STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF INDIANAPOLIS POWER & LIGHT COMPANY D/B/A AES INDIANA ("AES INDIANA") FOR AUTHORITY TO INCREASE RATES AND CHARGES FOR ELECTRIC UTILITY SERVICE, AND FOR APPROVAL OF RELATED RELIEF, INCLUDING (1) REVISED DEPRECIATION RATES, (2) ACCOUNTING RELIEF, INCLUDING DEFERRALS AND AMORTIZATIONS, (3) INCLUSION OF CAPITAL INVESTMENTS, (4) RATE ADJUSTMENT MECHANISM PROPOSALS, INCLUDING NEW ECONOMIC DEVELOPMENT RIDER, (5) REMOTE DISCONNECT/RECONNECT PROCESS, AND (6) NEW SCHEDULES OF RATES, RULES AND REGULATIONS FOR SERVICE.	)	**CAUSE NO. 45911**

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

PUBLIC'S EXHIBIT NO. 9

TESTIMONY OF OUCC WITNESS

LEJA D. COURTER

OCTOBER 12, 2023

Respectfully submitted,

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INDIANAPOLIS POWER & LIGHT COMPANY
D/B/A AES INDIANA
CAUSE NO. 45911
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 9.1% cost of equity ("COE") for Indianapolis Power & Light Company d/b/a AES Indiana ("AES Indiana" or "Petitioner"). I also will explain why Petitioner's recommended 10.6% 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 9.1% COE is a reasonable and appropriate COE for AES Indiana. 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: I use both a DCF and a CAPM analyses to estimate Petitioner's COE. My DCF and CAPM analyses indicate a cost of equity range of 8.1% to 10.2%. I am recommending a COE in the middle of this range: 9.1%. A 9.1% cost of common equity results in a weighted cost of capital of 6.54%. (Public's Exhibit No. 2, Schedule WRB-7, page 1.)

Q: Are you sponsoring any attachments in this proceeding?

A: Yes. I am sponsoring the following attachments.

- Attachment LDC-1: DCF analysis.
- Attachment LDC-2: CBO – The Budget and Economic Outlook: 2023 to 2033.
- Attachment LDC-3: Federal Reserve Press Release, September 20, 2023.
- Attachment LDC-4: CAPM analysis.
- Attachment LDC-5: *Value Line* Summary sheets.
- Attachment LDC-6: Kroll Recommended Equity Risk Premium.
- Attachment LDC-7: Wong – Utility Stocks and the Size Effect.

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

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

II. <u>AES INDIANA'S PROPOSED COST OF EQUITY</u>

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

A: AES Indiana's current fair rate of return is 9.99% and is a result of a settlement agreement approved in the Indiana Utility Regulatory Commission's ("Commission") Order in Cause No. 45029. *In re Indianapolis Power & Light*

Company, Cause No. 45029, Final Order p. 27 (Ind. Util. Regul. Comm'n Oct. 31, 2018.)

Q: What is AES Indiana's proposed COE?

A: AES Indiana witness Adrien M. McKenzie recommends a 10.6% COE. (Verified Direct Testimony of Adrien M. McKenzie ("McKenzie Testimony"), page 7, line 11.)

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

A: My proposed 9.1% COE is less than Petitioner's estimated cost of equity because Petitioner's inappropriate use of:

1) An excessive market return as 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-utility proxy group.

This produces an 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 10.6% 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-utility group. A state policy encouraging investment, the growth of trackers and the ability to readily amend plans has significantly reduced regulatory lag and expanded paths to recovery of capital investment - and all have reduced utility risk in Indiana. Also, Petitioner's proposed 10.6% rate of return would be higher than any COE awarded to an Indiana investor-owned electric utility in more than a decade.

Q: What has the OUCC done to determine its recommended 9.1% COE is reasonable?

A: OUCC witness John Hanks reviewed Petitioner's proposed capital structure and overall cost of capital. (Public Exhibit No. 10.) Mr. Hanks has accepted Petitioner's proposed capital structure with 44.69% equity, 49.52% long-term debt, 0.81% customer deposits, prepaid pension asset (3.82%), and 8.80% deferred income taxes. (*Id.*)

To estimate Petitioner's COE, I applied the DCF Model and the CAPM to almost the same electric group Mr. McKenzie used. For the reasons explained below in Section IV, I deleted Hawaiian Electric and Dominion Energy from the electric group and added American Electric Power ("AEP") and Consolidated Edison. My DCF and CAPM analyses indicate an 8.1% to 10.2% COE range. I am recommending a COE in the middle of this range: 9.1%. Combined with Petitioner's capitalization percentages, my overall weighted cost of capital for AES Indiana is 6.54% as indicated on Public's Exhibit No. 2, Schedule WRB-7, 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 electric group. I calculated a sustainable growth rate as well. (Attachment LDC-1, page 3.) I also used analysts' projected EPS from Yahoo Finance, Zacks and S&P Cap IQ. (*Id.*, 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 AES Indiana. (Attachment LDC-2, page 9.)

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, as indicated below, 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 has increased interest rates for the past two years because of an improving economy and higher inflation. Real gross domestic product ("GDP") increased at a 2.1% annual rate in the second quarter of 2023. (Bureau of Economic Analysis, September 28, 2023. (https://www.bea.gov/news/2023/gross-domestic-product-third-estimate-corporate-profits-revised-estimate-second-quarter.) The increase in real GDP reflects increases in consumer spending, nonresidential fixed investment, state and local government spending, and federal government spending. (*Id.*)

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

A: Recent indicators suggest economic activity has been expanding at a solid pace. Job gains have slowed in recent months, but remain strong, and the unemployment rate has remained low. Inflation remains elevated. Tighter credit conditions for households and businesses are likely to weigh on economic activity, hiring, and inflation. (Attachment LDC-3, page 1; Federal Reserve Press Release, September 20, 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: Do you agree with Petitioner's assessment of forecasted inflation going forward?

A: No. Petitioner's testimony states: "Similarly, inflation measured by the Personal Consumption Expenditures Price Index rose 5.0% in February 2023, or 4.6% after excluding more volatile food and energy costs." (McKenzie Testimony, page 11, lines 21-23.) 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-2, page 8.) The full report may be viewed at: https://www.cbo.gov/publication/58848.

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 CAPM and other risk premium analyses. Changes in bond yields and interest rates affect investor expectations. Long-term 30-year Treasury bond yields have recently ranged between 3.82% and 4.42%. (Attachment LDC-4, 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 mostly 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 slowed and may be stabilized. The FOMC seeks to achieve maximum employment and inflation at a 2% rate over the longer run. "In support of these goals, the Committee decided to maintain the target range for the federal funds rate at 5 to 5-1/4 percent. Holding the target range steady at this meeting allows the Committee to assess additional information and its implications for monetary policy." (Attachment LDC-3, page 1.)

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

A: Yes. AES Indiana's new base rates will go into effect in 2024. The 5.0% growth rate, which I use in my electric group DCF analysis, is higher than the 4.4% nominal GDP growth rate the CBO forecasts for 2024. My 5.0% growth rate is higher than the 4.9% CBO nominal GDP forecast for 2025, and higher than the declining 4.4% to 3.9% growth rate forecasts for 2026-2033. (Attachment LDC-2, 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 through 2033. (*Id.*). Consequently, my recommended 9.1% cost of equity is in line with current and projected economic conditions.

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

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

A: No. AES Indiana'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 AES Indiana. This fact makes it impractical to apply the DCF and CAPM directly to AES Indiana. Therefore, I calculated AES Indiana's COE based on a proxy group of publicly traded utility companies.

Q: Please describe how you derived the proxy group for your DCF and CAPM studies.

A: My electric group is comprised of the same companies as Petitioner's proxy group – with four exceptions. I deleted Hawaiian Electric from the electric group due to the catastrophic Maui wildfires. Hawaiian Electric's credit ratings have been downgraded by Moody's. (https://www.moodys.com/research/Moodys-downgrades-Hawaiian-Electric-Companys-senior-unsecured-bonds-to-Ba3-Rating-Action--PR_479599.) S&P also downgraded Hawaiian Electric to BB- and placed the company on watch for further downgrades. (https://www.reuters.com/business/energy/hawaiian-electric-shares-plunge-further-sp-downgrades-utility-junk-2023-08-15/.) This puts Hawaiian Electric outside of the ratings criteria to identify the proxy group of utilities identified by Mr. McKenzie. (McKenzie Testimony, page 19, lines 10-12.)

I also deleted Dominion Energy because of the $14 billion sale of three of its natural gas utilities to Enbridge Inc. on September 5. (https://www.capitaliq.spglobal.com/web/client?auth=inherit#news/article?id=773564

82&KeyProductLinkType=6.) The sale of these natural gas utilities can impact Dominion Energy's stock prices and analysts' growth outlooks, which impacts the reliability of the DCF estimates for Dominion Energy.

I added AEP and Consolidated Edison to the electric group since those utilities are included in the *Value Line* electric group and those companies also meet Mr. McKenzie's selection criteria for the Moody's rating of Baa2. Petitioner's testimony describes the electric group's selection criteria. (McKenzie Testimony, page 18, line 19 - page 19, line 18.) Both AEP and Consolidated Edison have an A- S&P rating, which is better than Mr. McKenzie's selection criteria. However, both of those companies have higher projected EPS growth than the average for the electric group. (Attachment LDC-1, page 3.) Therefore, removing AEP and Consolidated Edison from the electric group would *lower* the electric group's projected EPS growth. Also, it is noteworthy AEP and Consolidated Edison were included in Mr. McKenzie's electric group in Cause No. 45029 when those companies had an A- S&P rating.

Petitioner also applied the DCF model to a non-utility group. However, Mr. McKenzie states: "This analysis is not directly considered to arrive at my recommended ROE range of reasonableness; however, it is my opinion that this is a relevant consideration in evaluating a fair ROE for the Company." (McKenzie Testimony, page 48, line 22 – page 49, line 2.)

Q: Did you use the non-utility group in your analysis?

A: No. Petitioner's non-utility group comprises 51 publicly traded companies, including 3M Company, Coca-Cola, Comcast, McDonald's, Microsoft, PepsiCo, Proctor & Gamble, and Walmart. (McKenzie Testimony, Attachment AMM-11, pages 1-3.)

These companies, and the rest of the companies in Petitioner's non-utility group, face different risks than AES Indiana and the companies in the *regulated* electric group, whose rates are set by the Commission and other utility regulators. Although Mr. McKenzie acknowledges he didn't directly consider this analysis when making his recommendation, he does state it is a relevant consideration. Petitioner's non-utility group produces overstated cost of equity results, it is not a relevant consideration, and the Commission should disregard it.

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

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

V. <u>DISCOUNTED CASH FLOW ANALYSIS</u>

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 that 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 electric group companies using the most recent quarterly dividends listed on *Value Line*. I took the quarterly dividend times four to arrive at an annual dividend. I then divided the annual dividend by the 30-day, 90-day, and 180-day stock prices obtained from S&P Cap IQ. These dividend yields are provided on Attachment LDC-1, page 2. The median dividend yields range from 3.9% to 4.1%. I used the median of that range, which is 4%. I used a forward dividend yield of 4.1% for the electric group. (*Id*., page 1.) This forward dividend yield calculation applies the "half year method." (*Id*., page 2.)

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 electric group?

A: I have reviewed *Value Line's* historical and projected growth rate estimates for EPS, DPS, and BVPS. I also used the average EPS growth-rate forecasts of Wall Street as provided by Yahoo, Zacks, and S&P Cap IQ. These services solicit five-year earnings growth-rate projections from securities analysts and publish the means and medians of these forecasts. I also analyzed prospective growth as measured by prospective earnings retention rates and earned returns on common equity.

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. However, past growth may not reflect 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 internal growth.

A: Internally generated growth is a function of the percentage of earnings retained with the firm (earnings retention rate) and the rate of return earned on those earnings (return on equity ("ROE")). The internal growth rate is computed as the retention rate times the ROE. Internal growth is significant in determining long-run earnings and therefore, dividends.

Q: Please discuss the historical growth of the companies in the electric group, as provided by *Value Line*.

A: Attachment LDC-1, page 3, provides the 5- and 10-year historical growth rates for EPS, DPS, and BVPS for the electric group companies, as published in *Value Line*. The median historical growth measures for EPS, DPS, and BVPS for the electric group range from 3.5% to 5%, with a 4.2% average.

Q; Please summarize *Value Line's* projected growth rates for the electric group companies.

A: *Value Line's* EPS, DPS, and BVPS growth projections are shown on Attachment LDC-1, page 3. The medians for projected growth range from 4.0% to 5.0%, with a 4.3% average of the medians.

Q: Please discuss the sustainable growth rates.

A: The prospective sustainable growth rates for the electric group companies are provided on Attachment LDC-1, page 3. These rates are measured by *Value Line's* average projected retention rate and return on shareholders' equity. (Attachment LDC-5, pages 1-22.) Sustainable growth is a primary driver of long-run earnings growth. The median prospective sustainable growth rate for the electric group is 4.0%. (Attachment LDC-1, page 3.)

Q: Please assess growth rates for the electric group as measured by analysts' forecasts of expected five-year EPS growth.

A: Yahoo, Zacks, and S&P Cap IQ publish analysts' long-term EPS growth rate forecasts for the electric group companies. These forecasts are provided on Attachment LDC-1, page 4. I provide both the mean and median growth rates for the electric group. There is overlap in analysts' coverage between the three services, and not all the companies have forecasts from the different services. Therefore, I averaged the expected five-year 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 electric group is 5.8%/6.0%. (Attachment LDC-1, page 4.)

Q: Please summarize your analysis of the electric group's historical and prospective growth.

A: Attachment LDC-1, page 5 summarizes the DCF growth rate indicator for the electric group. The historical growth rate for the electric group is 4.1% The average of the projected EPS, DPS, and BVPS growth rates from *Value Line* is 4.3%. *Value Line's* projected sustainable growth rate is 4.0%. Wall Street Analysts' mean and median projected EPS growth rates for the electric group are 5.8% and 6.0%. Therefore, the range of projected growth rates is 4.0% to 6.0%. I use 5.0% as my DCF growth rate, which is in the middle range of the electric group's historic and projected growth rates.

Q: Please describe the results of your growth calculations.

A: My DCF-derived equity cost rates are summarized on Attachment LDC-1, page 1, and Table 1 below:

Table 1

DCF-Derived Cost of Equity

Forward Dividend Yield	4.1%
Growth Adjustment	<u>5.0%</u>
Cost of Equity	9.1%

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 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). 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 Attachment LDC-4.

A: Attachment LDC-4 provides the summary for my CAPM analysis. 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 4.3% risk-free interest rate. As shown on page 2 of Attachment LDC-4, the yield on 20-year U.S. Treasury bonds for the 13-week period indicated ranges from 4.00% to 4.61%. The mean during that period was 4.29%. 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. Previously, I have used the normalized risk-rate the investment advisory firm Kroll (formerly Duff & Phelps) used, which presently is 3.50%. (Attachment LDC-6, page 4.) 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.

Q: Why did you use the yield on 20-year U.S. Treasury bonds in this Cause instead of the 3.5% normalized risk-free rate Kroll used?

A: In June of this year, Kroll issued the following statement:

> We recommend using the spot 20-year U.S. Treasury yield as the proxy for the risk-free rate, if the prevailing yield as of the valuation date is higher than our recommended U.S. normalized risk-free rate of 3.5%. This guidance is effective when developing USD-denominated discount rates as of June 16, 2022 and thereafter. (Attachment LDC-6, page 4.)

As a result of this information, I used the mean of the yield on 20-year U.S. Treasury bonds as indicated on Attachment LDC-4, page 2.

Q: What betas are you using in your CAPM?

A: I used the betas from *Value Line* as indicated on Attachment LDC-4, page 3. The mean of the betas for the electric group is 0.92.

Q: Please discuss the market risk premium.

A: The 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.

Q: What is an equity market risk premium?

A: An equity market risk premium pertains only to stocks and represents the expected return of stocks above the risk-free rate. Because the market risk premium is broader and more diversified, the equity market risk premium tends to be larger than the market risk premium. Therefore, using an equity market risk premium results in a higher CAPM COE than using a market risk premium.

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

A: I am using a 5.5% equity market risk premium. Kroll recommends a 5.5% equity market risk premium. (Attachment LDC-6, page 1.) Kroll also indicates a 3.5% risk-free rate. KPMG recommends a 5.25% equity market risk premium at the following link: KPMG Equity Market Risk Premium June 30 2023 (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 is indicated by your CAPM analysis?

A: The result of my CAPM analysis for the electric group is summarized on Attachment LDC-4, page 1, and Table 2 below.

Table 2

CAPM Formula: K = Rf + β (Rm – Rf)

Risk-Free Rate (Rf)	**4.3%**
Beta (β)	**0.92**
Equity Risk Premium (Rm – Rf)	**5.5%**
Equity Cost Rate (K)	**9.3%**

VII. OUCC'S ESTIMATED COST OF EQUITY

Q: Please summarize the results of your COE analyses.

A: My DCF analysis indicates an 8.1% to 10.2% range for the electric group. My CAPM analysis indicates a 9.3% COE for the electric group. Based on all the above, I recommend a 9.1% COE.

VIII. PETITIONER'S COST OF EQUITY ANALYSIS

Q: Please summarize Petitioner's COE analysis.

A: Petitioner's estimated COE is 10.6%. Petitioner's analysis uses a DCF model, a CAPM, an Empirical CAPM ("ECAPM"), a br+sv growth rate, a risk premium and expected earning methods. Petitioner applies these models to the electric group. (McKenzie Testimony, page 3, lines 3-4.) As mentioned above, Mr. McKenzie indicates he did not rely on his non-utility group analysis to arrive at his recommended COE range. (*Id*., page 48, line 22 – page 49, line 2.) Petitioner's COE range is 10.1% to 11.1%. (*Id*., page 3, lines 5-6.)

Q: Do you agree with all the models Petitioner uses to determine AES Indiana's ROE?

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. Other models are presented in Petitioner's testimony, but these models, as presented 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 in Petitioner's DCF analysis?

A: Petitioner's DCF estimates in Attachment AMM-5 pages 2 and 3, are inflated because of Petitioner's exclusive reliance on projected EPS in its analysis. It is more appropriate, and consistent with the Commission's established COE analysis, to rely on both historical and forecasted growth rates in EPS, DPS, and BVPS, as I have done in my DCF analysis. (Attachment LDC-1, page 3.)

Unlike the other analysts' services, *Value Line* also provides the DPS and BVPS along with the EPS. The median percentages for the projected EPS (5.0%) DPS (4.0%) and BVPS (4.0%) are shown on Attachment LDC-1, page 3. The average of these three *Value Line* projected growth rates is 4.3%. Using this projected 4.3% growth rate along with Petitioner's 3.8% dividend yield results in an 8.1% DCF estimate - rather than Petitioner's 9.2% *Value Line* proposal. (McKenzie Testimony, Attachment AMM-5, pages 1, 3.)

Q: What data should the Commission use to estimate growth (g) in a DCF analysis?

A: The Commission should follow its established practice, and review and give weight to *both* historical and forecasted data of growth rates in EPS, DPS, and BVPS.

Q: What other issues do you have with Petitioner's DCF analysis?

A: Petitioner uses an adjustment factor when calculating the sustainable growth rate. (*Id.*, Attachment AMM-6, page 1). This adjustment factor has the effect of inflating the sustainable growth rate. However, Petitioner indicates there are significant shortcomings with its sustainable growth rate approach and, therefore, gives less weight to those estimates. (*Id.*, page 34, lines 13-24.)

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

A: The major reason for the difference between my DCF estimate and Petitioner's DCF estimate is Petitioner relied exclusively on projected EPS. Petitioner did not use historical data or projected DPS or BVPS, consistent with the Commission's established COE analysis. Consequently, Petitioner's proposed growth rate is inflated and unreasonable.

X. PETITIONER'S BR+SV GROWTH RATE

Q: Please describe Petitioner's br+sv growth rate.

A: Petitioner's br+sv growth rate is outlined in Mr. McKenzie's testimony, page 33, line 15 to page 34, line 24, and Attachment AMM-6. Mr. McKenzie indicates this is his formula for calculating the sustainable growth rate where "b" is the expected retention ratio, "r" is the expected earned return on equity, "s" is the percent of common equity expected to be issued annually as new common stock, and "v" is the equity accretion rate. (McKenzie Testimony, page 33, lines 15-18.)

Q: Are there significant shortcomings associated with Petitioner's "br+sv" growth rate?

A: Yes, and Petitioner identifies these shortcomings in its testimony. Mr. McKenzie states: "Given the inherent difficulty in forecasting each parameter and the difficulty of estimating the expectations of investors, the potential for measurement error is significantly increased when using four variables, as opposed to referencing a direct projection for EPS growth." (*Id.*, page 34, lines 15-18.) Given Petitioner's admission regarding the shortcomings of its br+sv growth rate, I recommend the Commission reject the use of the br+sv growth rates when evaluating the results of Petitioner's DCF model.

XI. PETITIONER'S CAPM AND ECAPM ANALYSES

Q: Does the CAPM give a better indication of required returns than the DCF model?

A: Not necessarily. The CAPM is typically more controversial than the DCF model. Eugene Brigham and Phillip Daves comment on using CAPM on pages 117-118 of their text Intermediate Financial Management (12nd Edition):

> When applied in practice, the CAPM appears to provide neat, precise answers to important questions about risk and required rates of return. However, the answers are less clear than they seem. **The simple truth is that we do not know precisely how to measure any of the inputs required to implement the CAPM.** These inputs should all be ex ante, yet only *ex-post* data is available. Furthermore, historical data on r_M, and r_{RF}, and betas vary greatly depending on the time period studied and the methods used to estimate them. **Thus, even though the CAPM appears to be precise, estimates of r_i** found through its use are subject to potentially large errors. (**Emphasis** added, footnote omitted.)

Q: What are your issues with Petitioner's CAPM analysis?

A: Petitioner's 11.6% market return (Rm) is overstated because of the inflated projected 9.5% growth rate in column (b). (McKenzie Testimony, Attachment AMM-7, page 1.) According to footnote (b), Petitioner calculated the 9.5% projected growth rate in column (b) by using earnings growth rates from IBES, *Value Line*, and Zacks *for dividend-paying stocks in the S&P 500*. (*Id*., *emphasis* added.) This information was confirmed in Petitioner's testimony, "In order to capture the expectations of today's investors in current capital markets, the expected market rate of return was estimated by conducting a DCF analysis on the dividend paying firms in the S&P 500." (*Id*., page 38, lines 1-3.) Apparently, Petitioner conducted a DCF analysis on hundreds of *non-utility* firms in various industries, with various risk profiles, and capital structures, and calculated a projected 9.5% growth rate. This projected growth rate overstates by hundreds of basis points the median projected growth rates for the electric group indicated on Attachment LDC-1, pages 3 and 4, ranging from 4.3% to 6.0%.

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

A: Petitioner's inflated projected growth rate impacts the COE and the risk premium amount. For example, Allete is listed with a 2.1% dividend yield, 9.5% projected growth, an 11.6% COE, a 3.8% risk-free rate, and a 7.8% risk premium. (McKenzie Testimony, Attachment AMM-7, page 1, line 1.) The remainder of the electric group utilities listed on Attachment AMM-7 indicate the same inflated projected growth rate. Using my *highest* projected 6.0% growth rate listed on Attachment LDC-1, page 4, changes the COE from 11.6% to 8.1% (2.1% + 6.0%) and the risk premium changes from 7.8% to 4.3% (8.1% - 3.8%), which is even lower than the 5.5% risk premium I recommend. (Attachment LDC-1, page 1.)

Q: Did Petitioner also propose a size adjustment to its CAPM?

A. Yes. I will address the size adjustment issue when I discuss the ECAPM next.

Q: Do you agree with Petitioner's ECAPM to estimate an appropriate cost of equity for AES Indiana?

A: No. Petitioner's ECAPM suffers from the same projected growth rate issues I just discussed regarding Petitioner's CAPM analysis. (McKenzie Testimony, Attachment AMM-8, page 1.)

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.)

Q: Do you agree with Petitioner's CAPM and ECAPM with size adjustment to estimate an appropriate cost of equity for AES Indiana?

A: No. The applicability of a small size adjustment to regulated public utilities is questionable. Regulation reduces the financial risks Petitioner faces. Annie Wong of Western Connecticut State University writes that business and financial risks are very similar among utilities regardless of size in *Utility Stock and the Size Effect: An Empirical Analysis:*

> The fact that the two samples show different, though weak, results indicates that utility and industrial stocks do not share the same characteristics. First, given firm size, utility stocks are consistently less risky than industrial stocks. Second, industrial betas tend to decrease with firm size, but utility betas do not. These findings may be attributed to the fact that all public utilities operate in an environment with regional monopolistic power and regulated financial structure. As a result, the business and financial risks are very similar among the utilities regardless of their size. Therefore, utility betas would not necessarily be related to firm size.
>
> The objective of this study is to examine if the size effect exists in the utility industry. After controlling for equity values, there is some weak evidence that firm size is a missing factor from the CAPM for industrial but not utility stocks. This implies that although the size phenomenon has been strongly documented for industrials, findings suggest that there is no need to adjust for the firm size in utility regulation. (Emphasis added.)

(Attachment LDC-7, page 4; Annie Wong, *"Utility Stock and the Size Effect: An Empirical Analysis,"* Journal of the Midwest Finance Association, 1993, page 98.)

Michael Paschall and George B. Hawkins, authors of *Do Smaller Companies Warrant a Higher Discount Rate for Risk?: The "Size Effect" Debate,* state that privately held companies should be analyzed individually to determine if a size premium is appropriate:

> A size premium does not automatically apply in every case. Each privately held company should be analyzed to determine if a size premium is appropriate in its particular case. There can be unusual circumstances where a small company has risk characteristics that make it far less risky than the average company, warranting the use of a very low risk premium. One possible example of this is a private water utility (monopoly situation, very low risk, near guarantee of payments).

Paschall and Hawkins, *Do Smaller Companies Warrant a Higher Discount Rate for Risk?: The "Size Effect" Debate,* CCH Business Valuation Alert, page 3, December 1999. (https://www.businessvalue.com/resources/Valuation-Articles/Small-Company-Cap-Rates.pdf)

Also, 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 electric companies it regulates.

XII. PETITIONER'S UTILITY RISK PREMIUM ANALYSIS

Q: Please describe Petitioner's Risk Premium method.

A: Mr. McKenzie discusses his risk premium analysis on pages 43-46 of his testimony. He uses the risk premium method based on the long-term utility bond yields and authorized ROEs for electric utilities. (McKenzie Testimony, Attachment AMM-9, pages 1-2.) Mr. McKenzie estimates a 3.89% average equity risk premium. (*Id*., page 2.) He adjusts this average risk premium using a regression analysis to increase the equity risk premium from 3.89% to 4.89%. (*Id*., page 1.) Mr. McKenzie adds this new equity risk premium to the Baa-rated utility bond yield of 5.75%. Mr. McKenzie concludes: "Adding this equity risk premium to the average yield on Baa-rated utility bonds implies a current ROE of 10.64%." (*Id*., page 46, lines 18-19.)

Q: Mr. McKenzie states on page 44, lines 1-2 of his testimony "…risk premium methods directly estimate investors' required rate of return by adding an equity risk premium to observable bond yields." Do you agree?

A: No. Mr. McKenzie's risk premium methodology produces an overstated required rate of return. All but one of the companies in the electric group sell at market-to-book ratios in excess of 1.0. A market-to-book ratio greater than 1.0 indicates a company's ROE is *above* its equity cost rate.

Q: Have you calculated the electric group companies' market-to-book ratios?

A: Yes. I calculated the market-to-book ratios on the *Value Line* reports by dividing the price by the book value per share. For example, Allete has a $55.86 share price and a $54 book value per share. Allete's market-to-book ratio is 1.03 [$55.86 / $54]. The market-to-book ratios for all the electric group companies are listed on Attachment LDC-1, page 3. The only electric group company with a market-to-book ratio less than 1.0 is Avista Corp. with a 0.99 ratio. The 22 electric group companies' average market-to-book ratio is 1.46. (*Id.*) Therefore, Petitioner's risk premium analysis is overstated as a measure of utility investors' return requirements and produces an overstated equity cost rate.

Q: Is Petitioner's risk premium an appropriate measure of utility investors' required rate of return?

A; No. As previously mentioned, Petitioner's risk premium overstates the equity cost rate. Also, Petitioner's risk premium measures utility commission behavior rather than estimate utility investors' behavior.

Capital costs are determined through the financial decisions of investors. Those financial decisions are reflected in dividend yields, expected growth rates, interest rates, and investors' assessment of the risk and expected return of different investments.

Regulatory commissions do evaluate capital market data in setting ROEs. However, regulatory commissions also consider other utility and rate case-specific information in addition to capital costs when setting authorized ROEs. Furthermore, the authorized ROE data includes rate cases that are settled and not fully litigated. Therefore, compromises are made that impact the ROE, which commissions consider, but of which investors may not be aware.

XIII. EXPECTED EARNINGS

Q: Please discuss Petitioner's expected earnings approach.

A: Petitioner's expected earnings approach is outlined in Mr. McKenzie's testimony, page 46, line 22 to page 48, line 19, and Attachment AMM-10. Petitioner's approach uses the expected earned return for the electric group companies as estimated in *Value Line*. Mr. McKenzie states: "Value Line's projections for the electric group suggest an average ROE of 11.0%." (McKenzie Testimony, page 48, lines 18-19.)

Q: Is Petitioner's expected earnings approach a reasonable method for estimating Petitioner's COE?

No. The expected earnings approach does not measure the return investors require to make an investment. Instead, the expected earnings approach measures the earned return on book equity that a company is projected to achieve in the future. A return estimate using expected earnings can differ from the return investors currently require.

Q: What returns do investors require to make an investment?

A: The returns are measured from prevailing stock market prices. Petitioner has not evaluated the market-to-book ratios for the electric group companies and, therefore, cannot indicate whether the projected returns on common equity are above or below investors' requirements. However, as shown on Attachment LDC-1, page 3, the average market-to-book ratio of the electric group companies is 1.46, which is *above* the cost of common equity. Therefore, Petitioner's expected earnings approach should be rejected.

XIV. NON-UTILITY GROUP

Q: Please discuss your issues with Petitioner's non-utility group.

A: Petitioner estimates a COE rate using a group of 51 non-utility companies. (McKenzie Testimony, page 48. line 21 - page 52, line 18; Attachment AMM-11, pages 1-3.) This non-utility group includes 3M Company, Coca-Cola, Johnson & Johnson, Lilly, Microsoft, PepsiCo, Pfizer, Proctor & Gamble, and Walmart. (Attachment AMM-11, pages 1-3.)

The DCF results for this non-utility group should be disregarded. The lines of business and the risks of this non-utility group are different from the electric utility business, and these companies do not operate in a highly regulated environment – or at least their prices are not set by a regulatory commission. Also, as previously discussed, there is an upward bias in the EPS growth rate forecasts of Wall Street analysts and, therefore, the DCF cost of equity estimates for Petitioner's non-utility group are overstated.

XV. SUMMARY AND RECOMMENDATIONS

Q: Please summarize your testimony on DCF calculations for the electric group.

A: I calculated a 4.1% forward dividend yield for the electric group. I also performed calculations and analyses in which I concluded a 5.0% DCF growth rate, *g*, is reasonable. These estimates were made using historical and projected growth rates from *Value Line,* Zacks, Yahoo Finance, and S&P Cap IQ, and economic growth data from the CBO. I considered both projected and historical data. My DCF calculations result in a 9.1% COE for the electric group.

Q: Please summarize your testimony on the electric group's CAPM calculations.

A: Based on *Value Line* betas and using almost the same electric group as Petitioner, I calculated a 0.92 average beta for the electric group. (Attachment LDC-4, page 3.) As the beta is less than 1.0, it also describes a relatively low-risk industry. I calculated a 4.3% risk-free rate based on a 13-week average of 20-Year Treasury Bonds. (*Id.*, page 2.) I used Kroll's 5.5% equity risk premium. (Attachment LDC-6, page 1.) This results in a 9.3% CAPM COE for the electric 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 is declining, and inflation is forecasted to steadily decline through 2033. Interest rates have increased during the last year but were not raised at the recent FOMC meeting.

Q: Please summarize your recommendation for AES Indiana's COE.

A: I recommend the Commission authorize a 9.1% COE for AES Indiana. This recommendation is in the middle range of my DCF and CAPM calculations for the electric group.

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 AES Indiana's petition, testimony, exhibits, and supporting documentation submitted in this Cause. I prepared and reviewed discovery requests, and reviewed AES Indiana's responses. I reviewed numerous financial reports and articles that discuss market returns. I reviewed the Final Order in AES Indiana's last base rate case, Cause No. 45029. 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:

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

[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 of 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-1, page 2, contains the average dividend yields for my electric group.

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 electric group ranged between 4.0% and 6.1%. (Attachment LDC-1, 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 zero growth rates?

A: No. I excluded zero and negative growth rates to estimate (g) in my DCF analysis.

Q: Why haven't you eliminated low (positive) growth rates from your DCF analysis?

A: Low growth rates are not ignored by investors. While investors may not expect 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 18.0% or as low as 0.5% 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 electric group are a range of 8.1% to 10.2%. (Attachment LDC-1, 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:

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

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 (B) 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 20-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 electric group produces an average beta of 0.92. (Attachment LDC-4, page 3.)

D. Conclusions on CAPM analysis

Q: Please review the results of your CAPM analysis.

A: The cost of equity based on my CAPM analysis for the electric group is 9.3%. (Attachment LDC-4, page 1.) I used a risk-free rate of 4.3%, a beta of 0.92, and an equity risk premium of 5.5%.

Summary of
Discounted Cash Flow Analysis (DCF)

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

Electric Proxy Group:

Dividend Yield (D_1/P_0):	**4.1%**	**see page 2**
Dividend Growth (g):	**4.0% - 6.1%**	**see pages 3, 4, and 5**
DCF Cost of Equity *(K):*	**8.1% - 10.2%**	

Dividend Yield Data

Electric Group Companies:	**Annual Dividend ***	**Dividend Yield 30 Days ****	**Dividend Yield 90 Days**	**Dividend Yield 180 Days**	**Price 52 Week High ***	**Price 52 Week Low ***
Allete Inc. (ALE)	$2.71	4.9%	4.3%	4.5%	$67.45	$47.77
Ameren Corp. (AEE)	$2.52	3.1%	3.0%	3.1%	$96.36	$73.28
American Electric Power Company Inc. (AEP)	$3.35	4.1%	4.0%	3.8%	$105.60	$77.01
Avista Corp. (AVA)	$1.84	5.0%	4.3%	4.5%	$45.29	$32.27
Black Hills Corp. (BKH)	$2.53	4.4%	3.9%	4.2%	$79.15	$53.88
CenterPoint Energy (CNP)	$0.77	2.7%	2.7%	2.8%	$33.50	$25.03
CMS Energy Corp. (CMS)	$1.95	3.4%	3.2%	3.3%	$70.46	$52.41
Consolidated Edison Inc. (ED)	$3.34	3.7%	3.6%	3.7%	$102.21	$78.10
DTE Energy Co. (DTE)	$3.81	3.5%	3.4%	3.6%	$136.63	$100.64
Duke Energy Co. (DUK)	$4.06	4.5%	4.4%	4.3%	$111.26	$83.76
Edison International (EIX)	$2.99	4.3%	4.4%	4.4%	$74.92	$54.45
Entergy Corp. (ETR)	$4.30	4.4%	4.2%	4.2%	$122.11	$93.52
Exelon Corp. (EXC)	$1.44	3.6%	3.6%	3.5%	$46.19	$35.19
IDACORP Inc. (IDA)	$3.20	3.2%	3.0%	3.2%	$112.96	$92.40
NorthWestern Corp. (NWE)	$2.56	4.7%	4.3%	4.5%	$61.24	$48.68
OGE Energy Corp. (OGE)	$1.66	4.8%	4.6%	4.7%	$42.28	$33.28
Otter Tail Corp. (OTTR)	$1.75	2.0%	2.3%	2.4%	$92.74	$52.60
Pinnacle West Capital (PNW)	$3.48	4.4%	4.3%	4.6%	$86.03	$59.03
Portland General Elec. (POR)	$1.88	4.0%	3.8%	4.0%	$53.12	$41.58
Pub Sv Enterprise Grp. (PEG)	$2.28	3.8%	3.6%	3.9%	$69.27	$52.51
Sempra Energy (SRE)	$2.38	3.4%	3.2%	3.2%	$88.24	$68.27
Southern Company (SO)	$2.78	4.1%	4.0%	4.3%	$80.32	$58.85
Mean		**3.9%**	**3.7%**	**3.8%**		
Median		**4.1%**	**3.9%**	**4.0%**		

* Value Line - 09/05/2023
** 30, 90, and 180-Day Stock Prices from S&P Cap IQ (8/4/23, 6/7/23, 3/7/23)

Forward Dividend Yields:

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

$D_1/P_0 = D_0/P_0 * (1 + 0.5g) = 4.0\% * [1 + 0.5(0.060)] =$ **4.1%**

Value Line Historical, Projected, and Sustainable Growth Rates
Market to Book Ratios
Value Line Companies - Electric 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	*Value Line* Sustainable Growth Return on Equity	*Value Line* Sustainable Growth Retention Rate	*Value Line* Sustainable Growth Internal Growth	Market to Book Ratio
Allete Inc. (ALE)	3.0%	3.5%	4.5%	5.0%	3.5%	3.0%	6.0%	3.5%	3.5%	9.0%	40.0%	3.6%	1.03
Ameren Corp. (AEE)	4.0%	4.0%	2.0%	8.0%	5.0%	5.5%	6.5%	6.5%	6.5%	10.0%	40.0%	4.0%	1.46
American Electric Power Company Inc. (AEP)	5.0%	5.0%	3.5%	4.0%	5.0%	3.5%	6.5%	5.5%	6.0%	11.0%	39.0%	4.3%	1.27
Avista Corp. (AVA)	2.5%	4.5%	4.0%	0.5%	4.0%	3.5%	6.5%	4.0%	3.5%	7.5%	28.0%	2.1%	0.99
Black Hills Corp. (BKH)	9.5%	4.5%	4.5%	5.5%	6.0%	7.5%	3.0%	4.5%	4.0%	8.0%	33.0%	2.6%	1.04
CenterPoint Energy (CNP)	0.5%	-0.5%	3.5%	1.0%	-7.5%	8.0%	6.5%	2.5%	6.0%	10.0%	48.0%	4.8%	1.45
CMS Energy Corp. (CMS)	6.5%	8.0%	6.0%	6.0%	7.0%	7.5%	6.5%	6.0%	7.0%	11.5%	38.0%	4.4%	1.79
Consolidated Edison Inc. (ED)	2.0%	2.5%	4.0%	1.5%	3.0%	4.0%	6.0%	3.5%	3.0%	9.0%	37.0%	3.3%	1.41
DTE Energy Co. (DTE)	4.0%	5.5%	3.0%	2.5%	5.5%	1.5%	4.5%	3.0%	1.0%	12.5%	38.0%	4.8%	1.73
Duke Energy Co. (DUK)	3.0%	3.0%	2.0%	4.5%	3.5%	1.0%	5.0%	2.0%	2.5%	9.0%	32.0%	2.9%	1.34
Edison International (EIX)	3.0%	7.5%	1.0%	2.0%	6.5%	-0.5%	4.5%	5.0%	2.5%	12.5%	36.0%	4.5%	1.62
Entergy Corp. (ETR)	0.5%	1.5%	1.5%	1.5%	2.5%	4.0%	0.5%	4.0%	4.0%	8.5%	23.0%	2.0%	1.29
Exelon Corp. (EXC)	-0.5%	-3.0%	4.5%	2.5%	4.0%	3.5%	NMF	NMF	NMF	10.0%	40.0%	4.0%	1.46
IDACORP Inc. (IDA)	4.0%	8.5%	5.0%	4.0%	6.5%	4.5%	5.0%	6.0%	4.0%	9.5%	34.0%	3.2%	1.53
NorthWestern Corp. (NWE)	3.5%	5.5%	6.0%	1.0%	4.0%	4.5%	3.5%	2.0%	3.5%	8.0%	33.0%	2.6%	1.07
OGE Energy Corp. (OGE)	3.0%	7.5%	4.0%	4.5%	6.5%	1.5%	6.5%	3.0%	5.5%	13.0%	43.0%	5.6%	1.31
Otter Tail Corp. (OTTR)	18.0%	2.5%	3.5%	14.5%	4.0%	6.0%	4.5%	7.0%	8.0%	11.5%	40.0%	4.6%	2.43
Pinnacle West Capital (PNW)	4.5%	4.0%	4.0%	3.5%	5.5%	4.0%	2.5%	2.0%	3.0%	9.5%	34.0%	3.2%	1.31
Portland General Elec. (POR)	4.0%	5.0%	3.0%	5.0%	6.0%	3.0%	5.0%	5.5%	4.0%	9.5%	35.0%	3.3%	1.20
Pub Sv Enterprise Grp. (PEG)	2.0%	4.0%	4.0%	4.5%	4.5%	2.0%	4.0%	5.5%	3.0%	13.0%	38.0%	4.9%	1.82
Sempra Energy (SRE)	7.0%	8.5%	7.0%	12.0%	7.5%	9.0%	7.0%	5.5%	5.5%	11.5%	50.0%	5.8%	1.37
Southern Company (SO)	3.0%	3.5%	3.0%	3.0%	3.5%	2.5%	6.5%	3.5%	3.5%	14.5%	33.0%	4.8%	2.24
Mean	**4.4%**	**4.9%**	**3.8%**	**4.4%**	**4.9%**	**4.3%**	**5.1%**	**4.3%**	**4.3%**	**10.4%**	**36.9%**	**3.9%**	**1.46**
Median	**3.5%**	**4.5%**	**4.0%**	**4.0%**	**5.0%**	**4.0%**	**5.0%**	**4.0%**	**4.0%**	**10.0%**	**37.5%**	**4.0%**	**1.39**

Average of Historical Median Firgures **4.2%** `

Average of Projected Median Figures **4.3%**

Median of Sustainable Internal Growth **4.0%**

Source: *Value Line Investment Survey, September 8, 2023.*
Except: ConEd, Duke, Exelon, P.S. Enterprise, Southern (August 11, 2023); Edison Internat'l, IDACORP, NorthWestern, Pinnacle, Portland Gen., Sempra (July 21, 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.*
NMF - Value Line indicates NMF is not meaninful. Ratios are so high or low that they are not useful for investment research.

DCF Equity Growth Rates
Analysts Projected EPS Growth Rate Estimates

Company	Yahoo Fin.	Zacks	S&P Cap	Mean
Allete Inc. (ALE)	8.1%	8.1%	8.1%	8.1%
Ameren Corp. (AEE)	5.9%	6.4%	7.0%	6.4%
American Electric Power Company Inc. (AEP)	5.2%	5.6%	6.0%	5.6%
Avista Corp. (AVA)	6.3%	6.3%	5.1%	5.9%
Black Hills Corp. (BKH)	5.4%	2.2%	5.1%	4.2%
CenterPoint Energy (CNP)	-1.1%	7.5%	8.0%	7.8%
CMS Energy Corp. (CMS)	7.8%	7.8%	7.9%	7.8%
Consolidated Edison Inc. (ED)	6.1%	2.0%	5.9%	4.1%
DTE Energy Co. (DTE)	6.3%	6.0%	7.0%	6.4%
Duke Energy Co. (DUK)	6.2%	6.1%	6.0%	6.1%
Edison International (EIX)	5.0%	3.7%	5.6%	4.8%
Entergy Corp. (ETR)	6.6%	5.7%	6.9%	6.4%
Exelon Corp. (EXC)	6.3%	6.3%	6.8%	6.5%
IDACORP Inc. (IDA)	3.7%	3.7%	4.8%	4.1%
NorthWestern Corp. (NWE)	3.7%	5.2%	5.1%	4.7%
OGE Energy Corp. (OGE)	-12.3%	3.7%	2.8%	3.3%
Otter Tail Corp. (OTTR)	9.0%	NA	6.8%	7.9%
Pinnacle West Capital (PNW)	6.1%	6.5%	6.5%	6.4%
Portland General Elec. (POR)	5.9%	6.0%	6.8%	6.2%
Pub Sv Enterprise Grp. (PEG)	5.5%	5.5%	5.8%	5.6%
Sempra Energy (SRE)	4.1%	5.0%	5.0%	4.7%
Southern Company (SO)	7.3%	4.0%	6.0%	5.8%
Mean	6.0%	5.4%	6.1%	5.8%
Median	6.1%	5.7%	6.0%	6.0%

Sources: http://finance.yahoo.com; www.zacks.com; S&P Cap IQ; September 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
S&P Capital IQ - https://www.capitaliq.spglobal.com/web/client?auth=inherit#company/estimateHighli

DCF Growth Rate Indicators

Growth Rate Indicator	Electric Group
Historic *Value Line* Growth in EPS, DPS, and BVPS	4.1%
Projected *Value Line* Growth in EPS, DPS, and BVPS	4.3%
Sustainable Growth ROE * Retention Rate	4.0%
Projected EPS Growth from Yahoo, Zacks, and S&P Cap IQ - Mean/Median	5.8% / 6.0%

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

	Actual, 2022	2023	2024	2025	Annual Average 2026–2027	Annual Average 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

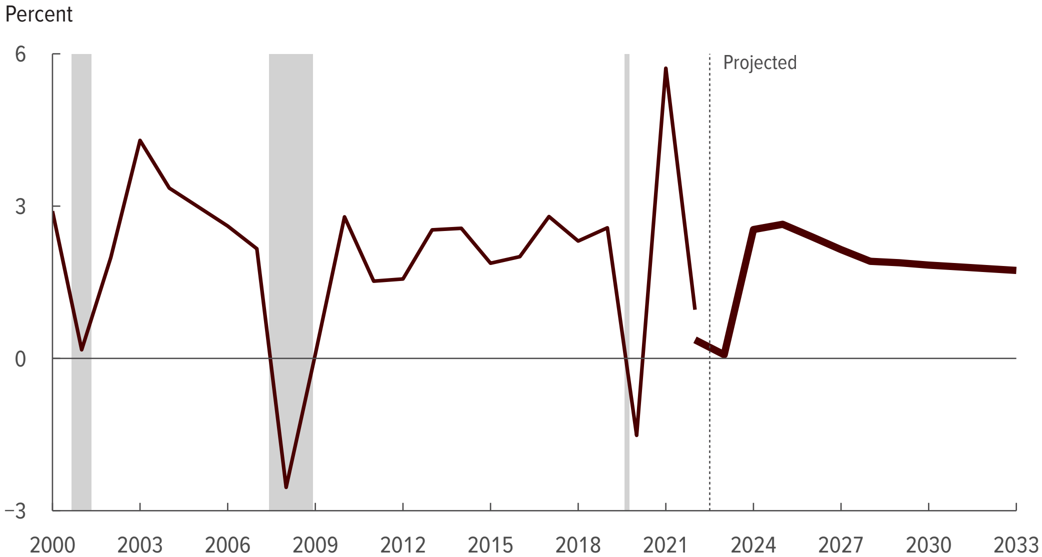
In CBO's forecast, economic output expands slightly less rapidly from 2028 to 2033 than it does over the 2024–2027 period. Real GDP grows by 1.8 percent per year, on average, the same as the growth rate of real potential GDP (that is, the maximum sustainable output of the economy). The level of real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

FEDERAL RESERVE press release

For release at 2:00 p.m. EDT September 20, 2023

Recent indicators suggest that economic activity has been expanding at a solid pace. Job gains have slowed in recent months but remain strong, and the unemployment rate has remained low. Inflation remains elevated.

The U.S. banking system is sound and resilient. Tighter 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.

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

(more)

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.

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

Attachment

For release at 2:00 p.m. EDT September 20, 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 September 20, 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 September 21, 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 September 21, 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.

CAPM Cost of Equity Summary -- Electric Group

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

Risk Free Rate (R_f)	**4.3%**
Beta (β) - Value Line	**0.92**
Equity Risk Premium (Rm - Rf) *	**5.5%**
Equity Cost Rate	**9.3%**

* Source: Attachment LDC-6, page 1.

Yields on U.S. Treasury Bonds

Month	Treasury Bonds	10 Year Treasury Bonds	20 Year Treasury Bonds	30 Year Treasury Bonds
9/12/2023	4.41%	4.27%	4.54%	4.35%
9/5/2023	4.37%	4.27%	4.56%	4.38%
8/29/2023	4.26%	4.12%	4.42%	4.23%
8/22/2023	4.49%	4.34%	4.61%	4.42%
8/15/2023	4.36%	4.21%	4.49%	4.32%
8/8/2023	4.10%	4.02%	4.35%	4.20%
8/1/2023	4.24%	4.05%	4.30%	4.11%
7/25/2023	4.15%	3.91%	4.14%	3.95%
7/18/2023	4.00%	3.80%	4.08%	3.91%
7/11/2023	4.24%	3.99%	4.22%	4.03%
7/3/2023	4.19%	3.86%	4.08%	3.87%
6/27/2023	4.02%	3.77%	4.03%	3.84%
6/20/2023	3.96%	3.73%	4.00%	3.82%
Mean	4.21%	4.03%	4.29%	4.11%
Median	4.24%	4.02%	4.30%	4.11%

`

Source: September 12, 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-6, p. 4.	**3.50%**
20-Year Treasury Bond Rate	**4.30%**

Beta for Electric Group

Company Name	Value Line Betas*
Allete Inc. (ALE)	0.90
Ameren Corp. (AEE)	0.85
American Electric Power Company Inc. (AEP)	0.80
Avista Corp. (AVA)	0.90
Black Hills Corp. (BKH)	1.00
CenterPoint Energy (CNP)	1.10
CMS Energy Corp. (CMS)	0.80
Consolidated Edison Inc. (ED)	0.80
DTE Energy Co. (DTE)	0.95
Duke Energy Co. (DUK)	0.85
Edison International (EIX)	1.00
Entergy Corp. (ETR)	0.95
Exelon Corp. (EXC)	NMF
IDACORP Inc. (IDA)	0.80
NorthWestern Corp. (NWE)	0.95
OGE Energy Corp. (OGE)	1.05
Otter Tail Corp. (OTTR)	0.90
Pinnacle West Capital (PNW)	0.90
Portland General Elec. (POR)	0.90
Pub Sv Enterprise Grp. (PEG)	0.95
Sempra Energy (SRE)	1.00
Southern Company (SO)	0.90
Mean	**0.92**

* See Attachment LDC-5, pp. 1-22.
Sources: http://finance.yahoo.com; www.zacks.com; S&P Cap IQ;
September 2023.

ALLETE NYSE-ALE

RECENT PRICE 55.86 | P/E RATIO 13.9 (Trailing: 16.4; Median: 19.0) | RELATIVE P/E RATIO 0.83 | DIV'D YLD 4.9% | VALUE LINE

TIMELINESS 3 Raised 8/25/23
SAFETY 2 New 10/1/04
TECHNICAL 3 Lowered 8/4/23
BETA .90 (1.00 = Market)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
High:	42.7	54.1	58.0	59.7	66.9	81.2	82.8	88.6	84.7	73.1	68.6	66.7	
Low:	37.7	41.4	44.2	45.3	48.3	61.6	66.6	72.5	48.2	56.8	47.8	54.9	

Target Price Range 2026 | 2027 | 2028

18-Month Target Price Range

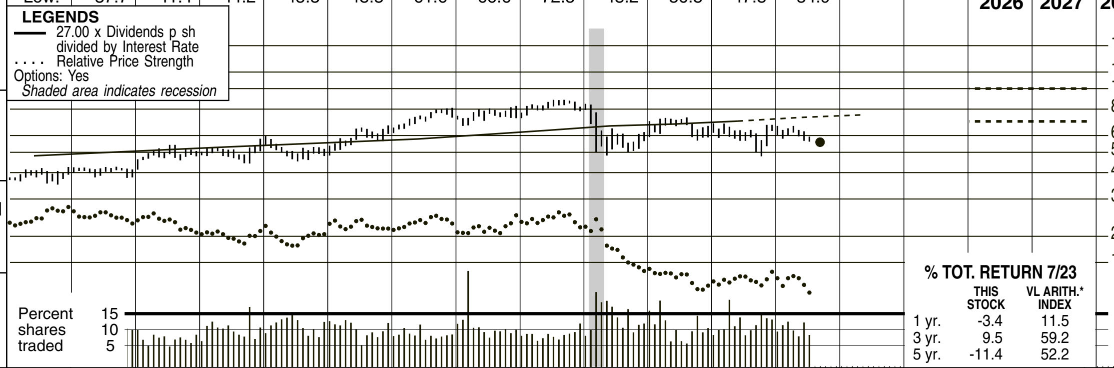
Low-High	Midpoint (% to Mid)
$48-$86	$67 (20%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	100	(+80%)	*19%*
Low	70	(+25%)	*10%*

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	153	137	159
to Sell	131	130	123
Hld's(000)	43870	43928	43650



% TOT. RETURN 7/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-3.4	11.5
3 yr.	9.5	59.2
5 yr.	-11.4	52.2

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
27.33	24.57	21.57	25.34	24.75	24.40	24.60	24.77	30.27	27.01	27.78	29.10	23.99	22.44	26.68	28.04	***29.30***	***29.65***	**Revenues per sh**	***31.15***
4.42	4.23	3.57	4.35	4.91	5.01	5.35	5.68	6.79	7.08	6.59	7.37	7.24	7.52	7.54	7.70	***8.45***	***8.75***	**"Cash Flow" per sh**	***9.50***
3.08	2.82	1.89	2.19	2.65	2.58	2.63	2.90	3.38	3.14	3.13	3.38	3.33	3.35	3.23	3.38	***3.70***	***4.05***	**Earnings per sh A**	***5.00***
1.64	1.72	1.76	1.76	1.78	1.84	1.90	1.96	2.02	2.08	2.14	2.24	2.35	2.47	2.52	2.60	***2.71***	***2.79***	**Div'd Decl'd per sh B ■ †**	***3.00***
6.82	9.24	9.05	6.95	6.38	10.30	7.93	12.48	5.84	5.35	4.08	6.07	11.55	13.78	8.90	3.64	***5.95***	***5.95***	**Cap'l Spending per sh**	***7.25***
24.11	25.37	26.41	27.26	28.78	30.48	32.44	35.06	37.07	38.17	40.47	41.86	43.17	44.04	45.36	47.06	***49.10***	***51.25***	**Book Value per sh C**	***54.00***
30.80	32.60	35.20	35.80	37.50	39.40	41.40	45.90	49.10	49.60	51.10	51.50	51.70	52.10	53.20	56.01	***58.00***	***59.00***	**Common Shs Outst'g D**	***61.00***
14.8	13.9	16.1	16.0	14.7	15.9	18.6	17.2	15.1	18.6	23.0	22.2	24.7	18.3	20.6	18.1	*Bold figures are*		**Avg Ann'l P/E Ratio**	***17.0***
.79	.84	1.07	1.02	.92	1.01	1.05	.91	.76	.98	1.16	1.20	1.32	.94	1.11	1.05	*Value Line*		**Relative P/E Ratio**	***.95***
3.6%	4.4%	5.8%	5.0%	4.6%	4.5%	3.9%	3.9%	4.0%	3.6%	3.0%	3.0%	2.9%	4.0%	3.8%	4.4%	*estimates*		**Avg Ann'l Div'd Yield**	***3.7%***

CAPITAL STRUCTURE as of 6/30/23
Total Debt $1801.3 mill. **Due in 5 Yrs** $390.7 mill.
LT Debt $1685.9 mill. **LT Interest** $65.9 mill.
(LT interest earned: 2.7x)

Leases, Uncapitalized Annual rentals $5.1 mill.

Pension Assets-12/22 $745.7 mill. **Oblig** $911.7 mill.

Pfd Stock None

Common Stock 57,398,158 shs.

MARKET CAP: $3.2 billion (Mid Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
1018.4	1136.8	1486.4	1339.7	1419.3	1498.6	1240.5	1169.1	1419.2	1570.7	***1725***	***1750***	**Revenues ($mill)**	***1900***
104.7	124.8	163.4	155.3	159.2	174.1	172.4	174.2	169.2	189.3	***215***	***240***	**Net Profit ($mill)**	***305***
21.5%	22.6%	19.4%	11.3%	14.8%	- -	- -	- -	NMF	NMF	***NMF***	***NMF***	**Income Tax Rate**	***NMF***
4.4%	6.3%	2.0%	1.4%	.8%	.7%	1.3%	1.1%	1.5%	1.4%	***2.0%***	***2.0%***	**AFUDC % to Net Profit**	***1.0%***
44.6%	44.2%	46.3%	42.0%	41.0%	39.9%	38.6%	41.0%	42.2%	40.8%	***39.5%***	***39.5%***	**Long-Term Debt Ratio**	***40.5%***
55.4%	55.8%	53.7%	58.0%	59.0%	60.1%	61.4%	59.0%	57.8%	59.6%	***60.5%***	***60.5%***	**Common Equity Ratio**	***59.5%***
2425.9	2882.2	3388.9	3263.4	3507.4	3584.3	3632.8	3887.8	4176.3	4457.5	***4700***	***4900***	**Total Capital ($mill)**	***5550***
2576.5	3286.4	3669.1	3741.2	3822.4	3904.4	4377.0	4840.8	5100.2	5004.0	***5300***	***5450***	**Net Plant ($mill)**	***5675***
5.3%	5.2%	5.8%	5.8%	5.5%	5.8%	5.6%	5.3%	4.8%	5.6%	***5.5%***	***5.5%***	**Return on Total Cap'l**	***6.0%***
7.8%	7.8%	9.0%	8.2%	7.7%	8.1%	7.7%	7.6%	7.0%	7.5%	***8.0%***	***8.0%***	**Return on Shr. Equity**	***9.0%***
7.8%	7.8%	9.0%	8.2%	7.7%	8.1%	7.7%	7.6%	7.0%	7.5%	***8.0%***	***8.0%***	**Return on Com Equity E**	***9.0%***
2.2%	2.5%	3.6%	2.8%	2.4%	2.7%	2.3%	2.0%	1.5%	2.5%	***2.5%***	***2.5%***	**Retained to Com Eq**	***3.5%***
72%	67%	60%	66%	68%	66%	70%	74%	78%	76%	***70%***	***69%***	**All Div'ds to Net Prof**	***60%***

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-12.0	+11.5	+4.7
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) F	1588	1557	1556
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg.)	NA	NA	NA
Fixed Charge Cov. (%)	230	219	220

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	- -	-3.0%	*3.0%*
"Cash Flow"	4.5%	2.0%	*4.5%*
Earnings	3.0%	.5%	*6.0%*
Dividends	3.5%	3.5%	*3.5%*
Book Value	4.5%	3.0%	*3.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2020	311.6	243.2	293.9	320.4	1169.1
2021	339.2	335.6	345.4	399.0	1419.2
2022	383.5	373.1	388.3	425.8	1570.7
2023	564.9	533.4	***400***	***226.7***	***1725***
2024	***425***	***420***	***445***	***460***	***1750***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2020	1.28	.39	.78	.90	3.35
2021	.99	.53	.53	1.18	3.23
2022	1.24	.67	.59	.90	3.38
2023	1.02	.90	***.70***	***1.08***	***3.70***
2024	***1.35***	***.65***	***.90***	***1.15***	***4.05***

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.5875	.5875	.5875	.5875	2.35
2020	.6175	.6175	.6175	.6175	2.47
2021	.63	.63	.63	.63	2.52
2022	.65	.65	.65	.65	2.60
2023	.6775	.6775			

BUSINESS: ALLETE, Inc. is the parent of Minnesota Power, which supplies electricity to 146,000 customers in northeastern MN, & Superior Water, Light & Power in northwestern WI. Electric rev. breakdown: taconite mining/processing, 26%; paper/wood products, 9%; other industrial, 8%; residential, 13%; commercial, 13%; wholesale, 14%; other, 17%. ALLETE Clean Energy (ACE) owns renewable energy projects. Acq'd U.S. Water Services 2/15; sold it 3/19. Generating sources: coal, 28%; wind, 10%; other, 4%; purchased, 58%. Fuel costs: 40% of revs. '22 deprec. rate: 3.2%. Has 1,400 employees. Chairman, President & CEO: Bethany M. Owen. Inc.: Minnesota. Address: 30 West Superior St., Duluth, MN 55802-2093. Tel.: 218-279-5000. Internet: www.allete.com.

We expect an earnings rebound for ALLETE in 2023. In the second quarter, the company posted better-than-anticipated top- and bottom-line results. The recent purchase of New Energy Equity is proving beneficial, as it has been a main driver of performance, lately. The utility expects New Energy to provide full-year earnings of $16 million-$17 million. ALLETE also reaffirmed its full-year 2023 earnings-per-share estimate range of $3.55 to $3.85. As a result, our bottom-line call is staying put at $3.70 a share.

ALLETE's main utility subsidiary had its Need and Route permit application approved. In late July, the Minnesota Public Utilities Commission approved the application, which will improve the regulatory process for Minnesota Power. The company plans to file another similar application with the North Dakota Public Service Commission later this year. Meanwhile, ALLETE Clean Energy continues to make progress on the development of clean and renewable energy projects. ALLETE Clean Energy recently announced a five-year power purchase agreement to sell wind power to Seattle City Light. The company also remains focused on its carbon-reduction goals, and the agreement includes an option to add solar and energy storage at the site.

We look for solid earnings growth through the next few years. We see ALLETE posting full-year 2024 profits of $4.05 a share. The utility should continue to benefit from rate relief and the development of clean and renewable energy projects. An improving macroeconomic environment offset by higher operating and maintenance costs, and lower wind resources, should also help out over that interim.

The dividend remains this issue's most notable feature. ALLETE carries a dividend yield of 4.9%, which is above the industry average. Meanwhile, total return potential over the next 18-months and 3- to 5-years is superior to that of most utilities, in part due to the stock's recent price struggles; the quotation has slipped 10% in value since our June report. These shares are ranked 2 (Above Average) for Safety, and have high scores for Price Stability and Earnings Predictability.

Zachary J. Hodgkinson September 8, 2023

(A) Diluted EPS. Excl. nonrec. gains (loss): '15, (46¢); '17, 25¢; '19, 26¢; '19 EPS don't sum due to rounding. Next earnings report due early Nov. **(B)** Div'ds historically paid in early Mar., June, Sept. and Dec. ■ Div'd reinvest. plan avail. † Shareholder invest. plan avail. **(C)** Incl. deferred charges. In '22: $9.60/sh. **(D)** In mill. **(E)** Rate base: Orig. cost depr. Rate all'd in MN on com. eq. in '18: 9.25%; earned on avg. com. eq., '21: 7.2%. Regul. Climate: Avg. **(F)** Summer peak in '21.

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

AMEREN NYSE-AEE

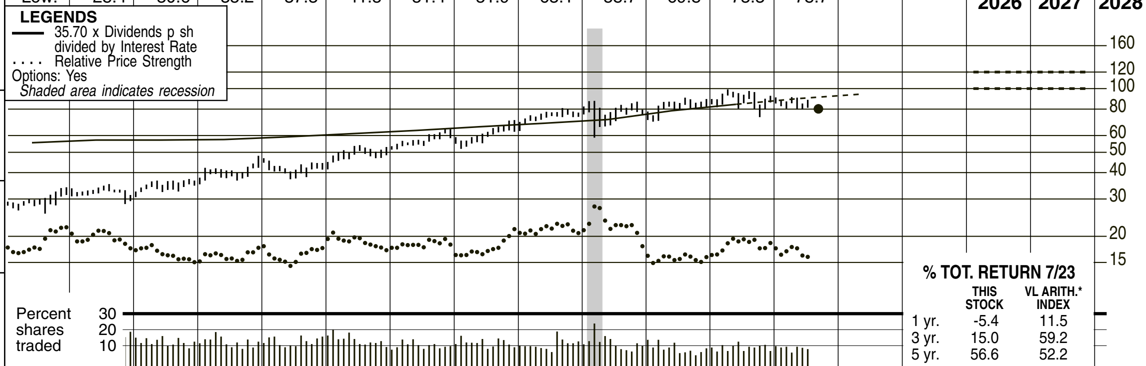
RECENT PRICE	P/E RATIO		RELATIVE P/E RATIO	DIV'D YLD
80.32	18.1	(Trailing: 18.8 Median: 20.0)	1.08	3.1%

VALUE LINE

TIMELINESS 4 Lowered 9/8/23
SAFETY 1 Raised 9/10/21
TECHNICAL 3 Raised 8/18/23
BETA .85 (1.00 = Market)

High:	35.3	37.3	48.1	46.8	54.1	64.9	70.9	80.9	87.7	90.8	99.2	91.2
Low:	28.4	30.6	35.2	37.3	41.5	51.4	51.9	63.1	58.7	69.8	73.3	78.7

Target Price Range 2026 | 2027 | 2028



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$70-$125	$98 (20%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	120	(+50%)	13%
Low	100	(+25%)	9%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	326	296	289
to Sell	270	268	287
Hld's(000)	206602	205221	204708

% TOT. RETURN 7/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-5.4	11.5
3 yr.	15.0	59.2
5 yr.	56.6	52.2

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
36.23	36.92	29.87	31.77	31.04	28.14	24.06	24.95	25.13	25.04	25.46	25.73	24.00	22.87	24.81	30.37	**31.00**	**31.60**	Revenues per sh	**32.65**
6.76	6.44	6.06	6.33	5.87	5.87	5.25	5.77	6.08	6.59	6.80	7.64	7.83	8.08	8.89	9.59	**9.50**	**10.05**	"Cash Flow" per sh	**12.20**
2.98	2.88	2.78	2.77	2.47	2.41	2.10	2.40	2.38	2.68	2.77	3.32	3.35	3.50	3.84	4.14	**4.38**	**4.70**	Earnings per sh A	**5.50**
2.54	2.54	1.54	1.54	1.56	1.60	1.60	1.61	1.66	1.72	1.78	1.85	1.92	2.00	2.20	2.36	**2.52**	**2.65**	Div'd Decl'd per sh B ■	**3.30**
6.96	9.75	7.51	4.66	4.50	5.49	5.87	7.66	8.12	8.78	9.05	9.56	9.92	13.02	13.67	12.79	**12.90**	**12.55**	Cap'l Spending per sh	**13.00**
32.41	32.80	33.08	32.15	32.64	27.27	26.97	27.67	28.63	29.27	29.61	31.21	32.73	35.29	37.64	40.11	**40.20**	**42.90**	Book Value per sh C	**55.00**
208.30	212.30	237.40	240.40	242.60	242.63	242.63	242.63	242.63	242.63	242.63	244.50	246.20	253.30	257.70	262.00	**267.00**	**269.00**	Common Shs Outst'g D	**285.00**
17.4	14.2	9.3	9.7	11.9	13.4	16.5	16.7	17.5	18.3	20.6	18.3	22.1	22.2	21.4	21.5	*Bold figures are*		Avg Ann'l P/E Ratio	**20.0**
.92	.85	.62	.62	.75	.85	.93	.88	.88	.96	1.04	.99	1.18	1.14	1.16	1.24	*Value Line*		Relative P/E Ratio	**1.10**
4.9%	6.2%	6.0%	5.8%	5.3%	5.0%	4.6%	4.0%	4.0%	3.5%	3.1%	3.0%	2.6%	2.6%	2.7%	2.7%	*estimates*		Avg Ann'l Div'd Yield	**3.0%**

CAPITAL STRUCTURE as of 6/30/23
Total Debt $16007 mill. **Due in 5 Yrs** $2789 mill.
LT Debt $14328 mill. **LT Interest** $450 mill.
(LT interest earned: 3.8x)
Pension Assets-12/22 $5745 mill.
Oblig $5457 mill.
Pfd Stock $129 mill. **Pfd Div'd** $5 mill.
807,595 sh. $3.50 to $5.50 cum. (no par), $100 stated val., redeem. $102.176-$110/sh.; 487,508 sh. 4.00% to 5.16%, $100 par, redeem. $100-$104.30/sh.
Common Stock 262,749,535 shs.
as of 7/31/23
MARKET CAP: $21.1 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
5838.0	6053.0	6098.0	6076.0	6177.0	6291.0	5910.0	5794.0	6394.0	7957.0	**8270**	**8500**	Revenues ($mill)	**9300**
518.0	593.0	585.0	659.0	683.0	821.0	834.0	877.0	995.0	1074.0	**1190**	**1275**	Net Profit ($mill)	**1570**
37.5%	38.9%	38.3%	36.7%	38.2%	22.4%	17.9%	15.0%	13.6%	14.0%	**12.0%**	**12.0%**	Income Tax Rate	**12.0%**
7.1%	5.7%	5.1%	4.1%	5.6%	6.9%	5.8%	5.5%	6.0%	5.0%	**6.0%**	**5.0%**	AFUDC % to Net Profit	**4.0%**
45.2%	47.2%	49.3%	47.7%	49.2%	50.3%	52.1%	55.0%	56.1%	56.6%	**55.5%**	**53.5%**	Long-Term Debt Ratio	**51.0%**
53.7%	51.7%	49.7%	51.3%	49.8%	48.8%	47.1%	44.3%	43.3%	43.4%	**44.0%**	**46.0%**	Common Equity Ratio	**48.5%**
12190	12975	13968	13840	14420	15632	17116	20158	22391	24193	**24950**	**25750**	Total Capital ($mill)	**29500**
16205	17424	18799	20113	21466	22810	24376	26807	29261	31262	**33050**	**35000**	Net Plant ($mill)	**38400**
5.6%	5.8%	5.3%	6.0%	6.0%	6.4%	6.0%	5.3%	5.3%	5.4%	**5.0%**	**5.0%**	Return on Total Cap'l	**6.0%**
7.7%	8.7%	8.3%	9.1%	9.3%	10.6%	10.2%	9.7%	10.1%	10.2%	**11.0%**	**11.0%**	Return on Shr. Equity	**10.0%**
7.8%	8.7%	8.3%	9.2%	9.4%	10.7%	10.3%	9.7%	10.2%	10.2%	**11.0%**	**11.0%**	Return on Com Equity E	**10.0%**
1.9%	2.9%	2.5%	3.3%	3.4%	4.8%	4.4%	4.2%	4.4%	4.4%	**5.0%**	**5.0%**	Retained to Com Eq	**4.0%**
76%	67%	70%	64%	64%	56%	57%	57%	57%	57%	**57%**	**56%**	All Div'ds to Net Prof	**60%**

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-3.5	-5.6	+2.1
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
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. (%)	307	291	325

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	-1.5%	0.5%	4.0%
"Cash Flow"	4.0%	6.5%	5.5%
Earnings	4.0%	8.0%	6.5%
Dividends	3.5%	5.0%	6.5%
Book Value	2.0%	5.5%	6.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1440	1398	1628	1328	5794
2021	1566	1472	1811	1545	6394
2022	1879	1726	2306	2046	7957
2023	2062	1760	**2370**	**2078**	**8270**
2024	**2120**	**1800**	**2450**	**2130**	**8500**

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.59	.98	1.47	.46	3.50
2021	.91	.80	1.65	.48	3.84
2022	.97	.80	1.74	.63	4.14
2023	1.00	.90	**1.83**	**.67**	**4.40**
2024	**1.03**	**.90**	**2.00**	**.77**	**4.70**

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.475	.475	.475	.495	1.92
2020	.495	.495	.495	.515	2.00
2021	.55	.55	.55	.55	2.20
2022	.59	.59	.59	.59	2.36
2023	.63	.63	.63		

BUSINESS: Ameren Corporation is a holding company formed through the merger of Union Electric and CIPSCO. Has 1.2 million electric and 127,000 gas customers in Missouri; 1.2 million electric and 813,000 gas customers in Illinois. Discontinued nonregulated power-generation operation in '13. Electric revenue breakdown: residential, 49%; commercial, 34%; industrial, 8%; other, 9%. Generating sources: coal, 73%; nuclear, 11%; hydro & other, 9%; purchased, 7%. Fuel costs: 25% of revenues. Has approximately 9,250 employees. Chairman: Warner L. Baxter. President & CEO: Martin J. Lyons, Jr. Inc.: Missouri. Address: One Ameren Plaza, 1901 Chouteau Ave., P.O. Box 66149, St. Louis, MO 63166-6149. Tel.: 314-621-3222. Internet: www.ameren.com.

Ameren Corporation recorded better-than-expected second-quarter results. Reported earnings per share of $0.90 exceeded our estimate of $0.80. Part of the outperformance was because AEE was able to recognize a gain from costs it had previously written off, owing to changes or allowances in its 2023 rate order (how much regulators say a utility can charge its customers). Ameren also had fewer operations and maintenance expenses than anticipated and some favorable tax positions. Leadership remains confident in its earnings per share guidance for 2023, which is set at a range of $4.25 to $4.45. New electric rates in Missouri should translate to $0.09 more in earnings for the third quarter and an increase of $0.04 in the fourth period. Furthermore, due to macroeconomic changes (the rise in the Treasury yield), the expected profitability (return on equity) for Ameren's Illinois Electric segment has slightly increased.

Regulatory challenges are heating up. AEE has a rate case ongoing for its Illinois electric segment, which is currently in a crucial phase involving testimonies and rebuttals. This is a formal process where AEE, regulatory staff, and other stakeholders present evidence and arguments about the proposed rate changes. The company has provided a rebuttal concerning a lower-than-expected return on equity (ROE). ROE is a critical metric in rate cases as it determines the return the utility can earn on its equity. We expect investors will remain highly focused on the proceeding until the commission ultimately rules. Elsewhere, legislation related to the 'Right of First Refusal' (the right of incumbent utilities to construct any new transmission projects in their service territories, even if another entity proposes the project) has been passed but awaits the governor's approval or veto.

These shares are ranked to trail the broader market averages in the coming year (Timeliness: 4, Below Average). We expect the company to continue to focus on disciplined cost management, and take advantage of higher base rates in the years ahead. We like Ameren's efforts to transition toward cleaner energy. That said, this issues is best left to conservative income accounts.

Kevin Downing *September 8, 2023*

(A) Diluted EPS. Excl. nonrec. gain (losses): '10, ($2.19); '11, (32¢); '12, ($6.42); '17, (63¢); gain (loss) from discontinued ops.: '13, (92¢); '15, 21¢. Next earnings report due early-November. **(B)** Div'ds paid late Mar., June, Sept., & Dec. ■ Div'd reinvest. plan avail. **(C)** Incl. intang. In '21: $6.60/sh. **(D)** In mill. **(E)** Rate base: Orig. cost depr. Rate allowed on com. eq. in MO in '22: elec. & gas, none specified; in IL: electric, varies; in '21: gas, 9.67%; earned on avg. com. eq., '21: 10.6%.

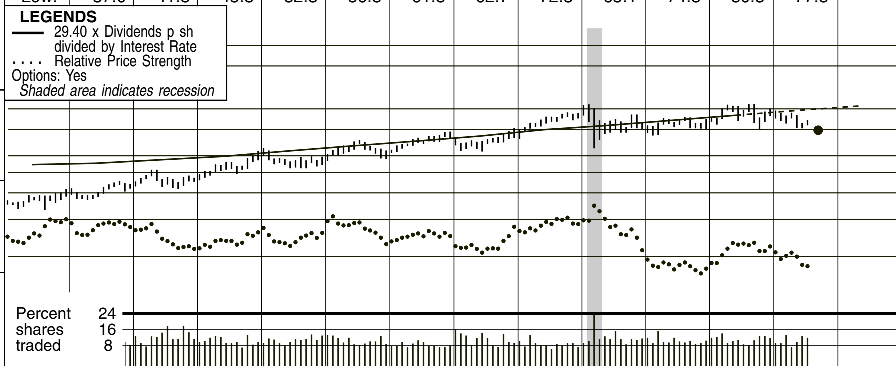
Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	90
Earnings Predictability	100

AMERICAN ELEC. PWR. NDQ-AEP

RECENT PRICE	P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	
79.20	14.4 (Trailing: 19.9, Median: 18.0)	0.86	4.2%	VALUE LINE

TIMELINESS 4 Lowered 7/21/23
SAFETY 1 Raised 3/17/17
TECHNICAL 3 Raised 8/11/23
BETA .80 (1.00 = Market)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
High:	45.4	51.6	63.2	65.4	71.3	78.1	81.1	96.2	105.0	91.5	105.6	98.3
Low:	37.0	41.8	45.8	52.3	56.8	61.8	62.7	72.3	65.1	74.8	80.3	77.8



Target Price Range 2026 | 2027 | 2028
200
160
100
80
60
50
40
30
20

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$71-$124	$98 (25%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	135	(+70%)	17%
Low	110	(+40%)	12%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	707	635	596
to Sell	496	532	572
Hld's(000)	390225	381232	386016

% TOT. RETURN 7/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-10.9	11.5
3 yr.	-2.1	59.2
5 yr.	26.7	52.2

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
33.41	35.56	28.22	30.01	31.27	30.77	31.48	34.78	33.51	33.31	31.35	32.84	31.49	30.04	33.30	38.20	**38.00**	**38.80**	Revenues per sh	**40.90**
6.80	6.84	6.32	6.29	6.83	6.92	7.02	7.57	7.98	8.47	7.95	8.77	9.35	10.28	10.98	10.72	**11.00**	**11.65**	"Cash Flow" per sh	**14.75**
2.86	2.99	2.97	2.60	3.13	2.98	3.18	3.34	3.59	4.23	3.62	3.90	4.08	4.42	4.96	5.09	**5.25**	**5.60**	Earnings per sh A	**6.80**
1.58	1.64	1.64	1.71	1.85	1.88	1.95	2.03	2.15	2.27	2.39	2.53	2.71	2.84	3.00	3.17	**3.35**	**3.52**	Div'd Decl'd per sh B ■ †	**4.16**
8.88	9.83	6.19	5.07	5.74	6.45	7.75	8.68	9.37	9.98	11.79	12.89	12.43	12.72	11.43	13.18	**15.35**	**14.15**	Cap'l Spending per sh	**14.00**
25.17	26.33	27.49	28.33	30.33	31.37	32.98	34.37	36.44	35.38	37.17	38.58	39.73	41.38	44.49	46.60	**52.60**	**55.05**	Book Value per sh C	**62.55**
400.43	406.07	478.05	480.81	483.42	485.67	487.78	489.40	491.05	491.71	492.01	493.25	494.17	496.60	504.21	513.87	**523.00**	**530.00**	Common Shs Outst'g D	**550.00**
16.3	13.1	10.0	13.4	11.9	13.8	14.5	15.9	15.8	15.2	19.3	18.0	21.4	19.6	17.1	21.1	*Bold figures are*		Avg Ann'l P/E Ratio	**18.0**
.87	.79	.67	.85	.75	.88	.81	.84	.80	.80	.97	.97	1.14	1.01	.92	1.23	*Value Line*		Relative P/E Ratio	**1.00**
3.4%	4.2%	5.5%	4.9%	5.0%	4.6%	4.2%	3.8%	3.8%	3.5%	3.4%	3.6%	3.1%	3.3%	3.5%	3.3%	*estimates*		Avg Ann'l Div'd Yield	**3.3%**

CAPITAL STRUCTURE as of 6/30/23
Total Debt $44009 mill. **Due in 5 Yrs** $12886 mill.
LT Debt $36762 mill. **LT Interest** $1400 mill.

Leases, Uncapitalized Annual rentals $119.6 mill.

Pfd Stock None

Common Stock 515,153,841 shs.

MARKET CAP: $40.8 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
15357	17020	16453	16380	15425	16196	15561	14919	16792	19640	**19865**	**20550**	Revenues ($mill)	**22500**
1549.0	1634.0	1763.4	2073.6	1783.2	1923.8	2019.0	2200.1	2488.1	2307.2	**2765**	**2990**	Net Profit ($mill)	**3740**
36.2%	37.8%	35.1%	26.8%	33.7%	5.8%	.7%	1.9%	4.6%	NMF	**21.0%**	**21.0%**	Income Tax Rate	**21.0%**
7.3%	9.0%	11.0%	8.0%	8.0%	10.7%	12.7%	9.7%	7.8%	7.0%	**7.0%**	**7.0%**	AFUDC % to Net Profit	**5.0%**
51.1%	49.0%	49.8%	50.0%	51.5%	53.2%	56.1%	58.5%	58.3%	58.5%	**58.0%**	**58.0%**	Long-Term Debt Ratio	**57.5%**
48.9%	51.0%	50.2%	50.0%	48.5%	46.8%	43.9%	41.5%	41.7%	42.0%	**42.0%**	**42.0%**	Common Equity Ratio	**42.5%**
32913	33001	35633	34775	37707	40677	44759	49537	53734	57520	**62950**	**68900**	Total Capital ($mill)	**75900**
40997	44117	46133	45639	50262	55099	60138	63902	66001	71283	**74600**	**78000**	Net Plant ($mill)	**87300**
6.0%	6.3%	6.1%	7.2%	5.9%	5.9%	5.6%	5.6%	5.6%	4.0%	**4.5%**	**4.5%**	Return on Total Cap'l	**5.0%**
9.6%	9.7%	9.9%	11.9%	9.8%	10.1%	10.3%	10.7%	11.1%	9.7%	**10.0%**	**10.0%**	Return on Shr. Equity	**11.0%**
9.6%	9.7%	9.9%	11.9%	9.8%	10.1%	10.3%	10.7%	11.1%	9.7%	**10.0%**	**10.0%**	Return on Com Equity	**11.0%**
3.7%	3.8%	3.9%	5.5%	3.2%	3.5%	3.4%	3.8%	4.3%	2.9%	**4.0%**	**4.0%**	Retained to Com Eq	**4.5%**
62%	61%	60%	54%	67%	65%	67%	65%	61%	70%	**63%**	**63%**	All Div'ds to Net Prof	**61%**

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	- -	+3.0	- -
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.0	NA	NA
Fixed Charge Cov. (%)	243	272	285

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	.5%	-.5%	*3.0%*
"Cash Flow"	5.0%	5.5%	*5.5%*
Earnings	5.0%	4.0%	*6.5%*
Dividends	5.0%	5.0%	*5.5%*
Book Value	3.5%	3.5%	*6.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	3747	3494	4066	3610	14918
2021	4281	3826	4623	4061	16792
2022	4593	4640	5526	4881	19640
2023	4690	4373	***5415***	***5387***	***19865***
2024	***4820***	***4750***	***5375***	***5605***	***20550***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1.00	1.05	1.50	.87	4.42
2021	1.15	1.15	1.59	1.07	4.96
2022	1.22	1.20	1.62	1.05	5.09
2023	1.11	1.13	***1.65***	***1.36***	***5.25***
2024	***1.35***	***1.35***	***1.75***	***1.15***	***5.60***

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.67	.67	.67	.70	2.71
2020	.70	.70	.70	.74	2.84
2021	.74	.74	.74	.78	3.00
2022	.78	.78	.78	.83	3.17
2023	.83	.83	.83		

BUSINESS: American Electric Power Company Inc. (AEP), through 10 operating utilities, serves 5.5 million customers in Arkansas, Kentucky, Indiana, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia, & West Virginia. Has a transmission subsidiary. Electric revenue breakdown: residential, 43%; commercial, 23%; industrial, 18%; wholesale, 10%; other, 6%. Sold commercial barge operation in '15. Generating sources not available. Fuel costs: 33% of revenues. '22 reported depreciation rates (utility): 2.6%-12.5%. Has 16,700 employees. President & Chief Executive Officer: Julie Sloat. Executive Chairman: Niholas K. Akins. Incorporated: New York. Address: 1 Riverside Plaza, Columbus, Ohio 43215-2373. Telephone: 614-716-1000. Internet: www.aep.com.

American Electric Power is starting to see some impact from challenging economic conditions. Although the utility's residential customer counts continue to grow, it is also seeing usage decline as more customers are being strained by inflation and lack of income growth. These two factors impact how much energy residential customers use. The company expects the turbulent situation to stabilize in the second half of this year. Meanwhile, American is also seeing a noticeable deceleration in industrial energy usage (load), resulting from a manufacturing slowdown throughout the country. The weakness has been broad-based across industries, but the company pointed out it would have been even worse without its efforts to stimulate economic development in the communities it services (i.e., helps companies decide where to build facilities). Even with these efforts, AEP expects industrial load growth to remain subdued throughout the end of the year due to the tighter financial conditions and slowing demand for finished goods. Commercial load has done better, growing almost eight percent annually in the last two quarters, also buoyed by economic development efforts. The company expects commercial load to continue to outperform through the end of the year, owing to ongoing technology development.

The company continues to take actions to de-risk and simplify the business. American announced it will sell its interests in two non-core transmission joint ventures (Prairie Wind and Pioneer.) The company also plans to complete the previously announced strategic review of the Transource Energy joint venture by the end of the year. These activities, and likely others ahead, should strengthen the balance sheet. Meanwhile, AEP received regulatory approval to add nearly 2,000 megawatts of new wind and solar generation to help meet customers' power needs in Oklahoma, Arkansas, and Louisiana.

We only recommend this stock to risk-averse investors seeking income. Although investors appear to be pricing in a degree of economic contraction and the shares are reasonably priced from a valuation standpoint, we see a lack of near-term catalysts for the shares.

Kevin Downing *September 8, 2023*

(A) Diluted EPS. Excl. nonrec. gains (losses): '07, (20¢); '08, 40¢; '10, (7¢); '11, 89¢; '12, (38¢); '13, (14¢); '16, ($2.99); '17, 26¢; '19, (20¢); gains (loss) from disc. ops.: '06, 2¢; '08, 3¢; '15, 58¢; '16, (1¢); '22, (58¢); '23, (34¢). Next earnings report due late October. (B) Div'ds paid early Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail. † Shareholder invest. plan avail. (C) Incl. intang. In '22: $52.5 million (D) In mill.

Company's Financial Strength	A+
Stock's Price Stability	100
Price Growth Persistence	80
Earnings Predictability	90

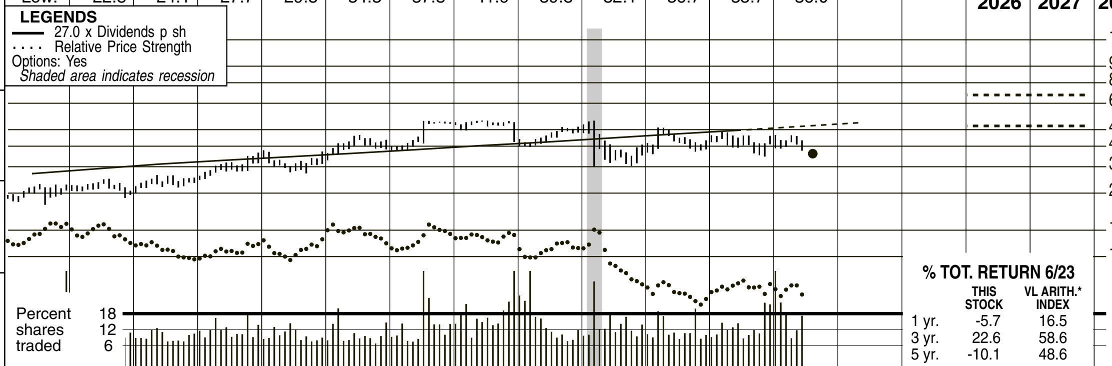
AVISTA CORP. NYSE-AVA

RECENT PRICE 36.90 | P/E RATIO 16.0 (Trailing: 19.8 Median: 19.0) | RELATIVE P/E RATIO 0.92 | DIV'D YLD 5.0% | VALUE LINE

TIMELINESS 4 Lowered 7/21/23
SAFETY 2 Raised 5/7/10
TECHNICAL 1 Raised 6/2/23
BETA .90 (1.00 = Market)

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	36.0

Target Price Range
2026 | 2027 | 2028



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$34-$57	$46 (25%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	70	(+90%)	20%
Low	50	(+35%)	12%

Institutional Decisions

	3Q2022	4Q2022	1Q2023
to Buy	138	153	122
to Sell	114	125	134
Hld's(000)	61258	66349	67752

Percent shares traded 18 12 6

% TOT. RETURN 6/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-5.7	16.5
3 yr.	22.6	58.6
5 yr.	-10.1	48.6

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	**23.25**	**23.45**	Revenues per sh	**24.10**
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	**4.90**	**5.35**	"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**	**2.45**	Earnings per sh A	**3.00**
.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 ■	**2.15**
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	**6.50**	**6.55**	Cap'l Spending per sh	**6.80**
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	**32.95**	**34.50**	Book Value per sh C	**37.25**
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*	*Value Line estimates*	Avg Ann'l P/E Ratio	**20.0**
1.64	.90	.76	.81	.88	1.23	.82	.91	.89	.99	1.18	1.32	.80	1.09	1.09	1.16			Relative P/E Ratio	**1.10**
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%			Avg Ann'l Div'd Yield	**3.6%**

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	**1790**	**1840**	Revenues ($mill)	**2050**
111.1	114.2	118.1	137.2	126.1	136.4	197.0	129.5	147.3	155.2	**175**	**190**	Net Profit ($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	**5100**	**5300**	Total Capital ($mill)	**6000**
3202.4	3620.0	3898.6	4147.5	4398.8	4648.9	4797.0	4991.6	5225.5	5444.7	**5700**	**5950**	Net Plant ($mill)	**6400**
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%**	**78%**	All Div'ds to Net Prof	**72%**

CAPITAL STRUCTURE as of 3/31/23
Total Debt $2774.5 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: 2.2x)
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 4/30/23
MARKET CAP: $2.8 billion (Mid Cap)

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

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	-2.5%	-2.0%	*2.5%*
"Cash Flow"	3.0%	-0.5%	*3.5%*
Earnings	2.5%	0.5%	*6.5%*
Dividends	4.5%	4.0%	*4.0%*
Book Value	4.0%	3.5%	*3.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) 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	***370***	***355***	***590.4***	***1790***
2024	***490***	***380***	***370***	***600***	***1840***

Cal-endar	EARNINGS PER SHARE A 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	***.20***	***.20***	***1.17***	***2.30***
2024	***.75***	***.23***	***.22***	***1.25***	***2.45***

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ 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			

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.

Regardless of the first-quarter showing, Avista remains on target to reach earnings of $2.30 a share this year. Earnings in the March period missed our expectations by a wide margin, which is not all that uncommon for utilities. Still, this situation can be fully explained. Rate cases in Washington and Idaho dating back to 2021 came with customer tax credits. These credits will be fully returned by the end of the third quarter this year. After that, the utility margin will improve, but income tax is spread throughout the year as a percentage of pretax income based on the estimated annual effective tax rate. This will alter the shape of quarterly earnings in 2023. Management has said that 35% of annual utility earnings will be recognized in the first quarter. After that, the distribution will be 5% in the second quarter, 10% in the third quarter, and 50% in the fourth quarter. All told, the provided earnings spread remains at $2.27 to $2.47 per share, and our figure slants toward the low end of this range. Furthermore, this seems like a good time to reiterate to our subscribers to not focus on sequential showings, as opposed to the annual earnings for utilities.

Earnings next year are apt to grow by roughly 5% to 7%. This is a touch slower than what we are looker for in 2023, but in line with what leadership is looking for from an annual perspective. Further rate plan approvals may well be in the cards, particularly in Idaho, and the expected larger revenue base will be a welcome sight. In that vein, our $2.45-a-share target looks doable.

Clean energy goals continue to be executed upon. A contract for new wind generation in Montana was a nice step forward. Add that to hydro pacts and 70% of Avista's peak generating capability will be produced from non-emitting resources by 2026. Factoring in some additional spending on these fronts, our capital expenditure figure for 2023 is now hovering around the $500 million line.

This untimely selection has a yield that is more than a full percentage point above the average utility within our coverage. Longer term, appreciation potential is only about average from the stock's recent price points.

Erik M. Manning *July 21, 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 August.
(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	40
Earnings Predictability	65

BLACK HILLS CORP. NYSE-BKH

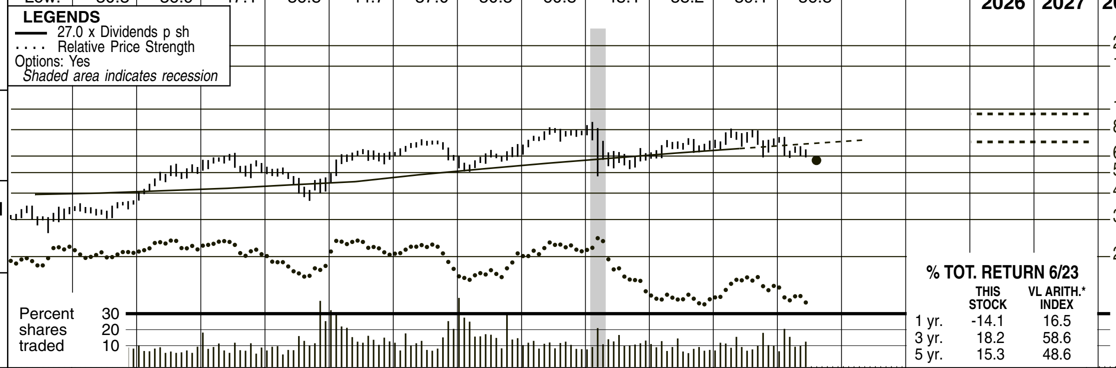
RECENT PRICE	P/E RATIO		RELATIVE P/E RATIO	DIV'D YLD
57.23	15.3	(Trailing: 14.7 / Median: 18.0)	0.88	4.5%

VALUE LINE

TIMELINESS 3 Raised 6/2/23
SAFETY 2 Raised 5/1/15
TECHNICAL 2 Raised 7/21/23
BETA 1.00 (1.00 = Market)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
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	56.8

Target Price Range
2026 | 2027 | 2028



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$52-$89	$71 (25%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	95	(+65%)	17%
Low	70	(+20%)	9%

Institutional Decisions

	3Q2022	4Q2022	1Q2023
to Buy	155	148	150
to Sell	142	143	156
Hld's(000)	58257	59331	57740

% TOT. RETURN 6/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-14.1	16.5
3 yr.	18.2	58.6
5 yr.	15.3	48.6

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*	*38.40*	Revenues per sh	*39.45*
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	*18.0*
.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	*1.00*
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	*3.7%*

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
1275.9	1393.6	1304.6	1573.0	1680.3	1754.3	1734.9	1696.9	1949.1	2551.8	*2600*	*2650*	Revenues ($mill)	*2800*
115.8	128.8	128.3	140.3	186.5	192.5	214.5	232.9	236.7	258.4	*250*	*265*	Net Profit ($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 3/31/23
Total Debt $4479.4 mill. **Due in 5 Yrs** $1835.0 mill.
LT Debt $3954.4 mill. **LT Interest** $190.0 mill.
(Total Interest Coverage: 2.7x)
Leases, Uncapitalized Annual rentals $2.4 mill.

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

Pfd Stock None

Common Stock 66,660,004 shs.
as of 4/28/23

MARKET CAP: $3.8 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	*475*	*465*	*738.8*	*2600*
2024	*930*	*485*	*480*	*755*	*2650*

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	*.40*	*.52*	*1.10*	*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			

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 has been the worst year-to-date performer among electric utilities. The shares are down 19% in 2023, versus the 6% average decline for all electrics under *Value Line's* coverage. While many interest-rate sensitive issues are under water this year, BKH's weakness extends back to last year's third quarter, when the negative year-over-year quarterly earnings comparisons began. February's cut in the company's long-term profit growth objectives, to 4%-6% from 5%-7%, off of this year's scaled back earnings outlook of $3.65-$3.85 a share, accelerated the stock's decline. Inflation was cited as the primary problem. Given the individual circumstances of various utilities, some are more equipped to handle the challenging macro environment of elevated commodity/labor costs and higher interest rates without suffering from extreme regulatory lag. It depends in part on to what extent a company can bill in real time for certain increases in expenses. Black Hills primarily has to file for rate relief. In that vein, the company recently applied to charge higher gas and electric delivery prices in its varied service areas.

With a heavy weighting towards natural gas customers, Black Hills won't benefit as much as some utility peers will from secular growth trends in "clean energy." The company has a decent resource plan in place, which is focused on adding renewable power sources in its electric territories. Colorado leadership is progressive on the green-energy front, legislating that 80% of electric power generation in the state come from non-emitting sources. As such, Black Hills is adding a combination of solar, wind power, and battery storage totalling 520 megawatts by 2030. Of this, 50% will be utility owned, with the remainder under long-term contracts. South Dakota and Wyoming are a little more conservative in their forays into clean energy. Combined, the utility has gotten the okay to expand renewables by 120 mw through 2026.

The decrease in valuation has this issue's total return prospects comparing favorably to its industry's 10% median. But we'd caution that the stock does not appear to have found equilibrium in response to leadership's new outlook.

Anthony J. Glennon *July 21, 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 Aug. (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	40
Earnings Predictability	95

CENTERPOINT EN'RGY NYSE-CNP

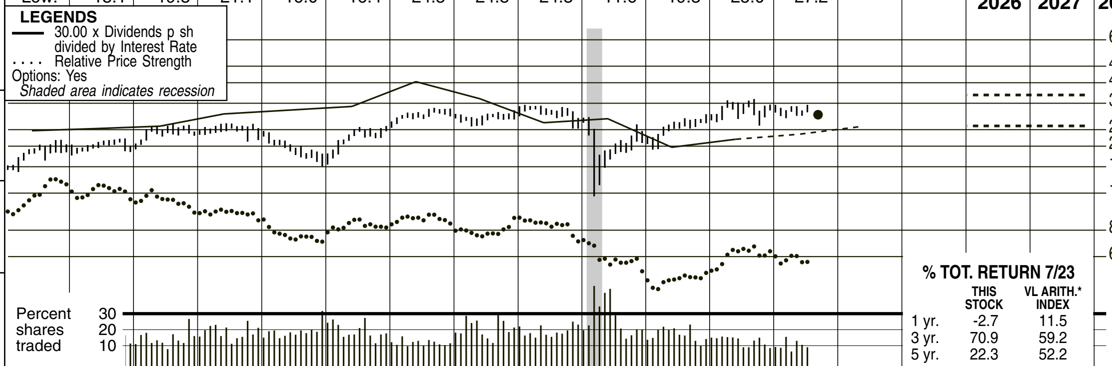
RECENT PRICE 28.22 | P/E RATIO 17.0 (Trailing: 24.5 Median: 19.0) | RELATIVE P/E RATIO 1.02 | DIV'D YLD 2.7% | VALUE LINE

TIMELINESS 3 Raised 5/12/23
SAFETY 3 Lowered 12/18/15
TECHNICAL 2 Lowered 9/1/23
BETA 1.10 (1.00 = Market)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
High:	21.8	25.7	25.8	23.7	25.0	30.5	29.6	31.4	27.5	28.4	33.5	31.5
Low:	18.1	19.3	21.1	16.0	16.4	24.5	24.8	24.3	11.6	19.3	25.0	27.2

Target Price Range 2026 | 2027 | 2028

LEGENDS
— 30.00 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)
$24-$42	$33 (15%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	35	(+25%)	8%
Low	25	(-10%)	1%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	330	269	257
to Sell	232	269	272
Hld's(000)	574926	567918	562002

% TOT. RETURN 7/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-2.7	11.5
3 yr.	70.9	59.2
5 yr.	22.3	52.2

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
29.82	32.71	21.14	20.69	19.83	17.43	18.90	21.51	17.18	17.48	22.30	21.13	24.49	13.45	13.28	14.81	*14.75*	*15.05*	Revenues per sh	*16.70*
3.39	3.42	2.94	3.14	3.43	3.89	3.54	3.85	3.40	3.68	4.03	3.24	4.12	3.46	3.00	3.65	*3.80*	*4.05*	"Cash Flow" per sh	*4.75*
1.17	1.30	1.01	1.07	1.27	1.35	1.24	1.42	1.08	1.00	1.57	.74	1.49	1.29	.94	1.59	*1.65*	*1.75*	Earnings per sh A	*1.95*
.68	.73	.76	.78	.79	.81	.83	.95	.99	1.03	1.35	1.12	.86	.90	.66	.72	*.77*	*.83*	Div'd Decl'd per sh B ■	*.95*
3.45	2.95	2.96	3.55	3.06	2.84	3.00	3.20	3.68	3.28	3.31	3.29	4.99	4.71	5.03	7.02	*6.65*	*7.05*	Cap'l Spending per sh	*9.00*
5.61	5.89	6.74	7.53	9.91	10.06	10.09	10.60	8.05	8.03	10.88	12.53	13.10	10.78	13.70	14.68	*16.85*	*17.70*	Book Value per sh C	*19.50*
322.72	346.09	391.75	424.70	426.03	427.44	429.00	429.00	430.00	430.68	431.04	501.20	502.24	551.36	628.92	629.54	*631.20*	*632.00*	Common Shs Outst'g D	*634.00*
15.0	11.3	11.8	13.8	14.6	14.8	18.7	17.0	18.1	21.9	17.9	37.0	19.5	15.9	26.1	18.7	*Bold figures are*		Avg Ann'l P/E Ratio	*16.0*
.80	.68	.79	.88	.92	.94	1.05	.89	.91	1.15	.90	2.00	1.04	.82	1.41	1.08	*Value Line*		Relative P/E Ratio	*.90*
3.9%	5.0%	6.4%	5.3%	4.3%	4.0%	3.6%	3.9%	5.1%	4.7%	4.8%	4.1%	3.0%	4.4%	2.7%	2.4%	*estimates*		Avg Ann'l Div'd Yield	*3.2%*

CAPITAL STRUCTURE as of 6/30/23
Total Debt $16958 mill. **Due in 5 Yrs** $6698 mill.
LT Debt $16032 mill. **LT Interest** $600 mill.
Incl. $170 mill. securitized transition & system restoration bonds.
(LT interest earned: 2.4x)
Leases, Uncapitalized Annual rentals $5 mill.
Pension Assets-12/22 $1212 mill. **Oblig** $1553 mill.
Pfd Stock $790 mill. **Pfd Div'd** $49 mill.
800,000 shs. 6.125%, cumulative, with liquidation value of $800.
Common Stock 631,184,089 shs. **as of 7/19/23**
MARKET CAP: $17.8 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
8106.0	9226.0	7386.0	7528.0	9614.0	10589	12301	7418.0	8352.0	9321.0	*9300*	*9500*	Revenues ($mill)	*10600*
536.0	611.0	465.0	432.0	679.0	368.0	871.0	863.0	668.0	1057.0	*1100*	*1160*	Net Profit ($mill)	*1285*
31.4%	31.0%	35.1%	37.0%	36.1%	28.4%	14.9%	13.4%	14.1%	25.4%	*20.0%*	*20.0%*	Income Tax Rate	*20.0%*
3.5%	4.1%	4.7%	3.5%	2.9%	5.4%	6.7%	6.0%	9.3%	6.0%	*5.0%*	*5.0%*	AFUDC % to Net Profit	*5.0%*
64.4%	63.8%	69.5%	68.5%	63.6%	51.9%	63.0%	58.0%	62.3%	59.6%	*60.0%*	*55.0%*	Long-Term Debt Ratio	*53.0%*
35.6%	36.2%	30.5%	31.5%	36.4%	37.5%	29.1%	29.9%	34.5%	37.1%	*37.0%*	*42.0%*	Common Equity Ratio	*44.0%*
12146	12557	11362	10992	12883	16740	22603	19869	24973	24878	*26000*	*26500*	Total Capital ($mill)	*28000*
9593.0	10502	11537	12307	13057	14044	20945	22362	23484	27143	*30000*	*33000*	Net Plant ($mill)	*40000*
6.3%	6.7%	6.1%	5.8%	6.8%	3.4%	5.1%	5.6%	3.8%	5.3%	*5.5%*	*5.5%*	Return on Total Cap'l	*5.5%*
12.4%	13.4%	13.4%	12.5%	14.5%	4.6%	10.4%	10.3%	7.1%	10.5%	*9.5%*	*9.5%*	Return on Shr. Equity	*10.0%*
12.4%	13.4%	13.4%	12.5%	14.5%	5.3%	11.5%	11.6%	6.7%	10.9%	*10.0%*	*10.0%*	Return on Com Equity E	*10.0%*
4.2%	4.5%	1.1%	NMF	4.7%	NMF	2.7%	5.0%	2.2%	6.1%	*5.5%*	*5.5%*	Retained to Com Eq	*5.0%*
66%	67%	92%	103%	68%	NMF	80%	66%	72%	46%	*49%*	*49%*	All Div'ds to Net Prof	*51%*

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	+6.7	+1.8	+2.0
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg.)	+7.9	+2.5	+2.0
Fixed Charge Cov. (%)	152	135	252

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	-3.5%	-6.0%	*-.5%*
"Cash Flow"	-.5%	-2.0%	*4.0%*
Earnings	.5%	1.0%	*6.5%*
Dividends	-.5%	-7.5%	*2.5%*
Book Value	3.5%	8.0%	*6.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2020	2167	1575	1622	2054	7418
2021	2547	1742	1749	2314	8352
2022	2763	1944	1903	2711	9321
2023	2779	1875	*2150*	*2496*	*9300*
2024	*2800*	*1900*	*2200*	*2600*	*9500*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2020	.56	.17	.29	.27	1.29
2021	.41	.29	.21	.03	.94
2022	.82	.28	.30	.19	1.59
2023	.49	.17	*.50*	*.49*	*1.65*
2024	*.50*	*.30*	*.50*	*.45*	*1.75*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.2875	.2875	.2875	.2875	1.15
2020	.29	.15	.15	.15	.74
2021	.16	.16	.16	.17	.65
2022	.17	.17	.18	.18	.70
2023	.18	.19	.19		

BUSINESS: CenterPoint Energy, Inc. is a holding company for Houston Electric, which serves 2.7 million customers in Houston and environs, Indiana Electric, which serves 151,000 customers, and gas utilities with 4.27 million customers in Texas, Minnesota, Louisiana, Mississippi, Indiana, and Ohio. Acquired Vectren 2/19. Sold nonutility operations in '20. Sold its stake in Energy Transfer LP in '21 and '22. Electric revenue breakdown not available. Fuel costs: 33% of revenues. '22 depreciation rate: 3.8%. Has 8,986 employees. Chairman: Martin H. Nesbitt. President & CEO: David J. Lesar. Incorporated: Texas. Address: 1111 Louisiana, P.O. Box 4567, Houston, Texas 77210-4567. Telephone: 713-207-1111. Internet: www.centerpointenergy.com.

CenterPoint Energy posted softer June-period results. The top line decreased 3.5% year over year, to $1.875 billion. The bottom line also fell 39% from the year-ago tally, to $0.17 per share (GAAP). The company's results were partly affected by the divestiture of Energy Systems Group in the quarter. This move aligns with its plan to become a pure-play regulated utility company. After the recent sale, CenterPoint now earns nearly 95% from regulated operations. Moreover, higher interest rates, ongoing inflationary cost headwinds, and weather challenges further hindered its overall performance.

We have maintained our 2023 and 2024 GAAP share-profit estimates at $1.65 and $1.75, respectively. Earnings are expected to stay healthy thanks to ongoing capital investments (more below). The company deployed $1.2 billion of capital during the second quarter. Utilities typically earn profits by passing capital expenditures to customers. CenterPoint also aims to reduce operating and management expenses 1%-2% annually during the tenure of the growth plan.

The utility company is currently in its third year of a 10-year growth strategy. The plan seems to be proceeding nicely. Management recently announced an increase of over 11% in the 2023 capital budget, bringing the total to $4 billion. This expands the total capital spending for the 10-year plan to $43.4 billion, up from $43 billion. The extra funding will be allocated towards investments in transitioning to clean energy and upgrading existing systems. Moreover, the company stated that it has identified another $2.6 billion of opportunities, which will probably be used to strengthen its presence in the electric vehicle market and accelerate its grid modernization projects. Under the current growth strategy, CenterPoint believes that it will not need to issue common equity through 2030, although the share count might rise slightly due to stock issued for options and various other plans.

Shares of CenterPoint are ranked to mirror the broader market averages in the year ahead. The equity has uninspiring intermediate- and long-term capital upside potential. The dividend yield is on the lower side for utilities.

Emma Jalees *September 8, 2023*

(A) GAAP Dil. EPS 2022 & onwards. Excl. nonrecur. gains (losses): '11, $1.89; '12, (38¢); '13, (52¢); '15, ($2.69); '17, $2.56; '20, ($2.74); gain (loss) on disc. ops.: '20, (34¢); '21, $1.34. Next egs. report due early Nov. **(B)** Div'ds histor. paid in early Mar., June, Sept. & Dec. 5 declarations in '17 & '20, 3 in '19. ■ Div'd reinv. plan avail. **(C)** Incl. intang. In '22: $6.82/sh. **(D)** In mill. **(E)** Rate base: Net orig. cost. Rate all'd on com. eq. (elec.) in '20: 9.4%; (gas): 9.45%-11.25%; earned on avg. com. eq., '22: 8.27%. Regulatory Climate: TX, Avg.; IN, Above Avg.

Company's Financial Strength	B++
Stock's Price Stability	75
Price Growth Persistence	35
Earnings Predictability	55

CMS ENERGY CORP. NYSE-CMS

RECENT PRICE 56.81 | P/E RATIO 18.0 (Trailing: 22.7 Median: 21.0) | RELATIVE P/E RATIO 1.08 | DIV'D YLD 3.4% | VALUE LINE

TIMELINESS 3 Raised 8/11/23
SAFETY 2 Raised 3/21/14
TECHNICAL 3 Raised 7/28/23
BETA .80 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$52-$91	$72 (25%)

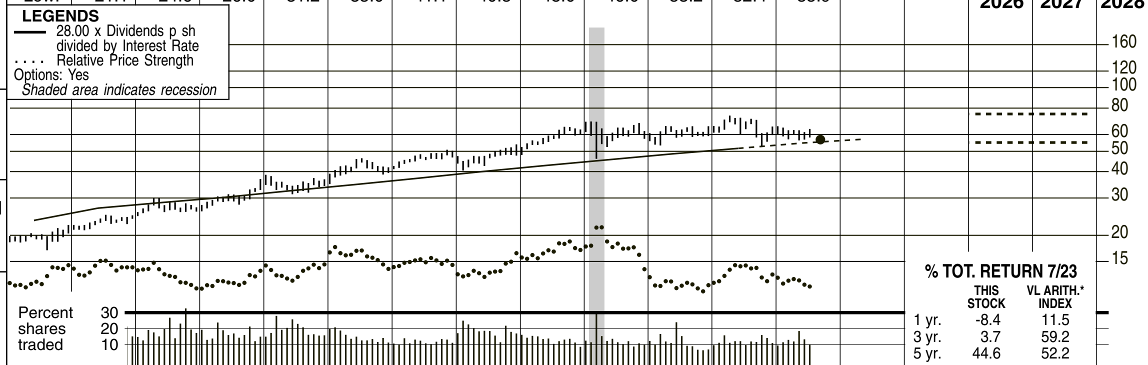
2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	75	(+30%)	10%
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

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	55.9



% TOT. RETURN 7/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-8.4	11.5
3 yr.	3.7	59.2
5 yr.	44.6	52.2

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	29.30	30.15	Revenues per sh	31.15
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	7.70	"Cash Flow" per sh	8.50
.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	25.40	31.30	Book Value per sh C	31.75
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	17.5
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	.95
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	3.5%

CAPITAL STRUCTURE as of 6/30/23
Total Debt $15057 mill. **Due in 5 Yrs** $2300 mill.
LT Debt $13925 mill. **LT Interest** $600 mill.
Incl. $68 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 291,726,672 shs.
as of 7/10/23
MARKET CAP: $16.6 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
6566.0	7179.0	6456.0	6399.0	6583.0	6873.0	6845.0	6680.0	7329.0	8596.0	8550	8900	Revenues ($mill)	9350
454.0	479.0	525.0	553.0	610.0	659.0	682.0	757.0	751.0	833.0	900	980	Net Profit ($mill)	1125
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%	61.5%	61.5%	Long-Term Debt Ratio	60.0%
32.2%	31.0%	31.4%	32.6%	32.4%	30.7%	29.4%	28.6%	34.2%	33.6%	36.5%	36.5%	Common Equity Ratio	39.0%
10730	11846	12534	13040	13692	15476	17082	19223	18760	20205	22725	23900	Total Capital ($mill)	24300
12246	13412	14705	15715	16761	18126	18926	21039	22352	22713	23850	25350	Net Plant ($mill)	28500
6.0%	5.7%	5.7%	5.8%	5.9%	5.6%	5.3%	5.2%	5.3%	5.4%	5.0%	5.0%	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%	10.0%	10.5%	Return on Shr. Equity	11.5%
13.1%	13.0%	13.3%	13.0%	13.7%	13.8%	13.6%	13.7%	11.6%	12.1%	10.0%	10.5%	Return on Com Equity E	12.0%
5.2%	5.0%	5.2%	4.8%	5.2%	5.3%	4.9%	5.3%	3.8%	4.3%	3.5%	4.0%	Retained to Com Eq	4.5%
60%	62%	61%	63%	62%	62%	64%	62%	68%	65%	64%	62%	All Div'ds to Net Prof	62%

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%	4.0%
"Cash Flow"	5.5%	5.5%	6.0%
Earnings	6.5%	6.0%	6.5%
Dividends	8.0%	7.0%	6.0%
Book Value	6.0%	7.5%	7.0%

Cal-endar	QUARTERLY REVENUES ($ mill.) 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	2150	2561	8550
2024	2335	2100	2200	2265	8900

Cal-endar	EARNINGS PER SHARE A 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	.80	.89	3.05
2024	.80	.75	.85	.90	3.30

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ 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		

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's subsidiary, Consumers Energy, plans to sell some of its hydroelectric dams. The unit is considering selling 13 hydroelectric facilities to reduce costs and free up/redirect financial resources. Despite generating less than 1% of the total electricity consumed, the cost of energy from these dams is over nine times higher than other sources of generation. After the utility company sells these assets, it will likely invest the proceeds to replace old assets or build new infrastructures.

There is some news regarding rate cases for the subsidiary of the utility company. Consumers Energy filed a settlement agreement with a gas rate increase of $95 million, based on a 9.9% return on equity (ROE), effective October 1st. Moreover, the utility filed an application with the Michigan Public Service Commission (MPSC) seeking an electric tariff increase of $216 million, based on a 10.25% ROE. This filing includes the requested approval of a surcharge recovery of $9 million of distribution investments made last year, exceeding the authorized 2021 electric rate order.

CMS Energy continues to expand its infrastructure to save costs and boost profits. As part of its goal, the utility expects to upgrade its infrastructure by investing $15.5 billion from 2023 through 2027. It plans to invest $6.3 billion in gas networks, $6.1 billion in electric distribution, and $3.1 billion in clean energy. The investment plan is expected to grow the rate base at 7% annually and should allow Consumers to provide affordable prices to their customers. Utility companies usually are incentivized to invest in capital projects. Hence, we view the investment plan favorably.

Shares of CMS Energy are ranked to mirror the broader market averages in the year ahead. Also, the stock has below-average capital appreciation potential over the 2026-2028 horizon. Nevertheless, the company has a good record of stable operating performance and consistent dividend hikes, which may interest some income-seeking conservative accounts. However, the dividend yield (3.4%) is slightly below the industry's median yield (3.6%), at present.

Emma Jalees *September 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 late October. (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	A
Stock's Price Stability	95
Price Growth Persistence	90
Earnings Predictability	90

CON. EDISON NYSE-ED

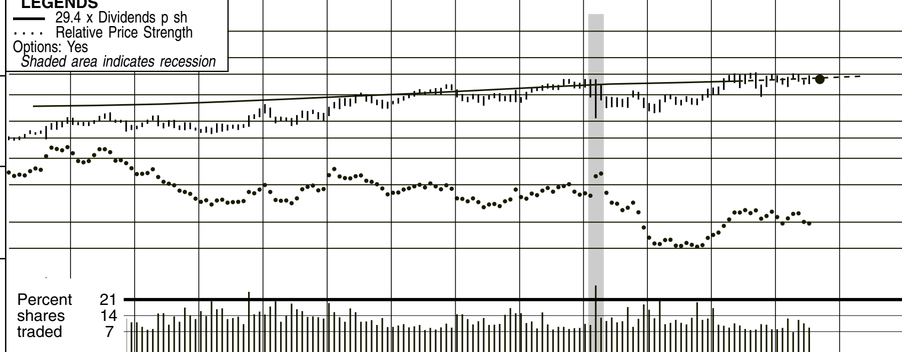
RECENT PRICE 94.86 | P/E RATIO 19.2 (Trailing: 19.3 Median: 18.0) | RELATIVE P/E RATIO 1.10 | DIV'D YLD 3.5% | VALUE LINE

TIMELINESS 2 Lowered 7/14/23
SAFETY 1 New 7/27/90
TECHNICAL 2 Raised 8/11/23
BETA .80 (1.00 = Market)

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	87.0

Target Price Range
2026 | 2027 | 2028

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



18-Month Target Price Range
Low-High Midpoint (% to Mid)
$80-$130 $105 (10%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	125	(+30%)	10%
Low	100	(+5%)	5%

Institutional Decisions

	3Q2022	4Q2022	1Q2023
to Buy	467	532	477
to Sell	380	366	411
Hld's(000)	232220	239865	235681

% TOT. RETURN 7/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-1.2	11.5
3 yr.	38.2	59.2
5 yr.	43.4	52.2

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	***46.40***	***47.85***	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	***18.5***
.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	***1.05***
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	***3.4%***

CAPITAL STRUCTURE as of 3/31/23
Total Debt $21706 mill. **Due in 5 Yrs** $1579 mill.
LT Debt $20645 mill. **LT Interest** $987 mill.
(Total Interest Coverage: 3.0x)

Leases, Uncapitalized Annual rentals $64 mill.

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

Pfd Stock None

Common Stock 346,540,200 shs.
as of 4/30/23
MARKET CAP: $32.9 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
12381	12919	12554	12075	12033	12337	12574	12246	13676	15670	***16000***	***16500***	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%***

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	***3420***	***4100***	***4077***	***16000***
2024	***4550***	***3525***	***4225***	***4200***	***16500***

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	***.57***	***1.68***	***.82***	***4.90***
2024	***1.88***	***.62***	***1.80***	***.90***	***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			

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's electric and gas rate reviews have concluded. The New York State Public Service Commission (NYSPSC) signed off on a deal that will raise 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%. Nearly $12 billion in new capital investments have been approved through 2026-2028, directed at reliability, safety, and clean energy objectives.

The benefits of rate hikes and New York's aggressive "green" energy transition should lead to years of solid profit gains. To pay for the power-grid modernization work, energy delivery prices are heading up. Electric and gas rates are slated to increase $442 million and $217 million, respectively, starting this month. Next August, an additional $518 million in electric rates and $173 million in gas rates is to take effect. And in August of 2025, electric and gas rates would rise for the third-consecutive year, by $382 million and $122 million, respectively. Furthermore, CECONY filed for a rate increase of $141 million nine months ago for its steam service, effective November of this year. Taking the aforementioned figures into account, ConEd should see a few years of 6%-7% profit gains.

This issue is ranked to outperform the market 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 green-energy push without having to dilute its shareholders any time soon by raising equity. Our concern for long-term utility investors is that the recent stock price appears to discount most of the good news and seems to be pricing in perennial 6%-7% share-earnings growth. In reality the rate will likely slow some starting in 2025. The company will need to secure further significant price hikes from 2026 onwards to keep its profits on the rise. The likely pushback may make raising rates untenable in what has historically been a below average regulatory environment.

Anthony J. Glennon *August 11, 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 '23, $2.23. Excl. gain on disc. ops.: '08, $1.01. Next egs. report due early Nov. 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	55
Earnings Predictability	100

DTE ENERGY CO. NYSE-DTE

RECENT PRICE 104.97 | P/E RATIO 14.6 (Trailing: 18.7 Median: 18.0) | RELATIVE P/E RATIO 0.87 | DIV'D YLD 3.6% | VALUE LINE

TIMELINESS 5 Raised 9/8/23
SAFETY 2 Raised 12/21/12
TECHNICAL 3 Raised 7/28/23
BETA .95 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$94-$159	$127 (20%)

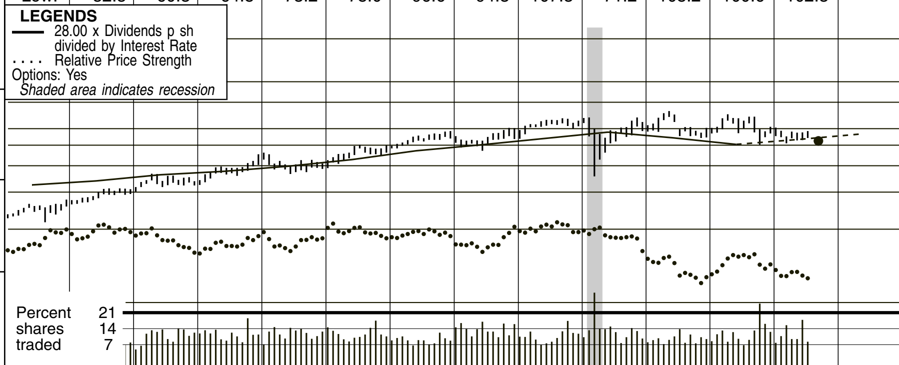
2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	170	(+60%)	16%
Low	125	(+20%)	8%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	399	313	334
to Sell	260	325	284
Hld's(000)	153190	154100	154545

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
High:	62.6	73.3	90.8	92.3	100.4	116.7	121.0	134.4	135.7	145.4	140.2	121.3
Low:	52.5	60.3	64.8	73.2	78.0	96.6	94.3	107.3	71.2	108.2	100.6	102.3



Target Price Range 2026 | 2027 | 2028

320
200
160
120
100
80
60
40
18

% TOT. RETURN 7/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-9.4	11.5
3 yr.	8.8	59.2
5 yr.	23.8	52.2

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
54.28	57.23	48.45	50.51	52.57	51.01	54.56	69.50	57.60	59.24	70.28	78.12	65.91	62.84	77.23	93.48	82.75	90.00	Revenues per sh	92.25
8.48	8.26	9.38	9.78	9.57	9.77	10.13	11.85	9.44	10.60	11.77	12.58	12.97	14.70	11.94	12.65	14.05	14.50	"Cash Flow" per sh	17.05
2.66	2.73	3.24	3.74	3.67	3.88	3.76	5.10	4.44	4.83	5.73	6.17	6.31	7.08	4.10	5.52	6.20	6.70	Earnings per sh A	8.30
2.12	2.12	2.12	2.18	2.32	2.42	2.59	2.69	2.84	3.06	3.36	3.59	3.85	4.12	3.88	3.54	3.81	4.05	Div'd Decl'd per sh B ■	4.65
7.96	8.42	6.26	6.49	8.77	10.56	10.59	11.58	11.26	11.40	12.54	14.91	15.59	19.91	19.47	16.42	17.05	17.50	Cap'l Spending per sh	18.50
35.86	36.77	37.96	39.67	41.41	42.78	44.73	47.05	48.88	50.22	53.03	56.27	60.73	64.12	44.93	46.35	52.95	54.25	Book Value per sh C	60.75
163.23	163.02	165.40	169.43	169.25	172.35	177.09	176.99	179.47	179.43	179.39	181.93	192.21	193.77	193.75	205.69	205.50	205.50	Common Shs Outst'g D	206.00
18.3	14.8	10.4	12.3	13.5	14.9	17.9	14.9	18.1	19.0	18.6	17.4	19.9	16.3	30.0	22.4	Bold figures are		Avg Ann'l P/E Ratio	18.0
.97	.89	.69	.78	.85	.95	1.01	.78	.91	1.00	.94	.94	1.06	.84	1.62	1.30	Value Line		Relative P/E Ratio	1.00
4.4%	5.2%	6.3%	4.8%	4.7%	4.2%	3.8%	3.5%	3.5%	3.3%	3.2%	3.3%	3.1%	3.6%	3.2%	3.4%	estimates		Avg Ann'l Div'd Yield	3.5%

CAPITAL STRUCTURE as of 6/30/23
Total Debt $19235 mill. **Due in 5 Yrs** $6481 mill.
LT Debt $18538 mill. **LT Interest** $514 mill.
Incl. $209 mill. securitization bonds. Incl. $19 mill. finance leases.
(LT interest earned: 1.7x)
Leases, Uncapitalized Annual rentals $16 mill.

Pension Assets-12/22 $5507 mill.
Oblig $5857 mill.
Pfd Stock None
Common Stock 206,175,587 shs.

MARKET CAP: $21.6 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
9661.0	12301	10337	10630	12607	14212	12669	12177	14964	19228	17000	18500	Revenues ($mill)	19000
661.0	905.0	796.0	868.0	1029.0	1120.0	1169.0	1368.0	796.0	1135.4	1275	1375	Net Profit ($mill)	1710
27.5%	28.5%	25.6%	24.5%	21.8%	8.1%	11.5%	10.9%	- -	2.6%	5.0%	5.0%	Income Tax Rate	5.0%
3.5%	4.1%	4.3%	3.6%	3.5%	3.8%	3.3%	3.4%	4.9%	4.0%	3.0%	3.0%	AFUDC % to Net Profit	3.0%
47.7%	50.0%	50.2%	55.6%	56.2%	54.2%	57.7%	60.5%	62.5%	63.0%	61.5%	61.5%	Long-Term Debt Ratio	61.0%
52.3%	50.0%	49.8%	44.4%	43.8%	45.8%	42.3%	39.5%	37.5%	37.0%	38.5%	38.5%	Common Equity Ratio	39.0%
15135	16670	17607	20280	21697	22371	27607	31426	23236	25158	28250	29000	Total Capital ($mill)	32200
15800	16820	18034	19730	20721	21650	25317	27969	26944	28767	31050	31500	Net Plant ($mill)	36600
5.7%	6.6%	5.7%	5.3%	5.9%	6.1%	5.3%	5.4%	4.7%	4.4%	5.0%	5.0%	Return on Total Cap'l	6.0%
8.3%	10.9%	9.1%	9.6%	10.8%	10.9%	10.0%	11.0%	9.1%	13.0%	11.5%	11.5%	Return on Shr. Equity	12.5%
8.3%	10.9%	9.1%	9.6%	10.8%	10.9%	10.0%	11.0%	9.1%	13.0%	11.5%	11.5%	Return on Com Equity E	12.5%
2.7%	5.2%	3.4%	3.7%	4.6%	4.9%	4.1%	4.9%	.1%	2.0%	4.5%	4.5%	Retained to Com Eq	4.5%
67%	52%	63%	61%	58%	55%	59%	56%	99%	76%	60%	60%	All Div'ds to Net Prof	62%

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-3.4	+2.1	-1.4
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NMF	NMF	NMF
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. (%)	268	233	264

BUSINESS: DTE Energy Company is a holding company for DTE Electric (formerly Detroit Edison), which supplies electricity in Detroit and a 7,600-square-mile area in southeastern Michigan, and DTE Gas (formerly Michigan Consolidated Gas). Customers: 2.2 mill. electric, 1.3 mill. gas. Has various nonutility operations. Electric revenue breakdown: residential, 50%; commercial, 33%; industrial, 11%; other, 6%. Generating sources: coal, 67%; nuclear, 17%; gas, 1%; purchased, 15%. Fuel costs: 62% of revenues. '22 reported deprec. rates: 4.2% electric, 2.9% gas. Has 10,600 employees. Chairman, President & CEO: Jerry Norcia. Incorporated: Michigan. Address: One Energy Plaza, Detroit, Michigan 48226-1279. Tel.: 313-235-4000. Internet: www.dteenergy.com.

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	3.0%	2.5%	5.0%
"Cash Flow"	3.0%	4.5%	4.5%
Earnings	4.0%	2.5%	4.5%
Dividends	5.5%	5.5%	3.0%
Book Value	3.0%	1.5%	1.0%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	3022	2583	3284	3288	12177
2021	3581	3021	3715	4647	14964
2022	4577	4924	5251	4476	19228
2023	3779	2684	4137	6400	17000
2024	4575	4550	4850	4525	18500

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1.76	1.44	2.46	1.42	7.08
2021	1.65	.60	.30	1.55	4.10
2022	2.03	.19	1.99	1.31	5.52
2023	1.33	.99	2.15	1.73	6.20
2024	2.30	1.20	1.90	1.30	6.70

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.945	.945	.945	.945	3.78
2020	1.0125	1.0125	1.0125	1.0125	4.05
2021	.9225	.9225	.9225	.825	3.59
2022	.885	.885	.885	.885	3.54
2023	.9525	.9525			

DTE Energy is making progress in its carbon-reduction goals and improving the electric grid. Indeed, the Michigan Public Service Commission recently approved DTE Electric's integrated resource plan to shut down coal-fired power plants and increase investment in wind and solar generation and energy storage. The plan should reduce the costs of the transition to cleaner, more reliable energy. The company will end the use of coal by 2032, which is more than 10 years ahead of the original schedule. DTE now plans to invest over $11 billion in the grid over the next ten years. The investments will not only enhance tree trimming, maintenance and infrastructure, and accelerate the full automation of the electric grid, which will reduce the duration of outages, but also improve customer affordability and provide over $2.5 billion in future cost savings. The utility plans to fully automate the grid within five to six years.

Earnings should advance nicely this year. Rate relief and the Inflation Reduction Act will likely continue to benefit operating performance over the next few years. Indeed, DTE Electric and DTE Gas should fare better as rates improve. As a result, our full-year 2023 profit estimate is staying put at $6.20 per share, within DTE Energy's annual target of 5%-7% bottom-line growth.

We look for solid profit growth to continue over the next few years. DTE Energy is well positioned for the long term, and should be able to pass on the higher costs associated with the challenging macroeconomic climate to the consumer, through rate cases and infrastructure mechanisms. Our 2024 bottom-line estimate remains untouched at $6.70 per share.

This issue was recently downgraded one notch on our Timeliness Ranking System to 5 (Lowest). Too, the stock has continued to move sideways of late. The price is near where it was in early June, and it is down more than 20% over the past 12 months. On the other hand, conservative income-oriented investors may be attracted to the dividend yield of 3.6%, which is in line with the industry average. The stock also holds a high mark for Price Stability, and is ranked Above Average (2) for Safety.

Zachary J. Hodgkinson September 8, 2023

(A) Diluted EPS. Excl. nonrec. gains (loss): '07, $1.96; '08, 50¢; '11, 51¢; '15, (39¢); '17, 59¢; gains (losses) on discontinued operations: '07, $1.20; '08, 13¢; '12, (33¢); '21, 57¢. Next earnings report due late October. (B) Div'ds paid mid-Jan., Apr., July & Oct. ■ Div'd reinvestment plan available. (C) Incl. intang. In '22: $29.20/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on common equity in '20: 9.9% elec.; in '22: 9.9% gas; earned on avg. com. eq., '21: 7.6%. Regulatory Climate: Above Average.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	70
Earnings Predictability	65

DUKE ENERGY NYSE-DUK

RECENT PRICE **93.62** | P/E RATIO **16.1** (Trailing: 17.9 Median: 18.0) | RELATIVE P/E RATIO **0.93** | DIV'D YLD **4.4%** | VALUE LINE

High:	71.1	75.5	87.3	90.0	87.8	91.8	91.4	97.4	103.8	108.4	116.3	106.4
Low:	59.6	64.2	67.1	65.5	70.2	76.1	72.0	82.5	62.1	85.6	83.8	87.2

TIMELINESS 3 Raised 2/24/23
SAFETY 2 New 6/1/07
TECHNICAL 3 Lowered 6/30/23
BETA .85 (1.00 = Market)

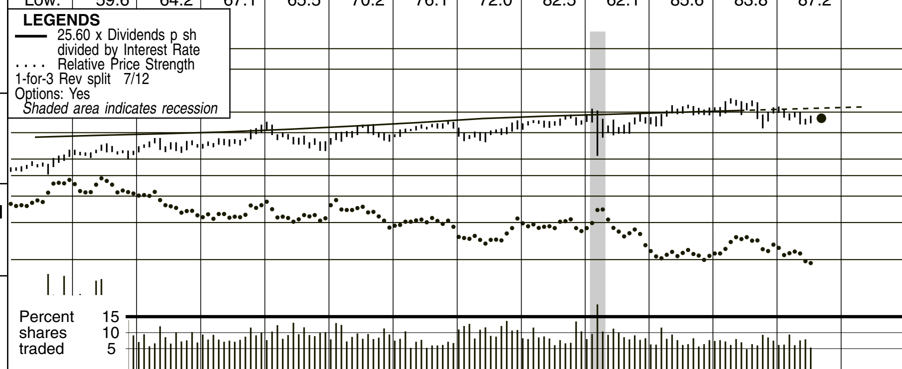
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$78-$133 $106 (15%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	135	(+45%)	13%
Low	100	(+5%)	6%

Institutional Decisions

	3Q2022	4Q2022	1Q2023
to Buy	868	947	891
to Sell	675	673	731
Hld's(000)	491683	499614	493832



Target Price Range 2026 | 2027 | 2028
200
160
100
80
60
50
40
30
20

% TOT. RETURN 7/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-11.3	11.5
3 yr.	24.5	59.2
5 yr.	39.5	52.2

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
30.24	31.15	29.18	32.22	32.63	27.88	34.84	33.84	34.10	32.49	33.66	33.73	34.21	31.04	32.64	37.36	37.35	37.65	Revenues per sh	39.60
8.11	7.34	7.58	8.49	8.68	6.80	8.56	9.11	9.40	9.20	10.01	11.05	12.12	12.04	12.60	12.91	13.30	13.55	"Cash Flow" per sh	14.60
3.60	3.03	3.39	4.02	4.14	3.71	3.98	4.13	4.10	3.71	4.22	4.72	5.06	5.12	5.24	5.27	5.65	6.00	Earnings per sh A	7.00
2.58	2.70	2.82	2.91	2.97	3.03	3.09	3.15	3.24	3.36	3.49	3.64	3.75	3.82	3.90	3.98	4.06	4.14	Div'd Decl'd per sh B ■	4.30
7.43	10.35	9.85	10.84	9.80	7.81	7.83	7.62	9.83	11.29	11.50	12.91	15.17	12.88	12.63	14.76	16.75	17.60	Cap'l Spending per sh	16.75
50.40	49.51	49.85	50.84	51.14	58.04	58.54	57.81	57.74	58.62	59.63	60.27	61.20	59.82	61.55	61.51	64.50	66.25	Book Value per sh C	70.00
420.62	423.96	436.29	442.96	445.29	704.00	706.00	707.00	688.00	700.00	700.00	727.00	733.00	769.00	769.00	770.00	770.00	770.00	Common Shs Outst'g D	770.00
16.1	17.3	13.3	12.7	13.8	17.5	17.4	17.9	18.2	21.3	19.9	17.0	17.7	17.1	18.9	19.6	Bold figures are		Avg Ann'l P/E Ratio	17.0
.85	1.04	.89	.81	.87	1.11	.98	.94	.92	1.12	1.00	.92	.94	.88	1.02	1.14	Value Line		Relative P/E Ratio	.95
4.4%	5.2%	6.2%	5.7%	5.2%	4.7%	4.4%	4.3%	4.3%	4.3%	4.2%	4.5%	4.2%	4.4%	3.9%	3.9%	estimates		Avg Ann'l Div'd Yield	3.9%

CAPITAL STRUCTURE as of 3/31/23
Total Debt $72437 mill. **Due in 5 Yrs** $19536 mill.
LT Debt $69107 mill. **LT Interest** $2206 mill.
Incl. $915 mill. finance leases.
(LT interest earned: 2.7x)
Leases, Uncapitalized Annual rentals $225 mill.
Pension Assets-12/21 $9235 mill.
Oblig $8207 mill.
Pfd Stock $1962 mill. **Pfd Div'd** $107 mill.
40 mill. shs. 5.75%, cum., $25 liq. value, redeemable at $25.50 prior to 6/15/24; 1 mill. shs. 4.875%, cum., $1000 liq. value.
Common Stock 770,651,719 shs. **as of 4/30/23**
MARKET CAP: $72.1 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
24598	23925	23459	22743	23565	24521	25079	23868	25097	28768	28750	29500	Revenues ($mill)	31500
2813.0	2934.0	2854.0	2560.0	2963.0	3339.0	3747.0	3878.0	4133.0	4104.1	4350	4620	Net Profit ($mill)	5390
32.6%	30.6%	32.2%	31.0%	30.4%	14.1%	12.7%	.3%	5.1%	7.4%	9.0%	9.0%	Income Tax Rate	9.0%
8.8%	7.2%	9.2%	11.7%	12.3%	11.4%	8.0%	6.9%	5.9%	8.0%	7.0%	7.0%	AFUDC % to Net Profit	7.0%
48.0%	47.7%	48.6%	52.6%	54.0%	53.8%	54.0%	53.7%	55.1%	56.5%	58.5%	58.5%	Long-Term Debt Ratio	61.0%
52.0%	52.3%	51.4%	47.4%	46.0%	46.2%	44.1%	44.4%	43.1%	42.0%	40.0%	40.0%	Common Equity Ratio	37.5%
79482	78088	77222	86609	90774	94940	101807	103589	109744	115150	124525	124525	Total Capital ($mill)	144100
69490	70046	75709	82520	86391	91694	102127	106782	111408	111748	124375	124375	Net Plant ($mill)	141100
4.6%	4.8%	4.8%	4.0%	4.3%	4.6%	4.7%	4.8%	4.8%	4.5%	4.5%	4.5%	Return on Total Cap'l	4.5%
6.8%	7.2%	7.2%	6.2%	7.1%	7.6%	8.0%	8.1%	8.4%	8.5%	9.0%	9.0%	Return on Shr. Equity	9.0%
6.8%	7.2%	7.2%	6.2%	7.1%	7.6%	8.3%	8.2%	8.5%	8.5%	9.0%	9.0%	Return on Com Equity E	9.0%
1.5%	1.7%	1.5%	.6%	1.2%	2.0%	2.4%	2.3%	1.9%	2.5%	2.5%	2.5%	Retained to Com Eq	3.0%
78%	76%	79%	91%	83%	74%	71%	73%	78%	76%	73%	73%	All Div'ds to Net Prof	68%

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-2.3	+2.0	NA
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg.)	NA	NA	NA
Fixed Charge Cov. (%)	183	209	285

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	.5%	-.5%	2.5%
"Cash Flow"	4.0%	5.0%	5.0%
Earnings	3.0%	4.5%	5.0%
Dividends	3.0%	3.5%	2.0%
Book Value	2.0%	1.0%	2.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	5949	5421	6721	5777	23868
2021	6150	5758	6951	6238	25097
2022	7132	6685	7968	6983	28768
2023	7276	6200	8000	7274	28750
2024	7450	6850	7950	7250	29500

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1.14	1.08	1.87	1.03	5.12
2021	1.26	1.15	1.88	.94	5.24
2022	1.30	1.14	1.78	1.11	5.27
2023	1.20	1.10	2.05	1.30	5.65
2024	1.35	1.30	2.05	1.30	6.00

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.9275	.9275	.945	.945	3.75
2020	.945	.945	.965	.965	3.82
2021	.965	.965	.985	.985	3.90
2022	.985	.985	1.005	1.005	3.98
2023	1.005	1.005			

BUSINESS: Duke Energy Corporation is a holding company for utilities with 7.6 mill. elec. customers in NC, FL, IN, SC, OH, & KY, and 1.6 mill. gas customers in OH, KY, NC, SC, and TN. Owns independent power plants & has 25% stake in National Methanol in Saudi Arabia. Acq'd Progress Energy 7/12; Piedmont Natural Gas 10/16; discontinued most int'l ops. in '16. Elec. rev. breakdown: residential, 45%; commercial, 28%; industrial, 13%; other, 14%. Generating sources: gas, 32%; nuclear, 30%; coal, 18%; other, 1%; purchased, 19%. Fuel costs: 28% of revs. '22 reported deprec. rate: 3.6%. Has 27,600 employees. Chairman, President & CEO: Lynn J. Good. Inc.: DE. Address: 550 South Tryon St., Charlotte, NC 28202-1803. Tel.: 704-382-3853. Internet: www.duke-energy.com.

Duke Energy's bottom-line will likely continue to benefit from rate relief throughout this year. The company has a number of cases pending. In North Carolina, the utility reached a partial settlement with the North Carolina Public Staff regarding customer rate increases. Interim rates were implemented in June, and permanent rates are expected to be put into place on October 1st. In Kentucky, the utility recently requested a $75.2 million (17.8%) hike, as the rate case hearing nears a conclusion. The company has invested more than $300 million in Kentucky since its last rate case. Adjusted first-quarter earnings of $1.20 a share slightly underperformed our call of $1.30. Our 2023 full-year estimate remains at $5.65 a share, as we think Duke should benefit from rate relief and strong electric volume growth. Management reaffirmed a range of $5.55 to $5.75, and a long-term earnings growth rate of 5% to 7% through 2027.

We look for another year of solid profit growth in 2024. Rate relief and volume growth remain the key drivers. Duke is awaiting regulatory outcomes in North Carolina and Kentucky, among other pending rate cases. We estimate a full-year 2024 bottom-line of $6.00, right around management's annual target of 5%-7% growth.

The company is focused on the boosting shareholder value. The board raised the dividend, effective with the September payment. The hike to the annualized disbursement was $0.02, or 2%. The dividend yield of 4.4% sits above the utility median. Meanwhile, the growth rate is well below the industry average due to Duke's high payout ratio.

These shares have dropped slightly in value since our last report three months ago. The stock is now down about 15% over the past 12 months. Still, Duke's 3- to 5-year capital appreciation potential is nothing to get excited about. Indeed, the current quotation is already trading near the low end of our 2026-2028 Target Price Range of $100-$135. The equity has been upgraded one notch in our Timeliness ranking system to 3 (Average). Income-oriented investors may be drawn to the high dividend payout.

Zachary J. Hodgkinson *August 11, 2023*

(A) Dil. EPS. Excl. net nonrec. losses: '12, 64¢; '13, 22¢; '14, 59¢; '15, 5¢; '16, 60¢; '18, 96; '20, $3.40; '21, 30¢; 1Q22, 22¢; net nonrec gain: '17, 14¢. 2021 EPS don't sum to annual due to rounding. Next egs. due early Nov. (B) Div'ds paid mid-Mar., June, Sept., & Dec. ■ Div'd reinv. plan avail. (C) Incl. intang. In '22: $41.34/sh. (D) In mill., adj. for rev. split. (E) Rate base: Net orig. cost. Rate all'd on com. eq. in '21 in NC: 9.6%; in '19 in SC: 9.5%; in '20 in FL: 9.5%-11.5%; in '20 in IN: 9.7%. Reg. Clim.: NC, SC Avg.; OH, IN Above Avg.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	45
Earnings Predictability	100

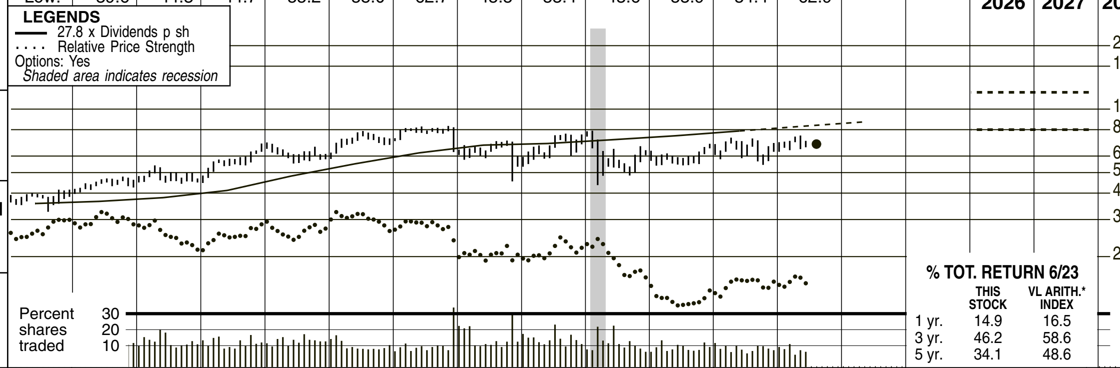
EDISON INTERNAT'L NYSE-EIX

RECENT PRICE 68.31 | P/E RATIO 14.4 (Trailing: 27.5 Median: 20.0) | RELATIVE P/E RATIO 0.83 | DIV'D YLD 4.5% | VALUE LINE

TIMELINESS 3 Lowered 7/7/23
SAFETY 3 Lowered 11/23/18
TECHNICAL 2 Lowered 7/7/23
BETA 1.00 (1.00 = Market)

High:	48.0	54.2	68.7	69.6	78.7	83.4	71.0	76.4	78.9	68.6	73.3	74.9
Low:	39.6	44.3	44.7	55.2	58.0	62.7	45.5	53.4	43.6	53.9	54.4	62.9

Target Price Range 2026 2027 2028



18-Month Target Price Range
Low-High Midpoint (% to Mid)
$61-$103 $82 (20%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	120	(+75%)	18%
Low	80	(+15%)	9%

Institutional Decisions

	3Q2022	4Q2022	1Q2023
to Buy	339	382	371
to Sell	277	254	274
Hld's(000)	335090	343385	343456

% TOT. RETURN 6/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	14.9	16.5
3 yr.	46.2	58.6
5 yr.	34.1	48.6

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
40.25	43.31	37.98	38.09	39.16	36.41	38.61	41.17	35.37	36.43	37.81	38.85	34.11	35.83	39.18	45.05	*45.55*	*46.65*	Revenues per sh	*50.00*
7.60	8.08	7.96	8.41	9.03	9.63	8.80	9.95	10.35	10.43	11.03	4.69	9.81	10.69	11.16	12.07	*12.40*	*13.00*	"Cash Flow" per sh	*14.50*
3.32	3.68	3.24	3.35	3.23	4.55	3.78	4.33	4.15	3.94	4.51	d1.26	4.70	4.52	4.59	4.63	*4.75*	*5.10*	Earnings per sh A	*6.00*
1.18	1.23	1.25	1.27	1.29	1.31	1.37	1.48	1.73	1.98	2.23	2.43	2.48	2.58	2.69	2.84	*2.99*	*3.14*	Div'd Decl'd per sh B ■	*3.66*
8.67	8.67	10.07	13.94	14.76	12.73	11.05	11.99	12.97	11.46	11.75	13.84	13.47	14.47	14.47	15.12	*15.25*	*15.75*	Cap'l Spending per sh	*17.00*
25.92	29.21	30.20	32.44	30.86	28.95	30.50	33.64	34.89	36.82	35.82	32.10	36.75	37.08	36.57	35.70	*35.25*	*35.00*	Book Value per sh C	*42.25*
325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	361.99	378.91	380.38	382.21	*384.00*	*386.00*	Common Shs Outst'g D	*390.00*
16.0	12.4	9.7	10.3	11.8	9.7	12.7	13.0	14.8	17.9	17.2	- -	14.1	13.3	12.9	14.0	*Bold figures are*		Avg Ann'l P/E Ratio	*17.0*
.85	.75	.65	.66	.74	.62	.71	.68	.75	.94	.87	- -	.75	.68	.70	.81	*Value Line*		Relative P/E Ratio	*.95*
2.2%	2.7%	4.0%	3.7%	3.4%	3.0%	2.8%	2.6%	2.8%	2.8%	2.9%	3.8%	3.7%	4.3%	4.5%	4.4%	*estimates*		Avg Ann'l Div'd Yield	*3.6%*

CAPITAL STRUCTURE as of 3/31/23
Total Debt $33301 mill. **Due in 5 Yrs** $9685 mill.
LT Debt $29442 mill. **LT Interest** $1170 mill.
(Total Interest Coverage: 2.9x)
Leases, Uncapitalized Annual rentals $542 mill.

Pension Assets-12/22 $3462 mill.
Oblig $3524 mill.

Pfd Stock $3879 mill. **Pfd Div'd** $212 mill.

Common Stock 382,983,023 shs.
as of 4/25/23
MARKET CAP: $26.2 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
12581	13413	11524	11869	12320	12657	12347	13578	14905	17220	*17500*	*18000*	Revenues ($mill)	*19500*
1344.0	1539.0	1480.0	1422.0	1603.0	d290.0	1716.0	1818.0	1907.0	1977.0	*2030*	*2170*	Net Profit ($mill)	*2550*
25.2%	22.4%	6.6%	11.1%	5.0%	- -	1.2%	5.0%	18.0%	12.5%	*13.0%*	*13.0%*	Income Tax Rate	*13.0%*
7.8%	5.8%	8.0%	6.8%	7.2%	- -	9.6%	9.6%	8.8%	9.6%	*9.0%*	*9.0%*	AFUDC % to Net Profit	*8.0%*
45.7%	44.1%	45.0%	41.8%	45.6%	53.6%	53.5%	55.2%	57.6%	60.7%	*63.5%*	*65.5%*	Long-Term Debt Ratio	*66.5%*
46.2%	47.2%	46.7%	49.2%	45.8%	38.3%	39.9%	39.5%	33.2%	30.6%	*28.5%*	*27.0%*	Common Equity Ratio	*27.0%*
21516	23216	24352	24362	25506	27284	33360	35581	41959	44547	*47425*	*50475*	Total Capital ($mill)	*60325*
30455	32981	35085	37000	39050	41348	44285	47839	50700	53486	*56375*	*59400*	Net Plant ($mill)	*69175*
7.3%	7.7%	7.1%	6.9%	7.3%	.1%	6.4%	6.3%	5.6%	5.7%	*5.5%*	*5.5%*	Return on Total Cap'l	*5.5%*
11.5%	11.9%	11.1%	10.0%	11.6%	NMF	11.1%	11.4%	10.7%	11.3%	*11.5%*	*12.5%*	Return on Shr. Equity	*12.5%*
12.5%	13.0%	12.0%	10.8%	12.7%	NMF	12.0%	12.0%	12.5%	12.9%	*13.5%*	*14.5%*	Return on Com Equity E	*14.0%*
8.1%	8.8%	7.2%	5.6%	6.6%	NMF	5.9%	5.4%	5.4%	5.2%	*5.0%*	*5.5%*	Retained to Com Eq	*5.5%*
40%	37%	44%	53%	52%	NMF	54%	58%	61%	64%	*67%*	*65%*	All Div'ds to Net Prof	*64%*

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	+.7	-3.9	+2.6
Avg. Indust. Use (MWH)	589	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	23133	21190	24345
Annual Load Factor (%)	46.7	52.7	45.8
% Change Customers (yr-end)	+.6	+.3	+.8
Fixed Charge Cov. (%)	NMF	113	135

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	.5%	2.0%	*4.0%*
"Cash Flow"	2.5%	1.5%	*4.0%*
Earnings	3.0%	2.0%	*4.5%*
Dividends	7.5%	6.5%	*5.0%*
Book Value	1.0%	-.5%	*2.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	2790	2987	4644	3157	13578
2021	2960	3315	5299	3331	14905
2022	3968	4008	5228	4016	17220
2023	3966	*4125*	*5350*	*4059*	*17500*
2024	*4100*	*4250*	*5475*	*4175*	*18000*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.63	1.00	1.67	1.19	4.52
2021	.79	.94	1.69	1.16	4.59
2022	1.07	.94	1.48	1.15	4.63
2023	1.09	*.96*	*1.53*	*1.17*	*4.75*
2024	*1.14*	*1.06*	*1.63*	*1.27*	*5.10*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.6125	.6125	.6125	.6125	2.45
2020	.6375	.6375	.6375	.6375	2.55
2021	.6625	.6625	.6625	.6625	2.65
2022	.70	.70	.70	.70	2.80
2023	.7375	.7375	.7375		

BUSINESS: Edison International (formerly SCECorp) is a holding company for Southern California Edison Company (SCE), which supplies electricity to 5.2 mill. customers in a 50,000-sq.-mi. area in central, coastal, & southern CA (excl. Los Angeles & San Diego). Edison Energy is an energy svcs. co. Disc. Edison Mission Energy (independent power producer) in '12. Elec. rev. breakdown: residential, 40%; commercial, 42%; industrial, 3%; other, 15%. Generating sources: nuclear, 9%; gas, 7%; hydro, 4%; purch., 80%. Power costs: 37% of revs. '22 reported depr. rate: 3.8%. Has 13,385 empls. Chairman: William P. Sullivan. Pres. & CEO: Pedro J. Pizzaro. Inc.: CA. Address: 2244 Walnut Grove Ave., P.O. Box 976, Rosemead, CA 91770. Tel.: 626-302-2222. Web: www.edison.com.

Edison International appears on track to post annual gains in core earnings this year and the next. The utility got off to a decent start to 2023 with first-quarter adjusted earnings per share up year over year, primarily due to revenue from the escalation mechanism set forth in the 2021 General Rate Case (GRC) decision. This allows the company to bill for certain types of expenses, thereby circumventing regulatory lag. Higher interest charges were a significant offset, and will likely continue to weigh on the bottom line. Still, leadership affirmed its full-year 2023 share earnings outlook of $2.55 to $2.85, as well as its expectation of 6%-8% profit growth through 2025. As always, rate relief by way of the regulatory umbrella will be a key factor. In that vein, Edison recently filed its latest GRC.

The long-term health of the company is tied to getting out from under a barrage of wildfire claims payments. In recent years, EIX has paid out billions of dollars in lawsuit settlements associated with the role its electric transmission lines played in the disastrous late 2017 to 2018 forest fires in the Golden State. Although we now exclude those charges from our earnings presentation (beginning from 2019), to better highlight the progress that EIX is making in its core operations, one can see the impact on the balance sheet via the rising debt as a percentage of total capital in the financial array. Exiting 2021, the company showed over $1 billion in wildfire claims liability. More than that was paid out last year, yet the company still shows that same level of liability on its recent balance sheet.

Although this issue's total return prospects compare favorably to the electric utility industry's median level of 10%, we'd hold off on commitments here. Most of the company's peers are highly rated for Safety. Meanwhile, Edison's lawsuit woes have transitioned to balance-sheet woes, with debt piling up to help fund wildfire claims. In the wrong economic environment, it could be a real challenge for the utility to maintain its investment grade rating. Over time, EIX may well be able to grow its way out of this predicament, but we don't think the recent valuation justifies the risk.

Anthony J. Glennon *July 21, 2023*

(A) Adjusted (non-GAAP) EPS from 2019 on. Excl. gains/(losses): nonrecur's ; '10, 54¢; '11, ($3.33); '13, ($1.12); '15, ($1.18); '17, ($1.37); '18, (14¢); '19, (92¢); '20, ($2.54); '21, ($2.59); '22, ($3.02); 1Q '23, (28¢); disc. ops.: '13, 11¢; '14, 57¢; '15, 11¢; '18, 10¢. Qtly. EPS may not sum due to rounding. Next egs. report due early Aug. (B) Div'ds paid late Jan., Apr., July, & Oct. ■ Div'd reinv. plan avail. (C) Incl. def'd chgs. In '22: $2.49/sh. (D) In mill. (E) Rate base: net orig. cost. Rate all'd on com. eq. in '20: 10.3%; Regulatory Climate: Average.

Company's Financial Strength	B++
Stock's Price Stability	80
Price Growth Persistence	35
Earnings Predictability	10

ENTERGY CORP. NYSE-ETR

RECENT PRICE	95.28	P/E RATIO	14.2 (Trailing: 14.5; Median: 14.0)	RELATIVE P/E RATIO	0.85	DIV'D YLD	4.5%	VALUE LINE

TIMELINESS 3 Raised 9/8/23
SAFETY 2 Raised 12/13/19
TECHNICAL 3 Raised 8/11/23
BETA .95 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$84-$148	$116 (20%)

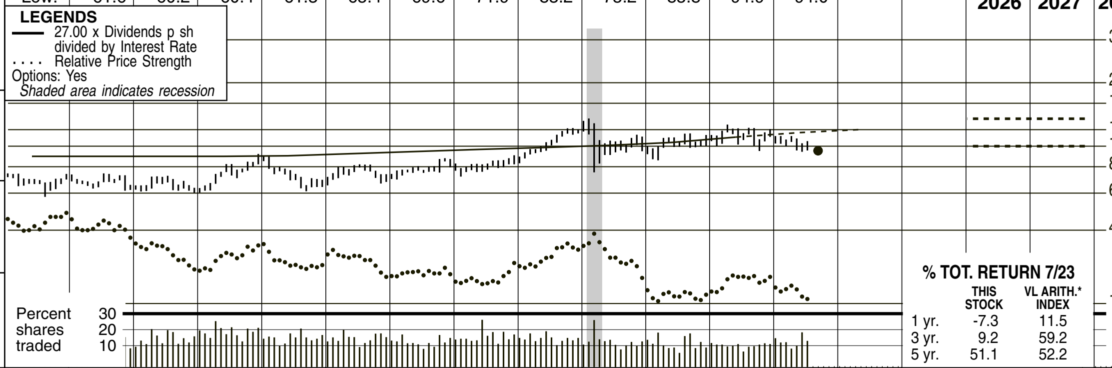
2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	135	(+40%)	13%
Low	100	(+5%)	6%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	377	367	405
to Sell	274	287	270
Hld's(000)	186530	184354	181973

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
High:	74.5	72.6	92.0	90.3	82.1	87.9	90.8	122.1	135.5	115.0	126.8	111.9
Low:	61.6	60.2	60.4	61.3	65.4	69.6	71.9	83.2	75.2	85.8	94.9	94.0



Target Price Range

2026	2027	2028

% TOT. RETURN 7/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-7.3	11.5
3 yr.	9.2	59.2
5 yr.	51.1	52.2

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
59.47	69.15	56.82	64.27	63.67	57.94	63.86	69.71	64.54	60.55	61.35	58.23	54.63	50.51	57.95	65.18	**54.90**	**7.80**	Revenues per sh	**65.20**
11.73	12.89	13.29	16.54	17.53	15.98	16.25	17.68	17.71	18.72	16.70	16.50	17.19	18.21	17.90	15.51	**17.25**	**17.05**	"Cash Flow" per sh	**18.90**
5.60	6.20	6.30	6.66	7.55	6.02	4.96	5.77	5.81	6.88	5.19	5.88	6.30	6.90	6.87	5.37	**6.80**	**6.05**	Earnings per sh A	**6.50**
2.58	3.00	3.00	3.24	3.32	3.32	3.32	3.32	3.34	3.42	3.50	3.58	3.66	3.74	3.86	4.10	**4.30**	**4.45**	Div'd Decl'd per sh B ■ †	**5.00**
10.29	13.92	12.99	13.33	15.21	18.18	15.73	14.82	16.79	17.28	22.07	22.45	21.72	24.52	30.86	25.04	**23.00**	**19.00**	Cap'l Spending per sh	**19.75**
40.71	42.07	45.54	47.53	50.81	51.73	54.00	55.83	51.89	45.12	44.28	46.78	51.34	54.56	57.42	61.40	**62.85**	**65.50**	Book Value per sh C	**73.90**
193.12	189.36	189.12	178.75	176.36	177.81	178.37	179.24	178.39	179.13	180.52	189.06	199.15	200.24	202.65	211.18	**214.00**	**218.00**	Common Shs Outst'g D	**230.00**
19.3	16.6	12.0	11.6	9.1	11.2	13.2	12.9	12.5	10.9	15.0	13.8	16.5	15.3	15.0	21.1	*Bold figures are*		Avg Ann'l P/E Ratio	**18.0**
1.02	1.00	.80	.74	.57	.71	.74	.68	.63	.57	.75	.75	.88	.79	.81	1.22	*Value Line*		Relative P/E Ratio	**1.00**
2.4%	2.9%	4.0%	4.2%	4.9%	4.9%	5.1%	4.5%	4.6%	4.6%	4.5%	4.4%	3.5%	3.6%	3.7%	3.6%	*estimates*		Avg Ann'l Div'd Yield	**4.3%**

CAPITAL STRUCTURE as of 6/30/23
Total Debt $27279 mill. **Due in 5 Yrs** $11117 mill.
LT Debt $24322 mill. **LT Interest** $824.0 mill.
Incl. $54.7 mill. of securitization bonds.
(LT interest earned: 2.8x)
Leases, Uncapitalized Annual rentals $62.1 mill.
Pension Assets-12/22 $6993.1 mill. **Oblig** $8409.6 mill.
Pfd Stock $254.4 mill. **Pfd Div'd** $18.3 mill.
200,000 shs. 6.25%-7.5%, $100 par; 250,000 shs. 8.75%, 1.4 mill. shs. 5.375%; all cum., without sinking fund.
Common Stock 211,455,588 shs. **as of 7/31/23**
MARKET CAP: $20.2 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
11391	12495	11513	10846	11074	11009	10879	10114	11743	13764	**11750**	**12600**	Revenues ($mill)	**15000**
904.5	1060.0	1061.2	1249.8	950.7	1092.1	1258.2	1406.7	1402.8	1103.2	**1455**	**1320**	Net Profit ($mill)	**1495**
26.7%	37.8%	2.2%	11.3%	1.8%	- -	- -	- -	16.1%	16.1%	**23.0%**	**23.0%**	Income Tax Rate	**23.0%**
10.1%	9.3%	7.4%	8.1%	14.7%	17.5%	16.7%	12.2%	7.1%	2.5%	**10.0%**	**8.0%**	AFUDC % to Net Profit	**7.0%**
55.1%	54.9%	57.8%	63.6%	63.6%	63.2%	62.0%	65.5%	67.6%	64.2%	**64.5%**	**64.5%**	Long-Term Debt Ratio	**64.5%**
43.6%	43.8%	40.8%	35.5%	35.5%	35.9%	37.1%	33.7%	31.7%	35.2%	**35.5%**	**35.5%**	Common Equity Ratio	**35.5%**
22109	22842	22714	22777	22528	24602	27557	32386	36733	36810	**41110**	**43545**	Total Capital ($mill)	**48910**
27882	28723	27824	27921	29664	31974	35183	38853	42244	42477	**45025**	**50590**	Net Plant ($mill)	**56845**
5.4%	6.0%	6.0%	6.9%	5.7%	5.8%	5.9%	5.6%	4.9%	4.3%	**4.5%**	**4.0%**	Return on Total Cap'l	**4.0%**
9.1%	10.3%	11.1%	15.1%	11.6%	12.0%	12.0%	12.6%	11.8%	8.4%	**9.0%**	**9.0%**	Return on Shr. Equity	**8.5%**
9.2%	10.4%	11.2%	15.2%	11.7%	12.2%	12.1%	12.7%	11.9%	8.4%	**9.0%**	**9.0%**	Return on Com Equity E	**8.5%**
3.0%	4.4%	4.8%	7.7%	3.9%	4.9%	5.2%	5.9%	5.2%	1.9%	**2.5%**	**2.5%**	Retained to Com Eq	**2.0%**
68%	58%	58%	50%	68%	61%	58%	55%	57%	78%	**63%**	**74%**	All Div'ds to Net Prof	**77%**

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-4.1	+3.2	+1.1
Avg. Indust. Use (MWH)	1017	1015	1018
Avg. Indust. Revs. per KWH(¢)	4.95	5.91	7.08
Capacity at Peak (Mw)	25665	NA	NA
Peak Load, Summer (Mw)	21340	NA	NA
Annual Load Factor (%)	62	NA	NA
% Change Customers (yr-end)	+1.0	+1.0	+1.0
Fixed Charge Cov. (%)	202	243	209

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

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	2427	2413	2904	2370	10114
2021	2845	2822	3353	2723	11743
2022	2878	3395	4219	3273	13764
2023	2981	2846	**2900**	**3023**	**11750**
2024	**2900**	**3300**	**3300**	**3100**	**12600**

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.59	1.79	2.59	1.93	6.90
2021	1.66	1.30	2.63	1.28	6.87
2022	1.36	.78	2.74	.51	5.37
2023	1.47	1.84	**2.70**	**.79**	**6.80**
2024	**1.40**	**.95**	**2.85**	**.85**	**6.05**

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.91	.91	.91	.93	3.66
2020	.93	.93	.93	.95	3.74
2021	.95	.95	.95	1.01	3.86
2022	1.01	1.01	1.01	1.07	4.10
2023	1.07	1.07	1.07		

BUSINESS: Entergy Corporation supplies electricity to 3 million customers through subsidiaries in Arkansas, Louisiana, Mississippi, Texas, and New Orleans (regulated separately from Louisiana). Distributes gas to 206,000 customers in Louisiana. Is selling its last nonutility nuclear unit (shut down 5/22). Electric revenue breakdown: residential, 37%; commercial, 24%; industrial, 27%; other, 12%. Generating sources: gas, 68%; nuclear, 22%; coal, 9%; hydro and solar, 1%. Fuel costs: 32% of revenues. '22 reported depreciation rate: 2.7%. Has 11,707 employees. Chairman & CEO: Leo P. Denault. Incorporated: Delaware. Address: 639 Loyola Avenue, P.O. Box 61000, New Orleans, Louisiana 70161. Telephone: 504-576-4000. Internet: www.entergy.com.

Entergy recorded a much stronger 2023 second-quarter bottom-line performance. Revenues fell to nearly $2.85 billion as lower fuel prices reduced customers' bills. Still, lower energy prices were a boon to margins, as Entergy paid less for the input, and it benefited from fewer asset write-downs during the quarter. Profits also benefited from some regulatory credits received during the quarter, while maintenance expenses dropped. Still, not all was positive, as interest costs increased due to rising rates. These factors allowed earnings to expand to $1.84 per share during the quarter. We expect decent results to be reported over the second half of the year. Though revenues will likely face tough comparisons due to lower energy prices, the company should benefit from demand growth in Texas and Louisiana. Additionally, a few positive rate case outcomes over the past year will likely boost the bottom line. New rates started September 1st in Louisiana and New Orleans, while the company has filed elsewhere in its coverage area for additional revenues. We have raised our 2023 full-year estimate by $0.95 to $6.80.

We expect the company will take a step back in 2024. Entergy has experienced weaker demand from a few manufacturing customers, and we think this will continue to be a headwinds should the U.S. economy weaken. Additionally, several large industrial projects within Entergy's coverage area have been delayed until 2025. Still, Entergy should place several projects in service through 2026, including 6,000 megawatts of green energy capacity. Additionally, we think the company will make incremental gains through regulatory filings, including new rates in Arkansas starting in January 2024. Considering these factors, we project earnings will decline to $6.05 per share in 2024 before rebounding to $6.50 by 2026-2028.

Shares of Entergy Corp. are neutrally ranked for Timeliness. Though the equity has below-average 3- to 5-year appreciation potential, the dividend is a top draw. Cash flows cover the payout, and we project it will grow steadily. The yield compares favorably to others in *The Survey*. Thus, we think this stock is a solid choice for income-seeking accounts.

John E. Seibert III *September 8, 2023*

(A) Diluted EPS. GAAP starting in 2022. Excl. nonrec. losses: '12, $1.26; '13, $1.14; '14, 56¢; '15, $6.99; '16, $10.14; '17, $2.91; '18, $1.25; '21, $1.33. Next earnings report due early November. (B) Div'ds historically paid in early Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail. † Shareholder investment plan avail. (C) Incl. deferred charges. In '22: $23.64/sh. (D) In mill. (E) Rate base: Net original cost. Allowed ROE (blended): 9.71%; earned on avg. com. eq., '22: 8.5%. Regulatory Climate: Average.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	65
Earnings Predictability	75

EXELON CORP. NDQ-EXC

RECENT PRICE **41.86** | P/E RATIO **17.4** (Trailing: 18.3 Median: 14.0) | RELATIVE P/E RATIO **1.00** | DIV'D YLD **3.4%** | VALUE LINE

High:	43.7	37.8	38.9	38.3	37.7	42.7	47.4	51.2	50.5	58.0	58.2	44.4
Low:	28.4	26.6	26.5	25.1	26.3	33.3	35.6	43.4	29.3	38.4	35.2	38.8

TIMELINESS – Suspended 2/4/22
SAFETY 2 Raised 8/13/21
TECHNICAL – Suspended 2/4/22
BETA NMF (1.00 = Market)

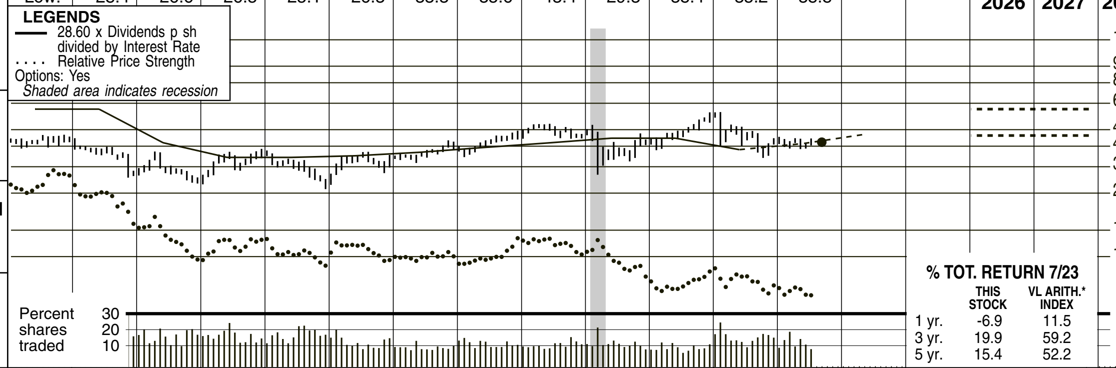
18-Month Target Price Range
Low-High: $25-$50 | Midpoint (% to Mid): $38 (-10%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	60	(+45%)	12%
Low	45	(+10%)	5%

Institutional Decisions

	3Q2022	4Q2022	1Q2023
to Buy	467	494	474
to Sell	425	421	378
Hld's(000)	806022	816073	809770



% TOT. RETURN 7/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-6.9	11.5
3 yr.	19.9	59.2
5 yr.	15.4	52.2

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
28.62	28.65	26.25	28.17	28.53	27.48	29.03	31.90	32.01	33.94	34.81	37.17	35.39	33.85	37.13	19.19	*19.80*	*20.20*	Revenues per sh	*21.50*
7.43	7.64	8.25	8.32	7.23	6.61	6.72	6.61	6.80	7.88	8.37	9.29	9.17	9.65	10.56	6.07	*6.75*	*7.00*	"Cash Flow" per sh	*7.50*
4.03	4.10	4.29	3.87	3.75	1.92	2.31	2.10	2.54	2.68	2.78	3.12	3.22	3.22	2.82	2.26	*2.40*	*2.50*	Earnings per sh A	*3.00*
1.82	2.05	2.10	2.10	2.10	2.10	1.46	1.24	1.24	1.26	1.31	1.38	1.45	1.53	1.53	1.35	*1.44*	*1.60*	Div'd Decl'd per sh B ■	*1.80*
4.05	4.74	4.96	5.03	6.09	6.77	6.29	7.07	8.29	9.26	7.87	7.84	7.45	8.25	8.15	7.19	*6.80*	*6.80*	Cap'l Spending per sh	*7.00*
15.34	16.78	19.16	20.49	21.68	25.07	26.52	26.29	28.04	27.96	30.99	31.77	33.12	33.39	35.13	24.89	*25.20*	*25.20*	Book Value per sh C	*28.75*
660.88	658.15	659.76	661.85	663.37	854.78	857.29	859.83	919.92	924.04	963.34	968.19	973.00	976.00	979.00	994.00	*995.00*	*1000.00*	Common Shs Outst'g D	*1000.0*
18.2	18.0	11.5	11.0	11.3	19.1	13.4	16.0	12.6	12.5	13.4	13.3	14.7	12.4	16.6	19.9	*Bold figures are*		Avg Ann'l P/E Ratio	*17.5*
.97	1.08	.77	.70	.71	1.22	.75	.84	.63	.66	.67	.72	.78	.64	.90	1.15	*Value Line*		Relative P/E Ratio	*.95*
2.5%	2.8%	4.3%	4.9%	5.0%	5.7%	4.7%	3.7%	3.9%	3.7%	3.5%	3.3%	3.1%	3.8%	3.3%	3.2%	*estimates*		Avg Ann'l Div'd Yield	*3.5%*

CAPITAL STRUCTURE as of 3/31/23
Total Debt $41394 mill. **Due in 5 Yrs** $12334 mill.
LT Debt $38732 mill. **LT Interest** $1450 mill.
Includes $390 mill. nonrecourse transition bonds.
(Interest coverage: 2.7x)
Leases, Uncapitalized Annual rentals $156 mill.

Pension Assets-12/21 $20827 mill. **Oblig** $23846 mill.
Pfd Stock None

Common Stock 994,568,998 shs.
as of 3/31/23
MARKET CAP: $41.6 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
24888	27429	29447	31360	33531	35985	34438	33039	36347	19078	*19700*	*20200*	Revenues ($mill)	*21500*
1999.0	1826.0	2282.0	2488.0	2636.0	3026.0	3139.0	3149.0	2764.0	2246.4	*2400*	*2500*	Net Profit ($mill)	*3000*
36.5%	27.2%	32.2%	38.5%	34.2%	11.1%	19.4%	17.4%	16.1%	14.5%	*15.0%*	*15.0%*	Income Tax Rate	*15.0%*
4.5%	5.5%	5.4%	8.3%	6.5%	4.6%	5.0%	5.5%	7.4%	7.0%	*6.0%*	*5.0%*	AFUDC % to Net Profit	*5.0%*
44.4%	46.7%	48.3%	55.5%	52.2%	52.8%	49.6%	52.1%	50.9%	59.9%	*61.0%*	*61.0%*	Long-Term Debt Ratio	*64.5%*
55.2%	52.8%	51.3%	44.5%	47.8%	47.2%	50.4%	47.9%	49.1%	40.2%	*39.0%*	*39.0%*	Common Equity Ratio	*35.5%*
41196	42811	50272	58053	62422	65229	63943	68068	70107	58836	*64125*	*64125*	Total Capital ($mill)	*81000*
47330	52087	57439	71555	74202	76707	80233	82584	84219	69076	*69175*	*69175*	Net Plant ($mill)	*77600*
5.9%	5.3%	5.5%	5.5%	5.3%	5.7%	6.0%	5.7%	5.0%	5.0%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.0%*
8.7%	8.0%	8.8%	9.6%	8.8%	9.8%	9.7%	9.7%	8.0%	9.5%	*9.5%*	*10.0%*	Return on Shr. Equity	*10.0%*
8.7%	8.0%	8.8%	9.6%	8.8%	9.8%	9.7%	9.7%	8.0%	9.5%	*9.5%*	*10.0%*	Return on Com Equity E	*10.0%*
3.2%	3.3%	4.5%	5.1%	4.7%	5.5%	5.4%	5.1%	3.7%	4.0%	*4.0%*	*4.0%*	Retained to Com Eq	*4.0%*
63%	59%	49%	47%	47%	44%	45%	47%	54%	60%	*60%*	*60%*	All Div'ds to Net Prof	*60%*

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	NA	NA	NA
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load (Mw)	NA	NA	NA
Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.7	+.6	NA
Fixed Charge Cov. (%)	211	237	325

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

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	8747	7322	8853	8117	33039
2021	9890	7915	8910	9632	36347
2022	5327	4239	4845	4667	19078
2023	5563	4818	*4900*	*4419*	*19700*
2024	*5300*	*4850*	*5500*	*4550*	*20200*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.87	.55	1.04	.76	3.22
2021	d.06	.89	1.09	.90	2.82
2022	.64	.44	.75	.43	2.26
2023	.70	.41	*.79*	*.50*	*2.40*
2024	*.70*	*.50*	*.80*	*.50*	*2.50*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.3625	.3625	.3625	.3625	1.45
2020	.3825	.3825	.3825	.3825	1.53
2021	.3825	.3825	.3825	.3825	1.53
2022	.3375	.3375	.3375	.3375	1.35
2023	.360	.360			

BUSINESS: Exelon Corporation is a holding company for Commonwealth Edison (ComEd), PECO Energy, Baltimore Gas and Electric (BGE), Pepco, Delmarva Power (DPL), & Atlantic City Electric (ACE). Has 9.1 mill. elec., 1.3 mill. gas customers. Spun off Constellation Energy (nonregulated generating & energy-marketing ops.) 2/22. Acq'd Constellation Energy 3/12; Pepco Holdings 3/16. Elec. rev. breakdown: residntl., 54%; small commercl. & indstrl., 16%; large commercl. & indstrl., 17%; other, 13%. Fuel costs: 48% of revs. '22 deprec. rates: 2.8%-8.7% elec., 2.1% gas. Has 18,700 empls. Chrmn.: John F. Young. CEO: Calvin Butler. Inc.: PA. Addr.: 10 S.Dearborn St., P.O. Box 805379, Chicago, IL 60680-5379. Tel.: 312-394-7398. Internet: www.exeloncorp.com.

Exelon Corporation looks to be progressing smoothly, as an entirely regulated utility. Last February, the company spun off its nonregulated power generating assets as a new company, Constellation Energy (NASDAQ:CEG), with EXC shareholders receiving the new issue at a 3-for-1 ratio. The new entirely regulated utility appears to be more stable and predictable, which ought to grow earnings more consistently. Indeed, second-quarter earnings per share of $0.41 outperformed both Wall Street's expectations, as well as our calls of $0.40. Along with improved consistency, Exelon continues to benefit from rate relief and higher distribution rates. As a result, our bottom-line estimates for 2023 and 2024 are $2.40 and $2.50 a share, respectively. Too, management reaffirmed its full-year 2023 projections of $2.30 to $2.42 a share.

The company continues to target annualized earnings and dividend growth of 6%-8% through 2025. Management expects its capital expenditure plan to contribute a return of 9%-11% to shareholders through 2026. We think Exelon is well-positioned for the long term as a entirely regulated utility. Indeed, earnings have been much less volatile of late, and we expect this to continue moving forward.

Exelon's utilities have continued to make progress in several pending rate cases. In New Jersey, Atlantic City Electric filed a distribution base rate case to support investments in infrastructure. In Maryland, Pepco is expected to file its second multi-year plan with the Maryland Public Service Commission. The company has a number of other pending rate cases, and rate relief will likely continue to drive earnings growth throughout the next couple of years.

This issue may appeal to conservative, income-oriented investors. The dividend yield of this stock is above-average, and Exelon is considered to be a solid addition to a well-rounded portfolio. Due to the company spinoff of Constellation Energy, the stock remains unranked for Timeliness. Meanwhile, total return potential over the 18-month and 3- to 5-year stretch is unappealing, even with the recent price decrease.

Zachary J. Hodgkinson *August 11, 2023*

(A) Dil. egs. Excl. nonrec. gain (loss): '09, (20¢); '12, (50¢); '13, (31¢); '14, (22¢); '16, ($1.46); '17, $1.19; '18, ($1.05); '19, (21¢); '20, ($1.21); '21, ($1.08); 1Q22, (15¢); disc. ops. gain (loss): '07, 2¢; '08, 3¢. Next egs. report: Nov. (B) Div'ds paid in early Mar., June, Sept., & Dec. ■ Div'd reinvest. plan avail. (C) Incl. deferred charges. In '22: $15.20/sh. (D) In mill. (E) Rate allowed on common equity in IL in '15: 9.25%; in MD in '16: 9.75% elec., 9.65% gas; in NJ in '16: 9.75%. Regulatory Climate: PA, NJ: Average; IL, MD: Below Avg.

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

IDACORP, INC. NYSE-IDA

RECENT PRICE **102.78** | P/E RATIO **20.0** (Trailing: 19.4 Median: 20.0) | RELATIVE P/E RATIO **1.16** | DIV'D YLD **3.2%** | VALUE LINE

TIMELINESS	2 Lowered 7/7/23
SAFETY	1 Raised 1/22/21
TECHNICAL	3 Lowered 7/21/23
BETA .80 (1.00 = Market)	

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$88-$143	$116 (10%)

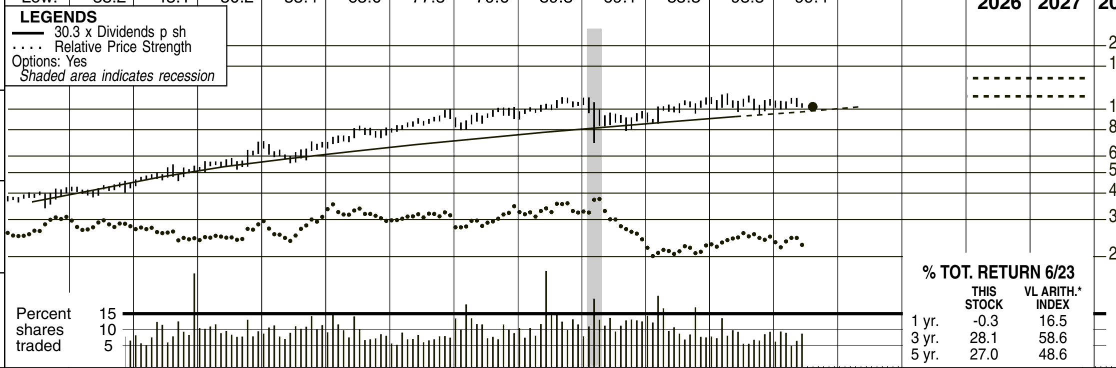
2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	140	(+35%)	11%
Low	115	(+10%)	6%

Institutional Decisions

	3Q2022	4Q2022	1Q2023
to Buy	159	187	174
to Sell	155	162	153
Hld's(000)	40715	41351	41405

High:	45.7	54.7	70.1	70.5	83.4	100.0	102.4	114.0	113.6	113.8	118.9	113.0
Low:	38.2	43.1	50.2	55.4	65.0	77.5	79.6	89.3	69.1	85.3	93.5	99.4



Target Price Range 2026 | 2027 | 2028

% TOT. RETURN 6/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-0.3	16.5
3 yr.	28.1	58.6
5 yr.	27.0	48.6

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
19.51	20.47	21.92	20.97	20.55	21.55	24.81	25.51	25.23	25.04	26.76	27.19	26.70	26.77	28.86	32.51	*34.30*	*34.95*	Revenues per sh	*37.25*
4.11	4.27	5.07	5.35	5.84	5.93	6.29	6.58	6.70	6.86	7.50	7.85	8.07	8.19	8.41	8.55	*8.80*	*9.30*	"Cash Flow" per sh	*10.65*
1.86	2.18	2.64	2.95	3.36	3.37	3.64	3.85	3.87	3.94	4.21	4.49	4.61	4.69	4.85	5.11	*5.15*	*5.40*	Earnings per sh A	*6.30*
1.20	1.20	1.20	1.20	1.20	1.37	1.57	1.76	1.92	2.08	2.24	2.40	2.56	2.72	2.88	3.04	*3.20*	*3.40*	Div'd Decl'd per sh B ■ †	*4.15*
6.39	5.19	5.26	6.85	6.76	4.78	4.68	5.45	5.84	5.89	5.66	5.51	5.53	6.16	5.94	8.56	*14.00*	*16.00*	Cap'l Spending per sh	*11.00*
26.79	27.76	29.17	31.01	33.19	35.07	36.84	38.85	40.88	42.74	44.65	47.01	48.88	50.73	52.82	55.52	*57.95*	*60.25*	Book Value per sh C	*67.00*
45.06	46.92	47.90	49.41	49.95	50.16	50.23	50.27	50.34	50.40	50.42	50.42	50.42	50.46	50.52	50.56	*51.00*	*51.50*	Common Shs Outst'g D	*53.00*
18.2	13.9	10.2	11.8	11.5	12.4	13.4	14.7	16.2	19.1	20.6	20.5	22.3	19.9	20.8	21.0	*Bold figures are*		Avg Ann'l P/E Ratio	*20.0*
.97	.84	.68	.75	.72	.79	.75	.77	.82	1.00	1.04	1.11	1.19	1.02	1.12	1.21	*Value Line*		Relative P/E Ratio	*1.10*
3.5%	4.0%	4.5%	3.4%	3.1%	3.3%	3.2%	3.1%	3.1%	2.8%	2.6%	2.6%	2.5%	2.9%	2.9%	2.8%	*estimates*		Avg Ann'l Div'd Yield	*3.3%*

CAPITAL STRUCTURE as of 3/31/23
Total Debt $2608.1 mill. **Due in 5 Yrs** $335.0 mill.
LT Debt $2483.1 mill. **LT Interest** $110.0 mill.
(Total Interest Coverage: 4.0x)

Pension Assets-12/22 $839.7 mill. **Oblig** $953.8 mill.

Pfd Stock None

Common Stock 50,607,611 shs. as of 4/28/23

MARKET CAP: $5.2 billion (Mid Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
1246.2	1282.5	1270.3	1262.0	1349.5	1370.8	1346.4	1350.7	1458.1	1644.0	*1750*	*1800*	Revenues ($mill)	*1975*
182.4	193.5	194.7	198.3	212.4	226.8	232.9	237.4	245.6	259.0	*265*	*280*	Net Profit ($mill)	*335*
28.3%	8.0%	19.0%	15.5%	18.6%	7.1%	9.5%	10.8%	13.1%	12.7%	*13.0%*	*13.0%*	Income Tax Rate	*13.0%*
12.3%	13.6%	16.3%	16.3%	13.9%	15.2%	16.2%	17.3%	17.7%	19.8%	*15.0%*	*15.0%*	AFUDC % to Net Profit	*16.0%*
46.6%	45.3%	45.6%	44.8%	43.7%	43.6%	41.3%	43.9%	42.8%	43.9%	*46.5%*	*47.0%*	Long-Term Debt Ratio	*50.0%*
53.4%	54.7%	54.4%	55.2%	56.3%	56.4%	58.7%	56.1%	57.2%	56.1%	*53.5%*	*53.0%*	Common Equity Ratio	*50.0%*
3465.9	3567.6	3783.3	3898.5	3997.5	4205.1	4201.3	4560.4	4669.1	5001.4	*5430*	*5800*	Total Capital ($mill)	*7000*
3665.0	3833.5	3992.4	4172.0	4283.9	4395.7	4531.5	4709.5	4901.8	5173.0	*5650*	*6000*	Net Plant ($mill)	*7000*
6.4%	6.6%	6.2%	6.1%	6.3%	6.4%	6.5%	6.1%	6.2%	6.1%	*6.0%*	*6.0%*	Return on Total Cap'l	*5.5%*
9.9%	9.9%	9.5%	9.2%	9.4%	9.6%	9.4%	9.3%	9.2%	9.2%	*9.0%*	*9.0%*	Return on Shr. Equity	*9.5%*
9.9%	9.9%	9.5%	9.2%	9.4%	9.6%	9.4%	9.3%	9.2%	9.2%	*9.0%*	*9.0%*	Return on Com Equity E	*9.5%*
5.6%	5.4%	4.8%	4.3%	4.4%	4.4%	4.2%	3.9%	3.7%	3.7%	*3.5%*	*3.5%*	Retained to Com Eq	*3.5%*
43%	46%	50%	53%	53%	54%	56%	58%	60%	60%	*62%*	*63%*	All Div'ds to Net Prof	*66%*

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	+2.0	+3.9	+7.3
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	3392	3751	3568
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+2.7	+2.8	+2.4
Fixed Charge Cov. (%)	313	334	419

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	3.5%	2.5%	*4.0%*
"Cash Flow"	4.0%	3.5%	*4.5%*
Earnings	4.0%	4.0%	*5.0%*
Dividends	8.5%	6.5%	*6.0%*
Book Value	5.0%	4.5%	*4.0%*

Cal-endar	QUARTERLY REVENUES($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	291.0	318.8	425.3	315.6	1350.7
2021	316.1	360.1	446.9	335.0	1458.1
2022	344.3	358.7	518.0	422.9	1644.0
2023	429.7	*360*	*550*	*410.3*	*1750*
2024	*440*	*370*	*560*	*430*	*1800*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.74	1.19	2.02	.74	4.69
2021	.89	1.38	1.93	.65	4.85
2022	.91	1.27	2.10	.83	5.11
2023	1.11	*1.30*	*1.99*	*.75*	*5.15*
2024	*1.10*	*1.35*	*2.10*	*.85*	*5.40*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.63	.63	.63	.67	2.56
2020	.67	.67	.67	.71	2.72
2021	.71	.71	.71	.75	2.88
2022	.75	.75	.75	.79	3.04
2023	.79	.79			

BUSINESS: IDACORP, Inc. is a holding company for Idaho Power Company, a regulated electric utility that serves 618,000 customers throughout a 24,000-square-mile area in southern Idaho and eastern Oregon (population: 1.4 million). Most of the company's revenues are derived from the Idaho portion of its service area. Revenue breakdown: residential, 38%; commercial, 27%; industrial, 22%; irrigation, 12%; other, 1%. Generating sources: hydro, 29%; coal, 20%; gas, 13%; purchased, 39%. Fuel costs: 40% of revenues. '22 reported depreciation rate: 3.0%. Has 2,077 employees. Chairman: Richard J. Dahl. President & CEO: Lisa Grow. Incorporated: Idaho. Address: 1221 W. Idaho St., Boise, Idaho 83702. Telephone: 208-388-2200. Internet: www.idacorpinc.com.

We think IDACORP will eke out a profit gain in 2023, which would mark its 16th consecutive year of annual earnings-per-share growth. The utility got off to a good start to the year due mainly to strong customer growth in its service area and higher electric rates from mechanistic pricing adjustments. The latter of which are tied to the recoupment of grid modernization and expansion work. In May, leadership affirmed its earnings outlook of $4.95 to $5.15 a share. The main headwind for full-year 2023 net profits will be the interest expense on a significantly rising debt load, which is growing to fund massive infrastructure projects and clean-energy initiatives. At a minimum, the pace of earnings gains will slow this year. That's certainly not a positive, but these sorts of projects are the lifeblood of utilities, as it's how they are able to grow their earnings over time. IDACORP will be able to recoup some of its invested capital in short order from the aforementioned formulaic pricing mechanisms. The company will also be seeking rate relief from its regulatory commissions in Idaho and Oregon over the coming months.

General rate cases (GRC) are in the works. IDACORP has not filed a GRC since 2011. Over the past decade, the population/customer growth has increased by 23%, and the investments made to meet capacity needs have been substantial. What's more, growth in the company's service area has been accelerating, so electric delivery rates will almost assuredly be going up early next year in the company's Idaho territory. The utility will likely be seeking an increase in the 10% neighborhood. The timing for Oregon's GRC filing has not been disclosed yet.

IDACORP shares rank high for both Safety and Timeliness. This is an excellent electric utility that benefits from above-average population growth and a vibrant and growing local economy. This, coupled with the green-energy initiatives in its state territories, should lead to years of 5%-6% earnings gains, on average. The problem for utility investors is that premium companies often come with premium valuations. At the recent quote, IDA's total return potential is two percentage points below the peer-group median.

Anthony J. Glennon *July 21, 2023*

(A) Diluted EPS. Earnings may not sum due to rounding. Next earnings report due early August. (B) Dividends historically paid in late February, May, August, and November. ■ Dividend reinvestment plan available. † Shareholder investment plan available. (C) Incl. intangibles. In '22: $1421.9 mill., $28.12/sh. (D) In millions. (E) Rate base: Net original cost. Rate allowed on common equity in '12: 10% (imputed); Regulatory Climate: Above Average.

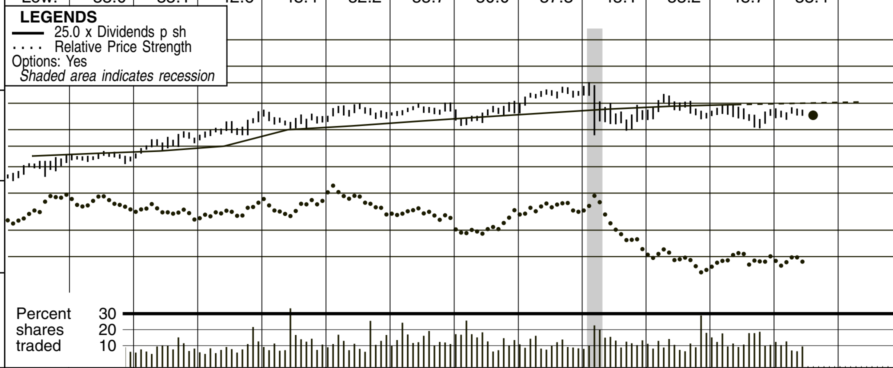
Company's Financial Strength	A+
Stock's Price Stability	100
Price Growth Persistence	70
Earnings Predictability	100

NORTHWESTERN NDQ-NWE

RECENT PRICE 56.16 | P/E RATIO 16.3 (Trailing: 17.2 / Median: 17.0) | RELATIVE P/E RATIO 0.94 | DIV'D YLD 4.6% | VALUE LINE

TIMELINESS 3 Lowered 7/7/23
SAFETY 2 Raised 7/27/18
TECHNICAL 1 Raised 7/21/23
BETA .95 (1.00 = Market)

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	53.4



Target Price Range
2026 | 2027 | 2028

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$50-$76	$63 (10%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	80	(+40%)	13%
Low	60	(+5%)	6%

Institutional Decisions

	3Q2022	4Q2022	1Q2023
to Buy	176	169	135
to Sell	97	115	123
Hld's(000)	56117	57154	58097

% TOT. RETURN 6/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	0.7	16.5
3 yr.	18.5	58.6
5 yr.	21.1	48.6

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	*25.80*	*26.15*	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	*16.5*
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	*.90*
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	*4.0%*

CAPITAL STRUCTURE as of 3/31/23
Total Debt $2596.1 mill. **Due in 5 Yrs** $1111.4 mill.
LT Debt $2348.6 mill. **LT Interest** $95.0 mill.
Incl. $8.0 mill. finance leases.
(Total Interest Coverage: 2.5x)

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

Pfd Stock None

Common Stock 59,794,897 shs.
as of 4/21/23

MARKET CAP: $3.4 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	*1600*	*1620*	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	*350*	*360*	*435.5*	*1600*
2024	*460*	*355*	*365*	*440*	*1620*

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	*.59*	*.60*	*1.16*	*3.45*
2024	*1.15*	*.62*	*.63*	*1.20*	*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			

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.

NorthWestern is still awaiting final approval on a settlement agreement for new electric and natural gas rates in Montana. 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. Assuming 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.

Adding generating capacity to the rate base is key to the utility's future growth. (The rate base is the dollar value of assets for which a utility is allowed to earn an economic return.) In June, NorthWestern completed an $83 million, 58-megawatt gas-fired power plant in South Dakota, with the potential for added capacity in the state down the road. A $275 million, 175-mw facility in Montana was due to be operational later this year before a state judge revoked the company's air quality permit as part of a lawsuit filed by an environmental group. In June, the bench reversed that decision, citing a new state law that eliminated the need to consider climate impacts from greenhouse gas emissions. The 175-mw gas-fired plant is now expected to come on line in 2024.

This issue does not stand out relative to industy peers in regards to annual total return potential. We think the likelihood of a constructive conclusion to the company's general rate case is already largely reflected in the recent share price. There are utilities with a comparable dividend yield and better growth prospects.

Anthony J. Glennon *July 21, 2023*

(A) Diluted egs. Excl. nonrec. gains/(losses): '12, 40¢; '15, 27¢; '18, 52¢; '19, 45¢; '20, (15¢); '21, 10¢; '22, (4¢); 1Q '23, (5¢). '20 EPS don't sum due to rounding. Next egs. report due July 26th. (B) Div'ds paid in late Mar., June, Sept. & Dec. ■ Div'd reinvest. plan avail. † Shareholder 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%. Regulatory Climate: Below Average.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	40
Earnings Predictability	90

OGE ENERGY CORP. NYSE-OGE

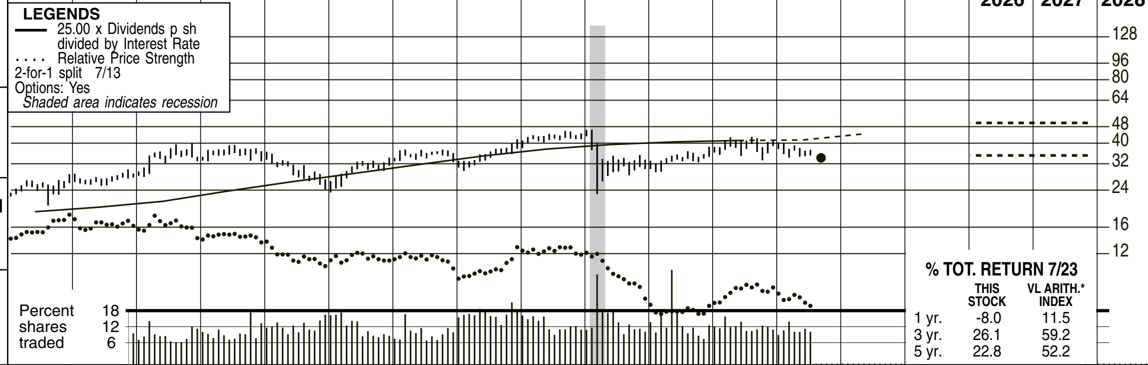
RECENT PRICE	P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD
34.16	15.8 (Trailing: 15.6, Median: 18.0)	.95	4.9%

VALUE LINE

TIMELINESS 3 Raised 8/18/23
SAFETY 2 Lowered 12/18/15
TECHNICAL 3 Raised 7/28/23
BETA 1.05 (1.00 = Market)

High:	30.1	40.0	39.3	36.5	34.2	37.4	41.8	45.8	46.4	38.6	42.9	40.4
Low:	25.1	27.7	32.8	24.2	23.4	32.6	29.6	38.0	23.0	29.2	33.3	33.4

Target Price Range
2026 | 2027 | 2028



18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$30-$50	$40 (15%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	50	(+45%)	14%
Low	35	(Nil)	6%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	262	183	174
to Sell	155	211	216
Hld's(000)	139192	139715	134247

% TOT. RETURN 7/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-8.0	11.5
3 yr.	26.1	59.2
5 yr.	22.8	52.2

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
20.68	21.77	14.79	19.04	19.96	18.58	14.45	12.30	11.00	11.31	11.32	11.37	11.15	10.61	18.26	16.86	17.00	17.50	Revenues per sh	19.00
2.39	2.40	2.69	3.01	3.31	3.69	3.46	3.40	3.23	3.31	3.34	3.74	4.02	4.03	4.44	4.56	4.60	4.65	"Cash Flow" per sh	6.25
1.32	1.25	1.33	1.50	1.73	1.79	1.94	1.98	1.69	1.69	1.92	2.12	2.24	2.08	2.36	2.25	2.00	2.15	Earnings per sh A	3.15
.68	.70	.71	.73	.76	.80	.85	.95	1.05	1.16	1.27	1.40	1.51	1.58	1.63	1.64	1.66	1.78	Div'd Decl'd per sh B ■	1.85
3.04	4.01	4.37	4.36	6.48	5.85	4.99	2.86	2.74	3.31	4.13	2.87	3.18	3.25	3.89	5.25	4.75	4.75	Cap'l Spending per sh	4.75
9.16	10.14	10.52	11.73	13.06	14.00	15.30	16.27	16.66	17.24	19.28	20.06	20.69	18.15	20.27	21.95	22.25	23.10	Book Value per sh C	26.00
183.60	187.00	194.00	195.20	196.20	197.60	198.50	199.40	199.70	199.70	199.70	199.70	200.10	200.10	200.10	200.20	200.20	200.20	Common Shs Outst'g D	200.20
13.8	12.4	10.8	13.3	14.4	15.2	17.7	18.3	17.7	17.7	18.3	16.5	19.0	16.2	14.3	17.2	Bold figures are		Avg Ann'l P/E Ratio	14.0
.73	.75	.72	.85	.90	.97	.99	.96	.89	.93	.92	.89	1.01	.83	.77	1.00	Value Line		Relative P/E Ratio	.80
3.8%	4.5%	5.0%	3.7%	3.1%	2.9%	2.5%	2.6%	3.5%	3.9%	3.6%	4.0%	3.5%	4.7%	4.8%	4.5%	estimates		Avg Ann'l Div'd Yield	4.4%

CAPITAL STRUCTURE as of 6/30/23
Total Debt $4757.1 mill. **Due in 5 Yrs** $1731.5 mill.
LT Debt $4339.0 mill. **LT Interest** $158.7 mill.
(LT interest earned: 4.3x)

Leases, Uncapitalized Annual rentals $5.7 mill.

Pension Assets-12/22 $486.0 mill. **Oblig** $502.9 mill.

Pfd Stock None

Common Stock 200,287,364 shs.

MARKET CAP: $6.8 billion (Mid Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
2867.7	2453.1	2196.9	2259.2	2261.1	2270.3	2231.6	2122.3	3653.7	3375.7	3400	3500	Revenues ($mill)	3800
387.6	395.8	337.6	338.2	384.3	425.5	449.6	415.9	472.5	452.5	410	430	Net Profit ($mill)	630
24.9%	30.4%	29.2%	30.5%	32.5%	14.5%	7.4%	13.2%	11.5%	12.0%	12.0%	12.0%	Income Tax Rate	12.0%
2.6%	1.7%	3.7%	6.4%	15.0%	8.3%	1.6%	1.6%	2.2%	2.0%	2.0%	2.0%	AFUDC % to Net Profit	2.0%
43.1%	45.9%	44.3%	41.1%	41.7%	42.0%	43.6%	49.0%	52.6%	49.8%	52.0%	52.0%	Long-Term Debt Ratio	50.0%
56.9%	54.1%	55.7%	58.9%	58.3%	58.0%	56.4%	51.0%	47.4%	52.4%	48.0%	48.0%	Common Equity Ratio	50.0%
5337.2	5999.7	5971.6	5849.6	6600.7	6902.0	7334.7	7126.2	8552.7	8962.0	9400	9750	Total Capital ($mill)	10400
6672.8	6979.9	7322.4	7696.2	8339.9	8643.8	9044.6	9374.6	9832.9	10546.8	10830	11000	Net Plant ($mill)	12075
8.6%	7.8%	6.9%	7.0%	7.0%	7.3%	7.1%	6.9%	6.4%	5.9%	6.5%	6.5%	Return on Total Cap'l	7.5%
12.8%	12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	11.5%	11.6%	11.0%	12.0%	12.0%	Return on Shr. Equity	13.0%
12.8%	12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	11.5%	11.6%	11.0%	12.0%	12.0%	Return on Com Equity E	13.0%
7.3%	6.5%	4.0%	3.3%	3.5%	3.8%	3.6%	2.8%	3.6%	3.0%	4.5%	4.5%	Retained to Com Eq	5.5%
43%	47%	61%	67%	64%	64%	67%	76%	69%	73%	81%	81%	All Div'ds to Net Prof	57%

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-4.9	+2.6	+8.3
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	4.40	7.68	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	6437	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.1	+1.4	NA
Fixed Charge Cov. (%)	326	336	335

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	-3.0%	5.0%	5.5%
"Cash Flow"	2.5%	5.0%	7.0%
Earnings	3.0%	4.5%	6.5%
Dividends	7.5%	6.5%	3.0%
Book Value	4.0%	1.5%	5.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	431.3	503.5	702.1	485.4	2122.3
2021	1630	577.4	864.4	581.3	3653.7
2022	589.3	803.7	1270	711.9	3375.7
2023	557.2	605	1350	887.8	3400
2024	650	750	1300	800	3500

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.23	.51	1.04	.30	2.08
2021	.26	.56	1.26	.28	2.36
2022	.33	.36	1.31	.25	2.25
2023	.19	.44	1.15	.22	2.00
2024	.35	.30	1.25	.25	2.15

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.365	.365	.365	.388	1.48
2020	.3875	.3875	.3875	.4025	1.57
2021	.4025	.4025	.4025	.41	1.62
2022	.41	.41	.41	.4141	1.64
2023	.4141	.4141	.4141		

BUSINESS: OGE Energy Corp. is a holding company for Oklahoma Gas and Electric Company (OG&E), which supplies electricity to 879,000 customers in Oklahoma (84% of electric revenues) and western Arkansas (8%); wholesale is (8%). Owns 3% of Energy Transfer's limited partnership units. Electric revenue breakdown: residential, 44%; commercial, 25%; industrial, 11%; oilfield, 10%; other, 10%. Generating sources: gas, 25%; coal, 21%; wind, 6%; purchased, 48%. Fuel costs: 58% of revenues. '22 reported depreciation rate (utility): 2.6%. Has 2,200 employees. Chairman, President and Chief Executive Officer: Sean Trauschke. Incorporated: Oklahoma. Address: 321 North Harvey, P.O. Box 321, Oklahoma City, OK 73101-0321. Tel.: 405-553-3000. Internet: www.oge.com.

OGE Energy's utility subsidiary remains active from a regulatory standpoint. In June, Oklahoma Gas and Electric (OG&E) filed for approval to replace two aging power generation units at the Horseshoe Lake power plant. The units have been in service for over 60 years, and are the oldest in the utility's generation fleet. OG&E also plans to file a rate review in Oklahoma by the end of 2023. Rate relief should continue to be a main driver to performance over the next few years.

OGE's exit from the natural gas midstream arena seems to be improving earnings prospects. Second-quarter profits of $0.44 per share came in right at our and Wall Street's estimate. The bottom line rose 20% compared to the same period in 2022, largely due to weakness in the natural gas midstream segment, which was exited last year. Meanwhile, commercial growth increased 16.5% and the utility is on track to deliver 2023 retail load growth between 4% to 5%. We look for full-year 2023 profits of $2.00 per share, which is at the midpoint of OGE Energy's targeted range of $1.93-$2.07, and in line with its long-term earnings per share growth forecast of 5%-7% annually, based on original 2021 guidance on a consolidated basis.

Earnings growth ought to continue over the next few years. We think OGE's prospects as a pure-play electric utility will improve, and rate relief should also help boost the bottom line over that interim. Too, the Inflation Reduction Act will likely benefit the challenging macroeconomic environment, and provide assistance in the transition to offering affordable, clean energy. As a result, we think profits will recover to $2.15 per share in 2024, and $3.15 by 2026-2028.

This issue was recently upgraded one notch in our Timeliness Ranking System to 3 (Average). Income-oriented accounts may be attracted to this stock. Indeed, these shares boast a quarterly dividend yield of 4.9%. This sits comfortably above the utility average, which is one of the highest dividend-paying industries in the market. On the other hand, total return potential remains unappealing for the 18-month and 3- to 5-year periods.

Zachary J. Hodgkinson *September 8, 2023*

(A) Diluted EPS. Excl. nonrecurring gains (losses): '15, (33¢); '17, $1.18; '19, (8¢); '20, ($2.95); '21, $1.32; '22, $1.06; gain on discont. ops.: '19 & '21 EPS don't sum due to rounding. Next earnings report due early Nov. (B) Div'ds historically paid in late Jan., Apr., July, & Oct. ■ Div'd reinvestment plan avail. (C) Incl. deferred charges. In '22: $6.15/sh. (D) In mill., adj. for split. (E) Rate base: Net original cost. Rate allowed on com. eq. in OK in '19: 9.5%; in AR in '18: 9.5%; earned on avg. com. eq., '21: 12.7%. Regulatory Climate: Average.

Company's Financial Strength	A
Stock's Price Stability	85
Price Growth Persistence	25
Earnings Predictability	95

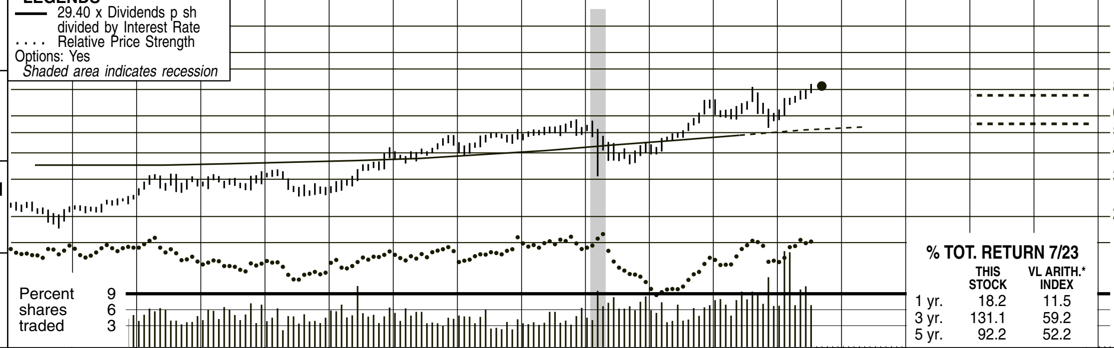
OTTER TAIL CORP. NDQ-OTTR

RECENT PRICE 83.23 | P/E RATIO 16.6 (Trailing: 12.9 / Median: 20.0) | RELATIVE P/E RATIO .99 | DIV'D YLD 2.1% | VALUE LINE

TIMELINESS 2 Raised 8/11/23
SAFETY 2 Raised 6/17/16
TECHNICAL 2 Raised 9/8/23
BETA .90 (1.00 = Market)

High:	25.3	31.9	32.7	33.4	42.6	48.7	51.9	57.7	56.9	71.7	82.5	92.7
Low:	20.7	25.2	26.5	24.8	25.8	35.7	39.0	45.9	31.0	39.4	52.6	57.3

LEGENDS
— 29.40 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)
$39-$95	$67 (-20%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	75	(-10%)	Nil
Low	55	(-35%)	-6%

Institutional Decisions

	4Q2022	1Q2023	2Q2023
to Buy	117	135	108
to Sell	133	108	115
Hld's(000)	20465	25614	25238

Percent shares traded 9 6 3

% TOT. RETURN 7/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	18.2	11.5
3 yr.	131.1	59.2
5 yr.	92.2	52.2

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
41.50	37.06	29.03	31.08	29.86	23.76	24.63	21.48	20.60	20.42	21.47	23.10	22.90	21.46	28.80	35.08	*30.05*	*29.75*	Revenues per sh	*31.20*
3.55	2.81	2.76	2.60	2.36	2.71	3.02	3.09	3.14	3.44	3.70	3.96	4.11	4.29	6.45	8.77	*6.40*	*5.95*	"Cash Flow" per sh	*6.00*
1.78	1.09	.71	.38	.45	1.05	1.37	1.55	1.56	1.60	1.86	2.06	2.17	2.34	4.23	6.78	*5.70*	*3.50*	Earnings per sh A	*3.65*
1.17	1.19	1.19	1.19	1.19	1.19	1.19	1.21	1.23	1.25	1.28	1.34	1.40	1.48	1.56	1.65	*1.75*	*1.81*	Div'd Decl'd per sh B ■	*2.20*
5.43	7.51	4.95	2.38	2.04	3.20	4.53	4.40	4.23	4.10	3.36	2.66	5.16	8.96	4.14	4.11	*5.90*	*6.00*	Cap'l Spending per sh	*6.25*
17.55	19.14	18.78	17.57	15.83	14.43	14.75	15.39	15.98	17.03	17.62	18.38	19.46	21.00	23.84	29.24	*29.80*	*31.15*	Book Value per sh C	*34.25*
29.85	35.38	35.81	36.00	36.10	36.17	36.27	37.22	37.86	39.35	39.56	39.66	40.16	41.47	41.55	41.63	*41.90*	*42.00*	Common Shs Outst'g D	*42.50*
19.0	30.1	31.2	NMF	47.5	21.7	21.1	18.8	18.2	20.2	22.1	22.2	23.5	18.3	12.3	9.5	*Bold figures are*		Avg Ann'l P/E Ratio	*17.5*
1.01	1.81	2.08	NMF	2.98	1.38	1.19	.99	.92	1.06	1.11	1.20	1.25	.94	.66	.55	*Value Line*		Relative P/E Ratio	*.95*
3.5%	3.6%	5.4%	5.7%	5.6%	5.2%	4.1%	4.1%	4.3%	3.9%	3.1%	2.9%	2.7%	3.5%	3.0%	2.5%	*estimates*		Avg Ann'l Div'd Yield	*3.4%*

CAPITAL STRUCTURE as of 6/30/23
Total Debt $823.9 mill. **Due in 5 Yrs** $207.8 mill.
LT Debt $823.9 mill. **LT Interest** $31.6 mill.
(LT interest earned: 9.7x)

Leases, Uncapitalized Annual rentals $5.0 mill.
Pension Assets-12/22 $387.2 mill. **Oblig** $416.7 mill.

Pfd Stock None

Common Stock 41,710,521 shs. as of 7/28/23

MARKET CAP: $3.5 billion (Mid Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
893.3	799.3	779.8	803.5	849.4	916.4	919.5	890.1	1196.8	1460.2	*1290*	*1250*	Revenues ($mill)	*1325*
50.2	56.9	58.6	62.0	73.9	82.3	86.8	95.9	176.8	282.3	*200*	*150*	Net Profit ($mill)	*155*
21.3%	22.5%	27.0%	24.5%	25.5%	15.0%	16.7%	17.4%	16.9%	20.5%	*20.0%*	*20.0%*	Income Tax Rate	*20.0%*
5.6%	3.9%	3.5%	2.2%	2.3%	4.1%	4.9%	6.4%	.8%	.9%	*3.0%*	*3.5%*	AFUDC % to Net Profit	*4.0%*
42.1%	46.5%	42.4%	43.0%	41.3%	44.7%	46.9%	41.8%	42.6%	40.0%	*41.5%*	*41.5%*	Long-Term Debt Ratio	*42.5%*
57.9%	53.5%	57.6%	57.0%	58.7%	55.3%	53.1%	58.2%	57.4%	58.3%	*58.5%*	*58.5%*	Common Equity Ratio	*57.5%*
924.4	1071.3	1051.0	1175.4	1187.3	1318.9	1471.1	1495.4	1724.8	2041.1	*2140*	*2250*	Total Capital ($mill)	*2525*
1167.0	1268.5	1387.8	1477.2	1539.6	1581.1	1753.8	2049.3	2124.6	2212.7	*2355*	*2475*	Net Plant ($mill)	*2700*
6.8%	6.7%	6.8%	6.5%	7.3%	7.3%	7.0%	7.4%	11.1%	12.0%	*9.0%*	*8.5%*	Return on Total Cap'l	*7.5%*
9.4%	9.9%	9.7%	9.3%	10.6%	11.3%	11.1%	11.0%	17.8%	18.0%	*13.5%*	*13.0%*	Return on Shr. Equity E	*11.5%*
9.3%	9.9%	9.7%	9.3%	10.6%	11.3%	11.1%	11.0%	17.8%	18.0%	*13.5%*	*13.0%*	Return on Com Equity	*11.5%*
1.2%	2.2%	2.0%	2.1%	3.3%	4.0%	4.0%	4.1%	11.3%	12.4%	*7.5%*	*7%*	Retained to Com Eq	*5.0%*
87%	78%	79%	78%	69%	65%	64%	63%	37%	24%	*44%*	*52%*	All Div'ds to Net Prof	*60%*

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-3.9	+.3	+16.8
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)	NA	NA	NA
Fixed Charge Cov. (%)	405	651	653

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	-1.0%	4.0%	*5.0%*
"Cash Flow"	7.5%	9.5%	*5.5%*
Earnings	18.0%	14.5%	*4.5%*
Dividends	2.5%	4.0%	*7.0%*
Book Value	3.5%	6.0%	*8.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	234.7	192.8	235.8	226.8	890.1
2021	261.7	285.6	316.3	333.2	1196.8
2022	374.9	400.0	383.9	301.4	1460.2
2023	339.1	337.7	*320*	*293.2*	*1290*
2024	*320*	*330*	*310*	*290*	*1250*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.60	.42	.87	.45	2.34
2021	.73	1.01	1.26	1.23	4.23
2022	1.72	2.05	2.01	1.00	6.78
2023	1.49	1.95	*1.40*	*.86*	*5.70*
2024	*.80*	*1.00*	*1.00*	*.70*	*3.50*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.35	.35	.35	.35	1.40
2020	.37	.37	.37	.37	1.48
2021	.39	.39	.39	.39	1.56
2022	.4125	.4125	.4125	.4125	1.65
2023	.4375	.4375			

BUSINESS: Otter Tail Corporation is the parent of Otter Tail Power Company, which supplies electricity to 133,000 customers in Minnesota (52% of retail electric revenues), North Dakota (38%), and South Dakota (10%). Electric rev. breakdown: residential, 32%; commercial & farms, 36%; industrial, 30%; other, 2%. Generating sources: coal, 38%; wind & other, 18%; purchased, 44%. Fuel costs: 10% of revenues. Also has operations in manufacturing and plastics (72% of '22 operating income). '22 deprec. rate: 3.0%. Has 2,500 employees. Chairman: Nathan I. Partain. President & CEO: Charles S. MacFarlane. Inc.: Minnesota. Address: 215 South Cascade St., P.O. Box 496, Fergus Falls, Minnesota 56538-0496. Tel.: 866-410-8780. Internet: www.ottertail.com.

Otter Tail Corporation raised its earnings guidance for 2023 upon reporting June-period results. Profits of $1.95 per share surpassed the consensus and our estimate of $1.50. Management now looks for the bottom line to wind up in a range of $5.70-$6.00 a share, from the initial guidance range of $4.55-$4.85 per share. The Electric segment remains a main driver to earnings, and grew 4% versus the second period of 2022. Even more, the Plastics segment performed stronger than expected in the June quarter, despite demand for PVC pipe continuing to drop noticeably. Accordingly, this segment's profits will likely decline in coming years as conditions normalize within the utility's plastics division.

We have raised our 2023 earnings estimate by $0.95, to $5.70 a share. The aforementioned PVC pipe prices have remained higher than anticipated, and are largely responsible for management's updated guidance range. Meanwhile, the stock's reaction to the earnings update was positive. The share price is up more than 7% in value since our early June review. We also think the Electric segment will continue to perform well in the near term due to a number of projects in development.

Earnings will likely decline noticeably next year and beyond. Our 2024 profit estimate is staying put at $3.50 a share. Margins will continue to compress moving forward, albeit slower than expected, causing sales prices of PVC pipe to recede. The company expects the normalized Plastics segment earnings to be around $36 million-$41 million, compared to $195 million in 2022.

This stock is trading above the high end of our 3- to 5-year Target Price Range. While long-term capital appreciation potential is unattractive, short-term prospects are more appealing. Indeed, these shares are ranked Above Average (2) for Timeliness. Too, Otter Tail stock has continued to outperform nearly all of its peers in the industry as of late. But the stock's dividend yield of 2.1% is below the utility average. Meanwhile, the company remains committed to its long-term target payout ratio of 60%-70% and a yearly growth rate of 5%-7%.

Zachary J. Hodgkinson *September 8, 2023*

(A) Dil. EPS. Excl. nonrec. gains (loss): '10, (44¢); '11, 26¢; '13, 2¢; gains (losses) from disc. ops.: '11, ($1.11); '12, ($1.22); '13, 2¢; '14, 2¢; '15, 2¢; '16, 1¢; '17, 1¢. '19 EPS may not sum due to rounding. Next earnings report due early Nov. (B) Div'ds histor. pd. in early Mar., Jun., Sept., & Dec. ■ Div'd reinv. plan avail. (C) Incl. intang. In '22: $4.10/sh. (D) In mill. (E) Rate all'd on com. eq. in MN in '22: 9.48%; in ND in '18: 9.77%; in SD in '19: 8.75%; earned on avg. com. eq., '21: 19.2%.

Company's Financial Strength	A
Stock's Price Stability	85
Price Growth Persistence	80
Earnings Predictability	70

PINNACLE WEST NYSE-PNW

RECENT PRICE **81.38** | P/E RATIO **19.6** (Trailing: 19.9 / Median: 17.0) | RELATIVE P/E RATIO **1.13** | DIV'D YLD **4.3%** | VALUE LINE

TIMELINESS 4 Lowered 5/19/23
SAFETY 2 Lowered 10/22/21
TECHNICAL 2 Raised 7/14/23
BETA .90 (1.00 = Market)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
High:	54.7	61.9	71.1	73.3	82.8	92.5	92.6	99.8	105.5	88.5	80.6	84.6
Low:	45.9	51.5	51.2	56.0	62.5	75.8	73.4	81.6	60.1	62.8	59.0	71.7

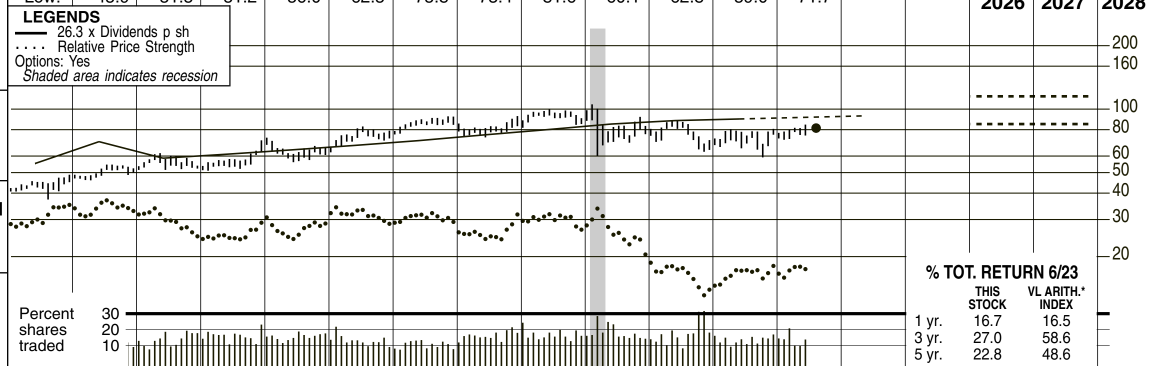
18-Month Target Price Range
Low-High: $65-$105 | Midpoint (% to Mid): $85 (5%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	115	(+40%)	12%
Low	85	(+5%)	6%

Institutional Decisions

	3Q2022	4Q2022	1Q2023
to Buy	227	299	243
to Sell	208	175	222
Hld's(000)	97447	97877	98017



% TOT. RETURN 6/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	16.7	16.5
3 yr.	27.0	58.6
5 yr.	22.8	48.6

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
35.07	33.37	32.50	30.01	29.67	30.09	31.35	31.58	31.50	31.42	31.90	32.93	30.87	31.81	33.66	38.21	*40.75*	*40.05*	Revenues per sh	*41.65*
9.29	8.13	8.08	6.85	7.52	7.92	8.15	8.09	9.09	9.39	9.79	11.41	11.13	10.86	12.23	13.44	*13.25*	*13.30*	"Cash Flow" per sh	*15.00*
2.96	2.12	2.26	3.08	2.99	3.50	3.66	3.58	3.92	3.95	4.43	4.54	4.77	4.87	5.47	4.26	*4.15*	*4.50*	Earnings per sh A	*5.70*
2.10	2.10	2.10	2.10	2.10	2.67	2.23	2.33	2.44	2.56	2.70	2.87	3.04	3.23	3.36	3.42	*3.48*	*3.54*	Div'd Decl'd per sh B ■	*3.75*
9.37	9.46	7.64	7.03	8.26	8.24	9.36	8.38	9.84	11.64	12.80	10.73	10.76	11.93	13.04	15.09	*14.50*	*15.00*	Cap'l Spending per sh	*15.00*
35.15	34.16	32.69	33.86	34.98	36.20	38.07	39.50	41.30	43.15	44.80	46.59	48.30	49.96	52.26	53.45	*54.10*	*56.75*	Book Value per sh C	*62.00*
100.49	100.89	101.43	108.77	109.25	109.74	110.18	110.57	110.98	111.34	111.75	112.10	112.44	112.76	113.01	113.17	*113.50*	*118.00*	Common Shs Outst'g D	*120.00*
14.9	16.1	13.7	12.6	14.6	14.3	15.3	15.9	16.0	18.7	19.3	17.8	19.4	16.7	14.1	17.1	*Bold figures are*		Avg Ann'l P/E Ratio	*17.5*
.79	.97	.91	.80	.92	.91	.86	.84	.81	.98	.97	.96	1.03	.86	.76	.99	*Value Line*		Relative P/E Ratio	*.95*
4.8%	6.2%	6.8%	5.4%	4.8%	5.3%	4.0%	4.1%	3.9%	3.5%	3.2%	3.5%	3.3%	4.0%	4.3%	4.7%	*estimates*		Avg Ann'l Div'd Yield	*3.8%*

CAPITAL STRUCTURE as of 3/31/23
Total Debt $8474.9 mill. **Due in 5 Yrs** $2100.7 mill.
LT Debt $7916.6 mill. **LT Interest** $350.0 mill.
(Total Interest Coverage: 2.9x)

Leases, Uncapitalized Annual rentals $18.1 mill.

Pension Assets-12/22 $2829.5 mill. **Oblig** $2809.5 mill.

Pfd Stock None

Common Stock 113,255,998 shs. as of 4/27/23
MARKET CAP: $9.2 billion (Mid Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
3454.6	3491.6	3495.4	3498.7	3565.3	3691.2	3471.2	3587.0	3803.8	4324.4	*4625*	*4725*	Revenues ($mill)	*5000*
406.1	397.6	437.3	442.0	497.8	511.0	538.3	550.6	618.7	483.6	*470*	*525*	Net Profit ($mill)	*685*
34.4%	34.2%	34.3%	33.9%	32.5%	20.2%	- -	12.1%	14.8%	13.0%	*11.0%*	*12.0%*	Income Tax Rate	*14.0%*
10.0%	11.6%	11.8%	14.1%	13.9%	15.2%	9.3%	9.5%	10.1%	15.2%	*14.0%*	*13.0%*	AFUDC % to Net Profit	*12.0%*
40.0%	41.0%	43.0%	45.6%	48.9%	47.0%	47.1%	52.8%	53.9%	56.1%	*56.0%*	*52.5%*	Long-Term Debt Ratio	*56.0%*
60.0%	59.0%	57.0%	54.4%	51.1%	53.0%	52.9%	47.2%	46.1%	43.9%	*44.0%*	*47.5%*	Common Equity Ratio	*44.0%*
6990.9	7398.7	8046.3	8825.4	9796.4	9861.1	10263	11948	12820	13790	*13950*	*14100*	Total Capital ($mill)	*16900*
10889	11194	11809	12714	13445	14030	14523	15159	15987	16854	*17475*	*18200*	Net Plant ($mill)	*20200*
7.1%	6.4%	6.4%	6.0%	6.1%	6.2%	6.3%	5.5%	5.8%	4.5%	*4.5%*	*5.0%*	Return on Total Cap'l	*5.0%*
9.7%	9.1%	9.5%	9.2%	9.9%	9.8%	9.9%	9.8%	10.5%	8.0%	*7.5%*	*8.0%*	Return on Shr. Equity	*9.5%*
9.7%	9.1%	9.5%	9.2%	9.9%	9.8%	9.9%	9.8%	10.5%	8.0%	*7.5%*	*8.0%*	Return on Com Equity E	*9.5%*
4.1%	3.5%	3.9%	3.5%	4.2%	3.9%	3.8%	3.5%	4.2%	1.7%	*1.5%*	*1.5%*	Retained to Com Eq	*3.0%*
58%	62%	59%	62%	58%	60%	61%	64%	60%	78%	*84%*	*78%*	All Div'ds to Net Prof	*66%*

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	+5.0	-.1	+4.4
Avg. Indust. Use (MWH)	766	808	849
Avg. Indust. Revs. per KWH (¢)	7.62	8.11	9.20
Capacity at Peak (Mw)	9094	8726	8612
Peak Load, Summer (Mw)	7660	7580	7587
Annual Load Factor (%)	45.5	45.9	48.1
% Change Customers (yr-end)	+2.3	+2.2	+2.1
Fixed Charge Cov. (%)	318	317	226

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	1.5%	2.0%	*3.0%*
"Cash Flow"	5.0%	5.5%	*3.5%*
Earnings	4.5%	3.5%	*2.5%*
Dividends	4.0%	5.5%	*2.0%*
Book Value	4.0%	4.0%	*3.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	661.9	929.6	1254.5	741.0	3587.0
2021	696.5	1000.2	1308.2	798.9	3803.8
2022	783.5	1061.7	1469.9	1009.3	4324.4
2023	945.0	*1110*	*1510*	*1060*	*4625*
2024	*965*	*1135*	*1540*	*1085*	*4725*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.27	1.71	3.07	d.17	4.87
2021	.32	1.91	3.00	.24	5.47
2022	.15	1.45	2.88	d.21	4.26
2023	d.03	*1.30*	*2.93*	*d.05*	*4.15*
2024	*.05*	*1.40*	*3.10*	*d.05*	*4.50*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.737	.738	.738	.782	3.00
2020	.783	.783	.783	.83	3.18
2021	.83	.83	.83	.85	3.34
2022	.85	.85	.85	.85	3.40
2023	.865	.865			

BUSINESS: Pinnacle West Capital Corporation is a holding company for Arizona Public Service Company (APS), which supplies electricity to 1.3 million customers in most of Arizona, except about half of the Phoenix metro area, the Tucson metro area, and Mohave County in northwestern Arizona. Discontinued SunCor real estate subsidiary in '10. Electric revenue breakdown: residential, 47%; commercial/industrial, 41%; other, 12%. Generating sources: gas, 25%; nuclear, 24%; coal, 20%; renewables, 12%; purchased, 19%. Fuel costs: 38% of revenues. '22 reported deprec. rate: 3.03%. Has 5,861 employees. Chairman, President & CEO: Jeffrey B. Guldner. Inc.: AZ. Address: 400 North Fifth St., P.O. Box 53999, Phoenix, AZ 85072-3999. Tel.: 602-250-1000. Internet: www.pinnaclewest.com.

Pinnacle West will likely see its earnings fall this year, then bounce back in 2024. After a weak first quarter, due to significantly higher operating and maintenance expense versus a year ago, management affirmed its full-year earnings outlook of $3.95 to $4.15 per share. Last year's bottom line benefited from weather extremes that helped drive electric usage up 4.4%. Growth on that front is likely to be more subdued in 2023. Higher retirement contributions, following last year's decline in equity and bond markets, and higher interest expense are expected to pressure this year's bottom line. Profits should be heading up next year, given the likelihood of higher electric rates.

Pinnacle's pending general rate case (GRC) may help to restore some of the earnings power lost last year. A measure of rate relief is due at the start of 2024, the question is how much. From early 2022, the company has been operating under revised regulatory parameters that cut its allowed return on equity (ROE) from 10% to a nationwide low of 8.7%. The change effectively reduced the utility's annual earning power by about $1.00 per share. Pinnacle West is requesting its ROE be restored near the former level. The company is also seeking an expansion in the use of automatic pricing mechanisms to cut regulatory lag in the recoupment of investments it's planning to make in support of Arizona's clean-energy objectives. A decision from a revamped state regulatory commission, which has a few new members and a different chairperson because of term limits, is due by year's end. A March appeals court decision has set a precedent for at least some progress towards higher allowable returns. A trio of Arizona appellate judges gave an opinion stating that the regulatory commission overstepped its bounds by penalizing the utility for "poor customer service," and has ruled the company can lift electric rates based on an 8.9% ROE.

This untimely issue has been one of the better year-to-date performers amongst utilities. The stock has likely outperformed in anticipation of a favorable GRC outcome. At the recent valuation, PNW compares unfavorably to the median total return potential of its industry.

Anthony J. Glennon *July 21, 2023*

(A) Diluted EPS. Excl. nonrec. gain/(loss): '09, ($1.45); '17, 8¢; gains/(losses) from discont. ops.: '06, 10¢; '08, 28¢; '09, (13¢); '10, 18¢; '11, 10¢; '12, (5¢). '20 and '22 qtly. EPS don't sum due to rounding. Next egs. report due early August. (B) Div'ds historically paid in early Mar., June, Sept., & Dec. There were 5 declarations in '12. ■ Div'd reinvestment plan avail. (C) Incl. deferred charges/other intangibles. In '22: $17.54/sh. (D) In mill. (E) Rate base: Fair value. Rate allowed on common equity in '23: 8.9%. Regulatory Climate: Below Average.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	45
Earnings Predictability	95

PORTLAND GENERAL NYSE-POR

RECENT PRICE 46.25 | P/E RATIO 17.1 (Trailing: 16.1 Median: 18.0) | RELATIVE P/E RATIO 0.99 | DIV'D YLD 4.2% | VALUE LINE

TIMELINESS 3 Lowered 7/21/23
SAFETY 2 Raised 10/22/21
TECHNICAL 2 Lowered 7/21/23
BETA .90 (1.00 = Market)

High:	28.1	33.3	40.3	41.0	45.2	50.1	50.4	58.4	63.1	53.1	57.0	51.6
Low:	24.3	27.4	29.0	33.0	35.3	42.4	39.0	44.0	32.0	40.8	41.6	44.7

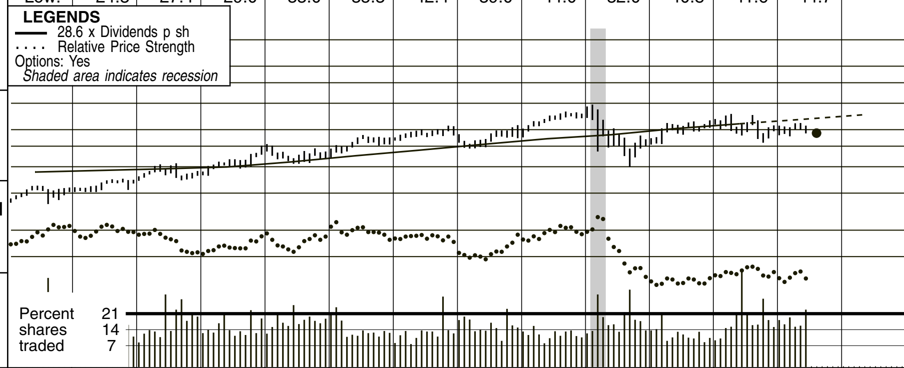
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$41-$67 $54 (15%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	80	(+75%)	18%
Low	55	(+20%)	9%

Institutional Decisions

	3Q2022	4Q2022	1Q2023
to Buy	193	207	184
to Sell	150	157	173
Hld's(000)	87350	98285	101190



Target Price Range 2026 | 2027 | 2028
128
96
80
64
48
40
32
24
16
12

% TOT. RETURN 6/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	0.7	16.5
3 yr.	25.3	58.6
5 yr.	30.3	48.6

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
27.87	27.89	23.99	23.67	24.06	23.89	23.18	24.29	21.38	21.62	22.54	22.30	23.75	23.96	26.80	29.65	28.85	30.15	Revenues per sh	33.00
5.21	4.71	4.07	4.82	4.96	5.15	4.93	6.08	5.37	5.78	6.16	6.65	6.97	7.83	7.25	7.41	7.30	7.85	"Cash Flow" per sh	9.40
2.33	1.39	1.31	1.66	1.95	1.87	1.77	2.18	2.04	2.16	2.29	2.37	2.39	2.75	2.72	2.74	2.70	3.00	Earnings per sh A	3.65
.93	.97	1.01	1.04	1.06	1.08	1.10	1.12	1.18	1.26	1.34	1.43	1.52	1.59	1.70	1.79	1.88	1.98	Div'd Decl'd per sh B ■ †	2.36
7.28	6.12	9.25	5.97	3.98	4.01	8.40	12.87	6.73	6.57	5.77	6.67	6.78	8.76	7.11	8.58	13.65	10.00	Cap'l Spending per sh	10.00
21.05	21.64	20.50	21.14	22.07	22.87	23.30	24.43	25.43	26.35	27.11	28.07	28.99	29.18	30.28	31.13	33.25	34.80	Book Value per sh C	38.70
62.53	62.58	75.21	75.32	75.36	75.56	78.09	78.23	88.79	88.95	89.11	89.27	89.39	89.54	89.41	89.28	97.00	99.50	Common Shs Outst'g D	100.00
11.9	16.3	14.4	12.0	12.4	14.0	16.9	15.3	17.7	19.1	20.0	18.4	22.3	16.6	17.7	18.2	Bold figures are		Avg Ann'l P/E Ratio	18.5
.63	.98	.96	.76	.78	.89	.95	.81	.89	1.00	1.01	.99	1.19	.85	.96	1.06	Value Line		Relative P/E Ratio	1.05
3.3%	4.3%	5.4%	5.2%	4.4%	4.1%	3.7%	3.3%	3.3%	3.1%	2.9%	3.3%	2.8%	3.5%	3.5%	3.6%	estimates		Avg Ann'l Div'd Yield	3.5%

CAPITAL STRUCTURE as of 3/31/23
Total Debt $3866 mill. **Due in 5 Yrs** $520 mill.
LT Debt $3778 mill. **LT Interest** $146 mill.
Incl. $293 mill. finance leases.
(Total Interest Coverage: 2.8x)
Leases, Uncapitalized Annual rentals $4 mill.
Pension Assets-12/22 $547 mill. **Oblig** $695 mill.
Pfd Stock None

Common Stock 96,621,298 shs. as of 4/20/23

MARKET CAP: $4.5 billion (Mid Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
1810.0	1900.0	1898.0	1923.0	2009.0	1991.0	2123.0	2145.0	2396.0	2647.0	2800	3000	Revenues ($mill)	3300
137.0	175.0	172.0	193.0	204.0	212.0	214.0	247.0	244.0	245.0	250	295	Net Profit ($mill)	365
23.2%	26.0%	20.7%	20.6%	25.3%	7.4%	11.2%	12.4%	8.6%	15.2%	17.5%	17.5%	Income Tax Rate	17.5%
14.6%	33.7%	19.8%	16.6%	8.8%	8.0%	7.0%	9.7%	10.2%	8.6%	10.0%	9.0%	AFUDC % to Net Profit	8.5%
51.3%	52.7%	47.8%	48.4%	50.1%	46.5%	51.3%	53.6%	56.8%	57.0%	56.0%	54.5%	Long-Term Debt Ratio	55.0%
48.7%	47.3%	52.2%	51.6%	49.9%	53.5%	48.7%	46.4%	43.2%	43.0%	44.0%	45.5%	Common Equity Ratio	45.0%
3735.0	4037.0	4329.0	4544.0	4842.0	4684.0	5323.0	5628.0	6265.0	6459.0	7330	7600	Total Capital ($mill)	8550
4880.0	5679.0	6012.0	6434.0	6741.0	6887.0	7161.0	7539.0	8005.0	8465.0	9330	9850	Net Plant ($mill)	10850
5.1%	5.8%	5.4%	5.6%	5.5%	5.8%	5.1%	5.6%	4.9%	4.9%	4.5%	5.0%	Return on Total Cap'l	5.5%
7.5%	9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	9.5%	9.0%	8.8%	8.0%	8.5%	Return on Shr. Equity	9.5%
7.5%	9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	9.5%	9.0%	8.8%	8.0%	8.5%	Return on Com Equity E	9.5%
2.9%	4.6%	3.3%	3.5%	3.6%	3.5%	3.1%	4.1%	3.5%	3.1%	2.5%	3.0%	Retained to Com Eq	3.5%
61%	50%	56%	57%	58%	59%	63%	57%	61%	64%	69%	66%	All Div'ds to Net Prof	65%

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	+.4	+5.1	+3.4
Avg. Indust. Use (MWH)	18472	20002	22097
Avg. Indust. Revs. per KWH (¢)	4.99	5.22	5.23
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	3771	4447	4255
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.5	+.6	+1.1
Fixed Charge Cov. (%)	275	261	254

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	1.0%	4.0%	3.5%
"Cash Flow"	4.0%	5.5%	4.5%
Earnings	4.0%	5.0%	5.0%
Dividends	5.0%	6.0%	5.5%
Book Value	3.0%	3.0%	4.0%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	573	469	547	556	2145
2021	609	537	642	608	2396
2022	626	591	743	687	2647
2023	687	610	775	728	2800
2024	740	660	825	775	3000

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.91	.43	.84	.57	2.75
2021	1.07	.36	.56	.73	2.72
2022	.67	.72	.65	.70	2.74
2023	.80	.65	.60	.65	2.70
2024	.85	.70	.70	.75	3.00

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.3625	.3625	.385	.385	1.50
2020	.385	.385	.385	.4075	1.56
2021	.4075	.4075	.43	.43	1.68
2022	.43	.43	.4525	.4525	1.77
2023	.4525	.4525	.475		

BUSINESS: Portland General Electric Company (PGE) provides electricity to 926,000 customers in 51 cities in a 4,000-square-mile area of Oregon, including Portland and Salem (population: 1.9 million). The company is in the process of decommissioning the Trojan nuclear plant, which it closed in 1993. Electric revenue breakdown: residential, 52%; commercial, 33%; industrial, 14%; other, 1%. Generating sources: gas, 32%; wind, 15%; coal, 4%; hydro, 7%; purchased, 41%. Fuel costs: 37% of revenues. '22 reported depreciation rate: 3.4%. Has 2,873 full-time employees. Chairman: Jack E. Davis. President and CEO: Maria M. Pope. Incorporated: Oregon. Address: 121 S.W. Salmon Street, Portland, OR 97204. Tel.: 503-464-8000. Internet: www.portlandgeneral.com.

Portland General Electric will likely post flat-to-down earnings this year, followed by a healthy gain in 2024. For full-year 2023, management reaffirmed its $2.60 to $2.75 per share bottom-line outlook. Weather extremes helped push 2022's electric usage up 3.4% in the company's territory, making for a difficult comparison this year. The level to which PGE is expanding its capital budget in regards to major investments in generating capacity and battery storage, however, is the more significant factor for this year's profits. Capital expenditures are expected to rise more than 70%, to $1.33 billion. Financing costs will be a drag on the bottom line. Earnings ought to be on the mend in 2024, though. In February, PGE filed a general rate case with its Oregon regulatory body. The utility is seeking a 14% price hike, in part to recoup higher purchased power costs. Most of the request is to address reliability and resiliency work, capital investments, and rising operating and financing costs. We expect a constructive outcome, with new rates to take effect in January of 2024.

Investments in "clean" energy should drive growth. Oregon is targeting zero emissions from electric generation by 2040. As such, PGE is looking to add at least 375 to 500 megawatts of nonemitting annual power generation in the intermediate term, with significant battery storage capacity as well. Thus far, the company has agreed to partner with NextEra Energy (NEE) to construct a 311-mw wind energy facility. PGE will own two-thirds of the venture, and will have a 30-year contract with NEE to purchase the remaining generation. Project completion is targeted for December. The green light from regulators to pursue these types of investments should result in mid- to high-single-digit growth in the rate base (the dollar value of assets a utility is allowed to earn an economic return on) for many years. This, plus rising demand from a healthy tech-based local economy, should allow the company to achieve its long-term 5%-7% earnings and dividend growth targets.

This issue's annual total return potential looks appealing relative to the electric utility industry's median of 10.4% for this measure.

Anthony J. Glennon *July 21, 2023*

(A) Diluted earnings. Excl. nonrecurring gains/(losses): '13, (42¢); '17, (19¢); '20, ($1.03); '22, (14¢). Next earnings report due July 28th.
(B) Dividends paid mid-Jan., Apr., July, and Oct. ■ Dividend reinvestment plan available. † Shareholder investment plan available.
(C) Incl. deferred charges. In '21: $473 mill., $5.30/sh. (D) In mill.
(E) Rate base: Net original cost. Rate allowed on common equity in '22: 9.5%. Regulatory Climate: Average.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	45
Earnings Predictability	95

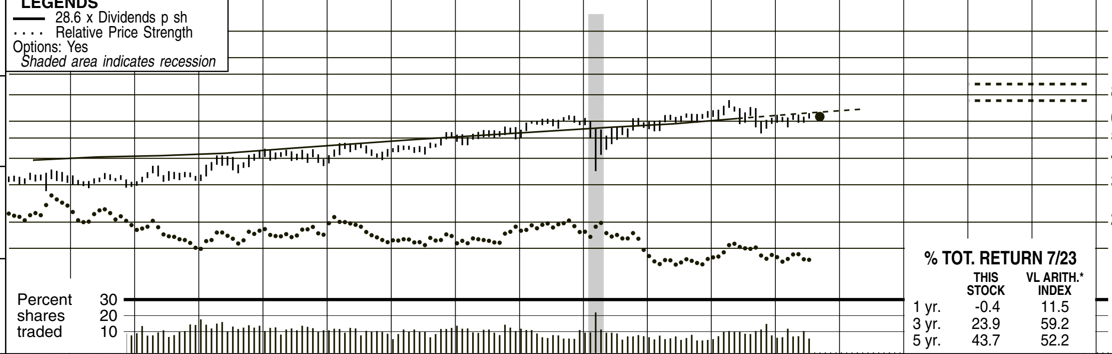
P.S. ENTERPRISE GP. NYSE-PEG

RECENT PRICE **63.12** | P/E RATIO **18.0** (Trailing: 17.6 / Median: 16.0) | RELATIVE P/E RATIO **1.04** | DIV'D YLD **3.7%** | VALUE LINE

TIMELINESS **3** Raised 5/12/23
SAFETY **1** Raised 11/23/12
TECHNICAL **3** Raised 7/28/23
BETA .95 (1.00 = Market)

High:	34.1	37.0	43.8	44.4	47.4	53.3	56.7	63.9	62.2	67.1	75.6	65.5
Low:	28.9	29.7	31.3	36.8	37.8	41.7	46.2	50.0	34.8	53.8	52.5	56.1

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



18-Month Target Price Range
Low-High Midpoint (% to Mid)
$52-$82 $67 (5%)

Target Price Range 2026 | 2027 | 2028

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	90	(+45%)	12%
Low	75	(+20%)	8%

Institutional Decisions

	3Q2022	4Q2022	1Q2023
to Buy	419	438	442
to Sell	363	377	347
Hld's(000)	354404	361159	354960

Percent shares traded 30 20 10

% TOT. RETURN 7/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-0.4	11.5
3 yr.	23.9	59.2
5 yr.	43.7	52.2

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
25.28	27.94	24.57	23.31	22.42	19.33	19.71	21.52	20.61	18.22	18.14	19.24	19.99	19.05	19.29	19.72	*23.80*	*24.40*	Revenues per sh	*26.00*
4.36	4.68	4.98	5.27	5.36	4.87	5.17	5.82	5.75	5.07	5.30	5.81	6.14	6.37	6.46	6.08	*6.15*	*6.55*	"Cash Flow" per sh	*7.75*
2.59	2.90	3.08	3.07	3.11	2.44	2.45	2.99	2.91	2.83	2.82	3.12	3.28	3.43	3.65	3.47	*3.45*	*3.70*	Earnings per sh A	*4.50*
1.17	1.29	1.33	1.37	1.37	1.42	1.44	1.48	1.56	1.64	1.72	1.80	1.88	1.96	2.04	2.16	*2.28*	*2.40*	Div'd Decl'd per sh B ■†	*2.82*
2.65	3.50	3.55	4.27	4.12	5.09	5.56	5.58	7.65	8.32	8.30	7.76	6.28	5.80	5.39	5.81	*7.20*	*7.20*	Cap'l Spending per sh	*7.25*
14.35	15.36	17.37	19.04	20.30	21.31	22.95	24.09	25.86	26.01	27.42	28.53	29.94	31.71	28.65	27.62	*28.65*	*29.95*	Book Value per sh C	*34.75*
508.52	506.02	505.99	505.97	505.95	505.89	505.86	505.84	505.28	504.87	505.00	504.00	504.00	504.00	504.00	497.00	*500.00*	*500.00*	Common Shs Outst'g D	*500.00*
16.5	13.6	10.0	10.4	10.4	12.8	13.5	12.6	14.1	15.3	16.3	16.6	18.0	15.7	16.8	18.5	*Bold figures are*		Avg Ann'l P/E Ratio	*18.0*
.88	.82	.67	.66	.65	.81	.76	.66	.71	.80	.82	.90	.96	.81	.91	1.08	*Value Line*		Relative P/E Ratio	*1.00*
2.7%	3.3%	4.3%	4.3%	4.2%	4.6%	4.4%	3.9%	3.8%	3.8%	3.7%	3.5%	3.2%	3.6%	3.3%	3.4%	*estimates*		Avg Ann'l Div'd Yield	*3.5%*
						9968.0	10886	10415	9198.0	9161.0	9696.0	10076	9603.0	9722.0	9800.0	*11900*	*12200*	Revenues ($mill)	*13000*
						1243.0	1518.0	1476.0	1436.0	1431.0	1582.0	1666.0	1741.0	1853.0	1739.0	*1730*	*1860*	Net Profit ($mill)	*2265*
						39.5%	38.2%	37.4%	31.7%	37.3%	23.7%	32.2%	14.3%	19.5%	13.7%	*20.0%*	*20.0%*	Income Tax Rate	*20.0%*
						4.6%	4.5%	6.2%	8.4%	10.6%	8.7%	6.5%	7.0%	5.5%	5.1%	*8.0%*	*7.0%*	AFUDC % to Net Profit	*6.5%*
						40.4%	40.4%	40.3%	45.3%	46.6%	47.8%	47.7%	47.6%	51.3%	54.6%	*54.0%*	*53.5%*	Long-Term Debt Ratio	*54.0%*
						59.6%	59.6%	59.7%	54.7%	53.4%	52.2%	52.3%	52.4%	48.7%	45.4%	*46.0%*	*46.5%*	Common Equity Ratio	*46.0%*
						19470	20446	21900	24025	25915	27545	28832	30480	29657	30224	*31175*	*32175*	Total Capital ($mill)	*37600*
						21645	23589	26539	29286	31797	34363	35844	37585	34366	35942	*38250*	*40475*	Net Plant ($mill)	*46700*
						7.5%	8.4%	7.6%	6.8%	6.4%	6.7%	6.7%	6.6%	7.1%	6.7%	*6.5%*	*6.5%*	Return on Total Cap'l	*7.0%*
						10.7%	12.5%	11.3%	10.9%	10.3%	11.0%	11.0%	10.9%	12.8%	12.7%	*12.0%*	*12.5%*	Return on Shr. Equity	*13.0%*
						10.7%	12.5%	11.3%	10.9%	10.3%	11.0%	11.0%	10.9%	12.8%	12.7%	*12.0%*	*12.5%*	Return on Com Equity E	*13.0%*
						4.4%	6.3%	5.3%	4.6%	4.1%	4.7%	4.7%	4.7%	5.7%	4.8%	*4.5%*	*4.5%*	Retained to Com Eq	*5.0%*
						59%	49%	53%	58%	61%	58%	57%	57%	56%	62%	*64%*	*64%*	All Div'ds to Net Prof	*62%*

CAPITAL STRUCTURE as of 6/30/23
Total Debt $19666 mill. **Due in 5 Yrs** $7225 mill.
LT Debt $16394 mill. **LT Interest** $565 mill.
(Total Interest coverage: 3.5x)

Leases, Uncapitalized Annual rentals $35 mill.

Pension Assets-12/22 $4911 mill. **Oblig** $5628 mill.

Pfd Stock None

Common Stock 499,111,056 shs.
as of 7/17/23
MARKET CAP: $31.5 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-2.5	+1.3	+1.6
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH(¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	9905	10064	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg.)	+.9	+.9	+.9
Fixed Charge Cov. (%)	298	273	298

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"	2.0%	3.0%	*3.5%*
Earnings	2.0%	4.5%	*4.0%*
Dividends	4.0%	4.5%	*5.5%*
Book Value	4.0%	2.0%	*3.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	2781	2050	2370	2402	9603
2021	2889	1874	1903	3056	9722
2022	2313	2076	2272	3139	9800
2023	3755	2421	*2460*	*3264*	*11900*
2024	*3850*	*2475*	*2525*	*3350*	*12200*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	1.03	.79	.96	.65	3.43
2021	1.28	.70	.98	.69	3.65
2022	1.33	.64	.86	.64	3.47
2023	1.39	.70	*.81*	*.60*	*3.50*
2024	*1.40*	*.70*	*.90*	*.70*	*3.70*

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.47	.47	.47	.47	1.88
2020	.49	.49	.49	.49	1.96
2021	.51	.51	.51	.51	2.04
2022	.54	.54	.54	.54	2.16
2023	.57	.57			

BUSINESS: Public Service Enterprise Group Inc. is a holding company for Public Service Electric and Gas Company (PSE&G), which serves 2.3 million electric and 1.9 million gas customers in NJ, and PSEG Power LLC, a nonregulated power generator with nuclear plants in the Northeast (sold its fossil-fuel generation, 2/22). In mid-2022, announced intent to divest offshore wind assets. Percentage of electric sales: Commercial (57%); Residential (34%); Industrial (9%). Fuel costs: 41% of revenues. '22 reported depreciation rates (utility): 1.9%-2.6%. Has 12,525 employees. Executive Chair: Dr. Ralph Izzo. Chair, Pres. & CEO: Ralph A. LaRossa. Inc.: New Jersey. Address: 80 Park Plaza, P.O. Box 1171, Newark, New Jersey 07101-1171. Tel.: 973-430-7000. Internet: www.pseg.com.

Public Service Enterprise Group (PSEG) will likely see roughly flat earnings for this year in aggregate. Management recently affirmed its bottom-line target for full-year 2023 of $3.40-$3.50 per share. Thus far, results have benefited from higher nuclear power realizations, offset by milder-than-typical weather. Other headwinds include rising interest expense and higher retirement contributions stemming from last year's weak stock and bond markets.

Profits should resume an upwards trajectory in 2024. Interest expense and pension costs should moderate, and leadership is working hard to keep operating expenses in check. Furthermore, utility income is rising due to regulatory mechanisms that allow for near-contemporaneous returns on regulatory capital used for certain grid improvements.

New Jersey's "green" energy transition and last year's Inflation Reduction Act are both a plus. The latter was mainly a backdoor clean-energy bill that to PSEG's delight included support for both renewables and non-emitting power sources, namely nuclear. The company has decided to hold onto its five-unit nuclear generating fleet, which is its only significant operation that falls outside of the regulatory pricing umbrella. Those assets provide a steady stream of cash flow that will help fund rising investments needed to meet New Jersey's goal of 100% of electricity sold in the state coming from carbon-free sources by 2035. The five-year capital spending program for 2023-2027, of $15 billion to $18 billion, is expected to drive PSEG's rate base up at a 6% to 7.5% increase per annum on average, without the need to raise equity or sell off pieces of the company to fund the program. Assets designated as part of the rate base generate a 9.6% regulated return on capital employed by way of rising electric delivery rates. If the company executes its plans well, 5%-7% long-term profit growth from last year's base should be in the cards.

This issue, however, does not stand out at the recent quote. Total return prospects to 2026-2028 are roughly in line with the electric utility median of 9.6%. On a pullback, we think the stock is a solid low-risk holding for utility investors.

Anthony J. Glennon *August 11, 2023*

(A) Diluted EPS. Excl. nonrec. gains/(losses): '08, (96¢); '09, 6¢; '11, (34¢); '12, 7¢; '15, 39¢; '16, ($1.08); '17, 28¢ (net); '18, (29¢); '19, 5¢; '20, 33¢; '21, ($4.94); '22, ($1.41); Q1-Q2 '23, $1.67; disc. ops.: '07, 3¢; '08, 40¢; '10, 1¢; '11, 19¢. Next egs. report due early November.
(B) Div'ds historically paid in late Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail.
(C) Incl. intang. In '22: $8.90/sh.
(D) In mill., adj. for '08 split. (E) Rate base: Net original cost. Rate allowed on common equity in '18: 9.6%; Regulatory Climate: Average.

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

SEMPRA ENERGY NYSE-SRE

RECENT PRICE 144.45 | P/E RATIO 16.1 (Trailing: 15.7 Median: 20.0) | RELATIVE P/E RATIO 0.93 | DIV'D YLD 3.4% | VALUE LINE

TIMELINESS 3 Lowered 4/21/23
SAFETY 2 Raised 7/29/16
TECHNICAL 3 Raised 7/21/23
BETA 1.00 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$122-$217	$170 (15%)

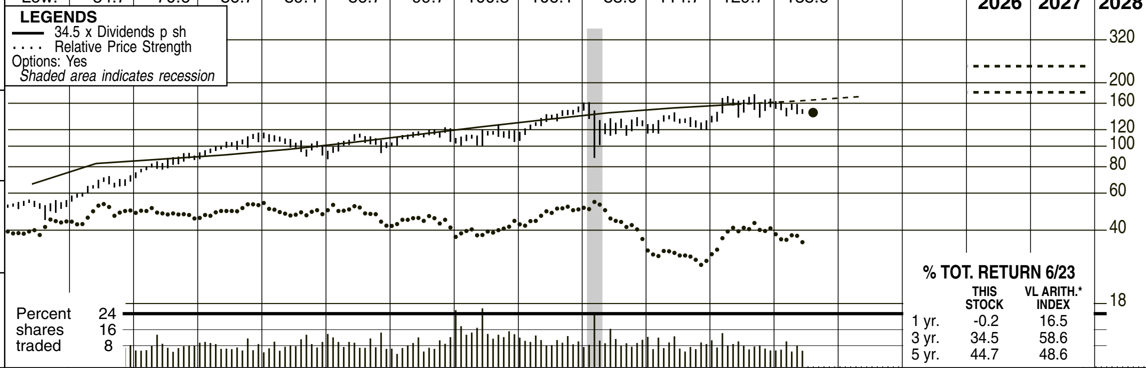
2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	240	(+65%)	16%
Low	180	(+25%)	9%

Institutional Decisions

	3Q2022	4Q2022	1Q2023
to Buy	476	518	436
to Sell	332	364	425
Hld's(000)	267683	273687	269497

High:	72.9	93.0	116.3	116.2	114.7	123.0	127.2	154.5	161.9	144.9	176.5	163.6
Low:	54.7	70.6	86.7	89.4	86.7	99.7	100.5	106.1	88.0	114.7	129.7	138.6



% TOT. RETURN 6/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-0.2	16.5
3 yr.	34.5	58.6
5 yr.	44.7	48.6

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
43.79	44.21	32.88	37.44	41.83	39.80	43.18	44.80	41.20	40.71	44.59	42.69	37.12	39.41	40.57	45.94	***57.70***	***58.20***	Revenues per sh	***63.35***
6.93	7.40	7.94	7.76	8.58	8.92	8.87	9.41	10.32	9.50	10.57	11.07	11.14	13.22	14.17	15.70	***16.25***	***17.30***	"Cash Flow" per sh	***21.70***
4.26	4.43	4.78	4.02	4.47	4.35	4.22	4.63	5.23	4.24	4.63	5.48	5.97	7.38	8.43	9.21	***9.00***	***9.60***	Earnings per sh A	***12.35***
1.24	1.37	1.56	1.56	1.92	2.40	2.52	2.64	2.80	3.02	3.29	3.58	3.87	4.18	4.40	4.58	***4.76***	***5.00***	Div'd Decl'd per sh B ■	***6.10***
7.70	8.47	7.76	8.58	11.85	12.20	10.52	12.68	12.71	16.85	15.71	13.82	12.71	16.21	15.82	17.04	***17.00***	***17.00***	Cap'l Spending per sh	***17.25***
31.87	32.75	36.54	37.54	41.00	42.42	45.03	45.98	47.56	51.77	50.41	54.35	60.58	70.11	79.17	83.43	***85.55***	***90.20***	Book Value per sh C	***105.65***
261.21	243.32	246.51	240.45	239.93	242.37	244.46	246.33	248.30	250.15	251.36	273.77	291.71	288.47	316.92	314.33	***305.00***	***305.00***	Common Shs Outst'g D	***300.00***
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	***17.0***
.74	.71	.67	.80	.74	.95	1.11	1.15	.99	1.28	1.22	1.10	1.20	.90	.83	.98	*Value Line*		Relative P/E Ratio	***.95***
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	***2.9%***

CAPITAL STRUCTURE as of 3/31/23
Total Debt $28243 mill. **Due in 5 Yrs** $6475 mill.
LT Debt $25206 mill. **LT Interest** $1155 mill.
Incl. $1343 mill. finance leases.
(Total Interest Coverage: 3.6x)

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 314,650,534 shs.
as of 4/28/23
MARKET CAP: $45.5 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		26-28
10557	11035	10231	10183	11207	11687	10829	11370	12857	14439	***17600***	***17750***	Revenues ($mill)	***19000***
1060.0	1162.0	1314.0	1065.0	1169.0	1607.0	1825.0	2316.0	2701.0	2960.0	***2840***	***2985***	Net Profit ($mill)	***3760***
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%***	***8.5%***	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%	***50.5%***	***50.5%***	Long-Term Debt Ratio	***49.5%***
49.4%	48.2%	47.3%	47.3%	43.5%	38.4%	43.4%	44.8%	53.3%	50.7%	***47.5%***	***48.0%***	Common Equity Ratio	***49.0%***
22281	23513	24963	27400	29135	38769	40734	45174	47069	51683	***54700***	***57550***	Total Capital ($mill)	***64700***
25460	25902	28039	32931	36503	36796	36452	40003	43894	47782	***50800***	***53650***	Net Plant ($mill)	***60900***
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	***7.0%***
9.6%	10.2%	11.1%	8.2%	9.2%	9.4%	9.1%	9.9%	10.4%	10.9%	***10.5%***	***10.5%***	Return on Shr. Equity	***11.5%***
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	***11.5%***
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	***6.0%***
58%	52%	48%	65%	65%	62%	62%	58%	52%	50%	***53%***	***53%***	All Div'ds to Net Prof	***50%***

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%	- -	7.0%
"Cash Flow"	5.5%	7.0%	7.0%
Earnings	7.0%	12.0%	7.0%
Dividends	8.5%	7.5%	5.5%
Book Value	7.0%	9.0%	5.5%

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	***3575***	***3650***	***3815***	***17600***
2024	***6125***	***3750***	***3825***	***4050***	***17750***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	2.53	1.58	1.31	1.88	7.38
2021	2.95	1.63	1.70	2.16	8.43
2022	2.91	1.98	1.97	2.35	9.21
2023	2.92	***1.80***	***1.90***	***2.40***	***9.00***
2024	***3.05***	***1.95***	***2.05***	***2.55***	***9.60***

Cal-endar	QUARTERLY DIVIDENDS PAID B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.895	.9675	.9675	.9675	3.80
2020	.9675	1.045	1.045	1.045	4.10
2021	1.045	1.10	1.10	1.10	4.35
2022	1.10	1.145	1.145	1.145	4.54
2023	1.145	1.19	1.19		

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 will likely post down earnings this year, with growth expected to resume in 2024. Management affirmed its $8.60-$9.20 per share bottom-line outlook. Quarterly comparisons will be difficult through the end of the third quarter, as last year's heat wave in southern California drove electricity usage up 2.8% in 2022. Regulatory lag is a key issue for this year in particular. Significant investments in grid modernization and the related financing costs await recoupment. Sempra has general rate cases filed in both of its state territories. A decision is overdue for Oncor, the company's 80%-owned transmission and distribution subsidiary in Texas. Higher delivery prices ought to benefit the back end of 2023, with further incremental improvement coming next year. A regulatory decision is expected in the second quarter of next year for San Diego Gas & Electric and SoCalGas. Higher rates in California should be retroactive to the start of 2024.

The company's goal of 6%-8% long-term earnings growth looks achievable, given the prospects of the Infrastructure subsidiary (SI). The economics of the liquefied natural gas (LNG) export operation look attractive. 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. Long-term contracts are nearly fully subscribed. ConocoPhillips has come on board as a partner, and KKR will also help finance the $13 billion endeavor. Sempra is expected to retain about a 20% stake, but will only have to put up a half-share of the capital. We estimate a bump in annual earnings power of $0.50-$0.75 per share, plus an opportunity to replicate the gains through additional project phases. Moreover, SI has comparable-scaled LNG expansions taking place at its Baja California site in Mexico. The subsidiary is also exploring opportunities in green hydrogen and ammonia production, an arena that looks very promising.

This issue is neutrally ranked for year-ahead relative price performance. However, SRE's total return potential looks good relative to its industry's 10% median level. Utility investors should consider it for a long-term holding.

Anthony J. Glennon *July 21, 2023*

(A) Dil. egs. Excl. nonrec. gain/(loss): '09, (26¢); '10, ($1.04); '11, $1.15; '12, (87¢); '13, (21¢); '15, 14¢; '16, $1.22; '17, ($3.62); '18, ($2.06); '19, 16¢; '20, (80¢); '21, ($4.42); '22, ($1.64); 1Q '23, 15¢. Disc. ops.: '19, $1.16; '20, $6.30. Qtly. EPS may not sum due to rounding. Next egs. report due early Aug. (B) Div'ds paid mid-Jan., Apr., July, Oct. ■ Div'd reinv. avail. (C) Incl. intang. In '22: $14.42/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq.: SDG&E in '22: 9.95%; SoCalGas in '22: 9.8%. Regulatory Climate: Average.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	55
Earnings Predictability	90

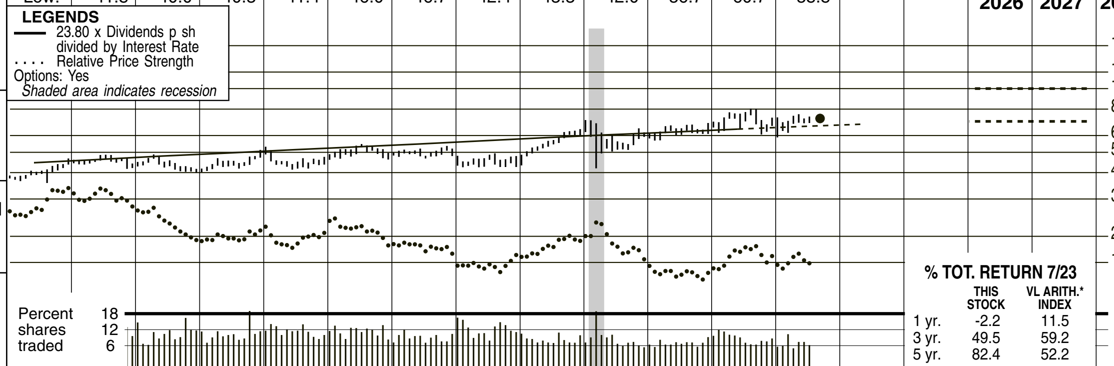
SOUTHERN COMPANY NYSE-SO

RECENT PRICE	72.34	P/E RATIO	17.8 (Trailing: 21.1, Median: 17.0)	RELATIVE P/E RATIO	1.02	DIV'D YLD	3.9%	VALUE LINE

TIMELINESS 4 Lowered 8/4/23
SAFETY 2 Lowered 2/21/14
TECHNICAL 2 Lowered 7/7/23
BETA .90 (1.00 = Market)

High:	48.6	48.7	51.3	53.2	54.6	53.5	49.4	64.3	71.1	68.9	80.6	75.8
Low:	41.8	40.0	40.3	41.4	46.0	46.7	42.4	43.3	42.0	56.7	60.7	58.8

LEGENDS
— 23.80 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)
$61-$100	$81 (10%)

2026-28 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	100	(+40%)	*12%*
Low	70	(-5%)	*3%*

Institutional Decisions

	3Q2022	4Q2022	1Q2023
to Buy	781	911	843
to Sell	634	594	622
Hld's(000)	675410	693302	697201

% TOT. RETURN 7/23

	THIS STOCK	VL ARITH.* INDEX
1 yr.	-2.2	11.5
3 yr.	49.5	59.2
5 yr.	82.4	52.2

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
20.12	22.04	19.21	20.70	20.41	19.06	19.26	20.34	19.18	20.09	22.86	22.73	20.34	19.29	21.80	26.89	***24.85***	***25.25***	Revenues per sh	***28.90***
4.22	4.43	4.43	4.51	4.91	5.18	5.27	5.28	5.47	5.69	6.64	6.41	6.33	6.98	7.20	7.34	***7.65***	***8.00***	"Cash Flow" per sh	***9.25***
2.28	2.25	2.32	2.36	2.55	2.67	2.70	2.77	2.84	2.83	3.21	3.00	3.17	3.25	3.42	3.61	***3.65***	***4.00***	Earnings per sh A	***5.15***
1.60	1.66	1.73	1.80	1.87	1.94	2.01	2.08	2.15	2.22	2.30	2.38	2.46	2.54	2.62	2.70	***2.78***	***2.86***	Div'd Decl'd per sh B ■	***3.10***
4.65	5.10	5.70	4.85	5.23	5.54	6.16	6.58	6.22	7.38	7.37	7.74	7.17	7.04	6.83	7.58	***7.85***	***7.85***	Cap'l Spending per sh	***7.50***
16.23	17.08	18.15	19.21	20.32	21.09	21.43	21.98	22.59	25.00	23.98	23.92	26.11	26.48	26.30	27.93	***28.00***	***29.90***	Book Value per sh C	***32.25***
763.10	777.19	819.65	843.34	865.13	867.77	887.09	907.78	911.72	990.39	1007.6	1033.8	1053.3	1056.5	1060.0	1089.0	***1070.0***	***1070.0***	Common Shs Outst'g D	***1070.0***
16.0	16.1	13.5	14.9	15.8	17.0	16.2	16.0	15.8	17.8	15.5	15.1	17.6	17.9	18.4	19.6	*Bold figures are*		Avg Ann'l P/E Ratio	***16.5***
.85	.97	.90	.95	.99	1.08	.91	.84	.80	.93	.78	.82	.94	.92	1.00	1.14	*Value Line*		Relative P/E Ratio	***.90***
4.4%	4.6%	5.5%	5.1%	4.6%	4.3%	4.6%	4.7%	4.8%	4.4%	4.6%	5.3%	4.4%	4.4%	4.2%	4.1%	*estimates*		Avg Ann'l Div'd Yield	***3.6%***

CAPITAL STRUCTURE as of 3/31/23
Total Debt $55066 mill. **Due in 5 Yrs** $15427 mill.
LT Debt $50427 mill. **LT Interest** $1754 mill.
Incl. $215 mill. finance leases.
(LT interest earned: 3.3x)
Leases, Uncapitalized Annual rentals $307 mill.
Pension Assets-12/22 $17225 mill. **Oblig** $16382 mill.
Pfd Stock $242 mill. **Pfd Div'd** $15 mill.
Incl. 10 mill. shs. 5.83% cum. pfd. ($25 stated value); 475,115 shs. 4.2%-5.44% cum. pfd. ($100 par).
Common Stock 1,090,402,540 shs.
MARKET CAP: $78.9 billion (Large Cap)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	© VALUE LINE PUB. LLC	26-28
17087	18467	17489	19896	23031	23495	21419	20375	23113	29279	***26600***	***27500***	Revenues ($mill)	***30900***
2439.0	2567.0	2647.0	2757.0	3269.0	3096.0	3354.0	3481.0	3670.0	3931.3	***3960***	***4280***	Net Profit ($mill)	***5510***
34.8%	33.8%	33.4%	28.5%	25.2%	21.3%	15.9%	14.3%	16.3%	18.8%	***15.0%***	***15.0%***	Income Tax Rate	***15.0%***
11.6%	13.9%	13.2%	11.9%	7.6%	6.8%	6.0%	6.6%	7.7%	8.0%	***8.0%***	***8.0%***	AFUDC % to Net Profit	***6.0%***
51.5%	49.5%	52.8%	61.5%	64.5%	62.0%	60.1%	61.5%	64.0%	63.0%	***64.0%***	***64.0%***	Long-Term Debt Ratio	***63.0%***
45.8%	47.3%	44.0%	35.7%	35.0%	37.6%	39.5%	38.1%	35.6%	36.5%	***36.0%***	***36.0%***	Common Equity Ratio	***37.0%***
41483	42142	46788	69359	68953	65750	69594	73336	78285	80558	***83500***	***85000***	Total Capital ($mill)	***93500***
51208	54868	61114	78446	79872	80797	83080	87634	91108	94570	***99350***	***100000***	Net Plant ($mill)	***110000***
6.8%	7.1%	6.6%	4.9%	5.9%	5.9%	6.0%	5.9%	5.8%	5.5%	***5.5%***	***5.5%***	Return on Total Cap'l	***6.5%***
12.1%	12.1%	12.0%	10.3%	13.3%	12.4%	12.1%	12.3%	13.0%	12.5%	***13.0%***	***13.0%***	Return on Shr. Equity	***14.5%***
12.5%	12.5%	12.6%	11.0%	13.4%	12.5%	12.1%	12.4%	13.1%	13.0%	***13.0%***	***13.0%***	Return on Com Equity E	***14.5%***
3.2%	3.2%	3.1%	2.5%	3.9%	2.6%	2.8%	2.8%	3.1%	3.0%	***3.5%***	***3.5%***	Retained to Com Eq	***5.0%***
75%	75%	76%	78%	72%	79%	77%	78%	76%	78%	***77%***	***77%***	All Div'ds to Net Prof	***67%***

ELECTRIC OPERATING STATISTICS

	2020	2021	2022
% Change Retail Sales (KWH)	-8.5	-5.3	+2.0
Avg. Indust. Use (MWH)	2947	NA	NA
Avg. Indust. Revs. per KWH (¢)	6.03	NA	NA
Capacity at Yearend (Mw)	41940	NA	NA
Peak Load, Summer (Mw)	34209	NA	NA
Annual Load Factor (%)	60.3	NA	NA
% Change Customers (yr-end)	-8.9	+1.3	+1.5
Fixed Charge Cov. (%)	281	270	275

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '20-'22 to '26-'28
Revenues	- -	.5%	*6.0%*
"Cash Flow"	4.0%	4.5%	*5.0%*
Earnings	3.0%	3.0%	*6.5%*
Dividends	3.5%	3.5%	*3.5%*
Book Value	3.0%	2.5%	*3.5%*

Cal-endar	QUARTERLY REVENUES (mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	5018	4620	5620	5117	20375
2021	5910	5198	6238	5767	23113
2022	6648	7206	8378	7047	29279
2023	6480	***6800***	***7120***	***6200***	***26600***
2024	***6800***	***7000***	***7200***	***6500***	***27500***

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2020	.81	.75	1.18	.51	3.25
2021	1.09	.67	1.22	.44	3.42
2022	.97	1.07	1.31	.26	3.61
2023	.79	***.95***	***1.36***	***.55***	***3.65***
2024	***1.20***	***1.00***	***1.30***	***.50***	***4.00***

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.60	.62	.62	.62	2.46
2020	.62	.64	.64	.64	2.54
2021	.64	.66	.66	.66	2.62
2022	.66	.68	.68	.68	2.70
2023	.68	.70			

BUSINESS: The Southern Company, through its subsidiaries, supplies electricity to 4.4 mill. customers in GA, AL, and MS. Also has a competitive generation business. Acq'd AGL Resources (renamed Southern Company Gas, 4.4 mill. customers in GA, NJ, IL, VA, & TN) 7/16. Sold Gulf Power 1/19. Electric revenue breakdown: residential, 37%; commercial, 30%; industrial, 19%; other, 14%. Generating sources: gas, 44%; coal, 20%; nuclear, 16%; other, 11%; purchased, 9%. Fuel costs: 29% of revenues. '22 reported deprec. rates (utility): 2.7%-3.6%. Has 27,300 employees. President and CEO: Chris Womack. Inc.: Delaware. Address: 30 Ivan Allen Jr. Blvd., N.W., Atlanta, Georgia 30308. Tel.: 404-506-0747. Internet: www.southerncompany.com.

Southern Company's Georgia Power subsidiary has experienced another delay in unit 3 of the Vogtle nuclear station. In June, the company delayed the commercial operation of its nuclear construction project due to a degraded hydrogen seal found during testing. Unit 3 is approaching an August deadline to reach commercial operation, as the project continues to face significant delays and cost overruns. Meanwhile, unit 4 of the Vogtle station is making strong progress towards completing the project. Indeed, the Nuclear Regulatory Commission recently approved plans to begin radioactive fuel loading. Management expects to load the fuel by the end of September, and unit 4 is scheduled to be in-service by the end of 2023 or in the first quarter of 2024. Additional delays and cost increases may occur, though. Construction timing will greatly influence growth and project delays could cause full-year estimates to be lowered. When construction is completed, we think the project will improve the company's dividend and earnings growth prospects, and benefit the transition towards cleaner energy.

Our bottom-line estimates for 2023 and 2024 are $3.65 and $4.00 a share, respectively. Second-quarter results were released shortly after our report went to press. Southern Company's earnings should continue to benefit from rate relief, higher retail pricing, and increased usage of electricity. Too, we think profit growth will show more acceleration once the nuclear units are completed. Management is targeting a long-term annual earnings-per-share growth target of 5%-7%.

This issue is ranked 4 (Below Average) for Timeliness. Also, at the current quotation, capital appreciation potential over the coming 18 months and out to 2026-2028 does not stand out compared to the *Value Line* median. However, Southern shares may appeal to conservative, income-oriented accounts. Indeed, the stock's dividend yield of 3.9%, which sits above the industry average, remains its most notable feature. The company also holds a strong financial strength rating (A), as well as an Above-Average (2) Safety rank and high marks for Earnings Predictability and Price Stability.

Zachary J. Hodgkinson *August 11, 2023*

(A) Diluted EPS. Excl. nonrec. gain (losses): '09, (25¢); '13, (83¢); '14, (59¢); '15, (25¢); '16, (28¢); '17, ($2.37); '18, (78¢); '19, $1.30; '20, (17¢); '21, (54¢). Next earnings report due in late Oct. **(B)** Div'ds paid in early Mar., June, Sept., and Dec. ■ Div'd reinvestment plan avail. **(C)** Incl. def'd charges. In '22: $19.85/sh. **(D)** In mill. **(E)** Rate base: AL, MS, fair value; FL, GA, orig. cost. Allowed return on common eq. (blended): 12.5%; earned on avg. com. eq., '21: 12.8%. Regulatory Climate: GA, AL Above Average; MS, FL Average.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	45
Earnings Predictability	95

KROLL

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

KROLL

Kroll Recommended
U.S. Equity Risk Premium (ERP) and
Corresponding Risk-free Rates (R_f);
January 2008–Present

For additional information, please visit
kroll.com/cost-of-capital-resource-center

Date	Risk-free Rate (R_f)	R_f (%)	Kroll Recommended U.S. ERP (%)	What Changed
Current Guidance:				
June 8, 2023 – UNTIL FURTHER NOTICE*	Normalized 20-year U.S. Treasury yield*	3.50*	5.50	*ERP*
October 18, 2022 – June 7, 2023	Normalized 20-year U.S. Treasury yield	3.50	6.00	*ERP*
June 16, 2022 – October 17, 2022	Normalized 20-year U.S. Treasury yield	3.50	5.50	*Rf*
April 7, 2022 – June 15, 2022	Normalized 20-year U.S. Treasury yield	3.00	5.50	*Rf*
December 7, 2020 – April 6, 2022	Normalized 20-year U.S. Treasury yield	2.50	5.50	*ERP*
June 30, 2020 – December 6, 2020	Normalized 20-year U.S. Treasury yield	2.50	6.00	*Rf*
March 25, 2020 – June 29, 2020	Normalized 20-year U.S. Treasury yield	3.00	6.00	*ERP*
December 19, 2019 – March 24, 2020	Normalized 20-year U.S. Treasury yield	3.00	5.00	*ERP*
September 30, 2019 – December 18, 2019	Normalized 20-year U.S. Treasury yield	3.00	5.50	R_f
December 31, 2018 – September 29, 2019	Normalized 20-year U.S. Treasury yield	3.50	5.50	*ERP*
September 5, 2017 – December 30, 2018	Normalized 20-year U.S. Treasury yield	3.50	5.00	*ERP*
November 15, 2016 – September 4, 2017	Normalized 20-year U.S. Treasury yield	3.50	5.50	R_f
January 31, 2016 – November 14, 2016	Normalized 20-year U.S. Treasury yield	4.00	5.50	*ERP*
December 31, 2015	Normalized 20-year U.S. Treasury yield	4.00	5.00	
December 31, 2014	Normalized 20-year U.S. Treasury yield	4.00	5.00	
December 31, 2013	Normalized 20-year U.S. Treasury yield	4.00	5.00	
February 28, 2013 – January 30, 2016	Normalized 20-year U.S. Treasury yield	4.00	5.00	*ERP*
December 31, 2012	Normalized 20-year U.S. Treasury yield	4.00	5.50	
January 15, 2012 – February 27, 2013	Normalized 20-year U.S. Treasury yield	4.00	5.50	*ERP*
December 31, 2011	Normalized 20-year U.S. Treasury yield	4.00	6.00	
September 30, 2011 – January 14, 2012	Normalized 20-year U.S. Treasury yield	4.00	6.00	*ERP*
July 1 2011 – September 29, 2011	Normalized 20-year U.S. Treasury yield	4.00	5.50	R_f
June 1, 2011 – June 30, 2011	Spot 20-year U.S. Treasury yield	Spot	5.50	R_f
May 1, 2011 – May 31, 2011	Normalized 20-year U.S. Treasury yield	4.00	5.50	R_f
December 31, 2010	Spot 20-year U.S. Treasury yield	Spot	5.50	
December 1, 2010 – April 30, 2011	Spot 20-year U.S. Treasury yield	Spot	5.50	R_f
June 1, 2010 – November 30, 2010	Normalized 20-year U.S. Treasury yield	4.00	5.50	R_f
December 31, 2009	Spot 20-year U.S. Treasury yield	Spot	5.50	
December 1, 2009 – May 31, 2010	Spot 20-year U.S. Treasury yield	Spot	5.50	*ERP*
June 1, 2009 – November 30, 2009	Spot 20-year U.S. Treasury yield	Spot	6.00	R_f
December 31, 2008	Normalized 20-year U.S. Treasury yield	4.50	6.00	
November 1, 2008 – May 31, 2009	Normalized 20-year U.S. Treasury yield	4.50	6.00	R_f
October 27, 2008 – October 31, 2008	Spot 20-year U.S. Treasury yield	Spot	6.00	*ERP*
January 1, 2008 – October 26, 2008	Spot 20-year U.S. Treasury yield	Spot	5.00	*Initialized*

*** We recommend using the spot 20-year U.S. Treasury yield as the proxy for the risk-free rate, if the prevailing yield as of the valuation date is higher than our recommended U.S. normalized risk-free rate of 3.5%. This guidance is effective when developing USD-denominated discount rates as of June 16, 2022 and thereafter.**

"Normalized" in this context means that in months where the risk-free rate is deemed to be abnormally low, a proxy for a longer-term sustainable risk-free rate is used.

To learn more about cost of capital issues, and to ensure that you are using the most recent Kroll's Global Cost of Capital Inputs, visit kroll.com/cost-of-capital-resource-center.

This and other related resources can also be found in the online Cost of Capital Navigator platform. To learn more about the Cost of Capital Navigator and other Kroll valuation and industry data products, visit kroll.com/costofcapitalnavigator.

UTILITY STOCKS AND THE SIZE EFFECT: AN EMPIRICAL ANALYSIS

Annie Wong*

I. Introduction

The objective of this study is to examine whether the firm size effect exists in the public utility industry. Public utilities are regulated by federal, municipal, and state authorities. Every state has a public service commission with board and varying powers. Often their task is to estimate a fair rate of return to a utility's stockholders in order to determine the rates charged by the utility. The legal principles underlying rate regulation are that "the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks," and that the return to a utility should be sufficient to "attract capital and maintain credit worthiness." However, difficulties arise from the ambiguous interpretation of the legal definition of *fair and reasonable rate of return* to an equity owner.

Some finance researchers have suggested that the Capital Asset Pricing Model (CAPM) should be used in rate regulation because the CAPM beta can serve as a risk measure, thus making risk comparisons possible. This approach is consistent with the spirit of a Supreme Court ruling that equity owners sharing similar level of risk should be compensated by similar rate of return.

The empirical studies of Banz (1981) and Reinganum (1981) showed that small firms tend to earn higher returns than large firms after adjusting for beta. This phenomenon leads to the proposition that firm size is a proxy for omitted risk factors in determining stock returns. Barry and Brown (1984) and Brauer (1986) suggested that the omitted risk factor could be the differential information environment between small and large firms. Their argument is based on the fact that investors often have less publicly available information to assess the future cash flows of small firms than that of large firms. Therefore, an additional risk premium should be included to determine the appropriate rate of return to shareholders of small firms.

The samples used in prior studies are dominated by industrial firms, no one has examined the size effect in public utilities. The objective of this study is to extend the empirical findings of the existing studies by investigating whether the size effect is also present in the utility industry. The findings of this study have important implications for investors, public utility firms, and state regulatory agencies. If the size effect does exist in the utility industry, this would suggest that the size factor should be considered when the CAPM is being used to determine the fair rate of return for public utilities in regulatory proceedings.

II. Information Environment of Public Utilities

In general, utilities differ from industriales in that utilities are heavily regulated and they follow similar accounting procedures. A public utility's financial reporting is mainly regulated by the Securities and Exchange Commission (SEC) and the Federal Energy Regulatory Commission (FERC). Under the Public Utility Holding Company Act of 1935, the SEC is empowered to regulate the holding company systems of electric and gas utilities. The Act requires registration of public utility holding companies with the SEC. Only under strict conditions would the purchase, sale or issuance of securities by these holding companies be permitted. The purpose of the Act is to keep the SEC and investors informed of the financial conditions of these firms. Moreover, the FERC is in charge of the interstate operations of electric and gas companies. It requires utilities to follow the accounting procedures set forth in its Uniform Systems of Accounts. In particular, electric and gas utilities must request their Certified Public Accountants to certify that certain schedules in the financial reports are in conformity with the Commission's accounting requirements. These detailed reports are submitted annually and are open to the public.

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*Western Connecticut State University. The author thanks Philip Perry, Robert Hagerman, Eric Press, the anonymous referee, and Clay Singleton for their helpful comments.

The FERC requires public utilities to keep accurate records of revenues, operating costs, depreciation expenses, and investment in plant and equipment. Specific financial accounting standards for these purposes are also issued by the Financial Accounting Standards Board (FASB). Uniformity is required so that utilities are not subject to different accounting regulations in each of the states in which they operate. The ultimate objective is to achieve comparability in financial reporting so that factual matters are not hidden from the public view by accounting flexibility.

Other regulatory reports tend to provide additional financial information about utilities. For example, utilities are required to file the FERC Form No. 1 with the state commission. This form is designed for state commissions to collect financial and operational information about utilities, and serves as a source for statistical reports published by state commissions.

Unlike industriales, a utility's earnings are predetermined to a certain extent. Before allowed earnings requests are approved, a utility's performance is analyzed in depth by the state commission, interest groups, and other witnesses. This process leads to the disclosure of substantial amount of information.

III. Hypothesis and Objective

Due to the Act of 1935, the Uniform Systems of Accounts, the uniform disclosure requirements, and the predetermined earnings, all utilities are reasonably homogeneous with respect to the information available to the public. Barry and Brown (1984) and Brauer (1986) suggested that the difference of risk-adjusted returns between small and large firms is due to their differential information environment. Assuming that the differential information hypothesis is true, then uniformity of information availability among utility firms would suggest that the size effect should not be observed in the public utility industry. The objective of this paper is to provide a test of the size effect in public utilities.

IV. Methodology

1. Sample and Data

To test for the size effect, a sample of public utilities and a sample of industriales matched by equity value are formed so that their results can be compared. Companies in both samples are listed on the Center for Research in Security Prices (CRSP) Daily and Monthly Returns files. The utility sample includes 152 electric and gas companies. For each utility in the sample, two industrial firms with similar firm size (one is slightly larger and the other is slightly smaller than the utility) are selected. Thus, the industrial sample includes 304 non-regulated firms.

The size variable is defined as the natural logarithm of market value of equity at the beginning of each year. Both the equally-weighted and value-weighted CRSP indices are employed as proxies for the market returns. Daily, weekly and monthly returns are used. The Fama-MacBeth (1973) procedure is utilized to examine the relation between risk-adjusted returns and firm size.

2. Research Design

All utilities in the sample are ranked according to the equity size at the beginning of the year, and the distribution is broken down into deciles. Decile one contains the stocks with the lowest market values while decile ten contains those with the highest market values. These portfolios are denoted by MV_1, MV_2, ..., and MV_{10}, respectively.

The combinations of the ten portfolios are updated annually. In the year after a portfolio is formed, equally-weighted portfolio returns are computed by combining the returns of the component stocks within the portfolio. The betas for each portfolio at year t, $\hat{\beta}_{pt}$'s, are estimated by regressing the previous five years of portfolio returns on market returns:

$$\tilde{R}_{pt} = \alpha_p + \hat{\beta}_{pt}\tilde{R}_{mt} + \tilde{U}_{pt} \qquad (1)$$

where

R_{pt} = periodic return in year t on portfolio p

R_{mt} = periodic market return in year t

U_{pt} = disturbance term.

Banz (1981) applied both the ordinary and generalized least squares regressions to estimate β; and concluded that the results are essentially identical (p.8). Since adjusting for heteroscedasticity does not necessarily lead to more efficient estimators, the ordinary least squares procedures are used in this study to estimate β in equation (1).

The following cross-sectional regression is then run for the portfolios to estimate γ_{it}, i = 0, 1, and 2:

$$R_{pt} = \gamma_{0t} + \gamma_{1t}\hat{\beta}_{pt} + \gamma_{2t}\hat{S}_{pt} + U_{pt} \quad (2)$$

where

$\hat{\beta}_{pt}$ = estimated beta for portfolio p at year t, t=1968, ..., 1987

$\hat{S}_{pt}$ = mean of the logarithm of firm size in portfolio p at the beginning of year t

U_{pt} = disturbance term.

Depending on whether daily, weekly or monthly returns are used, a portfolio's average return changes periodically while its beta and size only change once a year. The γ_1 and γ_2 coefficients are estimated over the following four subperiods: 1968-72, 1973-77, 1978-82 and 1983-1987. If portfolio betas can fully account for the differences in returns, one would expect the average coefficient for the beta variable to be positive and for the size variable to be zero. A t-statistic will be used to test the hypothesis. The coefficients of a matched sample are also examined so that the results between industrial and utility firms can be compared.

V. Analysis of Results

1. Equity Value of the Utility Portfolios

The mean equity values of the ten size-based utility portfolios are reported in Table 1. Panels A and B present the average firm size of these portfolios at the beginning and end of the test period, 1968-1987. The first interesting observation from Table 1 is that the difference in magnitude between the smallest and the largest market value utility portfolios is tremendous. In Panel A, the average size of MV_1 is about \$31 million while that of MV_{10} is over \$1.4 billion. In Panel B, that is twenty years later, they are \$62 million and \$5.2 billion, respectively. Another interesting finding is that there is a substantial increase in average firm size from MV_9 to MV_{10}. Since these two findings are consistent over the entire test period, the average portfolio market values for interim years are not reported. These results are similar to the empirical evidence provided by Reinganum (1981).

The utility sample in this study contains 152 firms whereas Reinganum's sample contains 535 firms that are mainly industrial companies. Two conclusions may be drawn from the results of the Reinganum study and this one. First, utilities and industriales are similar in the sense that their market values vary over a wide spectrum. Second, the fact that there is a huge jump in firm size from MV_9 to MV_{10} indicates that the distribution of firm size is positively skewed. To correct for the skewness problem, the natural logarithm of the mean equity value of each portfolio is calculated. This variable is then used in later regressions instead of the actual mean equity value.

2. Betas of the Utility and Industrial Samples

The betas based on monthly, weekly and daily returns are reported for the utility and industrial samples. For simplicity, they will be referred to as monthly, weekly, and daily betas. In all cases, five years of returns are used to estimate the systematic risk. The betas estimated over the 1963-67 time period are used to proxy for the betas in 1968, which is the beginning of the test period. By the same token, the betas obtained from the time period 1982-86 are used as proxies for the betas in 1987, which is the end of the test period.

The betas from using the equally-weighted and value-weighted indices are calculated in order to check whether the results are affected by the choice of market index. Since the results are similar, only those obtained from the equally-weighted index are reported and analyzed.

Table 2 reports the monthly, weekly and daily betas of the two samples at the beginning and end of the test period. Panel A shows the various betas of the industrial portfolios. Two conclusions may be drawn. First, in the 1960's, smaller market value portfolios tend to have relatively larger betas. This is consistent with the empirical findings by Banz (1981) and Reinganum (1981). Second, this trend seems to vanish in the 1980's, especially when weekly and daily returns are used.

The betas of the utility portfolios are presented in Panel B. The table shows that none of the utility betas are greater than 0.71. A comparison between Panels A and B reveals that utility portfolios are relatively less risky than industrial portfolios after controlling for firm size. The comparison also reveals that, unlike industrial stocks, betas of the utility portfolios are not related to the market values of equity.

The negative correlation between firm size and beta in the industrial sample may introduce a multicolinearity problem in estimating equation (2). Banz (p.11) had addressed this issue and concluded that the test results are not sensitive to the multicolinearity problem. For the utility sample, this problem does not exist.

3. Tests on the Coefficients of Beta and Size

The beta and firm size are used to estimate γ_1 and γ_2 in equation (2). A t-statistic is used to test if the mean values of the gammas are significantly different from zero. The tests were performed for four 5-year periods which are reported in Table 3. The mean of the gammas and their t-statistic are presented in Panel A for the utilities and in Panel B for the industrial firms.

The empirical results for the utility sample are reported in Panel A of Table 3. When monthly returns are used, 60 regressions were run to obtain 60 pairs of gammas for each of the 5-year periods. When daily returns are used, over 1200 regressions were run for each period to obtain the gammas. The results are similar: in all of the time periods tested, none of the average coefficients for beta and size are significantly different from zero. When weekly returns are used, 260 pairs of gammas were obtained. The average coefficients for beta are not significant in any test period, and the average coefficients for size are not significant in three of the test periods. For the test period of 1978-82, the average coefficient for size is significantly negative at a 5% level.

The test results for the industrial sample are reported in Panel B of Table 3. When monthly returns are used, the average coefficient estimates for size and beta are significant and have the expected sign only in the 1983-87 test period. When weekly returns are used, only the size variable is significantly negative in the 1978-82 period. When daily returns are used, the coefficient estimates for betas and size are not significant at any conventional level.

According to the CAPM, beta is the sole determinant of stock returns. It is expected that the coefficient for beta is significantly positive. However, the empirical findings reported in this study and in Fama and French (1992) only provide weak support for beta in explaining stock returns. The empirical findings in this study also suggest that the size effect varies over time. It is not unusual to document the firm size effect at certain time periods but not at others. Banz (1981) found that the size effect is not stable over time with substantial differences in the magnitude of the coefficient of the size factor (p.9, Table 1). Brown, Kleidon and Marsh (1983) not only have shown that size effect is not constant over time but also have reported a reversal of the size anomaly for certain years.

The research design of this study allows us to keep the sample, test period, and methodology the same with the holding-period being the only variable. The size effect is documented for the industrial sample in one of the four test periods when monthly returns are used and in another when weekly returns are used. When daily returns are used, no size effect is observed. For the utility sample, the size effect is significant in only one test period when weekly returns are used. When monthly and daily returns are used, no size effect is found. Therefore, this study concludes that the size effect is not only time-period specific but also holding-period specific.

VI. Concluding Remarks

The fact that the two samples show different, though weak, results indicates that utility and industrial stocks do not share the same characteristics. First, given firm size, utility stocks are consistently less risky than industrial stocks. Second, industrial betas tend to decrease with firm size but utility betas do not. These findings may be attributed to the fact that all public utilities operate in an environment with regional monopolistic power and regulated financial structure. As a result, the business and financial risks are very similar among the utilities regardless of their sizes. Therefore, utility betas would not necessarily be expected to be related to firm size.

The objective of this study is to examine if the size effect exists in the utility industry. After controlling for equity values, there is some weak evidence that firm size is a missing factor from the CAPM for the industrial but not for the utility stocks. This implies that although the size phenomenon has been strongly documented for the industriales, the findings suggest that there is no need to adjust for the firm size in utility rate regulations.

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Table 1

Average Equity Size of the Utility Portfolios at the Beginning and End of the Test Period
(Dollar figures in millions)

	A: Beginning (1968)	B: End (1987)
MV_1	$31	$62
MV_2	$77	$177
MV_3	$113	$334
MV_4	$161	$475
MV_5	$220	$715
MV_6	$334	$957
MV_7	$437	$1,279
MV_8	$505	$1,805
MV_9	$791	$2,665
MV_{10}	$1,447	$5,399

Table 2

Betas of the Two Samples at the Beginning and End of the Test Period

	Monthly Betas		Weekly Betas		Daily Betas	
	1963-67	1982-86	1963-67	1982-86	1963-67	1982-86
Panel A: Industrial Firms						
MV_1	0.89	1.00	1.15	0.95	1.11	0.92
MV_2	0.94	0.87	1.07	1.01	1.14	1.01
MV_3	0.88	0.82	1.12	0.86	1.14	1.04
MV_4	0.69	0.74	1.00	0.83	1.03	0.86
MV_5	0.73	0.80	1.05	0.96	1.13	1.01
MV_6	0.66	0.82	1.03	1.01	1.05	1.04
MV_7	0.64	0.81	0.97	1.04	0.98	1.09
MV_8	0.62	0.75	0.97	1.11	1.00	1.20
MV_9	0.52	0.78	0.84	1.06	0.94	1.16
MV_{10}	0.43	0.65	0.78	1.01	0.86	1.22
Panel B: Public Utilities						
MV_1	0.30	0.37	0.31	0.43	0.30	0.40
MV_2	0.28	0.38	0.37	0.47	0.36	0.44
MV_3	0.22	0.42	0.33	0.42	0.31	0.49
MV_4	0.27	0.35	0.36	0.52	0.34	0.54
MV_5	0.25	0.45	0.37	0.61	0.35	0.62
MV_6	0.25	0.41	0.39	0.54	0.40	0.65
MV_7	0.20	0.35	0.34	0.54	0.37	0.63
MV_8	0.17	0.38	0.34	0.65	0.33	0.68
MV_9	0.19	0.34	0.35	0.60	0.34	0.71
MV_{10}	0.18	0.29	0.38	0.59	0.39	0.71

Table 3

Tests on the Mean Coefficients of Beta (γ_1) and Size (γ_2)

$$R_{pt} = \gamma_{ot} + \gamma_{1t}\hat{\beta}_{pt} + \gamma_{2t}\hat{S}_{pt} + U_{pt}$$

Returns Used:		Monthly (t-value)	Weekly (t-value)	Daily (t-value)
Panel A: Utility Sample				
1968-72	γ_1	-0.46% (-0.26)	-0.32% (-0.42)	-0.02% (-0.18)
	γ_2	-0.07% (-0.78)	-0.01% (-0.51)	-0.00% (-0.46)
1973-77	γ_1	-0.28% (-0.13)	0.14% (0.14)	-0.03% (-0.21)
	γ_2	-0.11% (-0.70)	-0.03% (-0.67)	-0.00% (-0.53)
1978-82	γ_1	0.55% (0.36)	0.54% (1.00)	0.05% (0.43)
	γ_2	-0.10% (-0.75)	-0.05% (-1.71)*	-0.01% (-1.60)
1983-87	γ_1	1.74% (1.28)	-0.24% (-0.51)	-0.02% (-0.18)
	γ_2	-0.16% (-1.54)	-0.03% (-0.86)	-0.01% (-0.63)
Panel B: Industrial Sample				
1968-72	γ_1	-0.36% (-0.27)	-0.28% (-0.55)	-0.02% (-0.32)
	γ_2	0.07% (0.43)	-0.01% (-0.19)	0.00% (0.51)
1973-77	γ_1	1.34% (0.64)	-0.23% (-0.31)	0.14% (1.45)
	γ_2	-0.01% (-0.06)	-0.04% (-0.85)	-0.00% (-0.64)
1978-82	γ_1	-0.84% (-0.28)	-0.56% (-0.91)	-0.09% (-0.81)
	γ_2	-0.29% (-0.75)	-0.01% (-1.72)*	-0.00% (-1.33)
1983-87	γ_1	2.51% (1.83)*	0.34% (0.64)	0.11% (1.40)
	γ_2	-0.25% (-1.90)*	-0.01% (-0.43)	0.00% (0.14)

* Significant at the 5% level based on a one-tailed test.

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
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_______10-12-2023____________________

Date

This is to certify that a copy of the ***Indiana Office of Utility Consumer Counselor's Testimony of Leja D. Courter*** has been served upon the following parties of record in the captioned proceeding by electronic service on October 12, 2023.

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