yr.	16.4	41.5

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
28.96	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*	*14.75*	Revenues per sh	*16.50*
3.20	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*	"Cash Flow" per sh	*4.25*
1.14	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*	Earnings per sh A	*2.10*
.92	.92	.92	.92	.92	.94	.98	1.02	.83	.64	.70	.78	.80	.84	.88	.94	*1.00*	*1.04*	Div'ds Decl'd per sh B ■	*1.20*
2.88	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*	*6.55*	Cap'l Spending per sh	*6.75*
18.52	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*	*20.25*	Book Value per sh C	*19.20*
274.18	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*	*420.00*	Common Shs Outst'g D	*440.00*
18.8	12.1	14.3	15.3	19.4	17.9	18.9	22.7	37.3	23.2	64.4	19.3	21.3	18.7	18.0	19.6	*Bold figures are*		Avg Ann'l P/E Ratio	*19.0*
1.00	.73	.95	.97	1.22	1.14	1.06	1.19	1.88	1.22	3.24	1.04	1.13	.96	.99	11.8	*Value Line*		Relative P/E Ratio	*1.05*
4.3%	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%	*estimates*		Avg Ann'l Div'd Yield	*3.0%*
						5657.3	6470.6	4651.8	4492.5	4874.6	5114.5	5208.9	4681.7	4899.6	5850.6	*6000*	*6200*	Revenues ($mill)	*7250*
						490.9	530.7	198.6	328.1	128.6	478.3	549.8	562.6	626.3	648.2	*665*	*715*	Net Profit ($mill)	*925*
						34.8%	36.9%	41.6%	35.7%	71.0%	19.7%	17.0%	18.3%	15.7%	17.2%	*19.0%*	*19.0%*	Income Tax Rate	*19.0%*
						--	--	--	--	--	--	--	--	2.0%	2.3%	*2.5%*	*2.5%*	AFUDC % to Net Profit	*2.5%*
						56.3%	56.9%	60.7%	59.8%	63.5%	55.3%	56.8%	61.6%	56.9%	55.7%	*57.5%*	*57.5%*	Long-Term Debt Ratio	*55.0%*
						43.7%	43.1%	39.3%	40.2%	36.5%	37.9%	36.9%	32.5%	33.5%	31.6%	*35.0%*	*37.5%*	Common Equity Ratio	*37.5%*
						13480	14331	9792.0	10129	11832	12856	13843	14972	16131	17099	*19000*	*20000*	Total Capital ($mill)	*22500*
						14365	16017	12112	13068	14360	15543	16912	16620	17882	19843	*22500*	*25000*	Net Plant ($mill)	*27500*
						5.2%	5.3%	4.0%	5.0%	2.6%	5.1%	5.3%	5.0%	4.9%	3.8%	*3.5%*	*3.5%*	Return on Total Cap'l	*4.0%*
						8.3%	8.6%	5.2%	8.1%	3.0%	8.3%	9.2%	9.8%	9.0%	9.3%	*8.0%*	*8.5%*	Return on Shr. Equity	*9.0%*
						8.3%	8.6%	5.2%	8.1%	3.0%	9.6%	9.7%	10.4%	10.6%	12.0%	*10.0%*	*9.5%*	Return on Com Equity	*11.0%*
						3.1%	3.4%	NMF	3.0%	NMF	4.0%	3.8%	3.8%	4.2%	4.0%	*3.5%*	*3.5%*	Retained to Com Eq	*4.5%*
						62%	61%	NMF	63%	NMF	60%	64%	67%	64%	64%	*63%*	*61%*	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: $10.3 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 '26-'28
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%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1605.5	962.7	902.5	1211.0	4681.7
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*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.76	.13	.09	.34	1.32
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*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.200	.200	.200	.200	.80
2020	.21	.21	.21	.21	.84
2021	.22	.22	.22	.22	.88
2022	.235	.235	.235	.235	.94
2023	.25	.25	.25	.25	

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 has achieved solid operating results thus far in 2023. In the most recent quarter, the public gas and electric utility demonstrated a respectable financial performance during its cyclically low season. The company reported non-GAAP net operating earnings of $84 million or $0.19 per share, a notable increase from $45 million and $0.10 per share in the same quarter last year. This growth can be attributed to strategic investments and improved operational efficiency, despite some challenges, like interest rates, inflation, fluctuating energy prices, and regulatory changes.

NiSource is set to continue its profit-growth trajectory. We are forecasting full-year earnings per share of $1.60 in 2023 and $1.70 in 2024, towards the upper end of management's guidance range of $1.54 to $1.60, and $1.68 to $1.72 in each year, respectively. Our growth outlook is underpinned by the company's focus on increasing efficiency, regulatory compliance, and the ongoing modernization of its energy infrastructure. On that note, ongoing investment in renewable energy generation, with significant solar and wind projects underway, align with industry trends and the management's carbon emissions reductions goals.

We expect sustainable investments will support steady long-term growth. The company expects to invest a projected $16 billion in capital over the next five years, contributing to an estimated rate-base increase of 8% to 10% per year. This supports its goal for a 6% to 8% long-term earnings-per-share growth out to 2028. The shift towards renewable energy, customer-centric investments, and the leveraging of legislative incentives, like the Inflation Reduction Act, position NiSource favorably in the transitioning energy market. However, risks such as regulatory changes, environmental compliance, and the execution of large-scale investments remain. Too, the high interest rate environment may pose a lasting headwind.

NiSource is ranked 1 (Highest) for Timeliness in the year ahead. Too, both the stock's 18-month and 3- to 5-year total capital appreciation potential look appealing on a risk adjusted basis. Conservative accounts may want to have a closer look.

Earl B. Humes — *November 24, 2023*

(A) Dil. EPS. Excl. gains (losses) on disc. ops.: '07, 3¢; '08, ($1.14); '15, (30¢); '18, ($1.48). Next egs. report due early February. 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	25
Earnings Predictability	55

N.W. NATURAL NYSE-NWN

RECENT PRICE 35.75 | P/E RATIO 12.5 (Trailing: 13.0 / Median: 24.0) | RELATIVE P/E RATIO 0.82 | DIV'D YLD 5.5% | VALUE LINE

TIMELINESS 4 Lowered 11/10/23
SAFETY 3 Lowered 3/19/21
TECHNICAL 3 Raised 11/3/23
BETA .85 (1.00 = Market)

High:	50.8	46.6	52.6	52.3	66.2	69.5	71.8	74.1	77.3	56.8	57.6	52.4	
Low:	41.0	40.0	40.1	42.0	48.9	56.5	51.5	57.2	42.3	41.7	42.4	35.7	

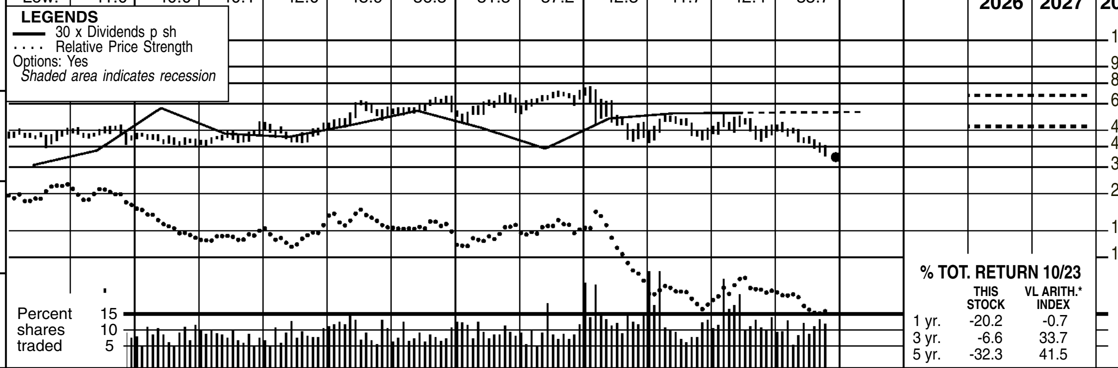
18-Month Target Price Range
Low-High $34-$60 | Midpoint (% to Mid) $47 (30%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	70	(+95%)	22%
Low	50	(+40%)	13%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	124	115	122
to Sell	90	102	123
Hld's(000)	27135	26729	26926



% TOT. RETURN 10/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-20.2	-0.7
3 yr.	-6.6	33.7
5 yr.	-32.3	41.5

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
39.13	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	*32.45*	*30.25*	Revenues per sh	*31.25*
5.41	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	*6.15*	*6.40*	"Cash Flow" per sh	*6.10*
2.76	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*	*2.80*	Earnings per sh A	*3.00*
1.44	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*	Div'ds Decl'd per sh B■	*1.98*
4.48	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	*9.05*	*7.75*	Cap'l Spending per sh	*7.50*
22.52	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*	*32.85*	Book Value per sh D	*35.70*
26.41	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*	Common Shs Outst'g C	*42.00*
16.7	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	*Bold figures are*		Avg Ann'l P/E Ratio	*20.0*
.89	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	*Value Line*		Relative P/E Ratio	*1.10*
3.1%	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%	*estimates*		Avg Ann'l Div'd Yield	*3.3%*
						758.5	754.0	723.8	676.0	762.2	706.1	746.4	773.7	860.4	1037.4	*1200*	*1150*	Revenues ($mill)	*1250*
						60.5	58.7	53.7	58.9	d55.6	67.3	65.3	70.3	78.7	86.3	*100*	*105*	Net Profit ($mill)	*125*
						40.8%	41.5%	40.0%	40.9%	- -	26.4%	16.2%	23.1%	25.8%	25.2%	*25.0%*	*25.0%*	Income Tax Rate	*25.0%*
						8.0%	7.8%	7.4%	8.7%	NMF	9.5%	8.8%	9.1%	9.1%	8.3%	*8.2%*	*9.1%*	Net Profit Margin	*10.0%*
						47.6%	44.8%	42.5%	44.4%	47.9%	48.1%	48.2%	49.2%	52.8%	51.5%	*54.0%*	*52.0%*	Long-Term Debt Ratio	*50.0%*
						52.4%	55.2%	57.5%	55.6%	52.1%	51.9%	51.8%	50.8%	47.2%	48.5%	*46.0%*	*48.0%*	Common Equity Ratio	*50.0%*
						1433.6	1389.0	1357.7	1529.8	1426.0	1468.9	1672.0	1748.8	1979.7	2421.6	*2550*	*2600*	Total Capital ($mill)	*2750*
						2062.9	2121.6	2182.7	2260.9	2255.0	2421.4	2438.9	2654.8	2871.4	3114.4	*3250*	*3400*	Net Plant ($mill)	*3750*
						5.8%	5.8%	5.5%	5.1%	NMF	5.8%	5.2%	5.2%	5.1%	3.6%	*4.0%*	*4.0%*	Return on Total Cap'l	*4.5%*
						8.1%	7.6%	6.9%	6.9%	NMF	8.8%	7.5%	7.9%	8.4%	7.3%	*7.5%*	*8.0%*	Return on Shr. Equity	*9.0%*
						8.1%	7.6%	6.9%	6.9%	NMF	8.8%	7.5%	7.9%	8.4%	7.3%	*7.5%*	*8.0%*	Return on Com Equity	*9.0%*
						1.5%	1.1%	.6%	.9%	NMF	2.1%	1.4%	1.7%	2.4%	2.1%	*2.0%*	*2.5%*	Retained to Com Eq	*3.5%*
						81%	85%	92%	87%	NMF	76%	82%	79%	71%	79%	*72%*	*70%*	All Div'ds to Net Prof	*64%*

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 '26-'28
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%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	285.2	135.0	93.3	260.2	773.7
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	*358.2*	*1200*
2024	*445*	*220*	*130*	*355*	*1150*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1.58	d.17	d.61	1.50	2.30
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	*2.10*	*.15*	*d.70*	*1.25*	*2.80*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.475	.475	.475	.4775	1.90
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	

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 took a step back on its bottom-line progress in the 2023 third quarter. Increased leverage worked against the diversified utilities provider in the period, the company's cyclically low season for its core operations. Losses compared unfavorably to the year prior, as the per-share earnings deficit deepened by $0.09 and missed our target in a similar fashion. Indeed, higher operating and maintenance costs were harmful as the company contends with inflation. Too, a greater interest burden resulted from a roughly $150 million increase in long-term debt over the past year.

We have trimmed our full year 2023 earnings estimate. Our revised call for earnings per share of $2.65 is just five cents below our previous target, and is towards the mid-point of management's earnings guidance range of $2.55 to $2.75. The new target reflects growth of 4.3%, as the strong start to the year buoys the growth outlook. Based on the El Nino year regional weather trends and continued inflationary pressures, we think the fourth quarter may prove to be somewhat underwhelming compared to previous years.

Our growth targets for 2024 remain robust. New rate implementations in Oregon, coupled with consistent customer growth and reduced pension expenses augur well to sustain top- and bottom-line growth in the upcoming year. The broader economic landscape, particularly in Oregon and Washington where the company operates, is showing favorable conditions with unemployment rates staying below the national average. The natural gas utility segment will see heightened utility margins with new rates and more meters.

Long-term prospects appear promising. We like that the company's strategic direction is heavily inclined towards sustainable development and innovation, with a focus on decorbanization and renewable energy. Too, the company's foray into the water utility market shows its ambition to diversify and strengthen both its environmental and overall portfolio.

Though the shares are untimely, long-term recovery potential is wide. The stock price has been facing pressure in the higher interest rate environment, but the long-term potential here is good.

Earl B. Humes *November 24, 2023*

(A) Diluted earnings per share. Excludes nonrecurring items: '06, ($0.06); '08, ($0.03); '09, $0.06; May not sum due to rounding. Next earnings report due in early February.
(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	30
Earnings Predictability	10

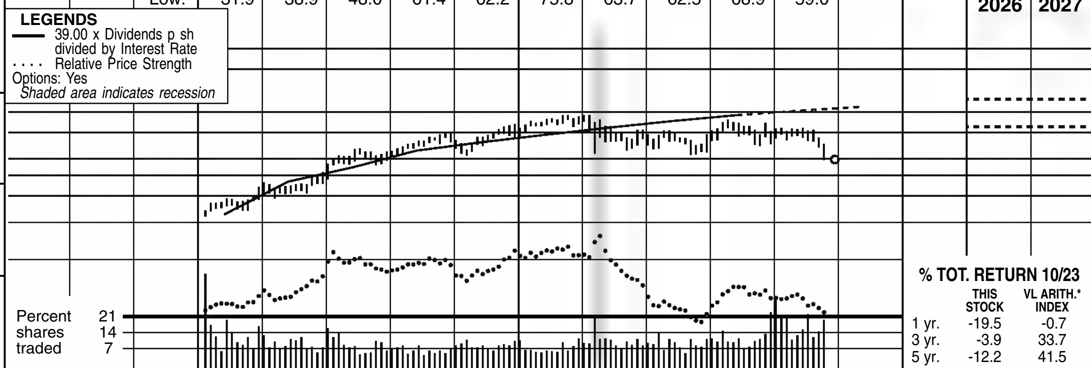
ONE GAS, INC. NYSE-OGS

RECENT PRICE	59.67	P/E RATIO	14.2 (Trailing: 14.6 Median: NMF)	RELATIVE P/E RATIO	0.93	DIV'D YLD	4.6%	VALUE LINE

TIMELINESS 4 Lowered 10/6/23
SAFETY 2 New 6/2/17
TECHNICAL 3 Raised 10/27/23
BETA .85 (1.00 = Market)

High:	44.3	51.8	67.4	79.5	87.8	96.7	97.0	81.9	92.3	84.3
Low:	31.9	38.9	48.0	61.4	62.2	75.8	63.7	62.5	68.9	59.0

Target Price Range 2026 | 2027 | 2028



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$52-$102	$77 (30%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	115	(+95%)	21%
Low	85	(+40%)	13%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	176	157	158
to Sell	132	133	133
Hld's(000)	48298	51917	53044

% TOT. RETURN 10/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-19.5	-0.7
3 yr.	-3.9	33.7
5 yr.	-12.2	41.5

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.

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
--	34.92	29.62	27.30	29.43	31.08	31.32	28.78	33.72	46.58	*46.50*	*48.40*	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*	*10.15*	"Cash Flow" per sh	*12.20*
--	2.07	2.24	2.65	3.02	3.25	3.51	3.68	3.85	4.08	*4.10*	*4.30*	Earnings per sh A	*5.60*
--	.84	1.20	1.40	1.68	1.84	2.00	2.16	2.32	2.48	*2.60*	*2.72*	Div'ds Decl'd per sh B■	*3.15*
--	5.70	5.63	5.91	6.81	7.50	7.91	8.87	9.23	11.01	*11.75*	*11.95*	Cap'l Spending per sh	*12.50*
--	34.45	35.24	36.12	37.47	38.86	40.35	42.01	43.81	46.69	*47.05*	*49.55*	Book Value per sh	*64.45*
--	52.08	52.26	52.28	52.31	52.57	52.77	53.17	53.63	55.35	*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	*Bold figures are*		Avg Ann'l P/E Ratio	*18.0*
--	.94	1.00	1.19	1.18	1.25	1.35	1.11	1.03	1.16	*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%	*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*	*2685*	Revenues ($mill)	*4000*
--	109.8	119.0	140.1	159.9	172.2	186.7	196.4	206.4	221.7	*230*	*240*	Net Profit ($mill)	*320*
--	38.4%	38.0%	37.8%	36.4%	23.7%	18.7%	17.5%	16.3%	17.3%	*15.5%*	*16.0%*	Income Tax Rate	*21.0%*
--	6.0%	7.7%	9.8%	10.4%	10.5%	11.3%	12.8%	11.4%	8.6%	*8.9%*	*8.9%*	Net Profit Margin	*8.0%*
--	40.1%	39.5%	38.7%	37.8%	38.6%	37.7%	41.5%	61.1%	50.7%	*42.0%*	*45.0%*	Long-Term Debt Ratio	*51.0%*
--	59.9%	60.5%	61.3%	62.2%	61.4%	62.3%	58.5%	39.0%	49.3%	*58.0%*	*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*	Total Capital ($mill)	*7500*
--	3293.7	3511.9	3731.6	4007.6	4283.7	4565.2	4867.1	5190.8	5628.8	*6050*	*6425*	Net Plant ($mill)	*7550*
--	4.4%	4.7%	5.2%	5.8%	5.9%	6.4%	6.0%	3.9%	5.0%	*6.5%*	*6.0%*	Return on Total Cap'l	*6.0%*
--	6.1%	6.5%	7.4%	8.2%	8.4%	8.8%	8.8%	8.8%	8.6%	*9.0%*	*8.5%*	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%*	*8.5%*	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%*	Retained to Com Eq	*4.0%*
--	40%	53%	52%	55%	56%	56%	58%	60%	60%	*63%*	*63%*	All Div'ds to Net Prof	*56%*

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: $3.3 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 '26-'28
Revenues	--	5.0%	11.5%
"Cash Flow"	--	7.5%	8.0%
Earnings	--	8.0%	6.5%
Dividends	--	10.0%	5.5%
Book Value	--	4.0%	6.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	528.2	273.3	244.6	484.2	1530.3
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	*1050*	*420*	*395*	*820*	*2685*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1.72	.48	.39	1.09	3.68
2021	1.79	.56	.38	1.12	3.85
2022	1.83	.59	.44	1.23	4.08
2023	1.84	.58	.45	*1.23*	*4.10*
2024	*1.89*	*.63*	*.52*	*1.26*	*4.30*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.50	.50	.50	.50	2.00
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	

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. appears to be en route to an unspectacular year. During the first nine months, earnings per share of $2.87 were just one penny above last year's $2.86 total. That was traced, to some extent, from a 12.5% rise in total operating expenses, which especially reflected increased depreciation & amortization and operations & maintenance costs. Too, interest expense jumped. The number of diluted shares outstanding was a bit higher, as well. But the company's results were aided partly by benefits from new rates. Also, the effective income tax rate decreased. Nonetheless, since we expect another uninspiring performance in the fourth quarter, full-year profits may be around $4.10 per share. That would be only two cents more than 2022's $4.08 tally. Regarding 2024, though, the bottom line stands to advance at a 5% rate, to $4.30 per share, based to a certain degree on our assumption of further growth of the customer base.

This year's capital expenditures, including asset removal costs, are anticipated to be around $725 million. (That would be some 10% higher than the 2022 figure of $656.5 million.) Nearly 70% of the budget is devoted to system integrity and pipeline replacement projects. It's worth stating that the energy firm projects total spending to be about $3.6 billion ($650 million—$750 million annually) between 2023 and 2027, with roughly the same percentage of funds allocated to where they are currently. These goals seem achievable assuming, of course, that finances remain in healthy condition.

ONE Gas shares have surrendered roughly 20% of their value since our last full-page report in late August. We believe that movement is attributable, in part, to ONE Gas' lackluster results to date. Moreover, the equity is pegged to trail the market in the year ahead (Timeliness rank 4: Below Average).

But there are some silver linings here. Among them is the stock's appealing 18-month capital appreciation potential. Upside possibilities out to 2026-2028 are worthwhile, too. The dividend yield is another feature. Consider, also, the 2 (Above Average) Safety rank and high Price Stability score of 90 out of 100.

Frederick L. Harris, III November 24, 2023

(A) Diluted EPS. Excludes nonrecurring gain: 2017, $0.06. Next earnings report due early Feb. 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	55
Earnings Predictability	100

SPIRE INC. NYSE-SR

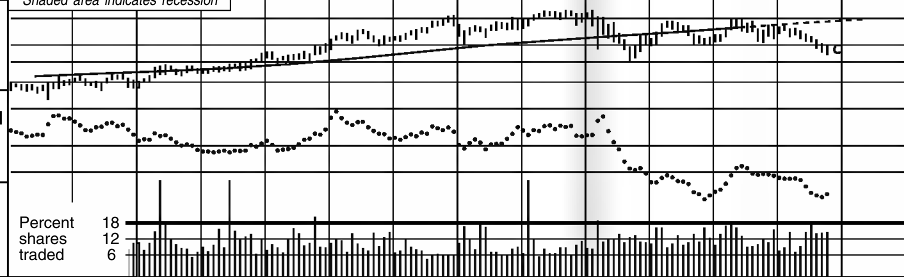
RECENT PRICE	P/E RATIO		RELATIVE P/E RATIO	DIV'D YLD
57.23	12.6	(Trailing: 13.3 / Median: 19.0)	0.83	5.2%

VALUE LINE

TIMELINESS 4 Raised 10/13/23
SAFETY 2 Raised 6/20/03
TECHNICAL 4 Lowered 9/29/23
BETA .85 (1.00 = Market)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
High:	44.0	48.5	55.2	61.0	71.2	82.9	81.1	88.0	88.0	77.9	79.2	75.8
Low:	36.5	37.4	44.0	49.1	57.1	62.3	60.1	71.7	50.6	59.3	61.5	53.8

LEGENDS
— 26.50 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



Target Price Range
2026 | 2027 | 2028

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$48-$88	$68 (20%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	105	(+85%)	20%
Low	75	(+30%)	11%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	146	128	142
to Sell	122	132	138
Hld's(000)	45462	45090	46098

Percent shares traded 18 12 6

% TOT. RETURN 10/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-16.7	-0.7
3 yr.	12.1	33.7
5 yr.	-7.7	41.5

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
93.40	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	*51.05*	*53.40*	Revenues per sh A	*63.65*
3.87	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	*9.10*	*9.60*	"Cash Flow" per sh	*11.10*
2.31	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	*4.30*	*4.50*	Earnings per sh A B	*5.50*
1.45	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	*3.00*	Div'ds Decl'd per sh C■	*3.45*
2.72	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	*13.35*	*12.85*	Cap'l Spending per sh	*12.35*
19.79	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	*52.30*	*58.10*	Book Value per sh D	*67.10*
21.65	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	*52.50*	*53.00*	Common Shs Outst'g E	*55.00*
14.2	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	*15.5*		Avg Ann'l P/E Ratio	*16.5*
.75	.86	.89	.87	.82	.92	1.20	1.04	.83	1.03	1.00	.90	1.21	2.62	.73	1.01	*.89*		Relative P/E Ratio	*.90*
4.4%	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	*3.8%*

CAPITAL STRUCTURE as of 6/30/23
Total Debt $4517.5 mill. **Due in 5 Yrs** $2775.0 mill.
LT Debt $3553.3 mill. **LT Interest** $200.0 mill.
(Total interest coverage: 3.3x)

Leases, Uncapitalized Annual rentals $9.0 mill.
Pension Assets-9/22 $625.9 mill. **Oblig.** $882.8 mill.
Pfd Stock $242.0 mill. **Pfd Div'd** $14.8 mill.
Common Stock 52,603,138 shs. as of 7/31/23

MARKET CAP: $3.0 billion (Mid Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
1017.0	1627.2	1976.4	1537.3	1740.7	1965.0	1952.4	1855.4	2235.5	2198.5	*2680*	*2830*	Revenues ($mill) A	*3500*
52.8	84.6	136.9	144.2	161.6	214.2	184.6	88.6	271.7	220.8	*226*	*240*	Net Profit ($mill)	*300*
25.0%	27.6%	31.2%	32.5%	32.4%	NMF	15.7%	12.3%	20.1%	21.1%	*18.5%*	*19.0%*	Income Tax Rate	*25.0%*
5.2%	5.2%	6.9%	9.4%	9.3%	10.9%	9.5%	4.8%	12.2%	10.0%	*8.4%*	*8.5%*	Net Profit Margin	*8.6%*
46.6%	55.1%	53.0%	50.9%	50.0%	45.7%	45.0%	49.0%	52.5%	51.2%	*55.0%*	*52.0%*	Long-Term Debt Ratio	*51.0%*
53.4%	44.9%	47.0%	49.1%	50.0%	54.3%	49.7%	46.1%	43.2%	44.6%	*41.0%*	*44.0%*	Common Equity Ratio	*45.0%*
1959.0	3359.4	3345.1	3601.9	3986.3	4155.5	4625.6	4946.0	5597.3	5777.0	*6700*	*7000*	Total Capital ($mill)	*8200*
1776.6	2759.7	2941.2	3300.9	3665.2	3970.5	4352.0	4680.1	5055.7	5370.4	*5750*	*6050*	Net Plant ($mill)	*7100*
3.3%	3.1%	5.1%	4.9%	5.0%	6.3%	5.1%	2.9%	5.8%	4.9%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.0%*
5.0%	5.6%	8.7%	8.2%	8.1%	9.5%	7.3%	3.5%	10.2%	7.8%	*8.0%*	*8.0%*	Return on Shr. Equity	*8.0%*
5.0%	5.6%	8.7%	8.2%	8.1%	9.5%	7.9%	3.2%	10.6%	8.0%	*8.0%*	*8.0%*	Return on Com Equity	*8.0%*
1.0%	1.5%	3.7%	3.3%	3.3%	4.7%	2.7%	NMF	5.1%	2.5%	*2.0%*	*2.0%*	Retained to Com Eq	*2.5%*
81%	73%	58%	59%	60%	51%	66%	NMF	54%	71%	*73%*	*72%*	All Div'ds to Net Prof	*68%*

CURRENT POSITION ($MILL.)	2021	2022	6/30/23
Cash Assets	4.3	6.5	5.3
Other	1312.2	1585.5	855.9
Current Assets	1316.5	1592.0	861.2
Accts Payable	409.9	617.4	196.3
Debt Due	727.8	1318.7	964.2
Other	470.6	417.5	369.9
Current Liab.	1608.3	2353.6	1530.4
Fix. Chg. Cov.	448%	393%	410%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	-5.0%	1.0%	*8.0%*
"Cash Flow"	5.5%	4.0%	*6.5%*
Earnings	2.5%	1.0%	*8.0%*
Dividends	5.0%	6.0%	*5.0%*
Book Value	6.5%	4.0%	*6.5%*

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.)A Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2020	566.9	715.5	321.1	251.9	1855.4
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	*324.1*	*2680*
2024	*790*	*1270*	*430*	*340*	*2830*

Fiscal Year Ends	EARNINGS PER SHARE A B F Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2020	1.24	2.54	d1.87	d.45	1.44
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.21*	*4.30*
2024	*1.40*	*3.45*	*d.11*	*d.24*	*4.50*

Cal-endar	QUARTERLY DIVIDENDS PAID C■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.5925	.5925	.5925	.5925	2.37
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	

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 2022: 3.2 bill. Revenue mix for regulated operations: residential, 73%; commercial and industrial, 17%; transportation, 6%; other, 4%. Officers and directors own 2.9% of common shares; American Century Companies, 14.9% (12/22 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.

A new CEO was appointed at Spire on October 1st. Suzanne Sitherwood retired after serving since 2012. Her replacement, Steve Lindsey, has assumed several leadership roles since joining the team in 2012. Before then, he worked 23 years at the natural gas utility unit of AGL Resources (acquired by Southern Company in 2016), where he held some key executive positions. All things considered, we believe the company is in capable hands.

A partial earnings rebound was likely in fiscal 2023, which concluded September 30th. (Please be aware that fourth-quarter numbers were not available when this report went to press.) Recall that through the first nine months, share net of $4.51 was 8% above the previous year's $4.18 figure. This was made possible partly by the Gas Marketing division, as favorable market conditions enabled it to optimize storage and transportation positions. Moreover, the performance of the Midstream unit enjoyed better results from the Spire Storage West segment. Elsewhere, profits for the Gas Utility operation were about flat. The company did post a wider per-share deficit in the June period, which reflected, among other factors, a decrease in revenues and higher interest expense. Still, if there were no major setbacks in the fourth quarter, full-year earnings per share might have recovered nearly 10%, to $4.30, relative to the fiscal 2022 total of $3.95. Concerning the new year, the bottom line stands to advance around 5%, to $4.50 a share, assuming that operating margins widen further.

Finances are in healthy shape. When the third quarter ended, cash and equivalents were $5.3 million. What's more, there was $1.3 billion available via a revolving credit facility maturing in July, 2027. Too, long-term debt sat at a manageable 55% of total capital, and short-term borrowings were not a big hurdle. So, Spire ought to continue to meet its obligations with little trouble.

These shares, though untimely, ought to be of interest to some investors. The dividend yield compares nicely to those of other equities in *Value Line's* Natural Gas Utility group. Furthermore, capital appreciation potential over the 18-month period and out to 2026-2028 looks worthwhile.

Frederick L. Harris, III November 24, 2023

(A) Fiscal year ends Sept. 30th. (B) Based on diluted shares outstanding. Excludes gain from discontinued operations: '08, 94¢. Next earnings report due late Jan. (C) Dividends paid in early January, April, July, and October. ■ Dividend reinvestment plan available. (D) Incl. deferred charges. In '22: $1,171.6 mill., $22.32/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

ALLIANT ENERGY NDQ-LNT

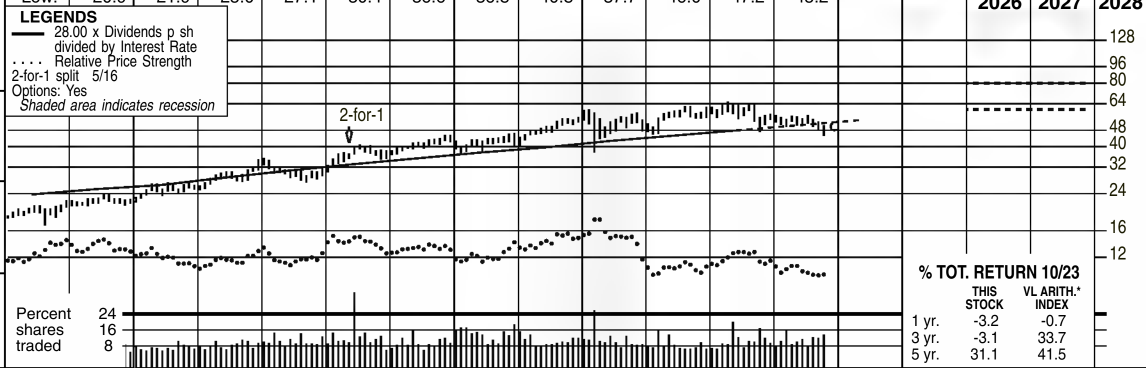
RECENT PRICE	P/E RATIO		RELATIVE P/E RATIO	DIV'D YLD
49.96	16.8	(Trailing: 18.2 / Median: 21.0)	1.04	3.6%

VALUE LINE

TIMELINESS 4 Lowered 10/27/23
SAFETY 2 Raised 9/28/07
TECHNICAL 3 Raised 12/1/23
BETA .90 (1.00 = Market)

High:	23.8	27.1	34.9	35.4	41.0	45.6	46.6	55.4	60.3	62.3	65.4	56.3
Low:	20.9	21.9	25.0	27.1	30.4	36.6	36.8	40.8	37.7	46.0	47.2	45.2

Target Price Range 2026 | 2027 | 2028



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$41-$76	$59 (15%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	80	(+60%)	15%
Low	60	(+20%)	8%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	329	303	270
to Sell	252	259	267
Hld's(000)	192231	193788	196380

Percent shares traded: 24, 16, 8

% TOT. RETURN 10/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-3.2	-0.7
3 yr.	-3.1	33.7
5 yr.	31.1	41.5

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
15.57	16.67	15.51	15.40	16.51	13.94	14.77	15.10	14.34	14.58	14.62	14.97	14.89	13.67	14.65	16.74	*16.05*	*16.55*	Revenues per sh	*16.95*
2.56	2.28	2.10	2.60	2.75	2.95	3.34	3.49	3.45	3.43	3.97	4.32	4.59	4.92	5.25	5.40	*5.50*	*5.75*	"Cash Flow" per sh	*6.45*
1.35	1.27	.95	1.38	1.38	1.53	1.65	1.74	1.69	1.65	1.99	2.19	2.33	2.47	2.63	2.73	*2.85*	*3.10*	Earnings per sh A	*3.80*
.64	.70	.75	.79	.85	.90	.94	1.02	1.10	1.18	1.26	1.34	1.42	1.52	1.61	1.71	*1.81*	*1.92*	Div'd Decl'd per sh B ■ †	*2.29*
2.46	3.98	5.43	3.91	3.03	5.22	3.32	3.78	4.25	5.26	6.34	6.92	6.69	5.47	4.67	5.91	*5.80*	*5.80*	Cap'l Spending per sh	*5.40*
12.15	12.78	12.54	13.05	13.57	14.12	14.79	15.54	16.41	16.96	18.08	19.43	21.24	22.76	23.91	24.99	*26.55*	*27.80*	Book Value per sh C	*31.90*
220.72	220.90	221.31	221.79	222.04	221.97	221.89	221.87	226.92	227.67	231.35	236.06	245.02	249.87	250.47	251.14	*255.80*	*256.00*	Common Shs Outst'g D	*257.00*
15.1	13.4	13.9	12.5	14.5	14.5	15.3	16.6	18.1	22.3	20.6	19.1	21.2	21.2	21.2	21.4	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.0*
.80	.81	.93	.80	.91	.92	.86	.87	.91	1.17	1.04	1.03	1.13	1.09	1.15	1.24			Relative P/E Ratio	*1.00*
3.1%	4.1%	5.7%	4.6%	4.3%	4.1%	3.7%	3.5%	3.6%	3.2%	3.1%	3.2%	2.9%	2.9%	2.9%	2.9%			Avg Ann'l Div'd Yield	*3.7%*

CAPITAL STRUCTURE as of 9/30/23
Total Debt $9339 mill. **Due in 5 Yrs** $2117 mill.
LT Debt $8429 mill. **LT Interest** $285 mill.
(LT interest earned: 3.5x)

Leases, Uncapitalized Annual rentals $3 mill.

Pension Assets-12/22 $706 mill. **Oblig** $875 mill.

Pfd Stock None

Common Stock 252,719,087 shs.

MARKET CAP: $12.6 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
3276.8	3350.3	3253.6	3320.0	3382.2	3534.5	3647.7	3416.0	3669.0	4205.0	*4100*	*4240*	Revenues ($mill)	*4350*
382.1	395.7	390.9	384.0	466.1	522.3	567.4	624.0	674.0	686.0	*715*	*800*	Net Profit ($mill)	*975*
12.4%	10.1%	15.3%	13.4%	12.5%	8.4%	10.8%	- -	10.8%	3.1%	*1.0%*	*2.0%*	Income Tax Rate	*2.0%*
8.1%	8.8%	9.4%	16.3%	10.7%	14.5%	16.3%	8.8%	3.7%	8.7%	*4.0%*	*4.0%*	AFUDC % to Net Profit	*4.0%*
46.1%	49.7%	47.3%	51.5%	47.8%	52.3%	50.6%	53.5%	52.9%	55.0%	*53.5%*	*52.5%*	Long-Term Debt Ratio	*52.0%*
50.8%	47.5%	50.0%	46.1%	49.8%	45.7%	47.6%	44.9%	47.1%	45.0%	*46.5%*	*47.5%*	Common Equity Ratio	*48.0%*
6461.0	7257.2	7446.3	8377.6	8392.8	10032	10938	12657	12725	13944	*14665*	*15035*	Total Capital ($mill)	*17070*
7147.3	6442.0	8970.2	9809.9	10798	12462	13527	14336	14987	16247	*17050*	*17090*	Net Plant ($mill)	*19180*
7.0%	6.5%	6.3%	5.6%	6.7%	6.3%	6.3%	5.9%	6.3%	6.1%	*6.5%*	*6.5%*	Return on Total Cap'l	*7.0%*
11.0%	10.8%	10.0%	9.5%	10.6%	10.9%	10.5%	10.6%	11.3%	10.9%	*10.5%*	*11.0%*	Return on Shr. Equity	*12.0%*
11.3%	11.2%	10.2%	9.7%	10.9%	11.2%	10.7%	10.8%	11.0%	10.9%	*10.5%*	*11.0%*	Return on Com Equity E	*12.0%*
4.9%	4.6%	3.6%	2.8%	4.0%	4.4%	4.2%	4.2%	4.3%	4.1%	*4.0%*	*4.5%*	Retained to Com Eq	*4.5%*
57%	60%	66%	72%	64%	62%	61%	62%	62%	62%	*62%*	*62%*	All Div'ds to Net Prof	*60%*

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-2.3	+3.7	-.7
Avg. Indust. Use (MWH)	11134	11696	11494
Avg. Indust. Revs. per KWH (¢)	7.55	7.64	8.39
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	5496	5486	5629
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.6	+.8	+.7
Fixed Charge Cov. (%)	251	259	NA

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	- -	.5%	2.0%
"Cash Flow"	6.5%	7.5%	3.5%
Earnings	6.0%	8.0%	6.5%
Dividends	6.5%	6.5%	6.0%
Book Value	6.0%	7.0%	5.0%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	916	763	920	817	3416
2021	901	817	1024	927	3669
2022	1068	943	1135	1059	4205
2023	1077	912	1077	*1034*	*4100*
2024	*1080*	*950*	*1145*	*1065*	*4240*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.72	.54	.94	.26	2.47
2021	.68	.57	1.02	.35	2.63
2022	.77	.63	.90	.43	2.73
2023	.65	.64	1.02	*.54*	*2.85*
2024	*.71*	*.70*	*1.10*	*.59*	*3.10*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.355	.355	.355	.355	1.42
2020	.38	.38	.38	.38	1.52
2021	.4025	.4025	.4025	.4025	1.61
2022	.4275	.4275	.4275	.4275	1.71
2023	.4525	.4525	.4525	.4525	

BUSINESS: Alliant Energy Corporation (formerly Interstate Energy) is a holding company formed through the merger of WPL Holdings, IES Industries, and Interstate Power. Supplies electricity to 985,000 customers and gas to 425,000 customers in Wisconsin, Iowa, and Minnesota. Electric revenue by state: WI, 43%; IA, 56%. MN, 1%. Electric revenue: residential, 36%; commercial, 25%; industrial, 29%; wholesale, 8%; other, 2%. Generating sources: coal, 32%; gas, 32%; wind, 16%; other, 1%; purchased, 19%. Fuel costs: 25% of revs. '22 reported deprec. rates: 2.9%-6.1%. Has 3,300 employees. Chairman, President & CEO: John O. Larsen. Inc.: Wisconsin. Address: 4902 N. Biltmore Lane, Madison, Wisconsin 53718-2148. Tel.: 608-458-3311. Internet: www.alliantenergy.com.

Alliant Energy has got its next CEO. Indeed, the Wisconsin-based electric and gas utility announced that, effective January 1st, Lisa Barton will assume the role of chief executive, replacing John Larsen, who is stepping down after leading the company for what will be four-and-a-half years. An industry veteran who previously held leadership positions at American Electric Power, Ms. Barton joined Alliant earlier this year, heading both utility subsidiaries and filling the position of Chief Operating Officer. Mr. Larsen, meanwhile, will retain his chairmanship of the company's board of directors.

We still look for earnings to rise just over 4%, to $2.85 a share, this year. On the plus side, Alliant should benefit from lower operating costs and from the recovery of certain construction costs. However, heating and cooling demand is likely to be lower, coinciding with unseasonably mild weather during much of the year.

Alliant has earmarked $4.15 billion for renewable-energy and battery-storage projects between this year and 2027. Importantly, going green will greatly reduce the utility's reliance on fossil fuels, the price of which can fluctuate significantly. At the same time, Alliant stands to earn sizable tax credits, which it can monetize and use to further lower service costs.

Residential power demand may increase at a fairly modest clip over the next decade or two. A recent study by the Weldon Cooper Center for Public Service at the University of Virginia ranked Wisconsin 39th among the 50 states for likely population growth between 2020 and 2040. Iowa, meanwhile, was just a bit better, at 28th. That said, word that Alliant has recently seen an uptick in economic development interest augurs well not only for commercial activity across the utility company's service area but also for the Midwest as a destination for job seekers.

Alliant shares are ranked 4 (Below Average) for relative year-ahead price performance. While the utility company boasts a fairly attractive dividend (current yield: 3.6%), long-term total return potential doesn't stand out.

Nils C. Van Liew *December 8, 2023*

(A) Diluted EPS. Excl. nonrecurring losses: '11, 1¢; '12, 8¢. '20 & '21 EPS don't sum due to rounding. Next earnings report due late Feb. **(B)** Dividends historically paid in mid-Feb., May, Aug., and Nov. ■ Dividend reinvestment plan avail. † Shareholder investment plan avail. **(C)** Incl. deferred charges. In '21: $1,980 mill., $7.91/sh. **(D)** In millions, adj. for split. **(E)** Rate base: Orig. cost. Rates all'd on com. eq. in IA in '20: various; in WI in '22: 10%; earned on avg. com. eq., '21: 11.3%. Regulatory Climate: Wisconsin, Above Average; Iowa, Average.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	65
Earnings Predictability	95

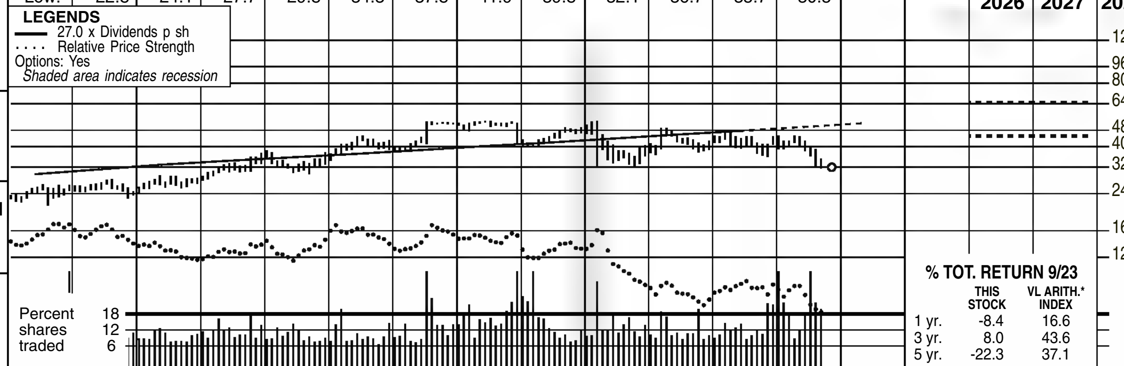
AVISTA CORP. NYSE-AVA

RECENT PRICE 32.04 | P/E RATIO 13.8 (Trailing: 16.6, Median: 19.0) | RELATIVE P/E RATIO 0.86 | DIV'D YLD 5.7% | VALUE LINE

TIMELINESS 2 Raised 10/13/23
SAFETY 2 Raised 5/7/10
TECHNICAL 4 Raised 10/13/23
BETA .90 (1.00 = Market)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
High:	28.0	29.3	37.4	38.3	45.2	52.8	52.9	49.5	53.0	49.1	46.9	45.3
Low:	22.8	24.1	27.7	29.8	34.3	37.8	41.9	39.8	32.1	36.7	35.7	30.5

LEGENDS
— 27.0 x Dividends p sh
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



18-Month Target Price Range
Low-High $28-$54 | Midpoint (% to Mid) $41 (30%)

Target Price Range 2026 | 2027 | 2028

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	65	(+105%)	23%
Low	45	(+40%)	13%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	153	122	109
to Sell	125	134	133
Hld's(000)	66349	67752	67636

Percent shares traded 18 / 12 / 6

% TOT. RETURN 9/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-8.4	16.6
3 yr.	8.0	43.6
5 yr.	-22.3	37.1

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
26.80	30.77	27.58	27.29	27.73	25.86	26.94	23.66	23.83	22.47	22.08	21.27	20.03	19.09	20.13	22.82	**22.10**	**22.15**	Revenues per sh	**23.45**
2.93	3.98	4.45	3.62	3.78	3.70	4.36	4.36	4.92	5.30	4.87	5.01	6.06	5.16	5.34	4.40	**5.10**	**5.50**	"Cash Flow" per sh	**6.60**
.72	1.36	1.58	1.65	1.72	1.32	1.85	1.84	1.89	2.15	1.95	2.07	2.97	1.90	2.10	2.12	**2.30**	**2.50**	Earnings per sh A	**2.90**
.60	.69	.81	1.00	1.10	1.16	1.22	1.27	1.32	1.37	1.43	1.49	1.55	1.62	1.69	1.76	**1.84**	**1.92**	Div'd Decl'd per sh B ■	**2.20**
4.04	4.09	3.86	3.64	4.20	4.61	5.05	5.47	6.46	6.34	6.30	6.46	6.59	5.84	6.15	6.03	**6.00**	**6.35**	Cap'l Spending per sh	**6.75**
17.27	18.30	19.17	19.71	20.30	21.06	21.61	23.84	24.53	25.69	26.41	26.99	28.87	29.31	30.14	31.15	**31.85**	**33.00**	Book Value per sh C	**37.00**
52.91	54.49	54.84	57.12	58.42	59.81	60.08	62.24	62.31	64.19	65.49	65.69	67.18	69.24	71.50	74.95	**77.00**	**78.50**	Common Shs Outst'g D	**85.00**
30.9	15.0	11.4	12.7	14.1	19.3	14.6	17.3	17.6	18.8	23.4	24.5	15.0	21.2	20.2	20.0	*Bold figures are*		Avg Ann'l P/E Ratio	**19.0**
1.64	.90	.76	.81	.88	1.23	.82	.91	.89	.99	1.18	1.32	.80	1.09	1.09	1.16	*Value Line*		Relative P/E Ratio	**1.05**
2.7%	3.4%	4.5%	4.8%	4.5%	4.6%	4.5%	4.0%	4.0%	3.4%	3.1%	2.9%	3.5%	4.0%	4.0%	4.2%	*estimates*		Avg Ann'l Div'd Yield	**4.0%**

CAPITAL STRUCTURE as of 6/30/23
Total Debt $2791.5 mill. **Due in 5 Yrs** $30.0 mill.
LT Debt $2530.0 mill. **LT Interest** $140.0 mill.
Incl. $51.5 mill. debt to affiliated trusts; $42.5 mill. finance leases.
(LT interest earned: 2.1x)
Leases, Uncapitalized Annual rentals $10.3 mill.
Pension Assets-12/22 $540.7 mill. **Oblig** $557.7 mill.
Pfd Stock None

Common Stock 75,763,513 shs. as of 7/28/23
MARKET CAP: $2.4 billion (Mid Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
1618.5	1472.6	1484.8	1442.5	1445.9	1396.9	1345.6	1321.9	1438.9	1710.2	**1700**	**1740**	Revenues ($mill)	**1995**
111.1	114.2	118.1	137.2	126.1	136.4	197.0	129.5	147.3	155.2	**175**	**195**	Net Profit ($mill)	**255**
36.0%	37.6%	36.3%	36.3%	36.5%	16.0%	13.8%	5.2%	7.5%	15.0%	**15.0%**	**15.0%**	Income Tax Rate	**15.0%**
8.8%	11.1%	10.1%	8.1%	7.9%	7.7%	5.5%	8.5%	7.5%	2.4%	**5.0%**	**5.0%**	AFUDC % to Net Profit	**5.0%**
51.4%	51.0%	50.0%	51.2%	47.2%	50.5%	49.4%	50.4%	47.5%	50.4%	**50.5%**	**50.5%**	Long-Term Debt Ratio	**49.5%**
48.6%	49.0%	50.0%	48.8%	52.8%	49.5%	50.6%	49.6%	52.5%	49.6%	**49.5%**	**49.5%**	Common Equity Ratio	**50.5%**
2669.7	3027.3	3060.3	3379.0	3273.2	3580.3	3834.6	4089.8	4104.7	4709.7	**5000**	**5250**	Total Capital ($mill)	**6100**
3202.4	3620.0	3898.6	4147.5	4398.8	4648.9	4797.0	4991.6	5225.5	5444.7	**5650**	**5900**	Net Plant ($mill)	**6375**
5.4%	4.9%	5.1%	5.3%	5.0%	4.8%	6.2%	4.2%	4.7%	4.6%	**5.0%**	**5.0%**	Return on Total Cap'l	**5.0%**
8.6%	7.7%	7.7%	8.3%	7.3%	7.7%	10.2%	6.4%	6.8%	6.6%	**7.5%**	**7.5%**	Return on Shr. Equity	**7.5%**
8.6%	7.7%	7.7%	8.3%	7.3%	7.7%	10.2%	6.4%	6.8%	6.6%	**7.5%**	**7.5%**	Return on Com Equity E	**7.5%**
2.9%	2.4%	2.3%	3.0%	1.9%	2.2%	4.9%	.9%	1.4%	1.1%	**2.0%**	**2.0%**	Retained to Com Eq	**2.0%**
66%	69%	70%	64%	73%	72%	52%	85%	80%	83%	**80%**	**77%**	All Div'ds to Net Prof	**76%**

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-2.4	+4.3	+3.1
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	6.38	6.41	6.62
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	1721	1889	1810
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.8	+1.4	-1.0
Fixed Charge Cov. (%)	222	216	175

BUSINESS: Avista Corporation (formerly The Washington Water Power Company) supplies electricity & gas in eastern Washington & northern Idaho. Supplies electricity to part of Alaska & gas to part of Oregon. Customers: 411,000 electric, 377,000 gas. Acq'd Alaska Electric Light and Power 7/14. Sold Ecova energy-management sub. 6/14. Electric rev. breakdown: residential, 38%; commercial, 30%; industrial, 10%; wholesale, 17%; other, 5%. Generating sources: gas & coal, 31%; hydro, 31%; purch., 38%. Fuel costs: 35% of revs. '22 reported depr. rate (Avista Utilities): 3.6%. Has 1,767 employees. Chairman: Scott L. Morris. Pres. & CEO: Dennis Vermillion. Inc.: WA. Address: 1411 E. Mission Ave., Spokane, WA 99202-2600. Tel.: 509-489-0500. Internet: www.avistacorp.com.

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	-2.5%	-2.0%	2.0%
"Cash Flow"	3.0%	-0.5%	3.5%
Earnings	2.5%	0.5%	6.0%
Dividends	4.5%	4.0%	4.5%
Book Value	4.0%	3.5%	3.5%

QUARTERLY REVENUES ($ mill.)

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	390.2	278.6	272.6	380.5	1321.9
2021	412.9	298.2	296.0	431.8	1438.9
2022	462.7	378.6	359.4	509.5	1710.2
2023	474.6	379.9	**335**	**510.5**	**1700**
2024	**485**	**390**	**345**	**520**	**1740**

EARNINGS PER SHARE A

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.72	.26	.07	.85	1.90
2021	.98	.20	.20	.71	2.10
2022	.99	.16	d.08	1.05	2.12
2023	.73	.23	**.15**	**1.19**	**2.30**
2024	**.75**	**.25**	**.25**	**1.25**	**2.50**

QUARTERLY DIVIDENDS PAID B ■

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.3875	.3875	.3875	.3875	1.55
2020	.405	.405	.405	.405	1.62
2021	.4225	.4225	.4225	.4225	1.69
2022	.44	.44	.44	.44	1.76
2023	.46	.46	.46		

Avista's earnings target for 2023 remains at $2.30 a share. As always, when dealing with utility stocks, we caution our subscribers to look at the full-year numbers and not get caught up in the sequential figures. These businesses post choppy quarterly results and AVA is no different. That said, leadership has stated it looks for annual gains in the range of 5% to 7%, and our current outlook is just above that spread. This year, tax credits tied to earlier rate cases are being returned to customers. With that, we anticipate lower showings in the second and third quarters, with roughly 50% of annual utility earnings recognized in the final stanza of the year. Too, costs under the Energy Recovery Mechanism in Washington are apt to be higher than expected in 2023 due to poor hydro conditions.

The pressure points on utility stocks in general are mounting. AVA shares have fallen about 15% in price since our late July coverage. For starters, higher interest rates make the yield on these selections less attractive. Additionally, each media report that states a recession can be avoided sends members of the investment community looking for riskier propositions. And, all of this is happening at a time when the Maui wildfires have everyone asking questions about the legal liabilities of utility companies.

Avista has some positives going for it. Pertaining to electric and natural gas general rate cases, the company received approval from the Idaho Public Utilities Commission for the multiparty settlement agreement filed in mid-June. Annual base electric revenues increased 8% on September 1, 2023. On the natural gas side of the coin, a boost of 2.7% kicked in on the same day. The settlement includes a 9.4% return on equity with a common equity ratio of 50% and a rate of return on the rate base of 7.19%. Clean energy moves should also pay off. A wind generation pact in Montana is promising, and hydro agreements will lift AVA's generating capabilities from non-emitting resources.

At north of 5.5%, this timely utility's yield exceeds the industry average. Too, the recent downturn in the quotation has enhanced capital appreciation potential out to 2026-2028.

Erik M. Manning *October 20, 2023*

(A) Diluted EPS. Excl. nonrec. gain (loss): '14, 9¢; '17, (16¢); gains on discont. ops.: '14, $1.17; '15, 8¢. EPS may not sum due to rounding. Next earnings report due early November. (B) Div'ds paid in mid-Mar., June, Sept. & Dec. ■ Div'd reinvest. plan avail. (C) Incl. deferred chgs. In '22: $911.2 mill., $12.16/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in WA in '21: 9.4%; in ID in '21: 9.4%; in OR in '21: 9.4%; earned on avg. com. eq., '22: 7.1%. Regulatory Climate: WA, Below Avg.; ID, Above Avg.

Company's Financial Strength	B++
Stock's Price Stability	75
Price Growth Persistence	45
Earnings Predictability	65

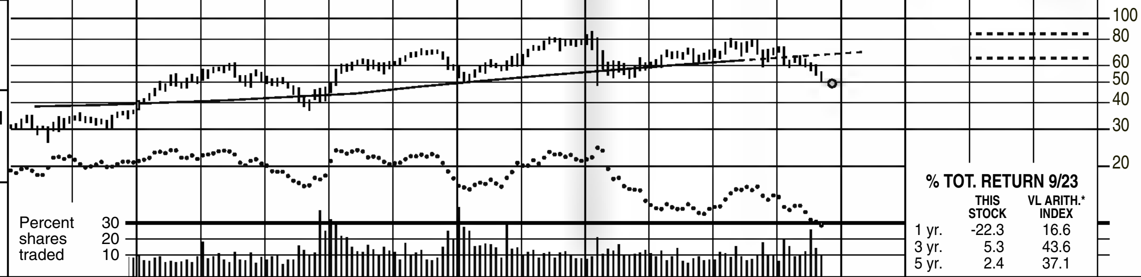
BLACK HILLS CORP. NYSE-BKH

RECENT PRICE 49.27 | P/E RATIO 13.0 (Trailing: 13.2 Median: 18.0) | RELATIVE P/E RATIO 0.81 | DIV'D YLD 5.3% | VALUE LINE

TIMELINESS 5 Lowered 10/6/23
SAFETY 2 Raised 5/1/15
TECHNICAL 3 Lowered 8/4/23
BETA 1.00 (1.00 = Market)

High:	37.0	55.1	62.1	53.4	64.6	72.0	68.2	82.0	87.1	72.8	80.9	74.0
Low:	30.3	36.9	47.1	36.8	44.7	57.0	50.5	60.8	48.1	58.2	59.1	46.4

LEGENDS
— 26.3 x Dividends p sh
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



Target Price Range 2026 | 2027 | 2028

18-Month Target Price Range
Low-High: $46-$86 — Midpoint (% to Mid): $66 (35%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+75%)	18%
Low	65	(+30%)	12%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	148	150	164
to Sell	143	156	136
Hld's(000)	59331	57740	58479

Percent shares traded: 30, 20, 10

% TOT. RETURN 9/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-22.3	16.6
3 yr.	5.3	43.6
5 yr.	2.4	37.1

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
18.41	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	***38.50***	***39.15***	Revenues per sh	***40.85***
5.29	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	***7.75***	***8.00***	"Cash Flow" per sh	***9.25***
2.68	.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	***3.75***	***3.90***	Earnings per sh A	***4.50***
1.37	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	***2.53***	***2.65***	Div'd Decl'd per sh B ■	***3.01***
6.92	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	***9.30***	***9.50***	Cap'l Spending per sh	***9.25***
25.66	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	***46.75***	***48.70***	Book Value per sh C	***55.00***
37.80	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	***67.50***	***69.00***	Common Shs Outst'g D	***71.00***
15.0	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	*Bold figures are*		Avg Ann'l P/E Ratio	***16.5***
.80	NMF	.66	1.15	1.95	1.09	1.02	1.00	.81	1.17	.98	.91	1.13	.87	.96	1.04	*Value Line*		Relative P/E Ratio	***.90***
3.4%	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%	*estimates*		Avg Ann'l Div'd Yield	***4.1%***
						1275.9	1393.6	1304.6	1573.0	1680.3	1754.3	1734.9	1696.9	1949.1	2551.8	***2600***	***2700***	Revenues ($mill)	***2900***
						115.8	128.8	128.3	140.3	186.5	192.5	214.5	232.9	236.7	258.4	***250***	***265***	Net Profit ($mill)	***320***
						34.7%	33.7%	35.8%	25.1%	28.7%	19.2%	13.0%	12.2%	2.8%	8.5%	***8.5%***	***8.5%***	Income Tax Rate	***8.5%***
						2.4%	2.4%	2.7%	5.3%	2.7%	1.4%	3.3%	2.5%	2.0%	2.4%	***2.5%***	***2.5%***	AFUDC % to Net Profit	***2.5%***
						51.6%	47.9%	56.0%	66.5%	64.5%	57.5%	57.1%	57.9%	59.7%	54.6%	***54.5%***	***54.5%***	Long-Term Debt Ratio	***54.0%***
						48.4%	52.1%	44.0%	33.5%	35.5%	42.5%	42.9%	42.1%	40.3%	45.4%	***45.5%***	***45.5%***	Common Equity Ratio	***46.0%***
						2704.7	2643.6	3332.7	4825.8	4818.4	5132.4	5502.2	6089.5	6914.0	6602.3	***6950***	***7350***	Total Capital ($mill)	***8425***
						2990.3	3239.4	3259.1	4469.0	4541.4	4854.9	5503.2	6019.7	6449.2	6797.9	***7125***	***7525***	Net Plant ($mill)	***8525***
						5.5%	6.1%	4.9%	4.0%	5.2%	5.0%	4.9%	5.0%	4.5%	5.1%	***4.5%***	***4.5%***	Return on Total Cap'l	***5.0%***
						8.9%	9.4%	8.8%	8.7%	10.9%	8.8%	9.1%	9.1%	8.5%	8.6%	***8.0%***	***8.0%***	Return on Shr. Equity	***8.0%***
						8.9%	9.4%	8.8%	8.7%	10.9%	8.8%	9.1%	9.1%	8.5%	8.6%	***8.0%***	***8.0%***	Return on Com Equity E	***8.0%***
						3.7%	4.3%	3.8%	3.3%	5.3%	3.9%	3.8%	3.8%	3.3%	3.4%	***2.5%***	***2.5%***	Retained to Com Eq	***2.5%***
						58%	54%	57%	62%	52%	55%	58%	58%	61%	61%	***67%***	***68%***	All Div'ds to Net Prof	***67%***

CAPITAL STRUCTURE as of 6/30/23
Total Debt $4480.7 mill. **Due in 5 Yrs** $1835.0 mill.
LT Debt $3955.7 mill. **LT Interest** $200.0 mill.
(Total Interest Coverage: 2.6x)
Leases, Uncapitalized Annual rentals $2.4 mill.

Pension Assets-12/22 $323.1 mill. **Oblig** $358.4 mill.

Pfd Stock None

Common Stock 67,110,952 shs. as of 7/31/23

MARKET CAP: $3.3 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-.7	+1.5	+3.5
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)	1050	1078	1107
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.9	+1.0	+1.0
Fixed Charge Cov. (%)	285	259	281

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	1.0%	2.0%	*3.5%*
"Cash Flow"	4.5%	3.5%	*3.5%*
Earnings	9.5%	5.5%	*3.0%*
Dividends	4.5%	6.0%	*4.5%*
Book Value	4.5%	7.5%	*4.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	537.0	326.9	346.6	486.4	1696.9
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	***465***	***802.5***	***2600***
2024	***930***	***475***	***480***	***815***	***2700***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1.59	.33	.58	1.23	3.73
2021	1.54	.40	.70	1.11	3.74
2022	1.82	.52	.54	1.11	3.97
2023	1.73	.35	***.52***	***1.15***	***3.75***
2024	***1.77***	***.43***	***.55***	***1.15***	***3.90***

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.505	.505	.505	.535	2.05
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		

BUSINESS: Black Hills Corporation is a holding company for Black Hills Energy, which serves 220,431 electric customers in CO, SD, WY and MT, and 1.1 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, 35%; commercial, 39%; industrial, 23%; other, 3%. Generating sources: coal, 35%; gas, 19%; wind, 11%; purchased, 35%. Fuel costs: 38% of revs. '22 deprec. rate: 3.2%. Has 2,982 employees. Chairman: Steven R. Mills. President & CEO: Linn 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' stock price has continued to slide deeper into negative territory this year. The shares are down 31% in 2023, versus the 17% average decline for all electric utilities covered by *Value Line*. While many interest-rate sensitive issues are suffering as the 10-year Treasury yield continues to press higher, BKH's troubles extend back to the third quarter of last year, which marked the start of four-consecutive weak quarterly year-to-year comparisons. The stock's decline picked up momentum in February when leadership broke the news to investors that it was cutting its long-term earnings growth projections, to 4%-6% from 5%-7%. Inflation has been cited as the root cause. Some electrics are better able to deal with today's difficult macro environment of elevated commodity/labor costs and higher interest rates without suffering from extreme regulatory lag. It depends largely on what pricing mechanisms a utility has at its disposal to pass on higher costs to consumers in a timely fashion. Black Hills is suffering from regulatory lag and has either recently filed rate cases or is preparing to do so in its various service areas.

The company is focused on adding renewable power sources in its electric grid territories. Colorado has initiatives in place requiring that 80% of the state's electricity comes from non-emitting sources within seven years. Accordingly, Black Hills is investing in a combination of solar cells, wind power, and battery storage totalling 520 megawatts by 2030. Half will be utility owned, with the remainder under long-term supply agreements to the company. South Dakota and Wyoming are less aggressive in their energy transitions. Still, Black Hills has received the green light to expand renewables by 120 mw through 2026 in those states. These investments should provide an economic rate of retuen to the company.
This equity is untimely. That can be said for the stocks of most of Black Hills' peers. The rise in Treasury rates to levels not seen since 2007 has the group reeling. This issue may be less speculative now than it may seem. It's already cut its outlook to realistic levels while many peers may have to. BKH's 5.3% yield is a percentage point above its industry median.

Anthony J. Glennon — *October 20, 2023*

(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 Nov. (B) Div'ds paid in early March, June, Sept., and Dec. ■ Div'd reinv. plan avail. (C) Incl. deferred chgs. In '22: $1.75 bill., $26.45/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	A
Stock's Price Stability	85
Price Growth Persistence	45
Earnings Predictability	95

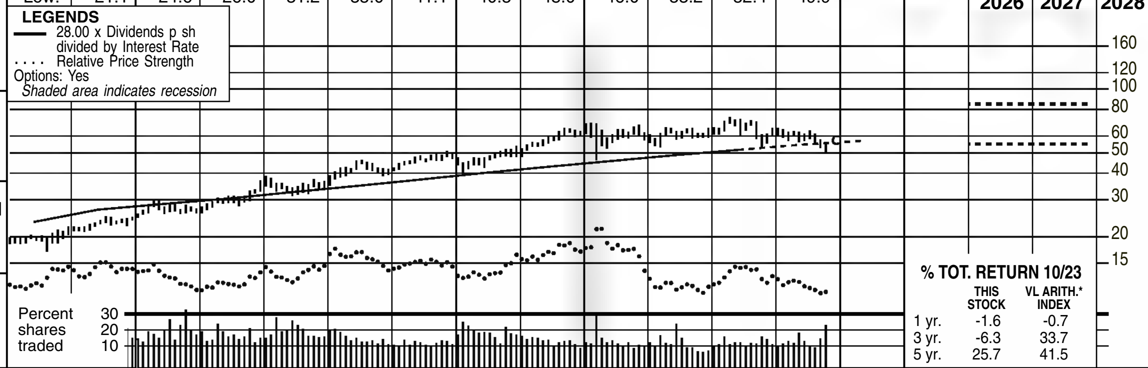
CMS ENERGY CORP. NYSE-CMS

RECENT PRICE	57.33	P/E RATIO	18.3 (Trailing: 22.6 / Median: 21.0)	RELATIVE P/E RATIO	1.13	DIV'D YLD	3.4%	VALUE LINE

TIMELINESS 4 Lowered 11/24/23
SAFETY 3 Lowered 12/8/23
TECHNICAL 4 Raised 11/24/23
BETA .85 (1.00 = Market)

High:	25.0	30.0	36.9	38.7	46.3	50.8	53.8	65.3	69.2	65.8	73.8	65.7
Low:	21.1	24.6	26.0	31.2	35.0	41.1	40.5	48.0	46.0	53.2	52.4	49.9

LEGENDS
— 28.00 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$47-$90	$69 (20%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+50%)	13%
Low	55	(-5%)	3%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	339	303	297
to Sell	264	252	262
Hld's(000)	276172	274530	284222

% TOT. RETURN 10/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-1.6	-0.7
3 yr.	-6.3	33.7
5 yr.	25.7	41.5

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
28.95	30.13	27.23	25.77	25.59	23.90	24.68	26.09	23.29	22.92	23.37	24.25	24.11	23.12	25.29	29.51	*29.10*	*30.15*	Revenues per sh	*31.25*
3.08	3.88	3.47	3.70	3.65	3.82	4.06	4.22	4.59	4.88	5.29	5.61	5.89	6.24	6.42	6.69	*7.15*	*7.65*	"Cash Flow" per sh	*8.25*
.64	1.23	.93	1.33	1.45	1.53	1.66	1.74	1.89	1.98	2.17	2.32	2.39	2.64	2.58	2.84	*3.05*	*3.30*	Earnings per sh A	*3.75*
.20	.36	.50	.66	.84	.96	1.02	1.08	1.16	1.24	1.33	1.43	1.53	1.63	1.74	1.84	*1.95*	*2.04*	Div'd Decl'd per sh B ■	*2.30*
5.61	3.50	3.59	3.29	3.47	4.65	4.98	5.73	5.64	5.99	5.91	7.32	7.41	8.02	7.16	8.15	*8.00*	*9.50*	Cap'l Spending per sh	*9.75*
9.46	10.88	11.42	11.19	11.92	12.09	12.98	13.34	14.21	15.23	15.77	16.78	17.68	19.02	22.11	23.32	*25.35*	*27.30*	Book Value per sh C	*27.75*
225.15	226.41	227.89	249.60	254.10	264.10	266.10	275.20	277.16	279.21	281.65	283.37	283.86	288.94	289.76	291.27	*292.00*	*295.00*	Common Shs Outst'g D	*300.00*
26.8	10.9	13.6	12.5	13.6	15.1	16.3	17.3	18.3	20.9	21.3	20.3	24.3	23.3	23.6	22.9	*Bold figures are*		Avg Ann'l P/E Ratio	*19.0*
1.42	.66	.91	.80	.85	.96	.92	.91	.92	1.10	1.07	1.10	1.29	1.20	1.28	1.32	*Value Line*		Relative P/E Ratio	*1.05*
1.2%	2.7%	4.0%	4.0%	4.3%	4.2%	3.8%	3.6%	3.4%	3.0%	2.9%	3.0%	2.6%	2.6%	2.9%	2.8%	*estimates*		Avg Ann'l Div'd Yield	*3.3%*
						6566.0	7179.0	6456.0	6399.0	6583.0	6873.0	6845.0	6680.0	7329.0	8596.0	*8500*	*8900*	Revenues ($mill)	*9350*
						454.0	479.0	525.0	553.0	610.0	659.0	682.0	757.0	751.0	833.0	*895*	*980*	Net Profit ($mill)	*1120*
						39.9%	34.3%	34.0%	33.1%	31.2%	14.9%	17.7%	15.0%	11.5%	10.3%	*15.0%*	*15.0%*	Income Tax Rate	*15.0%*
						2.0%	2.3%	2.7%	3.1%	1.1%	1.4%	2.1%	1.1%	1.5%	1.4%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*1.0%*
						67.5%	68.7%	68.3%	67.1%	67.3%	69.0%	70.4%	71.2%	64.5%	65.3%	*65.0%*	*64.0%*	Long-Term Debt Ratio	*63.5%*
						32.2%	31.0%	31.4%	32.6%	32.4%	30.7%	29.4%	28.6%	34.2%	33.6%	*34.0%*	*35.0%*	Common Equity Ratio	*35.5%*
						10730	11846	12534	13040	13692	15476	17082	19223	18760	20205	*21825*	*23025*	Total Capital ($mill)	*23300*
						12246	13412	14705	15715	16761	18126	18926	21039	22352	22713	*23850*	*25350*	Net Plant ($mill)	*28500*
						6.0%	5.7%	5.7%	5.8%	5.9%	5.6%	5.3%	5.2%	5.3%	5.4%	*5.5%*	*5.5%*	Return on Total Cap'l	*6.0%*
						13.0%	12.9%	13.2%	12.9%	13.6%	13.8%	13.5%	13.7%	11.3%	11.9%	*12.0%*	*12.0%*	Return on Shr. Equity	*13.0%*
						13.1%	13.0%	13.3%	13.0%	13.7%	13.8%	13.6%	13.7%	11.6%	12.1%	*12.0%*	*12.0%*	Return on Com Equity E	*13.5%*
						5.2%	5.0%	5.2%	4.8%	5.2%	5.3%	4.9%	5.3%	3.8%	4.3%	*4.5%*	*4.5%*	Retained to Com Eq	*5.0%*
						60%	62%	61%	63%	62%	62%	64%	62%	68%	65%	*65%*	*62%*	All Div'ds to Net Prof	*62%*

CAPITAL STRUCTURE as of 9/30/23
Total Debt $15157 mill. **Due in 5 Yrs** $2300 mill.
LT Debt $14177 mill. **LT Interest** $600 mill.
Incl. $63 mill. finance leases.
(LT interest earned: 2.4x)
Leases, Uncapitalized Annual rentals $5 mill.
Pension Assets-12/22 $3599 mill.
Oblig $3070 mill.
Pfd Stock $224 mill. **Pfd Div'd** $10 mill.
Incl. 373,148 shs. $4.50 $100 par, cum., callable at $110.00; 9,200,000 shs. 4.2%, $25 par, cum.
Common Stock 291,763,567 shs.
as of 10/9/23
MARKET CAP: $16.7 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-3.1	+2.4	+3.0
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	8.14	8.46	8.78
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	8215	7951	8061
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.0	+1.0	+1.0
Fixed Charge Cov. (%)	240	223	226

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	.5%	2.5%	*3.0%*
"Cash Flow"	5.5%	5.5%	*4.0%*
Earnings	6.5%	6.0%	*5.5%*
Dividends	8.0%	7.0%	*5.0%*
Book Value	6.0%	7.5%	*4.5%*

QUARTERLY REVENUES ($ mill.)

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1864	1443	1575	1798	6680
2021	2013	1558	1725	2033	7329
2022	2374	1920	2024	2278	8596
2023	2284	1555	1673	*2988*	*8500*
2024	*2335*	*2100*	*2200*	*2265*	*8900*

EARNINGS PER SHARE A

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.85	.48	.76	.55	2.64
2021	1.09	.55	.54	.40	2.58
2022	1.20	.50	.56	.58	2.84
2023	.69	.67	.60	*1.09*	*3.05*
2024	*.75*	*.70*	*.75*	*1.10*	*3.30*

QUARTERLY DIVIDENDS PAID B ■

Cal-endar	Mar.31	Jun.30	Sep.30	Dec. 31	Full Year
2019	.3825	.3825	.3825	.3825	1.53
2020	.4075	.4075	.4075	.4075	1.63
2021	.435	.435	.435	.435	1.74
2022	.46	.46	.46	.46	1.84
2023	.4875	.4875	.4875	.4875	

BUSINESS: CMS Energy Corporation is a holding company for Consumers Energy, which supplies electricity and gas to lower Michigan (excluding Detroit). Has 1.9 million electric, 1.8 million gas customers. Has 1,836 megawatts of nonregulated generating capacity. Sold EnerBank in '21. Electric revenue breakdown: residential, 46%; commercial, 32%; industrial, 15%; other, 7%. Generating sources: coal, 29%; gas, 19%; renewables, 6%; purchased, 47%. Fuel costs: 34% of revenues. '22 depreciation rates: 3.7% electric, 2.9% gas, 8.9% other. Has 8,560 full-time employees. Chairman: John G. Russell. President & CEO: Garrick Rochow. Inc.: Michigan. Address: One Energy Plaza, Jackson, Michigan 49201. Telephone: 517-788-0550. Internet: www.cmsenergy.com.

CMS Energy registered mixed third-quarter results. The top line plummeted 17% year over year, to $1.67 billion. Still, the bottom line rose 7% over the year-ago period, to $0.60 per share thanks to lower operating expenses. Management reaffirmed the 2023 full-year adjusted share-earnings forecast range of $3.06-$3.12. Plus, CMS initiated its full-year 2024 projection at $3.27 to $3.33 per share.

Regarding the Consumers subsidiary, electric rate case considerations are ongoing. To recall, the unit filed an application with the Michigan Public Service Commission (MPSC) seeking a rate increase of $216 million, but revised in September to $169 million due to the deferment of some capital expenditures. Still, the company has maintained its position for a 10.25% return on equity (ROE) and a 51.5% equity ratio.

Meanwhile, gas rate proceedings made progress. In August, the commission approved a previously filed settlement agreement asking for a $95 million increase based on a 9.9% ROE. The rate was effective on October 1st. The company is planning to pursue the next gas rate case in December.

The company has an electric reliability roadmap, which should form the basis for future electric rate cases. The utility has identified about $3 billion of additional investment opportunities for the next five years, on top of the prior $4 billion plan ($7 billion in total). Some actions include doubling investment in vegetation management to shorten trim cycles, requesting approval of up to 400 miles of annual undergrounding beginning in 2027, replacing more than 20,000 poles annually, and automating grids. If the MPSC agrees with these capital investments, the Consumers division will have an easier time negotiating its future electric rate cases. We note that utilities do not operate like regular businesses. These companies are incentivized to invest in capital infrastructures, allowing them to seek rate increases.

CMS shares, though untimely, have good 18-month capital gains potential. Still, the stock lacks investment appeal over the 3- to 5-year period. The dividend yield is subpar by utility standards.

Emma Jalees *December 8, 2023*

(A) Diluted EPS. Excl. nonrec. gains (losses): '07, ($1.26); '09, (7¢); '10, 3¢; '11, 12¢; '12, (14¢); '17, (53¢); gains (losses) on disc. ops.: '07, (40¢); '09, 8¢; '10, (8¢); '11, 1¢; '12, 3¢; '21, $2.08; '22, 1¢. Next earnings report due early Feb. **(B)** Div'ds historically paid late Feb., May, Aug., & Nov. ■ Div'd reinvestment plan avail. **(C)** Incl. intang. In '22: $7.80/sh. **(D)** In mill. **(E)** Rate base: Net orig. cost. Rate all'd on com. eq. in '22: 9.9% elec.; in '19: 9.9% gas; earned on avg. com. eq., '21: 13.2%. Regulatory Climate: Above Average.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	60
Earnings Predictability	90

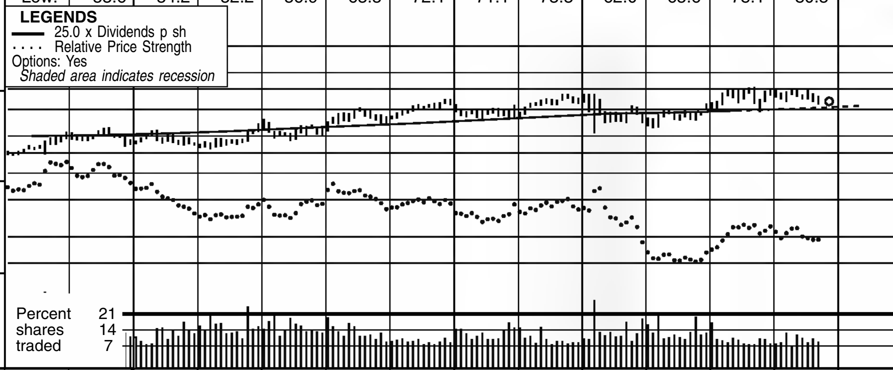
CON. EDISON NYSE-ED

RECENT PRICE 87.48 | P/E RATIO 17.6 (Trailing: 17.9 Median: 18.0) | RELATIVE P/E RATIO 1.17 | DIV'D YLD 3.8% | VALUE LINE

TIMELINESS 2 Raised 10/13/23
SAFETY 1 New 7/27/90
TECHNICAL 4 Lowered 10/20/23
BETA .75 (1.00 = Market)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High:	66.0	64.0	68.9	72.3	81.9	89.7	84.9	95.0	95.1	85.6	102.2	100.9
Low:	53.6	54.2	52.2	56.9	63.5	72.1	71.1	73.3	62.0	65.6	78.1	80.5

LEGENDS
— 25.0 x Dividends p sh
.... Relative Price Strength
Options: Yes
Shaded area indicates recession



Target Price Range 2026 | 2027 | 2028

18-Month Target Price Range
Low-High $76-$126 | Midpoint (% to Mid) $101 (15%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	105	(+20%)	*8%*
Low	85	(-5%)	*3%*

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	532	477	476
to Sell	366	411	461
Hld's(000)	239865	235681	224094

Percent shares traded 21 / 14 / 7

% TOT. RETURN 9/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	3.3	16.6
3 yr.	22.9	43.6
5 yr.	33.9	37.1

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
48.23	49.62	46.36	45.69	44.17	41.62	42.27	44.11	42.85	39.59	38.82	38.44	37.80	35.78	38.63	44.15	**44.35**	**46.25**	Revenues per sh	**52.15**
5.77	5.99	5.86	6.24	6.61	7.15	7.45	7.30	7.93	7.89	8.41	8.92	9.39	9.70	10.06	10.36	**11.45**	**12.05**	"Cash Flow" per sh	**14.00**
3.48	3.36	3.14	3.47	3.57	3.86	3.93	3.62	4.05	3.94	4.10	4.55	4.37	4.17	4.38	4.55	**4.90**	**5.20**	Earnings per sh A	**6.15**
2.32	2.34	2.36	2.38	2.40	2.42	2.46	2.52	2.60	2.68	2.76	2.86	2.96	3.06	3.10	3.16	**3.24**	**3.34**	Div'd Decl'd per sh B ■	**3.86**
7.09	8.50	7.80	6.96	6.72	7.06	8.67	8.26	10.42	12.07	11.11	10.90	10.48	11.42	11.17	11.74	**15.80**	**14.50**	Cap'l Spending per sh	**16.00**
32.58	35.43	36.46	37.93	39.05	40.53	41.81	42.94	44.55	46.88	49.74	52.11	54.18	55.06	56.60	58.28	**58.75**	**60.65**	Book Value per sh C	**67.25**
272.02	273.72	281.12	291.62	292.89	292.87	292.87	292.88	293.00	305.00	310.00	320.96	332.63	342.30	353.98	354.96	**345.00**	**345.00**	Common Shs Outst'g D	**345.00**
13.8	12.3	12.5	13.3	15.1	15.4	14.7	15.9	15.6	18.8	19.8	17.1	19.7	19.0	17.2	20.3	*Bold figures are*		Avg Ann'l P/E Ratio	**15.5**
.73	.74	.83	.85	.95	.98	.83	.84	.79	.99	1.00	.92	1.05	.98	.93	1.18	*Value Line*		Relative P/E Ratio	**.85**
4.8%	5.7%	6.0%	5.2%	4.5%	4.1%	4.3%	4.4%	4.1%	3.6%	3.4%	3.7%	3.4%	3.9%	4.1%	3.4%	*estimates*		Avg Ann'l Div'd Yield	**4.0%**
						12381	12919	12554	12075	12033	12337	12574	12246	13676	15670	**15300**	**15950**	Revenues ($mill)	**18000**
						1157.0	1066.0	1193.0	1189.0	1266.0	1424.0	1438.0	1399.0	1528.0	1620.0	**1720**	**1805**	Net Profit ($mill)	**2130**
						31.8%	34.0%	33.6%	35.3%	36.6%	20.1%	17.5%	12.9%	16.2%	15.4%	**18.0%**	**18.0%**	Income Tax Rate	**18.0%**
						.5%	.3%	.7%	1.3%	1.5%	1.5%	1.9%	2.2%	2.1%	3.4%	**4.0%**	**4.0%**	AFUDC % to Net Profit	**4.0%**
						46.1%	48.0%	47.9%	50.8%	48.9%	51.1%	50.7%	52.0%	53.0%	49.3%	**48.5%**	**48.0%**	Long-Term Debt Ratio	**51.0%**
						53.9%	52.0%	52.1%	49.2%	51.1%	48.9%	49.3%	48.0%	47.0%	50.7%	**51.5%**	**52.0%**	Common Equity Ratio	**49.0%**
						22735	24207	25058	29033	30149	34221	36549	39229	42641	40834	**39425**	**40075**	Total Capital ($mill)	**47400**
						28436	29827	32209	35216	37600	41749	43889	46555	48596	46766	**50000**	**52650**	Net Plant ($mill)	**60900**
						6.4%	5.6%	6.0%	5.3%	5.4%	5.3%	5.1%	4.7%	4.7%	5.2%	**5.5%**	**5.5%**	Return on Total Cap'l	**5.5%**
						9.4%	8.5%	9.1%	8.3%	8.2%	8.5%	8.0%	7.4%	7.6%	7.8%	**8.5%**	**8.5%**	Return on Shr. Equity	**9.0%**
						9.4%	8.5%	9.1%	8.3%	8.2%	8.5%	8.0%	7.4%	7.6%	7.8%	**8.5%**	**8.5%**	Return on Com Equity E	**9.0%**
						3.6%	2.6%	3.5%	3.0%	3.0%	3.5%	2.9%	2.2%	2.5%	2.6%	**3.0%**	**3.0%**	Retained to Com Eq	**3.5%**
						62%	69%	61%	64%	63%	59%	64%	70%	67%	67%	**66%**	**64%**	All Div'ds to Net Prof	**63%**

CAPITAL STRUCTURE as of 6/30/23
Total Debt $23250 mill. **Due in 5 Yrs** $1579 mill.
LT Debt $20648 mill. **LT Interest** $1099 mill.
(Total Interest Coverage: 2.8x)

Leases, Uncapitalized Annual rentals $64 mill.

Pension Assets-12/22 $14979 mill. **Oblig** $12113 mill.

Pfd Stock None

Common Stock 344,923,585 shs.
as of 7/31/23
MARKET CAP: $30.2 billion (Large Cap)

CECONY ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Electric Sales (GWH)	-6.5	-.5	3.3
Annual Residential Use (GWH)	11107	11344	11875
Annual Comm./Ind. Use (GWH)	9280	9250	10522
Annual Retail Choice (GWH)	22000	21549	21116
Annual Govt. & Other Use (GWH)	9184	9185	9507
% Change Customers (yr-end)	NA	NA	NA
Peak Load, Summer (Mw)	13170	13517	12424
ConEd Fixed Charge Cov. (%)	325	352	240

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	-1.0%	-.5%	*4.5%*
"Cash Flow"	4.0%	4.5%	*5.5%*
Earnings	2.0%	1.5%	*6.0%*
Dividends	2.5%	3.0%	*3.5%*
Book Value	4.0%	4.0%	*3.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	3234	2719	3333	2960	12246
2021	3677	2971	3613	3415	13676
2022	4060	3415	4165	4031	15670
2023	4403	2944	**4050**	**3903**	**15300**
2024	**4500**	**3150**	**4250**	**4050**	**15950**

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1.35	.60	1.48	.74	4.17
2021	1.44	.53	1.41	1.00	4.38
2022	1.47	.64	1.63	.81	4.55
2023	1.83	.61	**1.63**	**.83**	**4.90**
2024	**1.85**	**.65**	**1.75**	**.95**	**5.20**

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.74	.74	.74	.74	2.96
2020	.765	.765	.765	.765	3.06
2021	.775	.775	.775	.775	3.10
2022	.79	.79	.79	.79	3.16
2023	.81	.81	.81		

BUSINESS: Consolidated Edison, Inc. (ConEd) is a holding company for Consolidated Edison Company of New York (CECONY), which sells electricity, gas, and steam in most of NY city and Westchester County. ConEd also owns Orange and Rockland Utilities (O&R), which operates in New York and New Jersey. ConEd has 3.9 mill. electric, 1.2 mill. gas customers. Expected to close on the sale of its portfolio of renewable generation for $6.8 bill. by mid-2022. It entered into midstream gas joint venture 6/16; sold it 7/21. Purchases most of its power. Fuel costs: 26% of revenues. '22 reported deprec. rates: 3.0%-3.5%. Employs 14,319. Chrmn, President & CEO: Timothy Cawley. Inc.: NY. Addr.: 4 Irving Place, New York, NY 10003. Tel.: 212-460-4600. Internet: www.conedison.com.

Consolidated Edison looks on pace for a solid earnings gain this year. Annual electric and gas delivery prices rose $442 million and $217 million, respectively, starting in August. The increase was based on a favorable rate decision handed down by the New York State Public Service Commission, which raised the regulated return on equity (ROE) for the holding company's larger of its two utilities, Consolidated Edison Company of New York (CECONY), from 8.8% to 9.25%. Milder weather and higher interest expense likely masked much of the rate hike's impact in the third quarter, however. (September-period financial results were due out just after our press cycle.)

Ongoing rate relief and the benefits of New York's aggressive "green" energy initiatives should keep profits rising. Next August, additional delivery price increases of $518 million for electric and $173 million for gas take effect. Further, in August of 2025, electric and gas rates are slated to rise for the third-consecutive year, by $382 million and $122 million, respectively. CECONY also filed for a rate increase of $141 million nine months ago for its steam service, effective from the start of this month, with most of the benefit falling to 2024. All told, ConEd ought to see a few years of 6%-plus bottom-line gains. Notably, there are nearly $12 billion in recently approved new capital investments through 2026-2028, directed at reliability, safety, and clean energy objectives. This ups the odds that the next rate case, a few years from now, will be constructive, as well.

ConEd shares are ranked to outperform the broader market averages over the coming six to 12 months. Earnings growth is accelerating, and the company has simplified its business model by shedding generating assets that were not under the regulatory pricing umbrella. The capital from those divestitures has paved the way for the company to fully benefit from New York's clean-energy push without having to dilute its shareholders any time soon from equity offerings. This low-risk standard utility format has drawn investors in. ConEd has outperformed our median electric utility coverage by eight percentage points this year.

Anthony J. Glennon *November 10, 2023*

(A) Diluted EPS. Excl. nonrec. gains/losses: '13, d32¢; '14, 9¢; '16, 18¢; '17, 84¢; '18, d13¢; '19, d29¢; '20, d89¢; '21, d53¢; '22, 11¢; 1Q-2Q '23, $2.29. Excl. gain on disc. ops.: '08, $1.01. Next egs. report due mid-Feb. Qtly. figures may not sum to full year due to rounding.
(B) Div'ds paid in mid-Mar., June, Sept., and Dec. ■ Div'd reinvestment plan available.
(C) Incl. intang. In '22: $12.35/sh. (D) In mill.
(E) Rate base: net orig. cost. Rate allowed on com. eq. for CECONY in '23: 9.25%; O&R in '22: 9.2%. Regulatory Climate: Below Average.

Company's Financial Strength	A+
Stock's Price Stability	90
Price Growth Persistence	45
Earnings Predictability	100

EVERSOURCE ENERGY NYSE-ES

RECENT PRICE	P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD
53.39	12.2 (Trailing: 12.3; Median: 19.0)	0.81	5.3%

VALUE LINE

TIMELINESS	3	Raised 10/20/23
SAFETY	2	Lowered 5/12/23
TECHNICAL	4	Lowered 11/10/23
BETA .90 (1.00 = Market)		

High:	40.9	45.7	56.7	56.8	60.4	66.1	70.5	86.6	99.4	92.7	94.6	86.8
Low:	33.5	38.6	41.3	44.6	50.0	54.1	52.8	63.1	60.7	76.6	70.5	52.2

LEGENDS
— 25.6 x Dividends p sh
.... Relative Price Strength
Options: Yes
Shaded area indicates recession

Target Price Range 2026 | 2027 | 2028

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$57-$111	$84 (55%)

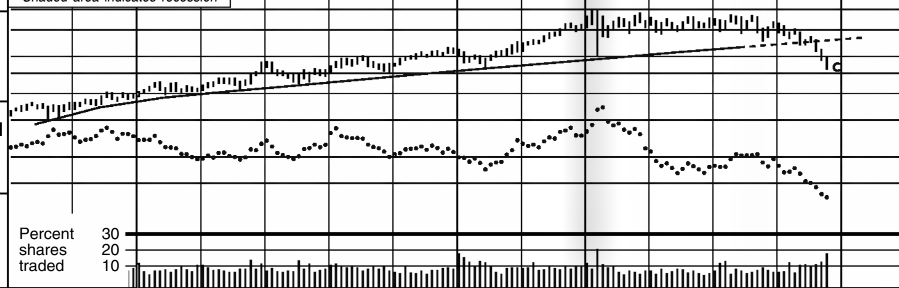
2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	100	(+85%)	20%
Low	75	(+40%)	13%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	444	399	379
to Sell	316	351	375
Hld's(000)	279271	295013	283976

Percent shares traded 30 20 10



% TOT. RETURN 9/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-22.6	16.6
3 yr.	-23.5	43.6
5 yr.	9.9	37.1

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
37.27	37.22	30.97	27.76	25.21	19.98	23.16	24.42	25.08	24.11	24.46	26.66	25.85	25.96	28.64	35.27	*37.00*	*38.75*	Revenues per sh	*43.05*
4.82	6.16	4.96	5.68	4.88	4.03	5.22	4.56	4.94	5.46	5.84	6.64	6.65	6.99	7.74	8.79	*9.05*	*9.30*	"Cash Flow" per sh	*10.70*
1.59	1.86	1.91	2.10	2.22	1.89	2.49	2.58	2.76	2.96	3.11	3.25	3.45	3.64	3.86	4.09	*4.35*	*4.60*	Earnings per sh A	*5.55*
.78	.83	.95	1.03	1.10	1.32	1.47	1.57	1.67	1.78	1.90	2.02	2.14	2.27	2.41	2.55	*2.70*	*2.86*	Div'd Decl'd per sh B ■	*3.42*
7.14	8.06	5.17	5.41	6.08	4.69	4.62	5.06	5.44	6.24	7.41	7.96	8.83	8.58	9.22	9.88	*11.50*	*11.25*	Cap'l Spending per sh	*10.50*
18.65	19.38	20.37	21.60	22.65	29.41	30.49	31.47	32.64	33.80	34.99	36.25	38.29	41.01	42.39	44.41	*45.45*	*47.65*	Book Value per sh C	*54.50*
156.22	155.83	175.62	176.45	177.16	314.05	315.27	316.98	317.19	316.89	316.89	316.89	329.88	342.95	344.40	348.44	*351.50*	*355.00*	Common Shs Outst'g D	*360.00*
18.7	13.7	12.0	13.4	15.4	19.9	16.9	17.9	18.1	18.7	19.5	18.7	22.1	23.7	22.2	20.9	*Bold figures are*		Avg Ann'l P/E Ratio	*16.0*
.99	.82	.80	.85	.97	1.27	.95	.94	.91	.98	.98	1.01	1.18	1.22	1.20	1.21	*Value Line*		Relative P/E Ratio	*.90*
2.6%	3.2%	4.2%	3.6%	3.2%	3.5%	3.5%	3.4%	3.3%	3.2%	3.1%	3.3%	2.8%	2.6%	2.8%	3.0%	*estimates*		Avg Ann'l Div'd Yield	*3.9%*

CAPITAL STRUCTURE as of 6/30/23
Total Debt $24822 mill. **Due in 5 Yrs** $8012.9 mill.
LT Debt $22161 mill. **LT Interest** $687.0 mill.
(Total Interest coverage: 3.7x)

Leases, Uncapitalized Annual rentals $10.3 mill.

Pension Assets-12/22 $5806.4 mill.
Oblig $5220.1 mill.
Pfd Stock $155.6 mill. **Pfd Div'd** $7.6 mill.

Common Stock 349,085,815 shs.
as of 7/31/23
MARKET CAP: $18.6 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
7301.2	7741.9	7954.8	7639.1	7752.0	8448.2	8526.5	8904.4	9863.1	12289	*13000*	*13750*	Revenues ($mill)	*15500*
793.7	827.1	886.0	949.8	995.5	1040.5	1121.0	1244.8	1337.7	1427.4	*1535*	*1640*	Net Profit ($mill)	*2015*
35.0%	36.2%	37.9%	36.9%	36.8%	21.7%	19.7%	22.2%	21.9%	24.3%	*24.0%*	*24.0%*	Income Tax Rate	*24.0%*
1.4%	2.4%	2.9%	3.9%	4.7%	6.1%	6.3%	5.3%	4.2%	4.8%	*5.0%*	*5.0%*	AFUDC % to Net Profit	*5.0%*
44.3%	45.9%	45.6%	44.8%	51.2%	52.4%	52.8%	52.4%	54.2%	56.3%	*57.0%*	*57.0%*	Long-Term Debt Ratio	*56.5%*
54.8%	53.2%	53.6%	54.4%	48.2%	46.9%	46.6%	47.1%	45.3%	43.3%	*42.5%*	*42.5%*	Common Equity Ratio	*43.0%*
17544	18738	19313	19697	23018	24474	27097	29842	32233	35763	*37600*	*39600*	Total Capital ($mill)	*45600*
17576	18647	19892	21351	23617	25610	27585	30883	33378	36113	*38725*	*41200*	Net Plant ($mill)	*48000*
5.5%	5.3%	5.5%	5.8%	5.2%	5.2%	5.1%	5.1%	5.1%	5.0%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.5%*
8.1%	8.2%	8.4%	8.7%	8.9%	8.9%	8.8%	8.8%	9.1%	9.1%	*9.5%*	*9.5%*	Return on Shr. Equity	*10.0%*
8.2%	8.2%	8.5%	8.8%	8.9%	9.0%	8.8%	8.8%	9.1%	9.2%	*9.5%*	*9.5%*	Return on Com Equity E	*10.0%*
3.4%	3.5%	3.4%	3.5%	3.5%	3.4%	3.6%	3.5%	3.6%	3.6%	*3.5%*	*3.5%*	Retained to Com Eq	*4.0%*
59%	58%	61%	60%	61%	62%	60%	60%	61%	61%	*62%*	*62%*	All Div'ds to Net Prof	*62%*

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-2.7	+1.6	+.5
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.8	+.6	NA
Fixed Charge Cov. (%)	352	355	317

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	2.0%	4.0%	*6.0%*
"Cash Flow"	5.0%	7.5%	*5.5%*
Earnings	6.5%	5.5%	*6.0%*
Dividends	7.5%	6.0%	*6.0%*
Book Value	5.5%	4.5%	*4.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	2374	1953	2344	2234	8904
2021	2826	2123	2433	2482	9863
2022	3471	2573	3216	3030	12289
2023	3796	2629	*3375*	*3200*	*13000*
2024	*3950*	*2850*	*3550*	*3400*	*13750*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1.02	.76	1.01	.85	3.64
2021	1.15	.79	1.02	.91	3.86
2022	1.30	.86	1.01	.92	4.09
2023	1.41	1.00	*1.00*	*.94*	*4.35*
2024	*1.45*	*1.00*	*1.10*	*1.05*	*4.60*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.535	.535	.535	.535	2.14
2020	.5675	.5675	.5675	.5675	2.27
2021	.6025	.6025	.6025	.6025	2.41
2022	.6375	.6375	.6375	.6375	2.55
2023	.675	.675	.675		

BUSINESS: Eversource Energy (formerly Northeast Utilities) is the parent of 12 regulated utilities with 4.4 million electric, natural gas, and water customers. Supplies power to most of Connecticut and gas to part of CT; supplies power to 3/4 of New Hampshire's population; supplies power to western Massachusetts and parts of eastern MA & gas to central & eastern MA; supplies water to CT, MA, & NH. Acq'd NSTAR 4/12; Aquarion 12/17; Columbia Gas 10/20. Electric rev. breakdown: residential, 53%; commercial/indus'l/other, 47%. Fuel costs: 41% of revs. '22 reported depr. rate: 3.6%. Employs 9,626. Chrmn.: James J. Judge. Pres. & CEO: Joseph R. Nolan, Jr. Inc.: MA. Addr.: 300 Cadwell Drive, Springfield, MA 01104. Telephone: 413-785-5871. Internet: www.eversource.com.

Eversource Energy stock has been among the worst performers in the electric utilities space, largely due to its involvement in offshore wind generation. The shares are down about 36% in value this year, 20 percentage points worse than the peer-group median. The company concluded a strategic review and decided to divest its risky offshore wind assets, which on paper no longer look as profitable as they once did (due to rising financing and development costs). In September, Eversource sold its stake in undeveloped offshore leased areas to its joint-venture partner Orsted for $625 million. The three projects under development will continue to receive funding as the company negotiates the details of a sale with multiple parties. A $331 million nonrecurring impairment charge was booked in the second quarter to account for a likely loss on the exit of these assets. The company's total offshore wind investment after accounting for the impairment charge is approximately $2.1 billion as of mid-year 2023. Investors are fearful of more bad news such as further impairment charges.

Eversource looks poised for solid intermediate-term earnings gains. In Massachusetts, higher electric delivery charges went into effect at the start of this year, with $64 million to be phased in through the end of this year, and additional increases based on inflation, maintenance, and transmission & distribution (T&D) project spending in place thereafter. Although the company's authorized return on equity (ROE) for its electric rate base was cut to 9.8% from 10% in Massachusetts, the nearly real-time formulaic pricing adjustments received ought to go a long way towards reducing regulatory lag and delivering a reliable stream of revenue growth.

This equity is trading at an appealing valuation relative to peers. ES stock's underperformance versus the industry median translates to $6 billion of market capitalization lost, whereas the entire offshore wind investment was $2.4 billion at mid-year with $625 million recouped from the leased area sale. Further impairment charges may be on the way, implying a poor sales price for remaining wind assets, but Eversource's plunge looks overdone.

Anthony J. Glennon *November 10, 2023*

(A) Diluted EPS. Excl. nonrecur. gain/(losses): '08, (19¢); '10, 9¢; '19, (64¢); '20, (9¢); '21, (32¢); '22, (4¢). 1Q-2Q '23, (96¢). Next egs. report due mid-Feb. Quarterly figures may not sum to full year due to rounding. (B) Div'ds paid late Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail. (C) Incl. intangibles. In '22: $25.16/sh. (D) In mill. (E) Rate allowed on com. eq. in MA: (elec.) '22, 9.8%; (gas) '20, 9.7%-9.9%; in CT: (elec.) '18, 9.25%; (gas) '18, 9.3%; in NH: '21, 9.3%; Regulatory Climate: CT, Below Avg.; NH, Avg.; MA, Above Avg.

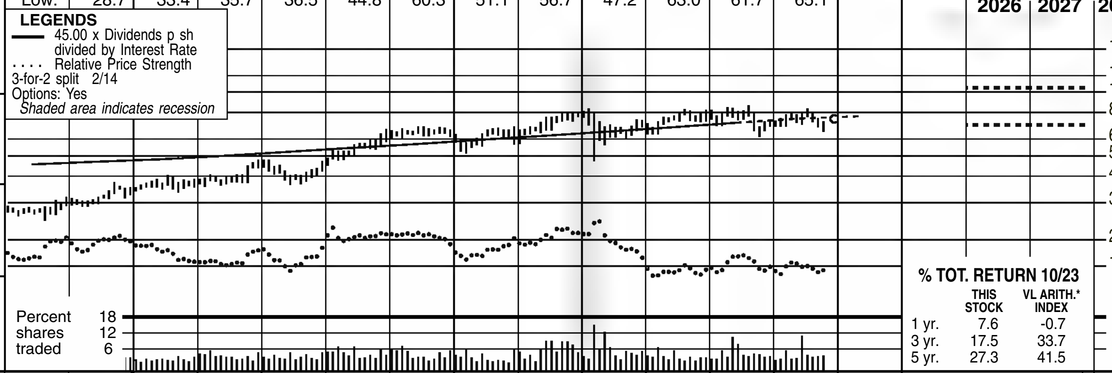
Company's Financial Strength	A
Stock's Price Stability	85
Price Growth Persistence	65
Earnings Predictability	100

MGE ENERGY, INC. NDQ-MGEE

RECENT PRICE 74.95 | P/E RATIO 22.0 (Trailing: 22.9 Median: 25.0) | RELATIVE P/E RATIO 1.36 | DIV'D YLD 2.3% | VALUE LINE

TIMELINESS 2 Raised 8/18/23
SAFETY 3 Lowered 12/8/23
TECHNICAL 3 Raised 12/1/23
BETA .75 (1.00 = Market)

High:	37.4	40.5	48.0	48.0	66.9	68.7	68.9	80.8	83.3	82.9	86.3	83.3
Low:	28.7	33.4	35.7	36.5	44.8	60.3	51.1	56.7	47.2	63.0	61.7	65.1



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$60-$100	$80 (5%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	105	(+40%)	11%
Low	70	(-5%)	1%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	88	108	82
to Sell	82	64	82
Hld's(000)	18390	18676	19530

% TOT. RETURN 10/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	7.6	-0.7
3 yr.	17.5	33.7
5 yr.	27.3	41.5

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
16.33	17.35	15.40	15.36	15.76	15.61	17.04	17.88	16.27	15.71	16.24	16.15	16.41	14.89	16.77	19.76	**20.45**	**21.30**	Revenues per sh	**23.50**
2.46	2.68	2.66	2.76	2.94	2.98	3.28	3.49	3.33	3.47	3.73	4.06	4.57	4.61	5.05	5.43	**5.85**	**6.25**	"Cash Flow" per sh	**7.00**
1.51	1.59	1.47	1.67	1.76	1.86	2.16	2.32	2.06	2.18	2.20	2.43	2.51	2.60	2.92	3.07	**3.35**	**3.60**	Earnings per sh A	**4.00**
.94	.96	.97	.99	1.01	1.04	1.07	1.11	1.16	1.21	1.26	1.32	1.38	1.45	1.52	1.59	**1.67**	**1.71**	Div'd Decl'd per sh B ■	**1.95**
4.14	3.08	2.35	1.76	1.88	2.84	3.43	2.67	2.08	2.41	3.12	6.12	4.73	5.62	4.24	4.84	**4.65**	**4.00**	Cap'l Spending per sh	**5.25**
12.99	13.92	14.47	15.14	15.89	16.71	17.81	19.02	19.92	20.89	22.45	23.56	24.68	26.99	28.41	29.91	**30.45**	**31.80**	Book Value per sh C	**33.00**
32.93	34.36	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	36.16	36.16	36.16	**36.16**	**36.16**	Common Shs Outst'g D	**36.16**
15.0	14.2	15.1	15.0	15.8	17.2	17.0	17.2	20.3	24.9	29.4	25.1	28.4	26.4	25.5	24.7	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	**22.0**
.80	.85	1.01	.95	.99	1.09	.96	.91	1.02	1.31	1.48	1.36	1.51	1.36	1.38	1.43			Relative P/E Ratio	**1.20**
4.1%	4.2%	4.4%	4.0%	3.6%	3.2%	2.9%	2.8%	2.8%	2.2%	2.0%	2.2%	1.9%	2.1%	2.0%	2.1%			Avg Ann'l Div'd Yield	**2.2%**

CAPITAL STRUCTURE as of 9/30/23
Total Debt $713.0 mill. **Due in 5 Yrs** $120.0 mill.
LT Debt $707.9 mill. **LT Interest** $30.0 mill.
Incl. $17.9 mill. finance leases.
(LT interest earned: 5.0x)
Leases, Uncapitalized Annual rentals $2.0 mill.
Pension Assets-12/22 $370 mill. **Oblig** $63.8 mill.

Pfd Stock None

Common Stock 36,163,370 shs.
as of 10/31/23
MARKET CAP: $2.7 billion (Mid Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
590.9	619.9	564.0	544.7	563.1	559.8	568.9	538.6	606.6	714.5	**740**	**770**	Revenues ($mill)	**850**
74.9	80.3	71.3	75.6	76.1	84.2	86.9	92.4	105.8	111.0	**120**	**130**	Net Profit ($mill)	**145**
37.5%	37.5%	36.7%	36.0%	36.4%	24.6%	18.5%	17.4%	3.7%	19.1%	**18.0%**	**18.0%**	Income Tax Rate	**11.0%**
5.6%	5.7%	1.3%	2.1%	2.1%	5.2%	3.6%	8.7%	6.3%	1.0%	**4.0%**	**4.0%**	AFUDC % to Net Profit	**1.0%**
39.3%	37.5%	36.2%	34.6%	33.8%	37.7%	38.0%	35.5%	38.1%	35.8%	**37.5%**	**37.5%**	Long-Term Debt Ratio	**39.0%**
60.7%	62.5%	63.8%	65.4%	66.2%	62.3%	62.0%	64.5%	61.9%	64.2%	**62.5%**	**62.5%**	Common Equity Ratio	**61.0%**
1016.9	1054.7	1081.5	1106.9	1176.3	1310.0	1379.4	1512.8	1659.0	1684.0	**1775**	**1850**	Total Capital ($mill)	**2000**
1160.2	1208.1	1243.4	1282.1	1341.4	1509.4	1642.7	1769.4	1878.8	1971.1	**2050**	**2100**	Net Plant ($mill)	**2300**
8.3%	8.6%	7.5%	7.7%	7.3%	7.2%	7.1%	6.8%	7.1%	7.4%	**7.0%**	**7.0%**	Return on Total Cap'l	**7.5%**
12.1%	12.2%	10.3%	10.4%	9.8%	10.3%	10.2%	9.5%	10.3%	10.3%	**11.0%**	**11.5%**	Return on Shr. Equity	**12.0%**
12.1%	12.2%	10.3%	10.4%	9.8%	10.3%	10.2%	9.5%	10.3%	10.3%	**11.0%**	**11.5%**	Return on Com Equity E	**12.0%**
6.1%	6.4%	4.5%	4.7%	4.2%	4.7%	4.6%	4.2%	5.0%	4.9%	**5.5%**	**6.0%**	Retained to Com Eq	**6.0%**
50%	48%	56%	55%	57%	54%	55%	56%	52%	52%	**50%**	**48%**	All Div'ds to Net Prof	**49%**

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-3.5	+3.2	-.3
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	7.16	7.69	8.71
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	429	486	517

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	1.0%	1.5%	5.5%
"Cash Flow"	5.5%	7.5%	5.0%
Earnings	5.0%	6.0%	5.5%
Dividends	4.0%	4.5%	4.5%
Book Value	6.0%	6.0%	2.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	149.9	117.0	135.2	136.5	538.6
2021	167.9	130.7	145.9	162.1	606.6
2022	209.0	152.3	163.4	189.8	714.5
2023	217.3	148.0	160.5	***214.2***	***740***
2024	***220***	***160***	***170***	***220***	***770***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.75	.53	.88	.44	2.60
2021	.96	.63	.97	.36	2.92
2022	.96	.60	.93	.58	3.07
2023	.86	.79	1.05	***.65***	***3.35***
2024	***.90***	***.80***	***1.10***	***.80***	***3.60***

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec. 31	Full Year
2019	.338	.388	.352	.352	1.38
2020	.352	.352	.37	.37	1.45
2021	.37	.37	.388	.388	1.52
2022	.388	.388	.408	.408	1.59
2023	.408	.408	.4275	.4275	

BUSINESS: MGE Energy, Inc. is a holding company for Madison Gas and Electric Company (MGE), which provides electric service to 161,000 customers in Dane County and gas service to 173,000 customers in nine counties in Wisconsin. Electric revenue breakdown: residential, 35%; commercial, 50%; industrial, 3%; other, 12%. Generating sources: coal, 35%; gas, 16%; renewables, 22%; purchased power, 27%. Fuel costs: 36% of revenues. '22 reported depreciation rates: electric, 3.2%; gas, 2.1%; nonregulated, 2.3%. Has about 700 employees. Chairman, President & CEO: Jeffrey M. Keebler. Incorporated: Wisconsin. Address: 133 South Blair Street, P.O. Box 1231, Madison, Wisconsin 53701-1231. Telephone: 608-252-7000. Internet: www.mgeenergy.com.

MGE Energy posted mixed third-quarter results. The top line decreased 1.7% year over year, to $160.5 million, due to a 29% decline in gas revenues. However, unusually warmer weather increased electric residential sales by 5% over the year-ago period. Meanwhile, the bottom line clocked in at $1.05 per share, or 13% more than last year's $0.93. MGE benefited from increased investments in electric infrastructures, leading to a favorable rate base. In addition, a timing difference in depreciation expenses contributed to higher earnings. The company stated that after the completion of major capital projects like Badger Hollow II and Paris Solar, costs related to depreciation are expected to increase. Of note, MGE's electric operations generated 87% of its third-quarter revenues, while the gas business accounted for approximately 13%.

A combination of rate relief and better cost controls should keep the bottom line healthy. Therefore, we estimate that 2023 and 2024 share earnings will advance mid- to high-single digits each to about $3.35 and $3.60, respectively.

MGE has pending rate cases for 2024 and 2025. The utility is seeking 3.75% and 2.56% rate increases for electric and gas in 2024, respectively. Meanwhile, for 2025, the company is requesting a 3.41% hike in electric and a 1.66% increase in gas rates. A final order by regulators is anticipated by the end of this year.

The company is investing in assets to promote renewable generation. The utility intends to direct nearly half its capital expenditures toward several solar and wind projects through 2028. Some significant solar investments include a 50-megawatt Badger Hollow II and a 20-megawatt Paris, which are expected to commence operations next year. These investments should support its upcoming rate cases.

Shares of MGE Energy are ranked 2 (Above Average) for relative year-ahead price performance. Looking over the 3- to 5-year time frame, the stock has subpar capital appreciation potential. Moreover, the dividend yield is below average for a utility. Thus, we think most patient, income-oriented accounts can find better options in this sector.

Emma Jalees *December 8, 2023*

(A) GAAP Diluted earnings. Excludes nonrecurring gain: '17, 62¢. '19 earnings don't sum due to rounding. Next earnings report due early February. (B) Div'ds historically paid in mid-March, June, September, and December ■ Div'd reinvestment plan avail. (C) Includes regulatory assets. In '22: $196.6 mill., $5.44/sh. (D) In millions, adj for split. (E) Rate allowed on common equity in '22: 9.8%; Regulatory Climate: Above Average.

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

NORTHWESTERN NDQ-NWE

RECENT PRICE	49.39	P/E RATIO	14.3 (Trailing: 16.2 / Median: 17.0)	RELATIVE P/E RATIO	0.89	DIV'D YLD	5.2%	VALUE LINE

TIMELINESS 4 Raised 10/13/23
SAFETY 2 Raised 7/27/18
TECHNICAL 5 Lowered 10/20/23
BETA .95 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$48-$74	$61 (25%)

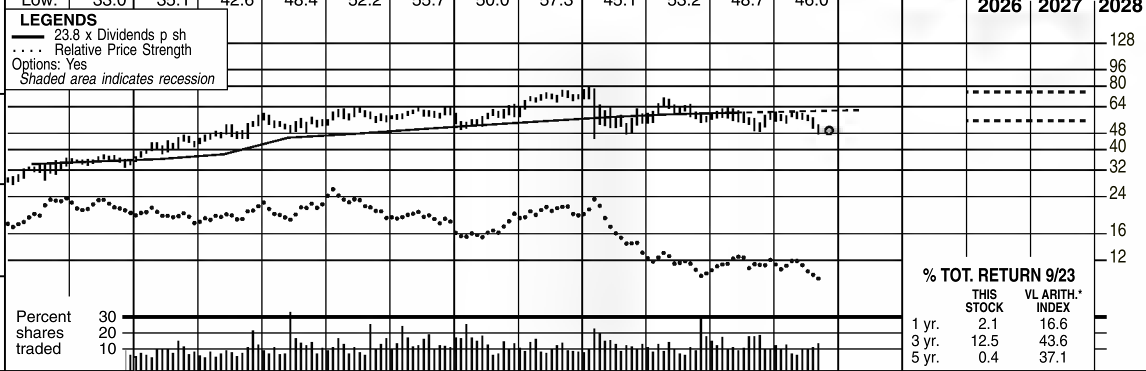
2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	75	(+50%)	15%
Low	55	(+10%)	8%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	169	135	157
to Sell	115	123	113
Hld's(000)	57154	58097	58238

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
High:	38.0	47.2	58.7	59.7	63.8	64.5	65.7	76.7	80.5	70.8	63.1	61.2
Low:	33.0	35.1	42.6	48.4	52.2	55.7	50.0	57.3	45.1	53.2	48.7	46.0



% TOT. RETURN 9/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	2.1	16.6
3 yr.	12.5	43.6
5 yr.	0.4	37.1

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
30.79	35.09	31.72	30.66	30.80	28.76	29.80	25.68	25.21	26.01	26.45	23.81	24.93	23.70	25.38	24.74	*24.20*	*25.80*	Revenues per sh	*28.25*
3.70	4.40	4.62	4.76	5.42	5.18	5.45	5.39	5.92	6.74	6.76	6.96	7.07	6.86	6.92	6.46	*6.80*	*7.20*	"Cash Flow" per sh	*8.35*
1.44	1.77	2.02	2.14	2.53	2.26	2.46	2.99	2.90	3.39	3.34	3.40	3.53	3.21	3.50	3.29	*3.45*	*3.60*	Earnings per sh A	*4.15*
1.28	1.32	1.34	1.36	1.44	1.48	1.52	1.60	1.92	2.00	2.10	2.20	2.30	2.40	2.48	2.52	*2.56*	*2.60*	Div'd Decl'd per sh B ■ †	*2.76*
3.00	3.47	5.26	6.30	5.20	5.89	5.95	5.76	5.89	5.96	5.60	5.64	6.26	8.02	8.03	8.62	*8.50*	*7.75*	Cap'l Spending per sh	*7.00*
21.12	21.25	21.86	22.64	23.68	25.09	26.60	31.50	33.22	34.68	36.44	38.60	40.42	41.10	43.28	44.61	*47.50*	*48.50*	Book Value per sh C	*52.30*
38.97	35.93	36.00	36.23	36.28	37.22	38.75	46.91	48.17	48.33	49.37	50.32	50.45	50.59	54.06	59.74	*62.00*	*62.00*	Common Shs Outst'g D	*62.00*
21.7	13.9	11.5	12.9	12.6	15.7	16.9	16.2	18.4	17.2	17.8	16.8	19.9	18.6	17.4	17.3	*Bold figures are*		Avg Ann'l P/E Ratio	*15.5*
1.15	.84	.77	.82	.79	1.00	.95	.85	.93	.90	.90	.91	1.06	.96	.94	.99	*Value Line*		Relative P/E Ratio	*.85*
4.1%	5.4%	5.7%	4.9%	4.5%	4.2%	3.7%	3.3%	3.6%	3.4%	3.5%	3.9%	3.3%	4.0%	4.1%	4.4%	*estimates*		Avg Ann'l Div'd Yield	*4.3%*

CAPITAL STRUCTURE as of 6/30/23
Total Debt $2668.5 mill. **Due in 5 Yrs** $1111.4 mill.
LT Debt $2565.4 mill. **LT Interest** $102.0 mill.
Incl. $7.2 mill. finance leases.
(Total Interest Coverage: 2.5x)

Pension Assets-12/22 $441.5 mill. **Oblig** $521.8 mill.

Pfd Stock None

Common Stock 60,041,809 shs. as of 7/21/23

MARKET CAP: $3.0 billion (Mid Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
1154.5	1204.9	1214.3	1257.2	1305.7	1198.1	1257.9	1198.7	1372.3	1477.8	*1500*	*1600*	Revenues ($mill)	*1750*
94.0	120.7	138.4	164.2	162.7	171.1	179.3	162.6	181.6	185.5	*210*	*225*	Net Profit ($mill)	*255*
13.2%	- -	13.7%	- -	7.6%	- -	1.6%	- -	.9%	- -	*3.0%*	*6.0%*	Income Tax Rate	*12.0%*
8.7%	8.9%	9.8%	4.3%	5.2%	3.4%	4.6%	6.0%	14.9%	18.5%	*14.0%*	*13.0%*	AFUDC % to Net Profit	*12.0%*
53.5%	53.4%	53.1%	52.0%	50.2%	52.2%	52.5%	52.8%	52.2%	48.2%	*47.5%*	*46.5%*	Long-Term Debt Ratio	*48.0%*
46.5%	46.6%	46.9%	48.0%	49.8%	47.8%	47.5%	47.2%	47.8%	51.8%	*52.5%*	*53.5%*	Common Equity Ratio	*52.0%*
2215.7	3168.0	3408.6	3493.9	3614.5	4064.6	4289.8	4409.1	4893.1	5148.3	*5625*	*5625*	Total Capital ($mill)	*6200*
2690.1	3758.0	4059.5	4214.9	4358.3	4521.3	4700.9	4952.9	5247.2	5657.5	*6000*	*6250*	Net Plant ($mill)	*6725*
5.5%	4.8%	5.2%	5.9%	5.6%	5.2%	5.2%	4.6%	4.6%	4.5%	*4.5%*	*5.0%*	Return on Total Cap'l	*5.0%*
9.1%	8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	7.8%	7.8%	7.0%	*7.0%*	*7.5%*	Return on Shr. Equity	*8.0%*
9.1%	8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	7.8%	7.8%	7.0%	*7.0%*	*7.5%*	Return on Com Equity E	*8.0%*
3.5%	3.8%	3.0%	4.1%	3.4%	3.2%	3.1%	2.0%	2.3%	1.7%	*2.0%*	*2.0%*	Retained to Com Eq	*2.5%*
61%	54%	65%	58%	62%	64%	64%	74%	71%	76%	*74%*	*72%*	All Div'ds to Net Prof	*67%*

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-4.4	+.7	+3.7
Avg. Indust. Use (MWH)	33526	31792	34079
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	NA	NA	2073
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.2	+1.6	+1.5
Fixed Charge Cov. (%)	247	245	219

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	-2.0%	-1.0%	*2.5%*
"Cash Flow"	3.0%	1.0%	*3.5%*
Earnings	3.5%	1.0%	*3.5%*
Dividends	5.5%	4.0%	*2.0%*
Book Value	6.0%	4.5%	*3.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	335.3	269.4	280.6	313.4	1198.7
2021	400.8	298.2	326.0	347.3	1372.3
2022	394.5	323.0	335.1	425.2	1477.8
2023	454.5	*290.5*	*325*	*430*	*1500*
2024	*455*	*340*	*365*	*440*	*1600*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1.00	.43	.58	1.21	3.21
2021	1.24	.59	.70	.97	3.50
2022	1.08	.58	.47	1.16	3.29
2023	1.10	.32	*.88*	*1.15*	*3.45*
2024	*1.10*	*.50*	*.85*	*1.15*	*3.60*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.575	.575	.575	.575	2.30
2020	.60	.60	.60	.60	2.40
2021	.62	.62	.62	.62	2.48
2022	.63	.63	.63	.63	2.52
2023	.64	.64	.64		

BUSINESS: NorthWestern Corporation (doing business as NorthWestern Energy) supplies electricity & gas in the Upper Midwest and Northwest, serving 463,000 electric customers in Montana and South Dakota and 301,000 gas customers in Montana, South Dakota, and Nebraska. Electric revenue breakdown: residential, 45%; commercial, 46%; industrial, 5%; other, 4%. Generating sources: coal, 28%; hydro, 26%; wind, 6%; natural gas, 6%; purchased power, 34%. Fuel costs: 33% of revenues. 2022 reported depreciation rate: 2.8%. Has approximately 1,500 employees. Board Chair: Dana J. Dykhouse. President and CEO: Brian B. Bird. Incorporated: DE. Address: 3010 West 69th Street, Sioux Falls, SD 57108. Telephone: 605-978-2900. Internet: www.northwesternenergy.com.

Regulators are dragging their feet on approving NorthWestern's settlement agreement for new electric and natural gas rates. To recap: in early April, the utility worked out an acceptable consensus with the Montana Consumer Counsel, the Montana Large Customer Group, and Walmart, Inc. The settlement has been submitted to the Montana Public Service Commission (MPSC) for the regulatory body's consideration. The MPSC has already granted interim rate hikes, starting from last October, to allow the company to begin the recoupment of some elevated spending. The agreed to base rates would increase annual electric and natural gas revenues by $67.4 million and $14.1 million, respectively. Those levels are predicated on the same authorized returns on equity, namely 9.65% for electric and 9.55% for gas, that were last agreed upon in 2015 and 2017. If the MPSC signs off on the agreement, the utility will have gotten about two-thirds of what it originally filed for in its general rate case. Importantly, NorthWestern would also receive pricing mechanisms geared towards reducing regulatory lag.

Rate-base expansion should drive growth. (The rate base is the dollar value of assets for which a utility is allowed to earn a regulated return on.) In June, NorthWestern completed an $83 million, 58-megawatt gas-fired power plant in South Dakota, with the potential for added capacity later. A $275 million, 175-mw gas generation facility in Montana was due to be operational later this year, but was delayed due to environmental permitting troubles. Now cleared, it is expected to come on line in 2024. The company may also add 220 mw of coal-fired generation, assuming it can get regulatory body approval, by doubling its stake in an existing plant at very favorable terms.

NorthWestern stock, however, is an untimely selection for year-ahead relative price performance. Rapidly rising yields on Treasury securities has pressured this equity and the stock's of most of the company's peers. We've scaled back our 3- to 5-year Target Price Range for the shares of many utilities, including NWE, on the prospect that the rise in interest rates is more than just a cyclical increase.

Anthony J. Glennon *October 20, 2023*

(A) Diluted egs. Excl. nonrec. gains/(losses): '12, 40¢; '15, 27¢; '18, 52¢; '19, 45¢; '20, (15¢); '21, 10¢; '22, (4¢); 1Q-2Q '23, (5¢). Qtly EPS may not sum to full yr. due to rounding. Next egs. report due early Nov. (B) Div'ds paid late Mar., June, Sept. & Dec. ■ Div'd reinvest. plan avail. † Shrhldr. invest. plan avail. (C) Incl. def'd charges. In '22: $17.98/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in MT in '19 (elec.): 9.65%; in '17 (gas): 9.55%; in SD in '15: none specified; in NE in '07: 10.4%. Reg. Climate: Below Avg.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	30
Earnings Predictability	95

SEMPRA ENERGY NYSE-SRE

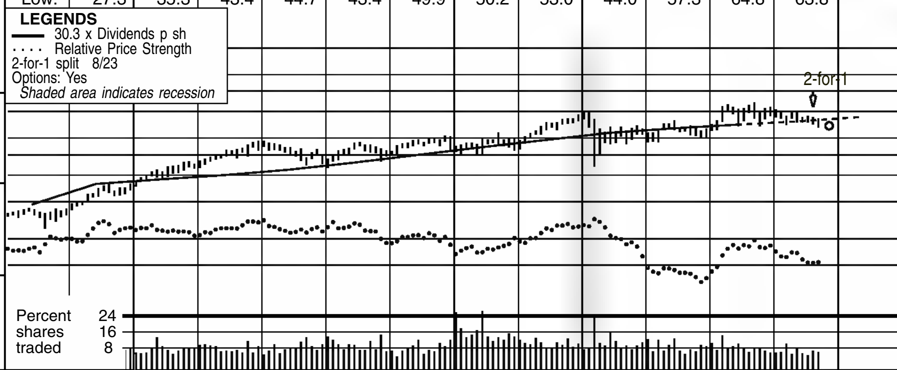
RECENT PRICE 68.50 | P/E RATIO 14.9 (Trailing: 15.0 Median: 20.0) | RELATIVE P/E RATIO 0.93 | DIV'D YLD 3.6% | VALUE LINE

TIMELINESS 5 Lowered 9/15/23
SAFETY 2 Raised 7/29/16
TECHNICAL 5 Lowered 10/20/23
BETA 1.00 (1.00 = Market)

High:	36.4	46.5	58.2	58.1	57.3	61.5	63.6	77.2	80.9	72.5	88.2	81.8
Low:	27.3	35.3	43.4	44.7	43.4	49.9	50.2	53.0	44.0	57.3	64.8	63.8

Target Price Range 2026 2027 2028

LEGENDS
— 30.3 x Dividends p sh
.... Relative Price Strength
2-for-1 split 8/23
Options: Yes
Shaded area indicates recession



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$64-$131	$98 (40%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	105	(+55%)	14%
Low	75	(+10%)	6%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	518	436	446
to Sell	364	425	389
Hld's(000)	547374	538994	539812

% TOT. RETURN 9/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-6.3	16.6
3 yr.	26.5	43.6
5 yr.	40.4	37.1

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
21.89	22.11	16.44	18.72	20.91	19.90	21.59	22.40	20.60	20.35	22.29	21.34	18.56	19.71	20.28	22.97	*27.55*	*28.15*	Revenues per sh	*30.15*
3.47	3.70	3.97	3.88	4.29	4.46	4.43	4.70	5.16	4.75	5.29	5.53	5.57	6.61	7.09	7.85	*7.95*	*8.50*	"Cash Flow" per sh	*10.45*
2.13	2.22	2.39	2.01	2.24	2.18	2.11	2.32	2.62	2.12	2.32	2.74	2.99	3.69	4.22	4.61	*4.50*	*4.80*	Earnings per sh A	*6.00*
.62	.69	.78	.78	.96	1.20	1.26	1.32	1.40	1.51	1.65	1.79	1.94	2.09	2.20	2.29	*2.38*	*2.50*	Div'd Decl'd per sh B ■	*3.05*
3.85	4.24	3.88	4.29	5.93	6.10	5.26	6.34	6.36	8.42	7.86	6.91	6.36	8.10	7.91	8.52	*8.55*	*8.55*	Cap'l Spending per sh	*9.00*
15.94	16.38	18.27	18.77	20.50	21.21	22.51	22.99	23.78	25.89	25.20	27.18	30.29	35.06	39.59	41.72	*43.75*	*46.05*	Book Value per sh C	*54.30*
522.43	486.65	493.02	480.89	479.87	484.74	488.92	492.66	496.60	500.31	502.72	547.54	583.43	576.94	633.84	628.67	*630.00*	*630.00*	Common Shs Outst'g D	*630.00*
14.0	11.8	10.1	12.6	11.8	14.9	19.7	21.9	19.7	24.4	24.3	20.4	22.5	17.5	15.4	16.8	*Bold figures are*		Avg Ann'l P/E Ratio	*15.0*
.74	.71	.67	.80	.74	.95	1.11	1.15	.99	1.28	1.22	1.10	1.20	.90	.83	.97	*Value Line*		Relative P/E Ratio	*.85*
2.1%	2.6%	3.2%	3.1%	3.6%	3.7%	3.0%	2.6%	2.7%	2.9%	2.9%	3.2%	2.9%	3.2%	3.4%	3.0%	*estimates*		Avg Ann'l Div'd Yield	*3.4%*

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
10557	11035	10231	10183	11207	11687	10829	11370	12857	14439	*17350*	*17750*	Revenues ($mill)	*19000*
1060.0	1162.0	1314.0	1065.0	1169.0	1607.0	1825.0	2316.0	2701.0	2960.0	*2885*	*3080*	Net Profit ($mill)	*3835*
26.5%	19.7%	19.2%	14.4%	24.5%	20.1%	17.9%	18.0%	25.5%	20.1%	*19.0%*	*19.0%*	Income Tax Rate	*19.0%*
11.2%	14.4%	15.3%	22.2%	21.9%	12.6%	10.0%	8.7%	8.0%	8.6%	*9.0%*	*9.0%*	AFUDC % to Net Profit	*8.5%*
50.5%	51.7%	52.6%	52.7%	56.4%	55.7%	51.0%	48.2%	44.8%	47.5%	*49.0%*	*49.0%*	Long-Term Debt Ratio	*47.5%*
49.4%	48.2%	47.3%	47.3%	43.5%	38.4%	43.4%	44.8%	53.3%	50.7%	*49.0%*	*49.5%*	Common Equity Ratio	*51.0%*
22281	23513	24963	27400	29135	38769	40734	45174	47069	51683	*56025*	*58900*	Total Capital ($mill)	*67100*
25460	25902	28039	32931	36503	36796	36452	40003	43894	47782	*51000*	*54050*	Net Plant ($mill)	*62200*
6.0%	6.1%	6.4%	5.0%	5.1%	5.1%	5.5%	6.1%	6.6%	6.8%	*6.0%*	*6.0%*	Return on Total Cap'l	*6.5%*
9.6%	10.2%	11.1%	8.2%	9.2%	9.4%	9.1%	9.9%	10.4%	10.9%	*10.0%*	*10.5%*	Return on Shr. Equity	*11.0%*
9.6%	10.3%	11.1%	8.2%	9.2%	10.0%	9.5%	10.6%	10.5%	11.1%	*10.5%*	*10.5%*	Return on Com Equity E	*11.0%*
4.1%	5.0%	5.8%	2.9%	3.3%	4.1%	3.9%	4.8%	5.2%	5.7%	*5.0%*	*5.0%*	Retained to Com Eq	*5.5%*
58%	52%	48%	65%	65%	62%	62%	58%	52%	50%	*54%*	*53%*	All Div'ds to Net Prof	*51%*

CAPITAL STRUCTURE as of 6/30/23
Total Debt $30033 mill. **Due in 5 Yrs** $6475 mill.
LT Debt $27521 mill. **LT Interest** $1215 mill.
Incl. $1343 mill. finance leases.
(Total Interest Coverage: 3.3x)

Leases, Uncapitalized Annual rentals $53 mill.
Pension Assets-12/22 $2390 mill. **Oblig** $2806 mill.
Pfd Stock $889 mill. **Pfd Div'd** $45 mill.
900,000 shs. 4.875%, cumulative.
Common Stock 629,307,130 shs.
as of 7/31/23
MARKET CAP: $43.1 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-.4	-3.7	+2.8
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NMF	NMF	NMF
Peak Load, Summer (Mw)	NMF	NMF	NMF
Annual Load Factor (%)	NMF	NMF	NMF
% Change Customers (yr-end)	+.8	+.9	+.5
Fixed Charge Cov. (%)	178	201	232

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	0.5%	- -	*6.0%*
"Cash Flow"	5.5%	7.0%	*6.5%*
Earnings	7.0%	12.0%	*6.5%*
Dividends	8.5%	7.5%	*5.5%*
Book Value	7.0%	9.0%	*6.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	3029	2526	2644	3171	11370
2021	3259	2741	3013	3844	12857
2022	3820	3547	3617	3455	14439
2023	6560	3335	*3650*	*3805*	*17350*
2024	*6125*	*3750*	*3825*	*4050*	*17750*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1.27	.79	.66	.94	3.69
2021	1.48	.82	.85	1.08	4.22
2022	1.46	.99	.99	1.18	4.61
2023	1.46	.94	*.97*	*1.13*	*4.50*
2024	*1.55*	*1.00*	*1.05*	*1.20*	*4.80*

Cal-endar	QUARTERLY DIVIDENDS PAID B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.448	.484	.484	.484	1.90
2020	.484	.523	.523	.523	2.05
2021	.523	.55	.55	.55	2.17
2022	.55	.573	.573	.573	2.27
2023	.573	.595	.595	.595	

BUSINESS: Sempra Energy is a holding company for San Diego Gas & Electric (SDG&E), which sells electricity & gas mainly in San Diego County, and Southern California Gas (SoCalGas), which distributes gas to most of Southern California. Owns 80% of Oncor (acquired 3/18), which distributes electricity in TX. Customers: 5.2 mill. electric, 7.0 mill. gas. Electric revenue breakdown: N/A. Purchases 76% of its power; the rest is gas. The Sempra Infrastrucure subsidiary (SI) is active in LNG exportation and other energy endeavors. Sold SA utilities in 2020. Power costs: 24.5% of revenue. '22 reported deprec. rates: 2.6%-7.0%. Employs 15,785. Chr., Pres. & CEO: Jeffrey W. Martin. Inc.: CA. Addr.: 488 8th Ave., San Diego, CA 92101. Tel.: 619-696-2000. Internet: www.sempra.com.

Sempra Energy's earnings should resume a growth trajectory in 2024 after this year's likely decline. Leadership affirmed its respective share-earnings targets of $4.30-$4.60 and $4.55-$4.90 for 2023 and 2024. Quarterly comparisons will be difficult through the end of this year, as 2022's heat wave in southern California drove electricity usage up 2.8%. Regulatory lag is a key issue for this year in particular. Significant investments in grid modernization and the related financing costs await recoupment. While Sempra received a favorable regulatory outcome, based on a 9.7% allowable return on equity, at its 80%-owned transmission and distribution subsidiary in Texas a few months ago, the company is overdue for rate relief in California. A regulatory decision is expected in the second quarter of next year for San Diego Gas & Electric and SoCalGas. Higher rates should be retroactive to the start of 2024.

Leadership's projected 6%-8% long-term earnings growth target is feasible. Load growth in southern California has been running at about 3% annually, driven by economic activity and shifts to vehicles and the like that are recharged from the grid. Meanwhile, Sempra's service area in Texas is among the fastest growing in terms of transmission and distribution work, due to the rapid pace of the state's population growth and healthy economic activity. Lastly, the economics of the liquefied natural gas (LNG) export operation looks attractive. Sempra Infrastucture (SI) has put together a project that will export 13 million tonnes per annum of LNG from Texas to Europe and Asia starting in 2027. We estimate a bump in Sempra's annual earnings power by $0.25-$0.50 per share, with an opportunity to replicate the gains through additional project phases. Notably, SI has comparable LNG expansions taking place at its Baja California site in Mexico.

This equity, however, is untimely. The rise in the 10-year Treasury yield to levels not seen since 2007 has pressured the stock prices of rate-sensitive industries and prompted us to reduce our 2026-2028 Target Price Ranges for Sempra and most utility peers. The jump in rates looks as if it's more than just cyclical in nature.

Anthony J. Glennon *October 20, 2023*

(A) Diluted egs. Excl. nonrec. gains/(losses): '09, (13¢); '10, (52¢); '11, 58¢; '12, (44¢); '13, (11¢); '15, 7¢; '16, 61¢; '17, ($1.81); '18, ($1.03); '19, 8¢; '20, (40¢); '21, ($2.21); '22, (82¢); '23, 9¢. Disc. ops.: '19, 58¢; '20, $3.15. Qtly. EPS may not sum due to rounding. Next egs. report due early Nov. (B) Div'ds paid mid-Jan., Apr., July, Oct. ■ Div. reinv. avail. (C) Incl. intang. In '22: $7.21/sh. (D) In mill., adj. for 8/23 stk. split. (E) Rate base: Net orig. cost. Rate allowed on com. eq.: SDG&E '22: 9.95%; SoCalGas in '22: 9.8%. Reg. Climate: Avg.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	50
Earnings Predictability	95

WEC ENERGY GROUP NYSE-WEC

RECENT PRICE 82.22 | P/E RATIO 16.1 (Trailing: 19.0 / Median: 21.0) | RELATIVE P/E RATIO 0.99 | DIV'D YLD 3.8% | VALUE LINE

TIMELINESS 4 Lowered 12/1/23
SAFETY 1 Raised 3/23/12
TECHNICAL 3 Raised 11/24/23
BETA .85 (1.00 = Market)

High:	41.5	45.0	55.4	58.0	66.1	70.1	75.5	98.2	109.5	99.9	108.4	99.3
Low:	33.6	37.0	40.2	44.9	50.4	56.1	58.5	67.2	68.0	80.6	80.8	75.5

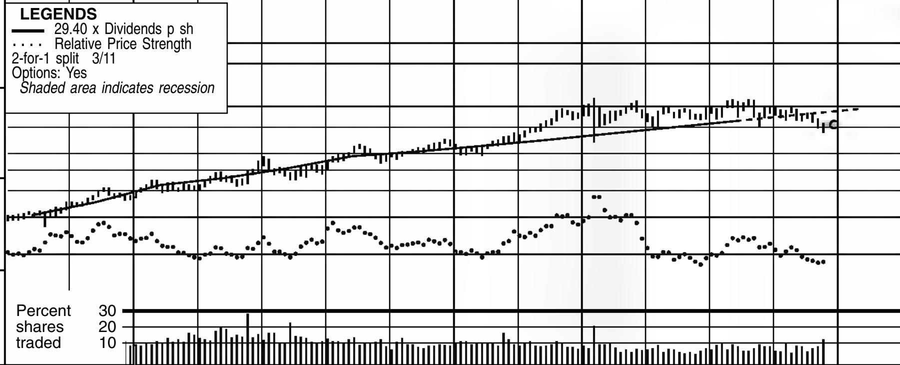
18-Month Target Price Range
Low-High $71-$126 | Midpoint (% to Mid) $99 (20%)

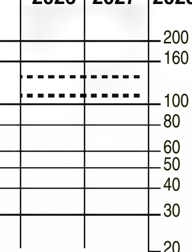
2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	135	(+65%)	16%
Low	110	(+35%)	11%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	477	430	428
to Sell	408	414	426
Hld's(000)	240294	237652	239348





% TOT. RETURN 10/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-7.9	-0.7
3 yr.	-11.3	33.7
5 yr.	37.1	41.5

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
18.12	18.95	17.65	17.98	19.46	18.54	20.00	22.16	18.77	23.68	24.24	24.34	23.85	22.96	26.36	30.43	*29.70*	*30.90*	Revenues per sh	*34.10*
2.98	2.95	3.11	3.30	3.68	4.01	4.33	4.47	3.87	5.39	5.69	6.04	6.53	6.90	7.53	8.01	*8.60*	*9.05*	"Cash Flow" per sh	*10.65*
1.42	1.52	1.60	1.92	2.18	2.35	2.51	2.59	2.34	2.96	3.14	3.34	3.58	3.79	4.11	4.46	*4.60*	*4.90*	Earnings per sh A	*5.90*
.50	.54	.68	.80	1.04	1.20	1.45	1.56	1.74	1.98	2.08	2.21	2.36	2.53	2.71	2.91	*3.12*	*3.33*	Div'd Decl'd per sh B ■	*3.80*
5.28	4.86	3.50	3.41	3.60	3.09	3.04	3.26	4.01	4.51	6.21	6.71	7.17	7.10	7.14	7.34	*9.30*	*9.30*	Cap'l Spending per sh	*9.25*
13.25	14.27	15.26	16.26	17.20	18.05	18.73	19.60	27.42	28.29	29.98	31.02	32.06	33.19	34.60	36.76	*37.35*	*37.90*	Book Value per sh C	*42.00*
233.89	233.84	233.82	233.77	230.49	229.04	225.96	225.52	315.68	315.62	315.57	315.52	315.43	315.43	315.43	315.43	*315.43*	*315.43*	Common Shs Outst'g D	*315.43*
16.5	14.8	13.3	14.0	14.2	15.8	16.5	17.7	21.3	19.9	20.0	19.6	23.5	24.9	22.3	21.9	*Bold figures are*		Avg Ann'l P/E Ratio	*20.5*
.88	.89	.89	.89	.89	1.01	.93	.93	1.07	1.04	1.01	1.06	1.25	1.28	1.21	1.27	*Value Line*		Relative P/E Ratio	*1.15*
2.1%	2.4%	3.2%	3.0%	3.3%	3.2%	3.5%	3.4%	3.5%	3.4%	3.3%	3.4%	2.8%	2.7%	3.0%	3.4%	*estimates*		Avg Ann'l Div'd Yield	*3.4%*

CAPITAL STRUCTURE as of 9/30/23
Total Debt $18218.7 mill. **Due in 5 Yrs** $4611 mill.
LT Debt $15956.5 mill. **LT Interest** $452.7 mill.
Incl. $12.1 mill. finance leases.
(LT interest earned: 4.4x)
Leases, Uncapitalized Annual rentals $6.8 mill.
Oblig $3136.6 mill.
Pfd Stock $30.4 mill. **Pfd Div'd** $1.2 mill.
260,000 shs. 3.60%, $100 par, callable $101;
44,498 shs. 6%, $100 par.
Common Stock 315,434,531 shs.

MARKET CAP: $25.9 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
4519.0	4997.1	5926.1	7472.3	7648.5	7679.5	7523.1	7241.7	8316.0	9597.4	*9375*	*9750*	Revenues ($mill)	*10750*
578.6	589.5	640.3	940.2	998.2	1060.5	1134.2	1201.1	1301.5	1406.8	*1450*	*1545*	Net Profit ($mill)	*1860*
36.9%	38.0%	40.4%	37.6%	37.2%	13.8%	9.9%	15.9%	13.4%	18.6%	*19.0%*	*19.0%*	Income Tax Rate	*19.0%*
4.5%	1.3%	4.5%	3.8%	1.6%	2.1%	1.8%	2.4%	1.9%	2.1%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*2.0%*
50.6%	48.5%	51.2%	50.5%	48.0%	50.4%	52.5%	52.8%	55.3%	54.7%	*55.0%*	*55.0%*	Long-Term Debt Ratio	*55.5%*
49.1%	51.2%	48.6%	49.3%	51.9%	49.4%	47.4%	47.1%	44.6%	44.4%	*44.5%*	*44.5%*	Common Equity Ratio	*44.5%*
8626.6	8636.5	17809	18118	18238	19813	21355	22228	24467	25368	*26375*	*2700*	Total Capital ($mill)	*29800*
10907	11258	19190	19916	21347	22001	23620	25707	26982	29114	*30500*	*3100*	Net Plant ($mill)	*35100*
8.1%	8.1%	4.5%	6.3%	6.6%	6.5%	6.5%	6.5%	6.3%	6.4%	*6.5%*	*6.5%*	Return on Total Cap'l	*7.0%*
13.6%	13.2%	7.4%	10.5%	10.5%	10.8%	11.2%	11.4%	11.9%	12.0%	*12.5%*	*12.5%*	Return on Shr. Equity	*13.0%*
13.6%	13.3%	7.4%	10.5%	10.5%	10.8%	11.2%	11.5%	11.9%	12.5%	*12.5%*	*12.5%*	Return on Com Equity E	*13.0%*
5.9%	5.3%	2.1%	3.5%	3.6%	3.7%	3.8%	3.8%	4.1%	4.0%	*4.5%*	*4.0%*	Retained to Com Eq	*4.0%*
57%	60%	71%	67%	66%	66%	66%	67%	66%	65%	*68%*	*68%*	All Div'ds to Net Prof	*64%*

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-2.5	-2.6	+3.4
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Lg. C&I Revs. per KWH (¢)	7.25	6.61	7.51
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.6	+.7	+.2
Fixed Charge Cov. (%)	300	338	357

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	3.0%	2.0%	*5.0%*
"Cash Flow"	7.0%	7.5%	*6.5%*
Earnings	6.5%	7.0%	*6.0%*
Dividends	10.0%	6.5%	*7.0%*
Book Value	7.0%	3.5%	*4.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	2108	1548	1651	1933	7241.7
2021	2691	1676	1746	2201	8316.0
2022	2908	2127	2003	2558	9597.4
2023	2888	1830	1957	*2700*	*9375*
2024	*2750*	*2250*	*2200*	*2550*	*9750*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1.43	.76	.84	.76	3.79
2021	1.61	.87	.92	.71	4.11
2022	1.79	.91	.96	.80	4.46
2023	1.61	.92	1.00	*1.07*	*4.60*
2024	*1.90*	*1.00*	*1.15*	*.85*	*4.90*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.5900	.5900	.5900	.5900	2.36
2020	.6325	.6325	.6325	.6325	2.53
2021	.6775	.6775	.6775	.6775	2.71
2022	.7275	.7275	.7275	.7275	2.91
2023	.7800	.7800	.7800	.7800	

BUSINESS: WEC Energy Group, Inc. (formerly Wisconsin Energy) is a holding company for utilities that provide electric, gas & steam service in WI & gas service in IL, MN, & MI. Customers: 1.6 mill. elec., 2.9 mill. gas. Acq'd Integrys Energy 6/15. Sold Point Beach nuclear plant in '07. Electric revenue breakdown: residential, 39%; small commercial & industrial, 32%; large commercial & industrial, 21%; other, 8%. Generating sources: coal, 36%; gas, 28%; renewables, 5%; purchased, 31%. Fuel costs: 40% of revenues. '22 reported deprec. rates: 2.4%-3.1%. Has 6,900 employees. Chairman: Gale E. Klappa. President & CEO: Scott J. Lauber. Inc.: WI. Address: 231 W. Michigan St., P.O. Box 1331, Milwaukee, WI 53201. Tel.: 414-221-2345. Internet: www.wecenergygroup.com.

WEC Energy Group is about to finish another year of solid performance. The company has posted consistent earnings growth over the past few years, and this will likely happen again in 2023 and beyond. The utility continues to benefit from increases in electric and gas volume, as well as rate relief. Indeed, WEC has made substantial headway on the rate-case front of late, and rate base growth contributed $0.13 a share to September-period profits. The Michigan Public Service Commission recently approved a 9.1% overall rate increase for 2024 for Michigan Gas Utilities. Too, the Minnesota Commission approved a settlement to grant Minnesota Energy Resources a 7.1% increase in base rates. The company is also making progress in its pending rate case in Illinois for Peoples Gas and North Shore Gas, and expected a favorable ruling by the end of November (as we went to press).

We are maintaining our 2024 earnings-per-share estimate of $4.90. This would represent 6.5% earnings growth, within WEC Energy's annual goal of 6%-7%. The same factors that should help boost profits this year should remain present in 2024. The company will also likely benefit from the aforementioned recently approved and pending rate cases.

We expect a dividend increase in early 2024. We estimate the board of directors will raise the quarterly disbursement by $0.053 a share (7%). The company likely announced a dividend hike in December, shortly after this Issue went to press. This would mark 21 consecutive years of increases. WEC Energy is targeting a payout ratio of 65%-70% of earnings, and expects dividend growth will continue to be in line with share-earnings growth.

WEC Energy shares may appeal to conservative, income-oriented investors. This untimely stock holds strong Price Stability and Earnings Predictability scores, as well as a top notch Safety rank. The dividend yield of 3.8% sits above the utility average, which is one of the highest yielding industries under our coverage. Too, total return potential for the next 18-months and 3- to 5-years is attractive compared to most of its peers. However, the stock is ranked to trail the broader market averages in the year ahead.

Zachary J. Hodgkinson *December 8, 2023*

(A) Diluted EPS. Excl. gain on discontinued ops.: '11, 6¢; nonrecurring gain: '17, 65¢. Next earnings report due early Feb. (B) Div'ds paid in early Mar., June, Sept. & Dec. ■ Div'd reinvestment plan avail. (C) Incl. intang. In '22: $20.05/sh. (D) In mill., adj. for split. (E) Rate base: Net orig. cost. Rates all'd on com. eq. in WI in '15: 10.0%-10.2%; in IL in '21: 9.67%; in MN in '19: 9.7%; in MI in '22: 9.85%; earned on avg. com. eq., '21: 12.2%. Regulatory Climate: WI, Above Average; IL, Below Average; MN & MI, Average.

Company's Financial Strength	A+
Stock's Price Stability	90
Price Growth Persistence	70
Earnings Predictability	100

Summary of
Discounted Cash Flow Analysis (DCF)

DCF formula: $K = (D_1/P_0) + g$

Gas Proxy Group:

Dividend Yield (D_1/P_0):	**4.3%**	**see page 2**
Dividend Growth (g):	**4.6% - 5.8%**	**see pages 3, 4, and 5**
DCF Cost of Equity *(K):*	**8.9% - 10.1%**	

Dividend Yield Data

Gas Group Companies:	**Annual Dividend ***	**Dividend Yield 30 Days ****	**Dividend Yield 90 Days**	**Dividend Yield 180 Days**	**Price 52 Week High ***	**Price 52 Week Low ***
Atmos Energy Corp. (ATO)	$3.03	2.7%	2.7%	2.6%	$125.28	$101.00
NiSource Inc. (NI)	$1.00	3.8%	3.6%	3.7%	$28.95	$22.86
Northwest Natural Gas Co. (NWN)	$1.94	5.3%	4.8%	4.6%	$52.39	$35.72
ONE Gas Inc. (OGS)	$2.60	4.3%	3.5%	3.4%	$84.26	$55.50
Spire, Inc.(SR)	$2.88	4.7%	4.9%	4.6%	$75.83	$53.77
Mean		**4.2%**	**3.9%**	**3.8%**		
Median		**4.3%**	**3.6%**	**3.7%**		

* Value Line - 11/24/2023
** 30, 90, and 180-Day Stock Prices from MarketWatch (11/20/23, 9/20/23, 06/23/23)

Forward Dividend Yields:

Average Dividend Yield, adjusted for growth by (1 + 0.5g)

$D_1/P_0 = D_0/P_0 * (1 + 0.5g) = 4.2\% * [1 + 0.5(0.060)] =$ **4.3%**

***Value Line* Historical, Projected, and Sustainable Growth Rates**
Market to Book Ratios
***Value Line* Companies - Gas Group**

Company Name	Annual Growth - Past 10 Years Earnings Per Share	Annual Growth - Past 10 Years Dividends Per Share	Annual Growth - Past 10 Years Book Value Per Share	Annual Growth - Past 5 Years Earnings Per Share	Annual Growth - Past 5 Years Dividends Per Share	Annual Growth - Past 5 Years Book Value Per Share	*Value Line* Projected Growth Earnings Per Share	*Value Line* Projected Growth Dividends Per Share	*Value Line* Projected Growth Book Value Per Share
Atmos Energy (ATO)	9.0%	6.5%	9.0%	9.0%	8.5%	12.0%	7.0%	7.5%	5.0%
NiSource Inc. (NI)	1.5%	-0.5%	-3.0%	15.0%	6.5%	3.5%	9.5%	4.5%	5.0%
Northwest Natural (NWN)	-1.0%	1.5%	1.0%	2.5%	Ev	0.5%	6.5%	0.5%	4.0%
ONE Gas Inc. (OGS)	*	*	*	8.0%	10.0%	4.0%	6.5%	5.5%	6.5%
Spire Inc. (SR)	2.5%	5.0%	6.5%	1.0%	6.0%	4.0%	8.0%	5.0%	6.5%
Mean	**3.0%**	**3.1%**	**3.4%**	**7.1%**	**6.2%**	**4.8%**	**7.5%**	**4.6%**	**5.4%**
Median	**2.0%**	**3.3%**	**3.8%**	**8.0%**	**7.5%**	**4.0%**	**7.0%**	**5.0%**	**5.0%**

Average of Historical Median Figures **4.8%** `

Average of Projected Median Figures **5.7%**

Source: *Value Line Investment Survey, November 24, 2023.*
On the Value Line Investment Survey Est'd '20-'22 to '26-'28 is the estimated growth rate from the base period 2020 to 2022 until the future period 2026 to 2028.
* *Value Line did not list data for these entries.*

DCF Equity Growth Rates
Analysts Projected EPS Growth Rate Estimates

Company	Yahoo Fin.	Zacks	MarketWatch	Mean
Atmos Energy Corp. (ATO)	7.5%	7.3%	7.4%	7.4%
NiSource Inc. (NI)	8.3%	7.2%	1.8% *	7.7%
Northwest Natural (NWN)	2.8%	3.7%	2.9%	3.1%
ONE Gas Inc. (OGS)	5.0%	5.0%	4.6%	4.9%
Spire Inc. (SR)	6.4%	5.6%	4.9%	5.6%
Mean	**6.0%**	**5.7%**	**5.0%**	**5.8%**
Median	**6.4%**	**5.6%**	**4.8%**	**5.6%**

Sources: http://finance.yahoo.com; www.zacks.com; S&P Cap IQ; December 2023. See links below.
Yahoo Finance - https://www.finance.yahoo.com/quote/
Zacks - https://www.zacks.com/stock/quote/
MarketWatch - https://www.marketwatch.com/
S&P Capital IQ - https://www.capitaliq.spglobal.com/web/client?auth=inherit#company/estimateHighlights?ID=402

* Did not use this forecast in the calculation.

DCF Growth Rate Indicators

Growth Rate Indicator	**Gas Group**
Historic *Value Line* Growth in EPS, DPS, and BVPS	**4.6%**
Projected *Value Line* Growth in EPS, DPS, and BVPS	**5.7%**
Projected EPS Growth from Yahoo, Zacks, and MarketWatch - Mean/Median	**5.8% / 5.6%**

Summary of
Discounted Cash Flow Analysis (DCF)

DCF formula: $K = (D_1/P_0) + g$

Combination Utility Group:

Dividend Yield (D_1/P_0):	**4.3%**	**see page 2**
Dividend Growth (g):	**4.8% - 6.0%**	**see pages 3, 4, and 5**
DCF Cost of Equity *(K):*	**9.1% - 10.3%**	

Dividend Yield Data

Combination Group Companies:	**Annual Dividend ***	**Dividend Yield 30 Days ****	**Dividend Yield 90 Days**	**Dividend Yield 180 Days**	**Price 52 Week High ***	**Price 52 Week Low ***
Alliant Energy Corp. (LNT)	$1.81	3.7%	3.5%	3.9%	$56.46	$45.15
Avista Corp. (AVA)	$2.50	7.2%	7.3%	6.5%	$45.29	$30.53
Black Hills Corp. (BKH)	$2.50	4.9%	4.6%	4.2%	$73.98	$46.43
CMS Energy Corp. (CMS)	$1.95	3.4%	3.4%	3.3%	$65.72	$49.87
Consolidated Edison Inc. (ED)	$3.24	3.6%	3.5%	3.6%	$100.92	$80.46
Eversource Energy (ES)	$2.70	4.6%	4.2%	3.9%	$86.84	$52.03
MGE Energy, Inc.(MGEE)	$1.67	2.3%	2.3%	2.2%	$83.27	$65.10
NorthWestern Corp. (NWE)	$2.56	5.0%	4.9%	4.6%	$61.24	$45.97
Sempra Energy (SRE)	$2.36	3.3%	3.2%	3.3%	$81.82	$63.75
WEC Energy Group (WEC)	$3.12	3.8%	3.6%	3.5%	99.26	75.47
Mean		**4.2%**	**4.0%**	**3.9%**		
Median		**3.8%**	**3.6%**	**3.7%**		

* Value Line - LNT, CMS MGEE, WEC (12/08/23); ED, ES (11/10/23); AVA, BKH, NEW, SRE (10/20/23);
** 30, 90, and 180-Day Stock Prices from MarketWatch (11/20/23, 9/20/23, 6/23/23)

<u>Forward Dividend Yields:</u>

Average Dividend Yield, adjusted for growth by (1 + 0.5g)

$D_1/P_0 = D_0/P_0 * (1 + 0.5g) = 4.2\% * [1 + 0.5(0.060)] =$ <u>**4.3%**</u>

Value Line Historical, Projected, and Sustainable Growth Rates
Market to Book Ratios
Value Line Companies - Combination Group

	Annual Growth - Past 10 Years			Annual Growth - Past 5 Years			*Value Line* Projected Growth		
Company Name	Earnings Per Share	Dividends Per Share	Book Value Per Share	Earnings Per Share	Dividends Per Share	Book Value Per Share	Earnings Per Share	Dividends Per Share	Book Value Per Share
Alliant Energy Corp. (LNT)	6.0%	6.5%	6.0%	8.0%	6.5%	7.0%	6.5%	6.0%	5.0%
Avista Corp. (AVA) 45621	2.5%	4.5%	4.0%	0.5%	4.0%	3.5%	6.0%	4.5%	3.5%
Black Hills Corp. (BKH)	9.5%	4.5%	4.5%	5.5%	6.0%	7.5%	3.0%	4.5%	4.0%
CMS Energy Corp. (CMS) 45621	6.5%	8.0%	6.0%	6.0%	7.0%	7.5%	5.5%	5.0%	4.5%
Consolidated Edison Inc. (ED)	2.0%	2.5%	4.0%	1.5%	3.0%	4.0%	6.0%	3.5%	3.0%
Eversource Energy (ES)	6.5%	7.5%	5.5%	5.5%	6.0%	4..5%	6.0%	6.0%	4.0%
MGE Energy Inc. (MGEE)	5.0%	4.0%	6.0%	6.0%	4.5%	6.0%	5.5%	4.5%	2.5%
NorthWestern Corp. (NWE) 45621	3.5%	5.5%	6.0%	1.0%	4.0%	4.5%	3.5%	2.0%	3.5%
Sempra Energy (SRE)	7.0%	8.5%	7.0%	12.0%	7.5%	9.0%	6.5%	5.5%	6.0%
WEC Energy Group (WEC) 45621	6.5%	10.0%	7.0%	7.0%	6.5%	3.5%	6.0%	7.0%	4.0%
Mean	**5.5%**	**6.2%**	**5.6%**	**5.3%**	**5.5%**	**5.3%**	**5.5%**	**4.9%**	**4.0%**
Median	**6.3%**	**6.0%**	**6.0%**	**5.8%**	**6.0%**	**6.0%**	**6.0%**	**4.8%**	**4.0%**

Average of Historical Median Firgures **6.0%** `
Average of Projected Median Figures **4.9%**

Source: *Value Line Investment Survey:* LNT, CMS MGEE, WEC (12/08/23); ED, ES (11/10/23); AVA, BKH, NEW, SRE (10/20/23)
On the Value Line Investment Survey Est'd '20-'22 to '26-'28 is the estimated growth rate from the base period 2020 to 2022 until the future period 2026 to 2028.

DCF Equity Growth Rates
Analysts Projected EPS Growth Rate Estimates

Company	Yahoo Fin.	Zacks	MarketWatch	Mean
Alliant Energy (LNT)	6.7%	6.3%	3.3%	5.4%
Avista Corp. (AVA)	5.9%	5.9%	2.6%	4.8%
Black Hills Corp. (BKH)	-0.1%	2.2%	4.1%	2.1%
CMS Energy Corp. (CMS)	7.7%	7.5%	3.6%	6.3%
Consolidated Edison Inc. (ED)	5.7%	2.0%	5.5%	4.4%
Eversource Energy (ES)	4.0%	5.0%	4.9%	5.0%
MGE Energy Inc. (MGEE)	5.4%	5.4%	4.0%	4.9%
NorthWestern Corp. (NWE)	4.1%	5.2%	3.8%	4.6%
Sempra Energy (SRE)	4.1%	5.0%	5.1%	4.7%
WEC Energy Group (WEC)	5.5%	5.9%	5.3%	5.5%
Mean	**4.9%**	**5.0%**	**4.2%**	**4.8%**
Median	**5.4%**	**5.3%**	**4.1%**	**4.9%**

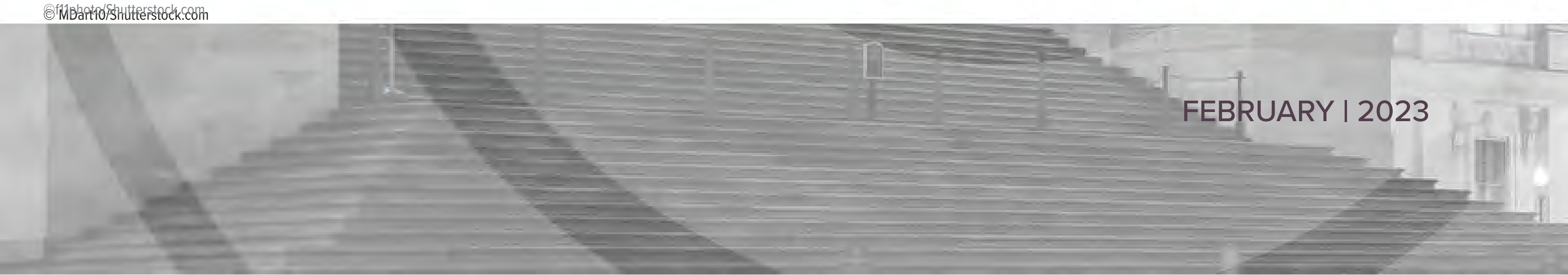
Sources: http://finance.yahoo.com; www.zacks.com; MarketWatch; December 2023. See links below.
Yahoo Finance - https://finance.yahoo.com/quote/SO/analysis?p=SO
Zacks - https://www.zacks.com/stock/quote/bkh/detailed-earning-estimates
MarketWatch - https://www.marketwatch.com/

DCF Growth Rate Indicators

Growth Rate Indicator	Combination Group
Historic *Value Line* Growth in EPS, DPS, and BVPS	6.0%
Projected *Value Line* Growth in EPS, DPS, and BVPS	4.9%
Projected EPS Growth from Yahoo, Zacks, and S&P Cap IQ - Mean/Median	4.8% / 4.9%

Congressional Budget Office
Nonpartisan Analysis for the U.S. Congress

The Budget and Economic Outlook: 2023 to 2033



FEBRUARY | 2023

At a Glance

The Congressional Budget Office regularly publishes reports presenting its baseline projections of what the federal budget and the economy would look like in the current year and over the next 10 years if current laws governing taxes and spending generally remained unchanged. This report is the latest in that series.

The Budget. CBO projects a federal budget deficit of $1.4 trillion for 2023. (Deficits and spending have been adjusted to exclude the effects of shifts that occur in the timing of certain payments when October 1 falls on a weekend.) In the agency's projections, deficits generally increase over the coming years; the shortfall in 2033 is $2.7 trillion. The deficit amounts to 5.3 percent of gross domestic product (GDP) in 2023, swells to 6.1 percent of GDP in 2024 and 2025, and then declines in the two years that follow. After 2027, deficits increase again, reaching 6.9 percent of GDP in 2033—a level exceeded only five times since 1946 (see Chapter 1).

In CBO's projections, outlays and revenues measured as a percentage of GDP equal or exceed their 50-year averages through 2033. Outlays increase from 23.7 percent of GDP in 2023 (a high level by historical standards) to 24.9 percent in 2033, largely because of rising interest costs and greater spending on programs that provide benefits to elderly people. Revenues amount to 18.3 percent of GDP in 2023. They then decline over the next two years before increasing after 2025, when certain provisions of the 2017 tax act expire. Revenues are roughly stable after 2027; they total 18.1 percent of GDP in 2033.

Debt held by the public is projected to rise in relation to the size of the economy each year, reaching 118 percent of GDP by 2033—which would be the highest level ever recorded. Debt would continue to grow beyond 2033 if current laws generally remained unchanged.

Changes in CBO's Budget Projections. CBO's projection of the deficit for 2023 is now $0.4 trillion more than it was in May 2022; the projection of the cumulative deficit over the 2023–2032 period is now $3.1 trillion (or about 20 percent) more, largely because of newly enacted legislation and changes in CBO's economic forecast, including higher projected inflation and interest rates (see Appendix A).

The Economy. To combat high inflation, the Federal Reserve sharply increased the target range for the federal funds rate in 2022. In CBO's projections, inflation gradually slows in 2023 as pressures ease from factors that, since mid-2020, have caused demand to grow more rapidly than supply. Output stagnates and unemployment rises in 2023, partially as a result of tighter monetary policy. After that, inflation slowly returns to the Federal Reserve's long-run goal of 2 percent, and output grows at a more robust pace as interest rates decrease (see Chapter 2).

Changes in CBO's Economic Projections. The agency projects much weaker growth of real GDP for 2023 than it did last May, stronger growth during the 2024–2026 period, and similar rates of growth over the remainder of the projection period. CBO now projects higher inflation for 2023 and 2024 than it did last May, mainly for two reasons: Recent data suggest that inflation has been more persistent across many sectors of the economy than CBO anticipated, and supply-side disruptions have remained greater than the agency previously forecast. CBO now expects both short- and long-term interest rates to be higher, on average, over the next five years than forecast last May, mostly because of higher projected inflation.

By the Numbers

Budget Outlook, by Fiscal Year

	Percentage of Gross Domestic Product					Billions of Dollars			
	Average, 1973–2022	Actual, 2022	2023	2024	2033	Actual, 2022	2023	2024	2033
Revenues, Total	**17.4**	**19.6**	**18.3**	**17.7**	**18.1**	**4,896**	**4,812**	**4,838**	**7,098**
Individual income taxes	8.0	10.5	9.6	9.0	9.7	2,632	2,523	2,467	3,803
Payroll taxes	6.0	5.9	6.0	6.0	5.9	1,484	1,562	1,633	2,307
Corporate income taxes	1.8	1.7	1.8	1.8	1.4	425	475	479	539
Other	1.6	1.4	1.0	1.0	1.1	356	251	260	449
Outlays, Total	**21.0**	**24.8**	**23.7**	**23.8**	**24.9**	**6,208**	**6,206**	**6,493**	**9,799**
Mandatory, subtotal	10.9	16.3	14.6	14.3	15.3	4,076	3,825	3,885	5,997
Social Security	4.4	4.8	5.1	5.3	6.0	1,213	1,336	1,450	2,355
Major health care programs	3.3	5.6	5.7	5.6	6.7	1,404	1,508	1,528	2,629
Medicare, net of offsetting receipts	2.0	2.8	3.1	3.3	4.1	710	820	894	1,623
Medicaid, CHIP, and marketplace subsidies	1.2	2.8	2.6	2.3	2.6	695	688	634	1,005
Other	3.2	5.8	3.7	3.3	2.6	1,459	981	908	1,014
Discretionary, subtotal	8.0	6.6	6.6	6.9	6.0	1,657	1,741	1,869	2,373
Defense	4.3	3.0	3.1	3.1	2.8	746	800	848	1,105
Nondefense	3.8	3.6	3.6	3.7	3.2	910	941	1,022	1,269
Net interest	2.0	1.9	2.4	2.7	3.6	475	640	739	1,429
Deficit, Total	**-3.6**	**-5.2**	**-5.3**	**-6.1**	**-6.9**	**-1,312**	**-1,394**	**-1,655**	**-2,702**
Deficit, Primary	-1.5	-3.3	-2.9	-3.4	-3.2	-837	-755	-916	-1,273
Debt Held by the Public	46.9	97.0	98.0	100.4	118.2	24,257	25,716	27,370	46,445

See Chapter 1. When October 1 falls on a weekend, certain payments that would have ordinarily been made on that day are instead made at the end of September and thus are shifted into the previous fiscal year. Mandatory outlays, discretionary outlays, and deficits have been adjusted to exclude the effects of those timing shifts.

Economic Outlook, by Calendar Year

Percent

					Annual Average	
	Actual, 2022	2023	2024	2025	2026–2027	2028–2033
			Change From Year to Year			
Real (Inflation-adjusted) GDP	2.1	0.3	1.8	2.7	2.4	1.8
Inflation						
PCE price index	6.2	3.8	2.7	2.2	2.1	2.0
Consumer price index	8.0	4.8	3.0	2.2	2.1	2.3
			Annual Average			
Unemployment Rate	3.6	4.7	4.9	4.7	4.5	4.5
Payroll Employment (Monthly change, in thousands)	427	9	66	97	80	67
Interest Rates						
3-month Treasury bills	2.0	4.5	3.2	2.5	2.2	2.3
10-year Treasury notes	3.0	3.9	3.8	3.8	3.8	3.8
Tax Bases (Percentage of GDP)						
Wages and salaries	43.8	44.3	44.5	44.5	44.3	44.0
Domestic corporate profits (Estimated value for 2022)	9.7	7.9	7.5	7.9	8.2	8.0

See Table 2-1 on page 35. Actual values for 2022 reflect data available from the Bureau of Economic Analysis and the Bureau of Labor Statistics in early February 2023. The data contain values for the fourth quarter of 2022, which were not available when CBO developed its current projections.

Contents

Notes

The budget projections in this report include the effects of legislation enacted through January 9, 2023, and are based on the Congressional Budget Office's economic projections. Those economic projections reflect economic developments and information as of December 6, 2022, and are available on CBO's website (www.cbo.gov/data/budget-economic-data#4).

Unless this report indicates otherwise, the historical data shown in figures, tables, and text describing the economic forecast reflect more recent fourth-quarter data available from the Bureau of Economic Analysis and other sources in early February 2023.

Unless the report indicates otherwise, all years referred to in describing the budget outlook are federal fiscal years, which run from October 1 to September 30 and are designated by the calendar year in which they end. Years referred to in describing the economic outlook are calendar years.

Numbers in the text, tables, and figures may not add up to totals because of rounding.

Some of the figures in this report use shaded vertical bars to indicate periods of recession. (A recession extends from the peak of a business cycle to its trough.)

Previous editions of this report often included an appendix of historical budget data. Those data and other supplemental data for this analysis are available on CBO's website (www.cbo.gov/publication/58848#data), as are a glossary of common budgetary and economic terms (www.cbo.gov/publication/42904), a description of how CBO prepares its baseline budget projections (www.cbo.gov/publication/53532), a description of how CBO prepares its economic forecast (www.cbo.gov/publication/53537), and previous editions of this report (https://tinyurl.com/4dt4hshv).

Chapter 2: The Economic Outlook

Overview

This chapter provides details about the Congressional Budget Office's February 2023 economic projections, which the agency used as the basis for updating its budget projections. Inflation continued at a high rate in 2022, reflecting supply disruptions, the effects of the Russian invasion of Ukraine on food and energy prices, a tight labor market, and the effects of fiscal policy. In response, the Federal Reserve sharply raised interest rates. Output showed modest growth during 2022. In 2023, economic activity is projected to stagnate, with rising unemployment and falling inflation.

The Economic Outlook for 2023 to 2027

CBO's projections reflect economic developments as of December 6, 2022; the agency's initial assessments of full-year discretionary funding for the federal government for fiscal year 2023 (which were 4 percent lower in total than CBO's current estimates); and the assumption that current laws governing federal taxes and spending generally remain in place. In those projections, elevated inflation initially persists as shelter (housing) costs and wages continue to rise and as supply disruptions gradually decline:

- **Inflation,** which was slightly lower in 2022 than in 2021 but higher than in any other year since 1981, continues to exceed the Federal Reserve's long-run goal of 2 percent through 2023 and 2024 before nearing that rate by 2026. As measured by the price index for personal consumption expenditures (PCE), inflation is 3.3 percent in 2023, reflecting the lagged effects of higher home prices on rents as well as tight labor markets.[1] In 2024, inflation falls to 2.4 percent as labor markets soften and increases in rents slow. After 2024, inflation approaches the Federal Reserve's goal of 2 percent, reaching 2.2 percent in 2025 and 2.1 percent in 2026.
- **Interest rates** on Treasury securities rise further in early 2023 and then gradually recede beginning in late 2023. To reduce inflationary pressures, the Federal Reserve raises the federal funds rate (the rate that financial institutions charge each other for overnight loans of their monetary reserves) again in early 2023. That rate reaches 5.1 percent by the end of the first quarter of 2023 and remains there through the end of the third quarter of 2023; it averages 4.8 percent during the fourth quarter of 2023. As inflation slows and unemployment rises, the federal funds rate continues to fall, reaching 3.0 percent by the end of 2024. The interest rate on 10-year Treasury notes remains at 3.8 percent after 2023.
- **Output growth** comes to a halt in early 2023 in response to the sharp rise in interest rates during 2022. Real gross domestic product (that is, GDP adjusted to remove the effects of inflation) grows by just 0.1 percent in 2023, restrained by declining home building and inventory investment (see Figure 2-1). As financial conditions gradually ease after 2023, the annual growth rate of real GDP averages 2.4 percent from 2024 to 2027.
- **Conditions in the labor market** deteriorate in 2023. Payroll employment stagnates, and the unemployment rate rises from 3.6 percent in the fourth quarter of 2022 to 5.1 percent at the end of 2023. The unemployment rate then gradually declines to 4.5 percent by the end of 2027 (see Table 2-1). The size of the labor force, which finally regained its prepandemic level in the second half of 2022, continues to rise, although at a modest pace.

The Economic Outlook for 2028 to 2033

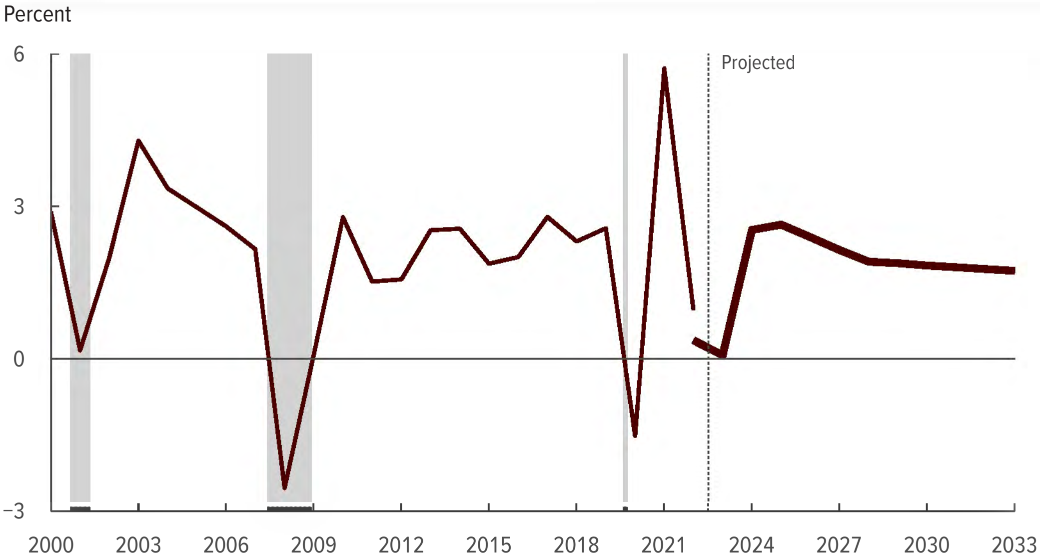
In CBO's forecast, economic output expands slightly less rapidly from 2028 to 2033 than it does over the 2024–2027 period. Real GDP grows by 1.8 percent per year, on average, the same as the growth rate of real potential GDP (that is, the maximum sustainable output of the economy). The level of real GDP is slightly below the level of real potential GDP from 2028 to 2033, in line with their historical relationship, on average.

In CBO's projections for the 2028–2033 period, the growth rate of potential output is similar to the average

1. Unless this report indicates otherwise, annual growth rates are measured from the fourth quarter of one year to the fourth quarter of the next.

Figure 2-1.

Growth of Real GDP



In CBO's projections, output growth comes to a halt in 2023 in response to the sharp rise in interest rates during 2022. Then, as falling inflation allows the Federal Reserve to reduce the target range for the federal funds rate, the growth of real GDP rebounds, led by the interest-sensitive sectors of the economy.

Data source: Congressional Budget Office. See www.cbo.gov/publication/58848#data.

Real values are nominal values that have been adjusted to remove the effects of inflation.

Growth of real GDP is measured from the fourth quarter of one calendar year to the fourth quarter of the next.

Values for 2000 to 2022 (the thin line) reflect data available from the Bureau of Economic Analysis in early February 2023. The data contain values for the fourth quarter of 2022, which were not available when CBO developed its current projections for 2022 to 2033 (the thick line).

GDP = gross domestic product.

growth rate of potential output since the business cycle peak in late 2007; however, the growth rate of the potential labor force is slower, and the growth rate of potential labor force productivity is more rapid. Nevertheless, potential output grows much more slowly than it has over the past 30 years, partly because of slower productivity growth but mainly because of an ongoing, long-term slowdown in the growth of the labor force.

Uncertainty About the Economic Outlook

CBO develops its projections so that they fall in the middle of the likely range of outcomes under current law. But those projections are highly uncertain, and many factors could lead to different outcomes. The upward pressure on wages and prices from conditions in the labor market could be greater or less than the agency expects. Economic output and conditions in the labor market could also vary from those in CBO's forecast. In the short run, higher interest rates could have larger- or smaller-than-expected effects on overall demand for goods and services and demand for labor. In the long run, the pace of potential output in the aftermath of the coronavirus pandemic could be faster or slower than expected. Other key sources of uncertainty are future monetary policy and the path of interest rates. Uncertainty about that path contributes to the uncertainty of the agency's estimates of the effect of larger deficits and debt on the economy. Geopolitical events, including Russia's ongoing invasion of Ukraine, add to the uncertainty of the economic outlook, notably the outlook for inflation.

Comparison With CBO's Previous Projections

Real GDP grew more slowly in each quarter of 2022 than the agency expected.[2] An upward revision to GDP in 2021 mitigated some of the effect of slower growth in 2022 on the level of GDP at the end of 2022.

Compared with its May 2022 projections, CBO's current projections show weaker economic growth in 2023 (0.1 percent versus 2.2 percent) and stronger growth in 2024 (2.5 percent versus 1.5 percent) and the

2. See Congressional Budget Office, *The Budget and Economic Outlook: 2022 to 2032* (May 2022), www.cbo.gov/publication/57950.

Table 2-1.

CBO's Economic Projections for Calendar Years 2023 to 2033

Percent

	Actual, 2022	2023	2024	2025	Annual Average 2026–2027	Annual Average 2028–2033
Change From Fourth Quarter to Fourth Quarter						
Gross Domestic Product						
Real[a]	1.0	0.1	2.5	2.6	2.3	1.8
Nominal	7.3	3.1	4.9	4.8	4.3	3.8
Inflation						
PCE price index	5.5	3.3	2.4	2.2	2.0	2.0
Core PCE price index[b]	4.7	3.4	2.7	2.4	2.2	2.0
Consumer price index[c]	7.1	4.0	2.4	2.1	2.1	2.3
Core consumer price index[b]	6.0	4.2	2.8	2.3	2.2	2.3
GDP price index	6.3	3.0	2.3	2.1	2.0	2.0
Employment Cost Index[d]	5.1	4.5	3.8	3.5	3.3	3.2
Fourth-Quarter Level						
Unemployment Rate	3.6	5.1	4.8	4.6	4.1[e]	4.5[f]
Change From Year to Year						
Gross Domestic Product						
Real[a]	2.1	0.3	1.8	2.7	2.4	1.8
Nominal	9.2	4.0	4.4	4.9	4.4	3.9
Inflation						
PCE price index	6.2	3.8	2.7	2.2	2.1	2.0
Core PCE price index[b]	5.0	3.9	2.9	2.5	2.2	2.0
Consumer price index[c]	8.0	4.8	3.0	2.2	2.1	2.3
Core consumer price index[b]	6.1	4.9	3.3	2.5	2.2	2.3
GDP price index	7.0	3.7	2.5	2.1	2.0	2.0
Employment Cost Index[d]	5.3	4.9	4.0	3.6	3.4	3.2
Annual Average						
Unemployment Rate	3.6	4.7	4.9	4.7	4.5	4.5
Payroll Employment (Monthly change, in thousands)[g]	427	9	66	97	80	67
Interest Rates						
3-month Treasury bills	2.0	4.5	3.2	2.5	2.2	2.3
10-year Treasury notes	3.0	3.9	3.8	3.8	3.8	3.8
Tax Bases (Percentage of GDP)						
Wages and salaries	43.8	44.3	44.5	44.5	44.3	44.0
Domestic corporate profits[h]	9.7[i]	7.9	7.5	7.9	8.2	8.0
Current Account Balance (Percentage of GDP)[j]	-4.0[i]	-4.1	-3.7	-3.3	-3.2	-3.2

Data sources: Congressional Budget Office; Bureau of Economic Analysis; Bureau of Labor Statistics; Federal Reserve. See www.cbo.gov/publication/58848#data.

For economic projections for each year from 2023 to 2033, see Appendix B.

Actual values for 2022 reflect data available from the Bureau of Economic Analysis and the Bureau of Labor Statistics in early February 2023. The data contain values for the fourth quarter of 2022, which were not available when CBO developed its current projections.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Real values are nominal values that have been adjusted to remove the effects of inflation.

b. Excludes prices for food and energy.

c. The consumer price index for all urban consumers.

d. The employment cost index for wages and salaries of workers in private industry.

e. Value for the fourth quarter of 2027.

f. Value for the fourth quarter of 2033.

g. The average monthly change is calculated by dividing by 12 the change in nonfarm payrolls from the fourth quarter of one calendar year to the fourth quarter of the next.

h. Adjusted to remove the effect of tax rules on depreciation allowances and to exclude the effect of changes in prices on the value of inventories.

i. Estimated value for 2022.

j. Represents net exports of goods and services, net capital income, and net transfer payments between the United States and the rest of the world.

Appendix B: CBO's Economic Projections for 2023 to 2033

The tables in this appendix show the Congressional Budget Office's economic projections for each year from 2023 to 2033. For the projections by calendar year, see Table B-1; for the projections by fiscal year, see Table B-2.

Table B-1.

CBO's Economic Projections, by Calendar Year

Percent

	Actual, 2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	Change From Year to Year											
Gross Domestic Product												
Real[a]	2.1	0.3	1.8	2.7	2.4	2.3	2.0	1.9	1.9	1.8	1.8	1.7
Nominal	9.2	4.0	4.4	4.9	4.5	4.3	4.0	3.9	3.9	3.8	3.8	3.7
Inflation												
PCE price index	6.2	3.8	2.7	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9
Core PCE price index[b]	5.0	3.8	2.9	2.5	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0
Consumer price index[c]	8.0	4.8	3.0	2.2	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.3
Core consumer price index[b]	6.1	4.9	3.3	2.5	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3
GDP price index	7.0	3.7	2.5	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9
Employment Cost Index[d]	5.3	4.9	4.0	3.6	3.4	3.3	3.3	3.2	3.2	3.2	3.2	3.1
	Calendar Year Average											
Unemployment Rate	3.6	4.7	4.9	4.7	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Payroll Employment (Monthly change, in thousands)[e]	427	9	66	97	83	77	79	72	64	63	59	63
Interest Rates												
3-month Treasury bills	2.0	4.5	3.2	2.5	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3
10-year Treasury notes	3.0	3.9	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Tax Bases (Percentage of GDP)												
Wages and salaries	43.8	44.3	44.5	44.5	44.4	44.2	44.1	44.1	44.0	44.0	43.9	43.9
Domestic corporate profits[f]	9.7[g]	7.9	7.5	7.9	8.1	8.2	8.2	8.1	8.0	8.0	7.9	7.9
Tax Bases (Billions of dollars)												
Wages and salaries	11,153	11,719	12,276	12,874	13,432	13,946	14,481	15,039	15,611	16,197	16,791	17,395
Domestic corporate profits[f]	2,466[g]	2,077	2,063	2,298	2,457	2,599	2,689	2,764	2,846	2,934	3,033	3,131
Nominal GDP (Billions of dollars)	25,461	26,438	27,592	28,947	30,262	31,573	32,843	34,138	35,468	36,832	38,225	39,646

Data source: Congressional Budget Office. See www.cbo.gov/publication/58848#data.

Actual values for 2022 reflect data available from the Bureau of Economic Analysis and the Bureau of Labor Statistics in early February 2023. The data contain values for the fourth quarter of 2022, which were not available when CBO developed its current projections.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Real values are nominal values that have been adjusted to remove the effects of inflation.

b. Excludes prices for food and energy.

c. The consumer price index for all urban consumers.

d. The employment cost index for wages and salaries of workers in private industry.

e. The average monthly change is calculated by dividing by 12 the change in nonfarm payrolls from the fourth quarter of one calendar year to the fourth quarter of the next.

f. Adjusted to remove the effects of tax rules on depreciation allowances and to exclude the effects of changes in prices on the value of inventories.

g. Estimated value for 2022.

CAPM Cost of Equity Summary -- Gas Group

CAPM Formula: $K = R_f + b(R_m - R_f)$

Risk Free Rate (R_f)	**4.6%**
Beta (β) - Value Line	**0.86**
Equity Risk Premium (Rm - Rf) *	**5.5%**
Equity Cost Rate	**9.3%**

* Source: Attachment LDC-7, page 1.

Yields on U.S. Treasury Bonds

Month	Treasury Bonds	10 Year Treasury Bonds	20 Year Treasury Bonds	30 Year Treasury Bonds
12/22/2023	**3.87%**	**3.90%**	**4.21%**	**4.05%**
12/15/2023	**3.91%**	**3.91%**	**4.19%**	**4.00%**
12/8/2023	**4.24%**	**4.23%**	**4.49%**	**4.31%**
12/1/2023	**4.14%**	**4.22%**	**4.58%**	**4.40%**
11/24/2023	**4.49%**	**4.47%**	**4.79%**	**4.60%**
11/17/2023	**4.45%**	**4.44%**	**4.80%**	**4.59%**
11/10/2023	**4.65%**	**4.61%**	**4.93%**	**4.73%**
11/3/2023	**4.49%**	**4.57%**	**4.93%**	**4.77%**
10/27/2023	**4.76%**	**4.84%**	**5.19%**	**5.03%**
10/20/2023	**4.86%**	**4.93%**	**5.27%**	**5.09%**
10/13/2023	**4.65%**	**4.63%**	**4.97%**	**4.78%**
10/6/2023	**4.75%**	**4.78%**	**5.13%**	**4.97%**
9/29/2023	**4.60%**	**4.59%**	**4.92%**	**4.70%**
Mean	**4.45%**	**4.47%**	**4.80%**	**4.62%**
Median	**4.49%**	**4.57%**	**4.92%**	**4.70%**

`

Source: December 2023: https://ycharts.com/indicators/5_year_treasury_rate; https://ycharts.com/indicators/10_year_treasury_rate; https://ycharts.com/indicators/20_year_treasury_rate; https://ycharts.com/indicators/30_year_treasury_rate

Kroll Risk Free Rate - Attachment LDC-7, p. 3.	**3.50%**
30-Year Treasury Bond Rate	**4.30%**

Beta for Gas Group

Company Name	Value Line Betas*
Atmos Energy Corp. (ATO)	0.85
NiSource Inc. (NI)	0.90
Northwest Natural Gas Co. (NWN)	0.85
ONE Gas Inc. (OGS)	0.85
Spire, Inc. (SR)	0.85
Mean	**0.86**

* See Attachment LDC-1, pp. 1-5.

CAPM Cost of Equity Summary - Combination Group

CAPM Formula: $K = R_f + b(R_m - R_f)$

Risk Free Rate (R_f)	**4.6%**
Beta (β) - Value Line	**0.89**
Equity Risk Premium (Rm - Rf) *	**5.5%**
Equity Cost Rate	**9.5%**

* Source: Attachment LDC-7, page 1.

Yields on U.S. Treasury Bonds

Month	Treasury Bonds	10 Year Treasury Bonds	20 Year Treasury Bonds	30 Year Treasury Bonds
12/22/2023	3.87%	3.90%	4.21%	4.05%
12/15/2023	3.91%	3.91%	4.19%	4.00%
12/8/2023	4.24%	4.23%	4.49%	4.31%
12/1/2023	4.14%	4.22%	4.58%	4.40%
11/24/2023	4.49%	4.47%	4.79%	4.60%
11/17/2023	4.45%	4.44%	4.80%	4.59%
11/10/2023	4.65%	4.61%	4.93%	4.73%
11/3/2023	4.49%	4.57%	4.93%	4.77%
10/27/2023	4.76%	4.84%	5.19%	5.03%
10/20/2023	4.86%	4.93%	5.27%	5.09%
10/13/2023	4.65%	4.63%	4.97%	4.78%
10/6/2023	4.75%	4.78%	5.13%	4.97%
9/29/2023	4.60%	4.59%	4.92%	4.70%
Mean	4.45%	4.47%	4.80%	4.62%
Median	4.49%	4.57%	4.92%	4.70%

`

Source: December 2023: https://ycharts.com/indicators/5_year_treasury_rate; https://ycharts.com/indicators/10_year_treasury_rate; https://ycharts.com/indicators/20_year_treasury_rate; https://ycharts.com/indicators/30_year_treasury_rate

Kroll Risk Free Rate - Attachment LDC-7, p. 3.		3.50%
30-Year Treasury Bond Rate		4.62%

Beta for Combination Group

Company Name	Value Line Betas*
Alliant Energy Corp. (LNT)	0.90
Avista Corp. (AVA)	0.90
Black Hills Corp. (BKH)	1.00
CMS Energy Corp. (CMS)	0.85
Consolidated Edison Inc. (ED)	0.75
Eversource Energy (ES)	0.90
MGE Energy, Inc. (MGEE)	0.75
NorthWestern Corp. (NWE)	0.95
Sempra Energy (SRE)	1.00
WEC Energy Group (WEC)	0.85
Mean	**0.89**

* See Attachment LDC-1, pp. 6-15.

Kroll Lowers Its Recommended U.S. Equity Risk Premium to 5.5%

Executive Summary

Kroll regularly reviews fluctuations in global economic and financial market conditions that may warrant changes to our equity risk premium (ERP) and accompanying risk-free rate recommendations. The risk-free rate and ERP are key inputs used to calculate the cost of equity capital in the context of the Capital Asset Pricing Model (CAPM) and other models used to develop discount rates. We also update country risk data on a quarterly basis for 175+ countries using various models.

The Kroll Recommended U.S. ERP is decreasing from 6.0% to 5.5% when developing USD-denominated discount rates as of June 8, 2023 and thereafter, until further notice. The Kroll Recommended Eurozone ERP is being reaffirmed in the *range* of 5.5% to 6.0% until further notice.

Background

According to our last update "Impact of High Inflation and Market Volatility on Cost of Capital Assumptions" (dated October 18, 2022), the Kroll Recommended U.S. ERP was *increased* to 6.0% (from 5.5%) when developing USD-denominated discount rates as of October 18, 2022 and thereafter, until further guidance was issued.

In March 2023, we *reaffirmed* our 6.0% U.S. ERP guidance, largely due to the emerging banking crisis that led to a number of banks declaring bankruptcy or being bailed out (through acquisitions).

More recently, we observed that the factors we monitor suggested (on the whole) that equity risks *had diminished* relative to our previous March 2023 analysis, but the stalemate in the U.S. debt ceiling negotiations was the factor preventing us from lowering the recommendation to 5.5%. In early May, U.S. Treasury Secretary Janet Yellen warned that the country could breach the debt ceiling as early as June 1 (later changed to June 5), which could have led to the first-ever debt default by the United States.

The stalemate over the debt ceiling has been resolved with the passage of the "Fiscal Responsibility Act of 2023" (signed into law by the U.S. President on June 3). In addition, the factors we normally monitor continue to suggest that equity risks have diminished relative to when we issued our October 2022 guidance, as well as relative to the turmoil observed during the March 2023 banking crisis:

- The Federal Reserve (Fed) hinted at a *pause* of its recent interest-rate hiking cycle, taking a wait-and-see approach. Although some Fed officials still think that additional rate hikes could be in the cards, this pause has removed some of the uncertainty from financial markets.

- At the end of May 2023, the S&P 500 index was *up* about 17% from its October 12, 2022 local low (in price terms). The NASDAQ index, a barometer of the tech sector, was *up* by 27% since its December 28, 2022 local low. The S&P 500 and NASDAQ improvements since the beginning of this year do not compensate for their overall 2022 losses of 19% and 33%, respectively. However, it does reflect the fact that markets have generally been more optimistic in 2023.

- The VIX (the volatility index on the S&P 500), known informally as the "fear index", has generally been around or *below* its long-term average of approximately 20 since the beginning of the year (except during the March banking crisis, when it reached a local high of 26.5 on March 13).

- U.S. corporate credit spreads (i.e., the difference between yields of speculative-grade bonds and investment-grade bonds) are still *low* on a historical basis, even though the underlying corporate yields have increased significantly since early 2022. Similar to the VIX, corporate credit spreads are generally considered a barometer of investors' "fear".

- Forward-looking ERP models have been *lower* relative to their September/October 2022 highs when we last increased our U.S. ERP recommendation to 6.0%.

- While there is a chance the U.S. economy will tip into recession later in 2023 or in early 2024, many economists do *not* expect it to be a deep or prolonged one.

- While the U.S. unemployment rate increased to from 3.4% in April to 3.7% in May, this is still very low by historical standards. The labor market is still tight and unemployment rate projections are relatively tame when compared to past recessionary periods.

- Inflation, as measured by the Consumer Price Index (CPI), is still far above the Fed's 2.0% target, but it seems to be on a steady downward path. In the 12 months ending in April 2023, CPI inflation (before seasonal adjustments) increased 4.9%, down from its 41-year high of 9.1% for the 12 month-period ending June 2022. Nevertheless, risks do remain. The Fed's preferred gauge for inflation, the Personal Consumer Expenditures (PCE) Price Index has actually accelerated in April to 4.4%. Likewise, the core PCE index (i.e., excluding food and energy) accelerated to 4.7% in April, demonstrating the challenge the Fed is facing in bringing down inflation.

- For now, the world economy appears to have avoided the worst-case scenarios from the Russia-Ukraine war.

  Meanwhile, a period of "stagflation"—where the economy experiences sluggish or no growth—accompanied by high inflation is still a realistic scenario for some economies within the eurozone. For example, according to recent data, Germany—Europe's largest economy—entered a technical recession in Q1 2023, after two consecutive quarters of negative real economic growth. There was some optimism in early 2023 that a contraction could be avoided, as an unseasonably warm winter in Europe contributed to lower energy prices. However, high prices continued to erode German consumer purchasing power.

Inflation in Germany remained at an elevated level of 6.3% (estimated) in May and is expected to remain a key challenge for the rest of the year.

In the broader eurozone, inflation has been slowly coming down from 25-year highs, standing at an estimated 6.1% at the end of May. However, core inflation (excluding volatile energy and food prices) remained stubbornly high at an estimated 5.3%, and far from the European Central Bank's (ECB) 2.0% inflation target. The ECB slowed down the pace of interest rate hikes at its May 2023 meeting, but signaled more tightening is still coming. The revision in Germany's real GDP growth for Q1 2023 helped tip the eurozone economy into a technical recession, after also having contracted in Q4 2022. This will make ECB's job in 2023 even more challenging.

Cost of Capital Recommendations

- **United States:** With the aforementioned factors suggesting that equity risks in the U.S. *have diminished*, and the immediate risks associated with the debt ceiling debate resolved with the passage of the "Fiscal Responsibility Act of 2023", **Kroll is lowering its Recommended U.S. ERP from 6.0% to 5.5% when developing USD-denominated discount rates as of June 8, 2023 and thereafter, until further notice.** This is matched with the *higher* of a normalized risk-free rate of 3.5% or the spot 20-year U.S. Treasury yield as of the valuation date.

- **Eurozone (from a German investor perspective)**: The current Kroll Recommended Eurozone ERP remains in the *range* of 5.5% to 6.0%. Based on current economic and financial market conditions, we continue to believe that an ERP towards the higher end of the range (i.e., 6.0%), used in conjunction with a German normalized risk-free rate of 3.0%, is more appropriate when developing EUR-denominated discount rates as of June 8, 2023 and thereafter, until further guidance is issued.

  Incremental country risk adjustments for other eurozone countries with a sovereign debt rating below AAA may be appropriate. Please note that this information does not supersede Germany's IDW (Institut der Wirtschaftsprüfer) guidance for projects that will be reviewed by German auditors or regulators.

  However, we are monitoring markets and the geo-political and economic environment closely to determine whether indications point to an ERP closer to the lower end of our recommended range.

We will continue to closely monitor the situation and publish new guidance when appropriate.

Please contact our support team with any questions: costofcapital.support@kroll.com

FEDERAL RESERVE press release

For release at 2:00 p.m. EDT November 1, 2023

Recent indicators suggest that economic activity expanded at a strong pace in the third quarter. Job gains have moderated since earlier in the year but remain strong, and the unemployment rate has remained low. Inflation remains elevated.

The U.S. banking system is sound and resilient. Tighter financial and credit conditions for households and businesses are likely to weigh on economic activity, hiring, and inflation. The extent of these effects remains uncertain. The Committee remains highly attentive to inflation risks.

The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run. In support of these goals, the Committee decided to maintain the target range for the federal funds rate at 5-1/4 to 5-1/2 percent. The Committee will continue to assess additional information and its implications for monetary policy. In determining the extent of additional policy firming that may be appropriate to return inflation to 2 percent over time, the Committee will take into account the cumulative tightening of monetary policy, the lags with which monetary policy affects economic activity and inflation, and economic and financial developments. In addition, the Committee will continue reducing its holdings of Treasury securities and agency debt and agency mortgage-backed securities, as described in its previously announced plans. The Committee is strongly committed to returning inflation to its 2 percent objective.

(more)

In assessing the appropriate stance of monetary policy, the Committee will continue to monitor the implications of incoming information for the economic outlook. The Committee would be prepared to adjust the stance of monetary policy as appropriate if risks emerge that could impede the attainment of the Committee's goals. The Committee's assessments will take into account a wide range of information, including readings on labor market conditions, inflation pressures and inflation expectations, and financial and international developments.

Voting for the monetary policy action were Jerome H. Powell, Chair; John C. Williams, Vice Chair; Michael S. Barr; Michelle W. Bowman; Lisa D. Cook; Austan D. Goolsbee; Patrick Harker; Philip N. Jefferson; Neel Kashkari; Adriana D. Kugler; Lorie K. Logan; and Christopher J. Waller.

-0-

For media inquiries, please email media@frb.gov or call 202-452-2955.

Attachment

For release at 2:00 p.m. EDT November 1, 2023

Decisions Regarding Monetary Policy Implementation

The Federal Reserve has made the following decisions to implement the monetary policy stance announced by the Federal Open Market Committee in its statement on November 1, 2023:

- The Board of Governors of the Federal Reserve System voted unanimously to maintain the interest rate paid on reserve balances at 5.4 percent, effective November 2, 2023.
- As part of its policy decision, the Federal Open Market Committee voted to direct the Open Market Desk at the Federal Reserve Bank of New York, until instructed otherwise, to execute transactions in the System Open Market Account in accordance with the following domestic policy directive:

  "Effective November 2, 2023, the Federal Open Market Committee directs the Desk to:
  - Undertake open market operations as necessary to maintain the federal funds rate in a target range of 5-1/4 to 5-1/2 percent.
  - Conduct standing overnight repurchase agreement operations with a minimum bid rate of 5.5 percent and with an aggregate operation limit of $500 billion.
  - Conduct standing overnight reverse repurchase agreement operations at an offering rate of 5.3 percent and with a per-counterparty limit of $160 billion per day.
  - Roll over at auction the amount of principal payments from the Federal Reserve's holdings of Treasury securities maturing in each calendar month that exceeds a cap of $60 billion per month. Redeem Treasury coupon securities up to this monthly cap and Treasury bills to the extent that coupon principal payments are less than the monthly cap.
  - Reinvest into agency mortgage-backed securities (MBS) the amount of principal payments from the Federal Reserve's holdings of agency debt and agency MBS received in each calendar month that exceeds a cap of $35 billion per month.
  - Allow modest deviations from stated amounts for reinvestments, if needed for operational reasons.
  - Engage in dollar roll and coupon swap transactions as necessary to facilitate settlement of the Federal Reserve's agency MBS transactions."

- In a related action, the Board of Governors of the Federal Reserve System voted unanimously to approve the establishment of the primary credit rate at the existing level of 5.5 percent.

(more)

This information will be updated as appropriate to reflect decisions of the Federal Open Market Committee or the Board of Governors regarding details of the Federal Reserve's operational tools and approach used to implement monetary policy.

More information regarding open market operations and reinvestments may be found on the Federal Reserve Bank of New York's website.

Congressional Budget Office
Nonpartisan Analysis for the U.S. Congress

CBO's Current View of the Economy From 2023 to 2025

DECEMBER | 2023

The Congressional Budget Office periodically updates its economic forecast to ensure that its projections reflect recent economic developments and current law. CBO will publish its budget and economic projections for 2024 to 2034 early next year in its annual *Budget and Economic Outlook*. This report provides details about CBO's most recent projections of the economy through 2025, which reflect economic developments as of December 5, 2023 (see Table 1). CBO develops its economic projections so that they fall in the middle of the range of likely outcomes under current law. Those projections are highly uncertain, and many factors could lead to different outcomes. In CBO's latest projections:

- Output growth slows in 2024 and rebounds in 2025. The growth of real gross domestic product (GDP, adjusted to remove the effects of inflation) falls from 2.5 percent in 2023 to 1.5 percent in 2024 as consumer spending weakens and investment in private nonresidential structures contracts. In 2025, real GDP growth rises to 2.2 percent, supported by lower interest rates and improved financial conditions. (Unless this report indicates otherwise, annual growth rates are measured from the fourth quarter of one year to the fourth quarter of the next.)
- Labor market conditions soften in 2024. Growth in payroll employment slackens, and the unemployment rate rises from 3.9 percent in the fourth quarter of 2023 to 4.4 percent in the fourth quarter of 2024 and remains close to that level through 2025. The labor force grows at a moderate pace, with an increased contribution to that growth stemming from projected immigration over the next two years.[1]
- Inflation continues to slow over the next two years and approaches the Federal Reserve's target rate of 2 percent. As measured by the price index for personal consumption expenditures (PCE), inflation falls from 2.9 percent in 2023 to 2.1 percent in 2024, reflecting softer labor markets and slower increases in rents. In 2025, inflation rises slightly, to 2.2 percent, as downward pressures on inflation in food and energy prices ease and stronger economic activity modestly increases price pressures for some categories of services.
- Interest rates on Treasury securities peak in 2024 and then recede through 2025. The Federal Reserve holds the federal funds rate (the rate that financial institutions charge each other for overnight loans of their monetary reserves) between 5.25 percent and 5.50 percent through the first quarter of 2024 and then reduces it in response to slowing inflation and rising unemployment. The rate on 10-year Treasury notes increases to 4.8 percent in the second half of 2024 and begins to fall in mid-2025.

Compared with its February 2023 projections, CBO's current projections exhibit weaker growth, lower unemployment, and higher interest rates in 2024 and 2025.[2] The agency's current projections of inflation are mixed relative to those made in February 2023.

- Slower economic growth during 2024 (by 1.0 percentage point) and 2025 (by 0.4 percentage points) largely occurs because of slower-than-projected growth in consumption, investment, and exports. The

1. See Testimony of Julie Topoleski, Director of Labor, Income Security, and Long-Term Analysis, before the Joint Economic Committee, *CBO's Demographic Projections* (November 15, 2023), www.cbo.gov/publication/59683. CBO expects to publish its next comprehensive demographic projections in January 2024.

2. See Congressional Budget Office, *The Budget and Economic Outlook: 2023 to 2033* (February 2023), www.cbo.gov/publication/58848.

Table 1.

CBO's Economic Projections for 2023 to 2025

	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Actual, 2022	2023	2024	2025
	Percentage change from previous quarter (annual rate)					Percentage change from fourth quarter to fourth quarter			
Gross domestic product									
Real[a]	0.8	1.3	1.4	1.7	1.7	0.7	2.5	1.5	2.2
Nominal	2.9	2.9	3.4	3.7	3.8	7.1	5.4	3.5	4.3
Inflation									
PCE price index	2.2	1.9	2.1	2.2	2.2	5.9	2.9	2.1	2.2
Core PCE price index[b]	2.6	2.4	2.3	2.4	2.4	5.1	3.4	2.4	2.3
Consumer price index[c]	2.5	2.1	2.7	2.7	2.5	7.1	3.2	2.5	2.5
Core consumer price index[b]	3.3	2.9	3.1	2.9	2.8	6.0	3.9	2.9	2.6
Employment cost index[d]	4.2	3.8	3.6	3.6	3.5	5.1	4.4	3.6	3.4
	Change in monthly average from previous quarter[e]					Change in monthly average from fourth quarter to fourth quarter[f]			
Payroll employment	194	155	99	38	45	427	235	84	178
	Quarterly average					Fourth quarter average			
Unemployment rate	3.9	4.0	4.1	4.2	4.4	3.6	3.9	4.4	4.4
Interest rates (percent)									
Effective federal funds rate[g]	5.3	5.4	5.2	5.0	4.7	3.7	5.3	4.7	3.7
10-year Treasury notes	4.5	4.2	4.6	4.8	4.8	3.8	4.5	4.8	4.3
Trade deficit (percentage of GDP)	-2.8	-2.9	-2.8	-2.8	-2.9	-3.3	-2.8	-2.9	-2.9

Data sources: Congressional Budget Office; Bureau of Economic Analysis; Bureau of Labor Statistics; Federal Reserve. See www.cbo.gov/publication/59837#data.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Real values are nominal values that have been adjusted to remove the effects of changes in prices.

b. Excludes prices for food and energy.

c. The consumer price index for all urban consumers (CPI-U).

d. The employment cost index for wages and salaries of workers in private industries.

e. Monthly average values are calculated by dividing quarterly values by 3.

f. Changes in monthly averages are calculated by taking the value for the fourth quarter of a year, subtracting the value for the fourth quarter of the previous year, and dividing by 12.

g. The interest rate calculated by the Federal Reserve as a volume-weighted median of overnight federal funds transactions.

downward revision from those sources is partially offset by higher net immigration.

- The lower unemployment rate for 2024 and 2025, on average, is the result of faster-than-projected economic growth in 2023.
- Higher interest rates in 2024 and 2025 reflect stronger economic activity in 2023, which resulted in the Federal Reserve raising the target range for the federal funds rate higher than what CBO projected in February 2023.
- The upward revision to inflation in the consumer price index for all urban consumers (CPI-U) in 2025 (by 0.3 percentage points) reflects faster-than-expected growth in the cost of housing services. (The CPI-U places more weight on the cost of housing services than the PCE price index does.) PCE inflation in 2024 that is lower than previously projected (by 0.3 percentage points) stems from better-than-expected improvements in supply conditions affecting prices that receive more weight in the PCE price index than in the CPI-U.

The Congressional Budget Office prepared this report in response to interest expressed by Members of Congress. This document is one of a series of reports on the state of the economy that CBO issues each year. In keeping with the agency's mandate to provide objective, impartial analysis, the report makes no recommendations.

CBO consulted members of its Panel of Economic Advisers during the development of this report. Although the agency's outside advisers provided considerable assistance, they are not responsible for the contents of this report; that responsibility rests solely with CBO.

Daniel Fried wrote the report. Leigh Angres, Sebastien Gay, Jaeger Nelson, and Joseph Rosenberg provided helpful comments. The economic forecast and related estimates were prepared by Nicholas Abushacra, Grace Berry, Aaron Betz, Daniel Fried, Edward Gamber, Ron Gecan, Mark Lasky, Chandler Lester, Kyoung Mook Lim, Michael McGrane, Christine Ostrowski, Jeffrey Schafer, and Matthew Wilson. Robert Arnold, Richard DeKaser, and Devrim Demirel supervised the preparation of the forecast and the report. Nicholas Abushacra and Grace Berry fact-checked the report.

Mark Doms, Jeffrey Kling, and Robert Sunshine reviewed the report. Caitlin Verboon edited it, and Jorge Salazar prepared it for publication. The report is available on CBO's website at www.cbo.gov/publication/59837.

CBO seeks feedback to make its work as useful as possible. Please send comments to communications@cbo.gov.

Phillip L. Swagel
Director

FEDERAL RESERVE press release

For release at 2:00 p.m. EST December 13, 2023

Recent indicators suggest that growth of economic activity has slowed from its strong pace in the third quarter. Job gains have moderated since earlier in the year but remain strong, and the unemployment rate has remained low. Inflation has eased over the past year but remains elevated.

The U.S. banking system is sound and resilient. Tighter financial and credit conditions for households and businesses are likely to weigh on economic activity, hiring, and inflation. The extent of these effects remains uncertain. The Committee remains highly attentive to inflation risks.

The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run. In support of these goals, the Committee decided to maintain the target range for the federal funds rate at 5-1/4 to 5-1/2 percent. The Committee will continue to assess additional information and its implications for monetary policy. In determining the extent of any additional policy firming that may be appropriate to return inflation to 2 percent over time, the Committee will take into account the cumulative tightening of monetary policy, the lags with which monetary policy affects economic activity and inflation, and economic and financial developments. In addition, the Committee will continue reducing its holdings of Treasury securities and agency debt and agency mortgage-backed securities, as described in its previously announced plans. The Committee is strongly committed to returning inflation to its 2 percent objective.

(more)

In assessing the appropriate stance of monetary policy, the Committee will continue to monitor the implications of incoming information for the economic outlook. The Committee would be prepared to adjust the stance of monetary policy as appropriate if risks emerge that could impede the attainment of the Committee's goals. The Committee's assessments will take into account a wide range of information, including readings on labor market conditions, inflation pressures and inflation expectations, and financial and international developments.

Voting for the monetary policy action were Jerome H. Powell, Chair; John C. Williams, Vice Chair; Michael S. Barr; Michelle W. Bowman; Lisa D. Cook; Austan D. Goolsbee; Patrick Harker; Philip N. Jefferson; Neel Kashkari; Adriana D. Kugler; Lorie K. Logan; and Christopher J. Waller.

-0-

For media inquiries, please email media@frb.gov or call 202-452-2955.

Attachments

AFFIRMATION

I affirm, under the penalties for perjury, that the foregoing representations are true.

Leja D. Courter

____

Leja D. Courter
Chief Technical Advisor
Indiana Office of Utility Consumer Counselor
Cause No.45967
Northern Indiana Public Service Co.

01/31/2024

Date

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing has been served upon the following counsel of record in the captioned proceeding by electronic service on January 31, 2024.

Nicholas K. Kile
Hillary J. Close
Lauren M. Box
Lauren Aguilar
Barnes & Thornburg LLP
Kile Email: nicholas.kile@btlaw.com
Close Email: hillary.close@btlaw.com
Box Email: lauren.box@btlaw.com
Aguilar Email: lauren.aguilar@btlaw.com

Bryan M. Likins
NiSource Corporate Services - Legal
Email:blikins@nisource.com

Jennifer A. Washburn
Citizens Action Coalition
Email: jwashburn@citact.org

Phillip Casey
Calfee, Halter & Griswold LLP
Phillip Casey email: pcasey@calfee.com

Todd A. Richardson
Joseph P. Rompala
Aaron A. Schmoll
LEWIS KAPPES, P.C.
Email: TRichardson@lewis-kappes.com
JRompala@lewis-kappes.com
ASchmoll@lewis-kappes.com

Keith L. Beall
CLARK, QUINN, MOSES, SCOTT & GRAHN, LLP
Email:kbeall@clarkquinnlaw.com

Anthony Alfano, Indiana
United Steelworkers
Email: aalfano@usw.org

Copy To:

Robert C. Sears
Northern Indiana Public Service Company LLC
Email: rsears@nisource.com

Debi McCall
NiSource Corporate Services - Legal
Email: demccall@nisource.com

Reagan Kurtz
CAC
rkurtz@citact.org

Antonia Domingo
United Steelworkers
adomingo@usw.org

[Signature Page Follows]

____
Thomas R. Harper
Attorney No 16735-53
Deputy Consumer Counselor

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR
115 West Washington Street
Suite 1500 South
Indianapolis, IN 46204
infomgt@oucc.in.gov
317/232-2494 – Telephone
317/232-5923 – Facsimile