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Exhibit No.:	<u>Liberty-16</u>
Witnesses:	<u>Thomas J. Bourassa</u>



(U 933-E)

2025 General Rate Case

Before the California Public Utilities Commission

Rebuttal Testimony of Thomas J. Bourassa, CPA

Cost of Capital and Rate of Return

Tahoe Vista, California

July 24, 2025

Liberty CalPeco: Cost of Capital

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1 **I. INTRODUCTION AND SUMMARY**

2 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

3 A. My name is Thomas J. Bourassa. My business address is 139 W. Wood Drive, Phoenix,
4 Arizona 85029. I am an independent certified public accountant licensed in the State of
5 Arizona and my principal business activity is providing consulting services to regulated
6 utilities in the areas of cost of service, rate design, and cost of capital.

7 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

8 A. I am testifying on behalf of Liberty Utilities (CalPeco Electric) LLC (“Liberty” or the
9 “Company”)

10 **Q. ARE YOU THE SAME THOMAS J. BOURASSA THAT PROVIDED DIRECT**
11 **TESTIMONY ON THE COST OF CAPITAL IN THIS CASE?**

12 A. Yes.

13 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

14 A. I am responding to the direct testimony and recommendations of the Public Advocates
15 Office (“Cal Advocates”) regarding Liberty’s proposed Cost of Equity (“COE”) or return
16 on equity (“ROE”).

17 **Q. PLEASE BRIEFLY DESCRIBE THE EXHIBITS ACCOMPANYING YOUR**
18 **TESTIMONY.**

19 A. I have attached Exhibits TJB-1 through TJB-7. Exhibit TJB-1 contains updated cost of
20 capital analyses (Tables 1 through 11) based on more current data since the analyses
21 included with my direct testimony were prepared over a year ago. Exhibit TJB-2 contains
22 an analysis of capital structure for small and large utilities that supports Liberty’s
23 recommended capital structure. Exhibit TJB-3 contains the updated risk study I prepared
24 for Liberty. Exhibit TJB-4 contains an updated size study for the electric proxy group and
25 Liberty. Exhibit TJB-5 contains the *Blue Chip Financial Forecasts* (Vol. 44, No. 6, June
26 2, 2025) – Long-Range Survey. A copy of the most recent *Value Line* report on the electric
27 industry along with each electric utility in my proxy group is attached as Exhibit TJB-6.

Exhibit TJB-6 contains information on electric utility bond ratings and beta. Exhibit TJB-7 contains information about small versus large utilities over the past 10 years.

Q. PLEASE DESCRIBE HOW YOUR TESTIMONY IS ORGANIZED.

A. Section I summarizes the findings from my updated analysis based on more recent data. In Section II, I discuss the cost of capital analysis performed by Cal Advocates witness Dr. Woolridge, his recommendations, and my concerns over the inputs to his models. In Section III, I respond to criticisms of my analysis from Cal Advocates. Finally, in Section IVI, I summarize my rebuttal testimony and present a summary of the equity costs of the proxy group and Liberty.

Q. PLEASE SUMMARIZE YOUR UPDATED FINDINGS CONCERNING LIBERTY'S COST OF COMMON EQUITY.

A. Based on the updated analysis, I have determined that the COE for the publicly traded electric utilities falls in the range of 9.7 percent to 11.5 percent with the midpoint of the range at 10.6 percent. My updated risk study indicates a risk premium for Liberty in the range of 50 to 70 basis points. In comparison, in my direct analysis I determined the COE range of 9.7 to 11.3 percent (same mid-point of 10.6 percent) and a risk premium of 40 basis points. I continue to recommend a 40 basis point risk premium for Liberty over the proxy group and the adoption of an ROE of 11.0 percent for Liberty.¹

My recommendation continues to be based on consideration of COE estimates using the Discounted Cash Flow ("DCF") and three Risk Premium ("RP") approaches, including the Capital Asset Pricing Model ("CAPM"). All three are market-based methodologies and are designed to estimate the return required by investors on the common equity capital committed to Liberty. I have applied the aforementioned methodologies to the same sample group of publicly traded electric utilities discussed in my direct testimony.

My recommended ROE continues to be based upon the Commission adoption of a 52.5 percent common equity and a 47.5 debt capital structure for ratemaking purposes.

¹ See Table 1 of Exhibit TJB-1.

1 **Q. IS A 47.5 PERCENT DEBT AND 52.5 PERCENT EQUITY CAPITAL**
2 **STRUCTURE APPROPRIATE FOR LIBERTY?**

3 A. Yes. Aside from being the previously approved capital structure, the proposed capital
4 structure is similar to the capital structures of smaller utilities. As shown in Exhibit TJB-
5 2, small electric utilities have on average 56.2 percent equity in their capital structure. The
6 56.2 percent equity is somewhat higher than Liberty's recommended 52.5 percent equity.
7 Because the sample of electric utilities only contains 4 out of 30 small companies, I
8 expanded my analysis to include water and gas utilities. Similarly, Exhibit TJB-2 shows
9 that small water, gas, and electric utilities, have on average 54.5 percent equity, still higher
10 than Liberty's recommended 52.5 percent equity.

11 **Q. WHAT IS THE COMPANY'S PROPOSED COST OF DEBT?**

12 A. 5.87 percent. This is based upon Liberty's most recent long-term debt financing request,
13 as well as the estimated costs of an additional existing long-term debt.

14 **Q. WHAT IS YOUR RECOMMENDATION FOR THE WEIGHTED AVERAGE**
15 **COST OF CAPITAL?**

16 A. Based upon Liberty's proposed capital structure of 47.5 percent debt and 52.5 percent
17 equity, Liberty should have a cost of debt of 5.87 percent and a COE of 11.00 percent. The
18 WACC is 8.56 percent (rounded) as shown in Figure 1.

19 **Figure 1**

	Ratio	Rate	Weighted Cost
Debt	47.5%	5.87%	2.79%
Equity	52.5%	11.00%	5.78%
Weighted Average			8.56%

20 **II. CAL ADVOCATES' COST OF CAPITAL ANALYSIS AND**
21 **RECOMMENDATIONS.**

22 **Q. PLEASE SUMMARIZE CAL ADVOCATES' CAPITAL STRUCTURE**

RECOMMENDATION, THE COST OF DEBT, THE COE, AND THE WACC.

A. Cal Advocates recommends a capital structure consisting of 50 percent equity and 50 percent debt with a debt cost of 5.87 percent, an equity cost of 9.50 percent, and a WACC of 7.69 percent.² Dr. Woolridge recommends a common equity ratio of 50 percent, and to recognize Liberty's slightly higher investment risk, he recommends a COE of 9.5 percent. Dr. Woolridge lowers his COE recommendation to 9.25 percent if his 50 percent equity recommendation is not adopted.³ If the Commission rejects Cal Advocates' recommendation and adopts Liberty's recommendation, Cal Advocates recommends a 9.25 percent COE, resulting in a WACC of 7.65 percent.⁴

Q. IS DR. WOOLRIDGE'S 25 BASIS POINT REDUCTION IN HIS COE RECOMMENDATION IF LIBERTY'S CAPITAL STRUCTURE IS ADOPTED ATTRIBUTABLE TO HIS APPLICATION OF LOWER FINANCIAL RISK?

A. Yes.⁵ To arrive at his recommendation for the COE, Dr. Woolridge considers two models, a constant growth discounted cash flow model ("DCF") and the traditional capital asset pricing model ("CAPM"). His results are in the range of 8.89 percent to 9.6 percent; the result for his DCF is 9.6 percent, and the result for his CAPM is 8.89 percent.⁶ The mid-point is 9.25 percent (rounded). Based upon the foregoing, Dr. Woolridge believes the cost of common equity for the proxy group is in the range of 9.0 percent to 9.5 percent.⁷

Q. IS CAL ADVOCATES' RECOMMENDATION FOR A 50 PERCENT DEBT AND 50 PERCENT EQUITY CAPITAL STRUCTURE WARRANTED?

A. No, not based upon my earlier testimony. Liberty's recommended capital structure contains slightly more debt and less equity than the average small electric utility and closer

² See Direct Testimony of J.R. Woolridge, PhD ("Woolridge Dt.") at 4, 51.

³ Woolridge Dt. at 51.

⁴ Woolridge at 4.

⁵ Woolridge at 5.

⁶ Woolridge Dt. at 51.

⁷ Woolridge Dt. at 51.

1 to the average for small electric, gas, and water utilities.⁸ Liberty's recommended capital
2 structure, while more leveraged than the average small electric utility, is still much closer
3 to the average small electric utility when compared to the average large electric utility.
4 This suggests Liberty's capital structure recommendation is reasonable given its size.

5 **Q. IS A FINANCIAL RISK ADJUSTMENT WARRANTED IF LIBERTY'S**
6 **RECOMMENDED CAPITAL STRUCTURE IS USED?**

7 A. No. If you consider that the average debt level of the average small electric utility of 43.8
8 percent is less than Liberty's recommended 47.5 percent and that the betas of smaller
9 electric utilities are at least as great, if not greater, than those of large electric utilities, there
10 is a case for higher financial risk from Liberty's recommended capital structure rather than
11 lower financial risk.⁹

12 While I do not believe a financial risk adjustment is necessary in this case, if the
13 conclusion by the Commission is that there is lower financial risk associated with Liberty's
14 recommended capital structure, then Liberty's higher business risk should also be
15 recognized. These two adjustments would offset each other. My updated risk study
16 indicates a 50 to 70 basis point risk premium for Liberty over the proxy group.¹⁰ Using the
17 mid-point of the range for the risk premium of 60 basis points and subtracting Dr.
18 Woolridge's financial risk adjustment of -25 basis points, the net adjustment to the proxy
19 group COE would be +35 basis points, which aligns with the +40 basis point risk premium
20 reflected in my 11.0 percent recommendation for Liberty.

21 **Q. DR. WOOLRIDGE (ON PAGE 5) TESTIFIES THAT THE COMPANY'S**
22 **INVESTMENT RISK IS ABOVE THE PROXY GROUPS BASED UPON BOND**
23 **RATINGS OF THE COMPANY AND AVERAGE BOND RATING OF THE**

⁸ See Exhibit TJB-2. A similar conclusion can be made for electric, gas, and water utilities.

⁹ Financial risk is a component of the equity risk premium ("ERP"). Beta times the Market Risk Premium determines the ERP in the traditional CAPM.

¹⁰ See Exhibit TJB-3.

PROXY GROUPS. PLEASE COMMENT.

A. Dr. Woolridge conflates the investment risk between Liberty's investor, LU Co., and its investment, Liberty. Liberty is not LU Co. Liberty does not have a bond rating. That said, I agree that LU Co.'s investment risk is slightly above the proxy groups. The fact that Liberty is much smaller, much less diversified, and has higher business risk, suggests Liberty's bond rating should be lower than LU Co., making the investment risk for Liberty higher.

Q. SHOULD BOND RATINGS ALONE BE USED TO DETERMINE HIGHER INVESTMENT RISK?

A. No. Bond ratings are a qualitative measure, and they should be evaluated with other metrics. Bond rating classes are broad, and investors still have a wide range of issues to evaluate in assessing investment risk. Investors in companies with the same bond rating do not necessarily require the same expected return. Electric utilities with the same bond ratings have different betas. For example, Public Service Enterprise (PEG) and CME Energy Corp. (CMS) both have an S&P bond rating of BBB+, but their Value Line betas are 0.85 and 0.70, respectively.¹¹ The difference in beta (0.85 less 0.70) translates to an 80 to 100 basis point difference in the CAPM COE estimate depending on the estimate of the MRP.¹² There are other numerous examples. In at least one instance, a utility with a higher bond rating has a higher beta than a utility with a lower bond rating. For example, NextEra Energy, Inc. (NEE) has an S&P bond rating of A- and a beta of 0.90, whereas Duke Energy (DUK) has an S&P bond rating of BBB+ and a beta of 0.65. The difference in beta of .25 (0.90 less 0.65) translates to an 130 to 164 basis point difference in the CAPM COE estimate depending on the estimate of the MRP.¹³

¹¹ See Exhibit TJB-6.

¹² Using a MRP of 5.25%, the 0.15 difference in beta translates to 0.79% or 79 basis points (5.25% X 0.15) and using a MRP of 6.57%, the 0.15 difference in beta translates to 0.99% or 99 basis points (6.57% X 0.15).

¹³ Using a MRP of 5.25%, the 0.25 difference in beta translates to 1.31% or 131 basis points (5.25% X 0.25) and using a MRP of 6.57%, the 0.25 difference in beta translates to 1.64% or 164 basis points (6.57% X 0.25).

Also, bond ratings are not very discriminating when the vast majority of the rate bonds for utilities are included in the BBB and BBB+ classifications.¹⁴

Q. PLEASE SUMMARIZE THE DCF MODEL EMPLOYED BY CAL ADVOCATES IN ITS COST OF CAPITAL ANALYSIS.

A. Dr. Woolridge also uses a constant growth DCF model. For the dividend yield (D_1), Dr. Woolridge computes D_1 as $D_0 \times (1 + \text{the growth rate } (g)/2)$, also as I do.¹⁵ For the growth rate (g), Dr. Woolridge reviewed both historical and projected growth rates (earnings per Share (“EPS”), dividends per share (“DPS”), and book value per share (“BVPS”) as well as sustainable growth.¹⁶ His estimate for the growth rate for his proxy group is 6.1%. The result of his DCF model is 9.5 percent.

Q. WHAT CONCERNS DO YOU HAVE ABOUT THE INPUTS TO THE DCF MODEL?

A. I am concerned about the use of historical growth estimates EPS, DPS, and BVPS as well as the use of retention growth. Empirical evidence shows that historical growth rates performed poorly compared to analyst estimates of EPS growth.¹⁷ Retention growth as it is an inherently circular growth rate.¹⁸ Further, the empirical finance literature demonstrates that the sustainable growth method of determining growth is not as significantly correlated to measures of value.¹⁹

Q. HOW DOES YOUR DCF RESULT COMPARE TO DR. WOOLRIDGE’S?

A. My DCF result is 10.0 percent²⁰ while Dr. Woolridge’s DCF result is 9.6 percent.

Q. PLEASE SUMMARIZE THE CAPM MODEL EMPLOYED BY CAL

¹⁴ Morin, Roger A. *Modern Regulatory Finance*, Public Utility Reports, Inc., 2021. 103. (“Morin”)

¹⁵ See Direct Testimony of Thomas J. Bourassa (“Bourassa Dt.”) at 32.

¹⁶ Woolridge Dt. at 6. See also Exhibit JRW-5, page 6 of 6.

¹⁷ Bourassa Dt. at 34.

¹⁸ Bourassa Dt. at 33.

¹⁹ Bourassa Dt. at 33.

²⁰ See Exhibit TJB-1, Table 6.

ADVOCATES IN ITS COST OF CAPITAL ANALYSIS.

A. Dr. Woolridge employs a traditional CAPM. The results are summarized in Exhibit JRW 6, page 1 of 7, to his testimony. He uses a risk-free rate of 4.9 percent based upon a recent yield on a 30-year U.S. Treasury,²¹ a median beta of 0.76 based upon his proxy group,²² and a market risk premium (“MRP”) of 5.25 percent based upon a review of MRP estimates provided in Exhibit JRW-6.²³ Dr. Woolridge believes the MRP is in the range of 5.0 percent to 5.50 percent at this time.²⁴ Based upon the foregoing, his CAPM result is 8.89 percent.²⁵

Q. WHAT CONCERNS DO YOU HAVE ON DR. WOOLRIDGE’S CAPM?

A. I have concerns about his MRP estimate. Dr. Woolridge states that, given the recent reported MRPs of Kroll (conditional ERP of 5.50 percent), Fernandez survey (5.5 percent), and Duke-CFO survey (5.20 percent) estimates, he believes the MRPs are in the range of 5.0 percent to 5.5 percent.²⁶

The Kroll MRP is a conditional MRP according to Kroll. The Kroll estimate is neither replicable nor transparent and appears to be driven by judgment calls may not clearly reflect wide consensus. They also appear to reflect a geometric mean based on a holding period, which should not be used in cost of capital estimates.

Q. WHAT ABOUT THE FERNANDEZ SURVEY AND THE DUKE-CFO SURVEY?

A. Surveys are subject to shortcomings, including that the return definitions and risk premium definitions varying widely, are subject to bias, and are generally subjective.²⁷ Dr. Damodaran, in his 2024 update to equity risk premiums, notes that, while survey premiums

²¹ Woolridge Dt. at 42.

²² Woolridge Dt. at 44.

²³ Woolridge Dt. at 50.

²⁴ Woolridge Dt. at 50.

²⁵ Woolridge Dt. at 50.

²⁶ Woolridge Dt. at 50.

²⁷ Morin, p. 186.

1 have become more accessible, few practitioners are inclined to use the numbers from these
2 surveys in computations.²⁸ He notes that there are several reasons for this, including that
3 survey premiums are sensitive not only to whom the question is directed at, but how the
4 question is asked. Survey responses are responsive to recent stock price movements
5 generally increasing after bullish periods and decreasing after market decline, and the
6 studies that have looked at the efficacy of survey premiums indicate that, if they have any
7 predictive power, it is in the wrong direction.²⁹ In short, Dr. Woolridge should not
8 incorporate these survey results for the foregoing reasons.

9 **Q. PLEASE COMMENT ON THE VARIOUS OTHER MRP ESTIMATES LISTED IN**
10 **EXHIBIT JRW-6, PAGES 5 AND 6.**

11 A. The vast majority of these estimates are geometric mean estimates. Further, a vast majority
12 are not recent and should not be used. A number of the other MRP estimates are based
13 upon surveys and projections.

14 Projection estimates that use an implied equity MRP model, like the one employed by
15 Professor Damodaran (2025) and KPMG (2025), derive the equity MRP from the current
16 level of the S&P 500 index and expected future cash flows, estimating a compounded
17 average equity risk premium over the long term. The equity risk premium estimate at the
18 start of the year is the geometric average of the annualized equity risk premiums in future
19 years. Put simply, MRP estimates using implied equity risk premium methods are
20 geometric means, which should not be used in cost of capital estimates.³⁰

21 Projections from J.P. Morgan (2025) appear to be based upon forecasted equity return
22 and current bond rate. In other words, J.P. Morgan appears to employ an implied equity
23 MRP model and is a geometric mean. The resulting 3.90 percent risk premium is
24 implausibly low, especially when compared to Dr. Woolridge's expressed belief that the

²⁸ Damodaran, Aswath, "*Equity Risk Premiums (ERP): Determinants, Estimation, and Implications – The 2024 Edition*", Updated: March 5, 2024, Stern School of Business, p. 30.

²⁹ Damodaran, p. 30.

³⁰ Bourassa Dt. at 37-38.

1 current MRP falls in the range of 5.0 percent to 5.5 percent.³¹

2 **Q. HOW DOES DR. WOOLRIDGE’S CAPM RESULT COMPARE TO YOUR CAPM**
3 **RESULTS?**

4 A. Dr. Woolridge’s CAPM result is 8.98 percent.³² My average CAPM result is 9.7 percent,
5 reflecting my traditional CAPM (9.3 percent), ECAPM (9.7 percent), and MCAPM (10.2
6 percent). Because I use multiple versions of the CAPM, my CAPM results provide more
7 insight to the COE than does the use of the traditional CAPM alone.

8 **III. RESPONSE TO CAL ADVOCATES’ CRITICISMS OF LIBERTY’S COST OF**
9 **CAPITAL ANALYSIS AND RECOMMENDATIONS.**

10 **Q. DR. WOOLRIDGE (ON PAGES 53 AND 54) ASSERTS THAT YOUR GROWTH**
11 **RATE FOR THE DCF CONTAINS ERRORS BECAUSE YOU EXCLUSIVELY**
12 **RELY ON ANALYST ESTIMATES OF GROWTH. PLEASE RESPOND.**

13 A. Analyst estimates of growth remain the best measure of growth for DCF applications for
14 electric utilities.³³ There is an abundance of empirical research demonstrating the validity
15 and superiority of earnings forecasts relative to historical estimates when estimating the
16 cost of capital. As I noted in my direct testimony, “to the extent that past results provide
17 useful indications of future growth prospects, analysts’ forecasts would already incorporate
18 that information. In addition, the current price of a stock reflects known historic
19 information on that entity, including its past earnings history. Any further recognition of
20 the past will **double count** what has already occurred.³⁴ Therefore, forward-looking
21 growth rates should be used.” [emphasis added]

22 **Q. ARE ANALYST EPS GROWTH ESTIMATES OVERLY OPTIMISTIC AND**
23 **UPWARDLY BIASED?**

³¹ Woolridge Dt at 50.

³² Woolridge at 51.

³³ Bourassa Dt. at 34.

³⁴ Bourassa Dt at 33.

1 A. No. Putting aside that analyst estimates of growth out-perform historical estimates using
2 EPS, DPS, BVPS, and retention growth, the accuracy of analyst estimates “in the sense of
3 whether they turn out to be correct is not the issue here, as long as they reflect widely held
4 expectations.”³⁵ Further, because of structural changes that have occurred or are expected
5 to occur in the electric industry, the reliance on historical growth rates do not properly
6 reflect such changes and, therefore, have questionable relevance as proxies for future
7 growth.³⁶

8 **Q. DOES DR. WOOLRIDGE’S STUDY (ON PAGE 36) ON EPS GROWTH RATES**
9 **(FORECAST VERSUS ACTUAL) CONVINCE YOU THAT ANALYST**
10 **ESTIMATES OF EPS GROWTH ARE OVERLY OPTIMISTIC AND UPWARDLY**
11 **BIASED?**

12 A. No. Dr. Woolridge’s study does not provide any insight into whether historical EPS growth
13 estimates would have performed any better than analyst estimates for electric utilities. Dr.
14 Woolridge does not account for significant and unforeseen economic events that have
15 occurred during the time period studied, such as the market crash of 1987, the dot-com
16 bubble (1997-2000), the financial crisis of 2008, and the pandemic of 2020. Because these
17 events, and perhaps others, were unforeseen at the time analysts made their forecasts, that
18 does not make analyst estimates overly optimistic or upwardly biased. Again, the accuracy
19 of forecasts is not at issue. It is whether EPS growth forecasts influence investors when
20 pricing stocks at the time those forecasts were made. If a growth estimate turns out to be
21 lower, then the market price of the stock will be lower and the dividend yield will be higher,
22 but the COE will not change.

23 **Q. WHAT ABOUT THE STUDY DR. WOOLRIDGE CITES (ON PAGE 54)**
24 **REGARDING VALUE LINE’S LONG-TERM PROJECTIONS?**

³⁵ Morin, p. 371.

³⁶ Morin, p. 370.

1 A. My comments would be similar to Dr. Woolridge's study discussed above. The authors of
2 the study (Szakmary, Conover, and Lancaster), like Dr. Woolridge, did not examine the
3 performance of historical EPS, DPS, and BVPS growth estimates and whether they
4 performed better or worse than analysts' EPS growth estimates for the DCF for electric
5 utilities.

6 **Q. DR. WOOLRIDGE (ON PAGE 55) ASSERTS THAT YOU ERRED IN APPLYING**
7 **THE CAPM BY USING THE ECAPM AND MCAPM. PLEASE COMMENT.**

8 A. I explained the basis for my use of the ECAPM and MCAPM in my direct testimony and
9 will not repeat that testimony here.³⁷ In short, the ECAPM makes use of empirical findings
10 of the shortcomings of the CAPM and can be viewed as a practical adjustment that can be
11 made when estimating the cost of capital.³⁸

12 **Q. HAVE REGULATORS RELIED ON THE ECAPM?**

13 A. Yes, both regulatory staff and commissions themselves have relied on the ECAPM, as
14 noted by Dr. Morin.³⁹

15 **Q. DOES THE USE OF ADJUSTED BETAS ADDRESS THE EMPIRICAL ISSUES**
16 **OF THE CAPM AS SUGGESTED BY DR. WOOLRIDGE (ON PAGE 56)?**

17 A. No. The use of adjusted betas in the CAPM is not equivalent to the ECAPM.⁴⁰ The use of
18 an adjusted beta in the CAPM addresses the fact that betas regress toward one over time.
19 The ECAPM corrects for the fact that the CAPM under-predicts observed returns when
20 beta is less than one and over-predicts returns when beta is greater than one.⁴¹

³⁷ Bourassa Dt. at 40.

³⁸ Villadsen, B. Vilbert, M.J, Harris, D, and Kolbe, A.L., *Risk and Return for Regulated Industries*, The Brattle Group, Elsevier Academic Press, 2017, p.. 84. *See also*, Morin, pp. 220-223.

³⁹ Morin, pp. 225-226. Regulators from the Maryland Public Service Commission, the Regulatory Commission of Alaska, the Colorado Public Utilities Commission, the Wyoming Public Service Commission, the State of New York Public Service Commission, and the Mississippi Public Service Commission.

⁴⁰ Morin, p. 223.

⁴¹ Morin, p. 225.

1 **Q. DR. WOOLRIDGE (ON PAGE 56) ASSERTS THAT THE SIZE PREMIUM IN**
2 **THE MCAPM IS NOT SUPPORTABLE BASED ON STUDIES THAT THE SIZE**
3 **EFFECT HAS DISAPPEARED IN THE MARKETS. PLEASE RESPOND.**

4 A. I disagree. A more recent study than those discussed by Dr. Woolridge in his testimony⁴²
5 by Asness, Israel, Moskowitz, and Pedersen found that the size effect matters in a much
6 bigger way than previously thought.⁴³ The size premium has not disappeared. The study
7 found that “after controlling for junk, a much stronger and stable size premium emerges
8 that is robust across time (including periods when the size effect seems to fail), monotonic
9 in size and not concentrated in the extremes, prevalent across months of the year, existent
10 even for non-market-price-based measures of size, and present internationally across nearly
11 two dozen countries.”⁴⁴

12 Another study from 2018 concludes that academic and empirical evidence indicates
13 that the pure textbook CAPM is an imperfect indicator of expected returns. Until better
14 models become more accepted and easier for the valuation professional to use, the
15 MCAPM will likely continue to be widely used by valuation professionals.⁴⁵

16 **Q. DOES THE ANNIE WONG STUDY THAT DR. WOOLRIDGE CITES AND**
17 **DISCUSSES (ON PAGE 67) SUPPORT THE CONCLUSION THAT THERE IS NO**
18 **SIZE EFFECT FOR UTILITIES?**

19 A. No. Ms. Wong’s study has been criticized soundly: “[her] weak evidence provides little
20 support for a small firm effect existing or not existing in either the industrial or the utility
21 sector.”⁴⁶ Dr. Zepp found that Ms. Wong’s empirical results were not strong enough to

⁴² Woolridge Dt. at 66-78.

⁴³ Asness, Clifford S., Andrea Frazzini, Ronen Israel, Tobias J. Moskowitz, and Lasse Heje Pedersen, “Size Matters, If You Control Your Junk,” *Journal of Financial Economics* 129 (2018): 479-509.

⁴⁴ Asness, et. al., p. 507.

⁴⁵ Roger J. Grabowski, “The Size Effect – It is Still Relevant,” *Business Valuation Review* 35 (2) 2016: 62-71; data is presented from 1990 through 2014.

⁴⁶ Zepp, Thomas M., “Utility Stocks and the Size Effect – Revisited,” *The Quarterly Review Economics and Finance*, Vol. 43, Issue 3, Autumn 2003, pp. 578 – 582.

1 conclude that beta risk of utilities is unrelated to size; he found that her use of monthly,
2 weekly, and daily data may be the cause of her inability to find a relationship; and he found
3 other studies that show trading infrequency to be a powerful cause of bias in beta risk when
4 time intervals of a month or less are used to estimate beta's for small stocks.⁴⁷ The studies
5 relied on in Mr. Zepp's published paper found, "when a stock is thinly traded, its stock
6 price does not reflect the movement of the market, which drives down the covariance with
7 the market and creates an artificially low beta estimate."⁴⁸ Thus, Ms. Wong's weak results
8 were due to a flawed analysis.

9 **Q. DO YOU HAVE ADDITIONAL EVIDENCE THAT A SIZE PREMIUM EXISTS**
10 **FOR UTILITIES?**

11 A. Yes. I prepared an analysis that compares average annual returns predicted by the
12 traditional CAPM with the average actual returns for utilities for the years 2014 to 2023
13 (10 years). As shown in Exhibit TJB-7, the average difference (or "excess return") between
14 the actual returns and the predicted returns for the small utilities (Micro-Cap and Low-Cap)
15 and the large utilities (Mid-Cap and Large-Cap) is +1.02 percent. The difference in the
16 average betas required to explain the difference in the returns (the "true beta") between
17 small utilities and large utilities is 0.14 percent. In other words, the "true beta" is higher
18 for small utilities than large utilities. The 0.14 percent difference in the betas suggests a
19 small company risk premium of 102 basis points.⁴⁹

20 **Q. IS YOUR HISTORICAL MARKET RISK PREMIUM ESTIMATE**
21 **OVERSTATED?**

22 A. No, I disagree with Dr. Woolridge.⁵⁰ In my view, historical risk premiums measured over
23 long periods of time are not erroneous or overstated. It is true that historical risk premiums

⁴⁷ Zepp at 579.

⁴⁸ Zepp at 579.

⁴⁹ The average MRP over the 10 year is 7.09 percent times 0.18 percent equals 1.27 percent.

⁵⁰ Woolridge Dt. at 57.

are higher than can be justified by conventional economic models. Thus, the equity risk premium puzzle.⁵¹ A number of theoretical tools have been presented by economists and researchers to “solve” the puzzle, but no one solution is generally accepted by economists. The disparity between equity returns and government bonds might say more about the conventional models than whether historical risk premiums are overstated and should not be used.

Q. DOES LONG-TERM MRPS HAVE ISSUES OF CENTRAL TENDENCY?

A. No. Central tendency refers to mean reversion - that stock returns to revert to a trend. As Dr. Morin reports:

The weight of empirical evidence on this issue is that the more sophisticated tests of mean reversion in the MRP demonstrate that the realized MRP over the last 75 years or so was almost perfectly free of mean reversion, and had no statistically identifiable time trend...⁵²

Q. WHAT ABOUT SURVIVORSHIP BIAS?

A. Survivorship bias is one of the factors used to explain the equity risk premium puzzle. But there is no real consensus about its size and significance. A study by Li and Xu concludes that a survival bias is unlikely to be significant in U.S. data.⁵³ The best estimate of the future MRP remains the historical mean as measured over a long period.⁵⁴ While survivorship bias may be compelling on a worldwide basis, one has to question its relevance on a purely U.S. analysis.⁵⁵

Q. THANK YOU. PLEASE CONTINUE.

⁵¹ The **equity premium puzzle** refers to the inability of an important class of economic models to explain the average equity risk premium (ERP) provided by a diversified portfolio of equities over that of government bonds.

⁵² Morin, p. 156.

⁵³ Li, Haitao, Xu, Yuewu, “Survival Bias and the Equity Risk Premium Puzzle”, *The Journal of Finance*, Vol. LVII, No. 5, October 2002, p. 1991.

⁵⁴ Morin, p. 180.

⁵⁵ Morningstar, *Ibbotson SBBI 2013 Valuation Yearbook*, p. 62.

1 A. I use the average historical MRP risk premium of large company stocks over long periods,
2 1926-2024, for developing the MRP for the CAPM and MCAPM and, 1963-2024. For
3 developing the MRP for the MCAPM. I do not use shorter or more recent historical time
4 periods to avoid issues Dr. Woolridge asserts exist in historical measures.⁵⁶ Further, I use
5 historical MRPs in conjunction with the current MRP of 5.84 percent to estimate the MRPs
6 for my CAPM (6.57%), ECAPM (6.57%), and MCAPM (5.95%).⁵⁷ I continue to believe
7 my MRP estimates are reasonable based on the facts and circumstances,

8 **Q. DR. WOOLRIDGE (ON PAGE 59) POINTS OUT KROLL ADVISES THAT**
9 **VALUATION ANALYSTS CANNOT SIMPLY USE A LONG-TERM**
10 **HISTORICAL ERP WITHOUT FURTHER ANALYSIS. PLEASE COMMENT.**

11 A. I agree, which is why I also consider and use a current (prospective) MRP in my estimation
12 of the MRP for the CAPM, ECAPM, and MCAPM.⁵⁸ I explained my construction of the
13 MRP in my direct testimony and will not repeat it here.⁵⁹ I do not accept Kroll's estimate.
14 It is not repeatable or transparent. These factors make it difficult for me to determine
15 whether its use is appropriate. Further, I disagree with Kroll that the historical MRP is not
16 a good estimate of the future MRP risk premium and should not be considered.⁶⁰ The Kroll
17 argument that, to the extent that prior events are not expected to occur or are unusual events,
18 they should be eliminated, is highly suspect because all historical periods contain unusual
19 events.⁶¹ Using data from a long period minimizes subjective judgements and encompasses
20 many diverse periods of inflation, interest rate cycles, economic cycles, and unusual events

⁵⁶ Woolridge at 58.

⁵⁷ See Exhibit TJB-1, Table 11.

⁵⁸ See Table 10 for my estimation of the current MRP and Table 12 (footnotes) for my estimation of the MRP for the CAPM models.

⁵⁹ Bourasa Dt, at 45.

⁶⁰ Woolridge at 59, quoting Kroll on the expected MRO and historical returns and realized risk premiums.

⁶¹ Woolridge Dt. at 59 citing Kroll (formerly Duff & Phelps) Client Alert from 2016.

1 – the 1987 stock market crash, the 1999 Dot-Com bubble, the 2008 financial crisis, and the
2 2020 pandemic to name a few.

3 **Q. PLEASE COMMENT ON DR. WOOLRIDGE’S TESTIMONY (ON PAGE 62) THAT**
4 **INVESTMENT FIRMS HAVE LOWER MARKET RETURN EXPECTATIONS THAN**
5 **YOUR CURRENT MARKET RISK PREMIUM ANALYSIS SUGGESTS.**

6 A. First, my current MRP estimate uses the Value Line 1700 stocks, which is broader because
7 it has three times more stock than the S&P 500 upon which investment firms rely. Second,
8 as noted by Dr. Woolridge, the average duration (holding period) upon which investment
9 firms’ expectations are developed is 10 years.⁶² The returns listed in Figure 9 in Dr.
10 Woolridge’s testimony are geometric returns. I would expect them to be lower than my
11 estimate because geometric means are always lower than arithmetic means.

12 **Q. DR. WOOLRIDGE CRITICIZES YOUR FIRST RISK PREMIUM APPROACH**
13 **BECAUSE OF EMPIRICAL PROBLEMS WITH HISTORICAL RETURNS.**
14 **PLEASE COMMENT.**

15 A. My comments would be similar to my earlier comments regarding use of historical MRPs
16 for the CAPM. The historical MRP I employ for my first RP approach is over a long period
17 of time (42 years) for which the data is available to me. Dr. Woolridge provides no
18 evidence of mean reversion or correlation of the returns in this analysis.

19 **Q. DR. WOOLRIDGE (ALSO ON PAGE 66) CRITICIZES YOUR SECOND RISK**
20 **PREMIUM APPROACH BECAUSE IT USES HISTORICAL ANALYST**
21 **ESTIMATES FOR EACH YEAR TO DEVELOP ANNUAL EXPECTED RETURNS**
22 **AND RISK PREMIUMS. PLEASE COMMENT.**

23 A. Again, my comments would be similar to my earlier comments regarding Dr. Woolridge’s
24 criticisms of the use of analyst estimates for electric utilities. This is an expectational
25 approach. As I testified, analyst estimates of EPS growth are the best estimates of growth
26 for the DCF for electric utilities.

⁶² Woolridge Dt. at 62.

1 **IV. SUMMARY AND CONCLUSIONS**

2 **Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.**

3 A. I continue to recommend a ROE of 11.0 percent for Liberty. My recommendation is based
4 upon an updated analysis. That analysis shows the COE for the publicly traded electric
5 utilities falls in the range of 9.7 percent to 11.5 percent with the midpoint of the range at
6 10.6 percent. My updated risk study indicates a risk premium for Liberty in the range of
7 50 to 70 basis points, but I continue to recommend a 40 basis point risk premium over the
8 proxy group results of 10.6 percent. My updated analysis continues to be based on
9 consideration of COE estimates using the Discounted Cash Flow (“DCF”) and three Risk
10 Premium (“RP”) approaches, including the Capital Asset Pricing Model (“CAPM”) on a
11 proxy group of 21 electric publicly traded utilities.

12 My recommended ROE continues to be based upon the Commission adoption of a
13 52.5 percent common equity and a 47.5 debt capital structure for ratemaking purposes. The
14 recommend debt cost is 5.87 percent.

15 Based upon my recommendations, the WACC is 8.57 percent.

16 **Q. DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY?**

17 A. Yes.

Exhibit TJB-1

Tables 1 - 11

**Liberty Utilities (Calpeco) Corp.
Summary of Results**

**Exhibit TJB-1
Table 1**

Witness: Bourassa

Line <u>No.</u>		<u>Indicated Cost of Equity for Sample Group</u>	<u>Indicated Cost of Equity for Company¹</u>
1	DCF Constant Growth - Table 6	10.0%	10.6%
2	Risk Premium (Total Returns)- Table 8	11.5%	12.1%
3	Risk Premium (Total Returns) - Table 9	10.5%	11.1%
4	CAPM - Table 11	9.7%	10.3%
5	Mid-point	10.6%	11.2%
6	Cost of Equity Recommendation ²		11.0%

Notes:

¹Estimates include an equity risk premium of 60 basis points. See Testimony.
and a financial risk adjustment of 0 basis points. See Testimony.

² See Testimony.

Liberty Utilities (Calpeco) Corp.
Selected Characteristics of Sample Group of Water Utilities

Exhibit TJB-1
Table 2
Witness: Bourassa

Line			Operating	Net	Number of	VL Adjusted			Market	
			Revenues	Plant	Customers	Value Line	Sum	S&P	Capitalization	Size
<u>No.</u>	<u>Company</u>	<u>Symbol</u>	<u>(millions)¹</u>	<u>(millions)¹</u>	<u>(thousands)</u>	<u>Beta¹</u>	<u>Beta²</u>	<u>Bond Rating</u>	<u>(millions)¹</u>	<u>Category²</u>
1	ALLETE	ALE	1,880	5,013	146	0.75	0.76	BBB	3,757	Low-Cap
2	Alliant Energy	LNT	3,981	18,701	1,425	0.80	0.74	BBB+	15,608	Mid-Cap
3	Amer. Elec. Power	AEP	19,721	82,416	5,500	0.70	0.64	BBB+	55,141	Large-Cap
4	Ameren Corp.	AEE	7,500	33,776	3,340	0.75	0.72	BBB+	25,808	Large-Cap
5	Avista Corp.	AVA	1,938	6,020	797	0.75	0.70	BBB	3,069	Low-Cap
6	Black Hills	BKH	2,331	7,119	1,340	0.85	0.87	BBB+	4,095	Mid-Cap
7	CMS Energy Corp.	CMS	7,515	27,461	3,700	0.70	0.70	BBB+	20,844	Large-Cap
8	Consol. Edison	ED	15,256	52,165	5,200	0.65	0.58	A-	35,971	Large-Cap
9	DTE Energy	DTE	12,745	28,169	3,500	0.80	0.76	BBB+	27,118	Large-Cap
10	Duke Energy	DUK	30,357	123,303	9,200	0.65	0.57	BBB+	90,956	Large-Cap
11	Edison Int'l	EIX	17,599	59,254	5,300	0.90	0.90	BBB	20,223	Large-Cap
12	Entergy Corp.	ETR	11,880	47,423	3,200	0.80	0.80	BBB+	35,031	Large-Cap
13	Fortis Inc.	FTS	11,517	43,385	3,300	0.50	0.40	NR	31,379	Large-Cap
14	IDACORP Inc.	IDA	1,827	6,517	633	0.70	0.70	BBB	6,221	Mid-Cap
15	MGE Energy	MGEE	677	2,287	339	0.80	0.76	NR	3,260	Low-Cap
16	Northwestern Corp.	NWE	1,514	6,398	774	0.75	0.74	BBB	3,188	Low-Cap
17	Pinnacle West Capital	PNW	5,125	19,198	1,400	0.75	0.74	BBB+	10,766	Mid-Cap
18	Portland General	POR	3,440	10,345	934	0.80	0.75	BBB+	4,460	Mid-Cap
19	Public Serv. Enterprise	PEG	10,290	40,064	4,300	0.85	0.80	BBB+	40,529	Large-Cap
20	WEC Energy Group	WEC	8,600	34,645	4,500	0.65	0.62	A-	33,110	Large-Cap
21	Xcel Energy Inc.	XEL	13,441	57,198	6,000	0.75	0.66	BBB+	38,952	Large-Cap
22	Average		\$ 9,006	\$ 33,850	3,087	0.75	0.71		\$ 24,261	
23	Liberty Utilities (Calpeco) Corp.		\$ 166.5	\$ 612.5	50	Indicated ³ 0.85	Indicated ³ 0.80		N/A	

Notes:

¹ Value Line Analyzer Data (Weekly as of July 2, 2024)

² See work papers.

³ See Risk Study Exhibit TJB-5, page 6.

**Liberty Utilities (Calpeco) Corp.
Capital Structures**

**Exhibit TJB-1
Table 3**
Witness: Bourassa

Line No.	Company	Symbol	Book Value ¹		Market Value ¹	
			Long-Term Debt	Common Equity	Long-Term Debt	Common Equity
1	ALLETE	ALE	37.4%	62.6%	30.9%	69.1%
2	Alliant Energy	LNT	55.3%	44.7%	35.7%	64.3%
3	Amer. Elec. Power	AEP	59.3%	40.7%	41.6%	58.4%
4	Ameren Corp.	AEE	57.1%	42.9%	36.9%	63.1%
5	Avista Corp.	AVA	51.1%	48.9%	46.8%	53.2%
6	Black Hills	BKH	54.2%	45.8%	48.1%	51.9%
7	CMS Energy Corp.	CMS	65.7%	34.3%	42.3%	57.7%
8	Consol. Edison	ED	52.9%	47.1%	40.7%	59.3%
9	DTE Energy	DTE	61.2%	38.8%	39.1%	60.9%
10	Duke Energy	DUK	60.8%	39.2%	45.6%	54.4%
11	Edison Int'l	EIX	70.7%	29.3%	62.4%	37.6%
12	Entergy Corp.	ETR	63.8%	36.2%	43.2%	56.8%
13	Fortis Inc.	FTS	58.1%	41.9%	46.8%	53.2%
14	IDACORP Inc.	IDA	47.8%	52.2%	32.9%	67.1%
15	MGE Energy	MGEE	38.3%	61.7%	19.0%	81.0%
16	Northwestern Corp.	NWE	48.6%	51.4%	45.8%	54.2%
17	Pinnacle West Capital	PNW	54.4%	45.6%	42.8%	57.2%
18	Portland General	POR	55.0%	45.0%	50.9%	49.1%
19	Public Serv. Enterprise	PEG	54.1%	45.9%	31.9%	68.1%
20	WEC Energy Group	WEC	58.5%	41.5%	34.6%	65.4%
21	Xcel Energy Inc.	XEL	58.3%	41.7%	41.2%	58.8%
22	Average		55.4%	44.6%	40.9%	59.1%
23	Max		70.7%	62.6%	62.4%	81.0%
24	Min		37.4%	29.3%	19.0%	37.6%
25	Median		55.3%	44.7%	41.6%	58.4%
26	Liberty Utilities (Calpeco) Corp.	Proforma	47.5%	52.5%	N/A	N/A

¹ Value Line Analyzer Data (Weekly as of July 2, 2024)

Liberty Utilities (Calpeco) Corp.
Comparisons of Past and Future Estimates of Growth

Exhibit TJB-1
Table 4
Witness: Bourassa

Line			[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
			Stock	Book			Historical	Value Line	Zack's	Stock	Average
							Average Growth	Projected	Projected	Analysis.com	Projected
No.	Company	Symbol	Price ¹	Value ²	EPS ²	DPS ²	Col. 1-4	Growth ²	Growth ³	Growth ⁴	Growth
1	ALLETE	ALE	-4.40%	3.00%	2.50%	4.00%	1.27%	6.00%	ND	8.93%	7.47%
2	Alliant Energy	LNT	1.57%	6.00%	4.50%	6.00%	4.52%	7.50%	6.59%	7.43%	7.17%
3	Amer. Elec. Power	AEP	-0.49%	4.50%	5.50%	6.00%	3.88%	7.00%	6.43%	7.38%	6.94%
4	Ameren Corp.	AEE	3.02%	6.00%	7.00%	6.00%	5.51%	7.00%	6.95%	7.88%	7.28%
5	Avista Corp.	AVA	6.81%	3.00%	-1.00%	4.00%	3.20%	5.00%	6.07%	5.65%	5.57%
6	Black Hills	BKH	-5.71%	6.50%	4.00%	6.00%	2.70%	3.50%	5.26%	5.78%	4.85%
7	CMS Energy Corp.	CMS	1.18%	8.50%	6.00%	6.50%	5.55%	5.50%	7.84%	7.23%	6.86%
8	Consol. Edison	ED	-0.28%	3.00%	3.00%	2.50%	2.06%	6.00%	5.57%	5.70%	5.76%
9	DTE Energy	DTE	1.78%	-1.50%	-0.50%	2.50%	0.57%	8.00%	7.64%	6.85%	7.50%
10	Duke Energy	DUK	3.39%	0.50%	3.50%	2.50%	2.47%	ND	6.33%	6.55%	6.44%
11	Edison Int'l	EIX	1.15%	0.50%	12.50%	4.50%	4.66%	6.50%	7.05%	4.60%	6.05%
12	Entergy Corp.	ETR	2.00%	7.00%	4.00%	4.00%	4.25%	3.00%	9.46%	10.23%	7.56%
13	Fortis Inc.	FTS	5.03%	3.50%	3.50%	6.00%	4.51%	6.00%	5.01%	2.45%	4.49%
14	IDACORP Inc.	IDA	0.46%	4.50%	3.50%	6.00%	3.62%	5.00%	8.13%	8.13%	7.09%
15	MGE Energy	MGEE	3.58%	6.00%	6.00%	5.00%	5.14%	6.50%	ND	4.38%	5.44%
16	Northwestern Corp.	NWE	-5.69%	3.50%	-1.00%	3.00%	NEG	4.50%	6.87%	4.00%	5.12%
17	Pinnacle West Capital	PNW	-1.17%	3.50%	0.00%	4.00%	1.58%	5.00%	2.12%	8.85%	5.32%
18	Portland General	POR	-4.80%	3.00%	3.00%	5.50%	1.67%	6.50%	3.35%	3.72%	4.52%
19	Public Serv. Enterprise	PEG	7.43%	1.00%	3.00%	5.00%	4.11%	7.00%	6.96%	4.86%	6.27%
20	WEC Energy Group	WEC	0.39%	4.00%	6.00%	7.00%	4.35%	7.50%	6.95%	7.20%	7.22%
21	Xcel Energy Inc.	XEL	1.24%	6.00%	6.00%	6.50%	4.93%	7.00%	7.52%	4.66%	6.39%
22	GROUP AVERAGE		0.78%	3.90%	3.86%	4.88%	3.53%	6.00%	6.43%	6.31%	6.25%

Notes:

¹ Compound annual growth in stock prices ending December 31 through 2023. Data from Yahoo Finance website.

² Value Line Analyzer, weekly as of July 2, 2025.

³ Zack's Investment Research website May 7, 2025.

⁴ Stock Analysis.com website July 15, 2025. (Substituted for Yahoo Finance estimates as they are only one-year forward estimates)

Liberty Utilities (Calpeco) Corp.
Current Dividend Yields for Water Utility Sample Group

Exhibit TJB-1
Table 5
Witness: Bourassa

Line			[1]	[2]	[3]	[4]
			Stock	Current	Current	Average
<u>No.</u>	<u>Company</u>	<u>Symbol</u>	<u>Price (P₀)¹</u>	<u>Dividend (D₀)¹</u>	<u>Yield (D₀/P₀)</u>	<u>Annual Dividend Yield (D₀/P₀)^{1,2}</u>
1	ALLETE	ALE	64.85	2.71	4.18%	4.57%
2	Alliant Energy	LNT	61.52	1.92	3.12%	3.55%
3	Amer. Elec. Power	AEP	104.24	3.57	3.42%	3.94%
4	Ameren Corp.	AEE	95.49	2.52	2.64%	3.07%
5	Avista Corp.	AVA	38.00	1.90	5.00%	5.23%
6	Black Hills	BKH	56.51	2.50	4.42%	4.21%
7	CMS Energy Corp.	CMS	69.55	2.06	2.96%	3.26%
8	Consol. Edison	ED	100.00	3.32	3.32%	3.50%
9	DTE Energy	DTE	130.62	3.88	2.97%	3.57%
10	Duke Energy	DUK	116.73	4.14	3.55%	3.95%
11	Edison Int'l	EIX	50.70	3.17	6.25%	4.14%
12	Entergy Corp.	ETR	81.05	2.30	2.84%	3.89%
13	Fortis Inc.	FTS	64.17	2.31	3.60%	4.13%
14	IDACORP Inc.	IDA	115.83	3.35	2.89%	3.38%
15	MGE Energy	MGEE	88.32	1.75	1.98%	2.12%
16	Northwestern Corp.	NWE	52.22	2.60	4.98%	5.02%
17	Pinnacle West Capita	PNW	89.83	3.55	3.95%	4.44%
18	Portland General	POR	40.78	1.98	4.86%	4.44%
19	Public Serv. Enterpris	PEG	81.75	2.40	2.94%	3.19%
20	WEC Energy Group	WEC	103.98	3.34	3.21%	3.85%
21	Xcel Energy Inc.	XEL	67.77	2.19	3.23%	3.68%
22 GROUP AVERAGE						3.63% 3.86%

Notes:

¹ Stock prices as of July 8, 2025. Indicated Dividend from Value Line Analyzer weekly as of Jul 2, 2025.

² Average Annual Dividend is dividends declared per share for a year divided by the average annual price of the stock in the same year, expressed as a percentage. As report by Value Line Analyzer software. For comparison purposes only.

**Liberty Utilities (Calpeco) Corp.
Discounted Cash Flow Analysis
DCF Constant Growth**

**Exhibit TJB-1
Table 6
Witness: Bourassa**

			[1]		[2]		[3]		[4]		[5]
									Indicated Cost of Equity (COE) k=Div Yld + g		Adjusted Indicated Cost of
Line			Dividend		Expected Dividend		Average Projected				
No.	Company	Symbol	Yield (D_0/P_0) ¹		Yield (D_1/P_0) ²		Growth (g) ³		(Cols 2+3)		Equity (COE) ⁴
1	ALLETE	ALE	4.18%		4.33%	+	7.47%	=	11.8%		11.8%
2	Alliant Energy	LNT	3.12%		3.23%	+	7.17%	=	10.4%		10.4%
3	Amer. Elec. Power	AEP	3.42%		3.54%	+	6.94%	=	10.5%		10.5%
4	Ameren Corp.	AEE	2.64%		2.74%	+	7.28%	=	10.0%		10.0%
5	Avista Corp.	AVA	5.00%		5.14%	+	5.57%	=	10.7%		10.7%
6	Black Hills	BKH	4.42%		4.53%	+	4.85%	=	9.4%		9.4%
7	CMS Energy Corp.	CMS	2.96%		3.06%	+	6.86%	=	9.9%		9.9%
8	Consol. Edison	ED	3.32%		3.42%	+	5.76%	=	9.2%		9.2%
9	DTE Energy	DTE	2.97%		3.08%	+	7.50%	=	10.6%		10.6%
10	Duke Energy	DUK	3.55%		3.66%	+	6.44%	=	10.1%		10.1%
11	Edison Int'l	EIX	6.25%		6.44%	+	6.05%	=	12.5%		12.5%
12	Entergy Corp.	ETR	2.84%		2.95%	+	7.56%	=	10.5%		10.5%
13	Fortis Inc.	FTS	3.60%		3.68%	+	4.49%	=	8.2%		8.2%
14	IDACORP Inc.	IDA	2.89%		2.99%	+	7.09%	=	10.1%		10.1%
15	MGE Energy	MGEE	1.98%		2.04%	+	5.44%	=	7.5%		7.5%
16	Northwestern Corp.	NWE	4.98%		5.11%	+	5.12%	=	10.2%		10.2%
17	Pinnacle West Capital	PNW	3.95%		4.06%	+	5.32%	=	9.4%		9.4%
18	Portland General	POR	4.86%		4.97%	+	4.52%	=	9.5%		9.5%
19	Public Serv. Enterprise	PEG	2.94%		3.03%	+	6.27%	=	9.3%		9.3%
20	WEC Energy Group	WEC	3.21%		3.33%	+	7.22%	=	10.5%		10.5%
21	Xcel Energy Inc.	XEL	3.23%		3.33%	+	6.39%	=	9.7%		9.7%
22	Average		3.63%		3.75%	+	6.25%	=	10.0%		10.0%

¹ Spot Dividend Yield = D_0/P_0 . Source Table 5.

² Expected Dividend Yield = $D_1/P_0 = D_0/P_0 * (1+g/2)$.

³ Growth (g). Source Table 4.

⁴ Excludes results less than the forecast yield on Baa bonds plus 100 basis points or 7.0% . See testimony.

**Liberty Utilities (Calpeco) Corp.
Forecasts of Long-Term Interest Rates**

**Exhibit TJB-1
Table 7**
Witness: Bourassa

Line No.		<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>Average</u>	<u>Recommended Risk-free Rate for CAPM and MRP</u>
1	Long-term Treasury Rates					
2	Blue Chip Consensus Forecasts ¹	4.5%	4.4%	4.4%		
3	Value Line ²					
4	Average	4.5%	4.4%	4.4%	4.4%	4.4%
5	Aaa Corporate Bonds					
6	Blue Chip Consensus Forecasts ¹	5.2%	5.2%	5.2%		
7	Value Line ²					
8	Average	5.2%	5.2%	5.2%	5.2%	
9	Baa Corporate Bonds					
10	Blue Chip Consensus Forecasts ¹	6.0%	6.0%	6.0%		
11	Value Line ²					
12	Average	6.0%	6.0%	6.0%	6.0%	

Notes:

¹ Blue Chip Financial Forecast (June 2025).

² Not Available

Liberty Utilities (Calpeco) Corp.
Risk Premium Analysis Based on Proxy Group Total Returns

Exhibit TJB-1
Table 8
Witness: Bourassa

Line		Proxy Group	LT Treasury	Risk
<u>No.</u>		<u>Return¹</u>	<u>Bond Yield²</u>	<u>Premium</u>
1	1983	10.64%	11.97%	-1.33%
2	1984	28.25%	11.70%	16.55%
3	1985	33.67%	9.56%	24.11%
4	1986	-9.88%	7.89%	-17.77%
5	1987	24.17%	9.20%	14.97%
6	1988	28.06%	9.19%	18.87%
7	1989	-0.26%	8.16%	-8.42%
8	1990	30.42%	8.44%	21.98%
9	1991	9.91%	7.30%	2.61%
10	1992	10.62%	7.26%	3.36%
11	1993	-10.44%	6.54%	-16.98%
12	1994	30.25%	7.99%	22.26%
13	1995	3.84%	6.03%	-2.19%
14	1996	32.13%	6.73%	25.40%
15	1997	10.10%	6.02%	4.08%
16	1998	-19.76%	5.42%	-25.18%
17	1999	40.88%	6.82%	34.06%
18	2000	-2.65%	5.58%	-8.23%
19	2001	-16.03%	5.75%	-21.78%
20	2002	30.31%	4.84%	25.47%
21	2003	13.36%	5.11%	8.25%
22	2004	12.60%	4.84%	7.76%
23	2005	21.44%	4.61%	16.83%
24	2006	21.44%	4.91%	16.53%
25	2007	7.53%	4.50%	3.03%
26	2008	-22.23%	3.03%	-25.26%
27	2009	16.43%	4.58%	11.85%
28	2010	14.05%	4.14%	9.91%
29	2011	19.29%	2.55%	16.74%
30	2012	4.96%	2.46%	2.50%
31	2013	15.17%	3.78%	11.39%
32	2014	30.21%	2.46%	27.75%
33	2015	-2.68%	2.68%	-5.36%
34	2016	21.59%	2.72%	18.87%
35	2017	14.28%	2.89%	11.39%
36	2018	2.90%	3.11%	-0.21%
37	2019	25.23%	2.58%	22.65%
38	2020	-7.11%	1.56%	-8.67%
39	2021	14.64%	2.06%	12.58%
40	2022	1.33%	3.11%	-1.78%
41	2023	-4.40%	4.09%	-8.49%
42	2024	23.43%	4.41%	19.02%
43	Average 1983- 2024	12.1%	5.4%	6.6%
44		Expected Long-term Treasury Bond Rate ³		4.4%
45		Estimate of Current Risk Premium ⁴		7.1%
46		Projected Returns on Equity for Sample		11.5%

Notes:

¹ Computed Composite Proxy Group Total Returns.

² Average annual 30 Yr. U.S. Treasury Bond yields as reported by the Federal Reserve.
Proxy for yields from 2003-2005 are based upon 20-year U.S. Treasury yield.

³ Forecast LT U.S. Treasury Rate. Source Table 7.

⁴ As explained in testimony, adjustment assumes equity costs change by 50% as much as interest rates.

**Liberty Utilities (Calpeco) Corp.
Risk Premium Analysis Based on Averages of
Annual DCF Equity Cost Estimates 2013-2022**

**Exhibit TJB-1
Table 9**
Witness: Bourassa

Line No.	Year	Dividend Yield (D_0/P_0) ¹	Average Projected Growth (g) ²	DCF Expected Dividend Yield (D_1/P_0) ³	DCF Equity Cost Estimate	30-Yr Treasury Rate ⁴	Risk Premium
1	2015	3.62%	5.21%	3.72%	8.93%	2.84%	6.09%
2	2016	3.85%	4.93%	3.94%	8.87%	2.59%	6.28%
3	2017	3.37%	4.85%	3.45%	8.30%	2.89%	5.41%
4	2018	3.19%	5.38%	3.28%	8.65%	3.11%	5.54%
5	2019	3.38%	5.35%	3.48%	8.83%	2.58%	6.25%
6	2020	3.06%	5.03%	3.13%	8.16%	1.56%	6.60%
7	2021	3.38%	6.03%	3.48%	9.50%	2.06%	7.44%
8	2022	3.48%	5.42%	3.58%	9.00%	3.11%	5.89%
9	2023	3.39%	5.23%	3.47%	8.70%	4.09%	4.61%
10	2024	4.02%	6.48%	4.15%	10.62%	4.41%	6.21%
11				10-Year Average			6.03%
12				5-Year Average			6.15%
13				Mid-point			6.09%
12				Average of Forecast Treasury Rates ⁵			4.40%
13				Projected Return on Equity			10.5%

Notes:

¹ Average annual dividend of proxy group as reported by Value Line Investment Analyzer at end of each year.

² Value Line estimates of EPS growth of proxy group as reported by Value Line Investment Analyzer at end of year.

³ Expected Dividend Yield = $D_1/P_0 = D_0/P_0 * (1+g/2)$.

⁴ Average annual 30 Yr. U.S. Treasury Bond yields as reported by the Federal Reserve.

Yields for 2003-2005 are based upon 20-year U.S. Treasury

⁵ Forecast LT U.S. Treasury Rate. Source Table 7..

Liberty Utilities (Calpeco) Corp.
Estimation of Current Market Risk Premium
Using DCF Analysis

Exhibit TJB-1
Table 10
Witness: Bourassa

Line		Dividend	Expected		Expected		Monthly Average		Expected
No.	Month	Yield (D_t/P_0) ¹	Dividend	Expected	Market	Return (k)	30 Year	Treasury Rate ⁴	Market Risk
			Yield (D_t/P_0) ²	+ Growth (g) ³	=		=		Premium (MRP)
1	Jan 2024	2.76%	2.98%	+	7.83%	=	10.81%	4.26%	= 6.55%
2	Feb	2.75%	2.97%	+	7.83%	=	10.80%	4.38%	= 6.42%
3	Mar	2.64%	2.84%	+	7.50%	=	10.34%	4.36%	= 5.98%
4	Apr	2.75%	2.96%	+	7.50%	=	10.46%	4.66%	= 5.80%
5	May	2.75%	2.96%	+	7.50%	=	10.46%	4.62%	= 5.84%
6	Jun	2.75%	2.96%	+	7.50%	=	10.46%	4.44%	= 6.02%
7	July	2.75%	2.96%	+	7.50%	=	10.46%	4.46%	= 6.00%
8	Aug	2.75%	2.96%	+	7.50%	=	10.46%	4.15%	= 6.31%
9	Sep	2.58%	2.77%	+	7.50%	=	10.27%	4.04%	= 6.23%
10	Oct	2.61%	2.80%	+	7.50%	=	10.30%	4.38%	= 5.92%
11	Nov	2.48%	2.67%	+	7.50%	=	10.17%	4.54%	= 5.63%
12	Dec	2.68%	2.88%	+	7.50%	=	10.38%	4.58%	= 5.80%
13	Jan 2025	2.65%	2.85%	+	7.50%	=	10.35%	4.85%	= 5.50%
14	Feb	2.77%	2.98%	+	7.50%	=	10.48%	4.68%	= 5.80%
15	Mar	2.77%	2.98%	+	7.50%	=	10.48%	4.60%	= 5.88%
16	Apr	2.93%	3.14%	+	7.33%	=	10.47%	4.71%	= 5.76%
17	May	2.93%	3.14%	+	7.33%	=	10.47%	4.90%	= 5.57%
18	Recommended	2.75%	2.96%	+	7.50%	=	10.46%	4.56%	= 5.84%
19	<u>Short-term Trends</u>								
20	Recent Twelve Months Avg	2.72%	2.92%	+	7.47%	=	10.40%	4.53%	= 5.87%
21	Recent Nine Months Avg	2.71%	2.91%	+	7.46%	=	10.37%	4.59%	= 5.79%
22	Recent Six Months Avg	2.79%	2.99%	+	7.44%	=	10.44%	4.72%	= 5.72%
23	Recent Three Months Avg	2.87%	3.09%	+	7.39%	=	10.47%	4.74%	= 5.74%
24	Median (last 12 Months)	2.75%	2.96%	+	7.50%	=	10.46%	4.56%	= 5.84%

Notes:

¹ Average Dividend Yield (D_0/P_0) of dividend paying stocks. Data from Value Line Investment Analyzer Software Data - Value Line 1700 Stocks

² Expected Dividend Yield (D_1/P_0) equals current average dividend yield (D_0/P_0) times one plus growth rate(g).

³ Median of Projected EPS and Projected DPS Growth for VL 1700 stocks. Data from Value Line Investment Analyzer Software.

⁴ Monthly average 30 year U.S. Treasury as reported by Federal Reserve.

**Liberty Utilities (Calpeco) Corp.
Capital Asset Pricing Model (CAPM)**

**Exhibit TJB-1
Table 11**
Witness: Bourassa

Line									
No.		R_f^1	+	(	β^2	x	RP_M^3	)	= k
1	Traditional CAPM	4.4%	+	(	0.75	x	6.57%	)	= 9.3%
2									
3		R_f^1			$RP_M^3 \times .25$	+	(	β^2	x RP_M^3) x .75
4	Empirical CAPM	4.4%	+		6.57%	x .25	+	(	0.75 x 6.57%) x .75
5									= 9.7%
6		R_f^1	+	(	β^2	x	RP_M^4	) +	RP_s^5
7	Modified CAPM	4.4%	+	(	0.71	x	5.95%	) +	1.59%
8									= 10.2%
9									
10	Average								9.7%

Notes:

¹ Forecasts of long-term treasury yields. Source Table 7.

² Average VL Beta of Proxy Group. Source is Table 2.

³ Estimate of Market Risk Premium (MRP):

Historical MRP (1926-2024)	7.31%
Current MRP	5.84%
Average MRP	6.57%

Source is Kroll 2025 CRSP Decile Size Study - Supplementary Exhibits.

Source is Table 10

⁴ Estimate of Market Risk Premium (MRP):

Historical MRP (1963-2024)	6.07%
Current MRP	5.84%
Average MRP	5.95%

Source is Kroll 2025 CRSP Decile Size Study - Supplementary Exhibits.

Source is Table 10

⁵ Size Premium. Sources Exhibit TJB-COC-DT6, page 4.

Exhibit TJB-2

Small vs. Large Capital Structures

Liberty Utilities (Calpeco) Corp.
Capital Structures
Small versus Large Utilities

Exhibit TJB-2

Line No.	Company	Symbol	Industry	Book Value ¹		Market Cap (\$ Millions) ¹	Market Category	VL Beta
				Long-Term Debt	Common Equity			
1	ALLETE	ALE	Electric	37.4%	62.6%	\$ 3,757	Low-Cap	0.75
2	Alliant Energy	LNT	Electric	55.3%	44.7%	15,608	Mid-Cap	0.80
3	Amer. Elec. Power	AEP	Electric	59.3%	40.7%	55,141	Large-Cap	0.70
4	Ameren Corp.	AEE	Electric	57.1%	42.9%	25,808	Large-Cap	0.75
5	Avista Corp.	AVA	Electric	51.1%	48.9%	3,069	Low-Cap	0.75
6	Black Hills	BKH	Electric	54.2%	45.8%	4,095	Mid-Cap	0.85
7	CMS Energy Corp.	CMS	Electric	65.7%	34.3%	20,844	Large-Cap	0.70
8	Consol. Edison	ED	Electric	52.9%	47.1%	35,971	Large-Cap	0.65
9	DTE Energy	DTE	Electric	61.2%	38.8%	27,118	Large-Cap	0.80
10	Duke Energy	DUK	Electric	60.8%	39.2%	90,956	Large-Cap	0.65
11	Edison Int'l	EIX	Electric	70.7%	29.3%	20,223	Large-Cap	0.90
12	Entergy Corp.	ETR	Electric	63.8%	36.2%	35,031	Large-Cap	0.80
13	Fortis Inc.	FTS	Electric	58.1%	41.9%	31,379	Large-Cap	0.50
14	IDACORP Inc.	IDA	Electric	47.8%	52.2%	6,221	Mid-Cap	0.70
15	MGE Energy	MGEE	Electric	38.3%	61.7%	3,260	Low-Cap	0.80
16	Northwestern Corp.	NWE	Electric	48.6%	51.4%	3,188	Low-Cap	0.75
17	Pinnacle West Capital	PNW	Electric	54.4%	45.6%	10,766	Mid-Cap	0.75
18	Portland General	POR	Electric	55.0%	45.0%	4,460	Mid-Cap	0.80
19	Public Serv. Enterprise	PEG	Electric	54.1%	45.9%	40,529	Large-Cap	0.85
20	WEC Energy Group	WEC	Electric	58.5%	41.5%	33,110	Large-Cap	0.65
21	Xcel Energy Inc.	XEL	Electric	58.3%	41.7%	38,952	Large-Cap	0.75
22	CenterPoint Energy	CNP	Electric	65.7%	34.3%	23,348	Large-Cap	0.85
23	Dominion Resources	D	Electric	60.8%	39.2%	90,956	Large-Cap	0.65
24	Evergy Inc	EVRG	Electric	53.4%	46.6%	15,871	Mid-Cap	0.75
25	Eversource Energy	ES	Electric	61.7%	38.3%	43,306	Large-Cap	0.00
26	Exelon Corporation	EXC	Electric	64.4%	35.6%	22,948	Large-Cap	0.75
27	Nextra Energy	NEE	Electric	59.1%	40.9%	150,348	Large-Cap	0.90
28	OGE Energy Corp.	OGE	Electric	49.0%	51.0%	8,904	Mid-Cap	0.85
29	PPL Corporation	PPL	Electric	53.1%	46.9%	24,788	Large-Cap	0.85
30	Southern Company	SO	Electric	64.5%	35.5%	100,179	Large-Cap	0.70
31	American States Water	AWR	Water	46.6%	53.4%	3,094	Low-Cap	0.75
32	American Water Works	AWK	Water	54.8%	45.2%	28,655	Large-Cap	0.85
33	Essential Utilities	WTRG	Water	54.3%	45.7%	11,304	Mid-Cap	0.85
34	California Water	CWT	Water	40.3%	59.7%	3,013	Low-Cap	0.85
35	Middlesex	MSEX	Water	44.2%	55.8%	1,129	Low-Cap	0.75
36	York Water Company	YORW	Water	47.0%	53.0%	506	Micro-Cap	0.75
37	Atmos Energy	ATO	Gas Distrib	39.3%	60.7%	25,496	Large-Cap	0.75
38	Chesapeake Utilities	CPK	Gas Distrib	48.8%	51.2%	2,999	Low-Cap	0.75
39	New Jersey Resources	NJR	Gas Distrib	56.7%	43.3%	4,903	Mid-Cap	0.85
40	NiSource Inc.	NI	Gas Distrib	58.7%	41.3%	18,253	Mid-Cap	0.85
41	Northwest Natural	NWN	Gas Distrib	52.6%	47.4%	1,729	Low-Cap	0.80
42	ONE Gas Inc.	OGS	Gas Distrib	43.4%	56.6%	4,701	Mid-Cap	0.80
43	Southwest Gas	SWX	Gas Distrib	58.2%	41.8%	5,180	Mid-Cap	0.80
44	Spire Inc.	SR	Gas Distrib	55.3%	44.7%	4,462	Mid-Cap	0.80
45	UGI Corp.	UGI	Gas Distrib	59.7%	40.3%	7,043	Mid-Cap	1.10
46								
47								
48	<u>Electric Average</u>	<u>No. Companies</u>		<u>Average Debt</u>	<u>Average Equity</u>	<u>% Debt</u> <u>Mid-point</u>	<u>% Equity</u> <u>Mid-point</u>	<u>Avg Beta</u>
49	Small (Small-Cap and Micro Cap)	4		43.8%	56.2%	44.2%	55.8%	0.76
50	Large (Large-Cap and Mid-Cap)	26		58.4%	41.6%	59.2%	40.8%	0.73
51								
52	<u>All Utilities Average</u>							
53	Small (Small-Cap and Micro Cap)	10		45.5%	54.5%	45.0%	55.0%	0.77
54	Large (Large-Cap and Mid-Cap)	35		57.1%	42.9%	55.0%	45.0%	0.76
55								
56								
57	Liberty Utilities (Calpeco) Corp.	Proforma		47.5%	52.5%			

¹ Value Line Analyzer Data for Fiscal Years ending 12/31/2024

Exhibit TJB-3

Risk Study

**Liberty Utilities (Calpeco) Corp.
Comparative Risk Study**

**Exhibit TJB-3
Page 1 of 7**

Operating Income EBIT (\$ in millions)												Co-efficient of variation of Operating Income
Line No.	Symbol	Symbol	VL Industry	2024	2023	2022	2021	2020	2019	5-Year Average	Std Dev.	(CVOL)
1	ALLETE	ALE	UTILCENT	\$ 160.1	\$ 238.1	\$ 204.6	\$ 151.3	\$ 150.9	\$ 179.8	\$ 181.0	38.87	0.2147
2	Alliant Energy	LNT	UTILCENT	886.0	943.0	928.0	795.0	740.0	777.7	858.40	87.75	0.1022
3	Amer. Elec. Power	AEP	UTILCENT	6,042.4	5,226.8	3,682.8	3,411.3	2,987.7	2,716.3	4,270.20	1,302.24	0.3050
4	Ameren Corp.	AEE	UTILCENT	1,516.0	1,558.0	1,515.0	1,333.0	1,300.0	1,267.0	1,444.40	118.61	0.0821
5	Avista Corp.	AVA	UTILWEST	424.0	260.5	201.8	228.2	232.7	210.4	269.44	88.86	0.3298
6	Black Hills	BKH	UTILWEST	503.1	455.3	409.4	428.3	406.0	397.0	440.42	40.12	0.0911
7	CMS Energy Corp.	CMS	UTILCENT	1,487.0	1,235.0	1,224.0	1,146.0	1,362.0	1,239.0	1,290.80	134.26	0.1040
8	Consol. Edison	ED	UTILEAST	2,731.0	2,331.0	2,369.0	3,278.0	2,974.0	2,676.0	2,736.60	402.85	0.1472
9	DTE Energy	DTE	UTILCENT	2,205.0	2,721.0	2,200.0	1,495.0	1,986.0	1,707.0	2,121.40	442.55	0.2086
10	Duke Energy	DUK	UTILEAST	8,092.0	7,176.0	6,328.0	5,373.0	4,553.0	5,700.6	6,304.40	1,404.52	0.2228
11	Edison Int'l	EIX	UTILWEST	3,785.0	3,503.0	3,081.0	3,013.0	NA	2,384.0	3,345.50	364.46	0.1089
12	Entergy	ETR	UTILCENT	2,651.1	2,618.0	2,050.8	2,185.6	1,769.2	1,390.5	2,254.93	377.87	0.1676
13	Fortis Inc.	FTS	UTILCENT	3,292.0	5,973.0	2,740.0	2,469.0	2,508.0	2,461.0	3,396.40	1,477.32	0.4350
14	IDACORP Inc.	IDA	UTILWEST	359.4	316.8	327.2	329.7	309.5	298.3	328.53	19.08	0.0581
15	MGE Energy	MGEE	UTILCENT	146.3	146.4	137.7	117.3	110.0	110.9	131.54	16.90	0.1285
16	Northwestern Corp.	NWE	UTILWEST	325.2	300.5	263.1	268.8	246.1	276.9	280.73	31.71	0.1129
17	Pinnacle West Capital	PNW	UTILWEST	1,012.1	824.6	731.9	805.3	788.2	672.0	832.42	106.22	0.1276
18	Portland General	POR	UTILWEST	531.0	403.0	414.0	378.0	396.0	353.0	424.40	61.01	0.1438
19	Public Serv. Enterprise	PEG	UTILEAST	2,748.0	2,638.0	2,609.0	2,851.0	2,617.0	3,011.0	2,692.60	104.70	0.0389
20	WEC Energy Group	WEC	UTILCENT	2,164.9	2,086.9	1,924.2	1,714.9	1,706.1	1,531.4	1,919.40	209.56	0.1092
21	Xcel Energy Inc.	XEL	UTILWEST	2,433.0	2,588.0	2,428.0	2,203.0	2,116.0	2,104.0	2,353.60	191.00	0.0812
22	Proxy Group											0.1581
23	Risk relative of UTILWEST to OTHER utilities											
				2024	2023	2022	2021	2020		Average	Std Dev.	Co-efficient of variation of Operating Income
24	Company			26.21	38.48	19.99	23.29	26.45		26.89	6.99	0.2601
25	Risk relative to the average risk of the proxy group and OTHER											
												1.65

**Liberty Utilities (Calpeco) Corp.
Comparative Risk Study**

**Exhibit TJB-3
Page 2 of 7**

Line	<u>Sales (\$ in millions)</u>										5-Year
<u>No.</u>	<u>Company</u>	<u>Symbol</u>	<u>VL Industry</u>	<u>2024</u>	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>Average</u>	
1	ALLETE	ALE	UTILCENT	\$ 1,530	\$ 1,880	\$ 1,571	\$ 1,419	\$ 1,169	\$ 1,241	\$ 1,514	
2	Alliant Energy	LNT	UTILCENT	3,981	4,027	4,205	3,669	3,416	3,648	3,860	
3	Amer. Elec. Power	AEP	UTILCENT	19,721	18,982	19,640	16,792	14,919	15,561	18,011	
4	Ameren Corp.	AEE	UTILCENT	7,623	7,500	7,957	6,394	5,794	5,910	7,054	
5	Avista Corp.	AVA	UTILWEST	1,938	1,752	1,710	1,439	1,322	1,346	1,632	
6	Black Hills	BKH	UTILWEST	2,128	2,552	1,949	1,697	1,735	1,754	2,012	
7	CMS Energy Corp.	CMS	UTILCENT	7,515	7,462	8,596	7,329	6,680	6,845	7,516	
8	Consol. Edison	ED	UTILEAST	15,256	14,663	15,670	13,676	12,246	12,574	14,302	
9	DTE Energy	DTE	UTILCENT	12,457	12,745	19,228	14,964	12,177	12,669	14,314	
10	Duke Energy	DUK	UTILEAST	30,357	29,060	28,768	25,097	23,868	25,079	27,430	
11	Edison Int'l	EIX	UTILWEST	17,599	16,338	17,220	14,905	13,578	12,347	15,928	
12	Entergy	ETR	UTILCENT	11,880	12,147	13,764	11,743	10,114	10,879	11,930	
13	Fortis Inc.	FTS	UTILCENT	11,508	11,517	11,043	9,448	8,935	8,783	10,490	
14	IDACORP Inc.	IDA	UTILWEST	1,827	1,766	1,644	1,458	1,351	1,346	1,609	
15	MGE Energy	MGEE	UTILCENT	677	690	715	607	539	569	645	
16	Northwestern Corp.	NWE	UTILWEST	1,514	1,422	1,478	1,372	1,199	1,258	1,397	
17	Pinnacle West Capital	PNW	UTILWEST	5,125	4,696	4,324	3,804	3,587	3,471	4,307	
18	Portland General	POR	UTILWEST	3,440	2,923	2,647	2,396	2,145	2,123	2,710	
19	Public Serv. Enterprise	PEG	UTILEAST	10,290	11,237	9,800	9,722	9,603	10,076	10,130	
20	WEC Energy Group	WEC	UTILCENT	8,600	8,893	9,597	8,316	7,242	7,523	8,530	
21	Xcel Energy Inc.	XEL	UTILWEST	13,441	14,206	15,310	13,431	11,526	11,529	13,583	
				<u>2024</u>	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>		<u>5-Year</u>	
22	Company			166.52	170.16	107.18	101.80	98.57		<u>Average</u>	128.85

Exhibit TJB-3
Page 3 of 7

Co-efficient
of variation
of Operating Margin
(CVOM)

Exhibit TJB-3
Page 4 of 7

Return on Equity (ROE)											Co-efficient of variation	
Line	Company	Symbol	VL Industry	2024	2023	2022	2021	2020	2019	Average	Std Dev.	of ROE (CVROE)
1	ALLETE	ALE	UTILCENT	6.3%	8.8%	7.0%	7.0%	7.6%	7.7%	7.3%	0.0093	0.1269
2	Alliant Energy	LNT	UTILCENT	9.9%	10.4%	10.9%	11.0%	10.8%	10.7%	10.6%	0.0048	0.0453
3	Amer. Elec. Power	AEP	UTILCENT	11.0%	10.8%	9.7%	11.1%	10.7%	10.3%	10.6%	0.0057	0.0540
4	Ameren Corp.	AEE	UTILCENT	9.8%	10.2%	10.2%	10.2%	9.7%	10.3%	10.0%	0.0024	0.0243
5	Avista Corp.	AVA	UTILWEST	6.9%	6.9%	6.6%	6.8%	6.4%	10.2%	6.7%	0.0023	0.0342
6	Black Hills	BKH	UTILWEST	7.8%	8.6%	8.5%	9.1%	9.1%	8.8%	8.6%	0.0053	0.0615
7	CMS Energy Corp.	CMS	UTILCENT	12.4%	12.0%	12.1%	11.6%	13.7%	13.6%	12.4%	0.0081	0.0654
8	Consol. Edison	ED	UTILEAST	8.5%	8.3%	7.8%	7.6%	7.4%	8.0%	7.9%	0.0046	0.0580
9	DTE Energy	DTE	UTILCENT	12.0%	12.6%	10.4%	9.1%	11.0%	10.0%	11.0%	0.0137	0.1238
10	Duke Energy	DUK	UTILEAST	9.3%	9.1%	8.6%	8.5%	8.2%	8.3%	8.7%	0.0044	0.0506
11	Edison Int'l	EIX	UTILWEST	13.7%	13.1%	12.9%	12.5%	12.0%	12.0%	12.8%	0.0063	0.0493
12	Entergy	ETR	UTILCENT	6.9%	16.0%	8.4%	11.9%	12.7%	12.1%	11.2%	0.0362	0.3242
13	Fortis Inc.	FTS	UTILCENT	8.4%	7.6%	6.9%	7.0%	7.1%	6.9%	7.4%	0.0065	0.0884
14	IDACORP Inc.	IDA	UTILWEST	8.7%	9.0%	9.2%	9.2%	9.3%	9.4%	9.1%	0.0025	0.0271
15	MGE Energy	MGEE	UTILCENT	9.8%	10.3%	10.3%	10.3%	9.5%	10.2%	10.0%	0.0038	0.0378
16	Northwestern Corp.	NWE	UTILWEST	7.0%	7.0%	7.0%	7.8%	7.8%	8.8%	7.3%	0.0044	0.0605
17	Pinnacle West Capital	PNW	UTILWEST	9.0%	8.1%	8.0%	10.5%	9.8%	9.9%	9.1%	0.0106	0.1173
18	Portland General	POR	UTILWEST	8.6%	7.0%	8.8%	9.0%	9.5%	8.3%	8.6%	0.0093	0.1080
19	Public Serv. Enterprise	PEG	UTILEAST	11.4%	11.3%	12.7%	12.8%	10.9%	11.0%	11.8%	0.0088	0.0744
20	WEC Energy Group	WEC	UTILCENT	12.3%	11.4%	12.4%	11.9%	11.5%	11.2%	11.9%	0.0047	0.0397
21	Xcel Energy Inc.	XEL	UTILWEST	10.1%	10.5%	10.4%	10.2%	10.1%	10.4%	10.3%	0.0019	0.0181
22	Proxy Group			9.5%	9.9%	9.5%	9.8%	9.7%	9.9%	9.7%	0.0074	0.0757
23	Risk relative of UTILWEST to OTHER utilities											
24	Company			2024	2023	2022	2021	2020	5-Year Average	Std Dev.	Co-efficient of variation of ROE	
				1.3%	9.3%	7.1%	9.5%	13.2%	8.08%	0.04	0.5441	
25	Risk relative to the average risk of the proxy group and OTHER											7.19

**Liberty Utilities (Calpeco) Corp.
Comparative Risk Study**

**Exhibit TJB-3
Page 5 of 7**

Operating Leverage = Percent Change in Operating Income/Percent Change in Sales
(also a measure of business risk)

Line			<u>2024</u>	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>5-Year Average</u>
No.	Company	Symbol						
1	ALLETE	ALE	1.76	0.83	3.30	0.01	2.79	1.74
2	Alliant Energy	LNT	5.29	0.38	1.15	1.00	0.76	1.72
3	Amer. Elec. Power	AEP	4.01	12.53	0.47	1.13	2.42	4.11
4	Ameren Corp.	AEE	1.64	0.49	0.56	0.25	1.33	0.85
5	Avista Corp.	AVA	5.90	12.01	0.61	0.22	6.01	4.95
6	Black Hills	BKH	0.63	0.36	0.30	2.51	2.05	1.17
7	CMS Energy Corp.	CMS	28.73	0.07	0.39	1.63	4.12	6.99
8	Consol. Edison	ED	4.24	0.25	1.90	0.88	4.27	2.31
9	DTE Energy	DTE	8.39	0.70	1.65	1.08	4.21	3.21
10	Duke Energy	DUK	2.86	13.20	1.22	3.50	4.17	4.99
11	Edison Int'l	EIX	1.04	2.67	0.15	NA	NA	1.29
12	Entergy	ETR	0.57	2.35	0.36	1.46	3.87	1.72
13	Fortis, Inc.	FTS	574.38	27.49	0.65	0.27	1.10	120.78
14	IDACORP Inc.	IDA	3.94	0.42	0.06	0.82	11.62	3.37
15	MGE Energy	MGEE	0.05	1.86	0.98	0.53	0.16	0.71
16	Northwestern Corp.	NWE	1.28	3.77	0.28	0.64	2.36	1.66
17	Pinnacle West Capital	PNW	2.49	1.47	0.67	0.36	5.18	2.03
18	Portland General	POR	1.80	0.25	0.91	0.39	11.75	3.02
19	Public Serv. Enterprise	PEG	0.49	0.08	10.58	7.22	2.79	4.23
20	WEC Energy Group	WEC	1.13	1.15	0.79	0.03	3.05	1.23
21	Xcel Energy Inc.	XEL	1.11	0.91	0.73	0.25	21.92	4.98
22	Average		31.04	3.97	1.32	1.21	4.80	8.43
			<u>2024</u>	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>Average</u>
23	Liberty Utilities (Calpeco) Corp.		14.92	1.57	2.69	3.64	5.10	5.58
24	Risk relative to the average risk of the proxy group							0.66

**Liberty Utilities (Calpeco) Corp.
Comparative Risk Study
Beta Estimate Using Duff and Phelps Risk Study Portfolio Information**

**Exhibit TJB-3
Page 6 of 7**

Line
No.

A. Beta Estimates for Proxy Group and Company

		<u>Portfolio</u>	<u>Operating Margin</u> ¹	<u>Portfolio</u>	<u>CV (Operating Margin)</u> ¹	<u>Portfolio</u>	<u>CV (ROE)</u> ¹	
1	Company	21	21.34%	11	15.67%	15	54.41%	
2	Proxy Group	21	20.20%	10	13.93%	1	7.57%	
			<u>Portfolio Sum Beta</u> ²		<u>Portfolio Sum Beta</u> ³		<u>Portfolio Sum Beta</u> ⁴	<u>Average</u>
3	Company		0.95		1.09		1.16	
4	Proxy Group		0.97		1.08		0.82	
5	Percentage Difference		-1.9%		1.4%		40.3%	13.2%

B. Assume percentage difference is the same for electric utilities as companies in general

		<u>Value Line Beta</u>	<u>Sum Beta</u>
6	Proxy Group ⁵	0.75	0.71
7	Implied Beta for Company ⁶	0.85	0.80

Notes:

¹ CV stands for Coefficient of Variation,

² Source is Kroll, 2023 Supplementary Risk Study, Companies Ranked by Operating Margin.

³ Source is Kroll 2023, Supplementary Risk Study, Companies Ranked by CV (Operating Margin).

⁴ Source is Kroll 2023, Supplementary Risk Study, Companies Ranked by CV (Operating Margin).

⁵ Source is Table 2.

⁶ Calculated by multiplying (1+ percentage difference in risk study betas) times average beta for the proxy group.

**Liberty Utilities (Calpeco) Corp.
Capital Asset Pricing Model (CAPM)**

**Exhibit TJB-3
Page 7 of 7
Witness: Bourassa**

Line No.		R_f^1	+	(	β^2	x	RP_M^4	)	=	k	CAPM Results From Table 11	Difference		
1	Traditional CAPM	4.4%	+ <td>(</td> <td>0.85</td> <td>x</td> <td>6.57%</td> <td>)</td> <td>=</td> <td>10.0%</td> <td>9.3%</td> <td>0.7%</td>	(0.85	x	6.57%)	=	10.0%	9.3%	0.7%				
2																
3		R_f^1			$RP_M^4 \times .25$	+ <td>(</td> <td>β^2</td> <td>x</td> <td>RP_M^3</td> <td>) x .75</td> <td></td>	(β^2	x	RP_M^3) x .75					
4	Empirical CAPM	4.4%	+ <td></td> <td>6.57%</td> <td>x .25</td> <td>+<td>(</td><td>0.85</td><td>x</td><td>6.57%</td><td>) x .75</td><td>=</td><td>10.2%</td><td>9.7%</td><td>0.5%</td></td>		6.57%	x .25	+ <td>(</td> <td>0.85</td> <td>x</td> <td>6.57%</td> <td>) x .75</td> <td>=</td> <td>10.2%</td> <td>9.7%</td> <td>0.5%</td>	(0.85	x	6.57%) x .75	=	10.2%	9.7%	0.5%
5																
6		R_f^1	+ <td>(</td> <td>β^3</td> <td>x</td> <td>RP_M^4</td> <td>)</td> <td>+</td> <td>RP_s^5</td> <td></td> <td></td>	(β^3	x	RP_M^4)	+	RP_s^5						
7	Modified CAPM	4.4%	+ <td>(</td> <td>0.80</td> <td>x</td> <td>5.95%</td> <td>)</td> <td>+</td> <td>1.59%</td> <td></td> <td></td> <td>=</td> <td>10.8%</td> <td>10.2%</td> <td>0.6%</td>	(0.80	x	5.95%)	+	1.59%			=	10.8%	10.2%	0.6%
8																
9																
10	Average									10.3%	9.7%	0.6%				
11	High											0.7%				
12	Low											0.5%				

Notes:

¹ Forecasts of long-term treasury yields. Source Table 7.

² Average VL Beta of Water Proxy Group. Source is Table 2.

³ Estimate of Market Risk Premium (MRP):

Historical MRP (1926-2024) 7.31% Source is Kroll 2025 CRSP Decile Size Study - Supplementary Exhibits.

Current MRP 5.84% Source is Table 10

Average MRP 6.57%

⁴ Estimate of Market Risk Premium (MRP):

Historical MRP (1963-2024) 6.07% Source is Kroll 2025 CRSP Decile Size Study - Supplementary Exhibits.

Current MRP 5.84% Source is Table 10

Average MRP 5.95%

⁵ Size Premium. Sources Exhibit TJB-COC-DT2, page 1.

Exhibit TJB-4

Size Study

Line No.	Company	Symbol	Measures of size						
			MV	Book	(Millions)		Total	5 Yr Avg.	5 Yr Avg.
			Equity ¹	Equity ¹	MVIC ¹	Net Income ¹	Assets ¹	EBITDA ¹	Sales
1	ALLETE	ALE	\$ 3,757	\$ 2,810	\$ 5,437	\$ 192	\$ 6,656	\$ 426	\$ 1,880
2	Alliant Energy	LNT	\$ 15,608	\$ 7,005	\$ 24,285	\$ 675	\$ 22,714	\$ 1,537	\$ 4,027
3	Amer. Elec. Power	AEP	\$ 55,141	\$ 26,981	\$ 94,449	\$ 2,537	\$ 103,078	\$ 7,417	\$ 18,982
4	Ameren Corp.	AEE	\$ 25,808	\$ 11,350	\$ 40,929	\$ 1,056	\$ 40,830	\$ 2,848	\$ 7,500
5	Avista Corp.	AVA	\$ 3,069	\$ 2,590	\$ 5,770	\$ 157	\$ 7,941	\$ 521	\$ 1,752
6	Black Hills	BKH	\$ 4,095	\$ 3,216	\$ 7,897	\$ 243	\$ 9,620	\$ 685	\$ 2,552
7	CMS Energy Corp.	CMS	\$ 20,844	\$ 8,005	\$ 36,150	\$ 846	\$ 35,920	\$ 2,432	\$ 7,462
8	Consol. Edison	ED	\$ 35,971	\$ 21,964	\$ 60,622	\$ 1,635	\$ 70,562	\$ 4,775	\$ 14,663
9	DTE Energy	DTE	\$ 27,118	\$ 11,053	\$ 44,538	\$ 1,210	\$ 44,755	\$ 3,702	\$ 12,745
10	Duke Energy	DUK	\$ 90,956	\$ 49,152	\$ 167,296	\$ 4,246	\$ 186,343	\$ 12,203	\$ 29,060
11	Edison Int'l	EIX	\$ 20,223	\$ 13,922	\$ 53,757	\$ 1,980	\$ 85,579	\$ 5,711	\$ 16,338
12	Entergy	ETR	\$ 35,031	\$ 15,083	\$ 61,644	\$ 1,465	\$ 64,790	\$ 4,531	\$ 12,147
13	Fortis Inc.	FTS	\$ 31,379	\$ 19,884	\$ 58,953	\$ 1,443	\$ 65,920	\$ 5,032	\$ 11,517
14	IDACORP Inc.	IDA	\$ 6,221	\$ 3,333	\$ 9,275	\$ 259	\$ 9,239	\$ 520	\$ 1,766
15	MGE Energy	MGEE	\$ 3,260	\$ 1,230	\$ 4,024	\$ 110	\$ 2,828	\$ 221	\$ 690
16	Northwestern Corp.	NWE	\$ 3,188	\$ 2,857	\$ 5,886	\$ 13	\$ 7,998	\$ 35	\$ 1,422
17	Pinnacle West Capital	PNW	\$ 10,766	\$ 6,754	\$ 18,825	\$ 553	\$ 26,103	\$ 1,639	\$ 4,696
18	Portland General	POR	\$ 4,460	\$ 3,793	\$ 9,090	\$ 259	\$ 12,544	\$ 870	\$ 2,923
19	Public Serv. Enterprise	PEG	\$ 40,529	\$ 16,115	\$ 59,493	\$ 1,783	\$ 54,640	\$ 4,063	\$ 11,237
20	WEC Energy Group	WEC	\$ 33,110	\$ 12,397	\$ 50,592	\$ 1,355	\$ 47,363	\$ 3,078	\$ 8,893
21	Xcel Energy Inc.	XEL	\$ 38,952	\$ 19,524	\$ 66,268	\$ 1,725	\$ 70,035	\$ 4,821	\$ 14,206
	Proxy Group Average		\$ 24,261	\$ 12,334	\$ 42,151	\$ 1,131	\$ 46,450	\$ 3,194	\$ 8,879
22	Liberty Utilities (Calpeco) Corp.		N/A	\$ 416.9	N/A	\$ 23.1	\$ 995.4	\$ 43.9	\$ 166.5

¹ From Value Line Analyzer

Risk Premium- Size (RP_s) Estimates

Based on *Kroll* 2022 Valuation Handbook (Risk Premium Study Data)

Exhibit TJB-6

Size Premium

Page 2 of 9

Line	Net Income Data (\$ millions)								5-Year
No.	Company	Symbol	2024	2023	2022	2021	2020	Average	
1	ALLETE	ALE	\$ 179.3	\$ 247.1	\$ 189.3	\$ 169.2	\$ 174.2	\$ 191.8	
2	Alliant Energy	LNT	\$ 690.0	\$ 703.0	\$ 686.0	\$ 674.0	\$ 624.0	\$ 675.4	
3	Amer. Elec. Power	AEP	\$ 2,967.1	\$ 2,724.5	\$ 2,307.2	\$ 2,488.1	\$ 2,200.1	\$ 2,537.4	
4	Ameren Corp.	AEE	\$ 1,182.0	\$ 1,152.0	\$ 1,074.0	\$ 995.0	\$ 877.0	\$ 1,056.0	
5	Avista Corp.	AVA	\$ 180.0	\$ 171.2	\$ 155.2	\$ 147.3	\$ 129.5	\$ 156.6	
6	Black Hills	BKH	\$ 273.1	\$ 258.4	\$ 236.7	\$ 232.9	\$ 214.5	\$ 243.1	
7	CMS Energy Corp.	CMS	\$ 1,003.0	\$ 886.0	\$ 833.0	\$ 751.0	\$ 757.0	\$ 846.0	
8	Consol. Edison	ED	\$ 1,868.0	\$ 1,762.0	\$ 1,620.0	\$ 1,528.0	\$ 1,399.0	\$ 1,635.4	
9	DTE Energy	DTE	\$ 1,404.0	\$ 1,397.0	\$ 1,083.0	\$ 796.0	\$ 1,368.0	\$ 1,209.6	
10	Duke Energy	DUK	\$ 4,664.0	\$ 4,391.0	\$ 4,166.0	\$ 4,133.0	\$ 3,878.0	\$ 4,246.4	
11	Edison Int'l	EIX	\$ 2,162.0	\$ 2,035.0	\$ 1,977.0	\$ 1,907.0	\$ 1,818.0	\$ 1,979.8	
12	Entergy	ETR	\$ 1,055.6	\$ 2,356.5	\$ 1,103.2	\$ 1,402.8	\$ 1,406.7	\$ 1,465.0	
13	Fortis Inc.	FTS	\$ 1,680.0	\$ 1,573.0	\$ 1,394.0	\$ 1,294.0	\$ 1,274.0	\$ 1,443.0	
14	IDACORP Inc.	IDA	\$ 289.2	\$ 261.2	\$ 259.0	\$ 245.6	\$ 237.4	\$ 258.5	
15	MGE Energy	MGEE	\$ 120.6	\$ 117.7	\$ 111.0	\$ 105.8	\$ 92.4	\$ 109.5	
16	Northwestern Corp.	NWE	\$ 13.3	\$ 13.7	\$ 12.6	\$ 13.2	\$ 13.6	\$ 13.3	
17	Pinnacle West Capital	PNW	\$ 608.8	\$ 501.6	\$ 483.6	\$ 618.7	\$ 550.6	\$ 552.7	
18	Portland General	POR	\$ 327.0	\$ 233.0	\$ 245.0	\$ 244.0	\$ 247.0	\$ 259.2	
19	Public Serv. Enterprise	PEG	\$ 1,839.0	\$ 1,742.0	\$ 1,739.0	\$ 1,853.0	\$ 1,741.0	\$ 1,782.8	
20	WEC Energy Group	WEC	\$ 1,528.4	\$ 1,332.9	\$ 1,409.3	\$ 1,301.5	\$ 1,201.1	\$ 1,354.6	
21	Xcel Energy Inc.	XEL	\$ 1,969.0	\$ 1,851.0	\$ 1,736.0	\$ 1,597.0	\$ 1,473.0	\$ 1,725.2	
22	Liberty Utilities (Calpeco) Corp.		\$ 5.3	\$ 34.4	\$ 23.4	\$ 29.3	\$ 36.8	\$ 23.1	

Net Income data for publicly traded water utilities from Value Line, Zacks Investment Research, 10K, and/or Yahoo Finance

Risk Premium- Size (RP_s) Estimates

Based on *Kroll* 2022 Valuation Handbook (Risk Premium Study Data)

Exhibit TJB-6

Size Premium

Page 3 of 9

Line	<u>EBITDA Data (\$ millions)</u>							5-Year
<u>No.</u>	<u>Company</u>	<u>Symbol</u>	<u>2024</u>	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>Average</u>
1	ALLETE	ALE	\$ 432	\$ 497	\$ 447	\$ 383	\$ 369	\$ 426
2	Alliant Energy	LNT	\$ 1,658	\$ 1,619	\$ 1,599	\$ 1,452	\$ 1,355	\$ 1,537
3	Amer. Elec. Power	AEP	\$ 9,435	\$ 8,414	\$ 6,886	\$ 6,458	\$ 5,895	\$ 7,417
4	Ameren Corp.	AEE	\$ 3,106	\$ 3,074	\$ 2,953	\$ 2,633	\$ 2,475	\$ 2,848
5	Avista Corp.	AVA	\$ 698	\$ 529	\$ 457	\$ 463	\$ 460	\$ 521
6	Black Hills	BKH	\$ 773	\$ 716	\$ 652	\$ 661	\$ 623	\$ 685
7	CMS Energy Corp.	CMS	\$ 2,727	\$ 2,415	\$ 2,350	\$ 2,260	\$ 2,410	\$ 2,432
8	Consol. Edison	ED	\$ 4,886	\$ 4,362	\$ 4,425	\$ 5,310	\$ 4,894	\$ 4,775
9	DTE Energy	DTE	\$ 3,937	\$ 4,386	\$ 3,710	\$ 3,012	\$ 3,466	\$ 3,702
10	Duke Energy	DUK	\$ 14,511	\$ 13,260	\$ 12,171	\$ 11,036	\$ 10,039	\$ 12,203
11	Edison Int'l	EIX	\$ 6,724	\$ 6,224	\$ 5,714	\$ 5,301	\$ 4,594	\$ 5,711
12	Entergy	ETR	\$ 5,095	\$ 4,862	\$ 4,241	\$ 4,429	\$ 4,027	\$ 4,531
13	Fortis Inc.	FTS	\$ 5,219	\$ 7,746	\$ 4,408	\$ 3,974	\$ 3,811	\$ 5,032
14	IDACORP Inc.	IDA	\$ 588	\$ 517	\$ 501	\$ 509	\$ 485	\$ 520
15	MGE Energy	MGEE	\$ 255	\$ 247	\$ 223	\$ 194	\$ 184	\$ 221
16	Northwestern Corp.	NWE	\$ 37	\$ 36	\$ 31	\$ 34	\$ 36	\$ 35
17	Pinnacle West Capital	PNW	\$ 1,968	\$ 1,679	\$ 1,550	\$ 1,524	\$ 1,474	\$ 1,639
18	Portland General	POR	\$ 1,027	\$ 861	\$ 831	\$ 782	\$ 850	\$ 870
19	Public Serv. Enterprise	PEG	\$ 4,121	\$ 3,962	\$ 3,892	\$ 4,254	\$ 4,086	\$ 4,063
20	WEC Energy Group	WEC	\$ 3,519	\$ 3,351	\$ 3,047	\$ 2,789	\$ 2,682	\$ 3,078
21	Xcel Energy Inc.	XEL	\$ 5,308	\$ 5,155	\$ 4,982	\$ 4,460	\$ 4,198	\$ 4,821
22	Liberty Utilities (Calpeco) Corp.		\$ 47.3	\$ 56.8	\$ 36.0	\$ 39.1	\$ 40.5	\$ 43.9

Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA). From Value Line Analyzer.

Liberty Utilities (Calpeco) Corp.

Comparative Risk Study - Adjustment to Size Premium

Based on *Kroll* 2023 Size Risk Premium Study Data

Step 1 - Identify the equivalent C exhibit for the B exhibits used to compute the size premium.

Step 2 - Identify the fundamental risk characteristics of the companies of the equivalent portfolio in

Step 3 - Identify the guideline portfolio in the D exhibit which has the most similar fundamental risk characteristic found in Step 2 and find the smoothed average risk premium.

Step 4 - Identify the guideline portfolio in the D exhibit which has the most similar fundamental risk characteristic to the Company and find the smoothed average risk premium.

Step 5 - The difference in smoothed average risk premiums is the maximum indicated risk adjustment.

The range of adjustments may be 0 or at the maximum depending on the circumstances.

Adjustment to Size Premium

Page 5 of 9

Line	No.	Company	Symbol	Measures of size						
				MV	Book	(Millions)		Total	5 Yr Avg.	Sales
				Equity ¹	Equity ¹	MVIC ¹	Net Income ¹	Assets ¹	EBITDA ¹	
	1	ALLETE	ALE	\$ 3,757	\$ 2,810	\$ 5,437	\$ 192	\$ 6,656	\$ 426	\$ 1,880
	2	Alliant Energy	LNT	\$ 15,608	\$ 7,005	\$ 24,285	\$ 675	\$ 22,714	\$ 1,537	\$ 4,027
	3	Amer. Elec. Power	AEP	\$ 55,141	\$ 26,981	\$ 94,449	\$ 2,537	\$ 103,078	\$ 7,417	\$ 18,982
	4	Ameren Corp.	AEE	\$ 25,808	\$ 11,350	\$ 40,929	\$ 1,056	\$ 40,830	\$ 2,848	\$ 7,500
	5	Avista Corp.	AVA	\$ 3,069	\$ 2,590	\$ 5,770	\$ 157	\$ 7,941	\$ 521	\$ 1,752
	6	Black Hills	BKH	\$ 4,095	\$ 3,216	\$ 7,897	\$ 243	\$ 9,620	\$ 685	\$ 2,552
	7	CMS Energy Corp.	CMS	\$ 20,844	\$ 8,005	\$ 36,150	\$ 846	\$ 35,920	\$ 2,432	\$ 7,462
	8	Consol. Edison	ED	\$ 35,971	\$ 21,964	\$ 60,622	\$ 1,635	\$ 70,562	\$ 4,775	\$ 14,663
	9	DTE Energy	DTE	\$ 27,118	\$ 11,053	\$ 44,538	\$ 1,210	\$ 44,755	\$ 3,702	\$ 12,745
	10	Duke Energy	DUK	\$ 90,956	\$ 49,152	\$ 167,296	\$ 4,246	\$ 186,343	\$ 12,203	\$ 29,060
	11	Edison Int'l	EIX	\$ 20,223	\$ 13,922	\$ 53,757	\$ 1,980	\$ 85,579	\$ 5,711	\$ 16,338
	12	Entergy	ETR	\$ 35,031	\$ 15,083	\$ 61,644	\$ 1,465	\$ 64,790	\$ 4,531	\$ 12,147
	13	Fortis Inc.	FTS	\$ 31,379	\$ 19,884	\$ 58,953	\$ 1,443	\$ 65,920	\$ 5,032	\$ 11,517
	14	IDACORP Inc.	IDA	\$ 6,221	\$ 3,333	\$ 9,275	\$ 259	\$ 9,239	\$ 520	\$ 1,766
	15	MGE Energy	MGEE	\$ 3,260	\$ 1,230	\$ 4,024	\$ 110	\$ 2,828	\$ 221	\$ 690
	16	Northwestern Corp.	NWE	\$ 3,188	\$ 2,857	\$ 5,886	\$ 13	\$ 7,998	\$ 35	\$ 1,422
	17	Pinnacle West Capital	PNW	\$ 10,766	\$ 6,754	\$ 18,825	\$ 553	\$ 26,103	\$ 1,639	\$ 4,696
	18	Portland General	POR	\$ 4,460	\$ 3,793	\$ 9,090	\$ 259	\$ 12,544	\$ 870	\$ 2,923
	19	Public Serv. Enterprise	PEG	\$ 40,529	\$ 16,115	\$ 59,493	\$ 1,783	\$ 54,640	\$ 4,063	\$ 11,237
	20	WEC Energy Group	WEC	\$ 33,110	\$ 12,397	\$ 50,592	\$ 1,355	\$ 47,363	\$ 3,078	\$ 8,893
	21	Xcel Energy Inc.	XEL	\$ 38,952	\$ 19,524	\$ 66,268	\$ 1,725	\$ 70,035	\$ 4,821	\$ 14,206

¹ From Value Line Analyzer

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Liberty Utilities (Calpeco) Corp.
Comparative Risk Study - Adjustment to Size Premium
Based on *Kroll* 2023 Size Risk Premium Study Data
Estimate of Risk Premium Adjustment

Line No.	Company	Symbol	5 -Year Historical		
			OM	CV (OM)	CV(ROE)
1	ALLETE	ALE	11.95%	10.63%	12.69%
2	Alliant Energy	LNT	22.21%	3.24%	4.53%
3	Amer. Elec. Power	AEP	23.45%	22.56%	5.40%
4	Ameren Corp.	AEE	20.60%	6.15%	2.43%
5	Avista Corp.	AVA	16.56%	22.06%	3.42%
6	Black Hills	BKH	22.23%	12.96%	6.15%
7	CMS Energy Corp.	CMS	17.32%	15.39%	6.54%
8	Consol. Edison	ED	19.43%	22.66%	5.80%
9	DTE Energy	DTE	15.36%	30.27%	12.38%
10	Duke Energy	DUK	22.77%	12.97%	5.06%
11	Edison Int'l	EIX	20.26%	8.34%	4.93%
12	Entergy	ETR	17.22%	21.15%	32.42%
13	Fortis Inc.	FTS	31.90%	35.31%	8.84%
14	IDACORP Inc.	IDA	20.61%	10.24%	2.71%
15	MGE Energy	MGEE	20.37%	5.20%	3.78%
16	Northwestern Corp.	NWE	20.11%	7.33%	6.05%
17	Pinnacle West Capital	PNW	19.48%	11.30%	11.73%
18	Portland General	POR	15.82%	10.62%	10.80%
19	Public Serv. Enterprise	PEG	26.68%	7.86%	7.44%
20	WEC Energy Group	WEC	22.57%	9.58%	3.97%
21	Xcel Energy Inc.	XEL	17.39%	6.71%	1.81%

22	Proxy Group Average		20.20%	13.93%	7.57%
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Proxy Group Risk Differences

					<u>Average</u>
23	Smoothed Average Risk Premium From Equivalent C	8.94%	9.72%	8.89%	9.18%
24	Smoothed Average Risk Premium From Equivalent C	10.46%	9.86%	9.76%	10.03%
25	Indicated Risk Adjustment	-1.53%	-0.14%	-0.87%	-0.85%
					<u>Mid-point</u>
26	Possible Adjustment to Risk Premium	0.00%	to	-0.85%	-0.42%

		5 -Year Historical		
		OM	CV (OM)	CV(ROE)
27	<u>Liberty Utilities (Calpeco) Corp.</u>	21.34%	15.67%	54.41%
				<u>Average</u>
28	Smoothed Average Risk Premium From Equivalent C	8.78%	9.84%	10.20%
29	Smoothed Average Risk Premium From Equivalent C	10.46%	9.86%	9.76%
30	Indicated Risk Adjustment	-1.68%	-0.03%	0.43%
				<u>Mid-point</u>
31	Possible Adjustment to Risk Premium	0.00%	to	-0.42%

Exhibit TJB-5

Blue Chip Financial Forecasts

Blue Chip Financial Forecasts®

**Top Analysts' Forecasts Of U.S. And Foreign Interest Rates, Currency Values
And The Factors That Influence Them**

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BLUE CHIP FINANCIAL FORECASTS®

Executive Editor: Joseph Aguinaldo
Assistant Editor: Jules Valencia
Haver Analytics
60 East 42nd Street
New York, NY 10165
Phone (212) 986-9300
E-mail: bluechip@haver.com

Robert J. Eggert, Founder
Randell E. Moore, Editor Emeritus
Chris Carr, Portfolio Director

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Diminished Tariff Risks; Heightened Budget Risks

Concern among investors and traders over the economic effects of President Trump's tariffs has lessened. Major indexes of equity values have retraced all the ground lost after the announcement of reciprocal tariffs on April 2, and they are down only moderately for the year thus far (-0.2% for the S&P 500 and -2.0% for NASDAQ). The 90-day delay in the implementation of reciprocal tariffs supported the view that President Trump is using tariffs as a bargaining tool in trade negotiations rather than as a major revenue-raising effort. This view was reinforced by the rapid adjustment to the surprise announcement on May 24 of a 50% tariff on goods from the European Union. More important, the recent decision by the U.S. Court of International Trade that President Trump does not have authority to impose many of his announced tariffs seems to dampen risks, although this decision could change on appeal.

While tariffs are weighing less heavily on financial markets, the budget of the U.S. government might be moving to center stage. The downgrading of federal debt by Moody's on May 16 served as a wake-up call, signaling that the United States is on an unsustainable fiscal path. Budget negotiations now underway in Congress will keep budget issues in the news, and figures on deficits and debt highlighted by the media are likely to be discouraging.

Estimates from the Joint Committee on Taxation and the Congressional Budget Office based on the "One Big Beautiful Bill" approved by the House of Representatives show that the cumulative budget deficit over the next 10 years will be \$2.3 trillion wider than it would be in the absence of the new legislation. Most of this deterioration is the result of Congress making permanent many of the 2017 tax cuts that expire at the end of this year. The bill also includes numerous other measures, some widening and others narrowing budget deficits. In total, if not altered substantially by the Senate, the budget bill will worsen an already uncomfortable fiscal position.

The fixed income markets have shifted with the tariff and budget news. Interest rates on long-term Treasury securities eased in the early months of the year, when tariff talk and thoughts of recession carried sway. Longer-term rates have increased approximately 50 basis points in the past several weeks as perceived tariff threats have diminished and as budget news has become more prominent. Yields on 20-year and 30-year Treasury securities moved to the upper ends of the ranges from the past few years, exceeded only slightly by readings in late 2023, which were the highest since mid-2007.

Of note, the increase in Treasury rates has been accompanied by a softening in the foreign exchange value of the U.S. dollar. In the past five months, the Federal Reserve's dollar index against advanced foreign currencies has moved from the upper portion of its post-pandemic range to the lower portion, dropping more than 8% over this span. The shift signals a loss of

interest in U.S. securities by foreign investors at a time when funding needs are elevated. It also suggests a clash in policies of the Trump administration. Tariffs, if successful, would reduce trade deficits, which would require an easing in the inflow of foreign investment to maintain balance in international accounts. The loss of foreign financial support complicates the funding of undisciplined fiscal policies.

The views of the Blue Chip panel on long-term interest rates have changed only modestly in response to the shifting news on tariffs and the budget. The expected yield on 10-year Treasury securities has remained in the low-to-mid 4% area in all the monthly surveys so far this year; the expected yield on 30-year treasuries has fluctuated in the mid-to-upper 4% area.

Panelists apparently are not alarmed about the fiscal challenges facing the federal government, as the long-range views collected in this survey show stable long-term rates. The yield on 10-year Treasuries averages either 4.0% or 4.1% every year from 2026 to 2031; the projected 30-year yield ranges from 4.3% to 4.5% over the same time span.

From a short-term cyclical perspective, The Blue Chip panel expects that tariffs, although less threatening than they were two months ago, will have a constraining influence on economic growth and will boost inflation for a time. The third quarter of this year is expected to show the sharpest effects of tariffs, with GDP growth totaling only 0.4% (q/q, SAAR) and PCE inflation jumping to 3.5%. Although expected growth in Q3 is modest, it is a tad better than the 0.3% in the prior survey – consistent with diminished risks from tariffs. After Q3, growth gradually quickens, moving to 2.0% in 2026-Q3; inflation slows to 2.3% at the end of the forecast horizon, only slightly above the Fed's target of 2.0%.

Blue Chip forecasters expect the Federal Reserve to provide support during the period of slow growth, with the expected federal funds rate falling almost a full percentage point over the forecast horizon (from 4.3% to 3.4%). Fed Chair Jerome Powell has noted on several occasions that the Fed is well positioned to fight either slower growth or faster inflation – implying that the next change in policy could be a rate hike. However, the special questions in this survey show unanimous expectations of easier policy. Long-term rates usually show smaller changes than short-term rates as monetary policy shifts. That pattern is evident in the Blue Chip survey, as long-term rates are expected to change moderately, with the consensus view on the 30-year Treasury yield moving from 4.8% in 2025-Q2 to 4.5% in the third quarter of 2026.

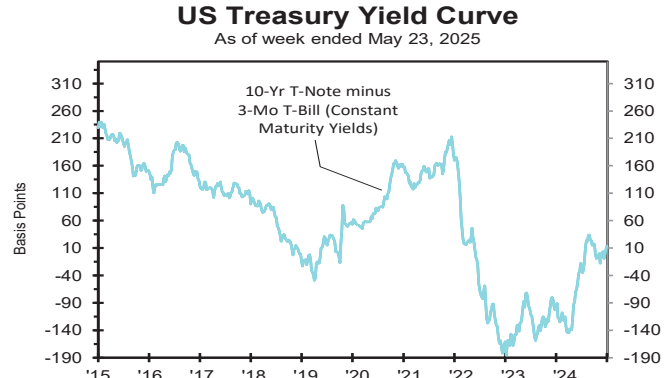
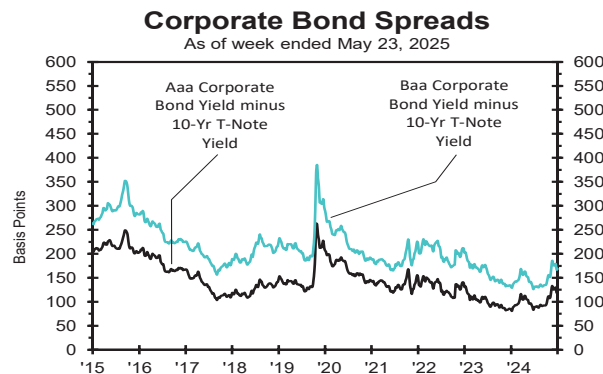
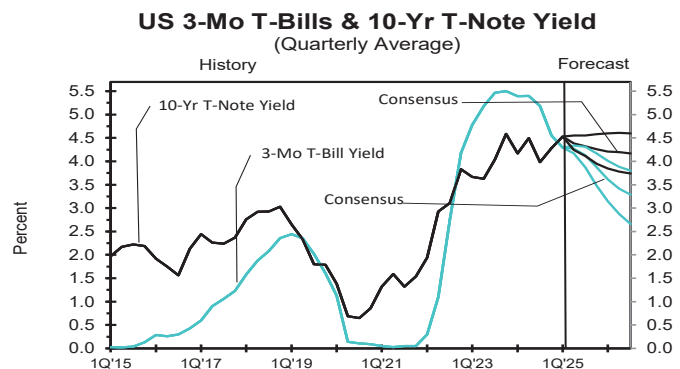
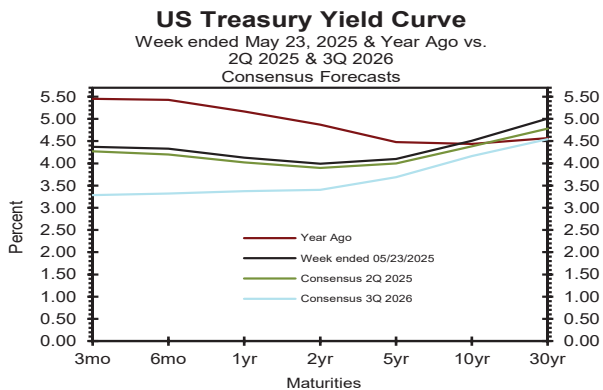
Mike Moran (Haver Analytics, New York, NY)

Consensus Forecasts of U.S. Interest Rates and Key Assumptions

Interest Rates	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month			Latest Qtr	2Q	3Q	4Q	1Q	2Q	3Q
	May 23	May 16	May 9	May 2	Apr	Mar	Feb	1Q 2025	2025	2025	2025	2026	2026	2026
Federal Funds Rate	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.3	4.2	3.9	3.7	3.5	3.4
Prime Rate	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.5	7.4	7.1	6.8	6.6	6.5
SOFR	4.27	4.30	4.30	4.38	4.35	4.33	4.34	4.33	4.3	4.2	4.0	3.7	3.5	3.3
Commercial Paper, 1-mo.	4.31	4.32	4.33	4.31	4.34	4.32	4.31	4.32	4.3	4.2	3.9	3.7	3.4	3.3
Treasury bill, 3-mo.	4.37	4.40	4.34	4.32	4.32	4.34	4.33	4.34	4.3	4.1	3.9	3.6	3.4	3.3
Treasury bill, 6-mo.	4.33	4.29	4.27	4.22	4.20	4.27	4.30	4.28	4.2	4.1	3.8	3.6	3.5	3.3
Treasury bill, 1 yr.	4.13	4.12	4.02	3.92	3.95	4.06	4.19	4.14	4.0	3.9	3.8	3.6	3.5	3.4
Treasury note, 2 yr.	3.99	4.00	3.83	3.69	3.78	3.97	4.21	4.15	3.9	3.8	3.7	3.5	3.5	3.4
Treasury note, 5 yr.	4.10	4.10	3.94	3.81	3.91	4.04	4.28	4.25	4.0	4.0	3.9	3.8	3.7	3.7
Treasury note, 10 yr.	4.51	4.47	4.33	4.23	4.28	4.28	4.45	4.45	4.4	4.3	4.3	4.2	4.2	4.2
Treasury note, 30 yr.	5.01	4.92	4.81	4.70	4.71	4.60	4.68	4.71	4.8	4.7	4.6	4.6	4.6	4.5
Corporate Aaa bond	5.73	5.66	5.63	5.52	5.56	5.38	5.39	5.44	5.4	5.4	5.3	5.3	5.2	5.2
Corporate Baa bond	6.20	6.14	6.12	6.01	6.06	5.81	5.82	5.86	6.2	6.2	6.2	6.1	6.1	6.0
State & Local bonds	4.48	4.46	4.46	4.48	4.50	4.22	4.16	4.19	4.6	4.6	4.5	4.4	4.5	4.4
Home mortgage rate	6.86	6.81	6.76	6.76	6.73	6.65	6.84	6.82	6.8	6.7	6.5	6.4	6.3	6.3

Key Assumptions	History								Consensus Forecasts-Quarterly					
	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q
	2023	2023	2023	2024	2024	2024	2024	2025	2025	2025	2025	2026	2026	2026
Fed's AFE \$ Index	114.6	115.0	116.6	115.5	117.3	114.9	117.9	119.8	115.1	114.4	113.6	113.0	112.9	113.0
Real GDP	2.4	4.4	3.2	1.6	3.0	3.1	2.4	-0.2	1.3	0.4	0.9	1.4	1.8	2.0
GDP Price Index	1.9	3.2	1.5	3.0	2.5	1.9	2.3	3.7	2.9	3.4	2.8	2.6	2.2	2.3
Consumer Price Index	3.0	3.5	2.8	3.7	2.8	1.4	3.0	3.8	2.7	3.7	3.1	2.8	2.5	2.5
PCE Price Index	2.9	2.7	1.7	3.4	2.5	1.5	2.4	3.6	2.7	3.5	2.9	2.7	2.4	2.3

Forecasts for interest rates and the Federal Reserve's Advanced Foreign Economies Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index, CPI and PCE Price Index are seasonally adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data: Treasury rates from the Federal Reserve Board's H.15; AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity; State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity; Mortgage rates from Freddie Mac, 30-year, fixed; SOFR from the New York Fed. All interest rate data are sourced from Haver Analytics. Historical data for Fed's Major Currency Index are from FRSR H.10. Historical data for Real GDP, GDP Price Index and PCE Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index history is from the Department of Labor's Bureau of Labor Statistics (BLS).



Policy Rates¹

	History			Consensus Forecasts		
	Month	Year		Months From Now:		
	Latest:	Agg:	Agg:	3	6	12
U.S.	4.38	4.38	5.38	4.31	4.03	3.51
Japan	0.50	0.50	0.05	0.50	0.51	0.67
U.K.	4.25	4.50	5.25	4.10	3.83	3.58
Switzerland	0.25	0.25	1.50	0.20	0.13	0.19
Canada	2.75	2.75	5.00	2.54	2.40	2.30
Australia	3.85	4.10	4.35	3.72	3.45	3.37
Euro area	2.40	2.40	4.50	2.04	1.80	1.82

10-Yr. Government Bond Yields²

	History			Consensus Forecasts		
	Month	Year		Months From Now:		
	Latest:	Agg:	Agg:	3	6	12
U.S.	4.51	4.29	4.46	4.33	4.29	4.28
Germany	2.57	2.47	2.58	2.56	2.59	2.63
Japan	1.56	1.35	1.02	1.37	1.36	1.42
U.K.	4.69	4.44	4.27	4.56	4.49	4.36
France	3.30	3.15	3.06	3.27	3.34	3.47
Italy	3.61	3.57	3.89	3.69	3.75	3.92
Switzerland	0.35	0.42	0.76	0.38	0.47	0.59
Canada	3.35	3.17	3.61	3.08	3.13	3.32
Australia	4.42	4.19	4.31	4.25	4.27	4.32
Spain	3.23	3.11	3.33	3.11	3.13	3.35

Foreign Exchange Rates³

	History			Consensus Forecasts		
	Month	Year		Months From Now:		
	Latest:	Agg:	Agg:	3	6	12
U.S.	112.30	112.77	116.93	115.8	112.9	109.8
Japan	142.61	143.75	156.90	144.1	142.0	138.6
U.K.	1.35	1.33	1.27	1.31	1.31	1.30
Switzerland	0.82	0.83	0.91	0.85	0.84	0.84
Canada	1.38	1.39	1.37	1.39	1.39	1.37
Australia	0.65	0.64	0.66	0.64	0.65	0.66
Euro	1.14	1.14	1.09	1.12	1.13	1.15

**Consensus
Policy Rates
vs. US Rate**

	Now	In 12 Mo.
Japan	-3.88	-2.84
U.K.	-0.13	0.07
Switzerland	-4.13	-3.31
Canada	-1.63	-1.21
Australia	-0.53	-0.14
Euro area	-1.98	-1.69

**Consensus
10-Year Gov't
Yields vs. U.S. Yield**

	Now	In 12 Mo.
Germany	-1.94	-1.65
Japan	-2.95	-2.86
U.K.	0.18	0.08
France	-1.23	-0.81
Italy	-0.90	-0.36
Switzerland	-4.16	-3.69
Canada	-1.16	-0.96
Australia	-0.09	0.04
Spain	-1.28	-0.93

International. Financial markets remained volatile through May, as the global economy continued to absorb the aftershocks of the Trump administration's sweeping "Liberation Day" tariffs unveiled on April 2. Though increases were broadly spread, the program quickly escalated tensions with China. However, a turning point came on May 12, when both sides agreed to a 90-day pause. This reset has not resolved the underlying conflict, but it has materially improved bilateral trade relations—at least for now. The move also provided modest relief to markets and supply chains where exemptions were granted. Further uncertainty has since emerged following a May 28 ruling by the US Court of International Trade, which blocked key elements of the Trump administration's reciprocal tariff strategy—casting doubt over the legal durability and future direction of US trade policy.

Still, while tensions with China have eased and legal challenges have begun to undermine enforceability, broader risks to global trade and capital flows remain elevated. Frictions with Europe persist, and concerns over US capital flight have begun to surface as global investors reassess the safety and predictability of US policy. With trade policy now a source of volatility, and the US running large twin deficits, the risk is that demand for Treasuries weakens just as issuance surges—putting renewed pressure on global bond markets and amplifying the fragilities already exposed by rising real yields.

Against this backdrop, a defining financial market development in May has been a broad-based rise in long-term interest rates. In the US, the 10-year Treasury yield climbed to 4.58% on May 21, reaching its highest level since October 2024. Similarly, Germany's 10-year government bond yields rose to 2.68% in mid-May, a jump of 35bps compared with end-April. Japan's 10-year government bond yield increased to 1.56% on May 22, marking a significant rise from 1.31% at end-April. These movements reflect a repricing of risk and term premia, as investors reassess the inflation outlook, fiscal trajectories, and structural imbalances in major economies. While there has been a modest decline in global yields in recent days, the overall trend underscores the heightened sensitivity of global bond markets to evolving economic and policy developments.

That repricing is occurring against a backdrop of economic data that paint a picture of fragile resilience. In the US, the labor market has remained steady, though recent indicators suggest some cooling in consumer spending and business investment. The Conference Board gauge of consumer sentiment, however, rebounded in May, offering a modest counterpoint to otherwise cautious data. In Europe, the tone remains subdued. Business surveys suggest tentative stabilization, but growth momentum is weak and uneven across sectors. Japan's economy contracted in Q1, driven by a pullback in consumer spending and sluggish business investment, renewing concerns about the durability of its recovery and prompting speculation (and reinforced in our panelists' forecasts) that the Bank of Japan may delay further tightening. Meanwhile, China has delivered mixed signals: industrial production has picked up pace, suggesting some traction in manufacturing and export-oriented sectors, but the housing market remains troubled.

In this environment, central banks face an increasingly asymmetric challenge. While our panelists still anticipate rate cuts from most major central banks in the months ahead, the global backdrop no longer supports the clean disinflation narrative that previously underpinned a broad easing cycle. Instead, our latest survey shows modest upward revisions to policy rate expectations in most major economies compared with last month, while projections for 10-year bond yields have also been marked higher.

Despite higher US yields, the dollar has remained soft in recent weeks—a divergence that continues to reflect structural concerns around the durability of the US's global financial leadership. However, in our latest survey, there were no further major downward revisions to dollar forecasts. This suggests that, for now, Blue Chip forecasters see limited additional downside, perhaps reflecting a more measured view of the economic fallout from US tariff policies.

Forecasts of panel members are on pages 10 and 11. Definitions of variables are as follows: ¹Monetary policy rates. ²Government bonds are yields to maturity. ³Foreign exchange rate forecasts for U.K., Australia and the Euro are U.S. dollars per currency unit. For the U.S. dollar, forecasts are of the U.S. Federal Reserve Board's AFE Dollar Index.

Second Quarter 2025

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter--															Avg. For --Qtr.-- A. Fed's Adv Fgn Econ \$ Index	(Q-Q % Change) --(SAAR)--												
	Short-Term					Intermediate-Term					Long-Term						B. Real GDP	C. Price Index	D. Cons. Price Index	E. PCE Price Index									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15														
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate														
J.P. Morgan Chase	4.5	H	na	na	na	na	na	na	3.9	4.0	4.3	4.6	na	na	na	na	na	2.0	2.1	2.3	2.3								
Naroff Economics LLC	4.5	H	7.5	H	4.5	4.8	H	4.3	4.3	H	4.1	4.0	3.9	4.6	4.7	na	na	4.1	L	6.7	115.5								
Scotiabank Group	4.5	H	na	4.3	na	4.3	na	na	3.9	4.0	4.3	4.8	na	na	na	na	na	na	0.8	3.3	3.6	2.6							
Bank of America	4.4	na	na	na	na	na	na	na	3.9	4.0	4.4	4.8	na	na	na	na	na	na	2.0	2.5	2.4	2.3							
Barclays	4.4	na	na	na	na	na	na	na	3.9	3.9	4.3	4.7	na	na	na	na	na	na	1.0	2.2	2.2	2.0							
BMO Capital Markets	4.4	7.5	H	4.3	4.3	4.4	H	4.3	H	4.0	3.9	4.0	4.4	4.8	5.7	6.4	4.5	6.8	113.8	1.0	3.0	1.9	2.1						
Daiwa Capital Markets America	4.4	7.5	H	na	na	4.3	na	na	3.9	4.0	4.4	4.8	na	na	na	na	6.8	117.0	0.6	2.9	2.7	2.6							
Economist Intelligence Unit	4.4	7.5	H	na	na	4.4	H	na	4.3	H	na	na	na	na	na	na	na	na	na	-1.2	L	na	4.5	na					
Georgia State University	4.4	7.5	H	na	na	4.3	4.2	4.0	3.9	4.0	4.3	4.7	5.3	6.1	na	na	6.6	na	3.2	2.7	3.0	3.4							
Goldman Sachs & Co.	4.4	na	na	na	na	4.0	na	na	na	4.0	4.1	4.5	4.9	na	na	na	na	na	na	2.3	2.2	2.9	2.3						
ING	4.4	na	na	na	na	na	na	na	na	4.0	4.3	4.8	H	5.2	H	na	na	na	na	na	1.4	na	na	na					
KPMG	4.4	7.5	H	4.4	4.4	4.3	4.2	4.0	4.0	4.1	4.4	4.5	L	5.0	6.2	na	6.9	na	1.2	1.9	0.9	L	1.6						
MacroPolicy Perspectives	4.4	7.5	H	4.4	4.3	4.3	4.2	4.0	3.8	4.0	4.3	4.8	5.4	6.1	4.5	6.8	113.9	4.5	H	2.4	1.9	2.3							
Nomura Securities, Inc.	4.4	7.5	H	na	na	na	na	na	na	4.0	4.1	4.2	na	na	na	na	na	na	na	1.2	1.8	2.0	2.2						
Oxford Economics	4.4	7.5	H	4.4	na	4.4	H	4.2	4.0	3.9	3.9	4.3	4.8	4.7	L	na	na	6.8	116.2	1.5	1.6	1.6	1.8						
S&P Global Market Intelligence	4.4	7.5	H	4.3	na	4.2	4.1	3.9	3.7	L	3.8	L	4.1	L	4.6	na	na	na	6.6	na	1.0	7.0	H	5.6	H	6.5	H		
The Lonski Group	4.4	7.5	H	4.3	4.4	4.3	4.2	4.1	3.9	4.0	4.4	4.8	5.6	6.1	4.6	6.8	112.9	1.5	3.0	1.8	1.9								
The Northern Trust Company	4.4	7.5	H	4.3	4.4	4.3	4.2	4.0	3.8	3.9	4.3	4.7	5.3	6.0	4.4	6.8	114.0	1.2	2.5	3.2	3.0								
Wells Fargo	4.4	7.5	H	4.4	4.4	4.3	4.1	3.8	L	3.7	L	3.8	L	4.2	4.8	5.4	6.4	4.8	6.6	na	1.6	2.0	1.8	2.0					
Action Economics	4.3	7.5	H	4.6	H	4.3	4.2	4.1	3.9	3.8	3.9	4.3	4.8	5.5	6.2	4.4	7.0	119.8	2.0	3.0	1.9	2.0							
Chan Economics	4.3	7.5	H	4.3	4.3	4.2	4.1	4.0	3.9	4.0	4.4	4.6	5.3	6.1	4.6	6.7	112.3	1.5	2.3	2.6	2.4								
Chmura Economics & Analytics	4.3	7.5	H	4.3	4.3	4.3	4.2	4.0	3.9	4.0	4.4	4.8	5.5	na	na	6.8	na	0.6	3.4	3.5	2.8								
Comerica Bank	4.3	7.5	H	4.4	na	4.3	4.3	H	4.1	3.9	4.1	4.5	4.9	5.8	6.5	na	6.9	na	-1.0	3.0	1.6	2.1							
DePrince & Assoc.	4.3	7.5	H	4.3	4.3	4.3	4.2	4.0	3.8	3.9	4.3	4.8	5.5	6.3	4.6	6.8	113.7	1.5	2.9	3.1	3.0								
EY-Parthenon	4.3	na	na	na	na	4.3	na	na	na	na	4.2	na	na	na	na	na	na	na	na	1.0	3.6	2.9	2.9						
Fannie Mae	4.3	7.5	H	na	na	na	4.3	4.3	H	4.0	3.9	4.0	4.4	4.9	na	na	na	na	6.8	na	1.7	5.2	3.9	4.7					
Loomis, Sayles & Company	4.3	7.5	H	4.3	4.3	4.3	4.2	4.0	3.8	3.9	4.3	4.8	5.3	6.1	4.5	6.7	114.1	1.2	2.9	2.4	2.4								
MacroFin Analytics & Rutgers Bus School	4.3	7.5	H	4.3	4.3	4.3	4.3	H	4.2	4.0	4.1	4.5	5.0	5.7	6.2	4.5	6.9	112.1	L	-0.5	2.6	3.6	2.8						
Moody's Analytics	4.3	7.5	H	4.3	4.3	4.2	4.0	3.9	3.7	L	3.8	L	4.2	4.6	5.4	6.1	4.2	6.6	na	0.4	4.8	3.8	4.8						
NatWest Markets	4.3	7.5	H	na	4.3	4.2	4.2	4.2	4.5	H	4.8	H	4.7	4.7	6.3	H	7.2	H	5.7	H	7.1	H	na	2.5	1.2	L	2.0	1.5	L
PNC Financial Services Corp.	4.3	7.5	H	4.3	na	4.3	4.3	H	4.1	3.9	4.0	4.4	4.8	na	6.3	5.1	6.8	122.9	H	1.2	2.7	2.8	2.5						
Regions Financial Corporation	4.3	7.5	H	4.3	4.3	4.4	H	4.3	H	4.1	3.9	4.0	4.4	4.9	5.2	5.9	L	4.4	6.7	113.8	2.1	2.1	3.0	2.2					
Roberts Capital Advisors	4.3	7.5	H	4.4	4.3	4.3	4.2	4.0	3.9	4.0	4.4	4.8	5.3	6.1	4.4	6.8	113.0	1.0	2.9	3.3	3.1								
Santander Capital Markets	4.3	7.5	H	4.3	4.3	4.3	4.3	H	4.1	3.9	4.0	4.4	4.9	5.5	6.2	5.2	6.8	113.5	4.3	3.4	3.1	3.3							
Societe Generale	4.3	7.5	H	4.3	na	4.3	4.2	4.0	3.8	3.8	L	4.3	4.8	na	na	na	na	na	na	2.6	2.1	1.8	1.7						
Via Nova Investment Mgt.	4.3	7.5	H	4.3	4.3	4.3	4.3	H	4.0	3.9	4.1	4.5	4.9	5.8	6.3	4.4	6.9	113.3	0.0	3.0	3.5	3.0							
TS Lombard	3.9	L	7.0	L	3.9	L	3.8	L	3.9	L	3.8	L	4.5	4.6	5.3	6.2	4.5	6.3	L	120.0	-1.2	L	3.0	3.0	3.0				
June Consensus	4.3	7.5	4.3	4.3	4.3	4.2	4.0	3.9	4.0	4.4	4.8	5.4	6.2	4.6	6.8	115.1	1.3	2.9	2.7	2.7									
Top 10 Avg.	4.4	7.5	4.4	4.4	4.3	4.3	4.1	4.0	4.2	4.6	4.9	5.7	6.4	4.8	6.9	116.7	2.8	4.0	3.9	3.8									
Bottom 10 Avg.	4.3	7.5	4.3	4.3	4.2	4.1	3.9	3.8	3.9	4.2	4.6	5.2	6.1	4.4	6.6	113.2	-0.1	1.9	1.7	1.9									
Standard Deviation	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.3	0.4	0.2	3.0	1.2	1.1	0.9	1.0									
May Consensus	4.3	7.5	4.3	4.3	4.2	4.1	4.0	3.9	4.0	4.3	4.6	5.3	6.1	4.5	6.6	114.9	0.8	3.4	3.4	3.5									
Number of Forecasts Changed From A Month Ago:																	5	7	19	21	23								
Down	0	0	0	3	1	2	7	9	9	2	0	2	1	2	1	4													
Same	30	24	20	11	19	13	7	11	13	13	8	8	8	5	6	9													
Up	7	6	5	6	12	12	14	15	12	22	26	12	12	11	20	23													
Diffusion Index	59%	60%	60%	58%	67%	69%	63%	59%	54%	77%	88%	73%	76%	75%	85%	61%	72%	33%	33%	24%									

Third Quarter 2025

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter--															Avg. For --Qtr.-- A. Fed's Adv Fgn Econ \$ Index	------(Q-Q % Change)----- ------(SAAR)-----				
	-----Short-Term-----					-----Intermediate-Term-----					-----Long-Term-----										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15						
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate						
	B.	C.	D.	E.																	
J.P. Morgan Chase	4.5	H	na	na	na	na	na	3.8	3.9	4.3	4.8	na	na	na	na	na	0.0	4.0	5.1	4.3	
Scotiabank Group	4.5	H	na	4.3	na	4.3	na	na	3.8	3.9	4.2	4.6	na	na	na	na	0.7	2.9	1.7	L 2.1 L	
Bank of America	4.4	na	na	na	na	na	na	3.8	4.1	4.4	4.8	na	na	na	na	na	0.6	3.4	3.8	3.7	
Barclays	4.4	na	na	na	na	na	na	3.8	3.9	4.3	4.6	na	na	na	na	na	0.5	3.6	4.1	3.7	
Goldman Sachs & Co.	4.4	na	na	na	3.9	na	na	4.0	4.1	4.5	4.9	na	na	na	na	na	1.2	4.2	3.8	3.9	
KPMG	4.4	7.5	H	4.3	4.4	4.3	4.2	4.1	4.0	4.1	4.3	4.3	4.9	6.0	na	6.7	na	-1.3	5.7	H 4.8 4.7	
Nomura Securities, Inc.	4.4	7.5	H	na	na	na	na	3.8	4.0	4.2	na	na	na	na	na	na	0.9	1.9	L 3.7 3.6		
Oxford Economics	4.4	7.5	H	4.4	na	4.4	H 4.2	4.1	3.9	3.8	4.2	4.7	4.7	L na	na	6.7	114.1	1.3	3.2	4.6 4.2	
S&P Global Market Intelligence	4.4	7.5	H	4.3	na	4.2	4.0	3.8	3.5	3.7	4.1	4.5	na	na	na	6.5	na	0.9	2.8	2.5 2.3	
Chmura Economics & Analytics	4.3	7.4	4.3	4.3	4.3	4.2	4.1	3.9	4.1	4.4	4.7	5.4	na	na	na	6.6	na	0.3	3.3	3.4 2.7	
Comerica Bank	4.3	7.5	H	4.3	na	4.3	4.3	H 4.3	H 4.0	4.3	4.8	H 5.2	H 6.2	7.0	na	7.1	na	1.5	3.5	3.8 3.6	
Daiwa Capital Markets America	4.3	7.4	na	na	4.2	na	na	3.8	3.9	4.3	4.9	na	na	na	na	6.7	116.0	0.9	3.0	3.1 2.9	
DePrince & Assoc.	4.3	7.4	4.2	4.3	4.2	4.2	3.9	3.8	3.9	4.3	4.8	5.5	6.3	4.7	6.6	114.4	1.5	2.9	3.1 3.0		
Economist Intelligence Unit	4.3	7.2	na	na	4.2	na	4.2	na	na	4.5	na	na	na	na	na	na	na	-0.9	na	4.1 na	
Fannie Mae	4.3	7.4	na	na	4.3	4.2	4.0	3.9	4.1	4.5	5.1	na	na	na	na	6.7	na	0.4	3.4	3.2 2.8	
MacroPolicy Perspectives	4.3	7.5	H	4.3	4.3	4.2	4.3	H 4.3	H 4.3	4.3	4.3	4.5	4.8	5.1	L 4.3	6.8	113.9	-3.5	L 3.2	3.6 3.1	
Naroff Economics LLC	4.3	7.3	4.2	4.6	H 4.2	4.2	4.1	4.0	3.9	4.2	4.4	na	na	na	3.9	L 6.5	114.1	0.6	2.9	2.9 2.7	
NatWest Markets	4.3	7.5	H	na	4.3	4.2	4.2	4.2	4.4	H 4.6	H 4.5	4.4	6.4	H 7.3	H 5.8	H 7.2	H na	1.2	2.2	3.2 3.0	
PNC Financial Services Corp.	4.3	7.5	H	4.3	na	4.3	4.2	4.1	3.9	4.0	4.4	4.8	na	6.5	4.9	6.6	124.8	H -0.2	3.7	4.7 4.5	
Regions Financial Corporation	4.3	7.5	H	4.3	4.3	4.3	4.2	4.1	3.8	4.0	4.4	4.8	5.2	6.0	4.5	6.6	113.1	0.4	4.2	5.5 H 4.6	
Roberts Capital Advisors	4.3	7.4	4.3	4.3	4.2	4.2	4.0	3.9	4.0	4.3	4.8	5.3	6.1	4.4	6.8	113.5	1.4	2.8	3.2 3.0		
Santander Capital Markets	4.3	7.5	H	4.3	4.3	4.2	4.1	3.9	3.9	4.0	4.3	4.9	5.6	6.3	5.1	6.7	113.0	0.9	3.6	3.8 3.6	
Societe Generale	4.3	7.5	H	4.3	na	4.2	4.0	3.8	3.7	3.6	L 4.3	4.6	na	na	na	na	na	2.0	H 2.4	3.4 3.1	
The Lonski Group	4.3	7.5	H	4.2	4.3	4.3	4.2	4.0	3.8	4.1	4.4	4.8	5.6	6.2	4.6	6.8	113.0	0.9	3.2	3.6 3.4	
The Northern Trust Company	4.3	7.5	H	4.3	4.3	4.2	4.2	4.1	4.1	4.2	4.4	4.8	5.6	6.3	4.6	6.9	113.0	0.4	3.9	4.5 4.4	
EY-Parthenon	4.2	na	na	na	4.3	na	na	na	na	4.0	na	na	na	na	na	na	na	0.9	4.3	3.7 3.5	
MacroFin Analytics & Rutgers Bus School	4.2	7.3	4.2	4.3	4.2	4.3	H 4.1	4.0	4.0	4.6	5.0	5.7	6.2	4.5	6.9	111.9	L -0.4	2.7	3.7 3.0		
Action Economics	4.1	7.3	4.6	H 4.1	4.1	4.0	3.8	3.9	4.0	4.2	4.6	5.4	6.2	4.3	6.9	114.2	2.0	H 3.2	3.9 3.4		
Chan Economics	4.1	7.5	H	4.1	4.1	4.0	3.9	3.8	3.7	3.8	4.2	4.4	5.1	5.9	4.4	6.5	112.1	0.8	2.2	2.5 2.3	
Loomis, Sayles & Company	4.1	7.3	4.1	4.1	4.1	4.0	3.8	3.5	3.7	4.1	4.4	5.1	5.9	4.3	6.5	113.3	0.6	5.5	4.9 4.9 H		
Moody's Analytics	4.1	7.3	4.1	4.1	3.9	3.8	3.8	3.8	3.9	4.1	4.5	5.5	6.5	4.2	6.4	na	1.3	2.8	3.3 3.1		
BMO Capital Markets	4.0	7.2	4.0	4.0	4.2	4.1	3.9	3.7	3.9	4.2	4.7	5.7	6.6	4.4	6.6	113.3	1.0	3.6	4.2 4.0		
Georgia State University	4.0	7.1	na	na	3.8	3.7	3.6	3.4	L 3.6	L 3.9	L 4.2	L 5.0	5.7	na	6.2	L na	0.9	5.2	4.7 4.9 H		
Via Nova Investment Mgt.	4.0	7.3	4.0	4.0	4.0	4.0	3.8	3.7	4.0	4.5	4.8	5.8	6.3	4.3	6.9	112.0	0.0	2.5	3.0 2.7		
ING	3.9	na	na	na	na	na	na	3.6	4.0	4.5	4.9	na	na	na	na	na	na	-0.9	na	na na	
Wells Fargo	3.9	7.0	3.9	3.9	3.7	3.6	3.5	3.6	3.7	4.1	4.7	5.3	6.3	4.7	6.5	na	-1.5	2.7	2.6 2.7		
TS Lombard	3.1	L 6.2	L 3.1	L 3.2	L 3.0	L 3.1	L 3.3	L 3.5	4.0	4.7	4.8	5.5	6.4	4.7	6.5	120.0	-2.5	3.5	3.5 3.5		
June Consensus	4.2	7.4	4.2	4.2	4.1	4.1	3.9	3.8	4.0	4.3	4.7	5.4	6.2	4.6	6.7	114.4	0.4	3.4	3.7 3.5		
Top 10 Avg.	4.4	7.5	4.3	4.3	4.3	4.2	4.2	4.1	4.2	4.6	4.9	5.8	6.6	4.8	6.9	115.8	1.4	4.4	4.7 4.4		
Bottom 10 Avg.	3.9	7.1	4.0	4.0	3.9	3.8	3.7	3.6	3.8	4.1	4.4	5.1	5.9	4.3	6.5	112.8	-1.1	2.5	2.8 2.6		
Standard Deviation	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.2	3.2	1.2	0.9	0.8 0.8		
May Consensus	4.1	7.3	4.1	4.1	4.0	4.0	3.8	3.7	3.9	4.2	4.5	5.3	6.1	4.4	6.5	114.2	0.3	3.2	3.7 3.4		
Number of Forecasts Changed From A Month Ago:																					
Down	1	1	1	2	2	2	5	4	5	1	1	2	1	1	2	6	10	9	15 13		
Same	20	18	13	9	13	13	8	16	12	16	15	8	8	8	9	3	8	11	7 10		
Up	16	11	11	9	17	12	15	15	17	20	18	12	12	9	16	9	19	15	14 12		
Diffusion Index	70%	67%	70%	68%	73%	69%	68%	66%	68%	76%	75%	73%	76%	72%	76%	58%	62%	59%	49% 49%		

Fourth Quarter 2025

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter--															Avg. For --Qtr.-- A.	(Q-Q % Change) --(SAAR)--											
	Short-Term					Intermediate-Term					Long-Term																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		B.	C.	D.	E.								
	Federal	Prime	SOFR	Com.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Treas.	Aaa	Baa	State &	Home		Fed's Adv	GDP	Cons.	PCE								
	Funds Rate	Bank Rate	Rate	Paper 1-Mo.	Bills 3-Mo.	Bills 6-Mo.	Bills 1-Yr.	Notes 2-Yr.	Notes 5-Yr.	Notes 10-Yr.	Bond 30-Yr.	Corp. Bond	Corp. Bond	Local Bonds	Mtg. Rate		Fgn Econ \$ Index	Real GDP	Price Index	Price Index	Price Index							
Scotiabank Group	4.5	H	na	4.3	na	4.2	na	na	3.6	3.9	4.3	4.8	na	na	na	na	na	0.0	2.7	3.2	2.5							
Bank of America	4.4		na	na	na	na	na	na	3.8	4.1	4.5	4.9	na	na	na	na	na	1.6	3.2	3.0	3.4							
J.P. Morgan Chase	4.4		na	na	na	na	na	na	3.7	3.9	4.4	4.9	na	na	na	na	na	0.5	2.1	2.6	2.3							
Comerica Bank	4.3	7.5	H	4.3	na	4.3	H	4.3	H	4.0	4.2	4.8	5.3	H	6.3	7.0	na	1.8	3.2	3.9	3.6							
NatWest Markets	4.3	7.5	H	na	4.3	H	4.2	4.2	4.2	4.5	H	4.7	H	4.6	4.5	6.6	H	7.5	H	6.0	H	7.4	H	na	1.3	2.5	4.0	3.7
Oxford Economics	4.3	7.4	4.3	na	4.3	H	4.1	3.9	3.7	3.8	4.1	4.6	4.8	na	na	na	6.6	114.2	1.3	2.2	3.3	2.6						
PNC Financial Services Corp.	4.3	7.4	4.2	na	4.1	3.9	3.9	3.8	4.0	4.3	4.7	na	6.7	4.7	6.4	123.3	H	0.9	2.5	3.2	3.0							
S&P Global Market Intelligence	4.3	7.4	4.3	na	4.1	4.0	3.8	3.5	3.7	4.1	4.5	na	na	na	6.4	na	1.4	2.7	2.4	2.4								
Barclays	4.1	na	na	na	na	na	na	3.7	3.8	4.2	4.6	na	na	na	na	na	1.0	3.4	3.4	3.4								
Chmura Economics & Analytics	4.1	7.3	4.1	4.1	4.2	4.2	4.0	3.9	4.0	4.3	4.6	5.3	na	na	6.5	na	1.0	3.0	3.0	2.5								
Goldman Sachs & Co.	4.1	na	na	na	3.9	na	na	3.9	4.0	4.5	4.9	na	na	na	na	na	1.3	3.6	3.3	3.4								
KPMG	4.1	7.2	4.0	4.1	4.0	4.1	4.0	3.9	4.0	4.3	4.1	4.9	5.9	na	6.6	na	0.7	1.2	L	1.0	L	1.0	L					
Nomura Securities, Inc.	4.1	7.3	na	na	na	na	na	3.6	3.9	4.2	na	na	na	na	na	na	1.2	2.5	3.3	3.1								
The Northern Trust Company	4.1	7.3	4.1	4.1	4.1	4.2	4.2	4.3	4.4	4.5	4.9	5.8	6.6	4.8	7.0	112.0	0.2	3.1	3.9	3.5								
Action Economics	4.0	7.2	4.4	H	4.0	3.9	3.8	3.7	3.8	3.9	4.1	4.5	5.3	6.0	4.2	6.7	114.9	2.0	H	2.8	3.4	3.1						
Daiwa Capital Markets America	4.0	7.1	na	na	3.9	na	na	3.6	3.7	4.1	4.7	na	na	na	6.5	115.0	1.3	2.8	3.0	2.8								
DePrince & Assoc.	4.0	7.1	4.0	4.1	4.0	3.9	3.7	3.6	3.8	4.3	4.8	5.5	6.3	4.7	6.5	115.2	1.6	2.7	2.8	2.7								
EY-Parthenon	4.0	na	na	na	3.9	na	na	na	na	4.0	na	na	na	na	na	na	0.9	3.5	3.3	3.2								
MacroFin Analytics & Rutgers Bus School	4.0	7.2	4.1	4.1	4.1	4.2	4.1	3.9	4.0	4.5	5.0	5.7	6.2	4.5	6.8	111.7	0.8	2.8	3.6	3.3								
Naroff Economics LLC	4.0	7.0	4.1	4.3	H	4.1	4.2	4.0	3.8	3.8	4.1	4.3	na	na	3.9	6.0	114.3	-1.9	1.9	2.6	2.6							
Regions Financial Corporation	4.0	7.2	4.0	4.1	4.1	4.0	3.9	3.7	3.9	4.4	4.9	5.2	6.0	4.5	6.6	112.2	1.4	3.5	4.6	H	3.6							
Roberts Capital Advisors	4.0	7.2	4.1	4.0	4.1	4.1	4.0	3.9	3.9	4.3	4.8	5.3	6.1	4.4	6.8	114.0	1.6	2.7	3.0	2.9								
Santander Capital Markets	4.0	7.2	4.1	4.0	3.9	3.9	3.8	3.8	3.9	4.2	4.8	5.6	6.4	5.0	6.5	112.5	1.9	2.4	2.0	2.0								
Societe Generale	4.0	7.2	4.0	na	3.9	3.8	3.5	3.4	3.6	4.3	4.6	na	na	na	na	na	1.8	2.4	3.4	3.1								
Chan Economics	3.9	7.3	3.9	3.9	3.8	3.7	3.6	3.5	3.6	4.0	4.2	4.9	5.7	4.2	6.3	112.0	1.5	2.1	2.4	2.2								
Economist Intelligence Unit	3.9	6.8	na	na	3.9	na	4.0	na	na	4.3	na	na	na	na	na	na	0.9	na	2.2	na								
Fannie Mae	3.9	7.0	na	na	4.0	4.0	3.9	3.9	4.1	4.6	5.1	na	na	na	6.5	na	0.9	2.9	3.2	2.8								
BMO Capital Markets	3.8	6.9	3.8	3.8	3.8	3.8	3.6	3.5	3.7	4.1	4.5	5.6	6.5	4.2	6.4	112.4	1.1	3.4	4.0	3.8								
MacroPolicy Perspectives	3.8	7.0	3.8	3.8	3.7	3.7	3.7	3.7	3.7	4.0	4.2	4.2	L	4.4	L	4.0	6.5	113.9	-3.0	L	3.2	3.7	3.1					
Moody's Analytics	3.8	6.9	3.7	3.7	3.5	3.6	3.7	3.8	3.9	4.1	4.5	5.6	6.5	4.2	6.3	na	1.6	2.8	3.2	2.9								
The Lonski Group	3.8	6.9	3.7	3.8	3.8	3.7	3.6	3.6	3.9	4.2	4.5	5.3	5.9	4.3	6.4	113.6	1.1	2.7	2.8	3.0								
Via Nova Investment Mgt.	3.8	7.0	3.8	3.8	3.8	3.9	3.7	3.6	3.9	4.4	4.7	5.6	6.2	4.1	6.7	111.0	2.0	H	2.0	2.5	2.3							
Loomis, Sayles & Company	3.6	6.8	3.6	3.6	3.6	3.5	3.3	3.0	3.2	3.6	4.0	4.6	5.4	3.8	L	6.0	113.3	1.6	3.4	3.5	3.1							
Wells Fargo	3.4	6.5	3.4	3.4	3.3	3.3	3.3	3.4	3.6	4.0	4.6	5.2	6.2	4.6	6.3	na	0.3	3.3	3.3	3.3								
ING	3.3	na	na	na	na	na	na	3.2	3.8	4.5	4.9	na	na	na	na	na	0.1	na	na	na								
TS Lombard	2.9	6.0	L	2.9	L	2.8	2.9	3.2	3.5	4.2	4.9	H	5.0	5.7	6.6	4.9	6.7	110.0	L	-0.5	4.0	H	4.0	4.0	H			
Georgia State University	2.8	L	6.0	L	na	na	2.7	L	2.7	L	2.4	L	2.9	L	3.5	L	3.9	L	4.5	5.3	na	5.8	L	na	0.7	3.4	1.6	2.4
June Consensus	3.9	7.1	4.0	3.9	3.9	3.8	3.8	3.7	3.9	4.3	4.6	5.3	6.2	4.5	6.5	113.6	0.9	2.8	3.1	2.9								
Top 10 Avg.	4.3	7.4	4.2	4.1	4.2	4.2	4.1	4.0	4.2	4.6	5.0	5.8	6.6	4.8	6.8	115.2	1.8	3.5	3.9	3.6								
Bottom 10 Avg.	3.5	6.7	3.7	3.7	3.5	3.5	3.4	3.3	3.6	4.0	4.3	4.9	5.7	4.1	6.2	112.1	-0.3	2.1	2.2	2.2								
Standard Deviation	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.6	0.6	0.5	0.3	2.8	1.0	0.6	0.7	0.6								
May Consensus	3.9	7.0	3.9	3.9	3.8	3.7	3.7	3.6	3.8	4.1	4.5	5.2	6.0	4.4	6.4	113.3	0.8	2.9	3.1	3.0								
Number of Forecasts Changed From A Month Ago:																												
Down	2	3	3	3	5	3	4	6	6	2	1	4	3	1	2	6	10	11	13	13								
Same	23	17	15	12	15	13	13	17	15	17	16	8	6	8	9	3	12	14	9	9								
Up	12	10	7	5	12	11	11	12	13	18	17	10	12	9	16	9	15	10	14	13								
Diffusion Index	64%	62%	58%	55%	61%	65%	63%	59%	60%	72%	74%	64%	71%	72%	76%	58%	57%	49%	51%	50%								

First Quarter 2026

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	-----Percent Per Annum -- Average For Quarter-----															Avg. For --Qtr.-- A.	----- (Q-Q % Change) ----- ----- (SAAR) -----				
	-----Short-Term-----					-----Intermediate-Term-----					-----Long-Term-----										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Fed's Adv	B.	C.	D.	E.	
	Federal Funds	Prime Bank	SOFR Rate	Com. Paper	Treas. Bills	Treas. Bills	Treas. Bills	Treas. Notes	Treas. Notes	Treas. Notes	Treas. Bond	Aaa Corp.	Baa Corp.	State & Local	Home Mtg.	Fgn Econ	Real GDP	GDP Price Index	Cons. Price Index	PCE Price Index	
	Rate	Rate		1-Mo.	3-Mo.	6-Mo.	1-Yr.	2-Yr.	5-Yr.	10-Yr.	30-Yr.	Bond	Bond	Bonds	Rate	\$ Index	GDP	Index	Index	Index	
Bank of America	4.4	H	na	na	na	na	na	3.8	4.2	4.6	5.0	na	na	na	na	na	1.6	2.4	2.3	2.2	
Comerica Bank	4.3		7.5	H	4.3	H	4.3	H	4.2	H	3.8	4.1	4.7	5.2	6.1	6.9	na	7.0	na	2.9	
NatWest Markets	4.3		7.5	H	na	4.3	H	4.2	4.2	H	na	na	4.3	na	6.6	H	7.5	H	6.0	H	
Scotiabank Group	4.3		na		4.1	na	4.0	na	na	na	3.5	4.0	4.3	4.8	na	na	na	na	na	na	
J.P. Morgan Chase	4.2		na	na	na	na	na	na	3.6	3.8	4.4	4.9	na	na	na	na	na	1.5	1.8	2.0	
The Northern Trust Company	4.1		7.3		4.1	4.1	4.1	4.2	H	4.3	H	4.5	4.6	5.0	6.0	6.7	5.1	7.1	111.0	0.7	
Chmura Economics & Analytics	4.0		7.1		4.0	4.0	4.0	4.0	3.9	4.0	4.3	4.5	5.3	na	na	6.3	na	1.3	2.7	2.8	
Barclays	3.9		na	na	na	na	na	na	3.6	3.8	4.2	4.5	na	na	na	na	na	1.5	2.6	2.2	
Chan Economics	3.9		7.3		3.9	3.9	3.8	3.7	3.6	3.5	3.6	4.0	4.2	4.9	5.7	4.2	6.3	111.8	1.2	2.1	
Goldman Sachs & Co.	3.9		na	na	na	3.9	na	na	3.9	4.0	4.5	5.0	na	na	na	na	na	1.5	3.3	3.2	
PNC Financial Services Corp.	3.9		7.0		3.9	na	3.7	3.6	3.6	3.7	3.9	4.3	4.7	na	6.6	4.7	6.3	122.6	H	0.8	
S&P Global Market Intelligence	3.9		7.0		3.9	na	3.7	3.9	3.8	3.4	3.6	4.0	4.5	na	na	na	6.3	na	2.0	3.2	
Action Economics	3.8		7.0		4.3	H	3.8	3.8	3.7	3.6	3.6	3.8	3.9	4.4	5.1	5.9	4.0	6.6	115.6	2.0	
Daiwa Capital Markets America	3.8		6.9		na	na	3.5	na	na	3.5	3.6	4.1	4.7	na	na	na	6.4	114.0	1.6	2.7	
DePrince & Assoc.	3.8		6.9		3.7	3.8	3.7	3.7	3.5	3.4	3.7	4.2	4.7	5.5	6.3	4.6	6.3	115.5	2.0	2.4	
MacroFin Analytics & Rutgers Bus School	3.8		6.9		3.8	3.9	3.8	4.0	4.0	3.9	4.0	4.5	5.0	5.6	6.1	4.4	6.8	111.5	1.0	2.8	
Naroff Economics LLC	3.8		6.8		3.7	4.0	3.8	3.9	3.9	3.8	3.7	4.0	4.2	na	na	3.9	5.7	114.7	0.8	1.4	
Oxford Economics	3.8		7.0		3.8	na	3.9	3.7	3.6	3.5	3.7	4.1	4.5	4.7	na	na	6.3	114.1	1.6	2.0	
Regions Financial Corporation	3.8		7.0		3.9	3.9	3.9	3.9	3.8	3.6	3.9	4.5	4.9	5.3	6.0	4.6	6.5	111.9	1.5	2.3	
Roberts Capital Advisors	3.8		7.0		3.9	3.8	4.0	4.0	3.9	3.8	3.9	4.2	4.7	5.2	6.0	4.3	6.7	114.5	1.8	2.6	
Santander Capital Markets	3.8		7.0		3.8	3.8	3.7	3.8	3.8	3.8	3.9	4.2	4.7	5.6	6.4	5.0	6.5	112.5	2.1	2.8	
Societe Generale	3.8		7.0		3.8	na	3.7	3.5	3.3	3.3	3.6	4.3	4.6	na	na	na	na	na	1.6	2.1	
KPMG	3.7		6.8		3.6	3.7	3.5	3.9	3.9	3.8	4.0	4.2	4.0	4.7	5.8	na	6.4	na	2.2	H	
Fannie Mae	3.6		6.8		na	na	3.8	3.8	3.8	3.9	4.2	4.6	5.1	na	na	na	6.4	na	1.6	3.3	
Nomura Securities, Inc.	3.6		6.8		na	na	na	na	na	3.5	3.8	4.2	na	na	na	na	na	na	1.0	1.9	
EY-Parthenon	3.5		na	na	na	3.5	na	na	na	na	na	3.9	na	na	na	na	na	na	1.2	2.7	
Moody's Analytics	3.5		6.7		3.5	3.5	3.3	3.4	3.6	3.7	3.9	4.1	4.6	5.6	6.6	4.2	6.3	na	1.4	2.8	
Via Nova Investment Mgt.	3.5		6.8		3.5	3.5	3.4	3.5	3.5	3.0	3.4	3.8	4.1	5.1	5.6	3.6	L	6.2	110.0	2.0	
BMO Capital Markets	3.4		6.5		3.4	3.4	3.4	3.3	3.2	3.6	3.9	4.4	5.4	6.3	4.1	6.2	na	111.8	1.6	2.6	
Economist Intelligence Unit	3.4		6.3		na	na	3.5	na	3.6	na	na	4.2	na	na	na	na	na	na	1.4	na	
The Lonski Group	3.4		6.5		3.3	3.4	3.4	3.3	3.3	3.4	3.7	4.0	4.3	5.1	5.7	4.1	6.1	114.8	1.4	2.2	
Wells Fargo	3.4		6.5		3.4	3.4	3.4	3.4	3.5	3.6	4.1	4.7	5.3	6.3	4.7	6.3	na	0.8	3.0	3.4	
ING	3.1		na	na	na	na	na	na	3.2	3.7	4.3	4.6	na	na	na	na	na	na	1.2	na	
MacroPolicy Perspectives	3.0		6.2		3.0	3.0	2.9	2.8	2.8	2.8	L	4.0	4.2	3.6	L	3.8	L	4.0	6.2	113.9	
Loomis, Sayles & Company	2.9		6.1		2.9	L	2.9	2.8	2.8	2.6	2.9	3.5	L	3.7	L	4.5	5.2	3.7	5.9	113.3	
TS Lombard	2.9		6.0		2.9	L	2.9	2.8	2.9	3.5	4.0	4.6	H	5.3	H	5.4	H	6.1	7.0	5.3	
Georgia State University	2.6	L	5.7	L	na	na	2.5	L	2.7	L	2.6	L	2.4	L	2.9	3.5	L	3.9	4.6	5.3	
June Consensus	3.7	6.8	3.7	3.7	3.6	3.6	3.6	3.5	3.8	4.2	4.6	5.3	6.1	4.4	6.4	113.0	1.4	2.6	2.8	2.7	
Top 10 Avg.	4.1	7.2	4.0	4.0	4.0	4.0	4.0	3.9	4.2	4.6	5.0	5.8	6.7	4.9	6.8	115.3	2.0	3.3	3.6	3.3	
Bottom 10 Avg.	3.2	6.3	3.3	3.4	3.2	3.2	3.2	3.1	3.4	3.9	4.1	4.8	5.5	4.0	6.1	110.8	0.8	2.0	1.9	2.0	
Standard Deviation	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.6	0.8	0.6	0.4	4.2	0.5	0.6	0.8	0.6	
May Consensus	3.6	6.7	3.6	3.6	3.6	3.5	3.5	3.5	3.7	4.1	4.4	5.2	6.0	4.3	6.3	112.6	1.4	2.6	2.8	2.6	
Number of Forecasts Changed From A Month Ago:																					
Down	1	3	1	2	5	2	3	8	6	2	1	4	3	1	3	6	9	10	11	10	
Same	26	19	19	13	18	16	13	16	14	16	13	7	7	7	11	3	14	14	12	12	
Up	10	8	5	5	9	9	12	10	13	18	19	11	11	10	13	9	14	10	13	12	
Diffusion Index	62%	58%	58%	58%	56%	63%	66%	53%	61%	72%	77%	66%	69%	75%	69%	58%	57%	50%	53%	53%	

Second Quarter 2026

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum – Average For Quarter															Avg. For --Qtr.--	(Q-Q % Change)												
	Short-Term					Intermediate-Term					Long-Term						(SAAR)												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	A.	B.	C.	D.	E.									
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Corp. Bonds	Home Mtg. Rate	Fed's Adv Fgn Econ \$ Index	Real GDP	GDP Price Index	Cons. Price Index	PCE Price Index									
Bank of America	4.4	H	na	na	na	na	na	na	3.8	4.2	4.6	5.0	na	na	na	na	na	1.6	2.4	2.4	2.2								
Comerica Bank	4.3		7.5	H	4.3	H	na	4.3	H	4.1	3.6	3.9	4.6	5.0	5.9	6.7	na	6.8	na	1.9	2.4	2.6	2.4						
NatWest Markets	4.3		7.5	H	na	4.3	H	4.2	4.2	H	na	na	na	na	6.6	H	7.5	H	6.0	H	7.4	H	2.0	2.7					
Scotiabank Group	4.0		na		3.8	na		3.7	na		na	3.5	3.9	4.3	4.9	na	na	na	na	na	0.8	L	2.6	2.7	2.9				
The Northern Trust Company	3.9		7.0		3.8	3.9		3.7	3.9		4.0	4.1	4.4	4.6	5.0	6.0	6.7	5.1	7.1	109.0	1.4	2.3	2.6	2.4					
Action Economics	3.8		6.9		4.2	3.8		3.7	3.6		3.4	3.5	3.6	3.8	4.2	5.0	5.7	3.9	6.4	116.2	2.1	2.5	2.5	2.3					
Chmura Economics & Analytics	3.8		6.9		3.8	3.8		3.8	3.9		3.9	3.9	4.0	4.2	4.4	5.1	na	na	6.1	na	2.0	2.6	2.7	2.4					
J.P. Morgan Chase	3.8		na		na	na		na	na		na	na	na	na	na	na	na	na	na	na	2.0	1.7	1.9	1.6					
Roberts Capital Advisors	3.8		7.0		3.8	3.8		3.9	4.0		3.8	3.7	3.8	4.2	4.7	5.2	6.0	4.3	6.7	115.0	1.9	2.5	2.8	2.6					
Santander Capital Markets	3.8		7.0		3.8	3.8		3.8	3.9		3.9	4.0	4.2	4.7	4.7	5.6	6.5	5.0	6.4	113.0	2.4	2.5	2.8	2.6					
Chan Economics	3.7		7.0		3.7	3.7		3.6	3.5		3.4	3.3	3.4	3.8	4.0	4.7	5.5	4.0	6.1	111.5	1.5	2.1	2.4	2.2					
Barclays	3.6		na		na	na		na	na		na	na	na	na	na	na	na	na	na	na	1.5	2.2	2.1	2.0					
Goldman Sachs & Co.	3.6		na		na	na		3.9	na		na	3.9	4.0	4.5	5.0	na	na	na	na	na	1.8	3.0	3.0	2.9					
Nomura Securities, Inc.	3.6		6.8		na	na		na	na		na	3.5	3.8	4.2	na	na	na	na	na	na	1.1	1.5	2.1	1.9					
PNC Financial Services Corp.	3.6		6.8		3.6	na		3.5	3.5		3.6	3.6	3.9	4.3	4.7	na	6.4	4.7	6.3	121.8	H	1.2	1.9	2.4	2.2				
Regions Financial Corporation	3.6		6.8		3.6	3.6		3.7	3.7		3.7	3.6	3.8	4.5	5.0	5.3	6.1	4.6	6.6	112.1		2.4	2.2	2.6	2.4				
S&P Global Market Intelligence	3.6		6.7		3.5	na		3.4	3.6		3.5	3.3	3.6	4.0	4.4	na	na	na	6.2	na	2.0	1.6	2.4	2.2					
Daiwa Capital Markets America	3.5		6.6		na	na		3.4	na		na	3.4	3.6	4.1	4.7	na	na	na	6.3	114.0		1.8	2.6	2.7	2.5				
DePrince & Assoc.	3.5		6.7		3.5	3.6		3.5	3.5		3.3	3.2	3.5	4.2	4.7	5.5	6.2	4.6	6.2	115.4		2.0	2.4	2.5	2.5				
Fannie Mae	3.5		6.7		na	na		3.8	3.8		3.8	3.9	4.2	4.6	5.1	na	na	na	6.3	na	2.0	1.6	2.2	2.2					
MacroFin Analytics & Rutgers Bus School	3.5		6.7		3.6	3.6		3.6	3.8		3.8	3.8	4.0	4.4	4.9	5.6	6.1	4.4	6.7	111.3		1.0	2.9	3.4	3.5				
Naroff Economics LLC	3.5		6.5		3.5	3.6		3.5	3.6		3.6	3.7	3.7	3.9	4.1	na	na	4.1	5.5	L	115.0		2.2	1.8	2.2	2.0			
Societe Generale	3.5		6.7		3.5	na		3.4	3.3		3.2	3.4	3.6	4.3	4.6	na	na	na	na	na	1.7	2.1	2.7	2.4					
Via Nova Investment Mgt.	3.5		6.8		3.5	3.5		3.4	3.5		3.6	3.7	4.1	4.5	4.8	5.7	6.3	4.2	6.8	110.0		2.0	2.0	2.0	2.0				
Economist Intelligence Unit	3.4		6.3		na	na		3.4	na		3.5	na	na	4.2	na	na	na	na	na	na	1.6	na	2.0	na					
Wells Fargo	3.4		6.5		3.4	3.4		3.4	3.4		3.5	3.5	3.7	4.2	4.8	5.4	6.4	4.8	6.4	na	2.8	H	2.2	2.6	2.2				
Moody's Analytics	3.3		6.5		3.3	3.2		3.1	3.2		3.5	3.6	3.9	4.2	4.6	5.7	6.7	4.3	6.3	na	1.7	2.8	2.9	2.9					
Oxford Economics	3.3		6.5		3.3	na		3.4	3.3		3.3	3.4	3.6	4.1	4.5	4.7	na	na	6.2	113.8		2.5	2.0	2.1	2.2				
EY-Parthenon	3.2		na		na	na		3.3	na		na	na	na	3.8	na	na	na	na	na	na	1.6	2.3	2.0	2.4					
KPMG	3.2		6.3		3.1	3.2		3.0	3.4		3.4	3.3	3.6	4.1	4.0	4.6	5.9	na	6.2	na	2.0	0.9	L	1.8	1.6				
TS Lombard	3.2		6.3		3.2	3.2		3.1	3.2		3.7	4.3	H	4.8	H	5.5	H	5.6	H	6.4	100.0	L	2.0	4.0	H	4.0	H	4.0	H
ING	3.1		na		na	na		na	na		na	3.2	3.7	4.3	4.6	na	na	na	na	na	na	1.9	na	na	na	na			
BMO Capital Markets	3.0		6.2		3.0	3.1		3.1	3.2		3.1	3.0	3.4	3.8	4.2	5.3	6.2	4.0	6.1	111.2		1.6	2.4	2.5	2.3				
The Lonski Group	2.9		6.0		2.8	2.9		2.9	2.8		3.0	3.2	3.5	3.8	4.0	4.8	5.4	3.8	5.7	116.0		1.7	2.0	2.1	1.4	L			
Georgia State University	2.4		5.5	L	na	na		2.2	L		2.5	2.5	2.5	3.1	3.6	4.0	4.8	5.5	na	5.6	na	1.4	2.1	1.7	L	2.3			
MacroPolicy Perspectives	2.4		5.6		2.4	2.4		2.3	2.3	L	2.3	L	2.3	L	4.0	4.2	3.0	L	3.3	L	4.0	5.8	113.9	1.4	2.4	2.5	2.3		
Loomis, Sayles & Company	2.3	L	5.5	L	2.3	L	2.3	L	2.3		2.4	2.5	2.8	3.3	L	3.5	L	4.2	4.9	3.4	L	5.7	113.3	1.8	1.8	2.9	2.4		
June Consensus	3.5		6.6		3.5	3.4		3.4	3.5		3.5	3.5	3.5	3.7	4.2	4.6	5.2	6.1	4.5	6.3	112.9		1.8	2.2	2.5	2.4			
Top 10 Avg.	4.0		7.0		3.8	3.8		3.9	3.9		3.9	3.9	4.2	4.6	5.0	5.8	6.7	4.9	6.8	115.4		2.2	2.8	3.0	2.9				
Bottom 10 Avg.	2.9		6.1		3.0	3.1		2.9	3.0		3.0	3.0	3.3	3.8	4.1	4.6	5.4	4.0	5.9	110.5		1.3	1.7	2.0	1.9				
Standard Deviation	0.5		0.5		0.5	0.5		0.5	0.5		0.4	0.5	0.4	0.4	0.4	0.8	0.9	0.6	0.5	4.3		0.4	0.5	0.5	0.5				
May Consensus	3.4		6.6		3.4	3.4		3.4	3.4		3.4	3.5	3.7	4.1	4.4	5.2	6.0	4.3	6.2	112.5		1.8	2.3	2.5	2.4				
Number of Forecasts Changed From A Month Ago:																													
Down	3		4		3	4		6	4		6	8	8	0	1	4	3	2	3	6		9	7	7	4				
Same	26		20		17	12		17	13		10	16	15	18	14	9	8	7	10	3		15	14	14	15				
Up	8		6		5	4		9	10		12	8	8	16	16	9	10	9	14	9		13	13	15	15				
Diffusion Index	57%		53%		54%	50%		55%	61%		61%	50%	50%	74%	74%	61%	67%	69%	70%	58%		55%	59%	61%	66%				

Third Quarter 2026

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter--															Avg. For --Qtr.-- A.	------(Q-Q % Change)-----								
	-----Short-Term-----					-----Intermediate-Term-----					-----Long-Term-----						Fed's Adv Fgn Econ \$ Index	------(SAAR)-----							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15			B.	C.	D.	E.				
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate			GDP	Price Index	Cons. Price Index	PCE Price Index				
	Rate	Rate																GDP	Index	Index	Index				
Comerica Bank	4.3	H	7.5	H	4.3	H	na	4.2	H	4.1	3.9	3.4	3.8	4.5	4.8	5.7	6.5	na	6.7	na	1.7	2.2	2.4	2.3	
NatWest Markets	4.3	H	7.5	H	na	4.3	H	4.2	H	4.2	H	na	na	na	na	6.6	H	7.5	H	6.0	H	7.4	H	na	
Bank of America	3.9	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.8	2.4	2.1	2.2	
The Northern Trust Company	3.9	7.0	3.8	3.9	3.7	3.8	3.9	4.1	4.4	4.6	5.0	6.0	6.7	5.1	7.1	108.0	1.7	2.2	2.4	2.4	na	na	na	na	
Santander Capital Markets	3.8	7.0	3.8	3.8	3.8	3.8	3.9	4.0	4.1	4.3	4.7	5.6	6.5	5.1	6.5	113.5	2.6	2.4	2.6	2.2	na	na	na	na	
Scotiabank Group	3.8	na	3.6	na	3.5	na	na	3.5	3.9	4.3	4.9	na	na	na	na	na	1.6	2.1	2.2	2.0	na	na	na	na	
Chan Economics	3.7	7.0	3.7	3.7	3.6	3.5	3.4	3.3	3.4	3.8	4.0	4.7	5.5	4.0	6.1	111.2	1.5	2.0	2.3	2.1	na	na	na	na	
Action Economics	3.6	6.8	4.0	3.6	3.5	3.4	3.3	3.4	3.5	3.6	4.1	4.8	5.6	3.7	6.3	116.5	na	na	na	na	na	na	na	na	
Chmura Economics & Analytics	3.6	6.8	3.6	3.6	3.7	3.7	3.8	3.8	3.8	4.0	4.3	4.9	na	na	5.9	na	2.8	2.4	2.5	2.2	na	na	na	na	
Goldman Sachs & Co.	3.6	na	na	na	3.9	na	na	3.9	4.1	4.6	5.0	na	na	na	na	na	2.0	2.6	2.6	2.5	na	na	na	na	
J.P. Morgan Chase	3.6	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	2.5	2.0	2.3	2.1	na	na	na	na	
Nomura Securities, Inc.	3.6	6.8	na	na	na	na	na	3.5	3.8	4.2	na	na	na	na	na	na	1.7	1.5	L	2.2	1.9	L	na	na	
PNC Financial Services Corp.	3.6	6.8	3.6	na	3.5	3.5	3.6	3.6	3.9	4.3	4.7	na	6.3	4.8	6.4	121.3	H	1.4	1.7	2.3	2.0	na	na	na	
Roberts Capital Advisors	3.5	6.7	3.5	3.5	3.6	3.8	3.7	3.6	3.8	4.2	4.7	5.2	5.9	4.2	6.6	115.0	2.0	2.4	2.7	2.5	na	na	na	na	
Via Nova Investment Mgt.	3.5	6.8	3.5	3.5	3.4	3.5	3.6	3.7	4.1	4.5	4.8	5.7	6.3	4.2	6.8	110.0	2.5	2.0	2.0	2.0	na	na	na	na	
Barclays	3.4	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.5	2.2	2.1	1.9	L	na	na	na	
Daiwa Capital Markets America	3.4	6.5	na	na	3.4	na	na	3.5	3.6	4.1	4.8	na	na	na	6.4	114.0	1.7	2.5	2.5	2.3	na	na	na	na	
DePrince & Assoc.	3.4	6.5	3.3	3.5	3.4	3.3	3.1	3.0	3.5	4.1	4.6	5.5	6.2	4.6	6.1	115.4	2.1	2.3	2.4	2.4	na	na	na	na	
Economist Intelligence Unit	3.4	6.3	na	na	3.3	na	3.5	na	na	4.2	na	na	na	na	na	na	2.0	na	2.3	na	na	na	na	na	
Fannie Mae	3.4	6.5	na	na	3.8	3.8	3.9	3.9	4.3	4.7	5.1	na	na	na	6.3	na	2.2	2.1	2.5	2.2	na	na	na	na	
MacroFin Analytics & Rutgers Bus School	3.4	6.5	3.4	3.5	3.4	3.7	3.7	3.8	4.0	4.4	4.9	5.5	6.0	4.3	6.7	111.1	1.0	L	3.0	3.3	3.2	na	na	na	
Regions Financial Corporation	3.4	6.6	3.4	3.4	3.5	3.5	3.5	3.5	3.8	4.6	5.0	5.4	6.1	4.7	6.5	112.4	2.2	2.1	2.4	2.2	na	na	na	na	
TS Lombard	3.4	6.5	3.4	3.4	3.3	3.4	4.0	4.5	H	4.8	H	5.5	H	5.6	H	6.4	7.2	5.5	7.3	100.0	L	2.0	3.8	H	3.8
Wells Fargo	3.4	6.5	3.4	3.4	3.4	3.5	3.5	3.6	3.8	4.2	4.8	5.4	6.4	4.8	6.4	na	2.3	2.0	2.3	2.0	na	na	na	na	
Naroff Economics LLC	3.3	6.3	3.3	3.4	3.3	3.4	3.5	3.5	3.8	4.1	4.3	na	na	4.3	5.6	116.5	3.0	H	2.1	2.3	2.2	na	na	na	
S&P Global Market Intelligence	3.3	6.5	3.3	na	3.1	3.3	3.3	3.2	3.5	3.9	4.4	na	na	na	6.1	na	2.0	1.9	2.6	2.1	na	na	na	na	
Societe Generale	3.3	6.5	3.3	na	3.2	3.1	3.1	3.4	3.7	4.3	4.6	na	na	na	na	na	2.3	2.1	2.7	2.4	na	na	na	na	
ING	3.1	na	na	na	na	na	na	3.2	3.6	4.0	4.4	na	na	na	na	na	2.2	na	na	na	na	na	na	na	
Oxford Economics	3.1	6.2	3.1	na	3.1	3.1	3.2	3.2	3.6	4.1	4.4	4.7	na	na	6.0	113.5	2.7	1.9	1.9	2.2	na	na	na	na	
EY-Parthenon	3.0	na	na	na	3.0	na	na	na	na	3.8	na	na	na	na	na	na	1.9	2.3	1.8	L	2.5	na	na	na	
Moody's Analytics	3.0	6.2	3.0	3.0	2.9	3.0	3.3	3.5	3.9	4.3	4.7	5.8	6.8	4.3	6.3	na	1.9	1.9	2.1	1.9	L	na	na	na	
BMO Capital Markets	2.9	6.0	2.9	2.9	2.8	2.9	2.9	2.9	3.4	3.8	4.3	5.2	6.2	4.0	6.2	110.7	1.8	2.5	2.6	2.4	na	na	na	na	
KPMG	2.9	6.0	2.8	2.9	2.7	3.0	3.1	3.1	3.5	3.9	3.9	4.5	5.8	na	6.0	na	2.3	2.3	3.0	2.5	na	na	na	na	
The Lonski Group	2.6	5.8	2.5	2.6	2.6	2.7	2.8	3.0	3.3	3.6	3.8	4.5	5.1	3.5	5.5	117.3	1.8	2.1	2.1	2.4	na	na	na	na	
Georgia State University	2.4	5.5	na	na	2.2	2.4	2.5	2.6	3.1	3.7	4.0	4.9	5.6	na	5.7	na	1.6	2.3	2.3	2.3	na	na	na	na	
Loomis, Sayles & Company	2.3	5.5	2.3	2.3	2.3	2.4	2.4	2.5	2.8	3.3	L	3.5	L	4.1	4.7	113.3	1.9	2.1	2.8	2.3	na	na	na	na	
MacroPolicy Perspectives	2.0	L	5.1	L	2.0	L	1.9	L	1.8	L	1.8	L	1.8	L	4.0	4.2	2.6	L	2.8	L	4.0	5.3	L	na	na
June Consensus	3.4	6.5	3.3	3.3	3.3	3.3	3.4	3.4	3.7	4.2	4.5	5.2	6.0	4.4	6.3	113.0	2.0	2.3	2.5	2.3	na	na	na	na	
Top 10 Avg.	3.9	7.0	3.7	3.7	3.8	3.8	3.9	3.9	4.2	4.6	5.0	5.8	6.6	4.9	6.8	115.7	2.5	2.8	3.0	2.8	na	na	na	na	
Bottom 10 Avg.	2.7	5.9	2.9	2.9	2.7	2.8	2.8	2.9	3.2	3.7	4.0	4.5	5.3	4.0	5.8	110.4	1.5	1.9	2.1	2.0	na	na	na	na	
Standard Deviation	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.8	1.0	0.7	0.5	4.5	0.4	0.4	0.5	0.4	na	na	na	na	
May Consensus	3.3	6.4	3.3	3.3	3.2	3.3	3.3	3.4	3.7	4.1	4.4	5.1	5.9	4.3	6.2	112.4	2.0	2.3	2.4	2.3	na	na	na	na	
Number of Forecasts Changed From A Month Ago:																									
Down	3	5	3	4	6	4	5	6	4	2	1	2	2	1	4	6	12	8	6	8	na	na	na	na	
Same	23	17	14	11	15	12	11	16	16	15	11	10	8	8	8	2	16	14	15	11	na	na	na	na	
Up	11	8	8	5	11	11	12	9	10	16	18	10	11	9	15	10	8	11	13	14	na	na	na	na	
Diffusion Index	61%	55%	60%	53%	58%	63%	63%	55%	60%	71%	78%	68%	71%	72%	70%	61%	44%	55%	60%	59%	na	na	na	na	

International Interest Rate And Foreign Exchange Rate Forecasts

Blue Chip Forecasters	Fed Fund Target Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	4.38	4.21	3.88
BMO Capital Markets	4.13	3.88	3.13
ING Financial Markets	4.38	3.88	3.13
Moody's Analytics	4.37	4.17	3.59
Nomura Securities	4.38	4.38	3.63
Northern Trust	4.38	4.13	3.88
Oxford Economics	4.38	4.38	3.84
Economist Intelligence Unit	4.38	3.88	3.38
Scotiabank	4.38	4.38	3.88
TS Lombard	3.90	3.13	2.88
Wells Fargo	4.38	3.88	3.38
June Consensus	4.31	4.03	3.51
High	4.38	4.38	3.88
Low	3.90	3.13	2.88
Last Months Avg.	4.24	3.95	3.44

Blue Chip Forecasters	Policy-Rate Balance Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	0.50	0.50	0.75
BMO Capital Markets	0.50	0.50	0.50
ING Financial Markets	0.75	0.75	1.00
Moody's Analytics	0.50	0.50	0.69
Nomura Securities	0.50	0.50	0.75
Northern Trust	0.50	0.50	0.75
Oxford Economics	0.50	0.50	0.50
S&P Global Market Intelligence	--	--	--
Economist Intelligence Unit	0.50	0.50	0.50
Scotiabank	--	--	--
TS Lombard	0.25	0.35	0.50
Wells Fargo	0.50	0.50	0.75
June Consensus	0.50	0.51	0.67
High	0.75	0.75	1.00
Low	0.25	0.35	0.50
Last Months Avg.	0.55	0.61	0.73

Blue Chip Forecasters	Official Bank Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	3.75	3.50	3.50
BMO Capital Markets	4.25	4.00	4.00
ING Financial Markets	4.25	4.00	3.50
Moody's Analytics	4.35	4.10	3.60
Nomura Securities	4.00	3.75	3.50
Northern Trust	4.00	3.75	3.25
Oxford Economics	4.35	4.10	3.60
S&P Global Market Intelligence	--	--	--
Economist Intelligence Unit	3.88	3.63	3.13
Scotiabank	4.00	3.75	3.25
TS Lombard	4.00	3.50	4.50
Wells Fargo	4.25	4.00	3.50
June Consensus	4.10	3.83	3.58
High	4.35	4.10	4.50
Low	3.75	3.50	3.13
Last Months Avg.	4.17	3.87	3.64

Blue Chip Forecasters	SNB Policy Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	0.00	-0.25	--
BMO Capital Markets	0.25	0.25	0.25
ING Financial Markets	0.00	0.00	0.00
Moody's Analytics	0.00	0.00	0.00
Nomura Securities	0.00	-0.25	-0.25
Northern Trust	0.00	0.00	0.00
Oxford Economics	0.23	0.00	0.00
S&P Global Market Intelligence	--	--	--
Economist Intelligence Unit	0.28	0.25	0.25
Scotiabank	--	--	--
TS Lombard	1.00	1.00	1.25
Wells Fargo	0.25	0.25	0.25
June Consensus	0.20	0.13	0.19
High	1.00	1.00	1.25
Low	0.00	-0.25	-0.25
Last Months Avg.	0.25	0.20	0.22

Blue Chip Forecasters	O/N MMkt Financing Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	2.50	2.25	--
BMO Capital Markets	2.50	2.25	2.00
ING Financial Markets	2.50	2.25	2.25
Moody's Analytics	2.75	2.54	2.00
Nomura Securities	2.50	2.50	2.50
Northern Trust	2.25	2.25	2.25
Oxford Economics	2.75	2.75	2.75
S&P Global Market Intelligence	--	--	--
Economist Intelligence Unit	2.24	2.10	1.95
Scotiabank	2.75	2.75	2.25
TS Lombard	2.50	2.25	2.75
Wells Fargo	2.75	2.50	2.25
June Consensus	2.54	2.40	2.30
High	2.75	2.75	2.75
Low	2.24	2.10	1.95
Last Months Avg.	2.54	2.35	2.27

United States			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
4.27	4.22	--	
4.24	4.06	3.75	
4.75	4.50	4.25	
4.16	4.11	4.13	
--	--	--	
4.40	4.50	4.60	
4.32	4.21	4.11	
4.40	4.30	4.10	
4.15	4.25	4.25	
4.45	4.65	5.25	
4.20	4.10	4.05	
4.33	4.29	4.28	
4.75	4.65	5.25	
4.15	4.06	3.75	
4.26	4.23	4.25	

Japan			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.38	1.43	--	
1.26	1.21	1.20	
1.50	1.50	1.75	
1.29	1.31	1.46	
--	--	--	
1.50	1.50	1.60	
1.31	1.31	1.33	
--	--	--	
1.20	1.20	1.22	
--	--	--	
1.30	1.20	1.10	
1.55	1.55	1.70	
1.37	1.36	1.42	
1.55	1.55	1.75	
1.20	1.20	1.10	
1.36	1.36	1.36	

United Kingdom			
10 Yr. Gilt Yields %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
4.67	4.70	--	
4.57	4.57	4.47	
4.60	4.60	4.40	
4.45	4.42	4.36	
--	--	--	
4.70	4.60	4.50	
4.63	4.64	4.42	
--	--	--	
4.20	4.00	3.50	
--	--	--	
4.50	4.25	4.75	
4.70	4.60	4.45	
4.56	4.49	4.36	
4.70	4.70	4.75	
4.20	4.00	3.50	
4.53	4.45	4.35	

Switzerland			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
--	--	--	
0.40	0.50	0.80	
0.47	0.67	0.79	
--	--	--	
0.30	0.40	0.50	
0.35	0.40	0.48	
--	--	--	
0.27	0.24	0.24	
--	--	--	
0.50	0.60	0.70	
--	--	--	
0.38	0.47	0.59	
0.50	0.67	0.80	
0.27	0.24	0.24	
0.50	0.56	0.69	

Canada			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
3.05	2.92	2.70	
3.00	3.25	3.75	
3.03	3.07	3.29	
--	--	--	
3.30	3.25	3.20	
3.13	3.23	3.32	
--	--	--	
2.64	2.80	3.20	
3.05	3.00	3.20	
3.25	3.45	4.05	
3.25	3.20	3.15	
3.08	3.13	3.32	
3.30	3.45	4.05	
2.64	2.80	2.70	
3.03	3.09	3.26	

Fed's AFE \$ Index			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
113.3	112.4	111.2	
115.5	116.2	114.9	
--	--	--	
--	--	--	
114.0	112.0	109.0	
116.2	114.1	114.1	
--	--	--	
--	--	--	
120.0	110.0	100.0	
--	--	--	
115.8	112.9	109.8	
120.0	116.2	114.9	
113.3	110.0	100.0	
115.5	112.9	109.8	

Yen per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
142.0	143.3	--	
143.7	142.4	141.2	
158.0	158.0	155.0	
148.9	146.8	141.7	
140.0	138.0	--	
142.0	139.0	136.0	
148.2	150.2	151.5	
143.8	142.0	139.0	
134.0	132.0	128.0	
140.0	135.0	130.0	
145.0	135.0	125.0	
--	--	--	
144.1	142.0	138.6	
158.0	158.0	155.0	
134.0	132.0	125.0	
144.4	141.9	137.9	

US\$ per Pound Sterling			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.38	1.39	--	
1.34	1.35	1.36	
1.31	1.29	1.29	
1.30	1.25	1.24	
1.30	1.30	--	
1.32	1.35	1.35	
1.30	1.32	1.32	
1.30	1.30	1.31	
1.28	1.33	1.33	
1.33	1.33	1.37	
1.25	1.20	1.12	
--	--	--	
1.31	1.31	1.30	
1.38	1.39	1.37	
1.25	1.20	1.12	
1.30	1.29	1.27	

CHF per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.82	0.82	--	
0.83	0.82	0.82	
0.91	0.85	0.85	
0.84	0.85	0.85	
0.84	0.87	--	
0.83	0.83	0.82	
0.85	0.83	0.82	
0.84	0.84	0.84	
0.87	0.87	0.87	
0.81	0.81	0.78	
0.90	0.90	0.90	
--	--	--	
0.85	0.84	0.84	
0.91	0.90	0.90	
0.81	0.81	0.78	
0.85	0.84	0.84	

C\$ per US\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.40	1.39	--	
1.40	1.40	1.38	
1.39	1.40	1.38	
1.43	1.42	1.40	
1.39	1.38	--	
1.39	1.36	1.33	
1.44	1.40	1.40	
1.40	1.44	1.44	
1.38	1.37	1.37	
1.38	1.38	1.36	
1.30	1.30	1.30	
--	--	--	
1.39	1.39	1.37	
1.44	1.44	1.44	
1.30	1.30	1.30	
1.41	1.41	1.40	

International Interest Rate And Foreign Exchange Rate Forecasts

Blue Chip Forecasters	Official Cash Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	3.60	3.35	--
BMO Capital Markets	3.60	3.35	3.35
ING Financial Markets	3.85	3.60	3.35
Moody's Analytics	3.98	3.84	3.35
Nomura Securities	3.65	3.35	3.35
Northern Trust	3.35	3.35	3.35
Oxford Economics	3.97	3.73	3.35
S&P Global Market Intelligence	--	--	--
Economist Intelligence Unit	3.60	3.10	3.10
Scotiabank	--	--	--
TS Lombard	3.75	3.25	3.75
Wells Fargo	3.85	3.60	3.35
June Consensus	3.72	3.45	3.37
High	3.98	3.84	3.75
Low	3.35	3.10	3.10
Last Months Avg.	3.82	3.58	3.42

Australia			
10 Yr. Gov't Bond Yield %			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
--	--	--	
--	--	--	
4.25	4.50	5.00	
4.24	4.19	4.07	
--	--	--	
4.35	4.25	4.15	
4.27	4.16	4.17	
--	--	--	
3.90	3.80	3.20	
--	--	--	
4.50	4.70	5.30	
--	--	--	
4.25	4.27	4.32	
4.50	4.70	5.30	
3.90	3.80	3.20	
4.21	4.24	4.37	

US\$ per A\$			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
0.63	0.63	--	
--	--	--	
0.62	0.62	0.64	
0.63	0.64	0.65	
0.65	0.66	--	
0.63	0.65	0.68	
0.63	0.63	0.64	
0.65	0.66	0.67	
0.64	0.65	0.65	
0.64	0.66	0.68	
0.65	0.65	0.65	
--	--	--	
0.64	0.65	0.66	
0.65	0.66	0.68	
0.62	0.62	0.64	
0.63	0.64	0.64	

Blue Chip Forecasters	Main Refinancing Rate		
	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	2.15	1.90	1.65
BMO Capital Markets	2.00	1.75	1.75
ING Financial Markets	2.00	1.75	1.75
Moody's Analytics	2.41	1.97	1.90
Nomura Securities	1.75	1.50	1.50
Northern Trust	1.90	1.90	1.90
Oxford Economics	2.36	2.15	2.15
S&P Global Market Intelligence	--	--	--
Economist Intelligence Unit	2.00	1.75	1.75
Scotiabank	1.90	1.90	1.90
TS Lombard	2.00	1.50	2.00
Wells Fargo	2.00	1.75	1.75
June Consensus	2.04	1.80	1.82
High	2.41	2.15	2.15
Low	1.75	1.50	1.50
Last Months Avg.	2.02	1.76	1.80

Euro area

US\$ per Euro			
In 3 Mo.	In 6 Mo.	In 12 Mo.	
1.15	1.15	--	
1.13	1.15	1.16	
1.13	1.11	1.12	
1.12	1.11	1.12	
1.14	1.15	--	
1.11	1.14	1.16	
1.11	1.13	1.13	
1.13	1.13	1.14	
1.11	1.14	1.06	
1.14	1.14	1.18	
1.08	1.10	1.25	
--	--	--	
1.12	1.13	1.15	
1.15	1.15	1.25	
1.08	1.10	1.06	
1.11	1.12	1.14	

Blue Chip Forecasters	10 Yr. Gov't Bond Yields %											
	Germany			France			Italy			Spain		
	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	2.78	2.87	--	--	--	--	--	--	--	--	--	--
BMO Capital Markets	2.45	2.39	2.27	--	--	--	--	--	--	--	--	--
ING Financial Markets	2.50	2.60	2.80	3.25	3.35	3.55	3.65	3.75	3.95	3.15	3.25	3.45
Moody's Analytics	2.55	2.58	2.61	3.19	3.12	3.06	3.75	3.79	3.77	3.23	3.21	3.20
Northern Trust	2.55	2.50	2.45	3.25	3.20	3.15	3.65	3.55	3.50	3.20	3.15	3.10
Oxford Economics	2.51	2.59	2.72	3.24	3.36	3.56	3.67	3.78	4.05	3.20	3.29	3.49
Economist Intelligence Unit	2.50	2.50	2.40	3.40	3.40	3.30	3.76	3.80	3.79	2.70	2.50	2.83
TS Lombard	2.65	2.85	3.45	3.30	3.60	4.20	3.65	3.85	4.45	3.20	3.40	4.00
Wells Fargo	2.55	2.45	2.35	--	--	--	--	--	--	--	--	--
June Consensus	2.56	2.59	2.63	3.27	3.34	3.47	3.69	3.75	3.92	3.11	3.13	3.35
High	2.78	2.87	3.45	3.40	3.60	4.20	3.76	3.85	4.45	3.23	3.40	4.00
Low	2.45	2.39	2.27	3.19	3.12	3.06	3.65	3.55	3.50	2.70	2.50	2.83
Last Months Avg.	2.55	2.52	2.59	3.31	3.39	3.51	3.74	3.82	3.96	3.20	3.19	3.36

	Consensus Forecasts			
	10-year Bond Yields vs U.S. Yield			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-2.95	-2.97	-2.93	-2.86
United Kingdom	0.18	0.22	0.20	0.08
Switzerland	-4.16	-3.95	-3.82	-3.69
Canada	-1.16	-1.26	-1.16	-0.96
Australia	-0.09	-0.08	-0.02	0.04
Germany	-1.94	-1.77	-1.70	-1.65
France	-1.23	-1.06	-0.95	-0.81
Italy	-0.90	-0.65	-0.54	-0.36
Spain	-1.28	-1.22	-1.16	-0.93

	Consensus Forecasts			
	Policy Rates vs U.S. Target Rate			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-3.88	-3.81	-4.54	-2.84
United Kingdom	-0.13	-0.21	-0.20	0.07
Switzerland	-4.13	-4.11	-3.90	-3.31
Canada	-1.63	-1.77	-1.63	-1.21
Australia	-0.53	-0.59	-0.58	-0.14
Euro area	-1.98	-2.27	-2.23	-1.69

Special Questions:

1. a. At what FOMC meeting will the next fed funds rate (FFR) cut occur?

Jun 2025 3% Jul 2025 16% Sep 2025 42% Later 39% The next move is more likely to be a hike 0%

b. How much will the next cut be? 25 bps 87% 50 bps 13%

c. By how much will the FFR target decline in total in 2025? 56 bps

2. What is the probability of a recession occurring over the next twelve months in the:

	<u>US</u>	<u>euro area</u>	<u>UK</u>
Consensus	41%	45%	45%
Top 10	58%	55%	55%
Bot 10	27%	36%	35%
Median	38%	40%	45%

3. If tariffs went back to pre-April 2 levels, what would your probability of a US recession be within the next twelve months?

Consensus 34% Top 10 54% Bot 10 17% Median 25%

4. Will the tariff policies that have been announced so far provide a significant boost to US inflation?

No meaningful effect on inflation 0%
A one-time increase in prices only 63%
A longer-lasting pickup in inflation 37%

5. a. What is your estimate of the US unemployment rate in:

Dec 2025 4.6% Jun 2026 4.7%

b. What is your estimate of the long-run natural unemployment rate?

Consensus 4.1% Top 10 4.3% Bot 10 3.9% Median 4.0%

6. a. When will the next ECB policy rate cut occur?

Jun 2025 91% Jul 2025 4% Sep 2025 0% Later 4%

b. When will the next BoE Bank rate cut occur?

Jun 2025 41% Aug 2025 41% Sep 2025 9% Later 9%

c. When will the Bank of Japan next increase its uncollateralized overnight call rate?

Jun 2025 9% Jul 2025 13% Sep 2025 13% Later 61% The next move is more likely to be a cut 4%

Viewpoints:

A Sampling of Views on the Economy, Financial Markets and Government Policy
Excerpted from Recent Reports Issued by our Blue Chip Panel Members and Others

Government Transfer Payments Cannot Forever Outrun Wage and Salary Incomes

Trouble ahead if rates are slow to decline ...

The S&P 500 is now up by 1.9% from last Friday's close. Relief from tariffs may explain why the 4.9% advance by the automaker share price index leads the market for the week-to-date.

With help from NVIDIA's 6.0% advance, information technology stocks were higher by 2.8%. The NASDAQ trailed both with a gain of 2.3% for the nearly finished week.

Still historically thin junk-bond yield spreads suggest the credit market does not expect a profits recession. Barring a profits recession, the economy may grow, albeit at a subpar pace. I sense that stagnation is more likely than stagflation.

The labor market will be key as to whether the US incurs an economic recession. I cannot predict with confidence that payrolls will contract by enough to shrink consumer spending and, thereby, push the US economy into a recessionary downward spiral.

Of the utmost importance is that the federal funds rate and Treasury bond yields are quick to decline by enough to extend the current economic recovery. The 10-year Treasury yield eased from the 4.51% of Friday, May 23 to May 29's 4.42%. At the same time, the 2-year Treasury note eased from 4.00% to 3.95%. Though I expect Treasury bond yields to be lower by half of a percentage point a year from now, to the degree tariffs temporarily boost inflation during the summer of 2025, the 10-year Treasury yield may make a short-lived run towards 4.75%.

Housing may not normalize until the 10-year Treasury yield approaches 3.5% and home prices remain flat to lower.

Any tariff induced rise by consumer prices will probably be resisted by consumers. After being downwardly revised from 1.8% to 1.2%, real consumer spending's annualized quarterly growth rate may improve to 2.2% in the second quarter but then rise no faster than 1.5% annualized, on average, during 2025's second half.

Growth benefits if taxes are skewed away from income and towards consumption ...

If the private-sector is the primary driver behind faster current-dollar GDP growth, the federal budget deficit will shrink both absolutely and relative to GDP. The federal government's taxation and spending programs must be designed to promote the growth of the private sector. Thus, federal revenues should go light on the taxation of personal income and corporate income and be skewed more towards consumption taxes. In addition, federal spending should attempt to boost production and enhance labor productivity.

Q1 2025's 7.5% yy surge by government transfer payments to persons sped past 4.2% rise by wages and salaries ...

The Friday, May 30 release of April's report on personal income, consumer spending, and the PCE price indices will supply

the latest estimates of government transfer payments for social security, Medicare, and Medicaid, as well as personal income tax payments.

Preliminary estimates for 2025's first quarter showed year-over-year increases of 7.2% for social security payments, 9.6% for Medicare payments, 6.8% for Medicaid payments, and 7.5% for personal income taxes paid. First-quarter 2025's grand total for all government transfer payments to individuals rose by 7.5% year-on-year to \$4.64 trillion annualized.

The first quarter of 2025 also showed a yearly increase of 4.2% for wage and salary income that was divided between a 4.0% rise for private-sector wages and salaries and a 5.6% increase for wages and salaries paid to government employees. Nevertheless, I expect private-sector employee compensation to be revised higher once bonuses and stock options are fully accounted for.

Rapid growth of government outlays on healthcare says it's time to broaden definition of sin taxes ...

The sum of government transfer payments for Medicare and Medicaid soared higher by 8.3% year-over-year in 2025's first quarter. Total government payments for Medicare and Medicaid approximated 61.4% of Q1 2025's consumer spending on healthcare as measured by the GDP accounts.

Making America healthier would help curb the growth of mandatory federal expenditures. An expansion of sin taxes beyond alcoholic beverages and tobacco products would both help to slow the growth of government outlays on medical care and lift tax revenues.

The sugar and salt content of processed foods, as well as other products that are injurious to human health provide a starting point. And what about the damage inflicted by social media in terms of indolence, mental health, and diminished intellectual achievement? Moving away from income taxes and towards consumption taxes makes so much sense.

Government transfer payments grew no faster than GDP prior to 2020 ...

Reflecting both the aging of the population, faster price inflation, and government profligacy, government transfer payments advanced by a rapid 7.7% annualized, on average, for the 21-quarter span stretching from 2020's first quarter through 2025's first quarter. The growth by transfer payments over the 21-quarter span was much faster than the comparably measured growth rates of 6.1% for current-dollar GDP and 5.8% for wage and salary income.

In stark contrast, during the 21 quarters ending with 2019's final quarter, total government transfer payments to individuals showed a much slower average annualized growth rate of 4.1%. The latter matched the accompanying 4.1% annualized rate of current-dollar GDP growth over the 21 quarters ending with Q4 2019.

John Lonski (thruthecycle.com)

Long-Range Survey:

The table below contains results of our semi-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are estimates for the years 2026 through 2031 and averages for the five-year periods 2027-2031 and 2032-2036. Apply these projections cautiously. Few economic, demographic and political forces can be evaluated accurately over such long time spans.

		----- Average For The Year -----						Five-Year Averages	
		2026	2027	2028	2029	2030	2031	2027-2031	2032-2036
1. Federal Funds Rate	CONSENSUS	3.4	3.2	3.2	3.2	3.1	3.1	3.2	3.1
	Top 10 Average	3.7	3.5	3.4	3.4	3.4	3.4	3.4	3.4
	Bottom 10 Average	3.1	3.0	2.9	2.9	2.8	2.9	2.9	2.8
2. Prime Rate	CONSENSUS	6.5	6.4	6.3	6.3	6.2	6.2	6.3	6.2
	Top 10 Average	6.7	6.6	6.5	6.6	6.5	6.5	6.5	6.5
	Bottom 10 Average	6.2	6.2	6.0	6.0	5.9	5.9	6.0	5.9
3. SOFR	CONSENSUS	3.4	3.3	3.2	3.1	3.1	3.1	3.2	3.1
	Top 10 Average	3.6	3.4	3.3	3.3	3.3	3.3	3.3	3.3
	Bottom 10 Average	3.2	3.2	3.0	2.9	2.9	2.9	3.0	2.8
4. Commercial Paper, 1-Mo	CONSENSUS	3.4	3.3	3.2	3.1	3.1	3.1	3.2	3.1
	Top 10 Average	3.5	3.4	3.3	3.2	3.2	3.2	3.3	3.3
	Bottom 10 Average	3.3	3.3	3.1	3.0	3.0	3.0	3.1	2.9
5. Treasury Bill Yield, 3-Mo	CONSENSUS	3.3	3.2	3.2	3.1	3.1	3.1	3.1	3.1
	Top 10 Average	3.6	3.4	3.4	3.4	3.3	3.3	3.4	3.3
	Bottom 10 Average	3.1	2.9	2.9	2.8	2.8	2.8	2.9	2.8
6. Treasury Bill Yield, 6-Mo	CONSENSUS	3.3	3.2	3.2	3.1	3.1	3.1	3.2	3.1
	Top 10 Average	3.6	3.4	3.4	3.3	3.3	3.3	3.3	3.3
	Bottom 10 Average	3.1	3.0	3.0	2.9	2.9	2.9	3.0	2.8
7. Treasury Bill Yield, 1-Yr	CONSENSUS	3.3	3.3	3.3	3.2	3.2	3.2	3.2	3.2
	Top 10 Average	3.6	3.5	3.4	3.4	3.4	3.4	3.4	3.4
	Bottom 10 Average	3.1	3.1	3.1	3.1	3.0	3.0	3.1	3.0
8. Treasury Note Yield, 2-Yr	CONSENSUS	3.4	3.4	3.5	3.4	3.4	3.4	3.4	3.4
	Top 10 Average	3.7	3.6	3.7	3.6	3.6	3.6	3.6	3.6
	Bottom 10 Average	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.1
9. Treasury Note Yield, 5-Yr	CONSENSUS	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
	Top 10 Average	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.0
	Bottom 10 Average	3.4	3.5	3.5	3.5	3.4	3.4	3.5	3.4
10. Treasury Note Yield, 10-Yr	CONSENSUS	4.0	4.1	4.0	4.0	4.0	4.0	4.0	4.0
	Top 10 Average	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	Bottom 10 Average	3.8	3.9	3.8	3.8	3.8	3.8	3.8	3.8
11. Treasury Bond Yield, 30-Yr	CONSENSUS	4.5	4.4	4.4	4.3	4.3	4.3	4.4	4.3
	Top 10 Average	4.7	4.7	4.6	4.6	4.6	4.6	4.6	4.7
	Bottom 10 Average	4.2	4.3	4.1	4.1	4.1	4.1	4.1	4.1
12. Corporate Aaa Bond Yield	CONSENSUS	5.2	5.2	5.2	5.1	5.1	5.1	5.1	5.1
	Top 10 Average	5.4	5.5	5.4	5.4	5.4	5.4	5.4	5.4
	Bottom 10 Average	5.0	5.0	4.9	4.9	4.9	4.9	4.9	4.9
13. Corporate Baa Bond Yield	CONSENSUS	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	Top 10 Average	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
	Bottom 10 Average	5.8	5.9	5.8	5.8	5.8	5.7	5.8	5.8
14. State & Local Bonds Yield	CONSENSUS	4.3	4.3	4.3	4.2	4.2	4.2	4.3	4.1
	Top 10 Average	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.4
	Bottom 10 Average	4.1	4.2	4.1	4.1	4.1	4.1	4.1	3.8
15. Home Mortgage Rate	CONSENSUS	6.2	6.2	6.1	6.0	6.0	6.0	6.1	5.9
	Top 10 Average	6.4	6.4	6.4	6.3	6.3	6.3	6.3	6.3
	Bottom 10 Average	5.9	6.0	5.8	5.8	5.8	5.7	5.8	5.6
A. Fed's AFE Nominal \$ Index	CONSENSUS	113.3	112.7	112.7	112.2	111.7	111.3	112.1	110.8
	Top 10 Average	114.2	113.3	113.4	112.9	112.5	112.2	112.8	112.4
	Bottom 10 Average	112.2	111.9	112.0	111.3	110.7	110.3	111.3	109.1
		----- Year-Over-Year, % Change -----						Five-Year Averages	
		2026	2027	2028	2029	2030	2031	2027-2031	2032-2036
B. Real GDP	CONSENSUS	1.5	1.9	2.0	2.0	1.9	2.0	2.0	1.9
	Top 10 Average	1.9	2.1	2.2	2.2	2.2	2.2	2.2	2.1
	Bottom 10 Average	1.1	1.8	1.8	1.8	1.7	1.7	1.8	1.8
C. GDP Chained Price Index	CONSENSUS	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1
	Top 10 Average	2.6	2.3	2.2	2.2	2.2	2.2	2.2	2.2
	Bottom 10 Average	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0
D. Consumer Price Index	CONSENSUS	2.5	2.2	2.2	2.1	2.1	2.2	2.2	2.2
	Top 10 Average	2.9	2.4	2.3	2.3	2.3	2.3	2.3	2.3
	Bottom 10 Average	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1
E. PCE Price Index	CONSENSUS	2.4	2.0	2.0	1.9	1.9	1.9	1.9	1.9
	Top 10 Average	2.8	2.3	2.2	2.1	2.1	2.1	2.2	2.1
	Bottom 10 Average	2.1	1.8	1.8	1.8	1.7	1.8	1.8	1.8

2025 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	-0.9	0.0	1.7	0.1	....	....	....	....	....	....	....	....
Auto & Light Truck Sales (b)	15.53	15.96	17.83	17.25	....	....	....	....	....	....	....	....
Personal Income (a, current \$)	0.5	0.8	0.7	0.8	....	....	....	....	....	....	....	....
Personal Consumption (a, current \$)	-0.1	0.4	0.7	0.2	....	....	....	....	....	....	....	....
Consumer Credit (e)	2.3	-0.2	2.4	....	....	....	....	....	....	....	....	....
Consumer Sentiment (U. of Mich.)	71.7	64.7	57.0	52.2	52.2	....	....	....	....	....	....	....
Household Employment (c)	2234	-588	201	436	....	....	....	....	....	....	....	....
Nonfarm Payroll Employment (c)	111	102	185	177	....	....	....	....	....	....	....	....
Unemployment Rate (%)	4.0	4.1	4.2	4.2	....	....	....	....	....	....	....	....
Average Hourly Earnings (All, cur. \$)	35.83	35.90	36.00	36.06	....	....	....	....	....	....	....	....
Average Workweek (All, hrs.)	34.1	34.2	34.3	34.3	....	....	....	....	....	....	....	....
Industrial Production (d)	1.7	1.4	1.3	1.5	....	....	....	....	....	....	....	....
Capacity Utilization (%)	77.5	78.1	77.8	77.7	....	....	....	....	....	....	....	....
ISM Manufacturing Index (g)	50.9	50.3	49.0	48.7	....	....	....	....	....	....	....	....
ISM Nonmanufacturing Index (g)	52.8	53.5	50.8	51.6	....	....	....	....	....	....	....	....
Housing Starts (b)	1.358	1.490	1.339	1.361	....	....	....	....	....	....	....	....
Housing Permits (b)	1.460	1.454	1.481	1.422	....	....	....	....	....	....	....	....
New Home Sales (1-family, c)	662	653	670	743	....	....	....	....	....	....	....	....
Construction Expenditures (a)	0.1	0.6	-0.5	....	....	....	....	....	....	....	....	....
Consumer Price Index (nsa, d)	3.0	2.8	2.4	2.3	....	....	....	....	....	....	....	....
CPI ex. Food and Energy (nsa, d)	3.3	3.1	2.8	2.8	....	....	....	....	....	....	....	....
PCE Chain Price Index (d)	2.5	2.6	2.3	2.1	....	....	....	....	....	....	....	....
Core PCE Chain Price Index (d)	2.7	2.9	2.7	2.5	....	....	....	....	....	....	....	....
Producer Price Index (nsa, d)	3.8	3.4	3.4	2.4	....	....	....	....	....	....	....	....
Durable Goods Orders (a)	0.2	1.0	7.6	-6.3	....	....	....	....	....	....	....	....
Leading Economic Indicators (a)	-0.2	-0.2	-0.8	-1.0	....	....	....	....	....	....	....	....
Balance of Trade & Services (f)	-130.7	-123.2	-140.5	....	....	....	....	....	....	....	....	....
Federal Funds Rate (%)	4.33	4.33	4.33	4.33	....	....	....	....	....	....	....	....
3-Mo. Treasury Bill Rate (%)	4.34	4.33	4.34	4.32	....	....	....	....	....	....	....	....
10-Year Treasury Note Yield (%)	4.63	4.45	4.28	4.28	....	....	....	....	....	....	....	....

2024 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	-0.8	0.7	0.3	0.1	0.4	-0.1	1.2	-0.2	0.8	0.6	0.6	0.8
Auto & Light Truck Sales (b)	15.03	15.67	15.68	16.03	15.83	14.99	15.83	15.14	15.80	16.12	16.66	16.87
Personal Income (a, current \$)	1.4	0.4	0.6	0.1	0.3	0.2	0.2	0.1	0.3	0.7	0.3	0.4
Personal Consumption (a, current \$)	0.1	0.5	0.7	0.3	0.5	0.3	0.6	0.2	0.7	0.4	0.6	0.9
Consumer Credit (e)	3.4	2.5	0.1	0.9	2.1	0.5	4.2	2.0	1.0	2.5	-1.4	6.3
Consumer Sentiment (U. of Mich.)	79.0	76.9	79.4	77.2	69.1	68.2	66.4	67.9	70.1	70.5	71.8	74.0
Household Employment (c)	66	-177	412	70	-331	-9	64	206	377	-346	-273	478
Nonfarm Payroll Employment (c)	119	222	246	118	193	87	88	71	240	44	261	323
Unemployment Rate (%)	3.7	3.9	3.9	3.9	4.0	4.1	4.2	4.2	4.1	4.1	4.2	4.1
Average Hourly Earnings (All, cur. \$)	34.47	34.54	34.67	34.75	34.89	35.00	35.07	35.23	35.33	35.48	35.61	35.68
Average Workweek (All, hrs.)	34.2	34.3	34.4	34.2	34.3	34.3	34.2	34.3	34.2	34.3	34.3	34.2
Industrial Production (d)	-1.2	-0.1	-0.3	-0.8	0.0	0.9	-0.5	-0.1	-0.7	-0.4	-0.9	0.4
Capacity Utilization (%)	77.2	78.1	77.8	77.7	78.1	78.2	77.6	77.9	77.5	77.1	76.8	77.5
ISM Manufacturing Index (g)	48.9	47.6	49.8	48.8	48.5	48.3	47.0	47.5	47.5	46.9	48.4	49.2
ISM Nonmanufacturing Index (g)	53.2	52.2	51.3	49.6	53.5	49.2	51.4	51.6	54.5	55.8	52.5	54.0
Housing Starts (b)	1.381	1.552	1.312	1.385	1.316	1.327	1.265	1.391	1.357	1.352	1.295	1.514
Housing Permits (b)	1.545	1.577	1.476	1.459	1.407	1.461	1.436	1.476	1.434	1.428	1.508	1.480
New Home Sales (1-family, c)	681	658	692	719	665	671	710	693	717	621	675	718
Construction Expenditures (a)	1.0	0.5	0.1	1.3	0.2	-1.1	0.0	0.9	-0.9	1.6	0.4	0.3
Consumer Price Index (nsa, d)	3.1	3.2	3.5	3.4	3.3	3.0	2.9	2.5	2.4	2.6	2.7	2.9
CPI ex. Food and Energy (nsa, d)	3.9	3.8	3.8	3.6	3.4	3.3	3.2	3.2	3.3	3.3	3.3	3.2
PCE Chain Price Index (d)	2.6	2.6	2.8	2.7	2.6	2.4	2.5	2.3	2.1	2.3	2.5	2.6
Core PCE Chain Price Index (d)	3.1	2.9	3.0	2.9	2.7	2.6	2.7	2.7	2.7	2.8	2.8	2.9
Producer Price Index (nsa, d)	1.0	1.6	2.0	2.3	2.5	2.9	2.4	2.1	2.1	2.8	2.9	3.5
Durable Goods Orders (a)	-7.8	0.7	1.7	-0.2	0.0	-2.0	4.3	-1.1	0.9	0.3	-1.7	0.8
Leading Economic Indicators (a)	-0.5	0.1	-0.2	-0.6	-0.4	-0.2	-0.5	-0.3	-0.4	-0.3	0.3	-0.1
Balance of Trade & Services (f)	-66.9	-69.3	-68.5	-75.9	-76.6	-74.2	-79.9	-71.4	-85.0	-73.7	-78.2	-98.1
Federal Funds Rate (%)	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.13	4.83	4.64	4.48
3-Mo. Treasury Bill Rate (%)	5.45	5.44	5.47	5.44	5.46	5.51	5.43	5.30	4.92	4.72	4.62	4.39
10-Year Treasury Note Yield (%)	4.06	4.21	4.21	4.54	4.48	4.31	4.25	3.87	3.72	4.10	4.36	4.39

(a) month-over-month % change; (b) millions, saar; (c) month-over-month change, thousands; (d) year-over-year % change; (e) annualized % change; (f) \$ billions; (g) level. Most series are subject to frequent government revisions. Use with care.

Calendar of Upcoming Economic Data Releases

Monday	Tuesday	Wednesday	Thursday	Friday
June 2 Construction (Apr) ISM Manufacturing (May) S&P Global Mfg PMI (May)	3 Manufacturers' Shipments, Inventories & Orders (Apr) JOLTS (Apr)	4 ADP Employment Report (May) ISM Services PMI (May) S&P Global Services PMI (May) CEW (Q4) BEA Auto Sales (May) BEA Truck Sales (May) Mortgage Applications EIA Crude Oil Stocks	5 International Trade (Apr & Rev) Productivity & Costs (Q1) Challenger Employment Report (May) Public Debt (May) Interest on Public Debt (May) Weekly Jobless Claims	6 Employment Situation (May) Consumer Credit (Apr) Baker Hughes International Rig Count (May)
9 Wholesale Trade (Apr) Treasury Auction Allotments (May)	10 QFR (Q1) Manpower Survey (Q3) NFIB (May) Kansas City Fed Labor Market Conditions Indicators (May)	11 CPI & Real Earnings (May) Transportation Services Index (Apr) Cleveland Fed Median CPI (May) Monthly Treasury (May) Kansas City Financial Stress Index (May) Mortgage Applications EIA Crude Oil Stocks	12 Producer Prices (May) QSS (Q1) Financial Account (Q1) Housing Affordability (Apr) Weekly Jobless Claims	13 Housing g Affordability (Apr) Consumer Sentiment (Jun, Preliminary) ECEC (Q1)
16 Empire State Mfg Survey (Jun) NABE Outlook (Q2) OPEC Crude Oil Spot Prices (May)	17 Import & Export Prices (May) Advance Retail Sales (May) IP & Capacity Utilization (May) MTIS (Apr) Business Leaders Survey (Jun) Home Builders (Jun) FOMC Meeting	18 New Residential Construction (May) Final Building Permits (May) TIC Data (Apr) FOMC Meeting Weekly Jobless Claims Mortgage Applications EIA Crude Oil Stocks	19 Juneteenth National Independence Day All Markets Closed	20 Philadelphia Fed Mfg Business Outlook Survey (Jun) Composite Indexes (May)
23 Existing Home Sales (May) S&P Global Flash PMI (Jun)	24 Intl Transactions (Q1 & Rev) FHFA & Case-Shiller HPI (Apr) H.6 Money Stock (May) Treas Auction Allotments (Jun) Consumer Confidence (Jun) Philadelphia Fed Nonmfg Business Outlook (Jun) Richmond Fed Mfg & Service Sector Surveys (Jun) Livingston Survey (Jan)	25 New Residential Sales (May) Final Building Permits (May) Steel Imports for Consumption (May, Preliminary) Mortgage Applications EIA Crude Oil Stocks	26 Adv Trade & Inventories (May) Advance Durable Goods (May) GDP (Q1, 3rd Estimate) Selected NIPA Tables & Key Source Data (Q1, 3rd Est) Chicago Fed National Activity Index (May) Kansas City Fed Manuf (Jun) Pending Home Sales (May) Weekly Jobless Claims	27 Personal Income (May) Agricultural Prices (May) Dallas Fed Trim Mean PCE (May) Strike Report (Jun) Underlying NIPA Tables (Q1) Consumer Sentiment (Jun, Final) Kansas City Fed Services (Jun) FRB Philadelphia Coincident Economic Activity Index (May) Chicago PMI (May)
30 Chicago PMI (Jun) International Investment Position (Q1 & Rev) Dallas Fed Banking Conditions Survey (Apr) Texas Manufacturing Outlook Survey (Jun)	July 1 Construction (May) ISM Manufacturing (Jun) S&P Global Mfg PMI (Jun) JOLTS (May) Texas Service Sector Outlook Survey (Jun)	2 ADP Employment Report (Jun) BEA Auto Sales (Jun) BEA Truck Sales (Jun) Challenger Employment Report (Jun) Mortgage Applications EIA Crude Oil Stocks	3 Employment Situation (Jun) Intl Trade/Supplement (May) MSIO (May) ISM Services PMI (Jun) S&P Global Services PMI (Jun) Trade by Port (May) Baker Hughes International Rig Count (Jun) Weekly Jobless Claims	4 Independence Day All Markets Closed
7 Public Debt (Jun) Interest on Public Debt (Jun)	8 Consumer Credit (May) NFIB (Jun) Kansas City Fed Labor Market Conditions Indicators (Jun)	9 Wholesale Trade (May) Mortgage Applications EIA Crude Oil Stocks	10 Transportation Services Index (May) Kansas City Financial Stress Index (Jun) Weekly Jobless Claims	11 Monthly Treasury (Jun)

BLUE CHIP FORECASTERS

CONTRIBUTORS TO DOMESTIC SURVEY

Action Economics, LLC, Boulder, CO

Michael Englund

Bank of America, New York, NY

Ethan Harris

Barclays, New York, NY

Marc Giannoni

BMO Capital Markets Economics, Toronto, Canada

Scott Anderson

BNP Paribas North America, New York, NY

Andrew Schneider

Chan Economics, New York, NY

Anthony Chan

Chmura Economics & Analytics, Richmond, VA

Christine Chmura and Xiaobing Shuai

Comerica, Dallas, TX

Bill Adams

Daiwa Capital Markets America, New York, NY

Michael Moran

DePrince & Associates, Murfreesboro, TN

Albert E. DePrince Jr.

Economist Intelligence Unit, New York, NY

Leo Abruzzese and Jan Friederich

EY- Parthenon, New York, NY

Gregory Daco

Fannie Mae, Washington, DC

Douglas Duncan

Georgia State University, Atlanta, GA

Rajeev Dhawan

GLC Financial Economics, Providence, RI

Gary L. Ciminero

Goldman, Sachs & Co., New York, NY

Jan Hatzius

KPMG, New York, NY

Diane Swonk

ING Financial Markets, London, England

James Knightley

J.P. Morgan Chase, New York, NY

Bruce Kasman

Loomis, Sayles & Company, L.P., Boston, MA

Brian Horrigan

MacroFin Analytics & Rutgers Business School, Wayne, NJ

Parul Jain

MacroPolicy Perspectives, New York, NY

Julia Coronado and Laura Rosner

Moody's Analytics, West Chester, PA

Mark M. Zandi

Naroff Economics LLC, Philadelphia, PA

Joel L. Naroff

NatWest Markets, Greenwich, CT

Kevin Cummins and Deepika Dayal

Nomura Securities International, Inc., New York, NY

U.S. Economics

Northern Trust Company, Chicago, IL

Carl Tannenbaum

Oxford Economics, New York, NY

Ryan Sweet

PNC Financial Services Group, Pittsburgh, PA

Gus Faucher

RDQ Economics, New York, NY

John Ryding and Conrad de Quadros

Regions Financial Corporation, Birmingham, AL

Richard F. Moody

Roberts Capital Advisors, Denver, CO

Michael Roberts

Santander Capital Markets, New York, NY

Stephen Stanley

Scotiabank Group, Toronto, Canada

Jean-Francois Perrault

Societe Generale, New York, NY

Stephen W. Gallagher

S&P Global Market Intelligence, St. Louis, MO

Lawrence Nelson

Swiss Re, New York, NY

Jerome Haegeli

The Lonski Group, White Plains, NY

John Lonski

TS Lombard, London, UK

Steven Blitz

Via Nova Investment Management, Crozet, VA

Alan Gayle

Wells Fargo, Charlotte, NC

Jay Bryson

CONTRIBUTORS TO INTERNATIONAL SURVEY

Barclays Capital, New York, NY

BMO Capital Markets Economics, Toronto, Canada

Economist Intelligence Unit, New York, NY

ING Financial Markets, London, England

Moody's Analytics, West Chester, PA

Nomura Securities International, Inc., New York, NY

Northern Trust Company, Chicago, IL

Oxford Economics, Wayne, PA

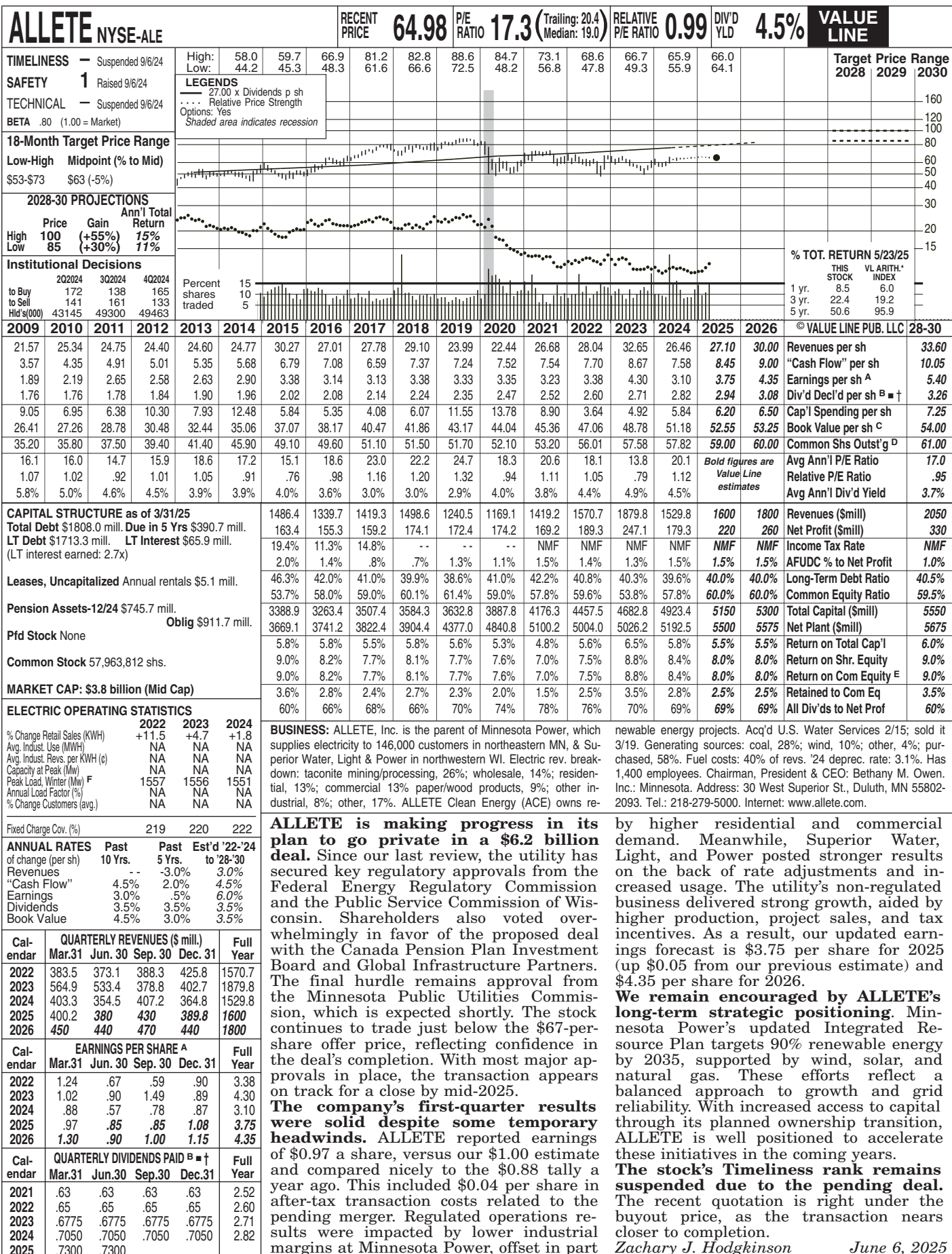
Scotiabank Group, Toronto, Canada

S&P Global Market Intelligence, St. Louis, MO

TS Lombard, London, UK

Wells Fargo, Charlotte, NC

Exhibit TJB-6
Value Line Reports



ALLIANT ENERGY NDQ-LNT										RECENT PRICE	61.72	P/E RATIO	19.0 (Trailing: 21.3 Median: 21.0)	RELATIVE P/E RATIO	1.09	DIV'D YLD	3.3%	VALUE LINE
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TIMELINESS 4 Lowered 5/23/25	High: 34.9 35.4 41.0 45.6 46.6 55.4 60.3 62.3 65.4 56.3 64.2 66.5	Low: 25.0 27.1 30.4 36.6 36.8 40.8 37.7 46.0 47.2 45.2 46.8 56.3	Target Price Range 2028 2029 2030	128 96 80 64 48 40 32 24 16 12																
SAFETY 1 Raised 9/6/24	LEGENDS 28.00 x Dividends p sh divided by Interest Rate Relative Price Strength 2-for-1 split 5/16 Options: Yes Shaded area indicates recession																	% TOT. RETURN 5/23/25 THIS STOCK VL ARITH. INDEX 1 yr. 27.6 6.0 3 yr. 15.9 19.2 5 yr. 56.1 95.9	2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026	© VALUE LINE PUB. LLC 28-30
TECHNICAL 1 Raised 5/16/25																				
BETA .80 (1.00 = Market)																				
18-Month Target Price Range																				
Low-High Midpoint (% to Mid)																				
\$56-\$80 \$68 (10%)																				
2028-30 PROJECTIONS																				
High Price Gain Ann'l Total																				
Low 80 65 (+30%) 10%																				
Institutional Decisions																				
to Buy 314 302024 402024																				
to Sell 265 271 277																				
Hld's(000) 205430 229417 237566																				

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30
15.51	15.40	16.51	13.94	14.77	15.10	14.34	14.58	14.62	14.97	14.89	13.67	14.65	16.74	15.72	15.51	17.30	17.95	Revenues per sh	18.95
2.10	2.60	2.75	2.95	3.34	3.49	3.45	3.43	3.97	4.32	4.59	4.92	5.25	5.40	5.38	5.70	5.85	6.05	"Cash Flow" per sh	6.85
.95	1.38	1.38	1.53	1.65	1.74	1.69	1.65	1.99	2.19	2.33	2.47	2.63	2.73	2.78	2.69	3.25	3.45	Earnings per sh ^A	4.25
.75	.79	.85	.90	.94	1.02	1.10	1.18	1.26	1.34	1.42	1.52	1.61	1.71	1.81	1.92	2.04	2.16	Div'd Decl'd per sh ^B + [†]	2.43
5.43	3.91	3.03	5.22	3.32	3.78	4.25	5.26	6.34	6.92	6.69	5.47	4.67	5.91	7.24	8.76	5.60	5.60	Cap'l Spending per sh	5.40
12.54	13.05	13.57	14.12	14.79	15.54	16.41	16.96	18.08	19.43	21.24	22.76	23.91	24.99	26.46	27.29	28.85	29.00	Book Value per sh ^C	31.90
221.31	221.79	222.04	221.97	221.89	221.87	226.92	227.67	231.35	236.06	245.02	249.87	250.47	251.14	256.10	256.69	256.70	257.00	Common Shs Outst'g ^D	257.00
13.9	12.5	14.5	14.5	15.3	16.6	18.1	22.3	20.6	19.1	21.2	21.2	21.2	21.4	18.8	20.1	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	17.5
.93	.80	.91	.92	.86	.87	.91	1.17	1.04	1.03	1.13	1.09	1.15	1.24	1.05	1.06			Relative P/E Ratio	.95
5.7%	4.6%	4.3%	4.1%	3.7%	3.5%	3.6%	3.2%	3.1%	3.2%	2.9%	2.9%	2.9%	2.9%	3.5%	3.5%			Avg Ann'l Div'd Yield	3.7%

CAPITAL STRUCTURE as of 3/31/25 Total Debt \$10629 mill. Due in 5 Yrs \$4371 mill. LT Debt \$8580 mill. LT Interest \$370 mill. (LT interest earned: 2.8x)		3253.6	3320.0	3382.2	3534.5	3647.7	3416.0	3669.0	4205.0	4027.0	3981.0	4420	4610	Revenues (\$mill)	4870
		390.9	384.0	466.1	522.3	567.4	624.0	674.0	686.0	703.0	690.0	835	885	Net Profit (\$mill)	975
		15.3%	13.4%	12.5%	8.4%	10.8%	--	--	3.1%	6%	2.0%	2.0%	2.0%	Income Tax Rate	2.0%
		9.4%	16.3%	10.7%	14.5%	16.3%	8.8%	3.7%	8.7%	14.2%	10.9%	10.0%	10.0%	AFUDC % to Net Profit	4.0%
Leases, Uncapitalized Annual rentals \$3 mill.		47.3%	51.5%	47.8%	52.3%	50.6%	53.5%	52.9%	55.0%	54.8%	55.3%	55.5%	55.5%	Long-Term Debt Ratio	52.0%
		50.0%	46.1%	49.8%	45.7%	47.6%	44.9%	47.1%	45.0%	45.2%	44.7%	44.5%	44.5%	Common Equity Ratio	48.0%
Pension Assets-12/24 \$715 mill. Oblig \$841 mill.		7446.3	8377.6	8392.8	10032	10938	12657	12725	13944	15002	15681	16530	16750	Total Capital (\$mill)	17070
		8970.2	9809.9	10798	12462	13527	14336	14987	16247	17157	18701	18600	18900	Net Plant (\$mill)	19180
Pfd Stock None		6.3%	5.6%	6.7%	6.3%	6.3%	5.9%	6.3%	6.1%	6.0%	5.8%	6.5%	6.5%	Return on Total Cap'l	7.0%
		10.0%	9.5%	10.6%	10.9%	10.5%	10.6%	11.3%	10.9%	10.4%	9.9%	11.5%	11.5%	Return on Shr. Equity	12.0%
		10.2%	9.7%	10.9%	11.2%	10.7%	10.8%	11.0%	10.9%	10.4%	9.9%	11.5%	11.5%	Return on Com Equity ^E	12.0%
MARKET CAP: \$15.9 billion (Large Cap)		3.6%	2.8%	4.0%	4.4%	4.2%	4.2%	4.3%	4.1%	3.6%	2.8%	4.0%	4.0%	Retained to Com Eq	4.5%
ELECTRIC OPERATING STATISTICS		66%	72%	64%	62%	61%	62%	62%	62%	65%	71%	63%	63%	All Div' ds to Net Prof	62%

ANNUAL RATES										2022	2023	2024	Unc
of change (per sh)										-7	-4	-	
Revenues										11494	11435	11161	
"Cash Flow"										8.39	8.47	8.53	
Earnings										NA	NA	NA	
Dividends										5629	5856	5638	
Book Value										NA	NA	NA	
Fixed Charge Cov. (%)										NA	NA	NA	

Cal-endar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	1068	943	1135	1059	4205
2023	1077	912	1077	961	4027
2024	1030	894	1081	976	3981
2025	1128	975	1145	1172	4420
2026	1110	1050	1215	1235	4610

Cal-endar	EARNINGS PER SHARE ^A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	.77	.63	.90	.43	2.73
2023	.65	.64	1.02	.47	2.78
2024	.62	.34	1.15	.58	2.69
2025	.83	.60	1.10	.72	3.25
2026	.78	.73	1.21	.73	3.45

Cal-endar	QUARTERLY DIVIDENDS PAID ^B + [†]				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2021	.4025	.4025	.4025	.4025	1.61
2022	.4275	.4275	.4275	.4275	1.71
2023	.4525	.4525	.4525	.4525	1.81
2024	.48	.48	.48	.48	1.92
2025	.48	.48			

Cal-endar	QUARTERLY DIVIDENDS PAID ^B + [†]				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2021	.4025	.4025	.4025	.4025	1.61
2022	.4275	.4275	.4275	.4275	1.71
2023	.4525	.4525	.4525	.4525	1.81
2024	.48	.48	.48	.48	1.92
2025	.48	.48			

AMERICAN ELEC. PWR. NDQ-AEP										RECENT PRICE	102.88	P/E RATIO	17.4 (Trailing: 17.5 Median: 18.0)	RELATIVE P/E RATIO	1.00	DIV'D YLD	3.7%	VALUE LINE
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<div>TIMELINESS3 Raised 5/23/25</div> <div>SAFETY1 Raised 3/17/17</div> <div>TECHNICAL1 Raised 5/23/25</div> <div>BETA .70 (1.00 = Market)</div>	High: 63.2	65.4	71.3	78.1	81.1	96.2	105.0	91.5	105.6	98.3	105.2	110.5	Target Price Range																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	Low: 45.8	52.3	56.8	61.8	62.7	72.3	65.1	74.8	80.3	69.4	75.2	89.9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	<div>LEGENDS</div> <div>— 29.40 x Dividends p sh</div> <div>.... Relative Price Strength</div> <div>Options: Yes</div> <div>Shaded area indicates recession</div>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

18-Month Target Price Range															
Low-High	Midpoint (% to Mid)														
\$77-\$125	\$101 (0%)														

2028-30 PROJECTIONS																			
	Price	Gain	Ann'l Total																
High	150	(+45%)	13%																
Low	125	(+20%)	8%																
Institutional Decisions																			
	2Q2024	3Q2024	4Q2024																
to Buy	695	712	755																
to Sell	540	590	654																
Hld's(000)	404836	455335	458507																
				Percent	24														
				shares	16														
				traded	8														

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC 28-30	
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	36.08	37.01	39.65	41.20	Revenues per sh	46.35
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	10.92	11.71	12.20	12.80	"Cash Flow" per sh	15.70
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	5.24	5.61	5.90	6.30	Earnings per sh ^A	7.70
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	3.37	3.57	3.80	3.98	Div'd Decl'd per sh ^B = †	4.31
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	13.89	14.02	14.10	14.10	Cap'l Spending per sh	14.00
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	48.46	50.63	52.35	55.55	Book Value per sh ^C	60.90
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	526.18	532.9	535.00	540.00	Common Shs Outst'g ^D	550.00
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	16.2	16.2	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	18.0
.67	.85	.75	.88	.81	.84	.80	.80	.97	.97	1.14	1.01	.92	1.23	.93	.90			Relative P/E Ratio	1.00
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%	4.5%	3.6%			Avg Ann'l Div'd Yield	3.3%

CAPITAL STRUCTURE as of 3/31/25						16453	16380	15425	16196	15561	14919	16792	19640	18982	19721	21250	22650	Revenues (\$mill)	25500
Total Debt \$42157 mill. Due in 5 Yrs \$12886 mill.						1763.4	2073.6	1783.2	1923.8	2019.0	2200.1	2448.1	2307.2	2208.1	2967.1	3130	3400	Net Profit (\$mill)	4235
LT Debt \$38811 mill. LT Interest \$1400 mill.						35.1%	26.8%	33.7%	5.8%	.7%	1.9%	4.6%	NMF	NMF	NMF	21.0%	21.0%	Income Tax Rate	21.0%
						11.0%	8.0%	8.0%	10.7%	12.7%	9.7%	7.8%	7.0%	7.0%	7.0%	6.5%	6.0%	AFUDC % to Net Profit	5.0%
						49.8%	50.0%	51.5%	53.2%	56.1%	58.5%	58.3%	58.5%	58.2%	58.1%	58.0%	58.0%	Long-Term Debt Ratio	57.5%
Leases, Uncapitalized Annual rentals \$119.6 mill.						50.2%	50.0%	48.5%	46.8%	43.9%	41.5%	41.7%	42.0%	42.0%	42.4%	42.0%	42.0%	Common Equity Ratio	42.5%
						35633	34775	37707	40677	44759	49537	53734	57520	62837	67528	70730	72500	Total Capital (\$mill)	75900
Pfd Stock None						46133	45639	50262	55099	60138	63902	66001	71283	76693	82416	81250	84250	Net Plant (\$mill)	87300
						6.1%	7.2%	5.9%	5.9%	5.6%	5.6%	5.6%	4.0%	3.6%	4.1%	4.5%	4.5%	Return on Total Cap'l	5.0%
Common Stock 534,195,026 shs.						9.9%	11.9%	9.8%	10.1%	10.3%	10.7%	11.1%	9.7%	8.7%	11.0%	10.0%	10.0%	Return on Shr. Equity	11.0%
						9.9%	11.9%	9.8%	10.1%	10.3%	10.7%	11.1%	9.7%	8.7%	11.0%	10.0%	10.0%	Return on Com Equity	11.0%
MARKET CAP: \$56.6 billion (Large Cap)						3.9%	5.5%	3.2%	3.5%	3.4%	3.8%	4.3%	2.9%	2.4%	3.2%	4.0%	4.0%	Retained to Com Eq	4.5%
						60%	54%	67%	65%	67%	65%	61%	70%	63%	63%	63%	63%	All Div'ds to Net Prof	61%

ELECTRIC OPERATING STATISTICS				2022	2023	2024												
% 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				Past	Past	Est'd '22-'24												
of change (per sh)				10 Yrs.	5 Yrs.	to '28-'30												
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.) ^E				Full Year										
	Mar.31	Jun.30	Sep.30	Dec.31											
2022	4593	4640	5526	4881	19640										
2023	4690	4373	5342	4577	18982										
2024	5026	4579	5420	4696	19721										
2025	5463	5100	5750	4937	21250										
2026	5800	5550	6000	5300	22650										

Cal-endar	EARNINGS PER SHARE ^A				Full Year	provals in Indiana, Kentucky, and West Virginia reinforce AEP'S strong positioning. We continue to expect strong earnings next year. Our 2026 target remains unchanged at \$6.30 per share, which is at the top end of management's long-term growth	hallmark of AEP's investor appeal, stands at 3.7%. The company continues to target a 60%-70% payout ratio, which supports consistent dividend growth even as capital investments ramp up. These shares are best suited for conservative and income-oriented inves-
	Mar.31	Jun.30	Sep.30	Dec.31			
2022	1.22	1.20	1.62	1.05	5.09		
2023	1.11	1.13	1.77	1.23	5.24		
2024	1.27	1.25	1.85	1.24	5.61		
2025	1.54	1.25	1.90	1.21	5.90		
2026	1.50	1.45	1.95	1.40	6.30		

RECENT PRICE	96.30	P/E RATIO	19.5 (Trailing: 20.6 Median: 20.0)	RELATIVE P/E RATIO	1.12	DIV'D YLD	3.0%	VALUE LINE
--------------	-------	-----------	------------------------------------	--------------------	------	-----------	------	------------

High:	48.1	46.8
Low:	35.2	37.3

LEGENDS

— 35.70 x Dividends p sh
 Relative Price Strength
 Options: Yes
 Shaded area indicates recession

Figure 1 is a line graph with two data series. The x-axis represents months from May to September. The y-axis represents the number of individuals, with a scale from 0 to 100. The first series, represented by open circles, shows the 1st instar population, which starts at approximately 10 in May, rises to a peak of about 80 in June, and then declines to near zero by August. The second series, represented by filled circles, shows the 2nd instar population, which remains near zero until July, then rises sharply to a peak of about 60 in August, and continues to fluctuate between 40 and 60 through September.

2013	2014	2015	2
24.06	24.95	25.13	
5.25	5.77	6.08	
2.10	2.40	2.38	
1.60	1.61	1.66	
5.87	7.66	8.12	
26.97	27.67	28.63	
242.63	242.63	242.63	2
16.5	16.7	17.5	
.93	.88	.88	
4.6%	4.0%	4.0%	

25	6098.0	6
rs \$2789 mill.	585.0	
t \$450 mill.	38.3%	3
	5.1%	
Oblig \$5457 mill.	49.3%	4
\$5 mill.	49.7%	5
o par), \$100	13968	
/sh.; 487,508	18799	
em. \$100-	5.3%	
	8.3%	
	8.3%	

2023	2024	BUSINESS through the electric an and 813,0 power-ge 13.5%
+2.1	+3.2	
NA	NA	
NA	NA	
NA	NA	
NA	NA	

	NA	NA
	325	334
Est'd '22-'24		
to '28-'30		
5%	4.0%	
5%	5.5%	
0%	6.5%	
0%	6.5%	

\$ mill.)	Full Year
Dec.31	
2046	7957
1618	7500
1941	7623
1953	8300
2200	8750

2200	6750
Full Dec.31	Full Year
.63	4.14
.60	4.37
.77	4.59
.83	4.95
1.00	5.30

AID B ■ Dec.31	Full Year
.55	2.20
.59	2.36
.63	2.52
.67	2.68

6	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30
04	25.46	25.73	24.00	22.87	24.81	30.37	28.10	128.56	30.50	31.80	Revenues per sh	37.00
59	6.80	7.64	7.83	8.08	8.89	9.59	9.99	10.49	11.20	11.65	"Cash Flow" per sh	12.90
78	2.77	3.32	3.35	3.50	3.84	4.14	4.37	4.59	4.95	5.30	Earnings per sh ^A	6.60
82	1.78	1.85	1.92	2.00	2.20	2.36	2.52	2.68	2.85	3.03	Div'd Decl'd per sh ^B	3.57
78	9.05	9.56	9.92	13.02	13.67	12.79	12.87	12.64	12.80	12.85	Cap'l Spending per sh	13.00
27	29.61	31.21	32.73	35.29	37.64	40.11	40.26	42.78	45.95	48.70	Book Value per sh ^C	52.65
63	242.63	244.50	246.20	253.30	257.70	262.00	267.00	266.93	272.00	275.00	Common Shs Outst'g ^D	285.00
36	20.6	18.3	22.1	22.2	21.4	21.5	18.8	17.1	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	20.0
93	1.04	.99	1.18	1.14	1.16	1.24	1.07	.95			Relative P/E Ratio	1.10
%	3.1%	3.0%	2.6%	2.6%	2.7%	2.7%	3.3%	2.7%			Avg Ann'l Div'd Yield	3.0%

%	3.4%	4.8%	4.4%	2.2%	4.4%	4.4%	5.0%	5.0%	5.0%	5.0%	Retained to Com Eq	4.0%
%	64%	56%	57%	57%	57%	57%	57%	56%	56%	56%	All Div'ds to Net Prof	60%

Ameren Corporation is a holding company formed by the merger of Union Electric and CIPSCO. Has 1.2 million customers in Missouri; 1.2 million electric gas customers in Illinois. Discontinued nonregulated operation in '13. Electric revenue breakdown: 9%; commercial, 34%; industrial, 8%; other, 9%. Generating assets: 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.

Q3 '14 earnings are on track to rise in 2025. The company posted quarterly profits of \$1.07 per share, up from \$1.00 a share in Q3 '13, and the \$0.98 tally in the year-to-date. Growth was driven by infrastructure investments, including a \$1.5 billion investment in the St. Louis area. The company expects a large-load rate structure filing soon. Our 2026 profit forecast is unchanged at \$5.30 per share, representing a 7% year-over-year increase.

00 megawatts of new generation, the company is accelerating investment in solar, natural gas, and storage. signed construction agreements for 2.3 GW of future data center up from 1.8 GW just months ago. ructive electric rate settlement in

Although untimely, these shares will likely appeal to conservative accounts. This stock is ranked Highest for Safety. And while the stock yields 3.0%, slightly below the utility group average, it has a strong track record of payouts.

Zachary J. Hodgkinson June 6, 2025

<p>(A) Diluted EPS. Excl. nonrec. (losses): '10, (\$2.19); '11, (32c), '12, (\$6.42); '17, (63c); gain (loss) from discontinued ops.: '13, (92c); '15, 21c. Next earnings report due early Aug. (B)</p>	<p>Div'ds paid late Mar., June, Sept., & Dec. ■ Div'd reinvest. plan avail. (C) Incl. intang. In '24: \$6.60/sh. (D) In mill. (E) Rate base: Orig. cost depr. Rate allowed on com. eq. in MO in</p>	<p>'24: elec. & gas, none specified; in IL: electric, varies; in '24: gas, 9.68%, earned on avg. com. eq., '24: 10.5%.</p>	<p>Company's Financial Strength A+ Stock's Price Stability 100 Price Growth Persistence 65 Earnings Predictability 100</p>
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AVISTA CORP. NYSE-AVA										RECENT PRICE	38.15	P/E RATIO	14.7 (Trailing: 16.2 Median: 19.0)	RELATIVE P/E RATIO	0.79	DIV'D YLD	5.1%	VALUE LINE
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TIMELINESS 3	Raised 3/14/25	High: 37.4	38.3	45.2	52.8	52.9	49.5	53.0	49.1	46.9	45.3	40.0	43.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			</
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2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC 28-30	
27.58	27.29	27.73	25.86	26.94	23.66	23.83	22.47	22.08	21.27	20.03	19.09	20.13	22.82	22.43	24.21	24.05	24.10	Revenues per sh	27.05
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	5.47	5.63	5.67	6.30	6.50	"Cash Flow" per sh	7.00
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	2.24	2.29	2.60	2.75	Earnings per sh ^A	3.10
.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	1.90	2.00	2.10	Div'd Decl'd per sh ^B	2.20
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	6.39	6.66	6.60	7.00	Cap'l Spending per sh	9.50
19.17	19.71	20.30	21.06	21.61	23.84	24.53	25.69	26.41	26.99	28.87	29.31	30.14	31.15	31.83	32.37	34.40	35.25	Book Value per sh ^C	36.00
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	78.08	80.04	81.00	83.00	Common Shs Outst'g ^D	85.00
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	17.1	15.9	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	18.0
.76	.81	.88	1.23	.82	.91	.89	.99	1.18	1.32	.80	1.09	1.09	1.16	.95	.84			Relative P/E Ratio	1.00
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%	4.8%	5.2%			Avg Ann'l Div'd Yield	4.0%

CAPITAL STRUCTURE as of 3/31/25 Total Debt \$2953.0 mill. Due in 5 Yrs \$40.0 mill. LT Debt \$2666.0 mill. LT Interest \$150.0 mill. Incl. \$52 mill. debt to affiliated trusts (LT interest earned: 2.1x) Leases, Uncapitalized Annual rentals \$10.4 mill. Pension Assets-12/24 \$608 mill. <div>Oblig \$600 mill.</div> Pfd Stock None Common Stock 80,563,559 shs. as of 4/30/25 MARKET CAP: \$3.1 billion (Mid Cap) ELECTRIC OPERATING STATISTICS		1484.8	1442.5	1445.9	1396.9	1345.6	1321.9	1438.9	1710.2	1751.6	1938.0	1950	2000	Revenues (\$mill)	2300
		118.1	137.2	126.1	136.4	197.0	129.5	147.3	155.2	171.2	180.0	210	230	Net Profit (\$mill)	265
		36.3%	36.3%	36.5%	16.0%	13.8%	5.2%	7.5%	-	7.5%	1.6%	15.0%	15.0%	Income Tax Rate	15.0%
		10.1%	8.1%	7.9%	7.7%	5.5%	8.5%	7.5%	2.4%	2.1%	2.8%	4.0%	4.0%	AFUDC % to Net Profit	4.0%
		50.0%	51.2%	47.2%	50.5%	49.4%	50.4%	47.5%	50.4%	51.2%	51.0%	49.0%	48.0%	Long-Term Debt Ratio	46.0%
		50.0%	48.8%	52.8%	49.5%	50.6%	49.6%	52.5%	49.6%	48.8%	49.0%	51.0%	52.0%	Common Equity Ratio	54.0%
		3060.3	3379.0	3273.2	3580.3	3834.6	4089.8	4104.7	4709.7	5091.3	5292.0	5440	5575	Total Capital (\$mill)	5650
		3898.6	4147.5	4398.8	4648.9	4797.0	4991.6	5225.5	5444.7	5700.1	6020.0	6255	6525	Net Plant (\$mill)	7275
		5.1%	5.3%	5.0%	4.8%	6.2%	4.2%	4.7%	4.6%	4.8%	4.8%	5.0%	5.0%	Return on Total Cap'l	5.5%
		7.7%	8.3%	7.3%	7.7%	10.2%	6.4%	6.8%	6.6%	6.9%	6.9%	7.5%	8.0%	Return on Shr. Equity	8.5%
7.7%	8.3%	7.3%	7.7%	10.2%	6.4%	6.8%	6.6%	6.9%	6.9%	7.5%	8.0%	Return on Com Equity	8.5%		
	2.3%	3.0%	1.9%	2.2%	4.9%	.9%	1.4%	1.1%	1.2%	1.2%	2.0%	2.0%	Retained to Com Eq	2.5%	
	70%	64%	73%	72%	52%	85%	80%	83%	82%	83%	76%	75%	All Div'ds to Net Prof	70%	

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: 422,000 electric, 383,000 gas. Acq'd Alaska Electric Light and Power 7/14. Sold Ecova energy-management sub. 6/14. Electric revenue: residential, 36%; commercial, 29%; industrial, 9%; wholesale, 21%; other, 5%. Generating sources: gas & coal, 43%; hydro, 44%; purch., 42%. Fuel costs: 35% of rev. '24 depr. rate (Avista Utilities): 3.5%. Has 1,950 employees. Chairman: Scott L. Morris. Pres. & CEO: Heather L. Rosentrater. Inc.: WA. Address: 1411 E. Mission Ave., Spokane, WA 99202-2600. Telephone: 509-489-0500. Internet: www.avistacorp.com.																			
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Avista Corporation continues to make progress on regulatory matters. Its utility subsidiary, Avista Utilities, recently reached a comprehensive settlement in Idaho, resolving its general rate cases for both electric and natural gas services. The agreement, submitted to the state's Public Utilities Commission, proposes phased rate increases through 2026. If approved, electric base revenues would rise by \$19.5 million (6.3%) in September 2025 and another \$14.7 million (4.5%) the following year. On the gas side, rates would increase by \$4.6 million (9.2%) in 2025, followed by a slight reduction in 2026. The approved capital structure calls for a 9.6% return on equity, a 50% common equity ratio, and a 7.28% overall rate of return.										Capital deployment remains a central focus. Avista is planning \$525 million in capital expenditures in 2025, with nearly \$3 billion in total investment slated over the five years ending 2029. These funds are directed toward grid modernization, system reliability, and clean energy initiatives. Key priorities include electric and gas distribution infrastructure upgrades, technology integration, and wildfire risk mitigation. Transmission system enhancements are also underway, alongside continued efforts to expand renewable natural gas infrastructure and support broader electrification trends. These investments will likely serve as supporting evidence in future rate filings, as the company aligns capital needs with regulatory support.									
Near-term share earnings prospects remain favorable. We project earnings per share to grow in the low teens for 2025, supported by rate relief, operational cost management, and incremental customer growth. That said, the pace of bottom-line expansion will likely moderate in 2026 to a mid-single-digit range as cost pressures persist and rate case benefits normalize. Still, a constructive regulatory environment should help smooth out variability and support earnings stability.										Good-quality shares of Avista Corporation have above-average long-term capital appreciation potential, at present. The equity offers a dividend yield of 5.1%, well above the utility average, making it appealing to income-focused investors.									
<i>Emma Jalees</i>										<i>July 18, 2025</i>									

(A) Diluted EPS. Excl. nonrec. gain (loss): '14, 9c; '17, (16c); gains on discount. ops.: '14, \$1.17; '15, 8c. EPS may not sum due to rounding. Next earnings report due August 6th.										(B) Div'ds paid in mid-Mar., June, Sept. & Dec. ■ Div'd reinvest. plan avail. (C) Incl. deferred chgs. In '24: \$961.0 mill., \$11.95/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 A Stock's Price Stability 90 Price Growth Persistence 15 Earnings Predictability 70																			

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BLACK HILLS CORP. NYSE-BKH										RECENT PRICE	56.44	P/E RATIO	13.8 (Trailing: 14.4 Median: 17.0)	RELATIVE P/E RATIO	0.74	DIV'D YLD	4.8%	VALUE LINE	
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<div><div>TIMELINESS4Lowered 6/27/25</div><div>SAFETY2Raised 10/18/24</div><div>TECHNICAL2Lowered 6/27/25</div><div>BETA.85(1.00 = Market)</div></div>	<div><div>High:62.153.464.672.068.282.087.172.880.974.065.662.2</div><div>Low:47.136.844.757.050.560.848.158.259.146.449.354.9</div></div>	<div><div>Target Price Range</div><div>202820292030</div></div>
<div><div>18-Month Target Price Range</div><div>Low-HighMidpoint (% to Mid)</div><div>\$41-\$71\$56 (0%)</div></div>	<div><div>LEGENDS</div><div>25.00 x Dividends p sh divided by Interest Rate</div><div>.... Relative Price Strength</div><div>Options: Yes</div><div>Shaded area indicates recession</div></div>	
<div><div>2028-30 PROJECTIONS</div><div>PriceGainAnn'l Total High90(+60%)16% Low65(+15%)8%</div></div>	<div><div>Percent shares traded</div><div>302010</div></div>	<div><div>% TOT. RETURN 7/7/25</div><div>THIS STOCKVL ARITH.' INDEX</div><div>1 yr.9.814.6</div><div>3 yr.-10.044.6</div><div>5 yr.19.496.9</div></div>
<div><div>Institutional Decisions</div><div>3Q20244Q20241Q2025</div><div>to Buy206204221</div><div>to Sell155161170</div><div>Hld's(000)712477188262625</div></div>		

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC 28-30	
32.58	33.29	28.96	26.55	28.67	31.20	25.48	29.47	31.38	29.24	28.22	27.02	30.11	38.60	34.18	30.47	32.05	33.80	Revenues per sh	37.65
5.41	4.88	4.01	5.59	5.93	6.25	5.67	6.28	7.15	6.61	7.02	7.41	7.41	7.85	7.76	7.58	7.75	7.95	"Cash Flow" per sh	8.75
2.32	1.66	1.01	1.97	2.61	2.89	2.83	2.63	3.38	3.47	3.53	3.73	3.74	3.97	3.91	3.91	4.10	4.30	Earnings per sh ^A	5.00
1.42	1.44	1.46	1.48	1.52	1.56	1.62	1.68	1.81	1.93	2.05	2.17	2.29	2.41	2.50	2.60	2.70	2.80	Div'd Decl'd per sh ^B	3.10
8.90	12.04	10.03	7.90	7.97	8.92	8.90	8.89	6.09	7.62	13.31	12.22	10.47	9.14	8.15	11.09	11.50	11.50	Cap'l Spending per sh	12.00
27.84	28.02	27.53	27.88	29.39	30.80	28.63	30.25	31.92	36.36	38.42	40.79	43.05	45.31	47.15	50.12	51.50	53.00	Book Value per sh ^C	56.00
38.97	39.27	43.92	44.21	44.50	44.67	51.19	53.38	53.54	60.00	61.48	62.79	64.74	66.10	68.20	69.84	73.00	74.00	Common Shs Outst'g ^D	77.00
9.9	18.1	31.1	17.1	18.2	19.0	16.1	22.3	19.5	16.8	21.2	17.0	17.7	18.1	15.2	14.5	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	15.5
.66	1.15	1.95	1.09	1.02	1.00	.81	1.17	.98	.91	1.13	.87	.96	1.05	.85	.80			Relative P/E Ratio	.85
6.2%	4.8%	4.6%	4.4%	3.2%	2.8%	3.5%	2.9%	2.7%	3.3%	2.7%	3.4%	3.5%	3.4%	4.2%	4.6%			Avg Ann'l Div'd Yield	4.0%

CAPITAL STRUCTURE as of 3/31/25										1304.6	1573.0	1680.3	1754.3	1734.9	1696.9	1949.1	2551.8	2331.3	2127.7	2340	2500	Revenues (\$mill)	2900
Total Debt \$4311.5 mill. Due in 5 Yrs \$1660.0 mill.										128.3	140.3	186.5	192.5	214.5	232.9	236.7	258.4	262.2	273.1	295	320	Net Profit (\$mill)	385
LT Debt \$3951.6 mill. LT Interest \$195.0 mill.										35.8%	25.1%	28.7%	19.2%	13.0%	12.2%	2.8%	8.5%	8.5%	8.5%	13.0%	13.0%	Income Tax Rate	13.0%
(Total Interest Coverage: 2.6x)										2.7%	5.3%	2.7%	1.4%	3.3%	2.5%	2.0%	2.4%	2.4%	2.5%	2.5%	2.5%	AFUDC % to Net Profit	2.5%
Leases, Uncapitalized Annual rentals \$2.2 mill.										56.0%	66.5%	64.5%	57.5%	57.1%	57.9%	59.7%	54.6%	54.2%	56.5%	56.0%	56.0%	Long-Term Debt Ratio	55.5%
Pension Assets-12/24 \$308.6 mill.										44.0%	33.5%	35.5%	42.5%	42.9%	42.1%	40.3%	45.4%	45.8%	43.5%	44.0%	44.0%	Common Equity Ratio	44.5%
Oblig. \$348.1 mill.										3332.7	4825.8	4818.4	5132.4	5502.2	6089.5	6914.0	6602.3	7016.5	7751.7	8100	8600	Total Capital (\$mill)	9900
Pfd Stock None										3259.1	4469.0	4541.4	4854.9	5503.2	6019.7	6449.2	6797.9	7119.3	7629.9	8150	8650	Net Plant (\$mill)	10100
Common Stock 72,509,377 shs. as of 5/5/25										4.9%	4.0%	5.2%	5.0%	4.9%	5.0%	4.5%	5.1%	3.7%	3.5%	3.5%	3.5%	Return on Total Cap'l	4.0%
										8.8%	8.7%	10.9%	8.8%	9.1%	9.1%	8.5%	8.6%	8.2%	7.8%	8.0%	8.0%	Return on Shr. Equity	8.5%
										8.8%	8.7%	10.9%	8.8%	9.1%	9.1%	8.5%	8.6%	8.2%	7.8%	8.0%	8.0%	Return on Com Equity ^E	8.5%
MARKET CAP: \$4.1 billion (Mid Cap)										3.8%	3.3%	5.3%	3.9%	3.8%	3.8%	3.3%	3.4%	2.9%	2.6%	3.0%	3.0%	Retained to Com Eq	3.0%
ELECTRIC OPERATING STATISTICS										57%	62%	52%	55%	58%	58%	61%	61%	64%	66%	66%	66%	All Div'ds to Net Prof	62%

Black Hills is on track to deliver modest earnings gains in 2025. The company reported solid results in the March interim, as diluted earnings per share of \$1.87 met expectations. The recent quarter benefited from new rates in Colorado, improved rider recovery, and more favorable weather. These largely offset higher operating, financing, and depreciation expenses. Leadership reaffirmed its share-net projection of between \$4.00 and \$4.20, emphasizing strong confidence in its 4-6% growth outlook.										BUSINESS: Black Hills Corporation is a holding company for Black Hills Energy, which serves 222,340 electric customers in CO, SD, WY and MT, and 1.12 million gas customers in NE, IA, KS, CO, WY, and AR. Has coal mining sub. Acqd't utility ops. from Aquila 7/08; SourceGas 2/16. Discontinued gas marketing in '11; gas & oil E&P in '17. '24 Elec. rev. breakdown: residential, 34%; commercial, 38%; industrial, 23%; other, 5%. Generating sources: coal, 35%; gas, 26%; wind, 9%; purchased, 30%. Fuel costs: 34% of revs. '24 deprec. rate: 2.9%-3.5%. Has 2,874 employees. Chairman: Steven R. Mills. President & CEO: Linden R. Evans. Inc.: SD. Address: 7001 Mount Rushmore Rd., P.O. Box 1400, Rapid City, SD 57709-1400. Tele: 605-721-1700. Internet: www.blackhillscorp.com.												
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Fixed Charge Cov. (%)		281		254		261	
ANNUAL RATES of change (per sh)		Past 10 Yrs.	Past 5 Yrs.	Est'd '22-'24 to '28-'30			
Revenues		2.5%	4.0%	1.5%			
"Cash Flow"		3.0%	2.5%	2.0%			
Earnings		4.5%	2.5%	3.5%			
Dividends		5.0%	5.0%	3.5%			
Book Value		4.5%	5.5%	3.0%			
Cal-endar	QUARTERLY REVENUES (\$ mill.)					Full Year	
	Mar.31	Jun.30	Sep.30	Dec.31			
2022	823.6	474.2	462.6	791.4		2551.8	
2023	921.2	411.3	407.1	591.7		2331.3	
2024	726.4	402.6	401.6	597.1		2127.7	
2025	805.2	410	410	714.8		2340	
2026	825	450	450	775		2500	
Cal-endar	EARNINGS PER SHARE ^A					Full Year	
	Mar.31	Jun.30	Sep.30	Dec.31			
2022	1.82	.52	.54	1.11		3.97	
2023	1.73	.35	.67	1.17		3.91	
2024	1.87	.33	.35	1.37		3.91	
2025	1.87	.40	.43	1.40		4.10	
2026	1.92	.42	.46	1.50		4.30	
Cal-endar	QUARTERLY DIVIDENDS PAID ^B					Full Year	
	Mar.31	Jun.30	Sep.30	Dec.31			
2021	.565	.565	.565	.595		2.29	
2022	.595	.595	.595	.625		2.41	
2023	.625	.625	.625	.625		2.50	
2024	.65	.65	.65	.65		2.60	
2025	.676	.676					

Black Hills is on track to deliver modest earnings gains in 2025. The company reported solid results in the March interim, as diluted earnings per share of \$1.87 met expectations. The recent quarter benefited from new rates in Colorado, improved rider recovery, and more favorable weather. These largely offset higher operating, financing, and depreciation expenses. Leadership reaffirmed its share-net projection of between \$4.00 and \$4.20, emphasizing strong confidence in its 4-6% growth outlook.

Black Hills is making excellent progress with its *Ready Wyoming* transmission project. The endeavor, at approximately 260 miles in length, represents the largest electric transmission project in company history. *Ready Wyoming* will interconnect the company's Wyoming electric system with its South Dakota electric system, providing long-term cost stability, greater resiliency, and energy accessibility to its customers, which include data centers. Wyoming Electric has successfully procured all required regulatory approvals and land rights-of-way from landowners, and continues to construct the project in

multiple segments. We expect the \$350 million project to be completed and in service by year-end. Separately, the company is also advancing its plans to deliver new electric generation resources in South Dakota and Colorado.

Leadership targets contribution from data centers to more than double to 10% or more of earnings by late decade. During the recent quarter, Wyoming Electric served a record peak load of 344 megawatts on February 12th, an increase of nearly 10% over the previous all-time peak of 314 megawatts in January 2024, driven by data center demand growth. The company possesses a pipeline exceeding one gigawatt of data center demand from existing customers.

Black Hills shares are ranked 4 (Below Average) for Timeliness. The equity does offer a generous dividend yield that makes it suitable for conservative, income-oriented accounts. Note, as well, that BKH stock carries exemplary marks for Financial Strength, Price Stability and Earnings Predictability, as well as an Above Average (2) ranking for Safety.

Steven Brachman
July 18, 2025

RECENT PRICE	69.65	P/E RATIO	19.3 (Trailing: 20.7 Median: 21.0)	RELATIVE P/E RATIO	1.11	DIV'D YLD	3.1%	VALUE LINE
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18-Month Target Price Range

Low-High Midpoint (% to Mid)

\$67-\$89 \$78 (10%)

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30	
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	25.35	25.15	26.65	27.75	Revenues per sh	32.45	
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	6.98	7.47	8.60	9.00	"Cash Flow" per sh	10.25	
.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	3.01	3.33	3.60	3.85	Earnings per sh ^A	5.00	
.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	2.06	2.17	2.30	Div'd Decl'd per sh ^B ■	3.00	
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	8.18	10.10	12.75	13.00	Cap'l Spending per sh	13.25	
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	24.86	26.79	27.55	28.75	Book Value per sh ^C	31.75	
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	294.40	298.80	300.00	301.00	Common Shs Outst'g ^D	302.00	
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	19.6	19.0	Bold figures are Value Line estimates			Avg Ann'l P/E Ratio	20.0
.91	.80	.85	.96	.92	.91	.92	1.10	1.07	1.10	1.29	1.20	1.28	1.32	1.09	1.00				Relative P/E Ratio	1.10
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%	3.3%	3.3%				Avg Ann'l Div'd Yield	3.0%

% Change Retail Sales (Kwh)	+3.0	-1.0	+1.0
Avg. Indust. Use (MWh)	NA	NA	NA
Avg. Indust. Revs. per KW/h	8.78	8.90	10.14
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	8061	8067	8030
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.0	+1.0	+1.0

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 2,016 megawatts of nonregulated generating capacity. Sold EnerBank in '21. Electric revenue breakdown: residential, 46%; commercial, 33%; industrial, 13%; other, 8%. Generating

sources: coal, 22%; gas, 42%; renewables, 7%; purchased, 29%. Fuel costs: 37% of revenues. '24 depreciation rates: 3.8% electric, 2.8% gas, 7.8% other. Has 8,324 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.

Calendar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	2374	1920	2024	2278	8596
2023	2284	1555	1673	1950	7462
2024	2176	1607	1743	1989	7515
2025	2447	1690	1850	2013	8000
2026	2250	1800	1900	2400	8350

Calendar	QUARTERLY DIVIDENDS PAID ^B				Full Year
	Mar.31	Jun.30	Sep.30	Dec. 31	
2021	.435	.435	.435	.435	1.74
2022	.46	.46	.46	.46	1.84
2023	.4875	.4875	.4875	.4875	1.95
2024	.515	.515	.515	.515	2.06
2025	.5425	.5425			

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 2,016 megawatts of nonregulated generating capacity. Sold EnerBank in '21. Electric revenue breakdown: residential, 46%; commercial, 33%; industrial, 13%; other, 8%. Generating

CMS Energy reported healthy first-quarter results. The top line rose more than 12% year over year, to nearly \$2.4 billion. Meanwhile, the bottom line increased 5%, to \$1.01 per share, compared to the year-ago period. This improvement was due to lower operating expenses and benefits from rate relief. For 2025, management has guided for annual adjusted share earnings in the \$3.54-\$3.60 range.

Consumers Energy, the company's utility subsidiary, has a pending gas rate case. In December 2024, Consumers filed an application with the Michigan Public Service Commission (MPSC) seeking a \$248 million annual rate increase based on a 10.25% authorized return on equity for the projected 12-month period ending October 31, 2026. A final order from the MPSC is expected by October.

The company has a solid long-term investment plan in place. Over the next five years, Consumers expects to invest significantly in infrastructure upgrades, replacements, and clean energy generation. Of the \$20.0 billion in planned capital expenditures through 2029, Consumers intends to allocate \$14.8 billion toward

sources: coal, 22%; gas, 42%; renewables, 7%; purchased, 29%. Fuel costs: 37% of revenues. '24 depreciation rates: 3.8% electric, 2.8% gas, 7.8% other. Has 8,324 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.

maintaining and upgrading electric distribution systems and gas infrastructure. This includes \$8.5 billion for electric distribution and other projects and \$6.3 billion for gas infrastructure. Additionally, \$5.2 billion has been earmarked for wind, solar, and hydroelectric generation projects.

The utility continues to advance its net-zero emissions goals. CMS targets very little greenhouse gas emissions across its entire business by 2050, with an interim goal of reducing its carbon footprint 25% by 2035. The company remains cautious about evolving regulatory and policy changes around emissions.

Near-term profit prospects look promising. CMS Energy will likely benefit from approved rate increases and ongoing cost discipline. All told, we estimate 2025 and 2026 share earnings to increase about 8% and 7% year over year, to \$3.60 and \$3.85, respectively.

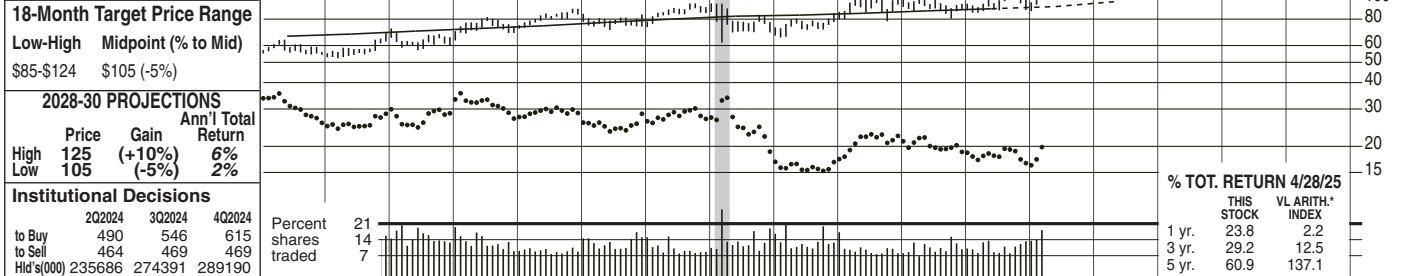
Shares of CMS Energy offer an unspectacular dividend yield for a utility. Still, the company earns a Safety rank of 2 (Above Average), suggesting strong financial stability.

Emma Jalees

June 6, 2025

<p>(A) Dil. GAAP EPS may not sum due to rdg. Excl. nonrec. gains (loss): '09, (7c); '10, 3c; '11, 12c; '12, 14c; '17, (53c); gains (losses) on disc. ops: '09, 8c; '10, (8c); '11, 1c; '12, 3c;</p>	<p>'21, \$2.08; '22, 1c. Next earnings report due late July. (B) Div'ds paid late Feb., May, Aug., & Nov. (C) Div'd reinvestment plan avail. (C) Incl. intang. In '24: \$8.52/sh. (D) In mill.</p>	<p>(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.</p>	<p>Company's Financial Strength B++ Stock's Price Stability 100 Price Growth Persistence 60 Earnings Predictability 85</p>
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<p>To subscribe call 1-800-VALUELINE</p>			

TIMELINESS 3 Lowered 6/7/24	High: 68.9 72.3 81.9 89.7 84.9 95.0 95.1 85.6 102.2 100.9 107.8 114.9	Low: 52.2 56.9 63.5 72.1 71.1 73.3 62.0 65.6 78.1 80.5 85.9 87.3	Target Price Range 2028 2029 2030
SAFETY 1 New 7/27/90	LEGENDS — 27.0 x Dividends p sh ... Relative Price Strength Options: Yes Shaded area indicates recession		
TECHNICAL 3 Raised 5/9/25			
BETA .65 (1.00 = Market)			



2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30
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	42.45	44.02	46.10	48.15	Revenues per sh	54.25
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	10.98	11.61	12.75	13.40	"Cash Flow" per sh	15.35
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	5.04	5.38	5.65	5.95	Earnings per sh A	7.00
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	3.32	3.40	3.60	Div'd Decl'd per sh B	4.24
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	13.01	13.77	14.50	15.50	Cap'l Spending per sh	15.50
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	61.25	63.36	66.50	70.25	Book Value per sh C	77.75
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	345.42	346.60	347.00	348.00	Common Shs Outst'g D	355.00
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	18.4	17.6	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	16.5
.83	.85	.95	.98	.83	.84	.79	.99	1.00	.92	1.05	.98	.93	1.17	1.02	.93			Relative P/E Ratio	.90
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%	3.5%	3.5%			Avg Ann'l Div'd Yield	3.7%

CAPITAL STRUCTURE as of 12/31/24										12554	12075	12033	12337	12574	12246	13676	15670	14663	15256	16000	16750	Revenues (\$mill)	19250
Total Debt \$27321 mill. Due in 5 Yrs \$1874 mill.										1193.0	1189.0	1266.0	1424.0	1438.0	1399.0	1528.0	1620.0	1762.0	1868.0	1965	2075	Net Profit (\$mill)	2495
LT Debt \$24651 mill. LT Interest \$1084 mill.										33.6%	35.3%	36.6%	20.1%	17.5%	12.9%	16.2%	15.4%	17.8%	15.1%	18.0%	18.0%	Income Tax Rate	18.0%
Leases, Uncapitalized Annual rentals \$68 mill.										.7%	1.3%	1.5%	1.5%	1.9%	2.2%	2.1%	3.4%	4.4%	5.4%	6.0%	6.5%	AFUDC % to Net Profit	7.0%
Pension Assets-12/24 \$15278 mill.										47.9%	50.8%	48.9%	51.1%	50.7%	52.0%	53.0%	49.3%	50.9%	52.9%	53.0%	53.0%	Long-Term Debt Ratio	54.0%
Pfd Stock None										52.1%	49.2%	51.1%	48.9%	49.3%	48.0%	47.0%	50.7%	49.1%	47.1%	47.0%	47.0%	Common Equity Ratio	46.0%
Common Stock 346,711,639 shs.										25058	29033	30149	34221	36549	39229	42641	40834	43085	46613	49100	52000	Total Capital (\$mill)	60000
as of 1/31/25										32209	35216	37600	41749	43889	46555	48596	46766	49608	52165	54700	57600	Net Plant (\$mill)	65700
MARKET CAP: \$38.5 billion (Large Cap)										6.0%	5.3%	5.4%	5.3%	5.1%	4.7%	4.7%	5.2%	5.2%	5.2%	5.0%	5.0%	Return on Total Cap'l	5.5%
CECONY ELECTRIC OPERATING STATISTICS										9.1%	8.3%	8.2%	8.5%	8.0%	7.4%	7.6%	7.8%	8.3%	8.5%	8.5%	8.5%	Return on Shr. Equity	9.0%
										9.1%	8.3%	8.2%	8.5%	8.0%	7.4%	7.6%	7.8%	8.3%	8.5%	8.5%	8.5%	Return on Com Equity E	9.0%
										3.5%	3.0%	3.0%	3.5%	2.9%	2.2%	2.5%	2.6%	3.1%	3.5%	3.5%	3.5%	Retained to Com Eq	3.5%
										61%	64%	63%	59%	64%	70%	67%	67%	62%	59%	60%	60%	All Div'ds to Net Prof	60%

% Change Electric Sales (GWH)	2022	2023	2024
Annual Residential Use (GWH)	+3.3	+1.4	+3
Annual Comm./Ind. Use (GWH)	11875	11574	11890
Annual Retail Choice (GWH)	10522	10895	10267
Annual Govt. & Other Use (GWH)	21116	20315	20715
% Change Customers (yr-end)	9507	9472	9555
Peak Load, Summer (MW)	NA	NA	NA
ConEd Fixed Charge Cov. (%)	240	217	218

ANNUAL RATES	Past 10 Yrs.	Past 5 Yrs.	Est'd '22-'24
of change (per sh)			
Revenues	-	2.5%	3.5%
"Cash Flow"	4.0%	4.5%	5.5%
Earnings	3.0%	3.0%	6.0%
Dividends	3.0%	2.5%	4.5%
Book Value	4.0%	3.0%	4.0%

Cal-endar	QUARTERLY REVENUES (\$ mill.) A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	4060	3415	4165	4031	15670
2023	4403	2944	3872	3444	14663
2024	4275	3220	4092	3669	15256
2025	4425	3400	4250	3925	16000
2026	4625	3550	4450	4125	16750

Cal-endar	EARNINGS PER SHARE A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	1.47	.64	1.63	.81	4.55
2023	1.82	.61	1.61	1.00	5.04
2024	2.14	.59	1.67	.98	5.38
2025	2.05	.65	1.85	1.10	5.65
2026	2.15	.70	1.95	1.15	5.95

Cal-endar	QUARTERLY DIVIDENDS PAID B				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2021	.775	.775	.775	.775	3.10
2022	.79	.79	.79	.79	3.16
2023	.81	.81	.81	.81	3.24
2024	.83	.83	.83	.83	3.32
2025	.85				

(A) Diluted EPS. Excl. nonrec. gains/(losses): '13, (32c); '14, 9c; '16, 18c; '17, 84c; '18, (13c), (29c); '20, (89c); '21, (53c); '22, 11c; '23, \$2.17; '24, (14c). Next egs. report due early Aug. Qlty. figures may not sum to full year due to rounding or changes in sh. count. (B) Div'ds paid in mid-Mar., June, Sept., and Dec. Div'd reinvestment plan available. (C) Incl. intang. In '24: \$18.53/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.

Consolidated Edison shares have had a very good run of late. This bellwether utility stock is up nearly 25% year to date and 17% since our last report three months ago, outperforming the *Value Line Utility Index* by 19 and 12 percentage points, respectively. The defensive nature of this industry tends to serve the group well when recession concerns are front and center, as they've been lately. In recent months, fears of an economic downturn have increased on the presumption that tariffs and a trade war will act like a tax on consumption. Professional money managers, looking for a flight to safety, have moved cash into the utility sector, particularly in the largest, safest issues.

ConEd should see its earnings rise in 2025 and 2026. Under the terms of the 2023 general rate case (GRC) decision, the utility began billing for annualized revenue increases of \$518 million and \$173 million, respectively, for electricity and natural gas deliveries starting last August. That was the second rate increase under the 2023 GRC. The third and final hike goes into effect this coming August and will result in additional revenue of

\$382 million for electricity and \$122 million for gas.

In late January, ConEd filed a new rate case for both electric and natural gas. It's requesting higher rates for one year starting on January 1, 2026. The utility is open to a multi-year settlement, which would provide more cost certainty. Leadership estimates that its proposed investments for the replacement of aging infrastructure and increased electrification would require \$1.6 billion more in electric revenue and \$440 million more in gas revenue. The average electric bill increase under the proposal would be 11.4%, while the average gas bill hike would be 13.3%. Given the trying economic times, this will likely be a tough sell for consumers and probably will become a politicized issue.

This equity is not a timely choice. Moreover, annual total return potential is subpar relative to the peer-group median, as the earnings prospects we're projecting have been largely discounted by this year's runup. ConEd's dividend yield, at 3.1%, compares unfavorably to the 3.6% average for utilities under our coverage.

Anthony J. Glennon May 9, 2025

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

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DTE ENERGY CO. NYSE-DTE										RECENT PRICE	136.32	P/E RATIO	18.9 (Trailing: 18.4 Median: 18.0)	RELATIVE P/E RATIO	1.09	DIV'D YLD	3.2%	VALUE LINE
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TIMELINESS	3	Raised 3/14/25	High:	90.8	92.3	100.4	116.7	121.0	134.4	135.7	145.4	140.2	121.3	131.7	140.4	Target Price	Range		
SAFETY	2	Raised 12/21/12	Low:	64.8	73.2	78.0	96.6	94.3	107.3	71.2	108.2	100.6	90.1	102.2	116.3			2028	2029	2030
TECHNICAL	1	Raised 5/23/25	<div>LEGENDS</div> <div>28.00 x Dividends p sh</div> <div>Relative Price Strength</div> <div>Options: Yes</div> <div>Shaded area indicates recession</div>																
BETA	.80	(1.00 = Market)																	
18-Month Target Price Range																			
Low-High Midpoint (% to Mid)																			
\$105-\$154 \$130 (-5%)																			
2028-30 PROJECTIONS																			
	Price	Gain	Ann'l Total																
High	195	(+45%)	12%																
Low	145	(+5%)	5%																
Institutional Decisions																			
	2Q2024	3Q2024	4Q2024																
to Buy	382	417	464																
to Sell	316	300	313																
Hld's(000)	159667	183304	177252																
Percent shares traded			21																
			14																
			7																

RECENT PRICE	120.67	P/E RATIO	19.0 (Trailing: 20.5 Median: 18.0)	RELATIVE P/E RATIO	1.14	DIV'D YLD	3.5%	VALUE LINE
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18-Month Target Price Range

Low-High Midpoint (% to Mid)

\$97-\$136 \$117 (-5%)

Shaded area indicates recession

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30	
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	37.69	39.12	40.80	42.25	Revenues per sh	47.25	
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	12.86	13.45	14.15	15.00	15.75	"Cash Flow" per sh	18.50	
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	5.56	5.90	6.35	6.70	Earnings per sh ^A	8.00	
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	4.22	4.30	Div'd Dec'd per sh ^B ■	5.00	
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	16.35	15.82	16.30	16.75	Cap'l Spending per sh	18.25	
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	61.15	63.34	65.55	68.00	Book Value per sh ^C	76.50	
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	771.00	776.00	777.00	778.00	Common Shs Outst'g ^D	780.00	
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	19.8	16.9	17.8	Bold figures are Value Line estimates			Avg Ann'l P/E Ratio	17.0
.89	.81	.87	1.11	.98	.94	.92	1.12	1.00	.92	.94	.88	1.02	1.14	.94	.94				Relative P/E Ratio	.95
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%	3.8%	4.3%	4.0%				Avg Ann'l Div'd Yield	3.7%

	2022	2023	2024
% Change Retail Sales (GWh)	+4.5%	-4.7%	+2.9%
Avg. Indust. Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KW (c)	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.)	+1.8%	+1.7	+1.8%

BUSINESS: Duke Energy Corporation is a holding company for utilities with 8.4 mill. elec. customers in NC, FL, IN, SC, OH, and KY, and 1.7 mill. gas customers in OH, KY, NC, SC, and TN. Owns independent power plants & has 17.5% 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. Electric revenue break-

down: residential, 34%; commercial, 31%; industrial, 18%; other 17%. Generating sources: gas, 35%; nuclear, 27%; coal, 14%; other, 2%; purchased, 22%. Fuel costs: 32% of revs. '24 reported deprec. rate: 3.0%. Has 26,400 employees. Chairman: Ted Craver CEO: Harry Sideris. Inc. D. Addr.: 525 South Tryon St., Charlotte, NC 28202-1803. Tel.: 800-488-3853. Int.: www.duke-energy.com.

Calendar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	7132	6685	7968	6983	28768
2023	7276	6578	7994	7212	29060
2024	7671	7172	8154	7360	30357
2025	<u>8075</u>	<u>7250</u>	<u>8475</u>	<u>7900</u>	<u>31700</u>
2026	<u>8375</u>	<u>7525</u>	<u>8800</u>	<u>8200</u>	<u>32900</u>

Calendar	QUARTERLY DIVIDENDS PAID ^B				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2021	.965	.965	.985	.985	3.90
2022	.985	.985	1.005	1.005	3.98
2023	1.005	1.005	1.025	1.025	4.06
2024	1.025	1.025	1.045	1.045	4.14
2025	1.045				



2026. Up to \$141 million for 12 new solar plants was approved to be paid out as they are completed. The settlement dictates that Duke uses roughly \$50 million in federal tax credits to offset the need for a rate hike in 2027. Meanwhile, the final order in Duke's South Carolina regulatory decision became effective in August of last year and will increase electric delivery rates by 13% over a two-year span from then. The decision includes \$215 million of new investments in highly efficient natural gas, solar, nuclear, and hydroelectric units over a seven-year period. Prices in North Carolina recently increased by 2.9%, and Indiana rates were lifted by 8.0%. An Ohio regulatory decision is pending.

Duke stock has outperformed the peer group so far this year. Utilities tend to do well when the economy appears to be on shaky ground. A flight to quality large-cap, low-risk plays within the group has DUK's share price up 12% year to date and 22% over the past 12 months. As a result, much of the earnings growth we're projecting is already baked in, leading to below-average total return potential.


Anthony J. Glennon *May 9, 2025*

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EDISON INTERNAT'L NYSE-EIX										RECENT PRICE	50.51	P/E RATIO	8.4 (Trailing: 9.8 Median: 15.0)	RELATIVE P/E RATIO	0.45	DIV'D YLD	6.9%	VALUE LINE
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TIMELINESS 3 Raised 5/2/25	High: 68.7	69.6	78.7	83.4	71.0	76.4	78.9	68.6	73.3	74.9	88.8	81.0	Target Price Range 2028 2029 2030		
SAFETY 3 Lowered 4/18/25	Low: 44.7	55.2	58.0	62.7	45.5	53.4	43.6	53.9	54.4	58.8	63.2	47.7			
TECHNICAL 3 Raised 6/20/25	<div>21.7 x Dividends p sh</div> <div>Relative Price Strength</div> <div>Options: Yes</div> <div>Shaded area indicates recession</div>														
BETA .90 (1.00 = Market)															
18-Month Target Price Range															
Low-High Midpoint (% to Mid)															
\$49-\$109 \$79 (55%)															
2028-30 PROJECTIONS															
Price Gain Ann'l Total															
High Low 110 75 (+120%) 25%															
Low 75 (+50%) 15%															
Institutional Decisions															
3Q2024 4Q2024 1Q2025															
to Buy 454 458 470															
to Sell 325 358 441															
Hld's(000) 379213 381923 335433															
Percent shares traded															
30 20 10															
													% TOT. RETURN 7/7/25		
													THIS STOCK VL ARITH.' INDEX		
													1 yr. -25.8 14.6		
													3 yr. -7.3 44.6		
													5 yr. 16.6 96.9		

RECENT PRICE **82.82** P/E RATIO **24.4** (Trailing: 26.8 Median: 15.0) RELATIVE P/E RATIO **1.40** DIV'D YLD **2.9%** **VALUE LINE**

18-Month Target Price Range		Options: res Shaded area indicates recession	
Low-High	Midpoint (% to Mid)		
\$74-\$105	\$90 (10%)		

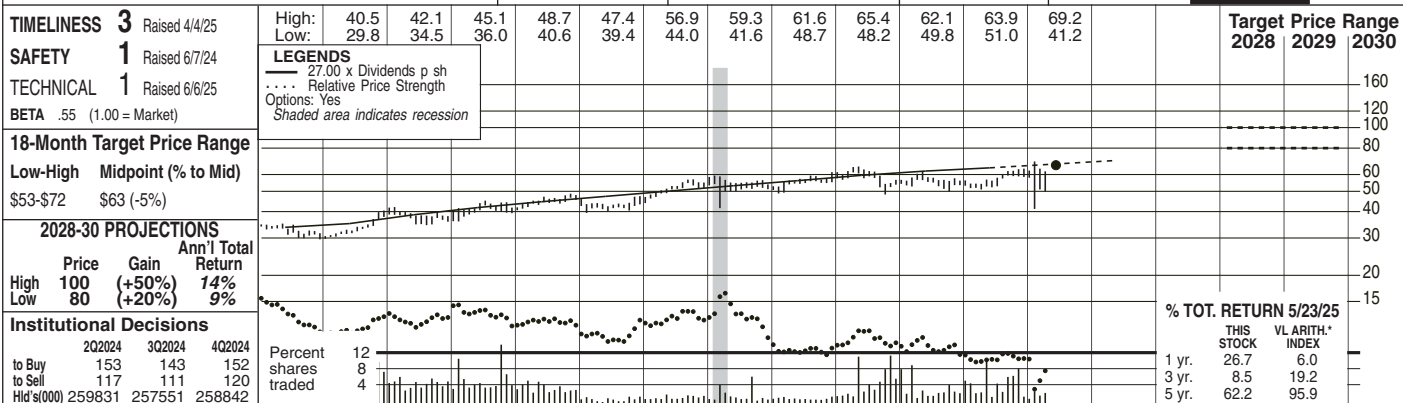
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30
28.41	32.13	31.84	28.97	31.93	34.86	32.27	30.27	30.67	29.12	27.31	25.25	28.97	32.59	28.54	27.65	28.75	30.00	Revenues per sh	33.25
6.64	8.27	8.77	7.99	8.12	8.84	8.85	9.36	8.35	8.25	8.60	9.10	8.95	7.75	10.77	8.10	8.80	9.30	"Cash Flow" per sh	10.50
3.15	3.33	3.78	3.01	2.48	2.89	2.91	3.44	2.60	2.94	3.15	3.45	3.44	2.69	5.55	2.45	3.35	3.60	Earnings per sh ^A	4.20
1.50	1.62	1.66	1.66	1.66	1.66	1.67	1.71	1.75	1.79	1.83	1.87	1.93	2.05	2.17	2.30	2.43	2.55	Div'd Dec'd per sh ^B \uparrow	3.00
6.50	6.66	7.60	9.09	7.86	7.41	8.39	8.64	11.04	11.23	10.86	12.26	15.43	12.52	10.43	11.26	12.00	12.50	Cap'l Spending per sh	14.00
22.77	23.77	25.41	25.86	27.00	27.92	25.95	22.56	22.14	23.39	25.67	27.28	28.71	30.70	34.35	35.11	36.50	38.25	Book Value per sh ^C	43.45
378.24	357.49	352.71	355.62	356.74	358.48	356.78	358.26	361.04	378.11	398.30	400.49	405.31	422.35	425.70	429.58	435.00	440.00	Common Shs Outst'g ^D	460.00
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	9.1	24.1	<i>Bold figures are Value Line estimates</i>		Avg Ann'l P/E Ratio	18.0
.80	.74	.57	.71	.74	.68	.63	.57	.75	.75	.88	.79	.81	1.22	.51	1.27			Relative P/E Ratio	1.00
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%	4.3%	3.9%			Avg Ann'l Div'd Yield	3.7%

	2022	2023	2024	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. '24 reported depreciation rate: 2.8%. 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 .
* Change Retail Sales (KWH)	+1.1	+4.5	-1.0		
Total Indust. Use (GWH)	52501	52807	57081		
Avg. Indust. Revs. per KWH(c)	7.08	6.00	5.60		
Capacity at Peak (MW)	NA	NA	NA		
Peak Load, Summer (MW)	NA	NA	NA		
Annual Load Factor (%)	NA	NA	NA		
* Change Customers (yr-end)	+1.0	+4	+7		

Calendar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	2878	3395	4219	3273	13764
2023	2981	2846	3596	2725	12147
2024	2795	2954	3389	2742	11880
2025	2849	3300	3200	3151	12500
2026	3100	3400	3400	3300	13200

Calendar	QUARTERLY DIVIDENDS PAID ^{B + 1}				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2021	.475	.475	.475	.505	1.93
2022	.505	.505	.505	.535	2.05
2023	.535	.535	.535	.565	2.17
2024	.565	.565	.565	.60	2.30
2025	.60	.60			

<p>(A) Diluted EPS. GAAP starting in 2022. Excl. nonrec. losses: '12, \$1.26; '13, \$1.14; '14, \$1.56; '15, \$6.99; '16, \$10.14; '17, \$2.91; '18, \$1.25; '21, \$1.33. Next earnings report due early Aug.</p> <p>© 2025 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.</p>		<p>just. (B) Div'ds historically paid in early Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail. § Shareholder investment plan avail.</p> <p>(C) Incl. deferred charges. In '24: \$14.92/sh.</p>	<p>(D) In mill. (E) Rate base: Net original cost. Allowed ROE (blended): 9.79%; earned on avg. com. eq., '24: 6.9%. Regulatory Climate: Average.</p>	<p>Company's Financial Strength A+</p> <p>Stock's Price Stability 95</p> <p>Price Growth Persistence 55</p> <p>Earnings Predictability 60</p>	<p>To subscribe call 1-800-VALUELINE</p>
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RECENT PRICE	116.35	P/E RATIO	20.1 (Trailing: 20.7 Median: 20.0)	RELATIVE P/E RATIO	1.08	DIV'D YLD	3.0%	VALUE LINE
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18-Month Target Price Range

Low-High	Midpoint (% to Mid)
\$91-\$130	\$111 (-5%)

100
80
60
50

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30
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	34.90	33.85	34.85	37.25	Revenues per sh	39.90
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	9.11	9.59	10.20	11.25	"Cash Flow" per sh	12.75
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	5.14	5.50	5.80	6.30	Earnings per sh ^A	7.10
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	3.35	3.52	3.65	Div'd Decl'd per sh ^{B + †}	4.20
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	12.07	18.70	20.00	22.50	Cap'l Spending per sh	25.00
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	57.44	61.73	64.35	68.25	Book Value per sh ^C	72.25
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	50.62	53.96	54.50	55.00	Common Shs Outst'g ^D	56.00
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	19.9	18.0	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	19.0
.68	.75	.72	.79	.75	.77	.82	1.00	1.04	1.11	1.19	1.02	1.12	1.21	1.11	.95			Relative P/E Ratio	1.05
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%	3.1%	3.4%			Avg Ann'l Div'd Yield	3.1%

	2022	2023	2024	BUSINESS: IDACORP, Inc. is a holding company for Idaho Power Company, a regulated electric utility that serves 649,000 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, 22%; industrial, 15%; irrigation, 11%; other, 14%. Generating sources: hydro, 54%; steam fired, 18%; gas, 28%; purchased, 33%. Fuel costs: 14% of revenues. *24 depreciation rate: 12.2%. Has 2,141 employees. Chairman: Dennis L. Johnson. President & CEO: Lisa A. Grow. Incorporated: Idaho. Address: 1221 W. Idaho St., Boise, Idaho 83702. Telephone: 208-388-2200. Internet: www.idacorpinc.com .
% Change Retail Sales (KWH)	+9.6	+7.3	+2.9	
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)	3568	3615	3793	
Annual Load Factor (%)	NA	NA	NA	
% Change Customers (yr-end)	+2.4	+2.4	+2.2	

Calendar	QUARTERLY REVENUES(\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	344.3	358.7	518.0	422.9	1644.0
2023	429.7	413.8	510.9	412.0	1766.4
2024	448.9	451.1	528.5	398.1	1826.6
2025	432.5	480	550	437.5	1900
2026	500	520	550	480	2050

Calendar	QUARTERLY DIVIDENDS PAID ^{B = \$}				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2021	.71	.71	.71	.75	2.88
2022	.75	.75	.75	.79	3.04
2023	.79	.79	.79	.83	3.20
2024	.83	.83	.83	.86	3.35
2025	.86	.86			

<p>(A) Diluted EPS. Earnings may not sum due to rounding. Next earnings report due July 31st.</p> <p>(B) Dividends historically paid in late February, May, August, and November. ■ Dividend reinvestment plan available. † Shareholder investment plan available. (C) Incl. intangibles. In '24: \$1418.0 mill., \$26.28/sh. (D) In millions. (E) Rate base: Net original cost. Rate allowed on common equity in '12: 10% (imputed); Regulatory Climate: Above Average.</p>		<p>Company's Financial Strength A</p> <p>Stock's Price Stability 100</p> <p>Price Growth Persistence 50</p> <p>Earnings Predictability 100</p>
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MGE ENERGY, INC. NDQ-MGEE				RECENT PRICE	89.99	P/E RATIO	24.7 (Trailing: 25.4 Median: 25.0)	RELATIVE P/E RATIO	1.42	DIV'D YLD	2.0%	VALUE LINE
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TIMELINESS 3 Lowered 12/20/24	High: 48.0 48.0 66.9 68.7 68.9 80.8 83.3 82.9 86.3 83.3 109.2 96.3	Low: 35.7 36.5 44.8 60.3 51.1 56.7 47.2 63.0 61.7 65.1 61.9 84.0	Target Price Range 2028 2029 2030
SAFETY 2 Raised 6/6/25	LEGENDS — 45.00 x Dividends p sh Relative Price Strength 3-for-2 split 2/14 Options: Yes Shaded area indicates recession		
TECHNICAL 2 Raised 4/25/25			
BETA .80 (1.00 = Market)			
18-Month Target Price Range			
Low-High Midpoint (% to Mid)			
\$56-\$114 \$85 (-5%)			
2028-30 PROJECTIONS			
Price Gain Ann'l Total			
High Low 125 95 (+40%) 11% 4%			
Institutional Decisions			
202024 302024 402024			
to Buy 139 128 155			
to Sell 86 104 93			
Hld's(000) 22211 28047 28605			
Percent shares traded			
18 12 6			
% TOT. RETURN 5/23/25			
1 yr. 17.2 6.0			
3 yr. 20.0 19.2			
5 yr. 52.7 95.9			

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30
15.40	15.36	15.76	15.61	17.04	17.88	16.27	15.71	16.24	16.15	16.41	14.89	16.77	19.76	19.09	18.55	19.45	20.25	Revenues per sh	23.75
2.66	2.76	2.94	2.98	3.28	3.49	3.33	3.47	3.73	4.06	4.57	4.61	5.05	5.43	6.03	6.28	6.95	7.25	"Cash Flow" per sh	8.50
1.47	1.67	1.76	1.86	2.16	2.32	2.06	2.18	2.20	2.43	2.51	2.60	2.92	3.07	3.25	3.33	3.65	3.85	Earnings per sh ^A	4.75
.97	.99	1.01	1.04	1.07	1.11	1.16	1.21	1.26	1.32	1.38	1.45	1.52	1.59	1.67	1.76	1.85	1.95	Div'd Decl'd per sh ^B	2.50
2.35	1.76	1.88	2.84	3.43	2.67	2.08	2.41	3.12	6.12	4.73	5.62	4.24	4.84	6.14	6.49	8.50	9.00	Cap'l Spending per sh	7.50
14.47	15.14	15.89	16.71	17.81	19.02	19.92	20.89	22.45	23.56	24.68	26.99	28.41	29.91	31.53	33.71	36.10	38.50	Book Value per sh ^C	44.25
34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	36.16	36.16	36.16	36.16	36.49	36.50	36.50	Common Shs Outst'g ^D	36.50
15.1	15.0	15.8	17.2	17.0	17.2	20.3	24.9	29.4	25.1	28.4	26.4	25.5	24.7	22.9	24.8	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	23.0
1.01	.95	.99	1.09	.96	.91	1.02	1.31	1.48	1.36	1.51	1.36	1.38	1.43	1.27	1.30			Relative P/E Ratio	1.25
4.4%	4.0%	3.6%	3.2%	2.9%	2.8%	2.8%	2.2%	2.0%	2.2%	1.9%	2.1%	2.0%	2.1%	2.2%	2.1%			Avg Ann'l Div'd Yield	2.3%

CAPITAL STRUCTURE as of 3/31/25	564.0	544.7	563.1	559.8	568.9	538.6	606.6	714.5	690.4	676.9	710	735	Revenues (\$mill)	865
Total Debt \$767.5 mill. Due in 5 Yrs \$110.0 mill.	71.3	75.6	76.1	84.2	86.9	92.4	105.8	111.0	117.7	120.6	135	140	Net Profit (\$mill)	175
LT Debt \$762.5 mill. LT Interest \$35.0 mill.	36.7%	36.0%	36.4%	24.6%	18.5%	17.4%	3.7%	19.1%	19.1%	8.1%	19.0%	19.0%	Income Tax Rate	19.0%
(LT interest earned: 4.8x)	1.3%	2.1%	2.1%	5.2%	3.6%	8.7%	6.3%	--	6.3%	5.0%	5.0%	4.0%	AFUDC % to Net Profit	3.0%
Leases, Uncapitalized Annual rentals \$2.0 mill.	36.2%	34.6%	33.8%	37.7%	38.0%	35.5%	38.1%	35.8%	39.3%	38.3%	37.0%	36.0%	Long-Term Debt Ratio	35.5%
Pension Assets-12/24 \$404 mill.	63.8%	65.4%	66.2%	62.3%	62.0%	64.5%	61.9%	64.2%	60.7%	61.7%	63.0%	64.0%	Common Equity Ratio	64.5%
Oblig \$65.0 mill.	1081.5	1106.9	1176.3	1310.0	1379.4	1512.8	1659.0	1684.0	1876.9	1993.8	2100	2200	Total Capital (\$mill)	2500
Pfd Stock None	1243.4	1282.1	1341.4	1509.4	1642.7	1769.4	1878.8	1971.1	2128.2	2287.3	2500	2600	Net Plant (\$mill)	2900
Common Stock 36,539,422 shs. as of 4/30/25	7.5%	7.7%	7.3%	7.2%	7.1%	6.8%	7.1%	7.4%	7.1%	6.9%	6.5%	6.5%	Return on Total Cap'l	7.0%
MARKET CAP: \$3.3 billion (Mid Cap)	10.3%	10.4%	9.8%	10.3%	10.2%	9.5%	10.3%	10.3%	10.3%	9.8%	10.0%	10.0%	Return on Shr. Equity	10.5%
ELECTRIC OPERATING STATISTICS	10.3%	10.4%	9.8%	10.3%	10.2%	9.5%	10.3%	10.3%	10.3%	9.8%	10.0%	10.0%	Return on Com Equity ^E	10.5%
2022 2023 2024	4.5%	4.7%	4.2%	4.7%	4.6%	4.2%	5.0%	4.9%	5.0%	4.6%	5.0%	5.0%	Retained to Com Eq	5.0%
% Change Retail Sales (KWH)	56%	55%	57%	54%	55%	56%	52%	52%	51%	53%	51%	51%	All Div'ds to Net Prof	53%
Avg. Indust. Use (MWH)	BUSINESS: MGE Energy, Inc. is a holding company for Madison Gas and Electric Company (MGE), which provides electric service to 167,000 customers in Dane County and gas service to 178,000 customers in seven counties in Wisconsin. Electric revenue breakdown: residential, 35%; commercial, 51%; industrial, 3%; other, 11%. Generating sources: coal, 40%; gas, 17%; renewables, 21%; purchased power, 13%. Fuel costs: 12% of revenues. '24 reported depreciation rates: electric, 12%; gas, 2.4%; nonregulated, 1.1%. Has about 710 employees. Chairman, President & CEO: Jeffrey M. Keebler. Incorporated: Wisconsin. Address: 133 South Blair Street, P.O. Box 1231, Madison, Wisconsin 53701-1231. Telephone: 608-252-7000. Internet: www.mgeenergy.com.													
Avg. Indust. Revs. per KWH (¢)														
Capacity at Peak (Mw)														
Peak Load, Summer (Mw)														
Annual Load Factor (%)														
% Change Customers (yr-end)														

ANNUAL RATES				517	525	530
of change (per sh)				10 Yrs.	5 Yrs.	Est'd '22-'24
Revenues				1.5%	3.5%	4.5%
"Cash Flow"				6.0%	7.5%	7.0%
Earnings				4.5%	6.0%	7.0%
Dividends				4.5%	5.0%	6.5%
Book Value				6.0%	6.0%	5.5%

Cal-endar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	209.0	152.3	163.4	189.8	714.5
2023	217.3	148.0	160.5	164.6	690.4
2024	191.3	145.7	168.5	171.4	676.9
2025	219.0	145	170	176	710
2026	215	160	180	180	735
Cal-endar	EARNINGS PER SHARE ^A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	.96	.60	.93	.58	3.07
2023	.86	.79	1.05	.55	3.25
2024	.93	.66	1.13	.61	3.33
2025	1.14	.75	1.15	.61	3.65
2026	1.15	.80	1.20	.70	3.85
Cal-endar	QUARTERLY DIVIDENDS PAID ^B				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2021	.37	.37	.388	.388	1.52
2022	.388	.388	.408	.408	1.59
2023	.408	.408	.4275	.4275	1.67
2024	.4275	.4275	.450	.450	1.76
2025	.450				

THE COMPANY HAS PENDING REGULATORY MATTERS. In April, MGE filed a 2026/2027 rate case with the Public Service Commission of Wisconsin, seeking a 4.89% electric rate increase and a 2.33% gas rate rise for 2026. For 2027, the proposed adjustments include a 4.33% hike in electric rates and a 2.16% increase in gas rates. Furthermore, a final decision is expected before the end of this year.				MGE Energy reported solid financial results for the first quarter. Revenues rose 14% year over year, to \$219 million, driven by a double-digit increase in gas retail sales and modest growth in electric retail sales. Meanwhile, GAAP share earnings advanced more than 22% from the year-ago period, to \$1.14.			
MGE Energy continues to expand its renewable energy footprint. The Darien Solar Project in southern Wisconsin became operational in March, adding 25 MW of solar capacity to the company's asset base. This addition helped lift electric earnings in the recent quarter. Furthermore, it is expected to support MGE's longer-term decarbonization strategy. Besides Darien, the company has several				wind, solar, and battery projects on track to be in service by 2027. Moreover, the utility remains focused on sustainability, with a stated goal of reducing carbon emissions 80% by 2030.			
				Strategic investments and cost controls are expected to support earnings growth in the near term. Ongoing spending in clean energy and infrastructure should help MGE with future rate case negotiations with the regulator. Moreover, favorable rate cases will likely attract new customers. All in all, we estimate share earnings will grow roughly 9% in 2025 and 5% in 2026, to \$3.65 and \$3.85, respectively.			
				Good-quality shares of MGE Energy are ranked to perform in line with the broader market averages in the year ahead. Moreover, at the recent quotation, the equity's 18-month and long-term capital appreciation potential are below average. Additionally, the dividend yield is also notably below the industry average (3.6%). Therefore, income-focused investors may find more compelling options elsewhere in the utility space.			

(A) GAAP Diluted earnings. Excludes non-recurring gain: '17, 62¢. Quarterly earnings may not sum to full year due to rounding or share count change. Next earnings report due early Aug. (B) Div'ds historically paid in mid-March, June, September, and December. Div'd reinvestment plan avail. (C) Includes regulatory assets. In '24: \$132.3 mill., \$3.62/sh.				(D) In millions, adj for split. (E) Rate allowed on common equity in '24: 9.7%; Regulatory Climate: Above Average.			
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Company's Financial Strength				A
Stock's Price Stability				90
Price Growth Persistence				60
Earnings Predictability				100

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RECENT PRICE	51.97	P/E RATIO	14.6 (Trailing: 15.1 Median: 17.0)	RELATIVE P/E RATIO	0.78	DIV'D YLD	5.1%	VALUE LINE
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18-Month Target Price Range							64
Low-High Midpoint (% to Mid)							48
\$42-\$67 \$55 (5%)							32
2028-30 PROJECTIONS							24
	Price	Gain	Ann'l Total Return				16
High	80	(+55%)	15%				12
Low	55	(+5%)	6%				
Institutional Decisions							
	3Q2024	4Q2024	1Q2025				
to Buy	160	173	190	Percent shares traded			
to Sell	139	138	142				
Hld's(000)	67655	69941	59636				
% TOT. RETURN 7/7/25							
THIS STOCK VL ARITH.*							
1 yr.							11.4 14.6
3 yr.							5.0 44.6
5 yr.							22.6 96.9

CAPITAL STRUCTURE as of 3/31/25	1214.3	1257.2	1305.7	1198.1	1257.9	1198.7	1372.3	1477.8	1422.1	1513.9	1580	1655	Revenues (\$mill)	1860
Total Debt \$3135.2 mill. Due in 5 Yrs \$1036.1 mill.	138.4	164.2	162.7	171.1	179.3	162.6	181.6	185.5	194.1	201.0	220	240	Net Profit (\$mill)	280
LT Debt \$3131.5 mill. LT Interest \$145.0 mill.	13.7%	--	7.6%	--	1.6%	--	.9%	--	3.7%	7.2%	9.0%	11.0%	Income Tax Rate	12.0%
Incl. \$1.9 mill. finance leases.	9.8%	4.3%	5.2%	3.4%	4.6%	6.0%	14.9%	18.5%	21.6%	22.7%	23.0%	23.0%	AFUDC % to Net Profit	24.0%
(Total Interest Coverage: 2.4x)	53.1%	52.0%	50.2%	52.2%	52.5%	52.8%	52.2%	48.2%	49.1%	48.6%	49.5%	50.5%	Long-Term Debt Ratio	50.5%
Pension Assets-12/24 \$395.3 mill.	46.9%	48.0%	49.8%	47.8%	47.5%	47.2%	47.8%	51.8%	50.9%	51.4%	50.5%	49.5%	Common Equity Ratio	49.5%
Oblig. \$447.9 mill.	3408.6	3493.9	3614.5	4064.6	4289.8	4409.1	4893.1	5148.3	5475.4	5554.9	5840	6125	Total Capital (\$mill)	6950
Pfd Stock None	4059.5	4214.9	4358.3	4521.3	4700.9	4952.9	5247.2	5657.5	6039.8	6398.3	6700	6975	Net Plant (\$mill)	7800
Common Stock 61,379,649 shs.	5.2%	5.9%	5.6%	5.2%	5.2%	4.6%	4.6%	4.5%	4.5%	4.7%	4.5%	5.0%	Return on Total Cap'l	5.0%
as of 4/25/25	8.6%	9.8%	9.0%	8.8%	8.8%	7.8%	7.8%	7.0%	7.0%	7.0%	7.5%	8.0%	Return on Shr. Equity	8.0%
	8.6%	9.8%	9.0%	8.8%	8.8%	7.8%	7.8%	7.0%	7.0%	7.0%	7.5%	8.0%	Return on Com Equity ^E	8.0%
MARKET CAP: \$3.2 billion (Mid Cap)	3.0%	4.1%	3.4%	3.2%	3.1%	2.0%	2.3%	1.7%	1.4%	1.5%	2.0%	2.5%	Retained to Com Eq	3.0%
ELECTRIC OPERATING STATISTICS	65%	58%	62%	64%	64%	74%	71%	76%	79%	79%	74%	70%	All Div' ds to Net Prof	64%

Fixed Charge Cov. (%)	219	216	205
ANNUAL RATES	Past	Past	Est'd '22-'24
of change (per sh)	10 Yrs.	5 Yrs.	to '28-'30
Revenues	-1.5%	-5%	3.0%
"Cash Flow"	2.5%	-5%	4.5%
Earnings	2.5%	-1.0%	4.5%
Dividends	5.5%	3.0%	1.5%
Book Value	5.0%	3.5%	2.5%

Calendar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	394.5	323.0	335.1	425.2	1477.8
2023	454.5	290.5	321.1	356.0	1422.1
2024	475.3	319.9	345.2	373.5	1513.9
2025	466.6	330	369	414.4	1580
2026	490	350	385	430	1655

Calendar	EARNINGS PER SHARE ^A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	1.08	.58	.47	1.16	3.29
2023	1.10	.32	.48	1.32	3.22
2024	1.08	.52	.64	1.03	3.27
2025	1.25	.42	.75	1.13	3.55
2026	1.30	.50	.80	1.20	3.80

Calendar	QUARTERLY DIVIDENDS PAID ^B = [†]				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2021	.62	.62	.62	.62	2.48
2022	.63	.63	.63	.63	2.52
2023	.64	.64	.64	.64	2.56
2024	.65	.65	.65	.65	2.60
2025	.66	.66			

<p>(A) Diluted egs. Excl. nonrec. gains/(losses): '12, 40c'; '15, 27c'; '18, 52c'; '19, 45c'; '20, '15c'; '21, 10c'; '22, '4c'; '24, 38c. QLY EPS may not sum to full yr. due to rounding. Next egs. report due late July. (B) Div'ds paid late Mar., June, Sept. & Dec. ■ Div'd reinvest. plan avail. ■ Shrhldr. invest. plan avail. (C) Incl. def'd charges and intag. '24: \$18.30/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. egs. in MT in '23 (elec.): 9.65%; in '23 (gas): 9.55%; in SD in '24: 6.81%; in NE in '07: 10.4%. Reg. Climate: Below Avg.</p>		<p>Company's Financial Strength B++</p> <p>Stock's Price Stability 95</p> <p>Price Growth Persistence 15</p> <p>Earnings Predictability 95</p>
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RECENT PRICE	90.10	P/E RATIO	18.8 (Trailing: 17.9 Median: 17.0)	RELATIVE P/E RATIO	1.01	DIV'D YLD	4.0%	VALUE LINE
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2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30
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	41.40	43.03	44.40	46.30	Revenues per sh	53.20
8.08	6.85	7.52	7.92	8.15	8.09	9.09	9.39	9.92	10.37	10.69	10.97	11.84	11.50	11.95	13.14	12.85	13.60	"Cash Flow" per sh	16.45
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	4.41	5.24	4.80	5.15	Earnings per sh ^A	6.45
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	3.43	3.49	3.55	3.61	3.67	Div'd Decl'd per sh ^{B ■}	4.00
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	16.28	18.89	16.75	17.00	Cap'l Spending per sh	17.50
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	54.47	56.71	58.00	58.75	Book Value per sh ^C	70.20
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	113.42	119.10	120.50	122.00	Common Shs Outst'g ^D	125.00
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	17.4	15.3	<i>Bold figures are Value Line estimates</i>		Avg Ann'l P/E Ratio	18.00
.91	.80	.92	.91	.86	.84	.81	.98	.97	.96	1.03	.86	.76	.99	.97	.81			Relative P/E Ratio	1.00
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%	4.5%	4.4%			Avg Ann'l Div'd Yield	3.4%

	2022	2023	2024	BUSINESS: Pinnacle West Capital Corporation is a holding company for Arizona Public Service Company (APS), which supplies electricity to 1.4 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, 50%; commercial/industrial, 46%; other, 4%. Generating sources: gas, 24%; nuclear, 21%; coal, 14%; renewables, 19%; purchased, 22%. Fuel costs: 36% of revenues. '24 reported deprec. rate: 3.13%. Has 6,403 employees. Chairman, President & CEO: Ted Geisler. Inc.: AZ. Address: 400 North Fifth St., P.O. Box 53999 Phoenix, AZ 85072-3999. Tel.: 602-250-1000. Internet: www.pinnaclewest.com	
% Change Retail Sales (KWH)	+4.4	+2.8	+7.4		
Total Retl. Revs. per KWH (¢)	12.50	13.83	14.53		
Avg. Ind. Revs. per KWH (¢)	9.20	10.38	10.18		
Capacity at Peak (Mw)	8612	9629	9466		
Peak Load, Summer (Mw)	7587	8162	8210		
Annual Load Factor (%)	48.1	45.7	47.5		
% Change Customers (yr-end)	+2.1	+1.8	+2.1		

Calendar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	783.5	1061.7	1469.9	1009.3	4324.4
2023	945.0	1121.7	1637.8	991.5	4696.0
2024	951.7	1309.0	1768.8	1095.4	5124.9
2025	1032.3	1357.7	1810	1150	5350
2026	1090	1435	1900	1225	5650

Calendar	QUARTERLY DIVIDENDS PAID ^a				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2021	.83	.83	.83	.85	3.34
2022	.85	.85	.85	.865	3.42
2023	.865	.865	.865	.88	3.48
2024	.88	.88	.88	.895	3.54
2025	.895	.895			

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PORTLAND GENERAL NYSE-POR										RECENT PRICE	40.91	P/E RATIO	12.6 (Trailing: 14.4 Median: 18.0)	RELATIVE P/E RATIO	0.68	DIV'D YLD	5.2%	VALUE LINE
----------------------------------	--	--	--	--	--	--	--	--	--	--------------	-------	-----------	------------------------------------	--------------------	------	-----------	------	------------

TIMELINESS	3	Lowered 4/25/25
SAFETY	2	Raised 7/19/24
TECHNICAL	3	Raised 6/20/25
BETA	.75	(1.00 = Market)

18-Month Target Price Range																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC	28-30
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	28.90	31.46	32.45	32.90	Revenues per sh	36.65
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	6.83	7.53	8.15	8.40	"Cash Flow" per sh	10.05
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	2.38	3.14	3.25	3.40	Earnings per sh ^A	4.00
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	2.08	2.20	Div'd Decl'd per sh ^B = †	2.58
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	13.42	11.60	11.50	11.50	Cap'l Spending per sh	11.50
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	32.81	34.70	36.00	37.50	Book Value per sh ^C	42.25
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	101.16	109.34	111.00	114.00	Common Shs Outst'g ^D	120.00
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	19.3	14.2	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	15.0
.96	.76	.78	.89	.95	.81	.89	1.00	1.01	.99	1.19	.85	.96	1.05	1.07	.75			Relative P/E Ratio	.85
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%	4.1%	4.4%			Avg Ann'l Div'd Yield	4.3%

CAPITAL STRUCTURE as of 3/31/25										1898.0	1923.0	2009.0	1991.0	2123.0	2145.0	2396.0	2647.0	2923.0	3440.0	3600	3750	Revenues (\$mill)	4400
Total Debt \$5031 mill. Due in 5 Yrs \$763 mill.										172.0	193.0	204.0	212.0	214.0	247.0	244.0	245.0	233.0	327.0	355	385	Net Profit (\$mill)	480
LT Debt \$4936 mill. LT Interest \$208 mill.										20.7%	20.6%	25.3%	7.4%	11.2%	12.4%	8.6%	15.2%	16.8%	11.4%	17.5%	17.5%	Income Tax Rate	17.5%
Incl. \$273 mill. finance leases.										19.8%	16.6%	8.8%	8.0%	7.0%	9.7%	10.2%	8.6%	13.7%	11.6%	12.0%	13.0%	AFUDC % to Net Profit	14.0%
(Total Interest Coverage: 2.6x)										47.8%	48.4%	50.1%	46.5%	51.3%	53.6%	56.8%	57.0%	55.8%	55.0%	56.5%	57.0%	Long-Term Debt Ratio	58.0%
Leases, Uncapitalized Annual rentals \$26 mill.										52.2%	51.6%	49.9%	53.5%	48.7%	46.4%	43.2%	43.0%	44.2%	45.0%	43.5%	43.0%	Common Equity Ratio	42.0%
Pension Assets-12/24 \$484 mill.										4329.0	4544.0	4842.0	4684.0	5323.0	5628.0	6265.0	6459.0	7513.0	8424.0	9175	9900	Total Capital (\$mill)	12025
Oblig. \$612 mill.										6012.0	6434.0	6741.0	6887.0	7161.0	7539.0	8005.0	8465.0	9546.0	10345	11070	11750	Net Plant (\$mill)	13675

Pfd Stock None										5.4%	5.6%	5.5%	5.8%	5.1%	5.6%	4.9%	4.9%	4.2%	5.0%	5.0%	5.0%	Return on Total Cap'l	5.0%
Common Stock 109,514,333 shs.										7.6%	8.2%	8.4%	8.5%	8.3%	9.5%	9.0%	8.8%	7.0%	8.6%	9.0%	9.0%	Return on Shr. Equity	9.5%
as of 4/18/25										7.6%	8.2%	8.4%	8.5%	8.3%	9.5%	9.0%	8.8%	7.0%	8.6%	9.0%	9.0%	Return on Com Equity ^E	9.5%
MARKET CAP: \$4.5 billion (Mid Cap)										3.3%	3.5%	3.6%	3.5%	3.1%	4.1%	3.5%	3.1%	1.6%	3.3%	3.0%	3.0%	Retained to Com Eq	3.5%
ELECTRIC OPERATING STATISTICS										56%	57%	58%	59%	63%	57%	61%	64%	77%	61%	65%	65%	All Div'ds to Net Prof	65%

% Change Retail Sales (KWH)	2022	2023	2024
Avg. Indust. Use (MWH)	+3.4	+9	+1.3
Avg. Indust. Revs. per KWH (c)	22097	23052	24703
Capacity at Peak (MW)	5.23	5.85	6.59
Peak Load, Summer (MW)	NA	NA	NA
Annual Load Factor (%)	4255	4498	4367
% Change Customers (yr-end)	NA	NA	NA
	+1.1	+7	+1.6

Fixed Charge Cov. (%)	254	217	235
ANNUAL RATES			
of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '22-'24
Revenues	2.5%	5.5%	3.5%
"Cash Flow"	3.0%	2.0%	5.5%
Earnings	3.5%	3.0%	6.5%
Dividends	5.5%	5.5%	5.5%
Book Value	3.5%	3.0%	4.5%

Cal-endar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	626	591	743	687	2647
2023	748	648	802	725	2923
2024	929	758	929	824	3440
2025	928	797	975	900	3600
2026	975	825	1020	930	3750

Cal-endar	EARNINGS PER SHARE ^A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2022	.67	.72	.65	.70	2.74
2023	.80	.44	.46	.67	2.38
2024	1.21	.69	.90	.34	3.14
2025	.91	.70	.95	.69	3.25
2026	1.00	.70	1.00	.70	3.40

Cal-endar	QUARTERLY DIVIDENDS PAID ^B = †				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2021	.4075	.4075	.43	.43	1.68
2022	.43	.43	.4525	.4525	1.77
2023	.4525	.4525	.475	.475	1.86
2024	.475	.475	.50	.50	1.95
2025	.50	.50	.525		

(A) Diluted earnings. Excl. nonrecurring gains/(losses): '13, (42c); '17, (19c); '20, (\$1.03); '22, (14c); '23, (5c); '24, (13c). Quarterly EPS many not sum to full year due to rounding. Next earnings report due late July.	(B) Dividends paid mid-Jan., Apr., July, and Oct. ■ Dividend reinvestment plan available. † Shareholder investment plan available. (C) Incl. deferred charges. In '24: \$632 mill., \$5.78/sh. (D) In mill. (E) Rate base: Net original cost. Rate allowed on common equity in '25: 9.34%. Regulatory Climate: Average.	Company's Financial Strength	B++
		Stock's Price Stability	95
		Price Growth Persistence	30
		Earnings Predictability	85

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Portland General Electric stock has been a weak performer lately. The results of the company's Oregon rate-case decision in December were disappointing, as the authorized return on equity (ROE) was reduced from 9.5% to 9.34%. Portland General was seeking an 8.6% across-the-board rate increase for the recoupment of investments made, but instead received a 5.5% residential hike and 7.7% commercial/industrial increase. Overall, Portland got a \$98 million revenue lift, representing 54% of the requested amount. The rise helps, but up against higher interest and depreciation expenses and rising operations and maintenance costs, the company is targeting earnings of \$3.13 to \$3.33 per share this year. Our \$3.25 estimate is slightly north of the midpoint of the range and still only represents 3.5% earnings-per-share growth. This is despite the company seeing solid demand trends (more below). Another factor potentially hurting share performance is the impact of January's wildfires in California on sentiment for Pacific Northwest utilities. Portland General by all accounts does a very good job with wildfire mitigation, but material

adverse risks remain for operators whose territory spans densely forested areas. **Long-term electricity demand growth in the utility's service area is a plus.** There's a cluster of high-tech companies occupying an area referred to as the "Silicon Forest" within Portland General's territory. Key employers there include Intel, Adobe, Microsoft, NTT Global, NVIDIA, Synopsys, and Stack Infrastructure. Portland also counts Microchip Technology, Lam Research, and ON Semiconductor, among others as commercial/industrial customers. Weather-adjusted demand has been rising at a solid pace from the semiconductor industry and data centers, which also provide a lift to the region's economy. The company is expecting load growth to average 2.5% to 3.5% for the foreseeable future. **This equity is ranked to track the year-ahead market.** POR's dividend yield is more than a percentage point and a half above the 3.6% peer-group median. While total return prospects look appealing, investors do need to consider the wildfire risk in the Pacific Northwest.

Anthony J. Glennon July 18, 2025

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P.S. ENTERPRISE GP. NYSE-PEG										RECENT PRICE	80.90	P/E RATIO	20.2 (Trailing: 22.0 Median: 17.0)	RELATIVE P/E RATIO	1.21	DIV'D YLD	3.2%	VALUE LINE	
-------------------------------------	--	--	--	--	--	--	--	--	--	-----------------	-------	-----------	---------------------------------------	-----------------------	------	--------------	------	---------------	--

TIMELINESS 4 Lowered 2/9/24	High: 43.8	44.4	47.4	53.3	56.7	63.9	62.2	67.1	75.6	65.5	95.2	91.0							
SAFETY 1 Raised 11/23/12	Low: 31.3	36.8	37.8	41.7	46.2	50.0	34.8	53.8	52.5	53.7	56.8	74.7							
TECHNICAL 2 Raised 5/9/25	<div>29.4 x Dividends p sh Relative Price Strength Options: Yes Shaded area indicates recession</div>																		
BETA .90 (1.00 = Market)																			
18-Month Target Price Range																			
Low-High Midpoint (% to Mid)																			
\$58-\$95 \$77 (-5%)																			
2028-30 PROJECTIONS																			
Price Gain Ann'l Total																			
High Low 105 85 (+30%) (+5%) 10% 5%																			
Institutional Decisions																			
2Q2024 3Q2024 4Q2024																			
to Buy 548 562 622																			
to Sell 409 445 471																			
Hld's(000) 373869 423337 431209																			
Percent shares traded																			
30 20 10																			

WEC ENERGY GROUP NYSE-WEC										RECENT PRICE	106.78	P/E RATIO	20.3 (Trailing: 20.6 Median: 21.0)	RELATIVE P/E RATIO	1.17	DIV'D YLD	3.3%	VALUE LINE						
TIMELINESS	3	Raised 3/14/25	High: 55.4	58.0	66.1	70.1	75.5	98.2	109.5	99.9	108.4	99.3	102.8	111.0					Target Price	2028	2029	2030		
SAFETY	1	Raised 3/23/12	Low: 40.2	44.9	50.4	56.1	58.5	67.2	68.0	80.6	80.8	75.5	75.1	91.9										
TECHNICAL	1	Raised 5/23/25	<div>29.40 x Dividends p sh Relative Price Strength Options: Yes Shaded area indicates recession</div>																					
BETA	.70	(1.00 = Market)											<div>% TOT. RETURN 5/23/25</div> <div>THIS STOCK</div> <div>VL ARITH' INDEX</div> <div>1 yr. 37.1 6.0</div> <div>3 yr. 13.0 19.2</div> <div>5 yr. 46.0 95.9</div>											
18-Month Target Price Range																								
Low-High		Midpoint (% to Mid)																						
\$82-\$122		\$102 (-5%)																						
2028-30 PROJECTIONS																								
Price		Gain		Ann'l Total																				
High		155		(+45%)																				
Low		125		(+15%)																				
Institutional Decisions																								
202024		302024		402024																				
to Buy		531		569																				
to Sell		395		418																				
Hld's(000)		246692		308504		292457												Percent		shares				
																		traded		30				
																				20				
																				10				
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	© VALUE LINE PUB. LLC			28-30			
17.65	17.98	19.46	18.54	20.00	22.16	18.77	23.68	24.24	24.34	23.85	22.96	26.36	30.43	28.19	27.07	29.95	31.40	Revenues per sh			37.40			
3.11	3.30	3.68	4.01	4.33	4.47	3.87	5.39	5.69	6.04	6.53	6.90	7.53	8.01	8.64	9.33	10.15	10.65	"Cash Flow" per sh			12.45			
1.60	1.92	2.18	2.35	2.51	2.59	2.34	2.96	3.14	3.34	3.58	3.79	4.11	4.46	4.63	4.89	5.25	5.60	Earnings per sh ^A			6.90			
.68	.80	1.04	1.20	1.45	1.56	1.74	1.98	2.08	2.21	2.36	2.53	2.71	2.91	3.12	3.34	3.57	3.81	Div'd Decl'd per sh ^B			4.59			
3.50	3.41	3.60	3.09	3.04	3.26	4.01	4.51	6.21	6.71	7.17	7.10	7.14	7.34	9.14	9.22	9.30	9.30	Cap'l Spending per sh			9.25			
15.26	16.26	17.20	18.05	18.73	19.60	27.42	28.29	29.98	31.02	32.06	33.19	34.60	36.76	37.25	39.11	40.70	42.50	Book Value per sh ^C			46.75			
233.82	233.77	230.49	229.04	225.96	225.52	315.68	315.62	315.57	315.52	315.43	315.43	315.43	315.43	315.43	317.68	315.43	315.43	Common Shs Outst'g ^D			315.43			
13.3	14.0	14.2	15.8	16.5	17.7	21.3	19.9	20.0	19.6	23.5	24.9	22.3	21.9	19.1	17.8	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio			20.5			
.89	.89	.89	1.01	.93	.93	1.07	1.04	1.01	1.06	1.25	1.28	1.21	1.27	1.09	.99			Relative P/E Ratio			1.15			
3.2%	3.0%	3.3%	3.2%	3.5%	3.4%	3.5%	3.4%	3.3%	3.4%	2.8%	2.7%	3.0%	3.4%	3.8%	3.4%			Avg Ann'l Div'd Yield			3.4%			
CAPITAL STRUCTURE as of 3/31/25 Total Debt \$20218.8 mill. Due in 5 Yrs \$4611 mill. LT Debt \$18891.7 mill. LT Interest \$452.7 mill. Incl. \$12.1 mill. finance leases. (LT interest earned: 4.4x) Leases, Uncapitalized Annual rentals \$6.8 mill. Oblig \$3136.6 mill.						5926.1	7472.3	7648.5	7679.5	7523.1	7241.7	8316.0	9597.4	8893.0	8599.9	9440	9900	Revenues (\$mill)			11800			
						640.3	940.2	998.2	1060.5	1134.2	1201.1	1301.5	1406.8	1332.9	1528.4	1655	1765	Net Profit (\$mill)			2175			
						40.4%	37.6%	37.2%	13.8%	9.9%	15.9%	13.4%	18.6%	18.7%	18.9%	19.0%	19.0%	Income Tax Rate			19.0%			
						4.5%	3.8%	1.6%	2.1%	1.8%	2.4%	1.9%	2.1%	2.1%	2.0%	2.0%	2.0%	AFUDC % to Net Profit			2.0%			
						51.2%	50.5%	48.0%	50.4%	52.5%	52.8%	55.3%	54.7%	54.7%	54.9%	55.0%	55.0%	Long-Term Debt Ratio			55.5%			
						48.6%	49.3%	51.9%	49.4%	47.4%	47.1%	44.6%	44.4%	44.1%	44.3%	44.5%	44.5%	Common Equity Ratio			44.5%			
						17809	18118	18238	19813	21355	22228	24467	25368	26279	27362	28120	28750	Total Capital (\$mill)			29800			
						19190	19916	21347	22001	23620	25707	26982	29114	31582	34645	32750	34250	Net Plant (\$mill)			35100			
						4.5%	6.3%	6.6%	6.5%	6.5%	6.3%	6.4%	6.5%	6.5%	6.5%	6.5%	6.5%	Return on Total Cap'l			7.0%			
						7.4%	10.5%	10.5%	10.8%	11.2%	11.4%	11.9%	12.0%	12.5%	12.3%	12.5%	12.5%	Return on Shr. Equity			13.0%			
						7.4%	10.5%	10.5%	10.8%	11.2%	11.5%	11.9%	12.5%	12.5%	12.3%	12.5%	12.5%	Return on Com Equity ^E			13.0%			
						2.1%	3.5%	3.6%	3.7%	3.8%	3.8%	4.1%	4.0%	4.5%	4.0%	4.0%	4.0%	Retained to Com Eq			4.0%			
						71%	67%	66%	66%	66%	67%	66%	65%	68%	68%	68%	68%	All Div'ds to Net Prof			64%			
						Fixed Charge Cov. (%)																		
						300																		
						338																		
						357																		
ANNUAL RATES																								
Past 10 Yrs.		Past 5 Yrs.		Est'd '22-'24 to '28-'30																				
of change (per sh)																								
Revenues		3.0%		2.0%																				
"Cash Flow"		7.0%		7.5%																				
Earnings		6.5%		6.0%																				
Dividends		10.0%		6.5%																				
Book Value		7.0%		3.5%																				
QUARTERLY REVENUES (\$ mill.)																								
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																			
2022	2908	2127	2003	2558	9597.4																			
2023	2888	1830	1957	2218	8893.0																			
2024	2680	1772	1864	2284	8599.9																			
2025	3150	1900	2000	2390	9440																			
2026	3200	2050	2300	2350	9900																			
EARNINGS PER SHARE ^A																								
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																			
2022	1.79	.91	.96	.80	4.46																			
2023	1.61	.92	1.00	1.10	4.63																			
2024	1.97	.67	.82	1.43	4.89																			
2025	2.27	.70	.85	1.43	5.25																			
2026	2.10	1.10	1.20	1.20	5.60																			
QUARTERLY DIVIDENDS PAID ^B																								
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																			
2021	.6775	.6775	.6775	.6775	2.71																			
2022	.7275	.7275	.7275	.7275	2.91																			
2023	.7800	.7800	.7800	.7800	3.12																			
2024	.8350	.8350	.8350	.8350	3.34																			
2025	.8925																							

BUSINESS: WEC Energy Group, Inc. (formerly Wisconsin Energy) is a holding company for utilities that provide electric, gas & steam service in WI & gas service in IL, MN, & MI. Customers: 1.6 mill. elec., 2.9 mill. gas. Acq'd Integrys Energy 6/15. Electric revenue breakdown: residential, 39%; small commercial & industrial, 32%; large commercial & industrial, 21%; other, 8%. Generating sources: coal, 36%; gas, 28%; renewables, 5%; purchased, 31%. Fuel costs: 40% of revenues. '24 reported deprec. rates: 2.4%-3.1%. Has 7,017 employees. Chairman: Gale E. Klappa. President & CEO: Scott J. Lauber. Incorporated.: Wisconsin. Address: 231 W. Michigan St., P.O. Box 1331, Milwaukee, WI 53201. Telephone.: 414-221-2345. Internet: www.wecenergygroup.com.

WEC Energy Group is off to a strong start in 2025. The company reported first-quarter earnings of \$2.27 per share, beating our \$2.00 call and increasing nicely from the \$1.97 tally a year ago. Revenue totaled \$3.15 billion, an 18% increase from the prior-year period. Growth was driven by solid electric and gas volumes across Wisconsin and Michigan, with residential electricity use up 5.5% and gas deliveries climbing 15.5% year-over-year. On a weather-normalized basis, electric demand rose 0.7%. Management reaffirmed its 2025 earnings target of \$5.17-\$5.27 a share. Our forecast remains unchanged at \$5.25, near the high end of the range. **We expect continued strength in 2026 and beyond.** We are maintaining our 2026 earnings estimate of \$5.60 per share, reflecting 7% growth consistent with management's long-term earnings target of 6.5%-7%. A full year of rate relief, robust demand, and disciplined cost control should all contribute to this growth. WEC is executing its record \$28 billion five-year capital plan, which includes \$9.1 billion for renewable energy and 4,300 MW of generation capacity. These investments are

closely aligned with regional data center and AI-driven demand increases. We also expect positive contributions from new rate cases in key jurisdictions.

The company continues to return capital through a rising dividend. WEC raised its quarterly dividend by 6.9% earlier this year. This marks the 22nd consecutive year of dividend hikes, with the dividend yield now sitting just below the utility industry average. Management continues to target a payout ratio of 65%-70%, with dividend growth aligned with profit gains.

Conservative, income-oriented accounts may be attracted to this issue. The stock is ranked 1 (Highest) for Safety and holds a top notch (100) score for Earnings Predictability and Price Stability. Adding to prospects, it holds a high Financial Strength grade rating. The dividend of this top-quality stock sits just below the high-paying industry average, and remains one of its most notable features. Also, these shares have recently been upgraded one notch to Average (3) for Timeliness.

Zachary J. Hodgkinson *June 6, 2025*

XCEL ENERGY					NDQ-XEL		RECENT PRICE		67.88		P/E RATIO		17.9		(Trailing: 19.7 Median: 20.0)		RELATIVE P/E RATIO		0.96		DIV'D YLD		3.5%		VALUE LINE									
TIMELINESS					3		Raised 5/16/25		High: 37.6		38.3		45.4		52.2		54.1		66.1		76.4		72.9		77.7		73.0		73.4		73.0		Target Price Range	
SAFETY					2		Lowered 1/19/24		Low: 27.3		31.8		35.2		40.0		41.5		47.7		46.6		57.2		56.9		53.7		46.8		62.6		2028 2029 2030	
TECHNICAL					1		Raised 5/23/25		LEGENDS		29.4 x Dividends p sh		Relative Price Strength		Options: Yes		Shaded area indicates recession																	
BETA					.70		(1.00 = Market)																											
18-Month Target Price Range																																		
Low-High					Midpoint (% to Mid)																													
\$61-\$91					\$76 (10%)																													
2028-30 PROJECTIONS																																		
High					Price		Gain		Ann'l Total																									
Low					100		75		(+45%)		13%																							
Institutional Decisions																																		
to Buy					3Q2024		4Q2024		1Q2025																									
to Sell					518		598		549																									
Hld's(000)					503378		534272		495263																									
Percent shares traded					30		20		10																									

Exhibit TJB-7
Small vs. Large Returns

Excess Returns Over Returns Predicted by the CAPM - Small versus Large Utilities.

Over a 10-year Period (2014-2023)¹

					Average Return As Predicted by	Average	Average Difference in Return	Average "True"
	<u>Category</u>	<u>Company</u>	<u>Symbol</u>	<u>Industry</u>	<u>CAPM</u>	<u>Actual Return</u>	<u>("Excess Return")</u>	<u>Beta²</u>
1	Low-Cap	American States Water	AWR	Water	7.70%	14.36%	6.66%	1.64
2	Large-Cap	American Water Works	AWK	Water	7.85%	15.81%	7.96%	1.83
3	Mid-Cap	Essential Utilities	WTRG	Water	8.31%	8.80%	0.48%	0.85
4	Low-Cap	California Water	CWT	Water	7.81%	12.44%	4.62%	1.36
5	Low-Cap	Middlesex	MSEX	Water	8.03%	18.70%	10.67%	2.24
6	Low-Cap	SJW Corp.	SJW	Water	8.16%	13.64%	5.48%	1.53
7	Micro-Cap	York Water Company	YORW	Water	8.17%	10.49%	2.32%	1.08
8	Large-Cap	Atmos Energy	ATO	Gas Distr	8.06%	13.10%	5.05%	1.46
9	Low-Cap	Chesapeake Utilities	CPK	Gas Distr	7.89%	13.44%	5.55%	1.50
10	Mid-Cap	New Jersey Resources	NJR	Gas Distr	8.42%	11.26%	2.84%	1.21
11	Mid-Cap	NiSource Inc.	NI	Gas Distr	8.20%	11.70%	3.50%	1.27
12	Low-Cap	Northwest Natural	NWN	Gas Distr	7.78%	4.38%	-3.40%	0.24
13	Mid-Cap	Southwest Gas	SWX	Gas Distr	8.63%	5.49%	-3.14%	0.38
14	Mid-Cap	Spire Inc.	SR	Gas Distr	7.99%	14.36%	6.37%	1.64
15	Mid-Cap	UGI Corp.	UGI	Gas Distr	9.27%	4.85%	-4.42%	0.31
16	Large-Cap	Ameren Corp.	AEE	Electric	7.99%	11.47%	3.48%	1.23
17	Large-Cap	Amer. Elec. Power	AEP	Electric	7.77%	10.45%	2.68%	1.09
18	Low-Cap	Allete	ALE	Electric	8.38%	6.80%	-1.58%	0.57
19	Low-Cap	Avista Corp.	AVA	Electric	8.38%	7.75%	-0.63%	0.71
20	Mid-Cap	Black Hills	BKH	Electric	9.12%	5.10%	-4.02%	0.32
21	Large-Cap	CMS Energy Corp.	CMS	Electric	7.71%	12.05%	4.34%	1.31
22	Low-Cap	Northwestern Corp.	NWE	Electric	8.10%	6.51%	-1.59%	0.53
23	Large-Cap	DTE Energy	DTE	Electric	8.17%	11.32%	3.15%	1.21
24	Large-Cap	Duke Energy	DUK	Electric	7.60%	8.40%	0.79%	0.79
25	Large-Cap	Consol. Edison	ED	Electric	7.07%	10.08%	3.02%	1.03
26	Large-Cap	Edison Int'l	EIX	Electric	8.06%	10.02%	1.96%	1.02
27	Large-Cap	Entergy Corp.	ETR	Electric	8.10%	11.08%	2.98%	1.18
28	Large-Cap	Fortis Inc.	FTS	Electric	7.53%	8.61%	2.67%	0.81
29	Mid-Cap	IDACORP Inc.	IDA	Electric	7.90%	8.61%	-0.66%	0.63
30	Mid-Cap	Alliant Energy	LNT	Electric	8.06%	10.41%	2.35%	1.08
31	Low-Cap	MGE Energy	MGEE	Electric	7.56%	11.65%	5.81%	1.51
32	Large-Cap	Public Serv. Enterprise	PEG	Electric	8.24%	10.32%	2.08%	1.06
33	Mid-Cap	Pinnacle West Capital	PNW	Electric	8.06%	11.21%	3.15%	1.19
34	Mid-Cap	Portland General	POR	Electric	8.13%	7.96%	-0.17%	0.74
35	Large-Cap	WEC Energy Group	WEC	Electric	7.49%	8.51%	1.02%	0.81
36	Large-Cap	Xcel Energy Inc.	XEL	Electric	7.49%	11.67%	4.18%	1.26

No. of Companies

11	Small-Cap (Low-Cap/Micro-Cap)	3.08%	1.17
25	Large-Cap (Large-Cap/Mid-Cap)	2.07%	1.03
	Excess Small-Cap over Large-Cap	1.02%	0.14

Average Market Risk Premium (2014-2023)

7.09%

Difference in Small vs Large Beta

0.14

Indicated Small Company risk Premium

1.02%

¹ Analysis compares annual total market returns (2014-2023) with those predicted by the CAPM using beta available at the beginning of each year (Value Line beta in December of the prior year), a proxy for the risk-free rate (monthly average of 30-year US Treasury for December of the prior year), and a MRP estimate equal to the historical average MRP (1926- year-1) available at the beginning of each year.

² The "true" beta is the beta required to account for the actual total returns using the CAPM.